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Technical Specification

**Universal Mobile Telecommunications System (UMTS);
UTRAN Iub interface Node B Application Part (NBAP)
signalling
(3GPP TS 25.433 version 7.14.0 Release 7)**



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Foreword

This Technical Specification has been produced by the 3GPP.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of this TS, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
 - 1 presented to TSG for information;
 - 2 presented to TSG for approval;
 - 3 Indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The present document specifies the radio network layer signalling protocol called Node B Application Part (NBAP) specification to be used for Control Plane over Iub Interface.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TS 25.401: "UTRAN Overall Description".
- [2] 3GPP TS 25.426: "UTRAN Iur and Iub Interface Data Transport & Transport Signalling for DCH Data Streams".
- [3] CCITT Recommendation X.731 (01/92): "Information Technology – Open Systems Interconnection – Systems Management: State Management function".
- [4] 3GPP TS 25.215: "Physical layer – Measurements (FDD)".
- [5] 3GPP TS 25.225: "Physical layer – Measurements (TDD)".
- [6] 3GPP TS 25.430: "UTRAN Iub General Aspect and Principle".
- [7] 3GPP TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".
- [8] 3GPP TS 25.212: "Multiplexing and channel coding (FDD)".
- [9] 3GPP TS 25.213: "Spreading and modulation (FDD)".
- [10] 3GPP TS 25.214: "Physical layer procedures (FDD)".
- [11] ITU-T Recommendation X.691, (07/2002) "Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER)".
- [12] ITU-T Recommendation X.680, (07/2002) "Information Technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".
- [13] ITU-T Recommendation X.681, (07/2002) "Information Technology - Abstract Syntax Notation One (ASN.1): Information object specification".
- [14] 3GPP TS 25.104: "UTRA (BS) FDD; Radio Transmission and Reception".
- [15] 3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception".
- [16] 3GPP TS 25.427: "UTRAN Iur/Iub Interface User Plane Protocol for DCH Data Stream".
- [17] 3GPP TS 25.402: "Synchronisation in UTRAN Stage2".
- [18] 3GPP TS 25.331: "RRC Protocol Specification".

- [19] 3GPP TS25.221: "Physical channels and mapping of transport channels onto physical channels[TDD]".
- [20] 3GPP TS 25.223: "Spreading and modulation (TDD)".
- [21] 3GPP TS 25.224: "Physical Layer Procedures (TDD)".
- [22] 3GPP TS 25.133: "Requirements for support of Radio Resource management (FDD)".
- [23] 3GPP TS 25.123: "Requirements for support of Radio Resource management (TDD)".
- [24] 3GPP TS 25.435: "UTRAN Iub Interface: User Plane Protocols for Common Transport Channel Data Streams".
- [25] 3GPP TS 25.302: "Services Provided by the Physical Layer".
- [26] 3GPP TR 25.921: "Guidelines and Principles for Protocol Description and Error Handling".
- [27] ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".
- [28] RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)".
- [29] IETF RFC 2460 "Internet Protocol, Version 6 (IPv6) Specification".
- [30] IETF RFC 768 "User Datagram Protocol", (8/1980)
- [31] 3GPP TS 25.434: "UTRAN Iub Interface Data Transport & Transport Signalling for Common Transport Channel Data Streams ".
- [32] 3GPP TS 25.321: "MAC protocol specification".
- [33] 3GPP TS 25.306: "UE Radio Access capabilities".
- [34] 3GPP TS 25.222: "Multiplexing and Channel Coding (TDD)".
- [35] IETF RFC 2474 "Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers".
- [36] IETF RFC 2475 "An Architecture for Differentiated Services".
- [37] 3GPP TS 25.304: "User Equipment (UE) procedures in idle mode and procedures for cell reselection in connected mode".
- [38] 3GPP TS 25.319: "Enhanced Uplink; Overall description; Stage 2".
- [39] Galileo OS Signal in Space ICD (OS SIS ICD), Draft 0, Galileo Joint Undertaking, May 23rd, 2006.
- [40] 3GPP TR 25.905: "Feasibility study on improvement of the Multimedia Broadcast / Multicast Service (MBMS) in UTRAN"
- [41] IETF RFC 3376 "Internet Group Management Protocol, Version 3".
- [42] IETF RFC 3810 "Multicast Listener Discovery Version 2 (MLDv2) for IPv6".

3 Definitions, Symbols and Abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply.

CRNC Communication Context: The CRNC Communication Context contains the necessary information for the CRNC for communication with a specific UE. The CRNC Communication Context is identified by the CRNC Communication Context ID.

Elementary Procedure: The NBAP protocol consists of Elementary Procedures (EPs). An Elementary Procedure is a unit of interaction between the CRNC and the Node B.

An EP consists of an initiating message and possibly a response message.

Two kinds of EPs are used:

- **Class 1:** Elementary Procedures with response (success or failure).
- **Class 2:** Elementary Procedures without response.

For **Class 1** EPs, the types of responses can be as follows:

Successful

- A signalling message explicitly indicates that the elementary procedure has been successfully completed with the receipt of the response.

Unsuccessful

- A signalling message explicitly indicates that the EP failed.

Class 2 EPs are considered always successful.

Node B Communication Context: The Node B Communication Context contains the necessary information for the Node B for communication with a specific UE. The Node B Communication Context is created by the Radio Link Setup procedure and deleted by the Radio Link Deletion procedure when deleting the last Radio Link within the Node B Communication Context. The Node B Communication Context is identified by the Node B Communication Context ID.

Prepared Reconfiguration: A Prepared Reconfiguration exists when the Synchronised Radio Link Reconfiguration Preparation procedure has been completed successfully. The Prepared Reconfiguration does not exist anymore only after either of the procedures Synchronised Radio Link Reconfiguration Commit or Synchronised Radio Link Reconfiguration Cancellation has been completed. In particular, the Prepared Reconfiguration still exists if the object (e.g. Radio Link) concerned by the Synchronised Radio Link Reconfiguration (e.g. in the case of an HS-DSCH Setup) is removed, but the Node B Communication Context still exists.

3.2 Symbols

Void.

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

A-GPS	Assisted GPS
AICH	Acquisition Indicator Channel
ALCAP	Access Link Control Application Part
ASN.1	Abstract Syntax Notation One
BCCH	Broadcast Control Channel
CCPCH	Common Control Physical Channel
CFN	Connection Frame Number
CM	Compressed Mode
CPICH	Common Pilot Channel
CRNC	Controlling Radio Network Controller
DCH	Dedicated Channel
DGPS	Differential GPS
DL	Downlink
DPCCH	Dedicated Physical Control Channel
DPCH	Dedicated Physical Channel
DPDCH	Dedicated Physical Data Channel
DSCH	Downlink Shared Channel
E-AGCH	E-DCH Absolute Grant Channel
E-DCH	Enhanced UL DCH

E-HICH	E-DCH HARQ Acknowledgement Indicator Channel
E-PUCH	Enhanced Uplink Physical Channel (TDD only)
E-RNTI	E-DCH RNTI
E-RUCCH	E-DCH Random Access Uplink Control Channel (TDD only)
E-TFCI	E-DCH Transport Format Combination Indicator
E-UCCH	E-DCH Uplink Control Channel (TDD only)
FACH	Forward Access Channel
FDD	Frequency Division Duplex
F-DPCH	Fractional DPCH
FP	Frame Protocol
FPACH	Fast Physical Access Channel (TDD only)
GANSS	Galileo and Additional Navigation Satellite Systems
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
HSDPA	High Speed Downlink Packet Access
HS-DSCH	High Speed Downlink Shared Channel
HS-PDSCH	High Speed Physical Downlink Shared Channel
HS-SCCH	High Speed Shared Control Channel
HS-SICH	High Speed Shared Information Channel
IP	Internet Protocol
IPDL	Idle Periods in the DownLink
ISCP	Interference Signal Code Power
L1	Layer 1
L2	Layer 2
MBMS	Multimedia Broadcast Multicast Service
MBSFN	MBMS over a Single Frequency Network
MFN	Multicast Frame Number
MIB	Master Information Block
MICH	MBMS Notification Indicator Channel
NBAP	Node B Application Part
NI	MBMS Notification Indicator
O&M	Operation and Maintenance
PCCPCH	Primary Common Control Physical Channel
PCH	Paging Channel
PDSCH	Physical Downlink Shared Channel
PICH	Paging Indication Channel
PLCCH	Physical Layer Common Control Channel
PUSCH	Physical Uplink Shared Channel
RACH	Random Access Channel
RL	Radio Link
RLS	Radio Link Set
RNC	Radio Network Controller
RRC	Radio Resource Control
SB	Scheduling Block
SCCPCH	Secondary Common Control Physical Channel
SCH	Synchronisation Channel
SCTD	Space Code Transmit Diversity
SIB	System Information Block
SRNC	Serving Radio Network Controller
STTD	Space Time Transmit Diversity
TDD	Time Division Duplex
TFC	Transport Format Combination
TFCI	Transport Format Combination Indicator
TFCS	Transport Format Combination Set
TFS	Transport Format Set
TPC	Transmit Power Control
TSTD	Time Switched Transmit Diversity
UARFCN	UTRA Absolute Radio Frequency Channel Number
UDP	User Datagram Protocol
UE	User Equipment
UL	Uplink
UMTS	Universal Mobile Telecommunications System

USCH	Uplink Shared Channel
UTRA	Universal Terrestrial Radio Access
UTRAN	Universal Terrestrial Radio Access Network

4 General

4.1 Procedure Specification Principles

The principle for specifying the procedure logic is to specify the functional behaviour of the Node B exactly and completely. The CRNC functional behaviour is left unspecified. The Reset procedure is an exception from this principle.

The following specification principles have been applied for the procedure text in subclause 8:

- The procedure text discriminates between:
 - 1) Functionality which "shall" be executed

The procedure text indicates that the receiving node "shall" perform a certain function Y under a certain condition. If the receiving node supports procedure X but cannot perform functionality Y requested in the REQUEST message of a Class 1 EP, the receiving node shall respond with the message used to report unsuccessful outcome for this procedure, containing an appropriate cause value.
 - 2) Functionality which "shall, if supported" be executed

The procedure text indicates that the receiving node "shall, if supported," perform a certain function Y under a certain condition. If the receiving node supports procedure X, but does not support functionality Y, the receiving node shall proceed with the execution of the EP, possibly informing the requesting node about the not supported functionality.
- Any required inclusion of an optional IE in a response message is explicitly indicated in the procedure text. If the procedure text does not explicitly indicate that an optional IE shall be included in a response message, the optional IE shall not be included. For requirements on including *Criticality Diagnostics* IE, see section 10. For examples on how to use the *Criticality Diagnostics* IE, see Annex C.

4.2 Forwards and Backwards Compatibility

The forwards and backwards compatibility of the protocol is assured by a mechanism in which all current and future messages, and IEs or groups of related IEs, include Id and criticality fields that are coded in a standard format that will not be changed in the future. These parts can always be decoded regardless of the standard version.

4.3 Specification Notations

For the purposes of the present document, the following notations apply:

[FDD]	This tagging of a word indicates that the word preceding the tag "[FDD]" applies only to FDD. This tagging of a heading indicates that the heading preceding the tag "[FDD]" and the section following the heading applies only to FDD.
[TDD]	This tagging of a word indicates that the word preceding the tag "[TDD]" applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[TDD]" and the section following the heading applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD.
[3.84Mcps TDD]	This tagging of a word indicates that the word preceding the tag "[3.84Mcps TDD]" applies only to 3.84Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[3.84Mcps TDD]" and the section following the heading applies only to 3.84Mcps TDD.

[1.28Mcps TDD]	This tagging of a word indicates that the word preceding the tag "[1.28Mcps TDD]" applies only to 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[1.28Mcps TDD]" and the section following the heading applies only to 1.28Mcps TDD.
[7.68Mcps TDD]	This tagging of a word indicates that the word preceding the tag "[7.68Mcps TDD]" applies only to 7.68Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[7.68Mcps TDD]" and the section following the heading applies only to 7.68Mcps TDD.
[FDD - ...]	This tagging indicates that the enclosed text following the "[FDD - " applies only to FDD. Multiple sequential paragraphs applying only to FDD are enclosed separately to enable insertion of TDD specific (or common) paragraphs between the FDD specific paragraphs.
[TDD - ...]	This tagging indicates that the enclosed text following the "[TDD - " applies only to TDD, including 3.84Mcps TDD, 7.68Mcps TDD and 1.28Mcps TDD. Multiple sequential paragraphs applying only to TDD are enclosed separately to enable insertion of FDD specific (or common) paragraphs between the TDD specific paragraphs.
[3.84Mcps TDD - ...]	This tagging indicates that the enclosed text following the "[3.84Mcps TDD - " applies only to 3.84Mcps TDD. Multiple sequential paragraphs applying only to 3.84Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 3.84Mcps TDD specific paragraphs.
[1.28Mcps TDD - ...]	This tagging indicates that the enclosed text following the "[1.28Mcps TDD - " applies only to 1.28Mcps TDD. Multiple sequential paragraphs applying only to 1.28Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 1.28Mcps TDD specific paragraphs.
[7.68Mcps TDD - ...]	This tagging indicates that the enclosed text following the "[7.68Mcps TDD - " applies only to 7.68Mcps TDD. Multiple sequential paragraphs applying only to 7.68Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 7.68Mcps TDD specific paragraphs.
Procedure	When referring to an elementary procedure in the specification the Procedure Name is written with the first letters in each word in upper case characters followed by the word "procedure", e.g. Radio Link Setup procedure.
Message	When referring to a message in the specification the MESSAGE NAME is written with all letters in upper case characters followed by the word "message", e.g. RADIO LINK SETUP REQUEST message.
IE	When referring to an information element (IE) in the specification the <i>Information Element Name</i> is written with the first letters in each word in upper case characters and all letters in Italic font followed by the abbreviation "IE", e.g. <i>Transport Format Set</i> IE.
Value of an IE	When referring to the value of an information element (IE) in the specification the "Value" is written as it is specified in subclause 9.2 enclosed by quotation marks, e.g. "Abstract Syntax Error (Reject)".

5 NBAP Services

5.1 Parallel Transactions

Unless explicitly indicated in the procedure description, at any instance in time one protocol peer shall have a maximum of one ongoing dedicated NBAP procedure related to a certain Node B Communication Context.

6 Services Expected from Signalling Transport

NBAP requires an assured in-sequence delivery service from the signalling bearer, and notification if the assured in-sequence delivery service is no longer available.

7 Functions of NBAP

The NBAP protocol provides the following functions:

- Cell Configuration Management. This function gives the CRNC the possibility to manage the cell configuration information in a Node B.
- Common Transport Channel Management. This function gives the CRNC the possibility to manage the configuration of Common Transport Channels in a Node B.
- System Information Management. This function gives the CRNC the ability to manage the scheduling of System Information to be broadcast in a cell.
- Resource Event Management. This function gives the Node B the ability to inform the CRNC about the status of Node B resources.
- Configuration Alignment. This function gives the CRNC and the Node B the possibility to verify and enforce that both nodes have the same information on the configuration of the radio resources.
- Measurements on Common Resources. This function allows the CRNC to initiate measurements on common resources in the Node B. The function also allows the Node B to report the result of the measurements.
- Radio Link Management. This function allows the CRNC to manage radio links using dedicated resources in a Node B.
- Radio Link Supervision. This function allows the CRNC to report failures and restorations of a Radio Link.
- Compressed Mode Control [FDD]. This function allows the CRNC to control the usage of compressed mode in a Node B.
- Measurements on Dedicated Resources. This function allows the CRNC to initiate measurements on dedicated resources in the Node B. The function also allows the Node B to report the result of the measurements.
- DL Power Drifting Correction [FDD]. This function allows the CRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links.
- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.
- Physical Shared Channel Management. This function allows the CRNC to manage physical resources in the Node B belonging to High Speed Downlink Shared Channels and High Speed Shared Control Channels [TDD - and High Speed Shared Indication Channels and Shared Channels (USCH/DSCH)].
- DL Power Timeslot Correction [TDD]. This function enables the Node B to apply an individual offset to the transmission power in each timeslot according to the downlink interference level at the UE.
- Cell Synchronisation [1.28 Mcps TDD and 3.84 Mcps TDD]. This function allows the synchronisation of cells or Node Bs via the air interface.
- Information Exchange. This function allows the CRNC to initiate information provision from the Node B. The function also allows the Node B to report the requested information.
- Bearer Rearrangement. This function allows the Node B to indicate the need for bearer re-arrangement for a Node B Communication Context. The function also allows the CRNC to re-arrange bearers for a Node B Communication Context.
- MBMS Notification. This function allows the CRNC to send MBMS Notification indicators to the Node B to be broadcasted in a cell.

The mapping between the above functions and NBAP elementary procedures is shown in the table below.

Table 1: Mapping between functions and NBAP elementary procedures

Function	Elementary Procedure(s)
Cell Configuration Management	a) Cell Setup b) Cell Reconfiguration c) Cell Deletion
Common Transport Channel Management	a) Common Transport Channel Setup b) Common Transport Channel Reconfiguration c) Common Transport Channel Deletion
System Information Management	System Information Update
Resource Event Management	a) Block Resource b) Unblock Resource c) Resource Status Indication
Configuration Alignment	a) Audit Required b) Audit c) Reset
Measurements on Common Resources	a) Common Measurement Initiation b) Common Measurement Reporting c) Common Measurement Termination d) Common Measurement Failure
Radio Link Management.	a) Radio Link Setup b) Radio Link Addition c) Radio Link Deletion d) Unsynchronised Radio Link Reconfiguration e) Synchronised Radio Link Reconfiguration Preparation f) Synchronised Radio Link Reconfiguration Commit g) Synchronised Radio Link Reconfiguration Cancellation h) Radio Link Pre-emption i) Radio Link Activation j) Radio Link Parameter Update
Radio Link Supervision.	a) Radio Link Failure b) Radio Link Restoration
Compressed Mode Control [FDD]	a) Radio Link Setup b) Radio Link Addition c) Compressed Mode Command d) Unsynchronised Radio Link Reconfiguration e) Synchronised Radio Link Reconfiguration Preparation f) Synchronised Radio Link Reconfiguration Commit g) Synchronised Radio Link Reconfiguration Cancellation
Measurements on Dedicated Resources	a) Dedicated Measurement Initiation b) Dedicated Measurement Reporting c) Dedicated Measurement Termination d) Dedicated Measurement Failure
DL Power Drifting Correction [FDD]	Downlink Power Control
Reporting of General Error Situations	Error Indication
Physical Shared Channel Management	Physical Shared Channel Reconfiguration
DL Power Timeslot Correction [TDD]	Downlink Power Timeslot Control
Cell Synchronisation [1.28 Mcps TDD and 3.84 Mcps TDD]	a) Cell Synchronisation Initiation b) Cell Synchronisation Reconfiguration c) Cell Synchronisation Reporting d) Cell Synchronisation Termination e) Cell Synchronisation Failure f) Cell Synchronisation Adjustment
Information Exchange	a) Information Exchange Initiation b) Information Reporting c) Information Exchange Termination d) Information Exchange Failure
Bearer Re-arrangement	a) Bearer Re-arrangement Indication b) Unsynchronised Radio Link Reconfiguration c) Synchronised Radio Link Reconfiguration Preparation d) Synchronised Radio Link Reconfiguration Commit e) Synchronised Radio Link Reconfiguration Cancellation
MBMS Notification	a) MBMS Notification Update

8 NBAP Procedures

8.1 Elementary Procedures

NBAP procedures are divided into common procedures and dedicated procedures.

- NBAP common procedures are procedures that request initiation of a Node B Communication Context for a specific UE in Node B or are not related to a specific UE. NBAP common procedures also incorporate logical O&M [1] procedures.
- NBAP dedicated procedures are procedures that are related to a specific Node B Communication Context in Node B. This Node B Communication Context is identified by a Node B Communication Context identity.

The two types of procedures may be carried on separate signalling links.

In the following tables, all EPs are divided into Class 1 and Class 2 EPs:

Table 2: Class 1

Elementary Procedure	Message	Successful Outcome	Unsuccessful Outcome
		Response message	Response message
Cell Setup	CELL SETUP REQUEST	CELL SETUP RESPONSE	CELL SETUP FAILURE
Cell Reconfiguration	CELL RECONFIGURATION REQUEST	CELL RECONFIGURATION RESPONSE	CELL RECONFIGURATION FAILURE
Cell Deletion	CELL DELETION REQUEST	CELL DELETION RESPONSE	
Common Transport Channel Setup	COMMON TRANSPORT CHANNEL SETUP REQUEST	COMMON TRANSPORT CHANNEL SETUP RESPONSE	COMMON TRANSPORT CHANNEL SETUP FAILURE
Common Transport Channel Reconfiguration	COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST	COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE	COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE
Common Transport Channel Deletion	COMMON TRANSPORT CHANNEL DELETION REQUEST	COMMON TRANSPORT CHANNEL DELETION RESPONSE	
Physical Shared Channel Reconfiguration	PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST	PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE	PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE
Audit	AUDIT REQUEST	AUDIT RESPONSE	AUDIT FAILURE
Block Resource	BLOCK RESOURCE REQUEST	BLOCK RESOURCE RESPONSE	BLOCK RESOURCE FAILURE
Radio Link Setup	RADIO LINK SETUP REQUEST	RADIO LINK SETUP RESPONSE	RADIO LINK SETUP FAILURE
System Information Update	SYSTEM INFORMATION UPDATE REQUEST	SYSTEM INFORMATION UPDATE RESPONSE	SYSTEM INFORMATION UPDATE FAILURE
Common Measurement Initiation	COMMON MEASUREMENT INITIATION REQUEST	COMMON MEASUREMENT INITIATION RESPONSE	COMMON MEASUREMENT INITIATION FAILURE
Radio Link Addition	RADIO LINK ADDITION REQUEST	RADIO LINK ADDITION RESPONSE	RADIO LINK ADDITION FAILURE
Radio Link Deletion	RADIO LINK DELETION REQUEST	RADIO LINK DELETION RESPONSE	
Synchronised Radio Link Reconfiguration Preparation	RADIO LINK RECONFIGURATION PREPARE	RADIO LINK RECONFIGURATION READY	RADIO LINK RECONFIGURATION FAILURE
Unsynchronised Radio Link Reconfiguration	RADIO LINK RECONFIGURATION REQUEST	RADIO LINK RECONFIGURATION RESPONSE	RADIO LINK RECONFIGURATION FAILURE
Dedicated Measurement Initiation	DEDICATED MEASUREMENT INITIATION REQUEST	DEDICATED MEASUREMENT INITIATION RESPONSE	DEDICATED MEASUREMENT INITIATION FAILURE
Reset	RESET REQUEST	RESET RESPONSE	
Cell Synchronisation Initiation [TDD]	CELL SYNCHRONISATION INITIATION REQUEST	CELL SYNCHRONISATION INITIATION RESPONSE	CELL SYNCHRONISATION INITIATION FAILURE
Cell Synchronisation Reconfiguration [TDD]	CELL SYNCHRONISATION RECONFIGURATION REQUEST	CELL SYNCHRONISATION RECONFIGURATION RESPONSE	CELL SYNCHRONISATION RECONFIGURATION FAILURE
Cell Synchronisation Adjustment [TDD]	CELL SYNCHRONISATION ADJUSTMENT REQUEST	CELL SYNCHRONISATION ADJUSTMENT RESPONSE	CELL SYNCHRONISATION ADJUSTMENT FAILURE
Information Exchange Initiation	INFORMATION EXCHANGE INITIATION REQUEST	INFORMATION EXCHANGE INITIATION RESPONSE	INFORMATION EXCHANGE INITIATION FAILURE

Table 3: Class 2

Elementary Procedure	Message
Resource Status Indication	RESOURCE STATUS INDICATION
Audit Required	AUDIT REQUIRED INDICATION
Common Measurement Reporting	COMMON MEASUREMENT REPORT
Common Measurement Termination	COMMON MEASUREMENT TERMINATION REQUEST
Common Measurement Failure	COMMON MEASUREMENT FAILURE INDICATION
Synchronised Radio Link Reconfiguration Commit	RADIO LINK RECONFIGURATION COMMIT
Synchronised Radio Link Reconfiguration Cancellation	RADIO LINK RECONFIGURATION CANCEL
Radio Link Failure	RADIO LINK FAILURE INDICATION
Radio Link Restoration	RADIO LINK RESTORE INDICATION
Dedicated Measurement Reporting	DEDICATED MEASUREMENT REPORT
Dedicated Measurement Termination	DEDICATED MEASUREMENT TERMINATION REQUEST
Dedicated Measurement Failure	DEDICATED MEASUREMENT FAILURE INDICATION
Downlink Power Control [FDD]	DL POWER CONTROL REQUEST
Compressed Mode Command [FDD]	COMPRESSED MODE COMMAND
Unblock Resource	UNBLOCK RESOURCE INDICATION
Error Indication	ERROR INDICATION
Downlink Power Timeslot Control [TDD]	DL POWER TIMESLOT CONTROL REQUEST
Radio Link Pre-emption	RADIO LINK PREEMPTION REQUIRED INDICATION
Cell Synchronisation Reporting [TDD]	CELL SYNCHRONISATION REPORT
Cell Synchronisation Termination [TDD]	CELL SYNCHRONISATION TERMINATION REQUEST
Cell Synchronisation Failure [TDD]	CELL SYNCHRONISATION FAILURE INDICATION
Information Reporting	INFORMATION REPORT
Information Exchange Termination	INFORMATION EXCHANGE TERMINATION REQUEST
Information Exchange Failure	INFORMATION EXCHANGE FAILURE INDICATION
Bearer Re-arrangement	BEARER REARRANGEMENT INDICATION
Radio Link Activation	RADIO LINK ACTIVATION COMMAND
Radio Link Parameter Update	RADIO LINK PARAMETER UPDATE INDICATION
MBMS Notification Update	MBMS NOTIFICATION UPDATE COMMAND

8.2 NBAP Common Procedures

8.2.1 Common Transport Channel Setup

8.2.1.1 General

This procedure is used for establishing the necessary resources in Node B, regarding Secondary CCPCH, PICH, PRACH, AICH [FDD], FACH, PCH, MICH, RACH, E-RUCCH [3.84 Mcps and 7.68 Mcps TDD], PLCCCH [1.28Mcps TDD] and FPACH [1.28Mcps TDD].

8.2.1.2 Successful Operation

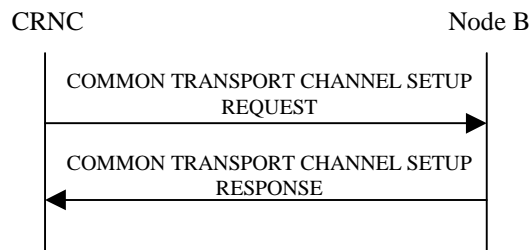


Figure 1: Common Transport Channel Setup procedure, Successful Operation

The procedure is initiated with a COMMON TRANSPORT CHANNEL SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

One message can configure only one of the following combinations:

- [FDD - one Secondary CCPCH, and FACHs, PCH, PICH and MICH related to that Secondary CCPCH], or
- [TDD - one CCTrCH consisting of Secondary CCPCHs and FACHs, PCH with the corresponding PICH and MICH related to that group of Secondary CCPCHs], or
- one [1.28Mcps TDD - or more] PRACH, one RACH and one AICH [FDD] and one FPACH[1.28Mcps TDD] related to that PRACH, or
- one PLCCH [1.28Mcps TDD], or
- one E-RUCCH [3.84Mcps TDD and 7.68Mcps TDD].

Secondary CCPCH:

[FDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, the Node B shall configure and activate the indicated Secondary CCPCH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[FDD - If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FDD S-CCPCH Frame Offset* IE within the *Secondary CCPCH* IE, the Node B shall apply the indicated frame offset for the concerned Secondary CCPCH.]

[TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, the Node B shall configure and activate the indicated Secondary CCPCH(s) according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[3.84Mcps TDD and 7.68Mcps TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *TFCI Presence* IE, the Node B shall apply the indicated TFCI presence in the timeslot of the S-CCPCH. If all the S-CCPCHs defined in a timeslot do not have a *TFCI Presence* IE included, the Node B shall apply a TFCI field in the lowest numbered S-CCPCH of the timeslot.]

[TDD - FACHs and PCH may be mapped onto a CCTrCH which may consist of several Secondary CCPCHs]

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FACH Parameters* IE, the Node B shall configure and activate the indicated FACH(s) according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PCH Parameters* IE, the Node B shall configure and activate the concerned PCH and the associated PICH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[1.28Mcps TDD - If the *PCH Power* IE is included in the *PCH Parameters* IE of the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall use this value as the power at which the PCH shall be transmitted.]

[TDD - If the *TSTD Indicator* IE for the S-CCPCH is included and is set to "active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall activate TSTD diversity for all S-CCPCHs defined in the message

that are not beacon channels [19,21]. If the *TSTD Indicator* IE is not included or is set to "not active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall not activate TSTD diversity for the S-CCPCHs defined in the message.]

[1.28Mcps TDD - If the *TSTD Indicator* IE for the PICH is included and is set to "active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST message, the Node B shall activate TSTD diversity for the PICH if it is not a beacon channel [19,21]. If the *TSTD Indicator* IE is set to "not active" or the TSTD Indicator IE is not included for the PICH in the COMMON TRANSPORT CHANNEL SETUP REQUEST message, the Node B shall not activate TSTD diversity for the PICH.]

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *MICH Parameters* IE, the Node B shall configure and activate the concerned MICH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[FDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Modulation Power Offset* IE, in the *Secondary CCPCH* IE, the Node B shall apply the indicated modulation, and power offset in case of 16QAM, for the concerned Secondary CCPCH.]

[FDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Extended Secondary CCPCH Slot Format* IE, in the *Secondary CCPCH* IE, the Node B shall ignore the *Secondary CCPCH Slot Format* IE and apply the slot format indicated in the *Extended Secondary CCPCH Slot Format* IE.]

[3.84Mcps TDD and 7.68Mcps TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Modulation* IE, the Node B shall apply the indicated modulation for the CCTrCH.]

[3.84Mcps TDD and 7.68Mcps TDD - If a timeslot has been configured for MBSFN operation then the contents of the [3.84Mcps TDD - *Midamble Shift and Burst Type* IE] [7.68Mcps TDD - *Midamble Shift and Burst Type 7.68Mcps* IE] shall be ignored and burst type 4, Kcell=1 shall be used [19].]

[1.28 Mcps TDD - If the cell is operating in MBSFN only mode, the *MBSFN Special Time Slot LCR* IE indicates from CRNC to the Node B whether the channel is deployed on the MBSFN Special Time Slot for MBSFN only mode [19].]

[1.28Mcps TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *UARFCN* IE in the *Secondary CCPCHs* IE, this Secondary CCPCH providing MBMS service in non-MBSFN only mode shall be setup on the secondary frequency indicated by the *UARFCN* IE.]

PRACH:

When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PRACH* IE, the Node B shall configure and activate the indicated PRACH and the associated RACH [FDD - and the associated AICH] according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[1.28Mcps TDD - The resource indicated by the *PRACH* IE is used for RACH random access as well as E-DCH random access. The way to differentiate the two access type on PRACH physical resource shall be operated according to [21].]

[1.28Mcps TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *UARFCN* IE in the *PRACH* IE, the PRACH shall be set up on the secondary frequency indicated by the *UARFCN* IE.]

[1.28Mcps TDD - FPACH]:

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FPACH* IE, the Node B shall configure and activate the indicated FPACH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

Where more than one FPACH is defined, the FPACH that Node B should use is defined by the UpPCH signature (SYNC_UL) code that the UE used. The FPACH number = $N \bmod M$ where N denotes the signature number (0..7) and M denotes the number of FPACHs that are defined in a cell. The FPACH number is in ascending order by *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

If the *FPACH* IE contains the *UARFCN* IE, the FPACH shall be set up on the secondary frequency indicated by the *UARFCN* IE.

When the FPACH is set up on the secondary frequency of a multi-frequency cell, if the *PRACH LCR* IE contains the *UARFCN* IE, the *RACH* IE included in the *PRACH LCR* IE shall be ignored; otherwise all IEs included in the *PRACH LCR* IE shall be ignored.

[1.28Mcps TDD - PLCCH]:

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PLCCH* IE, the Node B shall configure and activate the indicated PLCCH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message when one or more of the PLCCH sequence numbers have been assigned to one or more radio links.]

[3.84Mcps TDD and 7.68Mcps TDD - E-RUCCH]:

When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the [3.84Mcps TDD - *E-RUCCH* IE] [7.68Mcps TDD - *E-RUCCH 7.68Mcps* IE], the Node B shall configure and activate the indicated E-RUCCH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

RACH, FACH and PCH:

If the *TNL QoS* IE is included for a RACH, FACH or PCH and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related RACH, FACH or PCH.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Broadcast Reference* IE in the *FACH Parameters* IE, and one or more established FACH common transport channels with the same Broadcast Reference, the same Transport Format Set, the same ToAWS and the same ToAWE exist (all of them in other distinct cells within the Node B), the Node B may include the *Broadcast Common Transport Bearer Indication* IE in the *Common Transport Channel Information Response* IE in the COMMON TRANSPORT CHANNEL SETUP RESPONSE message to inform the CRNC that the existing transport bearer, identified by *Broadcast Common Transport Bearer Indication* IE, shall be used instead of establishing a new transport bearer.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Broadcast Reference* IE in the *FACH Parameters* IE and no common transport channel with the same Broadcast Reference, the same Transport Format Set, the same ToAWS and the same ToAWE exists in another cell within the Node B, or if the Node B decides to establish a new transport bearer, the Node B may store the value of *Broadcast Reference* IE.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *IP Multicast Indication* IE, and if supported, the Node B may join the indicated IP multicast group if it has not done so yet ([41] in case of IPv4, [42] in case of IPv6). If the Node B does join the IP multicast group, or is already joined to the IP multicast group as a result of a previous procedure, the Node B shall include the *IP Multicast Data Bearer Indication* IE in the COMMON TRANSPORT CHANNEL INFORMATION RESPONSE message to inform the CRNC that the existing IP multicast transport bearer, identified by *IP Multicast Indication* IE in the corresponding COMMON TRANSPORT CHANNEL SETUP REQUEST message, shall be used instead of using a IP unicast transport bearer. If the COMMON TRANSPORT CHANNEL INFORMATION RESPONSE message does not contain the *IP Multicast Data Bearer Indication* IE, the CRNC shall send FACH data frames on the IP unicast transport bearer. No matter whether the Node B has joined the indicated IP multicast group, a new transport bearer shall be established using the *Transport Layer Address* IE and *Binding ID* IE and FACH specific control frames, e.g. TIMING ADJUSTMENT, shall be sent on the established Iub transport bearer.

General:

After successfully configuring the requested common transport channels and the common physical channels, the Node B shall store the value of *Configuration Generation ID* IE and it shall respond with the COMMON TRANSPORT CHANNEL SETUP RESPONSE message with the *Common Transport Channel ID* IE, the *Binding ID* IE (if no *Broadcast Common Transport Bearer Indication* IE is included) and the *Transport Layer Address* IE (if no *Broadcast Common Transport Bearer Indication* IE is included) for the configured common transport channels.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes the *Transport Layer Address* and *Binding ID* IEs, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the indicated common transport channels.

After a successful procedure and once the transport bearers are established, the configured common transport channels and the common physical channels shall adopt the state Enabled [6] in the Node B and the common physical channels exist on the Uu interface.

8.2.1.3 Unsuccessful Operation

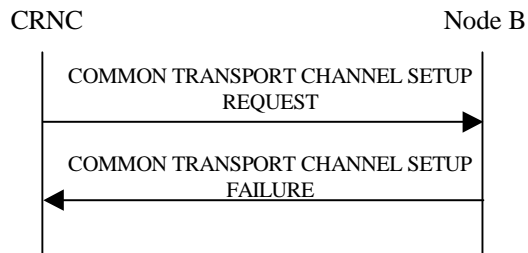


Figure 2: Common Transport Channel Setup procedure, Unsuccessful Operation

If the Node B is not able to support all or part of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message. The channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall remain in the same state as prior to the procedure. The *Cause* IE shall be set to an appropriate value. The value of *Configuration Generation ID* IE from the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall not be stored.

If the configuration was unsuccessful, the Node B shall respond with a COMMON TRANSPORT CHANNEL SETUP FAILURE message.

Typical cause values are as follows:

Radio Network Layer Cause:

- Cell not available
- Power level not supported
- Node B Resources unavailable
- Requested Tx Diversity Mode not supported
- UL SF not supported
- DL SF not supported
- Common Transport Channel Type not supported
- MICH not supported

Transport Layer Cause:

- Transport Resources Unavailable

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.1.4 Abnormal Conditions

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, and that IE contains [FDD - neither the *FACH Parameters* IE nor the *PCH Parameters* IE] [TDD - neither the *FACH* IE nor the *PCH* IE], the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

[TDD - If the *FACH CCTrCH Id* IE or the *PCH CCTrCH Id* IE does not equal the *SCCPCH CCTrCH Id* IE, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[TDD - If the *TDD Physical Channel Offset IE*, the *Repetition Period IE*, and the *Repetition Length IE* are not equal for each SCCPCH configured within the CCTrCH or the *TFCI Presence IE* are not equal for any two SCCPCHs configured in the same timeslot, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[1.28Mcps TDD - If the *Common Transport Channel ID IE*, and the *Transport Format Set IE* are not equal for each RACH configured in PRACH, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[1.28Mcps TDD - If the *UARFCN IE* in the *PRACH LCR IE* is not equal to the *UARFCN IE* in any other *PRACH LCR IE* configured on one RACH, or if the *UARFCN IE* in *PRACH LCR IE* is not equal to the *UARFCN IE* in *FPACH IE*, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

If the state is already Enabled or Disabled [6] for at least one channel in the COMMON TRANSPORT CHANNEL SETUP REQUEST message which is received, the Node B shall reject the configuration of all channels with the *Cause IE* set to "Message not compatible with receiver state".

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Transport Layer Address IE* or the *Binding ID IE*, and not both are present for a transport channel intended to be established, the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *MICH Parameters IE* but not the *FACH Parameters IE* [FDD - for one S-CCPCH], the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains a *Broadcast Reference IE* value already associated to an existing FACH in the same cell, or if the message contains the same value for the *Broadcast Reference IEs* included in the *FACH Parameters IEs* for several FACHs in the list of FACHs defined on the Secondary CCPCH, the Node B shall reject the procedure, using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains both the *Broadcast Reference IE* and the *IP Multicast Indication IE*, the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

8.2.2 Common Transport Channel Reconfiguration

8.2.2.1 General

This procedure is used for reconfiguring common transport channels and/or common physical channels, while they still might be in operation.

8.2.2.2 Successful Operation

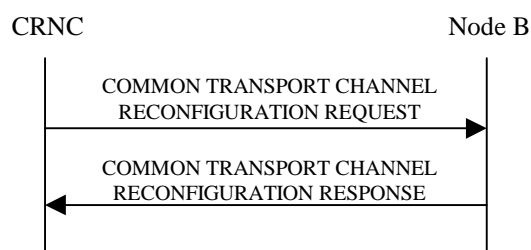


Figure 3: Common Transport Channel Reconfiguration, Successful Operation

The procedure is initiated with a COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

One message can configure only one of the following combinations:

- [FDD - FACHs, one PCH, one PICH and/or one MICH related to one Secondary CCPCH], or

- [TDD - one CCTrCH consisting of Secondary CCPCHs and FACHs, PCH with the corresponding PICH and MICH related to that group of Secondary CCPCHs], or
- one RACH and/or one AICH[FDD] and/or one FPACH[1.28Mcps TDD] related to one PRACH, or
- [1.28Mcps TDD - One UpPCH].

SCCPCH:

[TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *SCCPCH Power* IE, the Node B shall reconfigure the maximum power that the indicated S-CCPCH shall use.]

FACH:

If the *FACH Parameters* IE is present, the Node B shall reconfigure the indicated FACH(s).

[FDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FACH Power* IE, the Node B shall reconfigure the maximum power that the indicated FACH may use.]

[1.28Mcps TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FACH Power* IE, the Node B shall reconfigure the maximum power that the indicated FACH may use.]

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWS* IE, the Node B shall reconfigure the time of arrival window startpoint that the indicated FACH shall use. In case a transport bearer is used by several FACH channels in different cells, the reconfiguration of the time of arrival window startpoint requested in one cell shall be applied to all these FACH channels.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWE* IE, the Node B shall reconfigure the time of arrival window endpoint that the indicated FACH shall use. In case a transport bearer is used by several FACH channels in different cells, the reconfiguration of the time of arrival window endpoint requested in one cell shall be applied to all these FACH channels.

If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related FACH.

PCH:

If the *PCH Parameters* IE is present, the Node B shall reconfigure the indicated PCH.

[FDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PCH Power* IE, the Node B shall reconfigure the power that the PCH shall use.]

[1.28Mcps TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PCH Power* IE, the Node B shall reconfigure the power that the PCH shall use.]

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWS* IE, the Node B shall reconfigure the time of arrival window startpoint that the PCH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWE* IE, the Node B shall reconfigure the time of arrival window endpoint that the PCH shall use.

If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related PCH.

PICH:

If the *PICH Parameters* IE is present, the Node B shall reconfigure the indicated PICH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PICH Power* IE, the Node B shall reconfigure the power that the PICH shall use.

MICH:

If the *MICH Parameters* IE is present, the Node B shall reconfigure the MICH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *MICH Power* IE, the Node B shall reconfigure the power that the MICH shall use.

[FDD - PRACH]:

If the *PRACH Parameters* IE is present, the Node B shall reconfigure the indicated PRACH(s).

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Preamble Signatures* IE, the Node B shall reconfigure the preamble signatures that the indicated PRACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Allowed Slot Format Information* IE, the Node B shall reconfigure the slot formats that the indicated PRACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *RACH Sub Channel Numbers* IE, the Node B shall reconfigure the sub channel numbers that the indicated PRACH shall use.

If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related RACH.

[FDD - AICH]:

If the *AICH Parameters* IE is present, the Node B shall reconfigure the indicated AICH(s).

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *AICH Power* IE, the Node B shall reconfigure the power that the indicated AICH shall use.

[1.28Mcps TDD - FPACH]:

If the *FPACH Parameters* IE is included, the Node B shall reconfigure the indicated FPACH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FPACH Power* IE, the Node B shall reconfigure the power that the FPACH shall use.

[1.28Mcps TDD - UpPCH]:

If the *UpPCH Parameters* IE is included, the Node B shall reconfigure the position of the UpPCH.

For a multi-frequency cell:

- If the *UpPCH Position LCR* IE and the *UARFCN* IE are included, and the indicated frequency is primary frequency, the Node B shall reconfigure the position of the UpPCH on the primary frequency.
- If the *UpPCH Position LCR* IE and the *UARFCN* IE are included, and the indicated frequency is a secondary frequency, the Node B shall configure or reconfigure the position of the UpPCH on the secondary frequency.
- If the *UpPCH Position LCR* IE is not included, the Node B may delete the UpPCH on the secondary frequency indicated by the *UARFCN* IE.

[1.28Mcps TDD - PLCCH]:

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max PLCCH Power* IE, the Node B shall reconfigure the power that the PLCCH shall use.

General:

After a successful procedure, the channels will have adopted the new configuration in the Node B. The channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall remain in the same state as prior to the procedure. The Node B shall store the value of *Configuration Generation ID* IE and the Node B shall respond with the COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE message.

8.2.2.3 Unsuccessful Operation

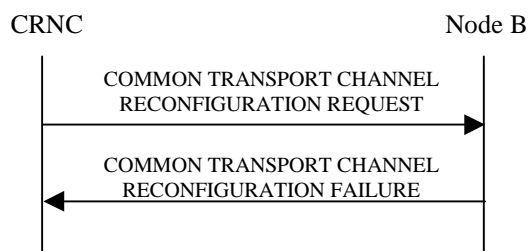


Figure 4: Common Transport Channel Reconfiguration procedure, Unsuccessful Operation

If the Node B is not able to support all or part of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message. The channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall remain in the same state as prior to the procedure. The *Cause* IE shall be set to an appropriate value. The value of *Configuration Generation ID* IE from the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall not be stored.

If the configuration was unsuccessful, the Node B shall respond with the COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.

Typical cause values are as follows:

Radio Network Layer Cause:

- Cell not available
- Power level not supported
- Node B Resources unavailable

Transport Layer Cause:

- Transport Resources Unavailable

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.2.4 Abnormal Conditions

[1.28Mcps TDD - For a single frequency cell, if the *UpPCH Parameters* IE is included in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message but the *UpPCH Position LCR* IE is not present, the Node B shall reject the procedure by sending a COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.]

[1.28Mcps TDD - For a single frequency cell, if the *UARFCN* IE is included in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message, the Node B shall reject the procedure by sending a COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.]

[1.28Mcps TDD - For a multi-frequency cell, if the *UpPCH Parameters* IE is included in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message but the *UpPCH Position LCR* IE is not present, and the frequency indicated by the *UARFCN* IE is primary frequency, the Node B shall reject the procedure by sending a COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.]

[1.28Mcps TDD - For a multi-frequency cell, if the *UpPCH Parameters* IE is included in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message but the *UpPCH Position LCR* IE is not present, and the frequency indicated by the *UARFCN* IE is secondary frequency on which the UpPCH is not configured, the Node B

shall reject the procedure by sending a COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.]

8.2.3 Common Transport Channel Deletion

8.2.3.1 General

This procedure is used for deleting common physical channels and common transport channels.

8.2.3.2 Successful Operation

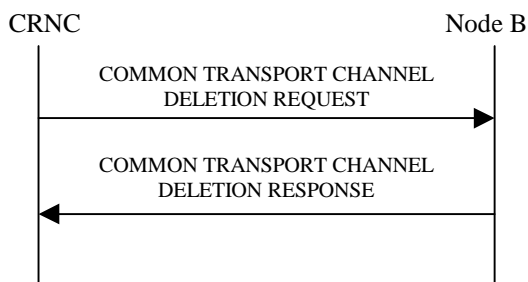


Figure 5: Common Transport Channel Deletion procedure, Successful Operation

The procedure is initiated with a COMMON TRANSPORT CHANNEL DELETION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Secondary CCPCH:

If the *Common Physical Channel ID* IE or *Common Physical Channel ID 7.68Mcps* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a Secondary CCPCH, the Node B shall delete the indicated channel and the FACHs and PCH supported by that Secondary CCPCH. If there is a PCH that is deleted, the PICH associated with that PCH shall also be deleted. If an S-CCPCH is deleted, the MICH associated with that S-CCPCH shall also be deleted.

If the *Common Physical Channel ID* IE or *Common Physical Channel ID 7.68Mcps* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a common transport channel that is sharing a common transport bearer with other one or several common transport channels, the Node B shall delete the indicated channel but keep the common transport bearer which is shared by the remaining common transport channel(s).

If the *Common Physical Channel ID* IE or *Common Physical Channel ID 7.68Mcps* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a common transport channel which is using an IP multicast transport bearer, the Node B shall leave the IP multicast group if this channel is the last one in the group ([41] in case of IPv4, [42] in case of IPv6).

PRACH:

If the *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a PRACH, the Node B shall delete the indicated channel and the RACH supported by the PRACH. [FDD - The AICH associated with the RACH shall also be deleted.]

[1.28Mcps TDD PLCCH:

If the *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a PLCCH, the Node B shall delete the indicated channel.]

General:

[TDD - If the requested common physical channel is a part of a CCTrCH, all common transport channels and all common physical channels associated with this CCTrCH shall be deleted.]

After a successful procedure, the channels are deleted in the Node B. The channels in the COMMON TRANSPORT CHANNEL DELETION REQUEST message shall be set to state Not Existing ref. [6]. The Node B shall store the

received value of the *Configuration Generation ID* IE and respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.

8.2.3.3 Unsuccessful Operation

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8.2.3.4 Abnormal Conditions

If the C-ID in the COMMON TRANSPORT CHANNEL DELETION REQUEST message is not existing in the Node B or the Common Physical Channel ID does not exist in the Cell, the Node B shall respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.

8.2.4 Block Resource

8.2.4.1 General

The Node B initiates this procedure to request the CRNC to prohibit the usage of the specified logical resources.

The logical resource that can be blocked is a cell.

8.2.4.2 Successful Operation

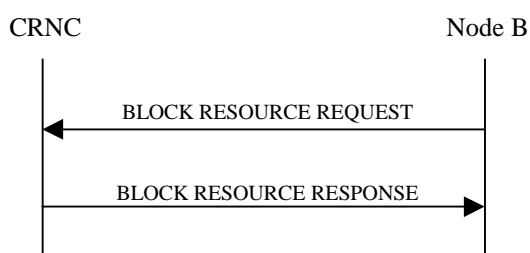


Figure 6: Block Resource procedure, Successful Operation

The procedure is initiated with a BLOCK RESOURCE REQUEST message sent from the Node B to the CRNC using the Node B Control Port.

Upon reception of the BLOCK RESOURCE REQUEST message, the CRNC shall prohibit the use of the indicated logical resources according to the *Blocking Priority Indicator* IE.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates "High Priority", the CRNC shall prohibit the use of the logical resources immediately.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates "Normal Priority", the CRNC shall prohibit the use of the logical resources if the resources are idle or immediately upon expiry of the shutdown timer specified by the *Shutdown Timer* IE in the BLOCK RESOURCE REQUEST message. New traffic shall not be allowed to use the logical resources while the CRNC waits for the resources to become idle and once the resources are blocked.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates "Low Priority", the CRNC shall prohibit the use of the logical resources when the resources become idle. New traffic shall not be allowed to use the logical resources while the CRNC waits for the resources to become idle and once the resources are blocked.

If the resources are successfully blocked, the CRNC shall respond with a BLOCK RESOURCE RESPONSE message. Upon reception of the BLOCK RESOURCE RESPONSE message, the Node B may disable [3.84Mcps TDD - SCH], [FDD - the Primary SCH, the Secondary SCH, the Primary CPICH, if present the Secondary CPICH(s)], [1.28Mcps TDD - DwPCH] and the Primary CCPCH. The other logical resources in the cell shall be considered as blocked.

Reconfiguration of logical resources and change of System Information can be done, even when the logical resources are blocked.

Interactions with the Unblock Resource procedure:

If the UNBLOCK RESOURCE INDICATION message is received by the CRNC while a Block Resource procedure on the same logical resources is in progress, the CRNC shall cancel the Block Resource procedure and proceed with the Unblock Resource procedure.

If the BLOCK RESOURCE RESPONSE message or the BLOCK RESOURCE FAILURE message is received by the Node B after the Node B has initiated an Unblock Resource procedure on the same logical resources as the ongoing Block Resource procedure, the Node B shall ignore the response to the Block Resource procedure.

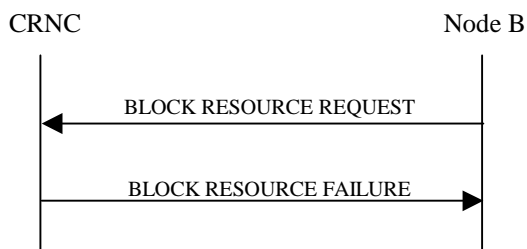
8.2.4.3 Unsuccessful Operation

Figure 7: Block Resource procedure, Unsuccessful Operation

The CRNC may reject the request to block the logical resources, in which case the logical resources will remain unaffected and the CRNC shall respond to the Node B with the BLOCK RESOURCE FAILURE message. Upon reception of the BLOCK RESOURCE FAILURE message, the Node B shall leave the logical resources in the state that they were in prior to the start of the Block Resource procedure.

Typical cause values are as follows:

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

Radio Network Layer Cause:

- Priority transport channel established

8.2.4.4 Abnormal Conditions

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8.2.5 Unblock Resource**8.2.5.1 General**

The Node B initiates this procedure to indicate to the CRNC that logical resources are now unblocked.

The logical resource that can be unblocked is a cell.

8.2.5.2 Successful Operation

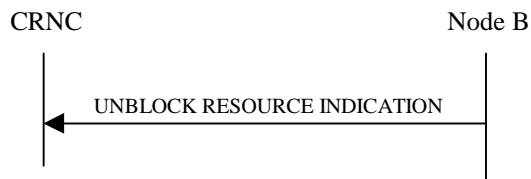


Figure 8: Unblock Resource procedure, Successful Operation

The procedure is initiated with an UNBLOCK RESOURCE INDICATION message sent from the Node B to the CRNC using the Node B Control Port. The Node B shall enable [3.84Mcps TDD - SCH], [FDD - the Primary SCH, the Secondary SCH, the Primary CPICH, the Secondary CPICH(s) (if present)], [1.28Mcps TDD - DwPCH] and the Primary CCPCH that had been disabled due to the preceding Block Resource procedure before sending the UNBLOCK RESOURCE INDICATION message. Upon reception of the UNBLOCK RESOURCE INDICATION message, the CRNC may permit the use of the logical resources.

All physical channels and transport channels associated to the cell that is unblocked are also unblocked.

8.2.5.3 Abnormal Conditions

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8.2.6 Audit Required

8.2.6.1 General

The Node B initiates this procedure to request the CRNC to perform an audit of the logical resources at the Node B. This procedure is used to indicate a possible misalignment of state or configuration information.

8.2.6.2 Successful Operation

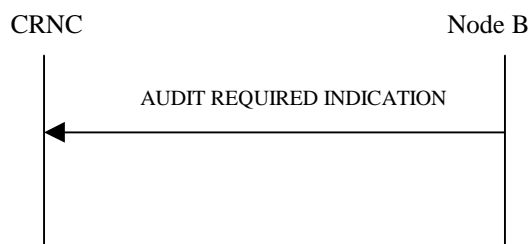


Figure 9: Audit Required procedure, Successful Operation

The procedure is initiated with an AUDIT REQUIRED INDICATION message sent from the Node B to the CRNC using the Node B Control Port.

If the Node B cannot ensure alignment of the state or configuration information, it should initiate the Audit Required procedure.

Upon receipt of the AUDIT REQUIRED INDICATION message, the CRNC should initiate the Audit procedure.

8.2.6.3 Abnormal Conditions

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8.2.7 Audit

8.2.7.1 General

This procedure is executed by the CRNC to perform an audit of the configuration and status of the logical resources in the Node B. A complete audit of a Node B is performed by one or more Audit procedures, together performing an audit sequence. The audit may cause the CRNC to re-synchronise the Node B to the status of logical resources known by the CRNC, that the Node B can support.

8.2.7.2 Successful Operation

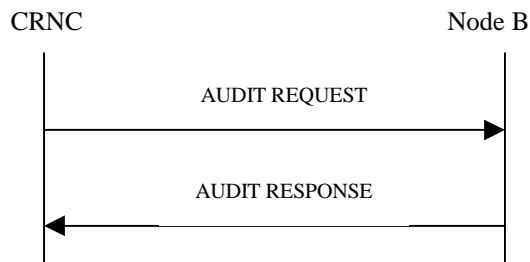


Figure 10: Audit procedure, Successful Operation

The procedure is initiated with an AUDIT REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

If the *Start Of Audit Sequence Indicator* IE in the AUDIT REQUEST message is set to "start of audit sequence" a new audit sequence is started, any ongoing audit sequence shall be aborted and the Node B shall provide (part of the) audit information. If the *Start Of Audit Sequence Indicator* IE is set to "not start of audit sequence", the Node B shall provide (part of) the remaining audit information not already provided during this audit sequence.

If the information provided in the AUDIT RESPONSE message completes the audit sequence, the Node B shall set the *End Of Audit Sequence Indicator* IE in the AUDIT RESPONSE message to "End of Audit Sequence". If not all audit information has been provided yet as part of the ongoing audit sequence, the Node B shall set the *End Of Audit Sequence Indicator* IE in the AUDIT RESPONSE message to "Not End of Audit Sequence".

Information Provided In One Audit Sequence:

The Node B shall include one *Local Cell Information* IE for each local cell present in the Node B. The Node B shall include the *Maximum DL Power Capability* IE, the *Minimum Spreading Factor* IE and the *Minimum DL Power Capability* IE when any of those values are known by the Node B. The Node B shall include the *HSDPA Capability* IE set to "HSDPA Capable" and may include *HS-DSCH MAC-d PDU Size Capability* IE for every HSDPA-capable Local Cell. The Node B shall include the *E-DCH Capability* IE set to "E-DCH Capable" for every E-DCH-capable Local Cell. The Node B shall include the *MBMS Capability* IE set to "MBMS Capable" for every MBMS-capable Local Cell. [FDD - The Node B shall include the *F-DPCH Capability* IE set to "F-DPCH Capable" for every F-DPCH-capable Local Cell.] [FDD - The Node B shall include the *Continuous Packet Connectivity DTX-DRX Capability* IE set to "Continuous Packet Connectivity DTX-DRX Capable" when Continuous Packet Connectivity DTX-DRX is supported for every Local Cell that is both HSDPA-capable and E-DCH-capable.] [FDD - The Node B shall include the *Continuous Packet Connectivity HS-SCCH less Capability* IE set to "Continuous Packet Connectivity HS-SCCH less Capable" when Continuous Packet Connectivity HS-SCCH less is supported for every Local Cell that is both HSDPA-capable and E-DCH-capable.] [FDD - The Node B shall include the *MIMO Capability* IE set to "MIMO Capable" for every MIMO-capable Local Cell.] [FDD - The Node B shall include the *SixtyfourQAM DL Capability* IE set to "SixtyfourQAM DL Capable" for every SixtyfourQAM DL-capable Local Cell.] [FDD - The Node B shall include the *Enhanced FACH Capability* IE set to "Enhanced FACH Capable" for every Enhanced FACH-capable Local Cell.] [FDD - The Node B shall include the *SixteenQAM UL Capability* IE set to "SixteenQAM UL Capable" for every SixteenQAM UL-capable Local Cell.] [1.28Mcps TDD - The Node B shall include the *MBSFN Only Mode Capability* IE set to "MBSFN Only Mode Capable" for every MBSFN Only Mode-capable Local Cell.] [FDD - The Node B shall include the *F-DPCH Slot Format Capability* IE set to "F-DPCH Slot Format Capable" for every F-DPCH Slot Format-capable Local Cell.] The Node B shall include the *E-DPCCH Power Boosting Capability* IE set to "E-DPCCH Power Boosting Capable" for every E-DPCCH Power Boosting-capable Local Cell. [FDD - The Node B shall include the

MIMO Power Offset For S-CPICH Capability IE set to "S-CPICH Power Offset Capable" for every MIMO-capable Local Cell able to transmit S-CPICH at a power offset from P-CPICH.] [FDD - The Node B shall include the *TX Diversity on DL Control Channels by MIMO UE Capability* IE set to "DL Control Channel Tx Diversity for MIMO UE with non-diverse P-CPICH Capable" for every MIMO-capable Local Cell able to support DL control channels in transmit diversity for MIMO UEs when when MIMO is active and P-CPICH is not transmitted in diversity mode [7].]

[TDD - The Node B shall include the *Reference Clock Availability* IE to indicate the availability of a Reference clock connected to the Local Cell.]

If the Node B internal resources are pooled for a group of cells, the Node B shall include one *Local Cell Group Information* IE containing the Node B internal resource capacity and the consumption laws per group of cells [FDD - , including also the *E-DCH Capacity consumption Law* IE, if E-DCH is supported] [TDD - , including also the *E-DCH TDD Capacity Consumption Law* IE, if E-DCH is supported]. If the *UL Capacity Credit* IE is not present in the *Local Cell Group Information* IE, then the internal resource capabilities of the Node B for the Local Cell Group are modelled as shared resources between Uplink and Downlink.

If the Node B internal power resources are pooled for a group of Local Cells, the Node B shall include one *Power Local Cell Group Information* IE containing the Maximum DL Power Capability for each Power Local Cell Group for which this value is known by the Node B. In this case, the Node B shall also include the *Maximum DL Power Capability* IE in the *Local Cell Information* IE for all the Local Cells belonging to a Power Local Cell Group reported in the *Power Local Cell Group Information* IE. Furthermore, the sum of the Maximum DL Power Capability of all the Local Cells belonging to the same Power Local Cell Group shall not exceed the Maximum DL Power Capability of the concerned Power Local Cell Group.

The Node B shall include, for each local cell present in the Node B, the Node B internal resource capability and consumption laws within the *Local Cell Information* IE [FDD - , including also the *E-DCH Capacity Consumption Law*, if E-DCH is supported] [TDD - , including also the *E-DCH TDD Capacity Consumption Law* IE, if E-DCH is supported]. If the *UL Capacity Credit* IE is not present in the *Local Cell Information* IE, then the internal resource capabilities of the local cell are modelled as shared resources between Uplink and Downlink. If the Local Cell utilises Node B internal resource capabilities that are pooled for several Local Cell(s), the *Local Cell Group ID* IE shall contain the identity of the used Local Cell Group. If the Local Cell utilises Node B internal power resources that are pooled for several Local Cells, the *Power Local Cell Group ID* IE shall contain the identity of the concerned Power Local Cell Group.

The Node B shall include one *Cell Information* IE for each cell in the Node B and information about all common transport channels and all common physical channels for each cell. If a *Configuration Generation ID* IE for a cell can not be trusted, the Node B shall set this *Configuration Generation ID* IE = "0". The Node B shall include the *HS-DSCH Resources Information* IE for every Cell which has been configured with HS-DSCH resources. [FDD - The Node B shall include the *E-DCH Resources Information* IE for every Cell which has been configured with E-DCH resources.] [TDD - The Node B shall include the *E-DCH Resources Information* IE and the [3.84Mcps TDD - *E-RUCCH Information* IE] [7.68Mcps TDD - *E-RUCCH Information* 7.68Mcps IE] for every cell which has been configured with E-DCH resources.]

[1.28Mcps TDD - The Node B may include the *UpPCH Information LCR* IE for each frequency on which the UpPCH channel is not configured in the timeslot of UpPTS.]

[1.28Mcps TDD - For a multi-frequency cell, the Node B may include the *UARFCN* IE in the *HS-DSCH Resources Information* IE to report the status of the HS-DSCH resources on the indicated frequency, the Node B may also not include any *UARFCN* IE in the *HS-DSCH Resources Information* IE to report the status of the HS-DSCH resources for the whole cell.]

[1.28Mcps TDD - For a multi-frequency cell, the Node B may include the *UARFCN* IE in the *E-DCH Resources Information* IE to report the status of the E-DCH resources on the indicated frequency, the Node B may also not include any *UARFCN* IE in the *E-DCH Resources Information* IE to report the status of the E-DCH resources for the whole cell.]

The Node B shall also include one *Communication Control Port Information* IE for each Communication Control Port in the Node B.

[1.28Mcps TDD - For a multi-frequency cell, the Node B should report the status of the resources used for each frequency. A reporting method can be found in Annex E.]

8.2.7.3 Unsuccessful Operation

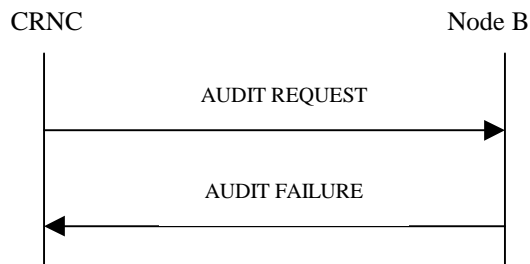


Figure 10A: Audit procedure, Unsuccessful Operation

If the Node B cannot perform an audit of the configuration and status of the logical resources, it shall send a AUDIT FAILURE message with the *Cause* IE set to an appropriate value.

8.2.7.4 Abnormal Conditions

If the Node B receives the AUDIT REQUEST message with the *Start Of Audit Sequence Indicator* IE set to "not start of audit sequence" and there is no ongoing audit sequence, the Node B shall send the AUDIT FAILURE message with the appropriate cause value.

8.2.8 Common Measurement Initiation

8.2.8.1 General

This procedure is used by a CRNC to request the initiation of measurements on common resources in a Node B.

8.2.8.2 Successful Operation

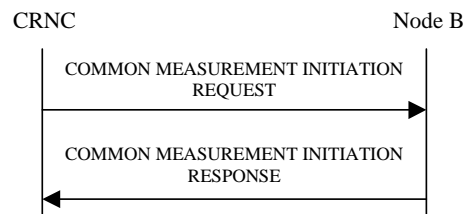


Figure 11: Common Measurement Initiation procedure, Successful Operation

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

[TDD - If the [3.84Mcps TDD and 7.68Mcps TDD - *Time Slot* IE] [1.28Mcps TDD - *Time Slot LCR* IE] is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the requested time slot individually.]

[1.28Mcps TDD - If *Time Slot LCR* IE is not present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to all the available time slots in the frequency.]

[1.28Mcps TDD - If *UARFCN* IE is not present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to all the frequencies in the cell.]

[1.28Mcps TDD - If neither *UARFCN* IE nor *Time Slot LCR* IE is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to all time slots in all frequencies in which the measurements are applicable and the *Additional Time Slot LCR* IE should be ignored.]

[1.28Mcps TDD - If *Additional Time Slot LCR* IE is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the requested additional time slots indicated in the *Additional Time Slot LCR* IE.]

[1.28Mcps TDD - If the *UpPCH Position LCR* IE is present in the COMMON MEASUREMENT INITIATION REQUEST message, and the *Common Measurement Type* IE is set to "UpPCH interference", the measurement request shall apply to the requested UpPCH position individually.]

If the *Common Measurement Type* IE is not set to "SFN-SFN Observed Time Difference" and the *SFN Reporting Indicator* IE is set to "FN Reporting Required", the *SFN* IE shall be included in the COMMON MEASUREMENT REPORT message or in the COMMON MEASUREMENT RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand". The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", the *SFN Reporting Indicator* IE shall be ignored.

[FDD - If the *Common Measurement Type* IE is set to "Received Scheduled E-DCH Power Share" and the *RTWP* Reporting Indicator* IE is set to "RTWP* Reporting Required", the *RTWP* Value* IE shall be included in the COMMON MEASUREMENT REPORT message or in the COMMON MEASUREMENT RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand". This is the received total wideband power (RTWP) determined for the same time period during which RSEPS is determined.]

[FDD - If the *Common Measurement Type* IE is set to "Received Scheduled E-DCH Power Share for Cell Portion" and the *RTWP*for Cell Portion Reporting Indicator* IE is set to "RTWP* Reporting Required", the *RTWP* Value* IE shall be included in the COMMON MEASUREMENT REPORT message or in the COMMON MEASUREMENT RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand".]

[1.28Mcps TDD - For a multi-frequency cell, if *Common Measurement Type* IE is set to "HS-DSCH Provided Bit Rate", and the *UARFCN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the indicated frequency, if *Common Measurement Type* IE is set to "HS-DSCH Provided Bit Rate", and the *UARFCN* IE is not included in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the whole cell.]

Common measurement type:

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the Node B shall initiate the SFN-SFN Observed Time Difference measurements between the reference cell identified by *C-ID* IE and the neighbouring cells identified by the *UTRAN Cell Identifier(UC-Id)* IE in the *Neighbouring Cell Measurement Information* IE.

[FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion", "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion", "HS-DSCH Required Power for Cell Portion", "HS-DSCH Provided Bit Rate for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the Node B shall initiate the corresponding measurements for all the cell portions which are configured under the cell indicated by *C-ID* IE in the COMMON MEASUREMENT INITIATION REQUEST message.]

Report characteristics:

The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *SFN* IE is not provided, the Node B shall return the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Periodic", the Node B shall periodically initiate a Common Measurement Reporting procedure for this measurement, with the requested report frequency. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", all the available measurement results shall be reported in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE in the *SFN-SFN Measurement Value Information* IE and the Node B shall indicate in the *Unsuccessful Neighbouring Cell SFN-SFN Observed Time*

Difference Measurement Information IE all the remaining neighbouring cells with no measurement result available in the Common Measurement Reporting procedure. If the *SFN* IE is provided, it indicates the frame for which the first measurement value of a periodic reporting shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Event A", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "HS-DSCH Required Power for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "Event B", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "HS-DSCH Required Power for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "Event C", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "Event D", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the falling time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "Event E", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the Node B shall initiate the Common Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Common Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "HS-DSCH Required Power for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "Event F", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement

Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the Node B shall also initiate the Common Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Common Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B. If the *Common Measurement Type* IE is set to "HS-DSCH Required Power", the measured entity to be considered is the sum of the HS-DSCH Required Power measurements for each priority class. [FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion" or "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion" or "HS-DSCH Required Power for Cell Portion" or "Received Scheduled E-DCH Power Share for Cell Portion", the measurement entity to be considered is the corresponding measurement for each cell portion.]

If the *Report Characteristics* IE is set to "On Modification" and if the *SFN* IE is not provided, the Node B shall report the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25]. Then, the Node B shall initiate the Common Measurement Reporting procedure in accordance to the following conditions:

1. If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning":

- If the T_{UTRAN-GPS} Change Limit IE is included in the T_{UTRAN-GPS} Measurement Threshold Information IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], calculate the change of T_{UTRAN-GPS} value (F_n). The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the T_{UTRAN-GPS} Change Limit IE. The change of T_{UTRAN-GPS} value (F_n) is calculated according to the following:

$$F_n = 0 \text{ for } n = 0$$

$$F_n = (M_n - M_{n-1}) \bmod 37158912000000 - ((SFN_n - SFN_{n-1}) \bmod 4096) * 10 * 3.84 * 10^3 * 16 + F_{n-1}$$

$$\text{for } n > 0$$

F_n is the change of the T_{UTRAN-GPS} value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN _{n} .

M_{n-1} is the previous measurement result received after point C in the measurement model [25], measured at SFN _{$n-1$} .

M_1 is the first measurement result received after point C in the measurement model [25], after the first Common Measurement Reporting at initiation or after the last event was triggered.

M_0 is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

- If the *Predicted T_{UTRAN-GPS} Deviation Limit* IE is included in the *T_{UTRAN-GPS} Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n . The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when F_n rises above the threshold indicated by the *Predicted T_{UTRAN-GPS} Deviation Limit* IE. The P_n and F_n are calculated according to the following:

$$P_n = b \text{ for } n = 0$$

$$P_n = ((a/16) * ((SFN_n - SFN_{n-1}) \bmod 4096) / 100 + ((SFN_n - SFN_{n-1}) \bmod 4096) * 10 * 3.84 * 10^3 * 16 + P_{n-1}) \bmod 37158912000000 \quad \text{for } n > 0$$

$$F_n = \min((M_n - P_n) \bmod 37158912000000, (P_n - M_n) \bmod 37158912000000) \quad \text{for } n > 0$$

P_n is the predicted $T_{\text{UTRAN-GPS}}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported $T_{\text{UTRAN-GPS}}$ Drift Rate value.

b is the last reported $T_{\text{UTRAN-GPS}}$ value.

F_n is the deviation of the last measurement result from the predicted $T_{\text{UTRAN-GPS}}$ value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n .

M_j is the first measurement result received after point C in the measurement model [25], after the first Common Measurement Reporting at initiation or after the last event was triggered.

The $T_{\text{UTRAN-GPS}}$ Drift Rate is determined by the Node B in an implementation-dependent way after point B in the measurement model [25].

2. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference":

- If the *SFN-SFN Change Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], calculate the change of SFN-SFN value (F_n). The Node B shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when F_n rises above the threshold indicated by the *SFN-SFN Change Limit* IE. The change of the SFN-SFN value is calculated according to the following:

$$F_n=0 \quad \text{for } n=0$$

$$[\text{FDD} - F_n = (M_n - a) \bmod 614400 \quad \text{for } n>0]$$

$$[\text{TDD} - F_n = (M_n - a) \bmod 40960 \quad \text{for } n>0]$$

F_n is the change of the SFN-SFN value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported SFN-SFN.

M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n .

M_j is the first measurement result received after point C in the measurement model [25] after the first Common Measurement Reporting at initiation or after the last event was triggered.

- If the *Predicted SFN-SFN Deviation Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n . The Node B shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when the F_n rises above the threshold indicated by the *Predicted SFN-SFN Deviation Limit* IE. The P_n and F_n are calculated according to the following:

$$P_n=b \text{ for } n=0$$

$$[\text{FDD} - P_n = ((a/16) * ((\text{SFN}_n - \text{SFN}_{n-1}) \bmod 4096)/100 + P_{n-1}) \bmod 614400 \quad \text{for } n>0]$$

$$[\text{FDD} - F_n = \min((M_n - P_n) \bmod 614400, (P_n - M_n) \bmod 614400) \quad \text{for } n>0]$$

$$[\text{TDD} - P_n = ((a/16) * (15 * (\text{SFN}_n - \text{SFN}_{n-1}) \bmod 4096 + (\text{TS}_n - \text{TS}_{n-1}))/1500 + P_{n-1}) \bmod 40960 \quad \text{for } n>0]$$

$$[\text{TDD} - F_n = \min((M_n - P_n) \bmod 40960, (P_n - M_n) \bmod 40960) \quad \text{for } n>0]$$

P_n is the predicted *SFN-SFN* value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported SFN-SFN Drift Rate value.

b is the last reported SFN-SFN value.

abs denotes the absolute value.

F_n is the deviation of the last measurement result from the predicted SFN-SFN value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

M_n is the latest measurement result received after point C in the measurement model [25], measured at [TDD - the Time Slot TS_n of] the Frame SFN_n.

M_j is the first measurement result received after point C in the measurement model [25] after the first Common Measurement Reporting at initiation or after the last event was triggered.

The SFN-SFN Drift Rate is determined by the Node B in an implementation-dependent way after point B in the measurement model [25].

3. If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning":
- If the $T_{UTRAN-GANSS}$ *Change Limit* IE is included in the $T_{UTRAN-GANSS}$ *Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], calculate the change of $T_{UTRAN-GANSS}$ value (F_n). The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the $T_{UTRAN-GANSS}$ *Change Limit* IE. The change of $T_{UTRAN-GANSS}$ value (F_n) is calculated according to the following:

$$F_n = 0 \text{ for } n = 0$$

$$F_n = (GAM_n - GAM_{n-1}) \bmod 5308416000000 - ((SFN_n - SFN_{n-1}) \bmod 4096) * 10 * 3.84 * 10^3 * 16 + F_{n-1} \\ \text{for } n > 0$$

F_n is the change of the $T_{UTRAN-GANSS}$ value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

GAM_n is the latest GANSS measurement result received after point C in the GANSS measurement model, measured at SFN_n.

GAM_{n-1} is the previous GANSS measurement result received after point C in the GANSS measurement model, measured at SFN_{n-1}.

GAM_j is the first GANSS measurement result received after point C in the GANSS measurement model, after the first Common Measurement Reporting at initiation or after the last event was triggered.

GAM_0 is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

GANSS measurement model is the timing between cell j and GANSS Time Of Day. $T_{UE-GANSSj}$ is defined as the time of occurrence of a specified UTRAN event according to GANSS time. The specified UTRAN event is the beginning of a particular frame (identified through its SFN) in the first detected path (in time) of the cell j CPICH, where cell j is a cell chosen by the UE. The reference point for $T_{UE-GANSSj}$ shall be the antenna connector of the UE.

- If the *Predicted $T_{UTRAN-GANSS}$ Deviation Limit* IE is included in the $T_{UTRAN-GANSS}$ *Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n . The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when F_n rises above the threshold indicated by the *Predicted $T_{UTRAN-GANSS}$ Deviation Limit* IE. The P_n and F_n are calculated according to the following:

$$P_n = b \text{ for } n = 0$$

$$P_n = ((a/16) * ((SFN_n - SFN_{n-1}) \bmod 4096) / 100 + ((SFN_n - SFN_{n-1}) \bmod 4096) * 10 * 3.84 * 10^3 * 16 + P_{n-1}) \\ \bmod 5308416000000 \quad \text{for } n > 0$$

$$F_n = \min((GAM_n - P_n) \bmod 5308416000000, (P_n - GAM_n) \bmod 5308416000000) \quad \text{for } n > 0$$

P_n is the predicted $T_{\text{UTRAN-GANSS}}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported $T_{\text{UTRAN-GANSS}}$ Drift Rate value.

b is the last reported $T_{\text{UTRAN-GANSS}}$ value.

F_n is the deviation of the last measurement result from the predicted $T_{\text{UTRAN-GANSS}}$ value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

GAM_n is the latest GANSS measurement result received after point C in the GANSS measurement model, measured at SFN_n .

GAM_j is the first GANSS measurement result received after point C in the GANSS measurement model, after the first Common Measurement Reporting at initiation or after the last event was triggered.

The $T_{\text{UTRAN-GANSS}}$ Drift Rate is determined by the Node B in an implementation-dependent way after point B in the measurement model [25].

If the *Report Characteristics* IE is not set to "On Demand", the Node B is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists anymore, the Node B shall terminate the measurement locally, i.e. without reporting this to the CRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Common Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

Higher layer filtering:

The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1 - a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

F_n is the updated filtered measurement result

F_{n-1} is the old filtered measurement result

M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the COMMON MEASUREMENT INITIATION RESPONSE, COMMON MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for F_n)

$a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, a shall be set to 1 (no filtering)

In order to initialise the averaging filter, F_0 is set to M_j when the first measurement result from the physical layer measurement is received.

Common measurement accuracy:

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", then the Node B shall use the *UTRAN GPS Timing Measurement Accuracy Class* IE included in the *Common Measurement Accuracy* IE according to the following:

- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class A", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes A, B and C.
- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class B", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes B and C.

- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class C", then the Node B shall perform the measurements with the accuracy according to class C.

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning", then the Node B shall use the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE included in the *Common Measurement Accuracy* IE according to the following:

- If the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE indicates "Class A", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes A, B and C.
- If the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE indicates "Class B", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes B and C.
- If the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE indicates "Class C", then the Node B shall perform the measurements with the accuracy according to class C.

Measurement Recovery Behavior:

If the *Measurement Recovery Behavior* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the COMMON MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.2.9.2.

[FDD - Noise Floor Reporting:]

[FDD - If the *Common Measurement Type* IE is set to "Received Total Wide Band Power" and if the *Reference Received Total Wide Band Power Reporting* IE is included in the same COMMON MEASUREMENT INITIATION REQUEST message, the Node B may include the *Reference Received Total Wide Band Power* IE in the message used to report the common measurement.]

[FDD - If the *Reference Received Total Wide Band Power Reporting* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall if supported, include the *Reference Received Total Wide Band Power Support Indicator* IE or the *Reference Received Total Wide Band Power* IE in the COMMON MEASUREMENT INITIATION RESPONSE.]

Response message:

If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent over the Node B Control Port. The message shall include the same Measurement ID that was used in the measurement request. Only in the case where the *Report Characteristics* IE is set to "On Demand" or "On Modification", the COMMON MEASUREMENT INITIATION RESPONSE message shall include the measurement result and also the *Common Measurement Achieved Accuracy* IE if the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" or "UTRAN GANSS Timing of Cell Frames for UE positioning".

[1.28Mcps TDD –If *Time Slot LCR* IE is not present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement response shall apply to all the available time slots in the frequency.]

[1.28Mcps TDD - If *UARFCN* IE is not present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement response shall apply to all the frequencies in the cell.]

[1.28Mcps TDD - If neither *UARFCN* IE nor *Time Slot LCR* IE is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement response shall apply to all available time slots in all frequencies and the *Additional Time Slot LCR* IE should be ignored.]

[1.28Mcps TDD - If *Additional Time Slot LCR* IE is present in the COMMON MEASUREMENT INITIATION REQUEST message and the measurement result is included, the measurement results of the additional time slot (s) should be included in the COMMON MEASUREMENT INITIATION RESPONSE message.]

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", all the available measurement results shall be reported in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE in the *SFN-SFN Measurement Value Information* IE and the Node B shall indicate in the *Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE all the remaining neighbouring cells with no measurement result available in the COMMON MEASUREMENT INITIATION RESPONSE message. For all available measurement results, the Node

B shall include in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information IE* the *SFN-SFN Quality IE* and the *SFN-SFN Drift Rate Quality IE*, if available.

If the *Common Measurement Type IE* is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the *Report Characteristics IE* is set to "On Demand" or "On Modification", the Node B shall include in the *T_{UTRAN-GPS} Measurement Value Information IE* the *T_{UTRAN-GPS} Quality IE* and the *T_{UTRAN-GPS} Drift Rate Quality IE*, if available.

[FDD - If the *Common Measurement Type IE* is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion", "Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion", "HS-DSCH Required Power for Cell Portion" or "HS-DSCH Provided Bit Rate for Cell Portion" and the *Report Characteristics IE* is set to "On Demand", all the available measurement results for each cell portion shall be included in the COMMON MEASUREMENT INITIATION RESPONSE message.]

If the *Common Measurement Type IE* is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning" and the *Report Characteristics IE* is set to "On Demand" or "On Modification", the Node B shall include in the *T_{UTRAN-GANSS} Measurement Value Information IE*, the *T_{UTRAN-GANSS} Quality IE* and the *T_{UTRAN-GANSS} Drift Rate Quality IE*, if available.

8.2.8.3 Unsuccessful Operation

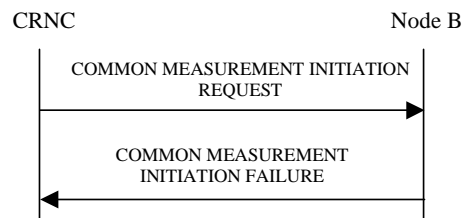


Figure 12: Common Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated [1.28Mcps TDD-in any time slot], the Node B shall send a COMMON MEASUREMENT INITIATION FAILURE message over the Node B Control Port. The message shall include the same Measurement ID that was used in the COMMON MEASUREMENT INITIATION REQUEST message and the *Cause IE* set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Measurement not supported for the object.
- Measurement Temporarily not Available

8.2.8.4 Abnormal Conditions

The allowed combinations of the Common Measurement Type received in the *Common Measurement Type IE* and the Common Measurement Object Type received in the COMMON MEASUREMENT INITIATION REQUEST message are shown in the table below. For not allowed combinations, the Node B shall regard the Common Measurement Initiation procedure as failed.

Table 3a: Allowed Common Measurement Type and Common Measurement Object Type combinations

Common Measurement Type	Common Measurement Object Type		
	Cell	RACH	Power Local Cell Group
Received Total Wide Band Power	X		
Transmitted Carrier Power	X		
Acknowledged PRACH Preambles		X	
UL Timeslot ISCP	X		
UTRAN GPS Timing of Cell Frames for UE Positioning	X		
SFN-SFN Observed Time Difference	X		
[TDD - Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission] [FDD - Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission]	X		
HS-DSCH Required Power	X		
HS-DSCH Provided Bit Rate	X		
Received Total Wide Band Power for Cell Portion	FDD only		
Transmitted Carrier Power for Cell Portion	FDD only		
Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion	FDD only		
UpPCH interference	1.28 Mcps TDD only		
DL Transmission Branch Load	FDD only		FDD only
HS-DSCH Required Power for Cell Portion	FDD only		
HS-DSCH Provided Bit Rate for Cell Portion	FDD only		
E-DCH Provided Bit Rate	X		
E-DCH Non-serving Relative Grant Down Commands	FDD only		
Received Scheduled E-DCH Power Share	FDD only		
Received Scheduled E-DCH Power Share for Cell Portion	FDD only		
UTRAN GANSS Timing of Cell Frames for UE Positioning	X		

[TDD - If the Common Measurement Type requires the Time Slot Information but the [3.84Mcps TDD and 7.68Mcps TDD - *Time Slot* IE] [1.28Mcps TDD - *Time Slot LCR* IE] is not present in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.]

[1.28Mcps TDD - For a multi-frequency cell, if the *Additional Time Slot LCR* IE is present in the COMMON MEASUREMENT INITIATION REQUEST message, only on-demand and period measurement could be used, otherwise, the Node B shall reject the procedure by sending a COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.]

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *SFN-SFN Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the Node B shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN-GPS}$ *Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the Node B shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", but the *Neighbouring Cell Measurement Information* IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", but the $T_{UTRAN-GPS}$ *Measurement Accuracy Class* IE in the *Common Measurement Accuracy* IE is not included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

If the *Common Measurement Type* IE is set to "UTRAN GANSS Timing of Cell Frames for UE Positioning", but the $T_{UTRAN-GANSS}$ *Measurement Accuracy Class* IE in the *Common Measurement Accuracy* IE is not included in the

COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

[FDD - If the COMMON MEASUREMENT INITIATION REQUEST message contains the *Reference Received Total Wide Band Power Reporting* IE and it does not contain the *Common Measurement Type* IE set to "Received Total Wide Band Power", the Node B shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.]

The allowed combinations of the Common Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the Node B shall regard the Common Measurement Initiation procedure as failed.

Table 4: Allowed Common Measurement Type and Report Characteristics Type combinations

Common Measurement Type	Report Characteristics Type								
	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
Received Total Wide Band Power	X	X	X	X	X	X	X	X	
Transmitted Carrier Power	X	X	X	X	X	X	X	X	
Acknowledged PRACH Preambles	X	X	X	X	X	X	X	X	
UL Timeslot ISCP	X	X	X	X	X	X	X	X	
UTRAN GPS Timing of Cell Frames for UE Positioning	X	X							X
SFN-SFN Observed Time Difference	X	X							X
[TDD - Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission] [FDD - Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission]	X	X	X	X	X	X	X	X	
HS-DSCH Required Power	X	X	X	X			X	X	
HS-DSCH Provided Bit Rate	X	X							
[FDD - Received Total Wide Band Power for Cell Portion]	X	X	X	X	X	X	X	X	
[FDD - Transmitted Carrier Power for Cell Portion]	X	X	X	X	X	X	X	X	
[FDD - Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion]	X	X	X	X	X	X	X	X	
UpPTS interference	X	X	X	X	X	X	X	X	
DL Transmission Branch Load	X	X	X	X			X	X	
[FDD - HS-DSCH Required Power for Cell Portion]	X	X	X	X			X	X	
[FDD - HS-DSCH Provided Bit Rate for Cell Portion]	X	X							
E-DCH Provided Bit Rate	X	X							
E-DCH Non-serving Relative Grant Down Commands	X	X	X	X			X	X	

Received Scheduled E-DCH Power Share	X	X	X	X	X	X	X	X	
[FDD - Received Scheduled E-DCH Power Share for Cell Portion]	X	X	X	X	X	X	X	X	
UTRAN GANSS Timing of Cell Frames for UE Positioning	X	X							X

If the *SFN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic", "On Demand" or "On Modification", the Node B shall regard the Common Measurement Initiation procedure as failed.

8.2.9 Common Measurement Reporting

8.2.9.1 General

This procedure is used by the Node B to report the result of measurements requested by the CRNC with the Common Measurement Initiation procedure.

8.2.9.2 Successful Operation

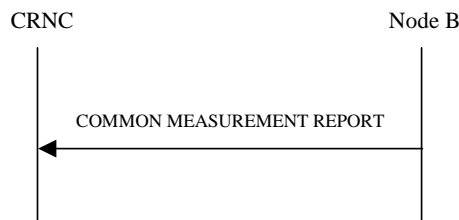


Figure 13: Common Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the Node B shall initiate the Common Measurement Reporting procedure. The COMMON MEASUREMENT REPORT message shall use the Node B Control Port.

The *Measurement ID* IE shall be set to the Measurement ID provided by the CRNC when initiating the measurement with the Common Measurement Initiation procedure.

[1.28Mcps TDD –If *Time Slot LCR* IE is not present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement results of all the available time slots in the frequency should be included in the COMMON MEASUREMENT INITIATION REPORT message.]

[1.28Mcps TDD - If *UARFCN* IE is not present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement results of all the frequencies in the cell should be included in the COMMON MEASUREMENT INITIATION REPORT message.]

[1.28Mcps TDD - If neither *UARFCN* IE nor *Time Slot LCR* IE is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement results of all available time slots in all frequencies should be included in the COMMON MEASUREMENT INITIATION REPORT message.]

[1.28Mcps TDD - If *Additional Time Slot LCR* IE is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement results of the additional time slot (s) should be included in the COMMON MEASUREMENT INITIATION REPORT message.]

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref.[22] and [23]) or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the *Common Measurement Value Information* IE shall indicate Measurement not Available. If the Node B was configured to perform

the Measurement Recovery Behavior, the Node B shall indicate Measurement Available to the CRNC when the achieved measurement accuracy again fulfils the given accuracy requirement (see ref. [22] and [23]) and include the *Measurement Recovery Report Indicator IE* in the COMMON MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

For measurements included in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information IE*, the Node B shall include the *SFN-SFN Quality IE* and the *SFN-SFN Drift Rate Quality IE* if available.

If the Common Measurement Type provided by RNC when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GPS Timing of Cell Frames for UE Positioning", then the Node B shall include in the *T_{UTRAN-GPS} Measurement Value Information IE* the *T_{UTRAN-GPS} Quality IE* and the *T_{UTRAN-GPS} Drift Rate Quality IE*, if available.

If the Common Measurement Type provided by RNC when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GANSS Timing of Cell Frames for UE Positioning", then the Node B shall include in the *T_{UTRAN-GANSS} Measurement Value Information IE* the *T_{UTRAN-GANSS} Quality IE* and the *T_{UTRAN-GANSS} Drift Rate Quality IE*, if available.

[FDD - For Received Total Wide Band Power for Cell Portion, Transmitted Carrier Power for Cell Portion, Transmitted carrier power of all codes not used for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH transmission for Cell Portion, HS-DSCH Required Power for Cell Portion, HS-DSCH Provided Bit Rate for Cell Portion, Received Scheduled E-DCH Power Share for Cell Portion measurements, all the available measurement results for each cell portion shall be included in the COMMON MEASUREMENT REPORT message.]

8.2.9.3 Abnormal Conditions

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8.2.10 Common Measurement Termination

8.2.10.1 General

This procedure is used by the CRNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

8.2.10.2 Successful Operation



Figure 14: Common Measurement Termination procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT TERMINATION REQUEST message, sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate reporting of common measurements corresponding to the received *Measurement ID IE*.

8.2.10.3 Abnormal Conditions

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8.2.11 Common Measurement Failure

8.2.11.1 General

This procedure is used by the Node B to notify the CRNC that a measurement previously requested by the Common Measurement Initiation procedure can no longer be reported.

8.2.11.2 Successful Operation



Figure 15: Common Measurement Failure procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from the Node B to the CRNC using the Node B Control Port, to inform the CRNC that a previously requested measurement can no longer be reported. The Node B has locally terminated the indicated measurement.

8.2.11.3 Abnormal Conditions

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8.2.12 Cell Setup

8.2.12.1 General

This procedure is used to set up a cell in the Node B. The CRNC takes the cell, identified via the *C-ID* IE, into service and uses the resources in the Node B identified via the *Local Cell ID* IE.

8.2.12.2 Successful Operation

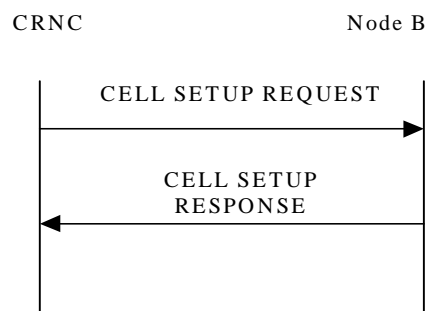


Figure 16: Cell Setup procedure, Successful Operation

The procedure is initiated with a CELL SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon Reception, the Node B shall reserve the necessary resources and configure the new cell according to the parameters given in the message.

[FDD - If the CELL SETUP REQUEST message includes one or more *Secondary CPICH Information* IE, the Node B shall configure and activate the Secondary CPICH(s) in the cell according to received configuration data.]

The *Maximum Transmission Power* IE value shall be stored in the Node B and, at any instance of time, the total maximum output power in the cell shall not be above this value. [1.28Mcps TDD - For a multi-frequency cell, at any instance of time, the total maximum output power for each frequency of the cell shall not be above this value.]

[FDD - If the *Closed Loop Timing Adjustment Mode* IE is included in the CELL SETUP REQUEST message, the value shall be stored in the Node B and applied when closed loop Feed-Back mode diversity is used on DPCH.]

[TDD - If the *Reference SFN Offset* IE is included in the CELL SETUP REQUEST message, the Node B where a reference clock is connected shall consider the SFN derived from the synchronisation port and the reference offset for reference time setting. All other Node Bs shall ignore the *Reference SFN Offset* IE if included.]

[FDD - If the *IPDL Parameter Information* IE is included in the CELL SETUP REQUEST message, the parameters defining IPDL shall be stored in the Node B and applied according to the *IPDL Indicator* IE value. If the *Burst Mode Parameters* IE is included in the *IPDL FDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [10].]

[3.84Mcps TDD and 7.68Mcps TDD - If the *IPDL Parameter Information* IE containing *IPDL TDD Parameters* IE is included in the CELL SETUP REQUEST message, the parameters defining IPDL in 3.84Mcps TDD and 7.68Mcps TDD modes shall be stored in the Node B and applied according to the *IPDL Indicator* IE value. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [21].]

[1.28Mcps TDD - If the *IPDL Parameter Information LCR* IE containing *IPDL TDD Parameters LCR* IE is included in the CELL SETUP REQUEST message, the parameters defining IPDL in 1.28Mcps TDD mode shall be stored in the Node B and applied according to the *IPDL Indicator* IE value. For MBSFN only mode, this IE shall be ignored by the Node B. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters LCR* IE, the IPDL shall be operated in burst mode according to ref [21].]

[1.28Mcps TDD - For a multi-frequency cell, the *UARFCN Information LCR* IE indicates information about the configuration of the frequency and timeslot of the secondary frequency/frequencies.]

When the cell is successfully configured, the Node B shall store the *Configuration Generation ID* IE value and send a CELL SETUP RESPONSE message as a response.

[FDD - When the cell is successfully configured the CPICH(s), Primary SCH, Secondary SCH, Primary CCPCH and BCH exist.][3.84Mcps TDD and 7.68Mcps TDD - When the cell is successfully configured the SCH, Primary CCPCH and BCH exist and the switching-points for the 3.84Mcps TDD / 7.68Mcps TDD frame structure are defined.]

[1.28Mcps TDD - When the cell is successfully configured, the DwPCH, Primary CCPCH and BCH exist and the switching-points for the 1.28Mcps TDD frame structure are defined.] The cell and the channels shall be set to the state Enabled [6].

[1.28Mcps TDD - For a multi-frequency cell, the Node B shall consider the cell as having been successfully configured as long as the primary frequency is normally setup. When the cell is successfully configured, the Node B shall respond with the CELL SETUP RESPONSE message.]

[TDD - The Node B shall ignore the *DPCH/PUSCH/PRACH Constant Value* IEs.]

[1.28Mcps TDD - For a multi-frequency cell, when the cell is successfully configured, the Node B shall configure the UpPCH channel of the primary frequency in the timeslot of UpPTS.]

[FDD - If the CELL SETUP REQUEST message includes *Cell Portion Information* IE, the Node B shall associate *Associated Secondary CPICH* IE to the cell portion indicated by *Cell Portion ID* IE and the *Maximum Transmission Power for Cell Portion* IE value shall be stored in the Node B and at any instance of time the total maximum output power in the cell portion indicated by *Cell Portion ID* IE shall not be above this value.]

[FDD - If the *MIMO Pilot Configuration* IE is included in the CELL SETUP REQUEST message, then the parameters defining the pilot configuration for MIMO shall be stored in the Node B and applied when MIMO mode is used according to [10].]

[3.84Mcps TDD and 7.68Mcps TDD - If the CELL SETUP REQUEST message includes the *MBSFN Cell Parameter ID* IE, then the Node B shall configure the associated timeslot to operate in MBSFN mode using the scrambling codes and midambles dictated by the *MBSFN Cell Parameter ID* IE.]

[1.28Mcps TDD - If the CELL SETUP REQUEST message includes the *MBSFN Only Mode Indicator* IE, the Node B shall configure the associated timeslot(s) to operate as MBSFN time slot(s) using the scrambling codes and basic midamble codes dictated by the *Time Slot Parameter ID* IE.]

[1.28Mcps TDD - If the cell is operating in MBSFN only mode, the *DwPCH Information* IE shall be ignored by the Node B.]

[1.28 Mcps TDD - If the cell is operating in MBSFN only mode, the PCCPCH shall be deployed on the MBSFN Special Time Slot [19].]

[FDD - If the *MIMO Pilot Configuration Extension* IE is included in CELL SETUP REQUEST, then the parameters extending the pilot information for MIMO shall be stored in the Node B and applied when MIMO mode is used according to [10]]

8.2.12.3 Unsuccessful Operation

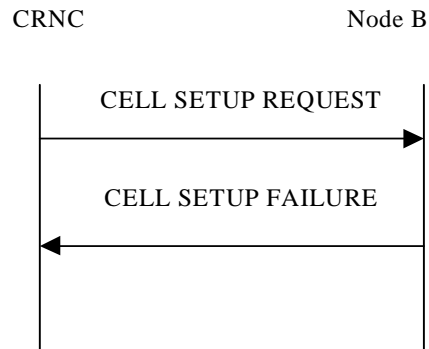


Figure 17: Cell Setup procedure: Unsuccessful Operation

If the Node B cannot set up the cell according to the information given in CELL SETUP REQUEST message the CELL SETUP FAILURE message shall be sent to the CRNC.

In this case, the cell is Not Existing in the Node B. The Configuration Generation ID shall not be changed in the Node B.

The *Cause* IE shall be set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- S-CPICH not supported
- Requested Tx Diversity Mode not supported
- Power level not supported
- Node B Resources unavailable
- IPDL not supported
- [FDD - S-CPICH power offset support not available]

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.12.4 Abnormal Conditions

If the state of the cell already is Enabled or Disabled [6] when the CELL SETUP REQUEST message is received in the Node B, it shall reject the configuration of the cell and all channels in the CELL SETUP REQUEST message by sending a CELL SETUP FAILURE message with the *Cause* IE set to "Message not compatible with receiver state".

If the Local Cell on which the cell is mapped does not belong to a Power Local Cell Group and the requested maximum transmission power indicated by the *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the Local Cell, the Node B shall consider the procedure as having failed and send a CELL SETUP FAILURE message to the CRNC.

If the Local Cell on which the cell is mapped belongs to a Power Local Cell Group and the requested maximum transmission power indicated by *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the Power Local Cell Group, the Node B shall consider the procedure as having failed and send a CELL SETUP FAILURE message to the CRNC.

8.2.13 Cell Reconfiguration

8.2.13.1 General

This procedure is used to reconfigure a cell in the Node B.

8.2.13.2 Successful Operation

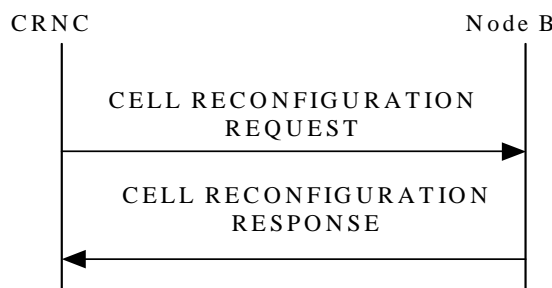


Figure 18: Cell Reconfiguration procedure, Successful Operation

The procedure is initiated with a CELL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon Reception, the Node B shall reconfigure the cell according to the parameters given in the message.

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary SCH Information* IE, the Node B shall reconfigure the Primary SCH power in the cell according to *Primary SCH Power* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Secondary SCH Information* IE, the Node B shall reconfigure the Secondary SCH power in the cell according to the *Secondary SCH Power* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CPICH Information* IE, the Node B shall reconfigure the Primary CPICH power in the cell according to the *Primary CPICH Power* IE value. The Node B shall adjust all the transmitted power levels relative to the Primary CPICH power according to the new value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes one or more *Secondary CPICH Information* IE, the Node B shall reconfigure the power for each Secondary CPICH in the cell according to their *Secondary CPICH Power* IE value.]

[3.84Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *SCH Information* IE, the Node B shall reconfigure the SCH power in the cell according to the *SCH Power* IE value.]

[7.68Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *SCH Information 7.68Mcps* IE, the Node B shall reconfigure the SCH power in the cell according to the *SCH Power* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes the *Timing Advance Applied* IE, the Node B shall apply the necessary functions for Timing Advance in that cell including reporting of the Rx Timing Deviation measurement, according to the *Timing Advance Applied* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CCPCH Information* IE, the Node B shall reconfigure the BCH power in the cell according to the *BCH Power* IE value.]

[1.28Mcps TDD and 3.84Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *PCCPCH Information* IE, the Node B shall reconfigure the P-CCPCH power in the cell according to the *PCCPCH Power* IE value. The Node B shall adjust all the transmitted power levels relative to the Primary CCPCH power according to the new value.]

[7.68Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *PCCPCH Information 7.68Mcps* IE, the Node B shall reconfigure the P-CCPCH power in the cell according to the *PCCPCH Power* IE value. The Node B shall adjust all the transmitted power levels relative to the Primary CCPCH power according to the new value.]

If the CELL RECONFIGURATION REQUEST message includes the *Maximum Transmission Power* IE, the value shall be stored in the Node B and at any instance of time the total maximum output power in the cell shall not be above this value.

[3.84Mcps TDD and 7.68Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *Time Slot Configuration* IE, the Node B shall reconfigure switching-point structure in the cell according to the *Time Slot* IE value.]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *Time Slot Configuration LCR* IE, the Node B shall reconfigure switching-point structure in the cell according to the *Time Slot LCR* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes any of the *DPCH/PUSCH/PRACH Constant Value* IEs, the Node B shall ignore them]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *DwPCH Information* IE, the Node B shall reconfigure the DwPCH power in the Cell according to the *DwPCH Power* IE.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with the *IPDL Indicator* IE set to the value "Active" the Node B shall apply the IPDL in that cell according to the latest received parameters defined by the *IPDL FDD Parameters* IE. If the *Burst Mode Parameters* IE is included in the *IPDL FDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [10].]

[3.84Mcps TDD and 7.68Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with the *IPDL Indicator* IE set to the value "Active", the Node B shall apply the IPDL in that cell according to the latest received parameters defined by the *IPDL TDD Parameters* IE. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters* IE, the IPDL shall be operated in burst mode according to ref [21].]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information LCR* IE with the *IPDL Indicator* IE set to the value "Active", the Node B shall apply the IPDL in that cell according to the latest received parameters defined by the *IPDL TDD Parameters LCR* IE. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Parameters LCR* IE, the IPDL shall be operated in burst mode according to ref [21].]

If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with the *IPDL Indicator* IE set to the value "Inactive", the Node B shall deactivate the ongoing IPDL.

When the cell is successfully reconfigured, the Node B shall store the new *Configuration Generation ID* IE value and send a CELL RECONFIGURATION RESPONSE message as a response.

If the CELL RECONFIGURATION REQUEST message includes the *Synchronisation Configuration* IE, the Node B shall reconfigure the indicated parameters in the cell according to the value of the *N_INSYNC_IND*, *N_OUTSYNC_IND* and *T_RLFAILURE* IEs. When the parameters in the *Synchronisation Configuration* IE affect the thresholds applied to a RL set, the Node B shall immediately apply the new thresholds. When applying the new thresholds, the Node B shall not change the state or value of any of the timers and counters for which the new thresholds apply.

[FDD - If the CELL RECONFIGURATION REQUEST message includes *Cell Portion Information* IE, the *Maximum Transmission Power for Cell Portion* IE value shall be stored in the Node B and at any instance of time the total maximum output power in the cell portion indicated by *Cell Portion ID* IE shall not be above this value.]

[FDD - If the *MIMO Pilot Configuration* IE is included in the CELL RECONFIGURATION REQUEST message, then the parameters defining the pilot configuration for MIMO shall be stored in the Node B and applied when MIMO mode is used according to [10].]

[3.84Mcps TDD and 7.68Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *MBSFN Cell Parameter ID* IE, then the Node B shall configure the associated timeslot to operate in MBSFN mode using the scrambling code and midamble dictated by the *MBSFN Cell Parameter ID* IE.]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *UARFCN Information To Add LCR* IE, the Node B shall reserve the necessary resource and add a secondary frequency to the cell according to the information indicated in the *UARFCN Information To Add LCR* IE.]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *UARFCN Information To Modify LCR* IE, the Node B shall reconfigure the configuration of the secondary frequency within the cell according to the information indicated in the *UARFCN Information To Modify LCR* IE.]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *UARFCN Information To Delete LCR* IE, the Node B shall remove the secondary frequency from the cell and any remaining dedicated channels on the secondary frequency according to the frequency information given in the *UARFCN Information To Delete LCR* IE. The states for the frequency within the cell shall be set to "Not existing". The Node B shall remove all Radio Links and all Node B Communication Contexts related to the secondary frequency within the cell. The Node B shall also initiate the release of the user plane transport bearers for the removed dedicated channels on the secondary frequency within the cell.]

[1.28 Mcps TDD - If the cell is operating in MBSFN only mode, the PCCPCH shall be deployed on the MBSFN Special Time Slot [19].]

[FDD - If the *MIMO Pilot Configuration Extension* IE is included in CELL RECONFIGURATION REQUEST, then the parameters extending the pilot information for MIMO shall be stored in the Node B and applied when MIMO mode is used according to [10]]

8.2.13.3 Unsuccessful Operation

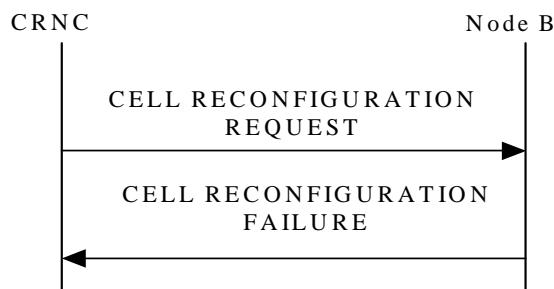


Figure 19: Cell Reconfiguration procedure: Unsuccessful Operation

If the Node B cannot reconfigure the cell according to the information given in CELL RECONFIGURATION REQUEST message, the CELL RECONFIGURATION FAILURE message shall be sent to the CRNC.

In this case, the Node B shall keep the old configuration of the cell and the Configuration Generation ID shall not be changed in the Node B.

The *Cause* IE shall be set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Power level not supported

- Node B Resources unavailable
- IPDL not supported
- [FDD - S-CPICH power offset support not available]

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.13.4 Abnormal Conditions

If the *IPDL Indicator* IE set to the value "Active" is included in the CELL RECONFIGURATION REQUEST message and there is active IPDL ongoing in the Node B, the Node B shall respond with the CELL RECONFIGURATION FAILURE message with the cause value "IPDL already activated".

If the *IPDL Indicator* IE set to the value "Active" is included in the CELL RECONFIGURATION REQUEST message and there is no IPDL stored in the Node B defining the IPDL, the Node B shall respond with the CELL RECONFIGURATION FAILURE message with the cause value "IPDL parameters not available".

If the Local Cell on which the cell is mapped does not belong to of a Power Local Cell Group and the requested maximum transmission power indicated by the *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the Local Cell, the Node B shall consider the procedure as having failed and send a CELL RECONFIGURATION FAILURE message to the CRNC.

If the Local Cell on which the cell is mapped belongs to a Power Local Cell Group and the requested maximum transmission power indicated by *Maximum Transmission Power* IE exceeds the Maximum DL Power Capability of the Power Local Cell Group, the Node B shall consider the procedure as having failed and send a CELL RECONFIGURATION FAILURE message to the CRNC.

8.2.14 Cell Deletion

8.2.14.1 General

This procedure is used to delete a cell in the Node B.

8.2.14.2 Successful Operation

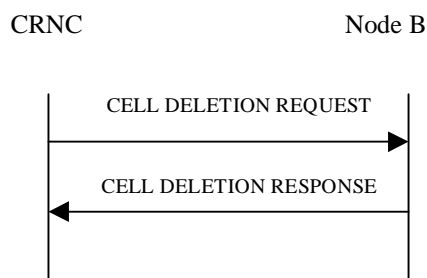


Figure 20: Cell Deletion procedure, Successful Operation

The procedure is initiated with a CELL DELETION REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon reception, the Node B shall remove the cell and any remaining common and dedicated channels within the cell. The states for the cell and the deleted common channels shall be set to Not Existing [6]. The Node B shall remove all Radio Links from the Cell and all Node B Communication Contexts that as a result do not have a Radio Link. The Node B shall also initiate release of the user plane transport bearers for the removed common and dedicated channels except the case that there is at least one FACH channel in this cell using the same transport bearer existing in other cell(s) in the Node B. In this case, the Node B shall remove the cell and any remaining common and

dedicated channels within the cell but keep the common transport bearer which is used by the remaining common transport channel(s) in other cell(s).

When the cell is deleted, the Node B shall send a CELL DELETION RESPONSE message as a response.

8.2.14.3 Unsuccessful Operation

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8.2.14.4 Abnormal Conditions

If the CELL DELETION REQUEST message includes a *C-ID* IE value that is not existing in the Node B, the Node B shall respond with the CELL DELETION RESPONSE message.

8.2.15 Resource Status Indication

8.2.15.1 General

This procedure is used in the following cases:

1. When a Local Cell becomes Existing at the Node B.
2. When a Local Cell is to be deleted in Node B, i.e. becomes Not Existing.
3. When the capabilities of the Local Cell change at the Node B.
4. When a cell has changed its capability and/or its resource operational state at the Node B.
5. When common physical channels and/or common transport channels have changed their capabilities at the Node B.
6. When a Communication Control Port has changed its resource operational state at the Node B.
7. When a Local Cell Group has changed its resource capability at the Node B.
8. [1.28Mcps TDD - For a multi-frequency cell, when a cell has been successfully set up but a secondary frequency failure has occurred within the cell.]

Each of the above cases shall trigger a Resource Status Indication procedure and the RESOURCE STATUS INDICATION message shall contain the logical resources affected for that case and the cause value when applicable.

8.2.15.2 Successful Operation



Figure 21: Resource Status Indication procedure, Successful Operation

The procedure is initiated with a RESOURCE STATUS INDICATION message sent from the Node B to the CRNC using the Node B Control Port.

Local Cell Becomes Existing:

When a Local Cell becomes Existing at the Node B, the Node B shall make it available to the CRNC by sending a RESOURCE STATUS INDICATION message containing a "No Failure" Indication, the *Local Cell ID* IE and the *Add/Delete Indicator* IE set equal to "Add".

When the capacity credits and consumption laws are shared between several Local Cells, the Node B includes the *Local Cell Group ID* IE for the Local Cell. If the *Local Cell Group Information* IE has not already been reported in a previous RESOURCE STATUS INDICATION message, the Node B shall include the capacity credits and the consumption laws in the *Local Cell Group Information* IE [FDD - , including also the E-DCH capacity consumption law, if E-DCH is supported].

If the *Local Cell* IE contains both the *DL Or Global Capacity Credit* IE and the *UL Capacity Credit* IE, then the internal resource capabilities of the Local Cell are modelled independently in the Uplink and Downlink direction. If the *UL Capacity Credit* IE is not present, then the internal resource capabilities of the Local Cell are modelled as shared resources between Uplink and Downlink. If the *Local Cell Group Information* IE contains both the *DL Or Global Capacity Credit* IE and the *UL Capacity Credit* IE, then the internal resource capabilities of the Local Cell Group are modelled independently in the Uplink and Downlink direction. If the *UL Capacity Credit* IE is not present, then the internal resource capabilities of the Local Cell Group are modelled as shared resources between Uplink and Downlink.

If the Node B internal power resources are pooled for a group of Local Cells, the Node B shall include the *Power Local Cell Group ID* IE for the Local Cell. If the *Power Local Cell Group Information* IE has not already been reported in a previous RESOURCE STATUS INDICATION message, the Node B shall include this IE for the concerned Power Local Cell Group in this message. Furthermore, the sum of the Maximum DL Power Capability of all the Local Cells belonging to the same Power Local Cell Group shall not exceed the Maximum DL Power Capability of the concerned Power Local Cell Group.

If the Local Cell is HSDPA-capable when it becomes Existing, the Node B shall include the *HSDPA Capability* IE set to "HSDPA Capable" and may include *HS-DSCH MAC-d PDU Size Capability* IE for the Local Cell.

If the Local Cell is E-DCH-capable when it becomes Existing, the Node B shall include the *E-DCH Capability* IE set to "E-DCH Capable" for the Local Cell.

If the Local Cell is MBMS-capable when it becomes Existing, the Node B shall include the *MBMS Capability* IE set to "MBMS Capable" for the Local Cell.

[FDD - If the Local Cell is F-DPCH-capable when it becomes Existing, the Node B shall include the *F-DPCH Capability* IE set to "F-DPCH Capable" for the Local Cell.]

[FDD - If the Local Cell is both HSDPA-capable and E-DCH-capable when it becomes Existing, then the Node B shall include the *Continuous Packet Connectivity DTX-DRX Capability* IE set to "Continuous Packet Connectivity DTX-DRX Capable" for the Local Cell when Continuous Packet Connectivity DTX-DRX is supported.]

[FDD - If the Local Cell is both HSDPA-capable and E-DCH-capable when it becomes Existing, then the Node B shall include the *Continuous Packet Connectivity HS-SCCH less Capability* IE set to "Continuous Packet Connectivity HS-SCCH less Capable" for the Local Cell when Continuous Packet Connectivity HS-SCCH less is supported.]

[FDD - If the Local Cell is MIMO-capable when it becomes Existing, then the Node B shall include the *MIMO Capability* IE set to "MIMO Capable" for the Local Cell.]

[FDD - If the Local Cell is SixtyfourQAM DL-capable when it becomes Existing, then the Node B shall include the *SixtyfourQAM DL Capability* IE set to "SixtyfourQAM DL Capable" for the Local Cell.]

[FDD - If the Local Cell is Enhanced FACH-capable when it becomes Existing, the Node B shall include the *Enhanced FACH Capability* IE set to "Enhanced FACH Capable" for the Local Cell.]

[FDD - If the Local Cell is SixteenQAM UL-capable when it becomes Existing, then the Node B shall include the *SixteenQAM UL Capability* IE set to "SixteenQAM UL Capable" for the Local Cell.]

[1.28Mcps TDD - If the Local Cell is MBSFN Only Mode-capable when it becomes Existing, the Node B shall include the *MBSFN Only Mode Capability* IE set to "MBSFN Only Mode Capable" for the Local Cell.]

[FDD - If the Local Cell is F-DPCH Slot Format-capable when it becomes Existing, then the Node B shall include the *F-DPCH Slot Format Capability* IE set to " F-DPCH Slot Format Capable" for the Local Cell.]

If the Local Cell is E-DPCCH Power Boosting-capable when it becomes Existing, the Node B shall include the *E-DPCCH Power Boosting Capability* IE set to " E-DPCCH Power Boosting Capable" for the Local Cell.

[FDD - If the Local Cell is MIMO-capable and supports the MIMO Power Offset For S-CPICH Capability when it becomes Existing, the Node B shall include the *MIMO Power Offset For S-CPICH Capability* IE set to " S-CPICH Power Offset Capable " for the Local Cell.]

[FDD - If the Local Cell is MIMO-capable and supports DL control channels in transmit diversity for MIMO UEs (when MIMO is active and P-CPICH is not transmitted in diversity mode [7]) when it becomes Existing, the Node B shall include the *TX Diversity on DL Control Channels by MIMO UE Capability* IE set to "DL Control Channel Tx Diversity for MIMO UE with non-diverse P-CPICH Capable".]

Local Cell Deletion:

When a Local Cell is to be deleted in the Node B, i.e. becomes Not Existing, the Node B shall withdraw the Local Cell from the CRNC by sending a RESOURCE STATUS INDICATION message containing a "No Failure" Indication, the *Local Cell ID* IE and the *Add/Delete Indicator* IE set to "Delete". The Node B shall not withdraw a previously configured cell at the Node B that the CRNC had configured using the Cell Setup procedure, until the CRNC has deleted that cell at the Node B using the Cell Delete procedure.

Capability Change of a Local Cell:

When the capabilities of a Local Cell change at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication and the *Local Cell ID* IE.

The Node B shall include the *Minimum DL Power Capability* IE when it is known by the Node B.

If the maximum DL power capability of the Local Cell has changed, the new capability shall be indicated in the *Maximum DL Power Capability* IE.

If the DL capability for supporting the minimum spreading factor has changed, the new capability shall be indicated in the *Minimum Spreading Factor* IE.

[TDD - If the availability of the Reference clock connected to a Local Cell has changed, the new availability condition shall be indicated in the *Reference Clock Availability* IE.]

The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

If the internal resource capabilities of the Local Cell are affected, it shall be reported in the following way:

- If the internal resource capabilities of the Local Cell are modelled as shared resources between Uplink and Downlink, the new capacity shall be reported in the *DL Or Global Capacity Credit* IE.
- If the internal resource capabilities of the Local Cell are modelled independently in the Uplink and Downlink direction, then the *DL Or Global Capacity Credit* IE and the *UL Capacity Credit* IE shall be present in the RESOURCE STATUS INDICATION.

If the Capacity Consumption Law for Common Channels has changed for the Local Cell, the new law shall be reported by the Node B in the *Common Channels Capacity Consumption Law* IE.

If the Capacity Consumption Law for Dedicated Channels has changed for the Local Cell, the new law shall be reported by the Node B in the *Dedicated Channels Capacity Consumption Law* IE.

[FDD - If the Capacity Consumption Law for E-DCH has changed for the Local Cell, the new law shall be reported by the Node B in the *E-DCH Capacity Consumption Law* IE.]

[TDD - If the Capacity Consumption Law for E-DCH has changed for the Local Cell, the new law shall be reported by the Node B in the *E-DCH TDD Capacity Consumption Law* IE.]

If the HSDPA capability has changed for the Local Cell, the new capability shall be indicated in the *HSDPA Capability* IE.

If the HS-DSCH MAC-d PDU Size Capability has changed for the Local Cell, the new capability shall be indicated in the *HS-DSCH MAC-d PDU Size Capability* IE.

If the E-DCH capability has changed for the Local Cell, the new capability shall be indicated in the *E-DCH Capability* IE. [FDD - The Node B shall include the *E-DCH Capability* IE if any of the E-DCH TTI2ms, SF or HARQ Combining capabilities has changed for the E-DCH capable Local Cell.]

If the MBMS capability has changed for the Local Cell, the new capability shall be indicated in the *MBMS Capability* IE.

[FDD - If the F-DPCH capability has changed for the Local Cell, the new capability shall be indicated in the *F-DPCH Capability* IE.]

[FDD - If the Continuous Packet Connectivity DTX-DRX capability has changed for the Local Cell that is both HSDPA-capable and E-DCH-capable, then the new capability shall be indicated in the *Continuous Packet Connectivity DTX-DRX Capability* IE. The Node B shall include the *Continuous Packet Connectivity DTX-DRX Capability* IE if the Max UE DTX Cycle supported by the Continuous Packet Connectivity DTX-DRX capable Local Cell has changed. If the Continuous Packet Connectivity HS-SCCH less capability has changed for the Local Cell that is both HSDPA-capable and E-DCH-capable, then the new capability shall be indicated in the *Continuous Packet Connectivity HS-SCCH less Capability* IE.]

[FDD - If the MIMO capability has changed for the Local Cell, then the new capability shall be indicated in the *MIMO Capability* IE.]

[FDD - If the SixtyfourQAM DL capability has changed for the Local Cell, then the new capability shall be indicated in the *SixtyfourQAM DL Capability* IE.]

[FDD - If the Enhanced FACH capability has changed for the Local Cell, the new capability shall be indicated in the *Enhanced FACH Capability* IE. The Node B shall include the *Enhanced FACH Capability* IE if the Enhanced PCH capability has changed for the Enhanced PCH capable Local Cell.]

[FDD - If the SixteenQAM UL capability has changed for the Local Cell, then the new capability shall be indicated in the *SixteenQAM UL Capability* IE.]

[1.28Mcps TDD - If the MBSFN Only Mode capability has changed for the Local Cell, the new capability shall be indicated in the *MBSFN Only Mode Capability* IE.]

[FDD - If the F-DPCH Slot Format capability has changed for the Local Cell, then the new capability shall be indicated in the *F-DPCH Slot Format Capability* IE.]

If the Support for E-DPCCH Power Boosting Capability has changed for the Local Cell, the new capability shall be indicated in the *E-DPCCH Power Boosting Capability* IE.

[FDD - If the support for MIMO Power Offset For S-CPICH Capability has changed for the Local Cell, the new capability shall be indicated in the *MIMO Power Offset For S-CPICH Capability* IE.]

[FDD - If the support for DL control channels in transmit diversity for MIMO UEs (when MIMO is active and P-CPICH is not transmitted in diversity mode [7]) has changed for the Local Cell, the new capability shall be indicated in the *TX Diversity on DL Control Channels by MIMO UE Capability* IE.]

Capability Change of a Cell:

When the capabilities and/or resource operational state of a cell changes at the Node B, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication, the *Resource Operational State* IE and the *Availability Status* IE. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

Capability Change of a Common Physical Channel and/or Common Transport Channel:

The Node B shall not delete any common or dedicated channels due to the cell being "Disabled". For all affected common and dedicated channels, the Node B shall report the impact to the CRNC with the relevant procedures.

When the capabilities and/or resource operational state of common physical channels and/or common transport channels have changed, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication, the *Resource Operational State* IE and the *Availability Status* IE set to appropriate values for the affected channel(s). The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

When a power value for a common physical channel and/or a common transport channel becomes beyond the supported power value range due to a change in capability in the Node B, it shall be reported to the CRNC in the RESOURCE STATUS INDICATION message, with the *Resource Operational State* IE set to "Enabled", the *Availability Status* IE set to "Degraded" and the *Cause* IE set to "Power level not supported". Affected channels shall use the nearest power value that is supported.

[1.28Mcps TDD - Capability Change of a UpPCH channel:]

When the capabilities of UpPCH channels which are not configured in the timeslot of UpPTS on one or multiple frequencies have changed, the Node B may include the *UpPCH Information LCR* IE in the RESOURCE STATUS INDICATION message.

Capability Change of a Communication Control Port:

When the resource operational state of a Communication Control Port has changed, the Node B shall report the new resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication and the *Communication Control Port ID* IE. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

Capability Change of HS-DSCH Resources:

When the resource operational state of the HS-DSCH resources has changed, the Node B shall report the new resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

[1.28Mcps TDD - For a multi-frequency cell, the Node B may include the *UARFCN* IE in the *HS-DSCH Resources Information* IE to report the status of the HS-DSCH resources on the indicated frequency, the Node B may also not include any *UARFCN* IE in the *HS-DSCH Resources Information* IE to report the status of the HS-DSCH resources for the whole cell.]

Capability Change of E-DCH Resources:

When the resource operational state of the E-DCH resources has changed, the Node B shall report the new resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

[1.28Mcps TDD - For a multi-frequency cell, the Node B may include the *UARFCN* IE in the *E-DCH Resources Information* IE to report the status of the E-DCH resources on the indicated frequency, the Node B may also not include any *UARFCN* IE in the *E-DCH Resources Information* IE to report the status of the E-DCH resources for the whole cell.]

Capability Change of a Local Cell Group:

When the resource capabilities of a Local Cell Group change at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication and the *Local Cell Group Information* IE reporting the change. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to an appropriate value. If the RESOURCE STATUS INDICATION message contains both the *DL Or Global Capacity Credit* IE and the *UL Capacity Credit* IE, then the internal resource capabilities of the Node B are modelled independently in the Uplink and Downlink direction. If the *UL Capacity Credit* IE is not present, then the internal resource capabilities of the Node B are modelled as shared resources between Uplink and Downlink.

If the Capacity Consumption Law for Common Channels has changed for the Local Cell Group, the new law shall be reported by the Node B in the *Common Channels Capacity Consumption Law* IE.

If the Capacity Consumption Law for Dedicated Channels has changed for the Local Cell Group, the new law shall be reported by the Node B in the *Dedicated Channels Capacity Consumption Law* IE.

[FDD - If the Capacity Consumption Law for E-DCH has changed for the Local Cell Group, the new law shall be reported by the Node B in the *E-DCH Capacity Consumption Law* IE.]

[TDD - If the Capacity Consumption Law for E-DCH has changed for the Local Cell Group, the new law shall be reported by the Node B in the *E-DCH TDD Capacity Consumption Law* IE.]

Capability Change of a Power Local Cell Group:

When the power capability of a Power Local Cell Group changes at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to "Service Impacting" and the *Power Local Cell Group Information* IE reporting the change. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to an appropriate value. In this case, the Node B shall also include the *Maximum DL Power Capability* IE in the *Local Cell Information* IE for all the Local Cells belonging to the concerned Power Local Cell Group. Furthermore, the sum of the Maximum DL Power Capability of all the Local Cells belonging to the same Power Local Cell Group shall not exceed the Maximum DL Power Capability of the concerned Power Local Cell Group.

[1.28Mcps TDD - For a multi-frequency cell, when a cell has been successfully setup but a secondary frequency failure has occurred, the Node B shall report the status of the secondary frequency indicated by *UARFCN* IE on which the failure occurred by immediately sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to "Service Impacting", the *Resource Operational State* IE and the *Availability Status* IE. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to an appropriate value.]

General:

When the RESOURCE STATUS INDICATION message is used to report an error, only one cause value for all reported objects can be sent in one message. When the RESOURCE STATUS INDICATION message is used to clear errors, only all errors for one object can be cleared per message. It is not possible to clear one out of several errors for one object.

[1.28Mcps TDD - For a multi-frequency cell, the Node B should report the status of the resources used for each frequency. A reporting method can be found in Annex E.]

8.2.15.3 Abnormal Conditions

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8.2.16 System Information Update

8.2.16.1 General

The System Information Update procedure performs the necessary operations in order for the Node B to apply the correct scheduling of and/or to include the appropriate contents to the system information segments broadcast on the BCCH.

8.2.16.2 Successful Operation

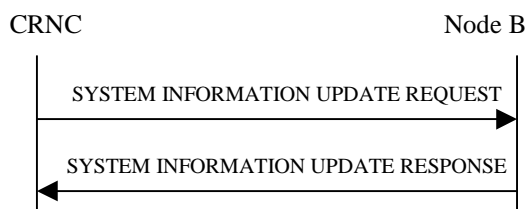


Figure 22: System Information Update procedure, Successful Operation

The procedure is initiated with a SYSTEM INFORMATION UPDATE REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

The Node B shall consider the requested updates to the BCCH schedule in the same order as the MIB/SB/SIB information is included in the SYSTEM INFORMATION UPDATE REQUEST message.

If the SYSTEM INFORMATION UPDATE REQUEST message includes the *BCCH Modification Time* IE, the updates to the BCCH schedule (possibly consisting of IB occurrence additions, IB occurrence deletions and IB occurrence contents updates) indicated in the SYSTEM INFORMATION UPDATE REQUEST message shall be applied by the Node B at the first time instance starting from the SFN value set by the *BCCH Modification Time* IE. If no *BCCH Modification Time* IE is included, the updates to the BCCH schedule shall be applied as soon as possible.

Information Block addition:

If the SYSTEM INFORMATION UPDATE REQUEST message includes segments of a certain MIB/SB/SIB, the Node B shall assume that all segments for that Information Block are included in the message and ordered with increasing Segment Index (starting from 0). For each included segment, segment type information and *IB SG POS* IE are also given in the SYSTEM INFORMATION UPDATE REQUEST message.

The Node B shall determine the correct cell system frame number(s) (SFN) for transmission of the segments of system information, from the scheduling parameters provided in the SYSTEM INFORMATION UPDATE REQUEST message. The SFN for transmitting the segments shall be determined by the *IB SG REP* IE and *IB SG POS* IE such that:

- $SFN \bmod IB_SG_REP = IB_SG_POS$

If the SYSTEM INFORMATION UPDATE REQUEST message contains Master Information Block (MIB) segments in addition to SIB or SB segments, the MIB segments shall first be sent in the physical channel by the Node B. Once these MIB segments have been sent in the physical channel, the updated SB/SIB segments shall then be sent in the physical channel.

Only if the inclusion of each new IB segment in the BCCH schedule leads to a valid segment combination according to [18], the Node B shall accept the system information update.

If the *SIB Originator* IE value is set to "Node B", the Node B shall create the SIB segment of the SIB type given by the *IB Type* IE and autonomously update the SIB segment and apply the scheduling and repetition as given by the *IB SG REP* IE and *IB SG POS* IE.

SIBs originating from the Node B can only be SIBs containing information that the Node B can obtain on its own.

Information Block deletion:

If an IB Deletion is indicated in an instance of *MIB/SB/SIB information* IE in the SYSTEM INFORMATION UPDATE REQUEST message, the Node B shall delete the IB indicated by the *IB Type* IE and *IB OC ID* IE from the transmission schedule on BCCH.

Information Block update:

If the SYSTEM INFORMATION UPDATE REQUEST message contains segments for an IB without *IB SG REP* IE and *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a *MIB/SB/SIB information* IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB segments are included, then the Node B shall only update the contents of the IB segments without any modification in segment scheduling.

If the Node B successfully completes the updating of the physical channel scheduling cycle according to the parameters given in the SYSTEM INFORMATION UPDATE REQUEST message, it shall respond to the CRNC with a SYSTEM INFORMATION UPDATE RESPONSE message.

8.2.16.3 Unsuccessful Operation

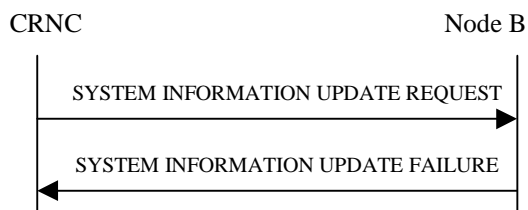


Figure 23: System Information Update procedure, Unsuccessful Operation

If the Node B is unable to update the physical channel scheduling cycle according to all the parameters given in the SYSTEM INFORMATION UPDATE REQUEST message, it shall respond with a SYSTEM INFORMATION UPDATE FAILURE message with an appropriate cause value.

The Node B shall not incorporate any of the requested changes into the physical channel scheduling cycle, and the previous system information configuration shall remain intact.

Typical cause values are:

Radio Network Layer Cause:

- SIB Origination in Node B not Supported

Miscellaneous Cause:

- Hardware failure
- Control Processing overload

- O&M Intervention

8.2.16.4 Abnormal Conditions

The Node B shall reject, with the cause value "SIB origination in Node B not supported", requests for Node B originated system information blocks that make use of a value tag.

The Node B shall reject the requested update with cause value "BCCH scheduling error" if:

- After having handled a certain *MIB/SB/SIB information* IE repetition, an illegal BCCH schedule results;
- If a *MIB/SB/SIB Information* IE repetition includes an *IB SG REP* IE or an *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a *MIB/SB/SIB information* IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated. This rule shall apply even if the scheduling instructions in *IB SG REP* IE and *IB SG POS* IE were the same as the current scheduling instructions for the concerned IB;
- If a *MIB/SB/SIB Information* IE repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is no IB in the BCCH schedule with the same IB Type and IB OC ID;
- If a *MIB/SB/SIB Information* IE repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID but it is requested to be deleted from the BCCH schedule by an IB deletion indicated in a *MIB/SB/SIB information* IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated.

8.2.17 Radio Link Setup

8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B.

[FDD - The Radio Link Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of an HS-DSCH on one radio link and it can include the establishment of an E-DCH on one or more radio links.]

[TDD - The Radio Link Setup procedure is used to establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, or DCHs and an HS-DSCH, or DCHs, an HS-DSCH and an E-DCH, including also combinations where one or more transport channel types are not present.]

8.2.17.2 Successful Operation

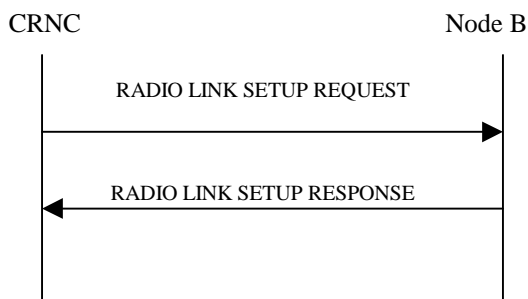


Figure 24: Radio Link Setup procedure, Successful Operation

The procedure is initiated with a RADIO LINK SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception of the RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

Transport Channels Handling:

DCH(s):

[TDD - If the *DCH Information* IE is present, the Node B shall configure the new DCH(s) according to the parameters given in the message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, then the Node B shall treat the DCHs in the *DCH Information* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.

[FDD - For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]

For a set of co-ordinated DCHs, the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [16]. [FDD - If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If all DCHs have *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE, ref. [16].]

The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs as the FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The received *Frame Handling Priority* IE specified for each Transport Channel should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new RL(s) has been activated.

If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.

[FDD - The *Diversity Control Field* IE indicates for each RL (except the first RL in the message) whether the Node B shall combine the concerned RL or not.

- If the *Diversity Control Field* IE is set to "May", the Node B shall decide for either of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other RL.
- If the *Diversity Control Field* IE is set to "Must not", the Node B shall not combine the RL with any other existing RL.

The signalled *Diversity Control Field* IE is applied to Dedicated Transport Channels (DCH) only. In case of E-DCH it shall always be assumed to be set to "Must". When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.]

[FDD - In the RADIO LINK SETUP RESPONSE message, the Node B shall indicate for each RL with the Diversity Indication in the *RL Information Response* IE whether the RL is combined or not.]

- [FDD - In case of not combining with a RL previously listed in the RADIO LINK SETUP RESPONSE message or for the first RL in the RADIO LINK SETUP RESPONSE message, and if the *DCH Indicator For E-DCH-HSDPA Operation* IE is not included in the RADIO LINK SETUP REQUEST message, the Node B shall:]
 - [FDD - include in the *DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message for which the *Transport Bearer Not Requested Indicator* IE was not included the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]
 - [FDD - include in the RADIO LINK SETUP RESPONSE message the *Transport Bearer Not Setup Indicator* IE for every DCH for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK SETUP REQUEST message.]
- [FDD - For the first E-DCH RL in the RADIO LINK SETUP RESPONSE message, the Node B shall:]
 - [FDD - include in the *E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each E-DCH MAC-d flow of this RL.]
 - [FDD - include in the RADIO LINK SETUP RESPONSE message the *Transport Bearer Not Setup Indicator* IE for every E-DCH MAC-d flow for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK SETUP REQUEST message.]
- [FDD - Otherwise in case of combining, the *RL ID* IE indicates (one of) the RL(s) previously listed in this RADIO LINK SETUP RESPONSE message with which the concerned RL is combined and if the ALCAP is not used and the transport bearer for the DCH is already established, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL in the RADIO LINK SETUP REQUEST message, shall not be used. In case of combining an E-DCH RL, one of the RLs previously listed in this RADIO LINK SETUP RESPONSE message including the *E-DCH FDD Information Response* IE shall be regarded as the RL with which the concerned E-DCH RL is combined.]

[TDD - The Node B shall include in the *DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

[TDD - If an E-DCH has been established, the Node B shall include in the *E-DCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each E-DCH MAC-d flow of the RL.]

In the case of a set of co-ordinated DCHs, the *Binding ID* IE and the *Transport Layer Address* IE shall be specified for only one of the DCHs in the set of co-ordinated DCHs [FDD - where the *Transport Bearer Not Requested Indicator* IE was not included].

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for a DCH, then the Node B shall not establish a transport bearer for the concerned DCH and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH and:]

- [FDD - if the Node B establishes a transport bearer for the concerned DCH, the Node B shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH being established.]
- [FDD - if the Node B does not establish a transport bearer for the concerned DCH, the Node B shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK SETUP RESPONSE message.]

[TDD - DSCH(s)]:

[TDD - If the *DSCH Information IE* is present, the Node B shall configure the new DSCH(s) according to the parameters given in the message.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address IE* and *Binding ID IE* in the *DSCH Information IE*, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the DSCH.]

[TDD - The Node B shall include in the *DSCH Information Response IE* in the RADIO LINK SETUP RESPONSE the *Binding ID IE* and the *Transport Layer Address IE* for the transport bearer to be established for each DSCH of this RL.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *TNL QoS IE* in the *DSCH TDD Information IE* and if ALCAP is not used, the Node B may use the *TNL QoS IE* to determine the transport bearer characteristics to apply in the uplink for the related DSCH.]

[TDD - USCH(s)]:

[TDD - If the *USCH Information IE* is present, the Node B shall configure the new USCH(s) according to the parameters given in the message.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address IE* and *Binding ID IE* in the *USCH Information IE*, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the USCH.]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *TNL QoS IE* in the *USCH Information IE* and if ALCAP is not used, the Node B may use the *TNL QoS IE* to determine the transport bearer characteristics to apply in the uplink for the related USCH.]

[TDD - If the *USCH Information IE* is present, the Node B shall include in the *USCH Information Response IE* in the RADIO LINK SETUP RESPONSE message the *Binding ID IE* and the *Transport Layer Address IE* for the transport bearer to be established for each USCH of this RL.]

HS-DSCH:

If the *HS-DSCH Information IE* is present in the RADIO LINK SETUP REQUEST message, then:

- The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID IE*.
- The Node B shall include the *HARQ Memory Partitioning IE* in the [FDD - *HS-DSCH FDD Information Response IE*] [TDD - *HS-DSCH TDD Information Response IE*] in the RADIO LINK SETUP RESPONSE message. [FDD - The *HARQ Memory Partitioning IE* shall either contain the *HARQ Memory Partitioning Information Extension For MIMO IE* or the *Number of Processes IE* set to a value higher than "8", if the *MIMO Activation Indicator IE* is included in the *HS-DSCH Information IE*.]
- The Node B shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID IE* and *Transport Layer Address IE* for establishment of transport bearer for every HS-DSCH MAC-d flow being established.
- If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address IE* and *Binding ID IE* in the *HS-DSCH Information IE* for an HS-DSCH MAC-d flow, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow.
- If the RADIO LINK SETUP REQUEST message includes the *MAC-hs Guaranteed Bit Rate IE* for a Priority Queue in the *HS-DSCH MAC-d Flows Information IE* in the *HS-DSCH Information IE*, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.
- If the RADIO LINK SETUP REQUEST message includes the *Discard Timer IE* for a Priority Queue in the *HS-DSCH MAC-d Flows Information IE* in the *HS-DSCH Information IE*, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.

- If the RADIO LINK SETUP REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.
- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK SETUP RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If RADIO LINK SETUP REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK SETUP REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Measurement Power Offset* IE in the *HS-DSCH Information* IE, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]
- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the RADIO LINK SETUP RESPONSE message.]
- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *HS-SICH SIR Target* IE in the *HS-DSCH Information* IE, the Node B shall use this value to determine the HS-SICH SIR Target. The *HS-SICH SIR Target* IE indicates the received UL SIR target of HS-SICH NACK for this UE.]
- If the RADIO LINK SETUP REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].
- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.
- [FDD - If the *Serving Cell Change CFN* IE is included in the RADIO LINK SETUP REQUEST message, then the Node B shall activate the resources that are allocated for the new serving HS-DSCH Radio Link at the next coming CFN with a value equal to the value requested by the RNC.]
- [FDD - If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B shall activate the MIMO mode for the HS-DSCH Radio Link and the Node B shall decide

the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the Node B shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK SETUP RESPONSE message if it decides to use the octet aligned table defined in [32] for HS-DSCH Transport Block Size signalling.]
- [1.28Mcps TDD - If the *TSN-Length* IE is included in the *HS-DSCH TDD Information* IE, then the IE is used to indicate the TSN bits applied to the MAC-hs PDU frame.]
- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information to allocate HSDPA resources over multiple carriers for the UE.]
- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK SETUP REQUEST message includes the *Multi-carrier HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information together with the *HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE to allocate HSDPA resources over multiple carriers for the UE.]
- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH over multiple carriers and include the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B shall include the *HARQ Memory Partitioning per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [1.28Mcps TDD - If the Node B allows UE to apply HSDPA resources distributed over multiple carriers, the Node B may indicate the number of carriers actually used by the UE and include the *Multi-Carrier number* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B may include the *UsedFrequency* IE in the *HS-SCCH Specific Information Response LCR* IE in the RADIO LINK SETUP RESPONSE message.]
- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B may include the *UARFCN* IE in the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the RADIO LINK SETUP RESPONSE message.]

[FDD - E-DCH]:

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DCH Minimum Set E-TFCI* IE the Node B shall use the value for the related resource allocation operation.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the Node B shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the Node B shall use the E-DPDCH power extrapolation formula defined in [10].]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the Node B shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the Node B shall use the E-TFCI BetaEC Boost value "127" in the algorithm defined in [10].]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK SETUP REQUEST message:]

- [FDD - The Node B shall setup the requested E-DCH resources on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *RL specific E-DCH FDD Information* IE for an E-DCH MAC-d flow, then if the *Transport Bearer Not Requested Indicator* IE is not included for this E-DCH MAC-d flow, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow. The Node B shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for every E-DCH MAC-d flow being established for which the *Transport Bearer Not Requested Indicator* IE was not included.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for an E-DCH MAC-d flow, then the Node B shall not establish a transport bearer for the concerned E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK SETUP RESPONSE message.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for an E-DCH MAC-d flow and:]
 - [FDD - if the Node B establishes a transport bearer for the concerned E-DCH MAC-d flow, the Node B shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the E-DCH MAC-d flow being established.]
 - [FDD - if the Node B does not establish a transport bearer for the concerned E-DCH MAC-d flow, the Node B shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding E-DCH MAC-d flow in the RADIO LINK SETUP RESPONSE message.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH FDD Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions for the related reordering queue.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]
- [FDD - If in the RADIO LINK SETUP REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the *HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]
- [FDD - If in the RADIO LINK SETUP REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" the Node B shall assume scheduled grants being configured for the concerned E-DCH MAC-d flow.]
- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]

- [FDD - The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the Node B may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK SETUP RESPONSE message for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Serving E-DCH RL* IE indicating that the Serving E-DCH RL is in this Node B]
 - [FDD - The Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK SETUP RESPONSE message.]
 - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK SETUP RESPONSE message for the initial grant for the serving E-DCH RL.]
 - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
 - [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK SETUP RESPONSE message for the serving E-DCH RL.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH ReferencePower Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the *Serving Cell Change CFN* IE is included in the RADIO LINK SETUP REQUEST message, then the Node B shall activate the resources that are allocated for the new serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the RNC.]
- [FDD - If the RADIO LINK SETUP REQUEST message includes the *SixteenQAM UL Operation Indicator* IE, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]
- [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]

[FDD - E-DCH - HS-DSCH]:

[FDD - If the RADIO LINK SETUP REQUEST message includes the DCH Indicator For E-DCH-HSDPA Operation IE, then the Node B shall ignore the DCH Information IE in the RADIO LINK SETUP REQUEST message.]

[TDD - E-DCH]:

[TDD - If the [3.84Mcps TDD - *E-DCH Information* IE] [1.28Mcps TDD - *E-DCH Information 1.28Mcps* IE][7.68Mcps TDD - *E-DCH Information 7.68Mcps* IE] is present in the RADIO LINK SETUP REQUEST message:]

- [TDD - The Node B shall setup the requested E-DCH resources on the Radio Link indicated by the *E-DCH Serving RL* IE.]
- [TDD - If the *TNL QoS* IE is included in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]
- [TDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *E-DCH MAC-d Flows Information TDD* IE for an E-DCH MAC-d flow, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow.]
- [TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flows Information TDD* IE, the Node B shall use this information for the related resource allocation operation.]
- [TDD - If in the RADIO LINK SETUP REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Non-scheduled" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants are configured for that E-DCH MAC-d flow and shall use the information within the [3.84Mcps - *E-DCH Non-scheduled Grant Information TDD* IE] [1.28Mcps - *E-DCH Non-scheduled Grant Information LCR TDD* IE] [7.68Mcps - *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE], if included, for the related resource allocation operation.]
- [TDD - If in the RADIO LINK SETUP REQUEST message the *E-DCH Grant Type* IE in the *E-DCH MAC-d Flows Information TDD* IE is set to "Scheduled" the Node B shall assume that it may issue scheduled grants for the concerned E-DCH MAC-d flow.]
- [TDD - If the RADIO LINK SETUP REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions for the related queue.]
- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *MAC-es Maximum Bit Rate LCR* in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows Information TDD* IE, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [3.84Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH TDD Maximum Bitrate* IE in the *E-DCH TDD Information* IE for an E-DCH, the Node B shall use this

information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Physical Layer Category LCR IE* or *Extended E-DCH Physical Layer Category LCR IE* in the *E-DCH TDD Information LCR IE* for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [7.68Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH TDD Maximum Bitrate 7.68Mcps IE* in the *E-DCH TDD Information 7.68Mcps IE* for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Processing Overload Level IE* in the [3.84Mcps TDD - *E-DCH TDD Information IE*] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps IE*][1.28Mcps TDD - *E-DCH TDD Information LCR IE*], then if the Node B could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level IE*, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]
- [TDD - If the RADIO LINK SETUP REQUEST message includes the *E-DCH Power Offset for Scheduling Info IE* in the [3.84Mcps TDD - *E-DCH TDD Information IE*] [1.28Mcps TDD - *E-DCH TDD Information LCR IE*] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps IE*], then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]
- [1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *Maximum Number of Retransmission for Scheduling Info LCR IE* and the *E-DCH Retransmission timer for Scheduling Info LCR IE* in the *E-DCH TDD Information LCR IE*, then the Node B shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]
- [3.84Mcps TDD and 7.68Mcps TDD - The Node B shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s), [1.28Mcps - E-HICHs] assigned in the *E-DCH Information Response IE* in the RADIO LINK SETUP RESPONSE message.]

Physical Channels Handling:

[FDD - Compressed Mode]:

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information IE*, the Node B shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or the Node B Communication Context is deleted.]

[FDD - If the *Downlink Compressed Mode Method IE* in one or more Transmission Gap Pattern Sequence is set to "SF/2" in the RADIO LINK SETUP REQUEST message, the Node B shall use or not the alternate scrambling code as indicated for each DL Channelisation Code in the *Transmission Gap Pattern Sequence Code Information IE*.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information IE* and the *Active Pattern Sequence Information IE*, the Node B shall use the information to activate the indicated Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* refers to the latest passed CFN with that value. The Node B shall treat the received *TGCFN IEs* as follows:]

- [FDD - If any received *TGCFN IE* has the same value as the received *CM Configuration Change CFN IE*, the Node B shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - If any received *TGCFN IE* does not have the same value as the received *CM Configuration Change CFN IE* but the first CFN after the *CM Configuration Change CFN* with a value equal to the *TGCFN IE* has already passed, the Node B shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information IE*, the Node B shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN IE* for the Transmission Gap Pattern Sequence.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information IE* and the *Active Pattern Sequence Information IE* and the concerned Node B Communication Context is configured to use F-DPCH in the downlink, the Node B shall not transmit the F-DPCH during the downlink transmission gaps according to [7]. But in all slots outside of the downlink transmission gaps the Node B shall transmit the F-DPCH with the normal scrambling code and the assigned slot format, regardless of the configured downlink compressed mode method information and of the transmission gap pattern sequence code information, if existing]

[FDD - DL Code Information]:

[FDD - When more than one DL DPDCH is assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When p number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the p th to "*PhCH number p*".]

[TDD - PDSCH RL ID]:

[TDD - If the *PDSCH RL ID IE* is included in RADIO LINK SETUP REQUEST message, the Node B shall use the PDSCH RL ID as an identifier for the PDSCH and/or PUSCH in this radio link.]

[FDD - Phase Reference Handling]:

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Primary CPICH Usage For Channel Estimation IE* and has the value "Primary CPICH shall not be used", the Node B shall assume that the UE is not using the Primary CPICH for channel estimation. If the RADIO LINK SETUP REQUEST message does not include the *Primary CPICH Usage For Channel Estimation IE* or includes the *Primary CPICH Usage For Channel Estimation IE* and has the value "Primary CPICH may be used", the Node B shall assume that the UE may use the Primary CPICH for channel estimation.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Secondary CPICH Information IE*, the Node B shall assume that the UE may use the Secondary CPICH indicated by the *Common Physical Channel ID IE* for channel estimation.]

General:

[FDD - If the *Propagation Delay IE* and optionally the *Extended Propagation Delay IE* are included, the Node B may use this information to speed up the detection of L1 synchronisation.]

[FDD - The *UL SIR Target IE* included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control.]

[1.28Mcps TDD - The *UL SIR Target IE* included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control according [19] and [21].]

[FDD - If the received *Limited Power Increase IE* is set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control.]

[1.28Mcps TDD - If the *UL CCH Information IE* includes the *TDD TPC UL Step Size IE*, the Node B shall configure the uplink TPC step size according to the parameters given in the message.]

[1.28 Mcps TDD - The Node B shall configure the HS-SCCH TPC step size to the same value as the *TDD TPC DL Step Size IE* of the lowest numbered DL CCH whose *DL CCH Information IE* includes the *TDD TPC DL Step Size IE*.]

[1.28Mcps TDD - If the *UL Timeslot Information LCR IE* includes the *PLCCH Information IE*, the Node B shall transmit TPC /SS bits on a PLCCH according to the parameters given in the message.]

[FDD - DPCH Handling]:

[FDD - If the *UL DPDCH Indicator For E-DCH Operation* IE is set to "UL DPDCH not present", the *Min UL Channelisation Code Length* IE, the *Puncture Limit* IE and the *TFCS* IE within the *UL DPCH Information* IE shall be ignored and no UL DPDCH resources shall be allocated.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *DL DPCH Information* IE, then the Node B shall configure the concerned Node B Communication Context to use DPCH in the downlink, i.e. with a DL DPCH and a DL DPDCH.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *F-DPCH Information* IE, then the Node B shall configure the concerned Node B Communication Context to use F-DPCH in the downlink, i.e. with transmission of only the TPC field.]

[FDD - Continuous Packet Connectivity Handling]:

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

- [FDD - The Node B shall configure the concerned Node B Communication Context for DTX operation according to [10].]
- [FDD - If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the Node B shall configure the concerned Node B Communication Context for DRX operation according to [10].]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD - The Node B shall configure the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE for Continuous Packet Connectivity HS-SCCH less operation according to [10].]
- [FDD - The Node B shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [FDD - If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the Node B shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK SETUP RESPONSE message.]

Radio Link Handling:

[FDD - Transmit Diversity]:

[FDD - When the *Diversity Mode* IE is set to "STTD" or "Closedloop mode1", the Node B shall activate/deactivate the Transmit Diversity for each Radio Link in accordance with the *Transmit Diversity Indication* IE]

DL Power Control:

[FDD - The Node B shall start any DL transmission using the initial DL power specified in the message on each DL DPCH or on the F-DPCH of the RL until either UL synchronisation on the Uu interface is achieved for the RLS or Power Balancing is activated. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message. If the Node B Communication Context is configured to use DPCH in the downlink, during compressed mode, the δP_{curr} as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the Node B shall apply the DPC mode indicated in the message and be prepared that the DPC mode may be changed during the lifetime of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

[3.84 Mcps TDD and 7.68Mcps TDD - The Node B shall determine the initial CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Initial DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the initial CCTrCH DL power, otherwise the initial

CCTrCH DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall start any DL transmission on each DCH type CCTrCH using the initial CCTrCH DL power, as determined above, on each DL DPCH and on each Time Slot of the CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 4.2.3.4), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[3.84 Mcps TDD and 7.68Mcps TDD - The Node B shall determine the maximum DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE.]

[3.84 Mcps TDD and 7.68Mcps TDD - The Node B shall determine the minimum DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE.]

[3.84Mcps TDD and 7.68Mcps TDD - The initial power, maximum power, and minimum power for DSCH type CCTrCH shall be determined as follows:

- If the DSCH type CCTrCH is paired with an uplink CCTrCH(s) for inner loop power control, the minimum, maximum and initial power for each PDSCH is determined in the same way as described above for DCH type CCTrCHs.
- If the DSCH type CCTrCH is not paired with an uplink CCTrCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the same way as described above for DCH type CCTrCHs. The minimum and initial powers, however, are subject to control by the CRNC via the frame protocol].

[1.28 Mcps TDD - The Node B shall determine the initial DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Initial DL Transmission Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the Initial DL Power and ignore the *DL Time Slot ISCP info LCR* IE, otherwise the initial DL Power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall start any DL transmission on each timeslot within each DCH type CCTrCH using the initial DL power, as determined above, on each DL DPCH and on each timeslot of the CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[1.28 Mcps TDD - The Node B shall determine the maximum DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Maximum DL Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE.]

[1.28 Mcps TDD - The Node B shall determine the minimum DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Minimum DL Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE.]

[1.28Mcps TDD - The Node B shall determine the initial power for each timeslot within the DSCH type CCTrCH by the following rule: If both the *CCTrCH Initial DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, and the *DL Time Slot ISCP Info LCR* IE, included in the *RL Information* IE, are included then the Node B shall use that power for the PDSCH and ignore the *Initial DL Transmission Power* IE included in the *RL Information* IE, otherwise the initial DL Power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in

the radio link unchanged. The Node B shall start any DL transmission on each timeslot within each DSCH type CCTrCH using the initial DL power, as determined above, on each DL PDSCH and on each timeslot of the CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[1.28 Mcps TDD - The Node B shall determine the maximum DL power for each timeslot within the DSCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE.]

[1.28 Mcps TDD - The Node B shall determine the minimum DL power for each timeslot within the DSCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE.]

[3.84Mcps TDD and 7.68Mcps TDD - If the *DL Time Slot ISCP Info* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.]

[FDD - If the received *Inner Loop DL PC Status* IE is set to "Active", the Node B shall activate the inner loop DL power control for all RLS. If *Inner Loop DL PC Status* IE is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLS according to ref. [10].]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *DL Power Balancing Information* IE and the *Power Adjustment Type* IE is set to "Common" or "Individual", the Node B shall activate the power balancing, if activation of power balancing by the RADIO LINK SETUP REQUEST message is supported, according to subclause 8.3.7, using the *DL Power Balancing Information* IE. If the Node B starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. P_{init} shall be set to the power level indicated by the *Initial DL Transmission Power* IE.]

[FDD - If activation of power balancing by the RADIO LINK SETUP REQUEST message is supported by the Node B, the Node B shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Power Control GAP:]

[1.28Mcps TDD - If the *Power Control GAP* IE is included in the RADIO LINK SETUP REQUEST message, the Node B may use the value for the power control for HS-SCCH and HS-SICH according to the [21].]

General:

If the RADIO LINK SETUP REQUEST message includes the *RL Specific DCH Information* IE, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs.

The Node B shall start reception on the new RL(s) after the RLS are successfully established.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Synchronisation Indicator* IE, set to "Timing Maintained Synchronisation", the Node B shall use synchronisation procedure B according to subclause 4.3.2.4 in [10].]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Initial DL DPCH Timing Adjustment Allowed* IE, then the Node B may perform an initial DL DPCH Timing Adjustment (i.e. perform a timing advance or a timing delay with respect to the SFN timing) on a Radio Link. In this case, the Node B shall

include, for the concerned Radio Link(s), the *Initial DL DPCH Timing Adjustment* IE in the *Radio Link Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *F-DPCH Slot Format* IE and if the Node B Communication Context is configured to use F-DPCH in the downlink, then the Node B shall use this information to configure the F-DPCH slot format of each RL according to [7].]

[FDD - Radio Link Set Handling]:

[FDD - The *First RLS Indicator* IE indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the Node B together with the value of the *DL TPC Pattern 01 Count* IE which the Node B has received in the Cell Setup procedure, to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message a value that uniquely identifies the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH related information for RLs in different RL Sets shall not be common.]

[FDD - For all RLs having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message the same value. This value shall uniquely identify the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH information for all RLs in a RL Set shall be common.]

[FDD - The UL out-of-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

[FDD - For each E-DCH RL which has or can have a common generation of E-RGCH information with another RL (current or future) when the Node B would contain the E-DCH serving RL, the Node B shall include the *E-DCH RL Set ID* IE in the RADIO LINK SETUP RESPONSE message. The value of the *E-DCH RL Set ID* IE shall allow the RNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

Response Message:

If the RLs are successfully established, the Node B shall and respond with a RADIO LINK SETUP RESPONSE message.

After sending the RADIO LINK SETUP RESPONSE message the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK SETUP REQUEST message, the Node B shall:

- [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in [16].]
- [TDD - start transmission on the new RL immediately as specified in [16].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK SETUP REQUEST message, the Node B shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
 - not start any DL transmission for the concerned RL on the Uu interface;
- if the *Delayed Activation* IE indicates "CFN":
 - [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in [16], however never before the CFN indicated in the *Activation CFN* IE.]
 - [TDD - start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [16].]

8.2.17.3 Unsuccessful Operation

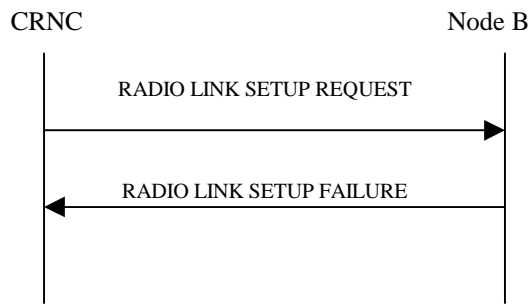


Figure 25: Radio Link Setup procedure, Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK SETUP FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD - If some radio links were established successfully, the Node B shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message. In this case, the Node B shall include the *Communication Control Port Id* IE in the RADIO LINK SETUP FAILURE message.]

[FDD - If the RL identified by the *HS-PDSCH RL ID* IE is a radio link in the Node B and this RL is successfully established, then the Node B shall include the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are as follows:

Radio Network Layer Cause:

- Combining not supported
- Combining Resources not available
- Requested Tx Diversity Mode not supported
- Number of DL codes not supported
- Number of UL codes not supported
- UL SF not supported
- DL SF not supported
- Dedicated Transport Channel Type not supported
- Downlink Shared Channel Type not supported
- Uplink Shared Channel Type not supported
- CM not supported
- [FDD - DPC mode change not supported]
- Delayed Activation not supported
- F-DPCH not supported
- [FDD - Continuous Packet Connectivity DTX-DRX operation not available]
- [FDD - Continuous Packet Connectivity UE DTX Cycle not available]
- [FDD - MIMO not available].
- [FDD - TX diversity for MIMO UE on DL Control Channels not available]

Transport Layer Cause:

- Transport Resources Unavailable

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.17.4 Abnormal Conditions

[FDD - If the RADIO LINK SETUP REQUEST message contains the *Active Pattern Sequence Information* IE, but the *Transmission Gap Pattern Sequence Information* IE is not present, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCH Information* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE or *RL Specific E-DCH Information* IE included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must" [FDD - or the RL is combined with an E-DCH RL previously listed in the RADIO LINK SETUP RESPONSE message], the Node B shall regard the Radio Link Setup procedure as failed and respond with the RADIO LINK SETUP FAILURE message.

If ALCAP is not used, if the RADIO LINK SETUP REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "May", the Node B shall reject the Radio Link Setup procedure and respond with the RADIO LINK SETUP FAILURE message.

If ALCAP is not used, if the RADIO LINK SETUP REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must Not", the Node B shall reject the Radio Link Setup procedure and respond with the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes an *HS-PDSCH RL-ID* IE not referring to one of the radio links to be established, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message contains the *HS-DSCH Information* IE and if the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE has the value "Indexed MAC-d PDU Size", the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message does not include the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE has the value "Flexible MAC-d PDU Size", the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Synchronisation Indicator* IE, set to "Timing Maintained Synchronisation", and if the *First RLS indicator* IE is set to "not first RLS", the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *HS-DSCH Information* IE and if the *Measurement Power Offset* IE is not present, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *F-DPCH Information* IE and the *DL DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Active Pattern Sequence Information* IE, which activates a transmission gap pattern sequence with an SF/2 downlink compressed mode method, and if the concerned NodeB Communication Context is configured to use DPCH in downlink and the Transmission Gap Pattern Sequence Code Information is not available for any Radio Link, the NodeB shall reject the Radio Link Setup procedure using the RADIO LINK SETUP FAILURE message with the cause value "Invalid CM Settings".]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" and doesn't include the *Secondary CPICH Information* IE, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes one of the *Not Used* IEs, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *E-DCH RL Indication* IE set to "E-DCH", but does not contain the *E-DCH FDD Information* IE, or if the message contains the *E-DCH FDD Information* IE, but does not contain the *E-DCH RL Indication* IE set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message contains the *HS-PDSCH RL ID* IE and the *Serving E-DCH RL* IE but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not configured to be in the same cell then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD - If the RADIO LINK SETUP REQUEST message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as "HS-DSCH not configured" then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *E-DPCH Information* IE but does not contain the *UL DPDCH Indicator For E-DCH Operation* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *Serving Cell Change CFN* IE, but neither the *Serving E-DCH RL* IE nor *HS-DSCH Information* IE is included, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH, but does not contain the *Unidirectional DCH indicator* IE set to "Uplink DCH only" in the *DCH Specific Info* IE for the DCH, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[1.28Mcps TDD - For a multi-frequency cell, if the *UARFCN* IE is not included in the RADIO LINK SETUP REQUEST message, the Node B shall reject the procedure by sending the RADIO LINK SETUP FAILURE message.]

[1.28Mcps TDD - For the cell in which only one frequency is configured, if the *UARFCN* IE is included in the RADIO LINK SETUP REQUEST message, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains the *UL DPCCCH Slot Format* set to "4" but does not contain the *F-DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains the *UL DPCCCH Slot Format* set to "0" or "2" and the *Continuous Packet Connectivity DTX-DRX Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the *UL DPCH Information* IE in the RADIO LINK SETUP REQUEST message contains *Diversity Mode* IE set to "Closed loop mode 1" and *UL DPCCCH Slot Format* not set to "2" or "3", then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message contains the *MIMO Activation Indicator* IE and/or *Sixtyfour QAM Usage Allowed Indicator* IE set to "Allowed", but does not contain the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size", then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Continuous Packet Connectivity DTX-DRX Information* IE but does not contain the *F-DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Serving E-DCH RL ID* IE but contains the *Transport Bearer Not Requested Indicator* IE, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH for a specific RL and the specific RL is combined with RL which the transport bearer is configured to be established for the DCH, previously listed in the RADIO LINK SETUP RESPONSE message in the Node B, the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

8.2.18 Physical Shared Channel Reconfiguration

8.2.18.1 General

This procedure is used to assign HS-DSCH related resources to the Node B.

[TDD - This procedure is also used for handling PDSCH Sets and PUSCH Sets in the Node B, i.e.

- Adding new PDSCH Sets and/or PUSCH Sets,
- Modifying these, and
- Deleting them.]

This procedure is also used to assign E-DCH related resources to the Node B.

8.2.18.2 Successful Operation

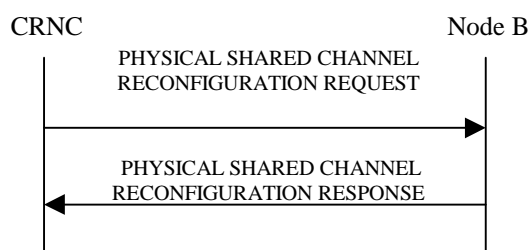


Figure 26: Physical Shared Channel Reconfiguration, Successful Operation

The procedure is initiated with a PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall activate the new configuration at the head boundary of the SFN according to the parameters given in the message.

If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes an *SFN* IE, the Node B shall activate the new configuration at the head boundary of that specified SFN. If no *SFN* IE is included Node B shall activate the new configuration immediately.

E-DCH and HS-DSCH Resources:

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH*, *HS-SCCH*, *E-AGCH*, *E-RGCH* and *E-HICH Total Power* IE, the Node B shall not exceed this maximum transmission power on all HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes in the cell. If a value has never been set or if the value of the *HS-PDSCH*, *HS-SCCH*, *E-AGCH*, *E-RGCH* and *E-HICH Total Power* IE is equal to or greater than the maximum transmission power of the cell the Node B may use all unused power for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH*, *HS-SCCH*, *E-AGCH*, *E-RGCH* and *E-HICH Total Power* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall not exceed this maximum transmission power on all HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes in the cell portion indicated by *Cell Portion ID* IE. If a value has never been set or if the value of the *HS-PDSCH*, *HS-SCCH*, *E-AGCH*, *E-RGCH* and *E-HICH Total Power* IE for the cell portion is equal to or greater than the maximum transmission power of the cell portion, the Node B may use all unused power for HS-PDSCH, HS-SCCH and E-AGCH, E-RGCH and E-HICH codes.]

HS-DSCH Resources:

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH* and *HS-SCCH Scrambling Code* IE, the Node B shall use this as the scrambling code for all HS-PDSCHs and HS-SCCHs. If a value has never been set, the Node B shall use the primary scrambling code for all HS-PDSCH and HS-SCCH codes.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH FDD Code Information* IE, the Node B shall:

- if the *Number Of HS-PDSCH Codes* IE is set to "0", delete any existing HS-PDSCH resources from the cell.
- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are not currently configured in the cell, use this list as the range of codes for HS-PDSCH channels.
- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are currently configured in the cell, replace the current range of codes with this new range of codes for HS-PDSCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-SCCH FDD Code Information* IE, the Node B shall:

- If the *HS-SCCH FDD Code Information* IE contains no codes, delete any existing HS-SCCH resources from the cell.
- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are not currently configured in the cell, use this list of codes as the list of codes for HS-SCCH channels.
- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are currently configured in the cell, replace the current list of codes with this new list of codes for HS-SCCH channels.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH* and *HS-SCCH Total Power* IE for a particular timeslot, the Node B shall not exceed this maximum transmission power on all HS-PDSCH and HS-SCCH codes in that timeslot. If a value has never been set for that timeslot or if the value of the *HS-PDSCH* and *HS-SCCH Total Power* IE for that timeslot is equal to or greater than the maximum transmission power of the cell the Node B may use all unused power in that timeslot for HS-PDSCH and HS-SCCH codes.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH TDD Information* IE, the Node B shall:

- If the *HS-PDSCH TDD Information* IE contains no [3.84 Mcps TDD - *DL Timeslot and Code Information* IE] [1.28 Mcps TDD - *DL Timeslot and Code Information LCR per UARFCN* IE] [7.68 Mcps TDD - *DL Timeslot and Code Information 7.68Mcps* IE], delete any existing HS-PDSCH resources from the cell.
- If the *HS-PDSCH TDD Information* IE contains [3.84 Mcps TDD - *DL Timeslot and Code Information* IE] [1.28 Mcps TDD - *DL Timeslot and Code Information LCR* IE] [7.68 Mcps TDD - *DL Timeslot and Code Information 7.68Mcps* IE] and HS-PDSCH resources are not currently configured in the cell, use this IE as the list of timeslots / codes for HS-PDSCH channels.
- If the *HS-PDSCH TDD Information* IE contains [3.84 Mcps TDD - *DL Timeslot and Code Information* IE] [1.28 Mcps TDD - *DL Timeslot and Code Information LCR* IE] [7.68 Mcps TDD - *DL Timeslot and Code Information*

7.68Mcps IE] and HS-PDSCH resources are currently configured in the cell, replace the current list of timeslots / codes with this new list of timeslots / codes for HS-PDSCH channels.]

- [1.28Mcps TDD - If the *HS-PDSCH TDD Information* IE contains any *DL Timeslot and Code Information LCR per UARFCN* IE and HS-PDSCH resources are not currently configured on the indicated frequency within the cell, use this IE as the list of frequency / timeslots / codes for HS-PDSCH channels on the frequency, the HSDPA resources on other frequency shall remain unchanged.]
- [1.28Mcps TDD - If the *HS-PDSCH TDD Information* IE contains any *DL Timeslot and Code Information LCR per UARFCN* IE and HS-PDSCH resources are currently configured on the indicated frequency within the cell, the current list of frequency / timeslots / codes shall be replaced with this new list of frequency / timeslots / codes for HS-PDSCH channels on this frequency, the HSDPA resources on other frequency/frequencies shall remain unchanged.]
- [1.28Mcps TDD - If the *DL Timeslot and Code Information LCR per UARFCN* IE contains no *DL Timeslot and Code Information LCR* IE but contains *UARFCN* IE, the existing HS-PDSCH resources on the frequency indicated by the *UARFCN* IE shall be deleted, the HSDPA resources on other frequency/frequencies shall remain unchanged.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *Add to HS-SCCH Resource Pool* IE, the Node B shall add this resource to the HS-SCCH resource pool to be used to assign HS-SCCH sets.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify HS-SCCH Resource Pool* IEs and includes any of [3.84Mcps TDD - *TDD Channelisation Code* IE, *Midamble Shift and Burst Type* IE, *Time Slot* IE], [1.28Mcps TDD - *First TDD Channelisation Code* IE, *Second TDD Channelisation Code* IE, *Midamble Shift LCR* IE, *Time Slot LCR* IE, *TDD Channelisation Code* IE], [7.68Mcps TDD - *TDD Channelisation Code 7.68Mcps* IE, *Midamble Shift and Burst Type 7.68Mcps* IE, *Time Slot* IE], for either HS-SCCH or HS-SICH channels, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify HS-SCCH Resource Pool* IEs and includes any *UARFCN* IEs related to HS-SCCH or HS-SICH channels, the Node B shall apply these configurations on the new frequency, otherwise the old frequency is still applicable.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify HS-SCCH Resource Pool* IEs and includes the *HS-SCCH Maximum Power* IE, the Node B shall apply this value for the specified HS-SCCH code otherwise the old value is still applicable.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Delete from HS-SCCH Resource Pool* IEs, the Node B shall delete these resources from the HS-SCCH resource pool.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall use this as the scrambling code for all HS-PDSCHs and HS-SCCHs for the cell portion indicated by Cell Portion ID. If a value has never been set, the Node B shall use the primary scrambling code for all HS-PDSCH and HS-SCCH codes for the cell portion indicated by Cell Portion ID.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-PDSCH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:

- if the *Number Of HS-PDSCH Codes* IE is set to "0", delete any existing HS-PDSCH resources from the cell portion indicated by *Cell Portion ID* IE.
- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are not currently configured in the cell portion indicated by *Cell Portion ID* IE, use this list as the range of codes for HS-PDSCH channels.
- if the *Number Of HS-PDSCH Codes* IE is set to any value other than "0" and HS-PDSCH resources are currently configured in the cell portion indicated by *Cell Portion ID* IE, replace the current range of codes with this new range of codes for HS-PDSCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-SCCH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:

- If the *HS-SCCH FDD Code Information* IE contains no codes, delete any existing HS-SCCH resources from the cell portion indicated by *Cell Portion ID* IE.
- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are not currently configured in the cell portion indicated by *Cell Portion ID* IE, use this list of codes as the list of codes for HS-SCCH channels.
- If the *HS-SCCH FDD Code Information* IE contains one or more codes and HS-SCCH resources are currently configured in the cell portion indicated by *Cell Portion ID* IE, replace the current list of codes with this new list of codes for HS-SCCH channels.]

[FDD - Enhanced Cell_FACH Operation]:

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *HS-DSCH Common System Information* IE, then the Node B shall:

- If the HS-DSCH Common Information IE is included, then the Node B shall apply the parameters to the enhanced FACH in new configuration:
 - If the *Discard Timer* IE is included in the *Priority Queue Information for Enhanced FACH* IE, then the Node B shall use this information to discard out-of-date MAC-ehs SDUs from the related HSDPA Priority Queue.
 - If the *FACH Measurement Occasion Cycle Length Coefficient* IE is included in the *HS-DSCH Common Information* IE, then the Node B shall use this information for MAC-hs scheduling decisions.
 - The Node B shall allocate HS-SCCH codes and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH Common System Information Response* IE in the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message.
 - The Node B shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH Common System Information Response* IE in the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message.
- If the *Common MAC Flow Specific Information* IE is included, then the Node B shall apply the parameters to the enhanced FACH in new configuration:
 - If the common MAC flow indicated by the Common MAC Flow ID exists in the NodeB, then the NodeB shall apply the parameters to modify this common MAC flow; otherwise, the NodeB shall apply the parameters to newly establish the common MAC flow.

If the *Transport Layer Address* IE and *Binding ID* IE are included in the *Common MAC Flow Specific Information* IE, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned Common MAC flow or Common MAC flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

- If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related transport bearer.
- The Node B shall include in the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer for every Common MAC flow being established.
- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH Common System Information Response* IE in the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message for every Common MAC flow being established, if the Node B allows the CRNC to start transmission of MAC-c PDUs before the Node B has allocated capacity on user plane as described in [24].
- If the *Common MAC Flow Priority Queue Information* IE is included in the *Common MAC Flow Specific Information* IE, the Node B shall use the information for configuring HSDPA Priority Queues.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Common MAC Flows To Delete* IEs, then the Node B shall use this information to delete the indicated Common MAC flows. When a Common MAC flow is deleted, all its associated Priority Queues shall also be removed. If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Common MAC Flows To Delete* IE

requesting the deletion of all remaining Common MAC flows, then the Node B shall delete the HS-DSCH common system configuration and release the resources for enhanced FACH.]

[FDD - Enhanced Cell/URA_PCH Operation]:

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *HS-DSCH Paging System Information* IE, then the Node B shall:

- If the Paging MAC flow indicated by the Paging MAC Flow ID exists in the NodeB, then the NodeB shall apply the parameters to modify this Paging MAC flow; otherwise, the NodeB shall apply the parameters to newly establish the Paging MAC flow.
- If the *Transport Layer Address* IE and *Binding ID* IE are included in the *Paging MAC Flow Specific Information* IE, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned Paging MAC flow or Paging MAC flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.
- If the *TNL QoS* IE is included and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related transport bearer.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Paging MAC Flows To Delete* IEs, then the Node B shall use this information to delete the indicated Paging MAC flows. When a Paging MAC flow is deleted, all its associated Priority Queues shall also be removed. If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Paging MAC Flows To Delete* IE requesting the deletion of all remaining Paging MAC flows, then the Node B shall delete the HS-DSCH paging system configuration and release the resources for enhanced PCH.]

[FDD - E-DCH Resources]:

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE, the Node B shall use this as the scrambling code for all E-AGCHs, E-RGCHs and E-HICHs. If a value has never been set, the Node B shall use the primary scrambling code for all E-AGCH, E-RGCH and E-HICH codes.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH FDD Code Information* IE, the Node B shall:]

- [FDD - If the *E-AGCH FDD Code Information* IE contains no codes, delete any existing E-AGCH resources from the cell.]
- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are not currently configured in the cell, use this list of codes as the list of codes for E-AGCH channels.]
- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are currently configured in the cell, replace the current list of codes with this new list of codes for E-AGCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-RGCH/E-HICH FDD Code Information* IE, the Node B shall:]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains no codes, delete any existing E-RGCH/E-HICH resources from the cell.]
- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are not currently configured in the cell, use this list of codes as the list of codes for E-RGCH/E-HICH channels.]
- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are currently configured in the cell, replace the current list of codes with this new list of codes for E-RGCH/E-HICH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Maximum Target Received Total Wide Band Power* IE, the Node B shall use this value to control E-DCH scheduling.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Reference Received Total Wide Band Power* IE, the Node B may use this value to control E-DCH scheduling.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Target Non-serving E-DCH to Total E-DCH Power Ratio* IE, the Node B shall store this value and use this value for E-DCH scheduling by controlling the ratio of received E-DCH wide band power from non-serving UEs to the total received E-DCH power.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall use this as the scrambling code for all E-AGCHs, E-RGCHs and E-HICHs for the cell portion indicated by Cell Portion ID. If a value has never been set, the Node B shall use the primary scrambling code for all E-AGCH, E-RGCH and E-HICH codes for the cell portion indicated by Cell Portion ID.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:]

- [FDD - If the *E-AGCH FDD Code Information* IE contains no codes, delete any existing E-AGCH resources from the cell portion indicated by *Cell Portion ID* IE.]
- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are not currently configured in the cell portion indicated by *Cell Portion ID* IE, use this list of codes as the list of codes for E-AGCH channels.]
- [FDD - If the *E-AGCH FDD Code Information* IE contains one or more codes and E-AGCH resources are currently configured in the cell portion indicated by *Cell Portion ID* IE, replace the current list of codes with this new list of codes for E-AGCH channels.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-RGCH/E-HICH FDD Code Information* IE in the *HSDPA And E-DCH Cell Portion Information* IE, the Node B shall:]

- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains no codes, delete any existing E-RGCH/E-HICH resources from the cell portion indicated by *Cell Portion ID* IE.]
- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are not currently configured in the cell portion indicated by *Cell Portion ID* IE, use this list of codes as the list of codes for E-RGCH/E-HICH channels.]
- [FDD - If the *E-RGCH/E-HICH FDD Code Information* IE contains one or more codes and E-RGCH/E-HICH resources are currently configured in the cell portion indicated by *Cell Portion ID* IE, replace the current list of codes with this new list of codes for E-RGCH/E-HICH channels.]

[TDD - E-DCH Resources]:

[3.84Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-PUCH Information* IE, the Node B shall:

- If the *E-PUCH Information* IE contains no *E-PUCH Timeslot Information* IE, then the Node B shall delete any existing E-DCH resources from the cell.
- If the *E-PUCH Information* IE contains *E-PUCH Timeslot Information* IE and E-DCH resources are not currently configured in the cell, use this IE as the list of timeslots for E-PUCH channels.
- If the *E-PUCH Information* IE contains *E-PUCH Timeslot Information* IE and E-DCH resources are currently configured in the cell, replace the current list of timeslots with this new list of timeslots for E-PUCH channels.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-PUCH Information 1.28Mcps* IE, the Node B shall:

- If the *E-PUCH Information 1.28Mcps* IE contains no *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE, then the Node B shall delete any existing E-DCH resources from the cell.
- For a single-frequency cell, if the *E-PUCH Information 1.28Mcps* IE contains *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE and E-DCH resources are not currently configured in the cell, use this IE as the list of timeslots / codes for E-PUCH channels.

- For a single-frequency cell, if the *E-PUCH Information 1.28Mcps* IE contains *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE and E-DCH resources are currently configured in the cell, replace the current list of timeslots / codes with this new list of timeslots / codes for E-PUCH channels.
- For a multi-frequency cell, if the *E-PUCH Information 1.28Mcps* IE contains *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE and E-DCH resources are not currently configured on the indicated frequency in the cell, use this IE as the list of frequency / timeslots / codes for E-PUCH channels, the E-DCH resources on other frequency shall remain unchanged.
- For a multi-frequency cell, if the *E-PUCH Information 1.28Mcps* IE contains *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE and E-DCH resources are currently configured on the indicated frequency in the cell, replace the current list of frequency / timeslots / codes with this new list of timeslots / codes for E-PUCH channels, the E-DCH resources on other frequency shall remain unchanged.
- For a multi-frequency cell, if the *E-PUCH Information 1.28Mcps* IE contains *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE but only *UARFCN* IE is included, then the Node B shall delete the existing E-DCH resources on the frequency indicated by the *UARFCN* IE from the cell, the E-DCH resources on other frequency shall remain unchanged.]

[7.68Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-PUCH Information 7.68Mcps* IE, the Node B shall:

- If the *E-PUCH Information 7.68Mcps* IE contains no *E-PUCH Timeslot Information* IE, then the Node B shall delete any existing E-DCH resources from the cell.
- If the *E-PUCH Information 7.68Mcps* IE contains *E-PUCH Timeslot Information* IE and E-DCH resources are not currently configured in the cell, use this IE as the list of timeslots for E-PUCH channels.
- If the *E-PUCH Information 7.68Mcps* IE contains *E-PUCH Timeslot Information* IE and E-DCH resources are currently configured in the cell, replace the current list of timeslots with this new list of timeslots for E-PUCH channels.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes [3.84Mcps TDD - *Add to E-AGCH Resource Pool* IE] [1.28Mcps TDD - *Add to E-AGCH Resource Pool 1.28Mcps* IE][7.68Mcps TDD - *Add to E-AGCH Resource Pool 7.68Mcps* IE], the Node B shall add this resource to the E-AGCH resource pool to be used to assign E-AGCH sets.]

[3.84Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify E-AGCH Resource Pool* IEs and includes any of *TDD Channelisation Code* IE, *Midamble Shift and Burst Type* IE, *Time Slot* IE, for E-AGCH channels, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify E-AGCH Resource Pool 1.28Mcps* IEs and includes any of *First TDD Channelisation Code* IE, *Second TDD Channelisation Code* IE, *Midamble Shift LCR* IE, *Time Slot LCR* IE, *UARFCN* IE for E-AGCH channels, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[7.68Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify E-AGCH Resource Pool 7.68Mcps* IEs and includes any of *TDD Channelisation Code 7.68Mcps* IE, *Midamble Shift and Burst Type 7.68Mcps* IE, *Time Slot* IE, for E-AGCH channels, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any [3.84Mcps TDD - *Modify E-AGCH Resource Pool* IEs] [1.28Mcps - *Modify E-AGCH Resource Pool 1.28Mcps* IEs][7.68Mcps TDD - *Modify E-AGCH Resource Pool 7.68Mcps* IEs]and includes the *Maximum E-AGCH Power* IE, the Node B shall apply this value for the specified E-AGCH code otherwise the old value is still applicable.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Delete from E-AGCH Resource Pool* IEs, the Node B shall delete these resources from the E-AGCH resource pool.]

[3.84Mcps TDD and 7.68Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the [3.84Mcps TDD - *E-HICH Information* IE] [7.68Mcps TDD - *E-HICH Information 7.68Mcps* IE], the Node B shall configure the E-HICH according to the parameters.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Add to E-HICH Resource Pool 1.28Mcps* IE, the Node B shall add this resource to the E-HICH resource pool to be used to assign Scheduled or Non-scheduled E-HICH sets.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify E-HICH Resource Pool 1.28Mcps* IEs and includes any of *E-HICH Type IE*, *TDD Channelisation Code IE*, *Midamble Shift LCR IE*, *Time Slot LCR IE*, *UARFCN IE* for E-HICH channels, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Modify E-HICH Resource Pool 1.28Mcps* IEs and includes the *Maximum E-HICH Power IE*, the Node B shall apply this value for the specified E-HICH code otherwise the old value is still applicable.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any *Delete from E-HICH Resource Pool 1.28Mcps* IEs, the Node B shall delete these resources from the E-HICH resource pool.]

[3.84Mcps TDD and 7.68Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes the *Maximum Generated Received Total Wide Band Power in Other Cells IE*, the Node B shall use this value to control E-DCH scheduling.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *Maximum Target Received Total Wide Band Power LCR IE*, the Node B shall use this value to control E-DCH scheduling.]

[TDD - PDSCH/PUSCH Addition]:

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be added, the Node B shall add these new sets to its PDSCH/PUSCH configuration.]

[1.28Mcps TDD - If the *TSTD Indicator IE* is included in *PDSCH To Add Information LCR IE* and is set to "active", the Node B shall activate TSTD diversity for PDSCH transmissions using the specified PDSCH Set that are not beacon channels [19,21]. If the *TSTD Indicator IE* is set to "not active" or the *TSTD Indicator IE* is not included in *PDSCH To Add Information LCR IE*, the Node B shall not activate TSTD diversity for the PDSCH Set.]

[TDD - PDSCH/PUSCH Modification]:

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be modified, and includes any of [3.84Mcps TDD - *DL/UL Code Information IE*, *Midamble Shift And Burst Type IE*, *Time Slot IE*], [1.28Mcps TDD - *DL/UL Code Information LCR IE*, *Midamble Shift LCR IE*, *Time Slot LCR IE*], [7.68Mcps TDD - *DL/UL Code Information 7.68Mcps IE*, *Midamble Shift And Burst Type 7.68Mcps IE*, *Time Slot IE*], *TDD Physical Channel Offset IE*, *Repetition Period IE*, *Repetition Length IE*, or *TFCI Presence IE*, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.]

[TDD - PDSCH/PUSCH Deletion]:

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be deleted the Node B shall delete these sets from its PDSCH/PUSCH configuration.]

[1.28Mcps TDD - SYNC_UL Partition]:

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *SYNC_UL Partition Information IE*, the Node B shall store the *E-RUCCH SYNC_UL codes bitmap IE* used to differentiate the E-DCH random access from the RACH random access according to [21].]

Response Message:

HS-DSCH/HS-SCCH Resources:

In the successful case involving HS-PDSCH or HS-SCCH resources, the Node B shall store the value of *Configuration Generation ID IE* and it shall make these resources available to all the current and future HS-DSCH transport channels; and shall respond with PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message.

[TDD - PDSCH/PUSCH Addition/Modification/Deletion]:

[TDD - In the successful case involving PDSCH/PUSCH addition, modification or deletion, the Node B shall add, modify and delete the PDSCH Sets and PUSCH Sets in the Common Transport Channel data base, as requested in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message, and shall make these available to all the current and future DSCH and USCH transport channels. The Node B shall respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message.]

8.2.18.3 Unsuccessful Operation

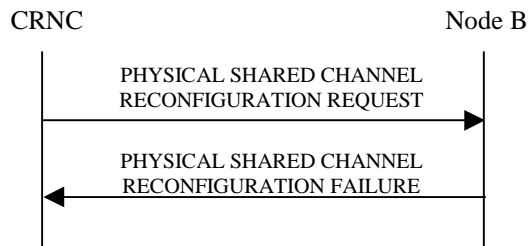


Figure 27: Physical Shared Channel Reconfiguration procedure: Unsuccessful Operation

If the Node B is not able to support all parts of the configuration, it shall reject the configuration of all the channels in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message. The *Cause* IE shall be set to an appropriate value [TDD - either a single general cause value or PDSCH and PUSCH set specific cause values for each set that caused a failure within the *Unsuccessful DL Shared Channel Set* IE for PDSCH sets or *Unsuccessful UL Shared Channel Set* IE for PUSCH sets]. The *Configuration Generation ID* shall not be changed in the Node B.

If the configuration was unsuccessful, the Node B shall respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message:

[1.28Mcps TDD - For a multi-frequency cell, if the Node B is not able to support all parts of the configuration, in the case the Node B can only support configuration on one or some frequencies, the HSDPA or E-DCH related resources on this or these frequencies may be regarded as having successfully been established/reconfigured/removed, the Node B shall reject the HSDPA or E-DCH related configuration on other failed frequencies. The Node B may respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message. The *HS-Cause* IE or *E-Cause* IE in the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message may be set to specific cause values for each frequency that caused a HSDPA or E-DCH related configuration failure. If the failure occurs on the HS-PDSCH, HS-SCCH, E-PUCH or E-AGCH resources, the Node B may store the value of the *Configuration Generation ID* IE and it shall make these resources available to all the current and future HS-DSCH or E-DCH transport channels. If the Node B is not able to support the HSDPA or E-DCH related configuration on any frequencies, the *Cause* IE may be set to an appropriate value, which is either a general cause value or specific cause values for each frequency that caused a failure.]

Typical cause values are as follows:

Radio Network Layer Cause:

- Cell not available
- Node B Resources unavailable

Transport Layer Cause:

- Transport Resources Unavailable

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.18.4 Abnormal Conditions

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains *Add to HS-SCCH Resource Pool* IE, the *Modify HS-SCCH Resource Pool* IE, or the *Delete from HS-SCCH Resource Pool* IE and does not contain the *Configuration Generation ID* the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[3.84Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Add to E-AGCH Resource Pool* IE, the *Modify E-AGCH Resource Pool* IE, or the *Delete from E-AGCH Resource Pool* IE and does not contain the *Configuration Generation ID* the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Add to E-AGCH Resource Pool 1.28Mcps* IE, the *Modify E-AGCH Resource Pool 1.28Mcps* IE, or the *Delete from E-AGCH Resource Pool* IE and does not contain the *Configuration Generation ID* the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Add to E-HICH Resource Pool 1.28Mcps* IE, the *Modify E-HICH Resource Pool 1.28Mcps* IE, or the *Delete from E-HICH Resource Pool 1.28Mcps* IE and does not contain the *Configuration Generation ID* the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[7.68Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Add to E-AGCH Resource Pool 7.68Mcps* IE, the *Modify E-AGCH Resource Pool 7.68Mcps* IE, or the *Delete from E-AGCH Resource Pool* IE and does not contain the *Configuration Generation ID* the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Configuration Generation ID* IE and does not contain at least one of *Add to HS-SCCH Resource Pool* IE, the *Modify HS-SCCH Resource Pool* IE, [3.84Mcps TDD - the *Add to E-AGCH Resource Pool* IE, the *Modify E-AGCH Resource Pool* IE, the *Delete from E-AGCH Resource Pool* IE,] [1.28Mcps TDD - the *Add to E-AGCH Resource Pool 1.28Mcps* IE, the *Modify E-AGCH Resource Pool 1.28Mcps* IE, the *Delete from E-AGCH Resource Pool* IE, the *Add to E-HICH Resource Pool 1.28Mcps* IE, the *Modify E-HICH Resource Pool 1.28Mcps* IE, the *Delete from E-HICH Resource Pool 1.28Mcps* IE,][7.68Mcps TDD - the *Add to E-AGCH Resource Pool 7.68Mcps* IE, the *Modify E-AGCH Resource Pool 7.68Mcps* IE, the *Delete from E-AGCH Resource Pool* IE,] or the *Delete from HS-SCCH Resource Pool* IE the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[FDD - If neither E-AGCH nor E-HICH/E-RGCH resources are configured in the cell, and if one or more codes are included in the *E-AGCH FDD Code Information* IE and/or *E-RGCH/E-HICH FDD Code Information* IE but the *Maximum Target Received Total Wide Band Power* IE is not included in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message, then the Node B shall send PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE, and the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE is not identical to the scrambling code of the phase reference, then the Node B shall reject the procedure using the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE in the *HSDPA And E-DCH Cell Portion Information* IE, and the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE is not identical to the scrambling code of the phase reference, then the Node B shall reject the procedure using the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message.]

[FDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes *HS-DSCH Common Information* IE and/or *Common MAC Flow Specific Information* IE and if the Priority Queues associated with the same *Common MAC Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *UARFCN* IE in the *DL Timeslot and Code Information LCR per UARFCN* IE in the *HS-PDSCH TDD Information* IE, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *UARFCN* IE in the *HS-SCCH Information LCR* IE in the *Add to HS-SCCH Resource Pool* IE, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *UARFCN* IE in the *HS-SCCH Information LCR* IE in the *Modify HS-SCCH Resource Pool* IE, the HS-SCCH information on the new frequency shall be provided, otherwise the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *UARFCN* IE in the *E-AGCH Information 1.28Mcps* IE in the *Modify E-AGCH Resource Pool 1.28Mcps* IE, the E-AGCH information on the new frequency shall be provided, otherwise the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *UARFCN* IE in the *E-HICH Information 1.28Mcps* IE in the *Modify E-HICH Resource Pool 1.28Mcps* IE, the E-HICH information on the new frequency shall be provided, otherwise the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *DL Timeslot and Code Information LCR* IE in the *DL Timeslot and Code Information LCR per UARFCN* IE in the *HS-PDSCH TDD Information* IE but contains *UARFCN* IE, and no HS-DSCH resources are configured on the frequency within the cell, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *UARFCN* IE in the *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE in the *E-PUCH Information 1.28Mcps* IE, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *UARFCN* IE in the *Add to E-AGCH Resource Pool 1.28Mcps* IE, the *Modify E-AGCH Resource Pool 1.28Mcps* IE, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *UARFCN* IE in the *Add to E-HICH Resource Pool 1.28Mcps* IE, the *Modify E-HICH Resource Pool 1.28Mcps* IE, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

[1.28Mcps TDD - For a multi-frequency cell, if the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message does not contain the *E-PUCH Timeslot Information 1.28Mcps* IE in the *E-PUCH Timeslot Information 1.28Mcps per UARFCN* IE in the *E-PUCH Information 1.28Mcps* IE but contains *UARFCN* IE, and no E-DCH resources are configured on the frequency within the cell, the Node B shall consider the procedure as having failed and shall send the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message to the CRNC.]

8.2.19 Reset

8.2.19.1 General

The purpose of the Reset procedure is to align the resources in the CRNC and the Node B in the event of an abnormal failure. The CRNC or the Node B may initiate the procedure.

8.2.19.2 Successful Operation

8.2.19.2.1 Reset Initiated by the CRNC

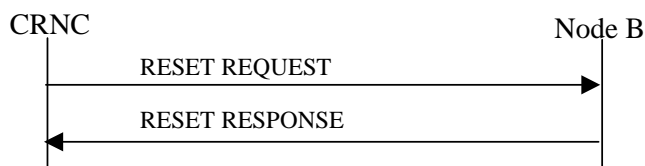


Figure 27A Reset procedure (CRNC to Node B), Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

If the *Reset Indicator* IE is set to "Communication Context", the Node B shall remove all the indicated Node B Communication Contexts (identified by a *Node B Communication Context ID* or a *CRNC Communication Context ID* IE) and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

If the *Reset Indicator* IE is set to "Communication Control Port", the Node B shall remove all the Node B Communication Contexts controlled via the indicated Communication Control Port(s) and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

If the *Reset Indicator* IE is set to "Node B", the Node B shall remove all the Node B Communication Contexts within the Node B and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

8.2.19.2.2 Reset Initiated by the Node B

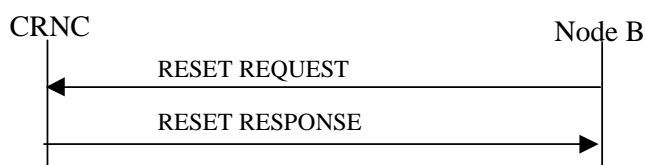


Figure 27B Reset procedure (Node B to CRNC), Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the Node B to the CRNC using the Node B Control Port.

If the *Reset Indicator* IE is set to "Communication Context", for all indicated CRNC Communication Contexts (indicated by a *CRNC Communication Context ID* or a *Node B Communication Context ID* IE), the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the indicated CRNC Communication Contexts. After clearing all related resources, the CRNC shall return the RESET RESPONSE message to the Node B.

If the *Reset Indicator* IE is set to "Communication Control Port", for all the CRNC Communication Contexts controlled via the indicated Communication Control Port(s), the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the CRNC Communication Contexts controlled via the indicated Communication Control Port(s). After clearing all related resources, the CRNC shall return the RESET RESPONSE message to Node B.

If the *Reset Indicator* IE is set to the "Node B", for all the CRNC Communication Contexts related to this Node B, the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the CRNC

Communication Contexts related to this Node B. After clearing all related resources, the CRNC shall return the RESET RESPONSE message to Node B.

8.2.19.3 Unsuccessful Operation

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8.2.19.4 Abnormal Conditions

If the RESET REQUEST message is received any ongoing procedure related to a CRNC Communication Context in the CRNC or Node B Communication Context in the Node B indicated (explicitly or implicitly) in the message shall be aborted.

8.2.20 Cell Synchronisation Initiation [TDD]

8.2.20.1 General

This procedure is used by a CRNC to request the transmission of [3.84Mcps TDD - Cell Synchronisation Bursts sent in the PRACH time slots] [1.28Mcps TDD - SYNC_DL code sent in the DwPTS] and/or to start measurements on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL code] in a Node B.

8.2.20.2 Successful Operation

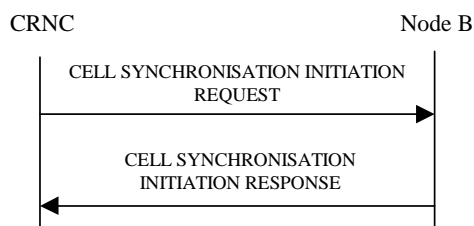


Figure 27C Cell Synchronisation Initiation procedure, Successful Operation

The procedure is initiated with a CELL SYNCHRONISATION INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall initiate the requested transmission according to the parameters given in the request and start the measurement on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL code] if requested.

[3.84Mcps TDD - Cell Sync Burst Transmission Initiation] [1.28Mcps TDD - SYNC_DL Code Transmission Initiation LCR]:

When the [3.84Mcps TDD - Cell Sync Burst Transmission Initiation Information] [1.28Mcps TDD - SYNC_DL Code Transmission Initiation Information LCR] is present, the Node B shall configure the transmission of the cell synchronisation burst according to the parameters given in the CELL SYNCHRONISATION INITIATION REQUEST message. The *SFN* IE indicates the frame number when the cell shall start transmitting cell synchronisation bursts.

[3.84Mcps TDD - When the Cell Sync Burst Transmission Initiation Information is present and the "Frequency Acquisition" is indicated within the *Synchronisation Report Type* IE, the Node B shall first perform only frequency locking on received cell synchronisation bursts. Transmission of the indicated cell synchronisation bursts shall be started only if the frequency locking is performed successfully and "Frequency Acquisition completed" is reported to the RNC.]

[3.84Mcps TDD - Cell Sync Burst Measurement characteristics] [1.28Mcps TDD - SYNC_DL Code Measurement characteristics LCR]:

When the [3.84Mcps TDD - Cell Sync Burst Measurement Initiation Information][1.28Mcps TDD - SYNC_DL Code Measurement Initiation Information LCR] is present, the Node B shall initiate measurements on the indicated cell synchronisation burst.

If the *SFN* IE is present, the Node B shall after measurement of the indicated [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] adjust the frame number of the indicated cell according to the SFN of the CELL SYNCHRONISATION INITIATION REQUEST message. This adjustment shall only apply to the late entrant cell at the late entrant phase.

Synchronisation Report characteristics:

The *Synchronisation Report Characteristics* IE indicates how the reporting of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurement shall be performed. Whenever the Cell Synchronisation Initiation procedure is initiated, only [3.84Mcps TDD - the "Frequency Acquisition completed" or] "Frame related" report characteristics type shall apply.

[3.84Mcps TDD - If the *Synchronisation Report characteristics type* IE is set to "Frequency Acquisition completed", the Node B shall signal completion of frequency acquisition to the RNC when locking is completed.]

If the *Synchronisation Report characteristics type* IE is set to "Frame related", the Node B shall report the result of the cell synchronisation burst measurement after every measured frame.

[3.84Mcps TDD - If the *Cell Sync Burst Arrival Time* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the cell synchronisation burst of a neighbouring cell is expected.]

[3.84Mcps TDD - If the *Cell Sync Burst Timing Threshold* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Arrival Time* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the SYNC_DL Code of a neighbouring cell is expected.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Timing Threshold* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

Response message:

If the Node B was able to initiate the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission and/or measurement requested by the CRNC it shall respond with the CELL SYNCHRONISATION INITIATION RESPONSE message sent over the Node B Control Port.

8.2.20.3 Unsuccessful Operation

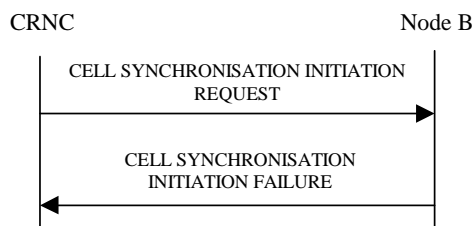


Figure 27D Cell Synchronisation Initiation procedure, Unsuccessful Operation

If the requested transmission or measurement on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Code] cannot be initiated, the Node B shall send a CELL SYNCHRONISATION INITIATION FAILURE message over the Node B control port. The message shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Cell Synchronisation not supported
- Power level not supported

- Measurement Temporarily not Available
- Frequency Acquisition not supported

Miscellaneous Cause:

- O&M Intervention
- HW failure

8.2.20.4 Abnormal Conditions

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8.2.21 Cell Synchronisation Reconfiguration [TDD]

8.2.21.1 General

This procedure is used by a CRNC to reconfigure the transmission of [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Code] and/or to reconfigure measurements on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Code] in a Node B.

8.2.21.2 Successful Operation

8.2.21.2.1 General

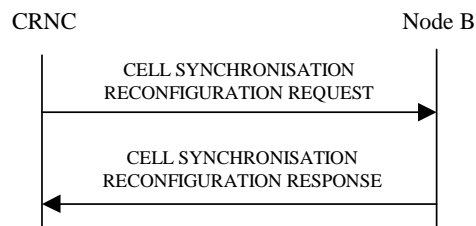


Figure 27E Cell Synchronisation Reconfiguration procedure, Successful Operation

The procedure is initiated with a CELL SYNCHRONISATION RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall reconfigure the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission and/or measurements according to the parameters given in the request.

8.2.21.2.2 [3.84Mcps TDD - Cell Sync Burst Schedule]

Within the CELL SYNCHRONISATION RECONFIGURATION REQUEST message first the schedule for the steady state phase is fixed. I.e. the number of cycles per SFN period is defined with the same schedule. For each cycle, the number of repetitions is defined according to following equations:

Cycle length: $4096 / \text{value of } \textit{Number Of Cycles Per SFN Period IE}$

Repetition period: $\text{Cycle length} / \text{value of } \textit{Number Of Repetitions Per Cycle Period IE}$

Cell Sync Frame number is calculated by:

$\text{SFN} = \text{floor}((k-1) * \text{Cycle length} + (i-1) * \text{Repetition period})$

$k = \{1, 2, 3, \dots \text{Number of cycle per SFN period}\}$

$i = \{1, 2, 3, \dots \text{Cell Sync Frame number within cycle period}\}$

8.2.21.2.3 [1.28Mcps TDD - SYNC_DL Code Schedule]

Within the CELL SYNCHRONISATION RECONFIGURATION REQUEST message first the schedule for the steady state phase is fixed. The "schedule" includes

- the list of frame numbers SFN within the SFN period where SYNC_DL Code transmission or reception takes place, i.e. the "synchronisation frames", and
- the associated actions (SYNC_DL Code transmission, reception, averaging, reporting etc) to be performed for synchronisation purpose by the Node B at each of these SFNs.

Within the synchronisation frames, only the first subframe shall be used for sending or receiving a SYNC_DL Code in the DwPTS while in the second subframe, normal operation continues.

The synchronisation schedule includes the option of averaging of measured correlation results within the Node B over a sequence of measurements, for increasing the reliability of the Time of Arrival measurement obtained from the correlation results. For this purpose, the concept of "subcycles" has been introduced: Each Synchronisation Cycle is divided into "subcycles" where in each subcycle, the same set of SYNC_DL transmissions and receptions is performed, and averaging takes place over all the subcycles within a Synchronisation Cycle. Since the list of actions (transmission, measurements etc) is the same in each subcycle, and the subcycles are repeated to make up a cycle, and the cycles make up an SFN period, the full list of actions is derived by the actions specified for a subcycle.

The full list of SFNs which make up the synchronisation schedule within the SFN period are calculated in Node B and CRNC autonomously based on the following parameters included in the CELL SYNCHRONISATION RECONFIGURATION REQUEST message: "Number of cycles per SFN period", "Number of subcycles per cycle period", and "Number of repetitions per cycles period", along the following equations:

Cycle length: $4096 / \text{value of } \textit{Number Of Cycles Per SFN Period IE}$

Subcycle length: $\text{Cycle length} / \text{value of } \textit{Number Of Subcycles Per Cycle Period IE}$

Repetition period: $\text{Subcycle length} / \text{value of } \textit{Number Of Repetitions Per Cycle Period IE}$

$$\text{SFN} = \text{floor}((k-1) * \text{Cycle length} + (j-1)*\text{Subcycle length} + (i-1)* \text{Repetition period})$$

$$k = \{1, 2, 3, .. \text{Number of cycle per SFN period}\}$$

$$j = \{1, 2, 3, .. \text{Number of subcycles per cycle}\}$$

$$i = \{1, 2, 3, .. \text{Number of repetitions per cycle period}\}$$

Note that if the *Number Of Subcycles Per Cycle IE* is equal to 1, then the subcycles are identical to the "Synchronisation Cycles".

If the *Number Of Subcycles Per Cycle IE* is included in the CELL SYNCHRONISATION RECONFIGURATION REQUEST [TDD] message, then the Node B shall apply this number for dividing the Synchronisation Cycles in Subcycles. If the IE is not present, then the Node B shall assume that there is one subcycle per synchronisation cycle only, which is identical to the synchronisation cycle.

Averaging is performed as follows:

- From each SYNC_DL code being received according to the schedule, the Node B shall calculate a "correlation function" by matching the received data with the respective expected code.
- Therefore the set of measurements within one subcycle provides a set of "correlation functions".
- The set of correlation functions of the first subcycle within a synchronisation cycle is stored in an averaging memory.
- The sets of correlation functions of the subsequent subcycles within a synchronisation cycle are combined with the available contents of the "averaging memory", to produce an average over all the sets of correlation functions within a synchronisation cycle.
- At the end of a synchronisation cycle, the Time-of-Arrival measurements for that synchronisation cycle are obtained by evaluating the final set of correlation functions.

These Time-of-Arrival measurements, together with associated SIR values obtained from the averaged correlation functions, are included in a Measurement Report to the CRNC, according to a measurement reporting plan.

In addition, the Time-of-Arrival measurements may optionally be used for autonomous self-adjustment of the timing of the respective cell.

8.2.21.2.4 [3.84Mcps TDD - Cell Sync Burst Transmission Reconfiguration] [1.28Mcps TDD - SYNC_DL Code Transmission Reconfiguration]

When the [3.84Mcps TDD - Cell Sync Burst Transmission Reconfiguration Information] [1.28Mcps TDD - SYNC_DL Code Transmission Reconfiguration Information LCR] is present, the Node B shall reconfigure the transmission of the [3.84Mcps TDD - cell synchronisation burst] [1.28Mcps TDD - SYNC_DL Code] according to the parameters given in the CELL SYNCHRONISATION RECONFIGURATION REQUEST message.

[3.84Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *Cell Sync Burst Code* IE, the Node B shall reconfigure the synchronisation code in the cell according to the *Cell Sync Burst Code* IE value.]

[3.84Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *Cell Sync Burst Code Shift* IE, the Node B shall reconfigure the synchronisation code shift in the cell according to the *Cell Sync Burst Code Shift* IE value.]

[3.84Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *DL Transmission Power* IE, the Node B shall reconfigure the DL transmission power of the cell synchronisation burst in the cell according to the *DL Transmission Power* IE value.]

[1.28Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *DwPCH Power* IE, the Node B shall store the DwPCH power according to the *DwPCH Power* IE value. For the duration of those subsequent transmissions of the DwPCH which are specifically for the purpose of Node B synchronisation the power of the DwPCH shall be set to the stored power. During subsequent transmissions of the DwPCH which are for normal operation the power of the DwPCH shall assume its normal level.]

[1.28Mcps TDD - If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *Sync_DL Code ID* IE, the Node B shall reconfigure the SYNC_DL Code in the cell according to the *Sync_DL Code ID* IE value.]

8.2.21.2.5 [3.84Mcps TDD - Cell Sync Burst Measurement Reconfiguration] [1.28Mcps TDD - SYNC_DL Code Measurement Reconfiguration]

When the [3.84Mcps TDD - Cell Sync Burst Measurement Reconfiguration Information] [1.28Mcps TDD - Cell SYNC_DL Code Measurement Reconfiguration Information LCR] is present, the Node B shall reconfigure the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurements according the parameters given in the message.

If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the [3.84Mcps TDD -Cell Sync Burst Measurement Information] [1.28Mcps TDD - SYNC_DL Code Measurement Information LCR], the measurements shall apply on the individual [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Codes] on the requested Sync Frame number.

[1.28Mcps TDD - When the *Propagation Delay Compensation* IE is present in the SYNC_DL Code Measurement Information LCR, the Node B shall, if supported, perform the following functions: (1) use the respective SYNC_DL measurement (after potential averaging) to perform the self-adjustment of the respective cell's timing at the end of a Synchronisation Cycle; (2) include the *Accumulated Clock Update* IE in the CELL SYNCHRONISATION REPORT message, to report the total accumulated amount of timing adjustments since the last report to the RNC. This Accumulated Clock Update value shall also include the adjustments which may have been performed by explicit order from the CRNC in the CELL SYNCHRONISATION ADJUSTMENT REQUEST message. The times for self-adjustment at the end of a synchronisation cycle shall be independent from the measurement reporting characteristics; the Accumulated Adjustment values shall be included in the CELL SYNCHRONISATION REPORT messages without influencing the frequency of measurement reporting.]

If the *Synchronisation Report Type* IE is provided, the measurement reporting shall apply according the parameter given in the message.

Synchronisation Report characteristics:

The *Synchronisation Report Characteristics* IE indicates how the reporting of the cell synchronisation burst measurement shall be performed.

If the *Synchronisation Report Characteristics Type* IE is set to "Frame related", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurement after every measured frame.

If the *Synchronisation Report Characteristics Type* IE is set to "SFN period related", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurements after every SFN period.

If the *Synchronisation Report Characteristics Type* IE is set to "Cycle length related", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurements after every cycle length within the SFN period.

If the *Synchronisation Report Characteristics Type* IE is set to "Threshold exceeding", the Node B shall report the result of the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurement when the [3.84Mcps TDD - Cell Synchronisation Burst timing] [1.28Mcps TDD - SYNC_DL Code timing] rises or falls more than the requested threshold value compared to the arrival time in synchronised state which is represented by the [3.84Mcps TDD - Cell Sync Burst Arrival Time IE] [1.28Mcps TDD - SYNC_DL Code ID Arrival Time IE].

[3.84Mcps TDD - If the *Cell Sync Burst Arrival Time* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the cell synchronisation burst of a neighbouring cell is expected.]

[3.84Mcps TDD - If the *Cell Sync Burst Timing Threshold* IE is included in the *Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this new threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Arrival Time* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the SYNC_DL Code of a neighbouring cell is expected.]

[1.28Mcps TDD - If the *SYNC_DL Code ID Timing Threshold* IE is included in the *SYNC_DL Code Information LCR* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this threshold as a trigger for the CELL SYNCHRONISATION REPORT message.]

Response message:

If the Node B was able to reconfigure the [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission and/or measurement requested by the CRNC, it shall respond with the CELL SYNCHRONISATION RECONFIGURATION RESPONSE message sent over the Node B Control Port.

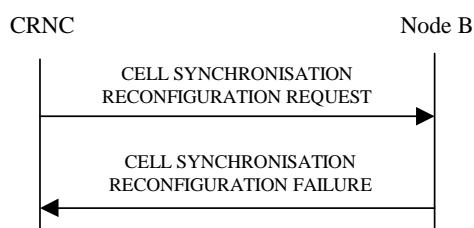
8.2.21.3 Unsuccessful Operation

Figure 27F Cell Synchronisation Reconfiguration procedure, Unsuccessful Operation

If the Node B cannot reconfigure the requested transmission or measurement on [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code], the CELL SYNCHRONISATION RECONFIGURATION FAILURE message shall be sent to the CRNC. The message shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Cell Synchronisation not supported
- Power level not supported

- Measurement Temporarily not Available

Miscellaneous Cause:

- O&M Intervention
- HW failure

8.2.21.4 Abnormal Conditions

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8.2.22 Cell Synchronisation Reporting [TDD]

8.2.22.1 General

This procedure is used by a Node B to report the result of [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] measurements requested by the CRNC with the Cell Synchronisation Initiation or Cell Synchronisation Reconfiguration procedure.

8.2.22.2 Successful Operation

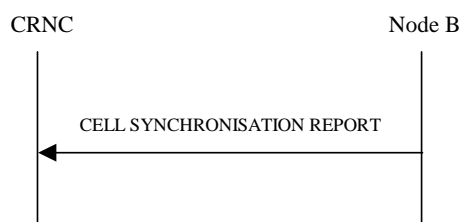


Figure 27G Cell Synchronisation Reporting procedure, Successful Operation

If the requested synchronisation measurement reporting criteria are met, the Node B shall initiate a Cell Synchronisation Reporting procedure. The CELL SYNCHRONISATION REPORT message shall use the Node B Control Port.

In the steady state phase when several [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Codes] shall be measured per Sync Frame number, the sequence of the reported measured values shall be the same as defined in the Cell Synchronisation Reconfiguration procedure.

[1.28Mcps TDD - The Node B shall, if supported, include the *Accumulated Clock Update* IE in the CELL SYNCHRONISATION REPORT message whenever the CRNC has included at least one instance of the *Propagation Delay Compensation* IE in the CELL SYNCHRONISATION RECONFIGURATION REQUEST message. The *Accumulated Clock Update* IE shall include the accumulated timing adjustment which has been done as commanded by the CRNC, as well as by self-adjustment, since the last *Accumulated Clock Update* IE report.]

If the achieved measurement accuracy does not fulfil the given accuracy requirement defined in [23], the Cell Sync Burst not available shall be reported.

8.2.22.3 Abnormal Conditions

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8.2.23 Cell Synchronisation Termination [TDD]

8.2.23.1 General

This procedure is used by the CRNC to terminate a [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission or measurement previously requested by the Cell Synchronisation Initiation procedure or Cell Synchronisation Reconfiguration procedure.

8.2.23.2 Successful Operation



Figure 27H Cell Synchronisation Termination procedure, Successful Operation

This procedure is initiated with a CELL SYNCHRONISATION TERMINATION REQUEST message, sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate [3.84Mcps TDD - transmission of Cell Synchronisation Bursts or reporting of Cell Synchronisation Burst measurements] [1.28Mcps TDD - transmission of SYNC_DL Codes or reporting of SYNC_DL Code measurements] corresponding to the *CSB Transmission ID* IE or *CSB Measurement ID* IE.

8.2.23.3 Abnormal Conditions

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8.2.24 Cell Synchronisation Failure [TDD]

8.2.24.1 General

This procedure is used by the Node B to notify the CRNC that a [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] transmission or synchronisation measurement procedure can no longer be supported.

8.2.24.2 Successful Operation

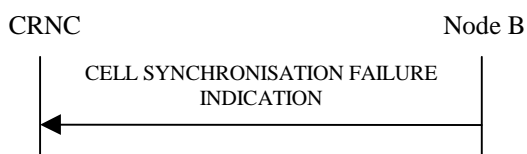


Figure 27I Cell Synchronisation Failure procedure, Successful Operation

This procedure is initiated with a CELL SYNCHRONISATION FAILURE INDICATION message, sent from the Node B to the CRNC using the Node B Control Port, to inform the CRNC that a previously requested transmission or measurement on [3.84Mcps TDD - Cell Synchronisation Bursts] [1.28Mcps TDD - SYNC_DL Codes] can no longer be supported.

If the transmission of a [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] has failed, then the Node B shall include the *CSB Transmission ID* IE in the CELL SYNCHRONISATION FAILURE INDICATION message to uniquely identify the concerned [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] Transmission.

If the measurement of a [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] has failed, then the Node B shall include the *CSB Measurement ID* IE in the CELL SYNCHRONISATION FAILURE

INDICATION message to uniquely identify the concerned [3.84Mcps TDD - Cell Synchronisation Burst] [1.28Mcps TDD - SYNC_DL Code] Measurement.

8.2.24.3 Abnormal Conditions

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8.2.25 Cell Synchronisation Adjustment [TDD]

8.2.25.1 General

The purpose of Cell Synchronisation Adjustment procedure is to allow the CRNC to adjust the timing of the radio transmission of a cell within a Node B for time alignment.

8.2.25.2 Successful Operation

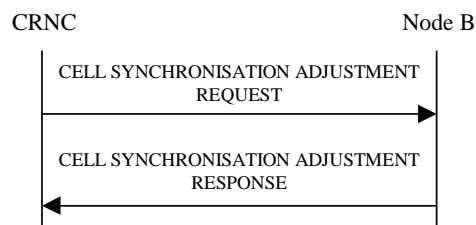


Figure 27J Cell Synchronisation Adjustment, Successful Operation

This procedure is initiated with a CELL SYNCHRONISATION ADJUSTMENT REQUEST message sent by the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B adjusts its timing according to the parameters given in the message.

If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *Frame Adjustment Value* IE the Node B shall apply the frame adjustment in the cell according to the *Frame Adjustment Value* IE value.

[3.84Mcps TDD - If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *Timing Adjustment Value* IE the Node B shall apply the timing adjustment in the cell according to the *Timing Adjustment Value* IE value.]

[1.28Mcps TDD - If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *Timing Adjustment Value LCR* IE the Node B shall apply the timing adjustment in the cell according to the *Timing Adjustment Value LCR* IE value.]

[3.84Mcps TDD - If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *DL Transmission Power* IE, the Node B shall apply the transmission power of the Cell Synchronisation Burst according to the *DL Transmission Power* IE value.]

[1.28Mcps TDD - If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *DwPCH Power* IE, the Node B shall store the DwPCH power according to the *DwPCH Power* IE value. For the duration of those subsequent transmissions of the DwPCH which are specifically for the purpose of Node B synchronisation the power of the DwPCH shall be set to the stored power. During subsequent transmissions of the DwPCH which are for normal operation the power of the DwPCH shall assume its normal level.]

If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *SFN* IE, the Node B shall apply the synchronisation adjustment starting with the SFN number indicated in the message.

When the cell synchronisation adjustment is successfully done by the Node B, the Node B shall respond with a CELL SYNCHRONISATION ADJUSTMENT RESPONSE message.

8.2.25.3 Unsuccessful Operation

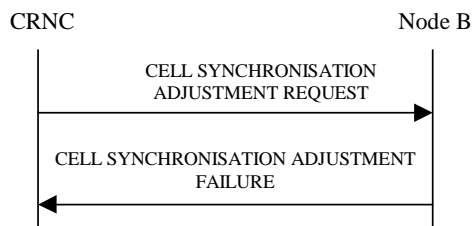


Figure 27K Cell Synchronisation Adjustment, Unsuccessful Operation

If the Node B cannot perform the indicated cell synchronisation adjustment due to hardware failure or other problem it shall send the CELL SYNCHRONISATION ADJUSTMENT FAILURE as a response.

Typical cause values are as follows:

Radio Network Layer Cause

- Cell Synchronisation Adjustment not supported
- Power level not supported

Miscellaneous Cause

- O&M Intervention
- HW failure

8.2.25.4 Abnormal Conditions

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8.2.26 Information Exchange Initiation

8.2.26.1 General

This procedure is used by a CRNC to request the initiation of information provisioning from a Node B.

8.2.26.2 Successful Operation

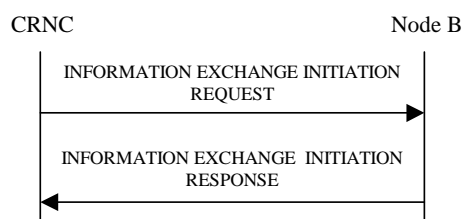


Figure 27L: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with the INFORMATION EXCHANGE INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall provide the requested information according to the *Information Type Item* IE. Unless specified below, the meaning of the parameters are given in other specifications.

If the *Information Type* IE contains a *GANSS Generic Data* IE, at least one of the *GANSS Navigation Model And Time Recovery*, *GANSS Time Model GNSS-GNSS*, *GANSS UTC Model*, *GANSS Almanac*, *GANSS Real Time Integrity*, *GANSS Data Bit Assistance* IEs shall be present in the *GANSS Generic Data* IE.

- If the *GANSS Generic Data* IE does not contain the *GANSS ID* IE, the Node B shall assume that the corresponding GANSS is "Galileo".

Information Report Characteristics

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the Node B shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the Node B shall immediately report the requested information and then shall periodically initiate the Information Reporting procedure for all the requested information, with the requested reporting frequency.

If the *Information Report Characteristics* IE is set to "On Modification", the Node B shall immediately report the requested information if available. If the requested information is not available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST message, but expected to become available after some acquisition time, the Node B shall initiate the Information Reporting procedure when the requested information becomes available. The Node B shall then initiate the Information Reporting procedure in accordance to the following conditions related to the *Information Type* IE:

- 1) If the *Information Type Item* IE is set to "DGPS Corrections", the Node B shall initiate the Information Reporting procedure when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IODE.
- 2) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Time Recovery", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *Sat ID* IEs.
- 3) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- 4) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS UTC Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the t_{ot} or WN_t parameter.
- 5) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change in the t_{oa} or WN_a parameter has occurred.
- 6) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- 7) If the *Information Type Item* IE is set to "DGANSS Corrections", the Node B shall initiate the Information Reporting procedure when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IOD.
- 8) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Navigation Model And Time Recovery* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when a change has occurred regarding either the IOD or the list of visible satellites, identified by the *Sat ID* IEs.
- 9) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Ionospheric Model* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when any change has occurred.
- 10) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Time Model* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when any change has occurred.

- 11) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS UTC Model* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when a change has occurred in the t_{ot} or WN_t parameter.
- 12) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Almanac* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when a change in the T_{oa} , IOD_a or Week Number parameter has occurred.
- 13) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Real Time Integrity* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when any change has occurred
- 14) If the *Information Type Item* IE is set to "GANSS Information" and the *GANSS Information* IE includes the *GANSS Data Bit Assistance* IE, the Node B shall initiate the Information Reporting procedure for this specific GANSS Information item when any change has occurred..
- 15) If any of the above *Information Type* IEs becomes temporarily unavailable, the Node B shall initiate the Information Reporting procedure for this specific Information Item by indicating "Information Not Available" in the *Requested Data Value Information* IE. If the Information becomes available again, the Node B shall initiate the Information Reporting procedure for this specific Information.

Response message

If the Node B is able to initiate the information provision requested by the CRNC, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message sent over the Node B Control Port. The message shall include the same Information Exchange ID that was included in the INFORMATION EXCHANGE INITIATION REQUEST message. When the *Report Characteristics* IE is set to "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the requested data if the data are available. When the *Report Characteristics* IE is set to "On Demand", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

If the *Requested Data Value* IE contains the *GANSS Common Data* IE, at least one of the *GANSS Ionospheric Model* or *GANSS RX Pos* IEs shall be present.

Any *GANSS Generic Data* IE associated with a given GANSS included in the *Requested Data Value* IE shall contain at least one of the *DGANSS Corrections*, *GANSS Navigation Model And Time Recovery*, *GANSS Time Model*, *GANSS UTC Model*, *GANSS Almanac*, *GANSS Real Time Integrity* or *GANSS Data Bit Assistance* IEs.

- If the *GANSS Generic Data* IE does not contain the *GANSS ID* IE, the corresponding GANSS is "Galileo".
- The *DGANSS Corrections* IE contains one or several *DGANSS Information* IE(s), each of them associated with a GANSS Signal. A *DGANSS Information* IE for "Galileo" that does not contain the *GANSS Signal ID* IE is by default associated with "Galileo L1 OS" (see [39]).
- The *GANSS Real Time Integrity* IE contains one or several *Satellite Information* IEs, each of them associated with a satellite and a GANSS Signal. A *Satellite Information* IE for "Galileo" that does not contain the *Bad GANSS Signal ID* IE is by default associated with all the signals of the corresponding satellite (see [39]).

8.2.26.3 Unsuccessful Operation

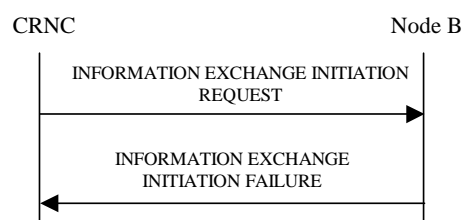


Figure 27M: Information Exchange Initiation procedure, Unsuccessful Operation

If the Information Type Item received in the *Information Type Item* IE indicates a type of information that cannot be provided, the Node B shall regard the Information Exchange Initiation procedure as failed.

If the requested information provision cannot be initiated, the Node B shall send the INFORMATION EXCHANGE INITIATION FAILURE message over the Node B control port. The message shall include the same Information Exchange ID that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Information temporarily not available.
- Information Provision not supported for the object.

8.2.26.4 Abnormal Conditions

If the *Information Report Characteristics* IE is set to "On Modification", and the *Information Type Item* IE is set to "DGPS Corrections", or "DGNSS Corrections", but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the Node B shall regard the Information Exchange Initiation procedure as failed.

If the *Information Type Item* IE is not set to "DGPS Correction" or "DGNSS Corrections", the *Information Report Characteristics* IE is set to "On Modification" and the *Information Threshold* IE is included in the INFORMATION EXCHANGE INITIATION REQUEST message, the Node B shall regard the Information Exchange Initiation procedure as failed.

8.2.27 Information Reporting

8.2.27.1 General

This procedure is used by a Node B to report the information requested by the CRNC with the Information Exchange Initiation procedure.

8.2.27.2 Successful Operation

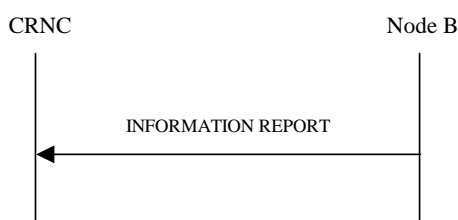


Figure 27N: Information Reporting procedure, Successful Operation

If the requested information reporting criteria are met, the Node B shall initiate the Information Reporting procedure. The INFORMATION REPORT message shall use the Node B Control Port. Unless specified below, the meaning of the parameters are given in other specifications.

The *Information Exchange ID* IE shall be set to the Information Exchange ID provided by the CRNC when initiating the Information Exchange with the Information Exchange Initiation procedure.

The *Requested Data Value* IE shall include at least one IE containing the data to be reported.

8.2.27.3 Abnormal Conditions

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8.2.28 Information Exchange Termination

8.2.28.1 General

This procedure is used by the CRNC to terminate the provision of information previously requested by the Information Exchange Initiation procedure.

8.2.28.2 Successful Operation



Figure 27O: Information Exchange Termination procedure, Successful Operation

This procedure is initiated with an INFORMATION EXCHANGE TERMINATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate the provision of information corresponding to the Information Exchange ID.

8.2.28.3 Abnormal Conditions

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8.2.29 Information Exchange Failure

8.2.29.1 General

This procedure is used by the Node B to notify the CRNC that information previously requested by the Information Exchange Initiation procedure can no longer be reported.

8.2.29.2 Successful Operation



Figure 27P: Information Exchange Failure procedure, Successful Operation

This procedure is initiated with the INFORMATION EXCHANGE FAILURE INDICATION message sent from the Node B to the CRNC using the Node B Control Port to inform the CRNC that information previously requested by the Information Exchange Initiation procedure can no longer be reported. The message shall include the same Information Exchange ID that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause IE* set to an appropriate value.

8.2.30 MBMS Notification Update

8.2.30.1 General

This procedure is used to update the MBMS Notification Indicators to be sent over the MICH.

8.2.30.2 Successful Operation



Figure 27Q: MBMS Notification Update procedure, Successful Operation

The procedure is initiated with an MBMS NOTIFICATION UPDATE COMMAND message sent from the CRNC to the Node B using the Node B Control Port.

The Node B shall use the different NIs in the *NI Information* IE to generate, as specified in ref. [7], the notification indicators it shall transmit on the MICH starting at the next coming MICH CFN equal to the value in the *MICH CFN* IE and for a duration equal to the Modification Period. If the value of *MICH CFN* IE is the same as the one in a previously received MBMS NOTIFICATION UPDATE COMMAND message, and if the MICH CFN occurrence has not been reached yet, the Node B shall overwrite the value of the *NI Information* IE in the previously received MBMS NOTIFICATION UPDATE COMMAND message.

If the *Modification Period* IE is included in the MBMS NOTIFICATION UPDATE COMMAND message, the Node B shall use this as the new Modification Period starting at the next coming MICH CFN equal to the value in the *MICH CFN* IE. If the value of *MICH CFN* IE is the same as the one in a previously received MBMS NOTIFICATION UPDATE COMMAND message, and if the MICH CFN occurrence has not been reached yet, the Node B shall overwrite the value of the *Modification Period* IE in the previously received MBMS NOTIFICATION UPDATE COMMAND message.

If the *Modification Period* IE is not included in the MBMS NOTIFICATION UPDATE COMMAND message, the Node B shall use the latest stored Modification Period.

8.2.30.3 Abnormal Conditions

If the *Modification Period* IE is not included in the MBMS NOTIFICATION UPDATE COMMAND message and no Modification Period is stored in the Node B, the Node B shall initiate the Error Indication procedure.

8.3 NBAP Dedicated Procedures

8.3.1 Radio Link Addition

8.3.1.1 General

This procedure is used for establishing the necessary resources in the Node B for one or more additional RLS towards a UE when there is already a Node B Communication Context for this UE in the Node B.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.1.2 Successful Operation

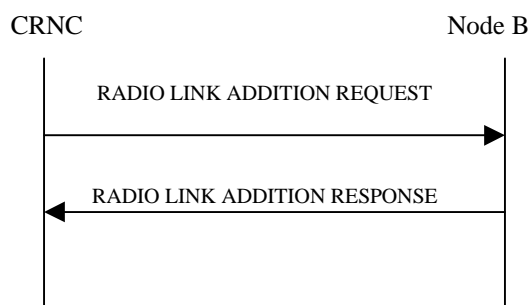


Figure: 28 Radio Link Addition procedure, Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon reception, the Node B shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

Physical Channels Handling:

[TDD - If the [3.84Mcps TDD - *UL DPCH Information IE*] [1.28Mcps TDD - *UL DPCH Information LCR IE*] [7.68Mcps TDD - *UL DPCH Information 7.68Mcps IE*] is present, the Node B shall configure the new UL DPCH(s) according to the parameters given in the message.]

[TDD - If the [3.84Mcps TDD - *DL DPCH Information IE*] [1.28Mcps TDD - *DL DPCH Information LCR IE*] [7.68Mcps TDD - *DL DPCH Information 7.68Mcps IE*] is present, the Node B shall configure the new DL DPCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL Timeslot Information LCR IE* includes the *PLCCH Information IE*, the Node B shall transmit TPC /SS bits on a PLCCH according to the parameters given in the message.]

[FDD - Compressed Mode]:

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Compressed Mode Deactivation Flag IE* with value "Deactivate", the Node B shall not activate any compressed mode pattern in the new RLs. In all the other cases (Flag set to "Maintain Active" or not present), the ongoing compressed mode (if existing) shall be applied also to the added RLs.]

[FDD - If the Node B Communication Context is configured to use DPCH in the downlink and if the RADIO LINK ADDITION REQUEST message contains the *Transmission Gap Pattern Sequence Code Information IE* for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated for each DL Channelisation Code for which the *Transmission Gap Pattern Sequence Code Information IE* is set to "Code Change".]

[FDD - DL Code Information]:

[FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to ref. [8]. When p number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the p th to "*PhCH number p*".]

[TDD - CCTrCH Handling]:

[TDD - If the *UL CCTrCH Information IE* is present, the Node B shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH Information IE* includes the *TDD TPC UL Step Size IE*, the Node B shall configure the uplink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[TDD - If the *DL CCTrCH Information* IE is present, the Node B shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE, the Node B shall configure the downlink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[1.28 Mcps TDD - The Node B shall configure the HS-SCCH TPC step size to the same value as the *TDD TPC DL Step Size* IE of the lowest numbered DL CCTrCH whose *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE. If no *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE, it shall use the step size configured in other radio link.]

Radio Link Handling:

Diversity Combination Control:

The *Diversity Control Field* IE indicates for each RL whether the Node B shall combine the new RL with existing RL(s) or not.

- If the *Diversity Control Field* IE is set to "May", the Node B shall decide for any of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other - RL.
- If the *Diversity Control Field* IE is set to "Must not", the Node B shall not combine the RL with any other existing RL.

[FDD - The signalled *Diversity Control Field* IE is only applicable for DCHs. In case of E-DCH, if any UARFCN(s) of the cells in the added RL(s) is not equal to at least one of the UARFCN(s) of the cells in the existing RL(s) in the Node B Communication Context, the Diversity Control Field, for those RL(s) shall be assumed to be set to "May", otherwise it shall be assumed to be set to "Must".]

When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.

In the case of not combining a RL with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or a RL previously listed in the RADIO LINK ADDITION RESPONSE message, the Node B shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that no combining is done. In this case, the Node B shall:

- include in the *DCH Information Response* IE both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH of the RL in the RADIO LINK ADDITION RESPONSE message. [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included].
- [FDD - include in the RADIO LINK ADDITION RESPONSE message the *Transport Bearer Not Setup Indicator* IE for every DCH for which establishment of a transport bearer has not taken place as a result of information in the *Transport Bearer Not Requested Indicator* IE in the RADIO LINK ADDITION REQUEST message.]
- [FDD - For E-DCH, include in the *E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearers to be established for each E-DCH MAC-d flow of this RL for which the *Transport Bearer Not Requested Indicator* IE was not included.]

In the case of combining with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, the Node B shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that the RL is combined and if the ALCAP is not used [FDD - and the transport bearer for this DCH is already established], the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL in the RADIO LINK ADDITION REQUEST message, shall not be used. In this case, the *RL ID* IE indicates (one of) the previously established RL(s) or a RL previously listed in this RADIO LINK ADDITION RESPONSE message with which the new RL is combined.

[FDD - In the case of combining with an E-DCH RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, one of the previously established RLs or a RL previously listed in this RADIO LINK ADDITION RESPONSE message including the *E-DCH FDD Information Response* IE shall be regarded as the RL with which the concerned E-DCH RL is combined. In case E-DCH RL is established for the first time, the Node B shall include *E-DCH FDD Information Response* IE instead of using the Diversity Indication of DCH RL in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message. It shall include in the *E-DCH FDD Information Response* IE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearers to be established for each E-DCH MAC-d flow of this E-DCH RL for which the *Transport Bearer Not Requested Indicator* IE was not included.]

In the case of a set of co-ordinated DCHs, the *Binding ID* IE and the *Transport Layer Address* IE shall be included for only one of the DCHs in a set of coordinated DCHs [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included].

[TDD - The Node B shall include in the RADIO LINK ADDITION RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH and USCH.]

[FDD - Transmit Diversity]:

[FDD - If the *Transmit Diversity Indicator* IE is included in the RADIO LINK ADDITION REQUEST message, the Node B shall activate/deactivate the Transmit Diversity for each new Radio Link in accordance with the *Transmit Diversity Indicator* IE and the already known diversity mode.]

DL Power Control:

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL DPCH or on the F-DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or Power Balancing is activated. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RLs for this Node B Communication Context. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) with DPC MODE currently configured for the relevant Node B Communication Context and the downlink power control procedure (see subclause 8.3.7).]

[3.84 Mcps TDD and 7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Initial DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the initial CCTrCH DL power, otherwise the initial CCTrCH DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included (even if *CCTrCH Initial DL Transmission Power* IEs are included), the Node B shall use any transmission power level currently used on already existing CCTrCHs for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 4.2.3.4).]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Initial DL Transmission Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the initial DL power and ignore the *DL Time Slot ISCP info LCR*, otherwise the initial DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RL/timeslots for this Node B Communication

Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4.)

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall store this value and not transmit with a higher power on any DL DPCH or on the F-DPCH of the RL. If no *Maximum DL Power* IE is included, any Maximum DL power stored for already existing RLs for this Node B Communication Context shall be applied. If the Node B Communication Context is configured to use DPCH in the downlink, during compressed mode, the δP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall store this value and never transmit with a lower power on any DL DPCH or on the F-DPCH of the RL. If no *Minimum DL Power* IE is included, any Minimum DL power stored for already existing RLs for this Node B Communication Context shall be applied.]

[3.84 Mcps TDD and 7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall determine the maximum CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the maximum CCTrCH DL power, otherwise the maximum CCTrCH DL power is the *Maximum DL Power* IE included in the *RL Information* IE. If no *Maximum DL Power* IE is included (even if *CCTrCH Maximum DL Transmission Power* IEs are included), any maximum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

[3.84 Mcps TDD and 7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall determine the minimum CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the minimum CCTrCH DL power, otherwise the minimum CCTrCH DL power is the *Minimum DL Power* IE included in the *RL Information* IE. If no *Minimum DL Power* IE is included (even if *CCTrCH Minimum DL Transmission Power* IEs are included), any minimum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall determine the maximum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Maximum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable DL DPCH. If no *Maximum DL Power* IE is included, any maximum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall determine the minimum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Minimum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable DL DPCH. If no *Minimum DL Power* IE is included, any minimum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[3.84Mcps TDD and 7.68Mcps TDD - The initial power, maximum power, and minimum power for DSCH type CCTrCH shall be determined as follows:

- If the DSCH type CCTrCH is paired with an uplink CCTrCH(s) for inner loop power control, the minimum, maximum and initial power for each PDSCH is determined in the same way as described above for DCH type CCTrCHs.
- If the DSCH type CCTrCH is not paired with an uplink CCTrCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the same way as described above for DCH type CCTrCHs. The minimum and initial powers, however, are subject to control by the CRNC via the frame protocol].

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot within a DSCH type CCTrCH by the following rule: If both the *CCTrCH Initial DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, and the *DL Time Slot ISCP Info LCR* IE, included in the *RL Information* IE, are included then the Node B shall use that power for the PDSCH and ignore the *Initial DL Transmission Power* IE included in the *RL Information* IE, otherwise the initial DL Power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall apply the given power to the transmission on each DL PDSCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RL/timeslots for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall determine the maximum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable PDSCH. If no *Maximum DL Power* IE is included, any maximum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall determine the minimum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE, included in the *DL CCTrCH Information* IE, is included then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable PDSCH. If no *Minimum DL Power* IE is included, any minimum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[3.84Mcps TDD and 7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *DL Time Slot ISCP Info* IE, the Node B shall use the indicated value when deciding the DL TX Power for each timeslot as specified in ref. [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Individual" in the existing RL(s) and the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IE, the Node B shall activate the power balancing and use the *DL Reference Power* IE for the power balancing procedure in the new RL(s), if activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported, according to subclause 8.3.7. In this case, the Node B shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message. If the Node B starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. P_{init} shall be set to the power level indicated by the *Initial DL Transmission Power* IE (if received) or the decided DL TX power level on each DL channelisation code of a RL based on power level of existing RLs.]

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Power Control GAP:]

[1.28Mcps TDD - If the *Power Control GAP* IE is included in the RADIO LINK ADDITION REQUEST message, the Node B may use the value for the power control for HS-SCCH and HS-SICH according to the [21].]

General:

If the RADIO LINK ADDITION REQUEST message includes the *RL Specific DCH Information* IE, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included].

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer shall not be Established" for a DCH, then the Node B shall not establish a transport bearer for the concerned DCH and shall include the *Transport Bearer Not Setup Indicator* IE for every corresponding DCH in the RADIO LINK ADDITION RESPONSE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE set to "Transport Bearer may not be Established" for a DCH and:]

- [FDD - if the Node B establishes a transport bearer for the concerned DCH, the Node B shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of a transport bearer for the DCH being established.]
- [FDD - if the Node B does not establish a transport bearer for the concerned DCH, the Node B shall include the *Transport Bearer Not Setup Indicator* IE for the corresponding DCH in the RADIO LINK ADDITION RESPONSE message.]

If the RADIO LINK ADDITION REQUEST message includes the *RL Specific E-DCH Information* IE, the Node B may use the transport layer addresses and the binding identifiers received from the CRNC when establishing transport bearers for the MAC-d flows of the E-DCHs.

The Node B shall start reception on the new RL(s) after the RLs are successfully established.

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL DPCH Timing Adjustment Allowed* IE, then the Node B may perform an initial DL DPCH Timing Adjustment (i.e. perform a timing advance or a timing delay with respect to the SFN timing) on a Radio Link. In this case, the Node B shall include, for the concerned Radio Link(s), the *Initial DL DPCH Timing Adjustment* IE in the *Radio Link Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Synchronisation Indicator* IE, set to "Timing Maintained Synchronisation", the Node B shall use synchronisation procedure B according to subclause 4.3.2.4 in [10]. The Node B shall select the TPC pattern as if "first RLS indicator" is set to "first RLS" according to subclause 5.1.2.2.1.2 in [10].]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *F-DPCH Slot Format* IE and if the Node B Communication Context is configured to use F-DPCH in the downlink, then the Node B shall use this information to configure the F-DPCH slot format of each RL according to [7].]

[FDD - Radio Link Set Handling]:

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message a value that uniquely identifies the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH related information for RLs in different RL Sets shall not be common.]

[FDD - For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message the same value. This value shall uniquely identify the RL Set within the Node B Communication Context. In case of E-DCH, the generation of E-HICH information for all RLs in a RL Set shall be common.]

[FDD - After addition of the new RL(s), the UL out-of-sync algorithm defined in [10] shall, for each of the previously existing and newly established RL Set(s), use the maximum value of the parameters *N_OUTSYNC_IND* and *T_RLFAILURE* that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters *N_INSYNC_IND*, that are configured in the cells supporting the radio links of the RL Set.]

[FDD - For each E-DCH RL which has or can have a common generation of E-RGCH information with another RL (current or future) when the Node B would contain the E-DCH serving RL, the Node B shall include the *E-DCH RL Set ID* IE in the RADIO LINK ADDITION RESPONSE message. The value of the *E-DCH RL Set ID* IE shall allow the RNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

[FDD - Serving HS-DSCH Radio Link Change]:

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Serving Cell Change Information* IE, then *HS-PDSCH RL ID* IE indicates the new Serving HS-DSCH Radio Link:]

- [FDD - In the new configuration the Node B shall allocate the HS-PDSCH resources for the new Serving HS-PDSCH Radio Link.]
- [FDD - The Node B may include the *HARQ Memory Partitioning* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]
- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

[FDD - HS-DSCH Setup at Serving HS-DSCH Radio Link Change:]

[FDD - If the *HS-DSCH Information* IE is present in the *HS-DSCH Serving Cell Change Information* IE, then:]

- [FDD - The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.]
- [FDD - The Node B shall include the *HARQ Memory Partitioning* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message. The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.]
- [FDD - The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If RADIO LINK ADDITION REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK ADDITION REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information*

- IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]
 - [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Measurement Power Offset* IE in the *HS-DSCH Information* IE, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]
 - [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
 - [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
 - [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].]
 - [FDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]
 - [FDD - If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B shall activate the MIMO mode for the HS-DSCH Radio Link and the Node B shall decide the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
 - [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *Sixtyfour QAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
 - [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]
 - [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the Node B shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK ADDITION RESPONSE message if it decides to use the octet aligned table defined in [32] for HS-DSCH Transport Block Size signalling.]
 - [FDD - If the *Serving Cell Change CFN* IE is included into the RADIO LINK ADDITION REQUEST message, then the Node B shall activate the resources that are allocated for the new serving HS-DSCH Radio Link at the next coming CFN with a value equal to the value requested by the RNC. In the new configuration the Node B shall, if applicable, de-allocate the HS-PDSCH resources of the old Serving HS-PDSCH Radio Link. The Node B shall deactivate those resources at the next coming CFN with a value equal to the value requested by the RNC.]
 - [FDD - If the *Serving Cell Change CFN* IE is not included then the Node B shall activate immediately the resources that are allocated for the new serving HS-PDSCH Radio Link, and shall keep active the resources that are allocated for the previous serving HS-PDSCH Radio Link.]

- [FDD - If the *Serving Cell Change* CFN IE is not included into the RADIO LINK ADDITION REQUEST message, then the Node B shall include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow for the serving HS-PDSCH RL into the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - If the *HS-DSCH Information* IE is present in the *HS-DSCH Serving Cell Change Information* IE, then the Node B shall include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow for the serving HS-PDSCH RL into the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - If the Node B needs a bearer re-arrangement, then the Node B may include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow for the serving HS-PDSCH RL into the *HS-DSCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - If a reset of the MAC-hs is not required the Node B shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - If the requested Serving HS-DSCH Radio Link Change was successful or unsuccessful, the Node B shall indicate this in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - If the HS-DSCH Serving Cell Change Information IE includes the Continuous Packet Connectivity HS-SCCH less Information IE, then:]
 - [FDD - The Node B shall configure the new Serving HS-DSCH Radio Link for Continuous Packet Connectivity HS-SCCH less operation according to [10].]
 - [FDD - The Node B shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the *HS-DSCH Serving Cell Change Information Response* IE.]
- [FDD - If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the Node B shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - E-DCH]:

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE, then for every such RL:]

- [FDD - The Node B shall setup the E-DCH resources as configured in the Node B Communication Context.]
- [FDD - The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the Node B may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in *RL Information Response* IE for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH" in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

[FDD - Serving E-DCH Radio Link Change:]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving E-DCH RL* IE, then *Serving E-DCH RL* IE indicates the new Serving E-DCH Radio Link:]

- [FDD - If the new Serving E-DCH RL is in this Node B:]
 - [FDD - The Node B may allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

- [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for the initial grant for the new serving E-DCH RL.]
- [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK ADDITION RESPONSE message for the new serving E-DCH RL.]
- [FDD - The Node B may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message for any of the other E-DCH Radio Links in the Node B Communication Context that have not been included in the *E-DCH FDD DL Control Channel Information* IE in *RL Information Response* IE.]
- [FDD - If the *Serving Cell Change CFN* IE is included in the RADIO LINK ADDITION REQUEST message, then the Node B shall activate the resources that are allocated for the new serving E-DCH Radio Link at the next coming CFN with a value equal to the value requested by the RNC. In the new configuration the Node B shall, if applicable, de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link. The Node B shall deactivate those resources at the next coming CFN with a value equal to the value requested by the SRNC.]
- [FDD - If the *Serving Cell Change CFN* IE is not included then the Node B shall activate immediately the resources that are allocated for the new serving E-DCH Radio Link.]
- [FDD - If the addition of the requested Serving E-DCH Radio Link was successful but the Serving E-DCH Radio Link change was unsuccessful, the Node B shall indicate this in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - E-DPCH Handling]:

[FDD - If the RADIO LINK ADDITION REQUEST message includes an *E-DPCH Information* IE, the Node B shall use the new parameters for the related resource allocation operations.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the Node B shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the Node B shall use the E-DPDCH power extrapolation formula defined in [10].]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the Node B shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the Node B shall use the E-TFCI BetaEC Boost value "127" in the algorithm defined in [10].]

[FDD - E-DCH Setup:]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK ADDITION REQUEST message:]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel information* IE in the *E-DCH FDD Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions.]
- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving E-DCH RL* IE indicating that the Serving E-DCH RL is in this Node B:]

- [FDD - The Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information IE* in the *E-DCH Serving Cell Change Information Response IE* in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - The Node B may include the *Serving Grant Value IE* and *Primary/Secondary Grant Selector IE* in the *E-DCH Serving Cell Change Information Response IE* in the RADIO LINK ADDITION RESPONSE message for the initial grant for the serving E-DCH RL.]
- [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new configuration and include the new configuration in the *E-DCH FDD Information Response IE* in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2 IE* in the RADIO LINK ADDITION RESPONSE message for the serving E-DCH RL.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List IE* for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]
- [FDD - If in the RADIO LINK ADDITION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the *HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant IE*, if included, for the related resource allocation operation.]
- [FDD - If in the RADIO LINK ADDITION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Bundling Mode Indicator IE* for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information IE* in the *E-DCH FDD Information IE* and the *Bundling Mode Indicator IE* is set to "Bundling" and the *E-TTI IE* is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Maximum Bitrate IE* for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level IE*, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level IE*, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Reference Power Offset IE*, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-AGCH Power Offset IE* in the *RL Specific E-DCH Information IE*, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-RGCH Power Offset IE* in the *RL Specific E-DCH Information IE*, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-HICH Power Offset IE* in the *RL Specific E-DCH Information IE*, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Power Offset for Scheduling Info IE*, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *SixteenQAM UL Operation Indicator IE*, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator IE*.]
- [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator IE* set to "Transport Bearer shall not be Established" for an E-DCH MAC-d flow, then the Node B shall not establish a transport bearer for the concerned E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator IE* for the corresponding E-DCH MAC-d flow in the RADIO LINK ADDITION RESPONSE message.]
- [FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator IE* set to "Transport Bearer may not be Established" for an E-DCH MAC-d flow and:]
 - [FDD - if the Node B establishes a transport bearer for the concerned E-DCH MAC-d flow, the Node B shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID IE* and *Transport Layer Address IE* for establishment of a transport bearer for the E-DCH MAC-d flow being established.]
 - [FDD - if the Node B does not establish a transport bearer for the concerned E-DCH MAC-d flow, the Node B shall include the *Transport Bearer Not Setup Indicator IE* for the corresponding E-DCH MAC-d flow in the RADIO LINK ADDITION RESPONSE message.]

[TDD - HS-DSCH Setup]:

[TDD - If the *HS-DSCH Information IE* is present in the RADIO LINK ADDITION REQUEST message, then]:

- [TDD - The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID IE*.]
- [TDD - The Node B shall include the *HARQ Memory Partitioning IE* in the *HS-DSCH TDD Information Response IE* in the RADIO LINK ADDITION RESPONSE message.]
- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format IE* in the *HS-DSCH Information IE*, then the Node B shall use the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].]
- [TDD - The Node B shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID IE* and *Transport Layer Address IE* for establishment of transport bearer for every HS-DSCH MAC-d flow being established.]
- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address IE* and *Binding ID IE* in the *HS-DSCH Information IE* for an HS-DSCH MAC-d flow, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow. If the *TNL QoS IE* is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS IE* may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]
- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-hs Guaranteed Bit Rate IE* for a Priority Queue in the *HS-DSCH MAC-d Flows Information IE* in the *HS-DSCH Information IE*, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.]
- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Discard Timer IE* for a Priority Queue in the *HS-DSCH MAC-d Flows Information IE* in the *HS-DSCH Information IE*, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.]
- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended IE* for a Priority Queue in the *HS-DSCH MAC-d Flows Information IE* in the *HS-DSCH Information IE*, then the Node B shall ignore the *SID IE* and *MAC-d PDU Size IE* in the *MAC-d PDU Size Index IE* and use *Maximum MAC-d PDU Size Extended IE* to optimise capacity allocation for the related HSDPA Priority Queue.]

- [TDD - The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If RADIO LINK ADDITION REQUEST message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK ADDITION REQUEST in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.]
- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [1.28Mcps TDD - If the *TSN-Length* IE is included in the *HS-DSCH TDD Information* IE, then the IE is used to indicate the TSN bits applied to the MAC-hs PDU frame.]
- [1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information to allocate HSDPA resources over multiple carriers for the UE.]
- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK ADDITION REQUEST message includes the *Multi-carrier HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information together with the *HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE to allocate HSDPA resources over multiple carriers for the UE.]
- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH over multiple carriers and include the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B shall include the *HARQ Memory Partitioning per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [1.28Mcps TDD - If the Node B allows UE to apply HSDPA resources distributed over multiple carriers, the Node B may indicate the number of carriers actually used by the UE and include the *Multi-Carrier number* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B may include the *UsedFrequency* IE in the *HS-SCCH Specific Information Response LCR* IE in the RADIO LINK ADDITION RESPONSE message.]
- [1.28Mcps TDD - If the Node B allows UE to use HSDPA resources distributed over multiple carriers, the Node B may include the *UARFCN* IE in the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the RADIO LINK ADDITION RESPONSE message.]

[TDD - Intra-Node B Serving HS-DSCH Radio Link Change]:

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link]:

- [TDD - The Node B may include the *HARQ Memory Partitioning* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]
- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[TDD - E-DCH]:

[TDD - If the [3.84Mcps TDD - *E-DCH Information IE*][1.28Mcps TDD - *E-DCH Information 1.28Mcps IE*] [7.68Mcps TDD - *E-DCH Information 7.68Mcps IE*] is present in the RADIO LINK ADDITION REQUEST message:]

- [TDD - The Node B shall setup the requested E-DCH resources on the Radio Link indicated by the *E-DCH Serving RL IE*.]
- [TDD - If the *TNL QoS IE* is included in the *E-DCH MAC-d Flows Information TDD IE* for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS IE* may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]
- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address IE* and *Binding ID IE* in the *E-DCH MAC-d Flows Information TDD IE* for an E-DCH MAC-d flow, then the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for the concerned E-DCH MAC-d flow.]
- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List IE* for an E-DCH MAC-d flow in the *E-DCH MAC-d Flows Information TDD IE*, the Node B shall use this information for the related resource allocation operation.]
- [TDD - If in the RADIO LINK ADDITION REQUEST message the *E-DCH Grant Type IE* in the *E-DCH MAC-d Flows Information TDD IE* is set to "Non-scheduled" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants are configured for that E-DCH MAC-d flow and shall use the information within the [3.84Mcps TDD - *E-DCH Non-scheduled Grant Information TDD IE*] [1.28Mcps TDD - *E-DCH Non-scheduled Grant Information LCR TDD IE*] [7.68Mcps TDD - *E-DCH Non-scheduled Grant Information 7.68Mcps TDD IE*], if included, for the related resource allocation operation.]
- [TDD - If in the RADIO LINK ADDITION REQUEST message the *E-DCH Grant Type IE* in the *E-DCH MAC-d Flows Information TDD IE* is set to "Scheduled" the Node B shall assume that it may issue scheduled grants for the concerned E-DCH MAC-d flow.]
- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Guaranteed Bit Rate IE* in the *E-DCH Logical Channel Information IE* in the *E-DCH MAC-d Flows Information TDD IE*, then the Node B shall use this information to optimise MAC-e scheduling decisions for the related queue.]
- [1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *MAC-es Maximum Bit Rate LCR IE* in the *E-DCH Logical Channel Information IE* in the *E-DCH MAC-d Flows Information TDD IE*, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [3.84Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH TDD Maximum Bitrate IE* in the *E-DCH TDD Information IE* for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Physical Layer Category LCR IE* or *Extended E-DCH Physical Layer Category LCR IE* in the *E-DCH TDD Information LCR IE* for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [7.68Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH TDD Maximum Bitrate 7.68Mcps IE* in the *E-DCH TDD Information 7.68Mcps IE* for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Processing Overload Level IE* in the [3.84Mcps TDD - *E-DCH TDD Information IE*] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps IE*] [1.28Mcps TDD - *E-DCH TDD Information LCR IE*], then if the Node B could not decode the E-PUCCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level IE*, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]
- [TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Power Offset for Scheduling Info IE* in the [3.84Mcps TDD - *E-DCH TDD Information IE*] [1.28Mcps TDD - *E-DCH TDD Information LCR IE*] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps IE*], then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum Number of Retransmission for Scheduling Info LCR* IE and the *E-DCH Retransmission timer for Scheduling Info LCR* IE in the *E-DCH TDD Information LCR* IE, then the Node B shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]
- [TDD - The Node B shall allocate an E-RNTI identifier and include the E-RNTI identifier and the E-AGCH(s) assigned in the *E-DCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

[TDD - Intra-Node B Serving E-DCH Radio Link Change]:

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link]:

- [TDD - The Node B shall allocate E-AGCH parameters [1.28Mcps TDD - E-HICH parameters] corresponding to the E-DCH and include the *E-AGCH Specific Information Response TDD* IE, [1.28Mcps TDD - *E-HICH Specific Information Response 1.28Mcps TDD* IE] in the *E-DCH Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

Response Message:

If all requested RLs are successfully added, the Node B shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message, the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK ADDITION REQUEST message, the Node B shall:

- [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in [16].]
- [TDD - start transmission on the new RL immediately as specified in [16].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK ADDITION REQUEST message, the Node B shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
 - not start any DL transmission for the concerned RL on the Uu interface;
- if the *Delayed Activation* IE indicates "CFN":
 - [FDD - start transmission on the DL DPDCH(s) of the new RL as specified in [16], however never before the CFN indicated in the *Activation CFN* IE.]
 - [TDD - start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [16].]

8.3.1.3 Unsuccessful Operation

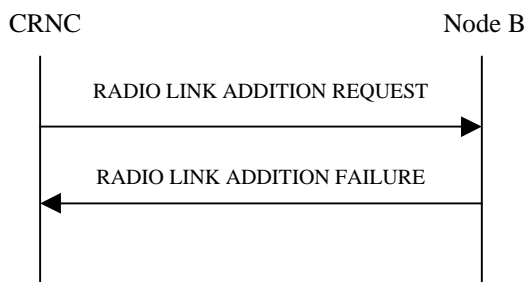


Figure 29: Radio Link Addition procedure: Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK ADDITION FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD - If some RL(s) were established successfully, the Node B shall indicate this in the RADIO LINK ADDITION FAILURE message in the same way as in the RADIO LINK ADDITION RESPONSE message.]

[FDD - If the RADIO LINK ADDITION REQUEST contains a *C-ID* IE indicating that a Radio Link must be established on a Cell where DPC Mode change is not supported and DPC Mode can be changed for the relevant Node B Communication Context, the Node B shall consider the procedure as failed for the concerned Radio Link and shall respond with a RADIO LINK ADDITION FAILURE with the appropriate cause value ("DPC Mode change not supported").]

[FDD - If the requested Serving HS-DSCH Radio Link Change was successful, or if the addition of the requested serving HS-DSCH Radio Link was successful or existed already but the Serving HS-DSCH Radio Link change was unsuccessful, the Node B shall indicate this in the *HS-DSCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION FAILURE message.]

[FDD - If the requested Serving E-DCH Radio Link Change was successful, or if the addition of the requested serving E-DCH Radio Link was successful or existed already but the Serving E-DCH Radio Link change was unsuccessful, the Node B shall indicate this in the *E-DCH Serving Cell Change Information Response* IE in the RADIO LINK ADDITION FAILURE message.]

Typical cause values are as follows:

Radio Network Layer Cause

- Combining not supported
- Combining Resources not available
- Requested Tx Diversity Mode not supported
- UL SF not supported
- DL SF not supported
- Reconfiguration CFN not elapsed
- CM not supported
- [FDD - DPC Mode change not supported]
- Delayed Activation not supported
- [FDD - Continuous Packet Connectivity DTX-DRX operation not available]
- [FDD - Continuous Packet Connectivity UE DTX Cycle not available]
- [FDD - MIMO not available]
- [FDD - TX diversity for MIMO UE on DL Control Channels not available]

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.1.4 Abnormal conditions

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *Compressed Mode Deactivation Flag* IE with the value "Deactivate" when compressed mode is active for the existing RL(s), and at least one of the new RL is added in a cell that has the same UARFCN (both UL and DL) of at least one cell with an already existing RL, the Node

B shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Invalid CM settings".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Individual" in the existing RL(s) and if the *DL Reference Power* IEs are included in the *RL Information* IE but the *DL Reference Power* IE is not present for each RL in the *RL Information* IE, the Node B shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IEs in the *RL Information* IE but the power balancing is not active in the existing RL(s) or the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Common" in the existing RL(s), the Node B shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE or *RL Specific E-DCH Information* IE included in the *RL Information* IE for a specific RL [FDD - and the E-DCH RL is already configured in the Node B] and the *Diversity Control Field* IE is set to "Must", the Node B shall regard the Radio Link Addition procedure as failed and respond with the RADIO LINK ADDITION FAILURE message.

If ALCAP is not used, if the RADIO LINK ADDITION REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "May", the Node B shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If ALCAP is not used, if the RADIO LINK ADDITION REQUEST message does not include the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must Not", the Node B shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK ADDITION REQUEST message does not include the *UARFCN* IE, the Node B shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.]

[1.28Mcps TDD - For a single frequency cell, if the RADIO LINK ADDITION REQUEST message includes the *UARFCN* IE, the Node B shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.]

[FDD - If the concerned NodeB Communication Context is configured to use DPCH in downlink and if a transmission gap pattern sequence is active with an SF/2 downlink compressed mode method and the RADIO LINK ADDITION REQUEST message does not contain the transmission gap pattern sequence code information for any new radio link, the NodeB shall reject the Radio Link Addition procedure using the RADIO LINK ADDITION FAILURE message with the cause value "Invalid CM Settings".]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-DSCH Serving Cell Change Information* IE but not the *HS-DSCH FDD Information* IE and the Node B Communication Context is not configured for HS-DSCH, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving E-DCH RL* IE but the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Serving Cell Change CFN* IE but neither the *Serving E-DCH RL* IE nor *HS-DSCH Serving Cell Change Information* IE is included into, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK ADDITION REQUEST message, but the *E-DPCH Information* IE is not present, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *HS-PDSCH RL-ID* IE not equal to the *RL ID* IE, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message includes the *E-DCH Serving RL* IE not equal to the *RL ID* IE, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message contains the *HS-DSCH Information* IE and if the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] has the value "Indexed MAC-d PDU Size", the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message does not include the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] and the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE [FDD - in the *HS-DSCH Serving Cell Change Information*] has the value "Flexible MAC-d PDU Size", the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[TDD - If the RADIO LINK ADDITION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for HS-DSCH MAC-d flow being added, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[TDD - If the RADIO LINK ADDITION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for E-DCH MAC-d flow being added, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message contains the *HS-PDSCH RL ID* IE [FDD - in the *HS-DSCH Serving Cell Change Information* IE] and/or *Serving E-DCH RL* IE and if both HS-DSCH and E-DCH are configured in the Node B but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *HS-DSCH Serving Cell Change Information* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as "HS-DSCH not configured" then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH but the DCH is configured to be included as a part of the downlink CCTrCH, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message contains the *MIMO Activation Indicator* IE and/or *Sixtyfour QAM Usage Allowed Indicator* IE set to "Allowed", but does not contain the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size", then the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Serving E-DCH RL ID* IE but contains the *Transport Bearer Not Requested Indicator* IE or there is at least one E-DCH MAC-d flow which transport bearer was not configured in the Node B, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH for a specific RL and the specific RL is combined with the existing RL which the transport bearer is

established for the DCH in Node B, the Node B shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

8.3.2 Synchronised Radio Link Reconfiguration Preparation

8.3.2.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of Radio Link(s) related to one Node B Communication Context.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.2.2 Successful Operation

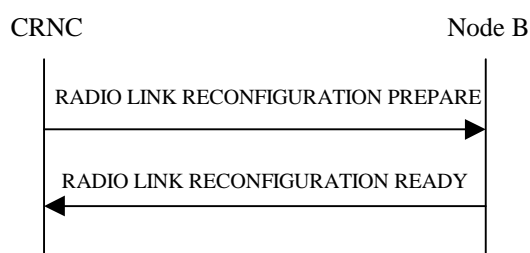


Figure 30: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the CRNC by sending the RADIO LINK RECONFIGURATION PREPARE message to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Modify* IE then the Node B shall treat them each as follows:

- If the *DCHs To Modify* IE includes the *Frame Handling Priority* IE, the Node B should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new configuration has been activated.
- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the UL of a DCH, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCHs To Modify* IE includes the *TNL QoS* IE for a DCH or a set of co-ordinated DCHs to be modified and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply in the uplink for the related DCH or set of co-ordinated DCHs.
- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the DL of a DCH, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCHs To Modify* IE includes the *Allocation/Retention Priority* IE for a DCH, the Node B shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs, the Node B shall treat the DCHs in the *DCHs to Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.]
- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]
- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD - If the *DCHs To Modify* IE includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Downlink of this DCH in the new configuration.]
- [TDD - If the *DCHs To Modify* IE includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Addition:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Add* IEs then the Node B shall treat them each as follows:

- If the *DCHs To Add* IE includes multiple *DCH Specific Info* IEs, the Node B shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.
- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.
- [FDD - For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]
- For a set of co-ordinated DCHs, the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [16]. [FDD - If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If all DCHs have the *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE, ref. [16].]
- The Node B should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.
- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the

transport bearer characteristics to apply for the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.

- The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD - The Node B shall apply the *CCTrCH ID* IE (for the DL) in the Downlink of this DCH in the new configuration.]
- [TDD - The Node B shall apply the *CCTrCH ID* IE (for the UL) in the Uplink of this DCH in the new configuration.]

DCH Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Delete* IE, the Node B shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the Node B shall not include this set of co-ordinated DCHs in the new configuration.

Physical Channel Modification:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *UL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the Node B shall apply this Uplink Scrambling Code to the new configuration.]
- [FDD - If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the Node B shall apply the value in the new configuration. The Node B shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]
- [FDD - If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the Node B shall use the value for the UL inner loop power control when the new configuration is being used.]
- [FDD - If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the Node B shall apply the value in the uplink of the new configuration.]
- [FDD - The Node B shall use the *TFCS* IE for the UL (if present) when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the Uplink of the new configuration.]
- [FDD - If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, the Node B shall set the new Uplink DPCCH Structure to the new configuration.]
- [FDD - If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the Node B shall apply diversity according to the given value.]
- [FDD - If the *UL DPCH Information* IE includes the *UL DPDCH Indicator For E-DCH Operation* IE and it is set to "UL DPDCH not present", the UL DPDCH resources shall be removed from the configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Information* IE and the concerned Node B Communication Context is configured to use F-DPCH in the downlink in the old configuration, the Node B shall configure the concerned Node B Communication Context to use DPCH in the downlink in the new configuration.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Power Information* IE, the Node B shall use the information contained in it for the power settings of the DL DPCH. In

particular, if the received *Inner Loop DL PC Status IE* is set to "Active", the Node B shall activate the inner loop DL power control for all RLS. If *Inner Loop DL PC Status IE* is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLS according to ref. [10].]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL DPCH Information IE*, the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - The Node B shall use the *TFCS IE* for the DL (if it is present) when reserving resources for the downlink of the new configuration. The Node B shall apply the new TFCS in the Downlink of the new configuration.]
- [FDD - If the *DL DPCH Information IE* includes the *TFCI Signalling Mode IE* or the *TFCI Presence IE*, the Node B shall use the information when building TFCIs in the new configuration.]
- [FDD - If the *DL DPCH Information IE* includes the *DL DPCH Slot Format IE*, the Node B shall set the new Downlink DPCH Structure to the new configuration.]
- [FDD - If the *DL DPCH Information IE* includes the *Multiplexing Position IE*, the Node B shall apply the indicated multiplexing type in the new configuration.]
- [FDD - If the *DL DPCH Information IE* includes the *Limited Power Increase IE* set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD - If the *DL DPCH Information IE* includes the *Limited Power Increase IE* set to "Not Used", the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *F-DPCH Information IE*, the Node B shall configure the concerned Node B Communication Context to use F-DPCH in the downlink in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information IE*, the Node B shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated or once the previous Compressed Mode Configuration has been deactivated. This new Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information IE*, then:]

- [FDD - The Node B shall configure the concerned Node B Communication Context for DTX operation according to [10].]
- [FDD - If *DRX Information IE* is included in the *Continuous Packet Connectivity DTX-DRX Information IE*, then the Node B shall configure the concerned Node B Communication Context for DRX operation according to [10].]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify IE*, then:]

- [FDD - If the *UE DTX DRX Offset IE* is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify IE*, then the Node B shall apply the indicated Offset in *UE DTX DRX Cycle IE* in the new configuration.]
- [FDD - If the *Enabling Delay IE* is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify IE*, then the Node B shall use this value to determine the beginning of uplink transmission in the new configuration according to [10].]
- [FDD - If the *DTX Information To Modify IE* is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify IE*, then the Node B shall use this information to modify the indicated DTX Information parameter in the new configuration. If the choice of *DTX Information To Modify IE* is "Deactivate", then DRX should be deactivated together with DTX.]

- [FDD - If the *DRX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall use this information to modify the indicated DRX Information in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD - The Node B shall configure the Serving HS-DSCH Radio Link for Continuous Packet Connectivity HS-SCCH less operation in the new configuration according to [10].]
- [FDD - The Node B shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD - If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the Node B shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE, then the Node B shall deactivate the Continuous Packet Connectivity HS-SCCH less operation for the HS-DSCH Radio Link.]

[FDD - E-DPCH Handling]:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DPCH Information* IE, the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *E-DPCH Information* IE includes the *Maximum Set of E-DPDCHs* IE, the Node B shall apply the contents of the Maximum Set in the new configuration.]
- [FDD - If the *E-DPCH Information* IE includes the *Puncture Limit* IE, the Node B shall apply the value in the uplink of the new configuration]
- [FDD - If the *E-DPCH Information* IE includes the *E-TFCS Information* IE, the Node B shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI* IE the Node B shall use the value for the related resource allocation operation.]
- [FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the Node B shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the Node B shall use the E-DPDCH power extrapolation formula defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION PREPARE message.]
- [FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the Node B shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the Node B shall use the E-TFCI BetaEC Boost value "127" in the algorithm defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION PREPARE message.]
- [FDD - If the *E-DPCH Information* IE includes the *E-TTI* IE, the Node B shall use the value when the new configuration is being used.]
- [FDD - If the *E-DPCH Information* IE includes the *E-DPCCH Power Offset* IE, the Node B shall use the value when the new configuration is being used.]
- [FDD - If the *E-DPCH Information* IE includes the *E-RGCH 2-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]
- [FDD - If the *E-DPCH Information* IE includes the *E-RGCH 3-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]
- [FDD - If the *E-DPCH Information* IE includes the *HARQ Info for E-DCH* IE, the Node B shall use the value when the new configuration is being used.]
- [FDD - If the *E-DPCH Information* IE includes the *HS-DSCH Configured Indicator* IE, the Node B shall use the value when the new configuration is being used.]

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH to Modify* or *DL CCTrCH to Modify* IE, then the Node B shall treat them each as follows:]

- [TDD - If the IE includes any of the *TFCS IE*, *TFCI coding IE* or *Puncture Limit IE*, the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]
- [TDD - If the IE includes any *UL DPCH To Add IE*, *UL DPCH To Add LCR IE*, *UL DPCH To Add 7.68Mcps IE*, *DL DPCH To Add 7.68Mcps IE*, *DL DPCH To Add LCR IE*, or *DL DPCH To Add IE*, the Node B shall include this DPCH in the new configuration.]
- [TDD - If the IE includes any *UL DPCH To Delete IE* or *DL DPCH To Delete IE*, the Node B shall remove this DPCH in the new configuration.]
- [TDD - If the IE includes any *UL DPCH To Modify IE* or *DL DPCH To Modify IE* and includes any of the *Repetition Period IE*, *Repetition Length IE* or *TDD DPCH Offset IE*, or the message includes UL/DL Timeslot Information and includes any of the [3.84Mcps TDD - *Midamble Shift And Burst Type IE*], [1.28Mcps TDD - *Midamble Shift LCR IE*], [7.68Mcps TDD - *Midamble Shift And Burst Type 7.68Mcps IE*], or *TFCI Presence IE* or the message includes UL/DL Code information and includes [3.84Mcps TDD - *TDD Channelisation Code IE*], [1.28Mcps TDD - *TDD Channelisation Code LCR IE*] , [7.68Mcps TDD - *TDD Channelisation Code 7.68Mcps IE*], [1.28Mcps TDD - *TDD UL DPCH Time Slot Format LCR IE* or *TDD DL DPCH Time Slot Format LCR IE*], the Node B shall apply these specified information elements as the new values, otherwise the old values specified for this DPCH configuration are still applicable.]
- [1.28Mcps TDD - If the *UL CCTrCH To Modify IE* includes the *UL SIR Target IE*, the Node B shall use the value for the UL inner loop power control according [19] and [21] when the new configuration is being used.]
- [1.28Mcps TDD - If the *UL CCTrCH to Modify IE* includes the *TDD TPC UL Step Size IE*, the Node B shall apply this value to the uplink TPC step size in the new configuration.]
- [TDD - If the *DL CCTrCH to Modify IE* includes the *TDD TPC DL Step Size IE*, the Node B shall apply this value to the downlink TPC step size in the new configuration.]
- [1.28Mcps TDD - If the *DL DPCH To Modify Per RL IE* includes the *TDD TPC DL Step Size IE* and the *RL ID IE* in the *DL DPCH To Modify Per RL IE* is same as the *HS-PDSCH RL ID IE* , the Node B shall apply this value to the HS-SCCH TPC step size in the new configuration.]
- [1.28Mcps TDD - If the *UL Timeslot Information LCR IE* includes the *PLCCH Information IE*, the Node B shall delete / add / modify the PLCCH assignment according to the content when the new configuration is used.]

[TDD - UL/DL CCTrCH Addition]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Add IE* or *DL CCTrCH To Add IE*, the Node B shall include this CCTrCH in the new configuration.]

[TDD - If the *UL/DL CCTrCH To Add IE* includes any [3.84Mcps TDD - *UL/DL DPCH Information IE*] [1.28Mcps TDD - *UL/DL DPCH Information LCR IE*] [7.68Mcps TDD - *TDD Channelisation Code 7.68Mcps IE*], the Node B shall reserve necessary resources for the new configuration of the UL/DL DPCH(s) according to the parameters given in the message.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *TDD TPC DL Step Size IE* within a *DL CCTrCH To Add IE*, the Node B shall set the downlink TPC step size of that CCTrCH to that value, otherwise the Node B shall set the TPC step size of that CCTrCH to the same value as the lowest numbered DL CCTrCH in the current configuration.]

[1.28Mcps TDD - If the *UL CCTrCH To Add IE* includes the *TDD TPC UL Step Size IE*, the Node B shall apply the uplink TPC step size in the new configuration.]

[1.28Mcps TDD - The Node B shall use the *UL SIR Target IE* in the *UL CCTrCH To Add IE* as the UL SIR value for the inner loop power control for this CCTrCH according [19] and [21] in the new configuration.]

[1.28Mcps TDD - If the *DL DPCH To Add Per RL IE* includes the *TDD TPC DL Step Size IE* and the *RL ID IE* in the *DL DPCH To Add Per RL IE* is same as the *HS-PDSCH RL ID IE* , the Node B shall apply this value to the HS-SCCH TPC step size in the new configuration.]

[1.28Mcps TDD - If the *UL Timeslot Information LCR* IE includes the *PLCCH Information* IE, the Node B shall add the PLCCH assignment when the new configuration is used.]

[TDD - UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any UL or DL CCTrCH to be deleted, the Node B shall remove this CCTrCH in the new configuration.]

DL Power Control:

- [FDD - If the *RL Information* IE includes the *DL Reference Power* IEs and the power balancing is active, the Node B shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported, when the new configuration has been activated, according to subclause 8.3.7, using the *DL Reference Power* IE. If the CFN modulo the value of the *Adjustment Period* IE is not equal to 0, the power balancing continues with the old reference power until the end of the current adjustment period, and the updated reference power shall be used from the next adjustment period.]

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported by the Node B, the Node B shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION READY message.]

[TDD - DSCH Addition/Modification/Deletion]:

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add*, *DSCH To Modify* or *DSCH To Delete* IE, then the Node B shall use this information to add/modify/delete the indicated DSCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]

[TDD - The Node B shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *TNL QoS* IE in the *DSCH TDD Information* IE and if ALCAP is not used, the Node B may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related DSCH.]

[TDD - USCH Addition/Modification/Deletion]:

- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes USCH information for the USCHs to be added/modified/deleted then the Node B shall use this information to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]
- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes USCH information for the USCHs to be added/modified, if the *TNL QoS* IE is included and if ALCAP is not used, the Node B may use the *TNL QoS* IE to determine the transport bearer characteristics to apply between the Node B and the CRNC for the related USCHs.]
- [TDD - The Node B shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each USCH.]

RL Information:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *RL Information* IE, the Node B shall treat it as follows:

- [FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When p number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the p th to "*PhCH number p*".]
- [FDD - If the *RL Information* IE includes a *DL Code Information* IE, the Node B shall apply the values in the new configuration.]
- [FDD - If the *RL Information* IE contains the *Transmission Gap Pattern Sequence Code Information* IE in the *DL Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate

scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]

- [FDD - If the *RL Information* IE includes the *Maximum DL Power* and/or the *Minimum DL Power* IEs, the Node B shall apply the values in the new configuration. During compressed mode, the δP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]
- [3.84 Mcps TDD and 7.68Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the maximum CCTrCH DL power for the DCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the maximum CCTrCH DL power, otherwise the maximum CCTrCH DL power is the *Maximum Downlink Power* IE included in the *RL Information* IE. If no *Maximum Downlink Power* IE is included (even if *CCTrCH Maximum DL Transmission Power* IEs are included), any maximum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]
- [3.84 Mcps TDD and 7.68Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the minimum CCTrCH DL power for the DCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the minimum CCTrCH DL power, otherwise the minimum CCTrCH DL power is the *Minimum Downlink Power* IE included in the *RL Information* IE. If no *Minimum Downlink Power* IE is included (even if *CCTrCH Minimum DL Transmission Power* IEs are included), any minimum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]
- [3.84 Mcps TDD and 7.68Mcps TDD - If the *DL CCTrCH To Modify* IE is included and *Maximum CCTrCH DL Power to Modify* IE and/or *Minimum CCTrCH DL Power to Modify* IE are included, the Node B shall apply the values in the new configuration for this DCH type CCTrCH. If the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values for all other DCH type CCTrCHs of the radio link.]
- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the maximum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Maximum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable DL DPCH. If no *Maximum Downlink Power* IE is included, any maximum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]
- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the minimum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Minimum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable DL DPCH. If no *Minimum Downlink Power* IE is included, any minimum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]
- [1.28 Mcps TDD - If the *DL CCTrCH To Modify* IE is included and *Maximum DL Power to Modify LCR* IE and/or *Minimum DL Power to Modify LCR* IE are included, the Node B shall apply the values in the new configuration for this timeslot, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other timeslots.]
- [3.84Mcps TDD and 7.68Mcps TDD - If the *RL Information* IE includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Initial DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the initial CCTrCH DL power, otherwise the initial CCTrCH DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall apply the determined initial CCTrCH DL power to the transmission on each DPCH of the CCTrCH when starting transmission on a new CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included with a new CCTrCH (even if *CCTrCH Initial DL Transmission Power* IEs are included), the Node B shall use any transmission power level currently used on already existing CCTrCHs when starting transmission for a new CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 4.2.3.4).]

- [3.84Mcps TDD and 7.68Mcps TDD - The initial power, maximum power, and minimum power for a DSCH type CCTrCH to be added or modified, shall be determined as follows:
 - If the DSCH type CCTrCH is paired with an uplink CCTrCH(s) for inner loop power control, the minimum, maximum and initial power for each PDSCH is determined in the same way as described above for DCH type CCTrCHs.
 - If the DSCH type CCTrCH is not paired with an uplink CCTrCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the same way as described above for DCH type CCTrCHs. The minimum and initial powers, however, are subject to control by the CRNC via the frame protocol].
- [1.28 Mcps TDD - If the *RL Information* IE includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot in a DCH type CCTrCH by the following rule: If the *Initial DL Transmission Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the initial DL power, otherwise the initial DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing timeslots for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]
- [1.28Mcps TDD - If the *RL Information* IE includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot within the DSCH type CCTrCH by the following rule: If both the *CCTrCH Initial DL Transmission Power* IE and the *DL Time Slot ISCP Info LCR* IE are included then the Node B shall use that power for the PDSCH power, otherwise the PDSCH power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. If *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall apply the given power to the transmission on each PDSCH and on each timeslot of the CCTrCH when starting transmission on a new CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included with a new CCTrCH (even if *CCTrCH Initial DL Transmission Power* IEs are included), the Node B shall use any transmission power level currently used on already existing RL/timeslots when starting transmission for a new CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]
- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the maximum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable DL PDSCH. If no *Maximum Downlink Power* IE is included, any maximum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]
- [1.28 Mcps TDD - If the *DL CCTrCH To Add* IE is included, the Node B shall determine the minimum DL power for each timeslot within a DSCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum Downlink Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable DL PDSCH. If no *Minimum Downlink Power* IE is included, any minimum DL power stored for already existing timeslots for this Node B Communication Context shall be applied.]
- [1.28 Mcps TDD - If the *DL CCTrCH To Modify* IE is included and the *Maximum CCTrCH DL Power to Modify* IE and/or the *Minimum CCTrCH DL Power to Modify* IE are included, the Node B shall apply the values in the new configuration for this DSCH type CCTrCH, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other timeslots.]
- [FDD - If the *RL Information* IE includes the *DL DPCH Timing Adjustment* IE, the Node B shall adjust the timing of the radio link accordingly in the new configuration.]

- [1.28Mcps TDD - If the *RL Information* IE message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]
- [FDD - If the *RL Information* IE includes the *F-DPCH Slot Format* IE and if the Node B Communication Context is configured to use F-DPCH in the downlink, then the Node B shall use this information to configure the F-DPCH slot format of each RL according to [7].]

[TDD - PDSCH RL ID]:

- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *PDSCH RL ID* IE then in the new configuration the Node B shall use the PDSCH and/or PUSCH in this radio link.]

Signalling bearer rearrangement:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Signalling Bearer Request Indicator* IE the Node B shall allocate a new Communication Control Port for the control of the Node B Communication Context and include the *Target Communication Control Port ID* IE in the RADIO LINK RECONFIGURATION READY message.

HS-DSCH Setup:

If the *HS-DSCH Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message, then:

- The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.
- The Node B shall include the *HARQ Memory Partitioning* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message. [FDD - The *HARQ Memory Partitioning* IE shall either contain the *HARQ Memory Partitioning Information Extension For MIMO* IE or the *Number of Processes* IE set to a value higher than "8", if the *MIMO Activation Indicator* IE is included in the *HS-DSCH Information* IE.]
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.
- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK RECONFIGURATION PREPARE in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Measurement Power Offset* IE in the *HS-DSCH Information* IE, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]
- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SICH SIR Target* IE in the *HS-DSCH Information* IE, the Node B shall use this value to determine the HS-SICH SIR Target. The *HS-SICH SIR Target* IE indicates the received UL SIR target of HS-SICH NACK for this UE.]
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information* IE, then the Node B shall use the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].
- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.
- [FDD - If the *MIMO Activation Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B shall activate the MIMO mode for the HS-DSCH Radio Link and the Node B shall decide the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH FDD Information* IE with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d PDU Size Format* IE set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the Node B shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK RECONFIGURATION READY message if it decides to use the octet aligned table defined in [32] for HS-DSCH Transport Block Size signalling.]
- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION PREPARE message includes the *Number of Supported Carriers* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information to allocate HSDPA resources over multiple frequencies for UE.]
- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION PREPARE message includes the *Multi-carrier HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE, the Node B shall use this information together with the *HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information* IE to allocate HSDPA resources over multiple carriers for the UE.]

- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH over multiple frequencies and include the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B shall include the *HARQ Memory Partitioning per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B may indicate the number of multiple frequencies actually used by the UE and include the *Multi-Carrier number* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

Intra-Node B Serving HS-DSCH Radio Link Change:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

- In the new configuration the Node B shall de-allocate the HS-PDSCH resources of the old Serving HS-PDSCH Radio Link and allocate the HS-PDSCH resources for the new Serving HS-PDSCH Radio Link.
- The Node B may include the *HARQ Memory Partitioning* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message. [FDD - The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]
- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.
- If a reset of the MAC-hs is not required the Node B shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION READY message.

HS-DSCH Modification:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE for every HS-DSCH MAC-d flow being modified for which the establishment of one or several new Priority Queues was requested, if the Node B allows the CRNC to start the transmission of MAC-d PDUs for the Priority Queue(s) being established before the Node B has allocated capacity on user plane as described in [24]. If RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information To Modify* IE set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK RECONFIGURATION PREPARE in the *HS-DSCH Information To Modify* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH Information To Modify* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH Information To Modify* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Window Size* IE or *TI* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use the indicated values in the new configuration for the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-d PDU Size Index* IE in the *Modify Priority Queue* choice, the Node B shall delete the previous list of MAC-d PDU Size Index values for the related HSDPA Priority Queue and use the MAC-d PDU Size Index values indicated in the *MAC-d PDU Size Index* IE in the new configuration.
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *CQI Feedback Cycle k* IE, the *CQI Repetition Factor* IE, the *ACK-NACK Repetition Factor* IE, the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use the indicated CQI Feedback Cycle *k* value, the CQI Repetition Factor or the ACK-NACK Repetition Factor, ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]
- [FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Modify* IE, the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *Measurement Power Offset* IE in the *HS-DSCH Information* IE or the *HS-DSCH Information To Modify* IE, then the Node B shall use the measurement power offset as described in [10] subclause 6A.2.]
- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use the indicated power offset in the new configuration.]
- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SICH SIR Target* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this value to the SIR Target in the new configuration. The *HS-SICH SIR Target* IE indicates the received UL SIR target of HS-SICH NACK for this UE.]
- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SICH TPC step size* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this value to the HS-SICH TPC step size in the new configuration.]
- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION PREPARE message includes the *Multi-carrier HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this information together with the *HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information To Modify* IE to allocate HSDPA resources over multiple carriers for the UE.]
- [FDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the Node B may modify the HS-SCCH codes corresponding to the HS-DSCH. The Node B shall then report the codes which are used in the new configuration specified in the *HS-SCCH Specific Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [TDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the Node B may modify the HS-SCCH parameters corresponding to the HS-DSCH. The Node B shall then report the values for the parameters which are used in the new configuration specified in the [3.84Mcps TDD - *HS-SCCH Specific Information Response*] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR*] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps*] IEs in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the *HS-DSCH Information To Modify* IE includes the *HS-PDSCH Code Change Grant* IE, then the Node B may modify the HS-PDSCH codes corresponding to the HS-DSCH. The Node B shall then report the codes which are used in the new configuration specified in the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the concerned Node B is not in Continuous Packet Connectivity HS-SCCH less mode, the RNC shall not include the *HS-PDSCH Code Change Grant* IE in the *HS-DSCH Information To Modify* IE.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use the indicated HARQ Preamble Mode in the new configuration as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d PDU Size Format* IE in the *HS-DSCH Information To Modify* IE, then the Node B shall use, in the new configuration, the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].
- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Physical Layer Category* IE in the *HS-DSCH Information To Modify* IE, the Node B shall use this information in the new configuration and may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION READY message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]
- [FDD - If the *MIMO Mode Indicator* IE is included in the *HS-DSCH Information To Modify* IE, then the Node B shall activate/deactivate the MIMO mode for the HS-DSCH Radio Link in accordance with the *MIMO Mode Indicator* IE.]
 - [FDD - If the *MIMO Mode Indicator* IE is set to "Activate", then the Node B shall decide the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify* IE, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *SixtyfourQAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify* IE with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]
- [FDD - If MAC-ehs is applied in the new configuration, and if Sixtyfour QAM will not be used, the Node B shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK RECONFIGURATION READY message if it decides to use the octet aligned table defined in [32] for HS-DSCH Transport Block Size signalling.]
- [1.28Mcps TDD - For a multi-frequency cell, if the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, and the Node B allows UE to use HSDPA resources distributed over multiple frequencies, then the Node B may modify the HS-SCCH Codes corresponding to the HS-DSCH over multiple frequencies, the Node B shall then report the codes which are used in the new configuration specified in the *HS-SCCH Specific Information Response LCR per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

HS-DSCH MAC-d Flow Addition/Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated HS-DSCH MAC-d flows. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the HS-DSCH configuration from the Node B Communication Context and release the HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d Flows To Add* IE, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being added, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If Node B Communication Context is configured to use the "Flexible MAC-d PDU Size" format for the HS-DSCH, then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK RECONFIGURATION PREPARE message in the *HS-DSCH MAC-d Flows To Add* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.
- The Node B may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION READY message. [FDD - The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]
- If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.
- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B may include the *HARQ Memory Partitioning per UARFCN* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD - E-DCH Setup:]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION PREPARE message:]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel information* IE in the *E-DCH FDD Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions.]
- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Serving E-DCH RL* IE indicating that the Serving E-DCH RL is in this Node B:]
 - [FDD - The Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message.]
 - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION READY message for the initial grant for the serving E-DCH RL.]
 - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
 - [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK RECONFIGURATION READY message for the serving E-DCH RL.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]
- [FDD - If in the RADIO LINK RECONFIGURATION PREPARE message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the *HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]
- [FDD - If in the RADIO LINK RECONFIGURATION PREPARE message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SixteenQAM UL Operation Indicator* IE, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]
- [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]

[FDD - E-DCH Radio Link Handling:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH RL Indication* IE in the *RL Information* IE:]

- [FDD - The Node B shall setup the E-DCH resources, as requested or as configured in the Node B communication context, on the Radio Links indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]
- [FDD - The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code* IE and shall include the *E-RGCH/E-HICH Channelisation Code* IE and the corresponding *E-HICH Signature Sequence* IE and the Node B may include the corresponding *E-RGCH Signature Sequence* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message for every RL indicated by the *E-DCH RL Indication* IE, set to "E-DCH", in the *RL Information* IE.]
- [FDD - The Node B shall remove the E-DCH resources, if any, on the Radio Links, that are indicated by the *E-DCH RL Indication* set to "Non E-DCH".]
- [FDD - For each RL for which the *E-DCH RL Indication* IE is set to "E-DCH", and which has or can have a common generation of E-RGCH information with another RL (current or future) when the Node B would contain the E-DCH serving RL, the Node B shall include the *E-DCH RL Set ID* IE in the RADIO LINK RECONFIGURATION READY message. The value of the *E-DCH RL Set ID* IE shall allow the RNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

[FDD - Serving E-DCH Radio Link Change:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Serving E-DCH RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [FDD - If the old Serving E-DCH RL is in this Node B, the Node B shall de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link at the activation of the new configuration.]
- [FDD - If the new Serving E-DCH RL is in this Node B:]
 - [FDD - The Node B may allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message.]
 - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION READY message for the initial grant for the new serving E-DCH RL.]
 - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
 - [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK RECONFIGURATION READY message for the new serving E-DCH RL.]
 - [FDD - The Node B may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION READY message for every E-DCH Radio Links in the Node B.]

[FDD - E-DCH Modification:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information To Modify* IE, then:]

- [FDD - If the *E-DCH FDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the Node B shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the Node B shall use this information to report if the maximum number of retransmissions has been exceeded.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH HARQ Power Offset FDD* IE in the *E-DCH FDD Information To Modify* IE for an E-DCH MAC-d flow the Node B shall use this information for calculating the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$) as defined in [10].]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the E-DCH Grant Type and it is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the *HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the E-DCH Grant Type and it is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the Node B shall use this information to add/delete the indicated logical channels. When an logical channel is deleted, all its associated configuration data shall also be removed.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Logical Channel To Modify* IE, the Node B shall use this information to modify the indicated logical channels:]
 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the Node B shall apply the values in the new configuration.]
 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the Node B shall apply the values in the new configuration.]
 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the Node B shall apply the values in the new configuration.]
 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *E-DCH DDI Value* IE, the Node B shall apply the values in the new configuration.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information To Modify* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]
- [FDD - If the E-DCH serving RL is in this Node B, the Node B may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission. In this case the Node B shall

allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-e Reset Indicator* IE in the *E-DCH FDD Information To Modify* IE, then the Node B shall use this value to determine whether MAC-e Reset is performed in the UE for sending the HARQ Failure Indication.]
- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SixteenQAM UL Operation Indicator* IE in the *E-DCH FDD Information To Modify* IE, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator* IE.]
 - [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]
 - [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH DL Control Channel Grant Information* IE in the *E-DCH FDD Information To Modify* IE, the Node B may modify E-AGCH Channelisation Code, E-RGCH/E-HICH Channelisation Code, E-RGCH Signature Sequence and/or E-HICH Signature Sequence for the E-DCH RL indicated by the *E-DCH RL ID* IE. The Node B shall then report the modified configuration which is used in the new configuration specified in the *E-DCH FDD DL Control Channel Information* IE for each E-DCH RL in the RADIO LINK RECONFIGURATION READY message.]

[FDD - E-DCH MAC-d Flow Addition/Deletion:]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *E-DCH MAC-d Flows To Add* or *E-DCH MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the E-DCH configuration from the Node B Communication Context and release the E-DCH resources.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-e scheduling decisions.]

[TDD - Intra-Node B Serving E-DCH Radio Link Change:]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [TDD - In the new configuration the Node B shall de-allocate the E-DCH resources of the old Serving E-DCH Radio Link and allocate the E-DCH resources for the new Serving E-DCH Radio Link.]
- [TDD - The Node B shall allocate E-AGCH parameters [1.28Mcps TDD - and E-HICH parameters] corresponding to the E-DCH and include the *E-AGCH Specific Information Response TDD* IE [1.28Mcps TDD - and *E-HICH Specific Information Response TDD* IE] in the *E-DCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [TDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

[TDD - E-PUCH Handling]:

[3.84Mcps TDD and 7.68Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-PUCH Information* IE, the Node B shall apply the parameters to the new configuration.]

[1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-PUCH Information LCR* IE, the Node B shall apply the parameters to the new configuration.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-TFCS Information TDD* IE, the Node B shall apply the beta parameters to the new configuration.]

[3.84Mcps TDD - E-DCH Setup]:

[3.84Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information* IE and *E-DCH Non-scheduled Grant Information TDD* IE if there are to be non-scheduled grants.]

[1.28Mcps TDD - E-DCH Setup]:

[1.28Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information LCR* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information LCR* IE and *E-DCH Non-scheduled Grant Information LCR TDD* IE if there are to be non-scheduled grants.]

[7.68Mcps TDD - E-DCH Setup]:

[7.68Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information 7.68Mcps* IE and *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE if there are to be non-scheduled grants.]

[TDD - E-DCH MAC-d Flow Addition/Deletion:]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *E-DCH MAC-d Flows To Add* or *E-DCH MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the Node B Communication Context, then the

Node B shall delete the E-DCH configuration from the Node B Communication Context and release the E-DCH resources.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining non-scheduled E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the non-scheduled E-DCH configuration from the Node B Communication Context and release the non-scheduled E-DCH resources [1.28 Mcps TDD - and the related Signature Sequence of the Non-scheduled E-HICH].]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-e scheduling decisions.]
- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-es Maximum Bit Rate LCR* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

[3.84Mcps TDD - E-DCH Non-scheduled allocations:]

[3.84Mcps TDD - If the *E-DCH Non-scheduled Grant Information TDD* IE is present in the RADIO LINK RECONFIGURATION PREPARE message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[1.28Mcps TDD - E-DCH Non-scheduled allocations:]

[1.28Mcps TDD - If the *E-DCH Non-scheduled Grant Information LCR TDD* IE is present in the RADIO LINK RECONFIGURATION PREPARE message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[7.68Mcps TDD - E-DCH Non-scheduled allocations:]

[7.68Mcps TDD - If the *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE is present in the RADIO LINK RECONFIGURATION PREPARE message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[TDD - E-DCH Modification:]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the [3.84Mcps TDD - *E-DCH TDD Information* IE][1.28Mcps TDD - *E-DCH TDD Information LCR* IE][7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE], then:]

- [3.84Mcps TDD - If the *E-DCH TDD Information* IE includes the *E-DCH TDD Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [7.68Mcps TDD - If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [TDD - If the [3.84Mcps TDD - *E-DCH TDD Information* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]
- [TDD - If the [3.84Mcps TDD - *E-DCH TDD Information* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE] includes the *E-DCH Power Offset for Scheduling*

Info IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]

- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *Maximum Number of Retransmission for Scheduling Info LCR* IE and the *E-DCH Retransmission timer for Scheduling Info LCR* IE, then the Node B shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH TDD Information To Modify* IE, then:]

- [TDD - If the *E-DCH TDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the Node B shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]
- [TDD - If the *E-DCH TDD Information To Modify* IE message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the Node B shall use this information to report if the maximum number of retransmissions has been exceeded.]
- [1.28Mcps TDD - If the *E-DCH TDD Information To Modify* IE message includes the *E-DCH MAC-d Flow Retransmission Timer* IE for an E-DCH MAC-d flow then the Node B shall use this information to set the retransmission timer.]
- [TDD - If the *E-DCH TDD Information To Modify* IE message includes the *E-DCH HARQ Power Offset TDD* IE for an E-DCH MAC-d flow the Node B shall use this new power offset value.]
- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]
- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Grant Type* IE, the Node B shall treat the E-DCH MAC-d flow as Scheduled or Non-scheduled accordingly.]
- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the Node B shall use this information to add/delete the indicated logical channels. When a logical channel is deleted, all its associated configuration data shall also removed.]
- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Modify* IE, the Node B shall use this information to modify the indicated logical channels:]
 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the Node B shall apply the values in the new configuration.]
 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the Node B shall apply the values in the new configuration.]
 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the Node B shall apply the values in the new configuration.]
 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *E-DCH DDI Value* IE, the Node B shall apply the values in the new configuration.]
 - [1.28Mcps TDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Maximum Bit Rate LCR* IE, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *MAC-e Reset Indicator* IE in the *E-DCH TDD Information To Modify* IE, then the Node B shall use this value to determine whether MAC-e Reset is performed in the UE for sending the HARQ Failure Indication.]

[FDD - Phase Reference Handling]:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Primary CPICH Usage For Channel Estimation* IE, the Node B shall assume that Primary CPICH usage for channel estimation has been reconfigured.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Secondary CPICH Information Change* IE, the Node B shall assume that Secondary CPICH usage for channel estimation has been reconfigured.]

[FDD - Fast Reconfiguration]:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Fast Reconfiguration Mode IE*, the Node B shall, if supported, and if it is possible to base the synchronization of the reconfiguration on the detection of the change in the uplink scrambling code for this reconfiguration, include the *Fast ReconfigurationPermission IE* in the RADIO LINK RECONFIGURATION READY message.]

[1.28Mcps TDD - Power Control GAP:]

[1.28Mcps TDD - *If the Power Control GAP IE* is included in the RADIO LINK RECONFIGURATION PREPARE message, the Node B may use the value for the power control for HS-SCCH and HS-SICH according to the [21].]

General

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Layer Address IE* and *Binding ID IEs* in the [TDD - *DSCHs To Modify, DSCHs To Add, USCHs To Modify, USCHs To Add*], *HS-DSCH Information, HS-DSCH Information To Modify, HS-DSCH MAC-d Flows To Add*, [TDD - *E-DCH MAC-d Flows to Add, E-DCH TDD Information to Modify IE*] [FDD - *RL Specific E-DCH Information IE*] or in the *RL Specific DCH Information IEs*, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator IE* is not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator IE* is not included] being added, or any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator IE* was not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator IE* was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator IE*.

If the requested modifications are allowed by the Node B and the Node B has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the CRNC with the RADIO LINK RECONFIGURATION READY message. When this procedure has been completed successfully there exists a Prepared Reconfiguration, as defined in subclause 3.1.

The Node B shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address IE* and the *Binding ID IE* for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator IE* was not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator IE* was not included] being added or any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator IE* was not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator IE* was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator IE*.

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iub interface, the *Transport Layer Address IE* and the *Binding ID IE* in the *DCH Information Response IE* shall be included [FDD - if the *Transport Bearer Not Requested Indicator IE* is not included for this DCH,] only for one of the DCH in the set of co-ordinated DCHs.

[FDD - If the RADIO LINK RECONDIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator IE* set to "Transport Bearer shall not be Established" for a DCH or an E-DCH MAC-d flow, then the Node B shall not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator IE* for the DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION READY message.]

[FDD - If the RADIO LINK RECONDIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator IE* set to "Transport Bearer may not be Established" for a DCH or an E-DCH MAC-d flow and:]

- [FDD - if the Node B establishes a transport bearer for the concerned DCH or E-DCH MAC-d flow, the Node B shall include in the RADIO LINK RECONFIGURATION READY message the *Binding ID IE* and *Transport Layer Address IE* for establishment of a transport bearer for the DCH or E-DCH MAC-d flow being established.]
- [FDD - if the Node B does not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow, the Node B shall include the *Transport Bearer Not Setup Indicator IE* for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION READY message.]

In the case of a Radio Link being combined with another Radio Link within the Node B, the *Transport Layer Address IE* and the *Binding ID IE* in the *DCH Information Response IE* shall be included only for one of the combined Radio Links [FDD - if the *Transport Bearer Not Requested Indicator IE* is not included for this DCH].

[FDD - In the case of an E-DCH RL being combined with another E-DCH RL within the Node B, the *E-DCH FDD Information Response* IE shall be included only for one of the combined E-DCH RLs.]

8.3.2.3 Unsuccessful Operation

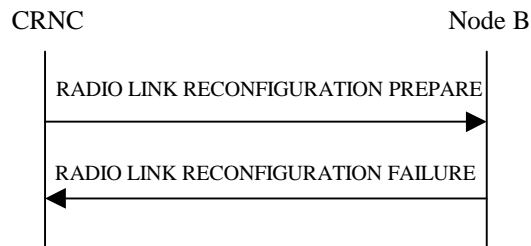


Figure 31: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation

If the Node B cannot reserve the necessary resources for all the new DCHs of one set of co-ordinated DCHs requested to be added, it shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration Preparation procedure fails for one or more RLs, the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

Typical cause values are as follows:

Radio Network Layer Cause

- UL SF not supported
- DL SF not supported
- Downlink Shared Channel Type not supported
- Uplink Shared Channel Type not supported
- CM not supported
- Number of DL codes not supported
- Number of UL codes not supported
- RL Timing Adjustment not supported
- F-DPCH not supported
- [FDD - Continuous Packet Connectivity DTX-DRX operation not available]
- [FDD - Continuous Packet Connectivity UE DTX Cycle not available]
- [FDD - MIMO not available].
- [FDD - TX diversity for MIMO UE on DL Control Channels not available]

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.2.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-Static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *DL Reference Power* IE, but the power balancing is not active in the indicated RL(s), the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the Node B shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Common" in the existing RL(s) but the RADIO LINK RECONFIGURATION PREPARE message IE includes more than one *DL Reference Power* IE, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the Node B shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message is to modify UE channel estimation information for an existing RL and the modification is not allowed according to [10] subclause 4.3.2.1, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the Node B, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE deleting the last remaining Priority Queue of an HS-DSCH MAC-d Flow, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[TDD - If multiple radio links exist within the Node B Communication Context and the RADIO LINK RECONFIGURATION PREPARE message does not include a *RL ID* IE within each *UL DPCH To Add Per RL* IE, *DL DPCH To Add Per RL* IE, *UL DPCH To Modify Per RL* IE, and *DL DPCH To Modify Per RL* IE that is present in the message, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information IE*, *HS-DSCH Information To Modify IE*, or *HS-DSCH MAC-d Flows To Add IE* and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID IE* have the same *Scheduling Priority Indicator IE* value, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned Node B Communication Context is configured to use "Indexed MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use Maximum MAC-d PDU Size Extended, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned Node B Communication Context is configured to use "Flexible MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use MAC-d PDU Size Index, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-DSCH Information IE* and if the *Measurement Power Offset IE* is not present, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH Information IE* and the HS-DSCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *F-DPCH Information IE* and the *DL DPCH Information IE*, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned the Node B Communication Context is configured to use DPCH in the downlink in the old configuration and the RADIO LINK RECONFIGURATION PREPARE message includes the *DL DPCH Power Information IE*, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to use F-DPCH in the downlink in the old configuration and the RADIO LINK RECONFIGURATION PREPARE message includes at least one but not all of the *TFCS IE*, *DL DPCH Slot Format IE*, *TCFI Signalling Mode IE*, *Multiplexing Position IE*, *Limited Power Increase IE* and *DL DPCH Power Information IE* in the *DL DPCH Information IE*, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the *E-DCH FDD Information IE* is present in the RADIO LINK RECONFIGURATION PREPARE message, but the *E-DPCH Information IE* is not present or if any of the *Maximum Set of E-DPDCHs IE*, *Puncture Limit IE*, *E-TFCS Information IE*, *E-TTI IE* or *E-DPCCH Power Offset IE* or *HS-DSCH Configured Indicator IE* are not present in the *E-DPCH Information IE*, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Primary CPICH Usage For Channel Estimation IE* and/or *Secondary CPICH Information Change IE* and if in the new configuration Node B shall assume that the UE is not using the Primary CPICH for channel estimation nor the Secondary CPICH, Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one of the *Not Used IEs*, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH RL Indication IE* set to "E-DCH", but no *E-DCH FDD Information IE*, and the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information IE* but no *E-DCH RL Indication IE* set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-PDSCH RL ID IE* and/or the *Serving E-DCH RL IE* and if both HS-DSCH and E-DCH are configured in the new configuration but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *HS-PDSCH RL ID IE* and the *E-DPCH Information IE* which includes the *HS-DSCH Configured Indicator IE* set as "HS-DSCH not configured" then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *E-DCH FDD Information To Modify IE*, *E-DCH MAC-d Flows To Add IE* or *E-DCH MAC-d Flows To Delete IE* in addition to the *E-DCH FDD Information IE*, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *E-DCH FDD Information To Modify IE*, *E-DCH MAC-d Flows To Add IE*, *E-DCH MAC-d Flows To Delete IE* and the Node B Communication Context is not configured for E-DCH, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *E-DCH FDD Information To Modify IE* deleting the last remaining E-DCH Logical Channel of an E-DCH MAC-d Flow, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *E-DCH FDD Information IE* and the E-DCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[TDD - if the radio link was not previously configured to support E-DCH, then if the RADIO LINK RECONFIGURATION PREPARE message includes one of the following E-DCH information elements then it shall contain all of them otherwise the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.: *E-DCH Serving RL IE*, [3.84Mcps TDD and 7.68Mcps TDD - *E-PUCH Information IE*, *E-TFCS Information TDD IE*], [1.28Mcps TDD - *E-PUCH Information LCR IE*, *E-TFCS Information TDD IE*], *E-DCH MAC-d Flows to Add IE*, and [3.84Mcps TDD - *E-DCH TDD Information IE*], [1.28Mcps TDD - *E-DCH TDD Information LCR IE*] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps IE*].]

[FDD - If the *Fast Reconfiguration IE* is included in the RADIO LINK RECONFIGURATION PREPARE message and the *UL Scrambling Code IE* does not indicate an uplink scrambling code different from the currently used uplink scrambling code the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify IE* in addition to the *Continuous Packet Connectivity DTX-DRX Information IE*, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator IE* in addition to the *Continuous Packet Connectivity HS-SCCH less Information IE*, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator IE* while the Continuous Packet Connectivity HS-SCCH less configuration isn't configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify IE* while the Continuous Packet Connectivity DTX-DRX configuration isn't configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *DRX Information To Modify IE* in *Continuous Packet Connectivity DTX-DRX Information To Modify IE* while the Continuous Packet Connectivity DRX configuration isn't configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the *DCHs to Modify IE* contains a *DCH Specific Info IE* which includes the *Unidirectional DCH Indicator IE* set to "Uplink DCH only" but no *Transport Format Set IE* for the uplink for this DCH and the Node B had ignored the configuration of Transport Format Set for uplink, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only" but no *Transport Format Set* IE for the downlink for this DCH and the Node B had ignored the configuration of Transport Format Set for downlink, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Bearer Not Requested Indicator* IE for a DCH but does not contain the corresponding *DCH ID* IE and the *Unidirectional DCH indicator* IE set to "Uplink DCH only" for the DCH in *DCH Information To Add* IE, the Node B shall reject the procedure using the the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply UL DPCCH Slot Format 4 but is not configured to use F-DPCH, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply UL DPCCH Slot Format 0 or 2 and execute Continuous Packet Connectivity DTX-DRX operation, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply the "Closed loop mode 1" and if the concerned Node B Communication Context is not configured to apply UL DPCCH Slot Format 2 or 3, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply MIMO or allowed to apply 64 QAM but is not configured to use flexible MAC-d PDU Size, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE for a DCH in the *RL Specific DCH Information* IE but does not include the *DCH ID* IE for the DCH in the *DCHs to Add* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message contains the *Continuous Packet Connectivity DTX-DRX Information* IE but does not contain the *F-DPCH Information* IE and the concerned Node B Communication Context is not previously configured to use F-DPCH, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message]

[FDD - If the concerned Node B Communication Context is configured to have the Serving E-DCH Radio Link but there is at least one E-DCH MAC-d flow which the Transport Bearer is not configured in the Node B, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Bearer Not Requested Indicator* IE for a DCH for a specific RL and the specific RL is combined with existing RL which the transport bearer is established for the DCH in the Node B, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

8.3.3 Synchronised Radio Link Reconfiguration Commit

8.3.3.1 General

This procedure is used to order the Node B to switch to the new configuration for the Radio Link(s) within the Node B, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

The message shall use the Communication Control Port assigned for this Node B Communication Context.

8.3.3.2 Successful Operation



Figure 32: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation

The Node B shall switch to the new configuration previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure

- [TDD - at the next coming CFN with a value equal to the value requested by the CRNC in the CFN IE (see ref.[17] subclause 9.4) when receiving the RADIO LINK RECONFIGURATION COMMIT message from the CRNC.]
- [FDD - if the Fast Reconfiguration IE is not included in the RADIO LINK RECONFIGURATION COMMIT message at the next coming CFN with a value equal to the value requested by the CRNC in the CFN IE (see ref.[17] subclause 9.4) when receiving the RADIO LINK RECONFIGURATION COMMIT message from the CRNC.]
- [FDD - if the *Fast Reconfiguration* IE is included in the RADIO LINK RECONFIGURATION COMMIT message as soon as the Node B detects that the UE uses the new configuration in the uplink (e.g. the Node B detects that the UE uses the new scrambling code used for the uplink by sending the RADIO LINK RESTORATION message). In order to limit the period for the detection in the Node B the CFN in the RADIO LINK RECONFIGURATION COMMIT message indicates the earliest possible time instant at which the UE might use the new configuration.]

[FDD - If the *Active Pattern Sequence Information* IE is included in the RADIO LINK RECONFIGURATION COMMIT message, the *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE shall be ignored by the Node B.]

[FDD - If the *Active Pattern Sequence Information* IE is not included in the RADIO LINK RECONFIGURATION COMMIT message and a new Compressed Mode Configuration exists in the prepared configuration, the Node B shall behave as if an *Active Pattern Sequence Information* IE with an empty *Transmission Gap Pattern Sequence Status* IE was included.]

When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

In the case of a Transport Channel or MAC-d flow modification for which a new transport bearer was requested and established, the switch to the new transport bearer shall also take place at the configuration switching point (defined above). The detailed frame protocol handling during transport bearer replacement is described in [16], subclause 5.10.1 and in [24], subclauses 5.8.2 and 5.8.3.

In the case of a signalling bearer re-arrangement, the new Communication Control Port shall be used once the Node B has received the RADIO LINK RECONFIGURATION COMMIT message via the old Communication Control Port.

[FDD - If the RADIO LINK RECONFIGURATION COMMIT includes the *Active Pattern Sequence Information* IE, the Node B shall deactivate all the ongoing Transmission Gap Pattern Sequences at the configuration switching point (defined above). From that moment on, all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions shall be started when the indicated *TGCFN* IE elapses. The *CFN* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value. If the values of the *CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CFN* IE.]

[FDD - If the RADIO LINK RECONFIGURATION COMMIT message includes the *Active Pattern Sequence Information* IE and the concerned Node B Communication Context is configured to use F-DPCH in the downlink, the Node B shall not transmit the F-DPCH during the downlink transmission gaps according to [7]. But in all slots outside of the downlink transmission gaps the NodeB shall transmit the F-DPCH with the normal scrambling code and the assigned slot format, regardless of the configured downlink compressed mode method information and of the transmission gap pattern sequence code information, if existing.]

8.3.3.3 Abnormal Conditions

If a new transport bearer is required for the new reconfiguration and it is not available at the configuration switching point (defined above), the Node B shall initiate the Radio Link Failure procedure.

[FDD - If the *Fast Reconfiguration* IE is included in the RADIO LINK RECONFIGURATION COMMIT message and the Node B did not include the *Fast ReconfigurationPermission* IE in the RADIO LINK RECONFIGURATION READY message, the Node B shall initiate the Radio Link Failure procedure.]

[FDD - If the RADIO LINK RECONFIGURATION COMMIT message includes the *Active Pattern Sequence Information* IE which activates a downlink transmission gap pattern sequence with an SF/2 downlink compressed mode method and if the concerned NodeB Communication Context is configured to use DPCH in downlink and for any Radio Link the transmission gap pattern sequence code information is not available, the NodeB shall trigger the Radio Link Failure procedure with the cause value "Invalid CM Settings".]

8.3.4 Synchronised Radio Link Reconfiguration Cancellation

8.3.4.1 General

This procedure is used to order the Node B to release the new configuration for the Radio Link(s) within the Node B, previously prepared by the Synchronised Radio Link Preparation Reconfiguration procedure.

The message shall use the Communication Control Port assigned for this Node B Communication Context.

8.3.4.2 Successful Operation

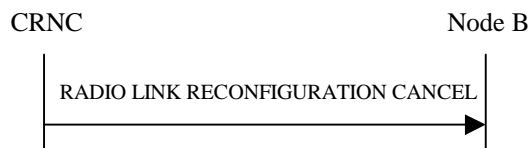


Figure 33: Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation

When receiving the RADIO LINK RECONFIGURATION CANCEL message from the CRNC, the Node B shall release the new configuration ([FDD - including the new Transmission Gap Pattern Sequence parameters (if existing)]) previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure and continue using the old configuration. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

8.3.4.3 Abnormal Conditions

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8.3.5 Unsynchronised Radio Link Reconfiguration

8.3.5.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a Node B.

The Unsynchronised Radio Link Reconfiguration procedure is used when there is no need to synchronise the time of the switching from the old to the new configuration in one Node B used for a UE-UTRAN connection with any other Node B also used for the UE-UTRAN connection.

The Unsynchronised Radio Link Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.5.2 Successful Operation

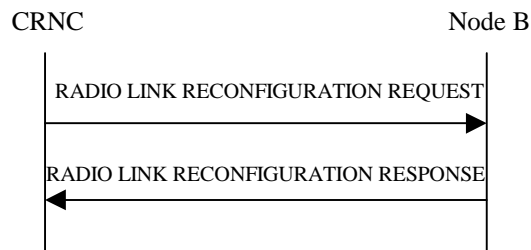


Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the CRNC by sending the RADIO LINK RECONFIGURATION REQUEST message to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B shall modify the configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Modify* IE then the Node B shall treat them each as follows:

- If the *DCHs To Modify* IE includes the *Frame Handling Priority* IE, the Node B should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.
- If the *DCHs To Modify* IE includes the *TNL QoS* IE for a DCH or a set of co-ordinated DCHs to be modified and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply for the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.
- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the UL, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the DL, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCHs To Modify* IE includes the *Allocation/Retention Priority* IE for a DCH, the Node B shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.
- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs, then the Node B shall treat the DCHs in the *DCHs To Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.]
- [FDD - If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]
- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new *ToAWE* in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new *CCTrCH ID* in the Downlink of this DCH in the new configuration.]
- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new *CCTrCH ID* in the Uplink of this DCH in the new configuration.]

DCH Addition:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCH To Add* IE, the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCHs in the new configuration. In particular:

- If a *DCHs To Add* IE includes multiple *DCH Specific Info* IEs for a DCH to be added, the Node B shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the Node B shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink *CCTrCH*.
- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the Node B shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink *CCTrCH*.
- [FDD - For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Node B shall use the Transport channel BER from that DCH as the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]
- For a set of co-ordinated DCHs, the Node B shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" as the QE in the UL data frames [16]. [FDD - If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If all DCHs have the *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE [16].]
- The Node B should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.
- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the Node B may store this information for this DCH in the new configuration. The *TNL QoS* IE may be used to determine the transport bearer characteristics to apply for the uplink between the Node B and the CRNC for the related DCH or set of co-ordinated DCHs.
- The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be added, the Node B shall apply the new *CCTrCH ID* in the downlink of this DCH in the new configuration.]

- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be added, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Deletion:

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be deleted from the Radio Link(s), the Node B shall not include this DCH in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the Node B shall not include this set of co-ordinated DCHs in the new configuration.

[FDD - Physical Channel Modification]:

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *UL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *UL DPCH Information* IE includes the *TFCS* IE for the UL, the Node B shall apply the new TFCS in the Uplink of the new configuration.]
- [FDD - If the *UL DPCH Information* IE includes the *UL DPDCH Indicator For E-DCH Operation* IE set to "UL DPDCH not present", the UL DPDCH resources shall be removed from the configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes a *DL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *DL DPCH Information* IE includes on the *TFCS* IE for the DL, the Node B shall apply the new TFCS in the Downlink of the new configuration.]
- [FDD - If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE, the Node B shall use the information when building TFCIs in the new configuration.
- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD - If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Not Used", the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated. This new Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information* IE, then:]

- [FDD - The Node B shall configure the concerned Node B Communication Context for DTX operation according to [10].]
- [FDD - If *DRX Information* IE is included in the *Continuous Packet Connectivity DTX-DRX Information* IE, then the Node B shall configure the concerned Node B Communication Context for DRX operation according to [10].]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then:]

- [FDD - If the *UE DTX DRX Offset* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall apply the indicated Offset in *UE DTX DRX Cycle* IE in the new configuration.]
- [FDD - If the *Enabling Delay* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall use this value to determine the beginning of uplink transmission in the new configuration according to [10].]

- [FDD - If the *DTX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall use this information to modify the indicated DTX Information parameter in the new configuration. If the choice of *DTX Information To Modify* IE is "Deactivate", then DRX should be deactivated together with DTX.]
- [FDD - If the *DRX Information To Modify* IE is included in the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall use this information to modify the indicated DRX Information in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Information* IE, then:]

- [FDD - The Node B shall configure the Serving HS-DSCH Radio Link for Continuous Packet Connectivity HS-SCCH less operation in the new configuration according to [10].]
- [FDD - The Node B shall allocate the HS-PDSCH codes needed for HS-SCCH less operation and include the *Continuous Packet Connectivity HS-SCCH less Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD - If at least one of *HS-PDSCH Second Code Support* IE is set to "True", then the Node B shall include *HS-PDSCH Second Code Index* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE, then the Node B shall deactivate the Continuous Packet Connectivity HS-SCCH less operation for the HS-DSCH Radio Link.]

[FDD - E-DPCH Handling]:

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DPCH Information* IE which contains the *E-TFCS Information* IE, the Node B shall use the *E-TFCS Information* IE for the E-DCH when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the uplink of the new configuration. If the *E-TFCS Information* IE contains the *E-DCH Minimum Set E-TFCI* IE the Node B shall use the value for the related resource allocation operation.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-DPDCH Power Interpolation* IE, the Node B shall use the value to determine the applicable E-DPDCH power formula defined in [10]. If the *E-DPDCH Power Interpolation* IE is not present, the Node B shall use the E-DPDCH power extrapolation formula defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION REQUEST message.]

[FDD - If the *E-TFCS Information* IE in the *E-DPCH Information* IE contains the *E-TFCI Boost Information* IE, the Node B shall use the information according to [10]. If the *E-TFCI Boost Information* IE is not present, the Node B shall use the E-TFCI BetaEC Boost value "127" in the algorithm defined in [10] if the *E-DCH FDD Information* IE is included in the RADIO LINK RECONFIGURATION PREPARE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-DPCCH Power Offset* IE, the Node B shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-RGCH 2-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *E-RGCH 3-Index-Step* IE, the Node B shall use the value when the new configuration is being used.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST includes an *E-DPCH Information* IE which contains the *HARQ Info for E-DCH* IE, the Node B shall use the value when the new configuration is being used.]

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH To Modify* IE or *DL CCTrCH To Modify* IE in the Radio Link(s), the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message.]

[TDD - If the *UL CCTrCH To Modify* IE or *DL CCTrCH To Modify* IE includes *TFCS* IE and/or *Puncture Limit* IE, the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

[1.28Mcps TDD - If the *UL CCH To Modify* IE includes *UL SIR Target* IE, the Node B shall apply this value as the new configuration and use it for the UL inner loop power control according [19] and [21].]

[TDD - UL/DL CCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCH To Delete* IE or *DL CCH To Delete* IE, the Node B shall not include this CCH in the new configuration.]

DL Power Control:

- [FDD - If the *Radio Link Information* IE includes the *DL Reference Power* IE and the power balancing is active, the Node B shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported, using the *DL Reference Power* IE in the RADIO LINK RECONFIGURATION REQUEST message. The updated reference power shall be used from the next adjustment period.]

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported by the Node B, the Node B shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

RL Information:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *RL Information* IE, the Node B shall treat it as follows:

- [FDD - If the *RL Information* IE includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and not transmit with a higher power on any Downlink DPCH or on the F-DPCH of the Radio Link once the new configuration is being used. During compressed mode, the δP_{curr} as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]
- [FDD - If the *RL Information* IE includes the *Minimum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a lower power on any Downlink Channelisation Code or on the F-DPCH of the Radio Link once the new configuration is being used.]
- [3.84 Mcps TDD and 7.68Mcps TDD - If the *CCH Maximum DL Transmission Power* IE and/or the *CCH Minimum DL Transmission Power* IE are included, the Node B shall apply the values in the new configuration for this DCH type CCH, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other DCH type CCHs.]
- [3.84 Mcps TDD and 7.68Mcps TDD - The maximum power and minimum power for a DSCH type CCH to be modified, shall be determined as follows:
 - If the DSCH type CCH is paired with an uplink CCH(s) for inner loop power control, the minimum and maximum power for each PDSCH is determined in the same way as described above for DCH type CCHs.
 - If the DSCH type CCH is not paired with an uplink CCH(s) for inner loop power control, the PDSCH transmission power is DSCH Data Frame Protocol signalled [24], with the maximum value determined in the same way as described above for DCH type CCHs. The minimum power, however, is subject to control by the CRNC via the frame protocol].
- [1.28 Mcps TDD - If *Maximum DL Power* IE and/or *Minimum DL Power* IE are included within *DL Timeslot Information LCR* IE, the Node B shall apply the values in the new configuration for this timeslot within a DCH type CCH, if the *RL Information* IE includes *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for all other timeslots.]
- [1.28 Mcps TDD - If the *CCH Maximum DL Transmission Power* IE and/or the *CCH Minimum DL Transmission Power* IE are included, the Node B shall apply the values in the new configuration for this DSCH type CCH, if the *RL Information* IE includes the *Maximum Downlink Power* and/or the *Minimum Downlink Power* IEs, the Node B shall apply the values in the new configuration for other timeslots.]
- [FDD - If the concerned Node B Communication Context is configured to use DPCH in the downlink and if the *RL Information* IE contains the *Transmission Gap Pattern Sequence Code Information* IE in the *DL Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate

scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]

- [1.28Mcps TDD - If the *RL Information IE* contains the *Uplink Synchronisation Parameters LCR IE*, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize IE* and *Uplink Synchronisation Frequency IE* when evaluating the timing of the UL synchronisation.]
- [FDD - If the *RL Information IE* contains the *F-DPCH Slot Format IE* and if the Node B Communication Context is configured to use F-DPCH in the downlink, then the Node B shall use this information to configure the F-DPCH slot format of each RL according to [7].]

Signalling Bearer Re-arrangement:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Signalling Bearer Request Indicator IE*, the Node B shall allocate a new Communication Control Port for the control of the Node B Communication Context and include the *Target Communication Control Port ID IE* in the RADIO LINK RECONFIGURATION RESPONSE message.

HS-DSCH Setup:

If the *HS-DSCH Information IE* is present in the RADIO LINK RECONFIGURATION REQUEST message, then:

- The Node B shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID IE*.
- The Node B shall include the *HARQ Memory Partitioning IE* in the [FDD - *HS-DSCH FDD Information Response IE*] [TDD - *HS-DSCH TDD Information Response IE*] in the RADIO LINK RECONFIGURATION RESPONSE message. [FDD - The *HARQ Memory Partitioning IE* shall either contain the *HARQ Memory Partitioning Information Extension For MIMO IE* or the *Number of Processes IE* set to a value higher than "8", if the *MIMO Activation Indicator IE* is included in the *HS-DSCH Information IE*.]
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate IE* for a Priority Queue in the *HS-DSCH MAC-d Flows Information IE* in the *HS-DSCH Information IE*, then the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer IE* for a Priority Queue in the *HS-DSCH MAC-d Flows Information IE* in the *HS-DSCH Information IE*, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum MAC-d PDU Size Extended IE* for a Priority Queue in the *HS-DSCH MAC-d Flows Information IE* in the *HS-DSCH Information IE*, then the Node B shall ignore the *SID IE* and *MAC-d PDU Size IE* in the *MAC-d PDU Size Index IE* and use *Maximum MAC-d PDU Size Extended IE* to optimise capacity allocation for the related HSDPA Priority Queue.
- The Node B shall include the *HS-DSCH Initial Capacity Allocation IE* in the [FDD - *HS-DSCH FDD Information Response IE*] [TDD - *HS-DSCH TDD Information Response IE*] in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being established, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If RADIO LINK RECONFIGURATION REQUEST message includes *HS-DSCH MAC-d PDU Size Format IE* in the *HS-DSCH Information IE* set to "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation IE* the values for the peer of *Scheduling Priority Indicator IE* and *Maximum MAC-d PDU Size Extended IE* to the values of the corresponding peer received in RADIO LINK RECONFIGURATION REQUEST in the *HS-DSCH MAC-d Flows Information IE* in the *HS-DSCH Information IE* for a Priority Queue including *Scheduling Priority Indicator IE* and *Maximum MAC-d PDU Size Extended IE*.
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-SCCH Power Offset IE* in the *HS-DSCH Information IE*, then the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Measurement Power Offset IE* in the *HS-DSCH Information IE*, then the Node B shall use the measurement power offset as described in ref [10], subclause 6A.2.]

- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response IE* in the *HS-DSCH FDD Information Response IE* in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response IE*] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR IE*] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps IE*] in the *HS-DSCH TDD Information Response IE* in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Preamble Mode IE* in the *HS-DSCH Information IE*, then the Node B shall use the indicated HARQ Preamble Mode as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator IE* in the *HS-DSCH Information Response IE* in the RADIO LINK RECONFIGURATION RESPONSE message. If the *HARQ Preamble Mode IE* is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator IE* in the *HS-DSCH Information Response IE* in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-SICH SIR Target IE* in the *HS-DSCH Information IE*, the Node B shall use this value to determine the HS-SICH SIR Target. The *HS-SICH SIR Target IE* indicates the received UL SIR target of HS-SICH NACK for this UE.]
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format IE* in the *HS-DSCH Information IE*, then the Node B shall use the indicated format in user plane frame structure for HS-DSCH channels [24] and MAC-hs [32].
- [FDD - If the *TNL QoS IE* is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS IE* may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]
- [FDD - If the *MIMO Activation Indicator IE* is included in the *HS-DSCH FDD Information IE*, then the Node B shall activate the MIMO mode for the HS-DSCH Radio Link and the Node B shall decide the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio IE* in the *HS-DSCH FDD Information Response IE* in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator IE* is included in the *HS-DSCH FDD Information IE*, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *Sixtyfour QAM DL Usage Indicator IE* in the *HS-DSCH FDD Information Response IE* in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator IE* is included in the *HS-DSCH FDD Information IE* with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d PDU Size Format IE* set to "Flexible MAC-d PDU Size" and if Sixtyfour QAM will not be used, the Node B shall include the *HS-DSCH TB Size Table Indicator IE* in the RADIO LINK RECONFIGURATION RESPONSE message if it decides to use the octet aligned table defined in [32] for HS-DSCH Transport Block Size signalling.]
- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION REQUEST message includes the *Number of Supported Carriers IE* in the *UE Capabilities Information IE* in the *HS-DSCH Information IE*, the Node B shall use this information to allocate HSDPA resources over multiple frequencies for UE.]
- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION REQUEST message includes the *Multi-carrier HS-DSCH Physical Layer Category IE* in the *UE Capabilities Information IE* in the *HS-DSCH Information IE*, the Node B shall use this information together with the *HS-DSCH Physical Layer Category IE* in the *UE Capabilities Information IE* in the *HS-DSCH Information IE* to allocate HSDPA resources over multiple carriers for the UE.]
- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH over multiple frequencies and include the *HS-SCCH Specific Information Response LCR per UARFCN IE* in the *HS-DSCH TDD Information Response IE* in the RADIO LINK RECONFIGURATION RESPONSE message.]

- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B shall include the *HARQ Memory Partitioning per UARFCN* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [1.28Mcps TDD - For a multi-frequency cell, if the Node B allows UE to use HSDPA resources distributed over multiple frequencies, the Node B may indicate the number of multiple frequencies actually used by the UE and include the *Multi-Carrier number* IE in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

Intra-Node B Serving HS-DSCH Radio Link Change:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

- The Node B shall release the HS-PDSCH resources on the old Serving HS-DSCH Radio Link and setup the HS-PDSCH resources on the new Serving HS-DSCH Radio Link.
- The Node B may include the *HARQ Memory Partitioning* IE in the [FDD - *HS-DSCH FDD Information Response* IE] [TDD - *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message. [FDD - The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]
- [FDD - The Node B shall allocate HS-SCCH codes corresponding to the HS-DSCH and include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [TDD - The Node B shall allocate HS-SCCH parameters corresponding to the HS-DSCH and include the [3.84Mcps TDD - *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR* IE] [7.68Mcps TDD - *HS-SCCH Specific Information Response 7.68Mcps* IE] in the *HS-DSCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]
- If a reset of the MAC-hs is not required the Node B shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION RESPONSE message.

HS-DSCH Modification:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information To ModifyUnsynchronised* IE and if the Serving HS-DSCH Radio Link is in the Node B, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE for every HS-DSCH MAC-d flow being modified for which the establishment of one or several new Priority Queues was requested, if the Node B allows the CRNC to start the transmission of MAC-d PDUs for the Priority Queue(s) being established before the Node B has allocated capacity on user plane as described in [24]. If Node B Communication Context is configured to use the "Flexible MAC-d PDU Size", then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer for the Priority Queue of Node B Communication Context.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH Information To ModifyUnsynchronised* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To ModifyUnsynchronised* IE, then the Node B shall use the indicated ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

- [FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, the Node B may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]
- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the Node B shall use the indicated power offset in the new configuration.]
- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the HS-SICH SIR Target IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the Node B shall use this value to the SIR Target in the new configuration. The *HS-SICH SIR Target* IE indicates the received UL SIR target of HS-SICH NACK for this UE.]
- [1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the HS-SICH TPC step size IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the Node B shall use this value to the HS-SICH TPC step size in the new configuration.]
- [1.28Mcps TDD - For a multi-frequency cell, if the RADIO LINK RECONFIGURATION REQUEST message includes the *Multi-carrier HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the Node B shall use this information together with the *HS-DSCH Physical Layer Category* IE in the *UE Capabilities Information* IE in the *HS-DSCH Information To Modify Unsynchronised* IE to allocate HSDPA resources over multiple carriers for the UE.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Preamble Mode* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, then the Node B shall use the indicated HARQ Preamble Mode in the new configuration as described in [10], if HS-DPCCH ACK/NACK preamble and postamble is supported. Then, in this case, if the mode 1 is applied, the Node B shall include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the *HARQ Preamble Mode* IE is not included or if the mode 0 is applied, then the Node B shall not include the *HARQ Preamble Mode Activation Indicator* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Physical Layer Category* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the Node B shall use this information in the new configuration and may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION RESPONSE message. The *HARQ Memory Partitioning* IE may contain the *HARQ Memory Partitioning Information Extension For MIMO* IE.]
- [FDD - If the *MIMO Mode Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, then the Node B shall activate/deactivate the MIMO mode for the HS-DSCH Radio Link in accordance with the *MIMO Mode Indicator* IE.]
 - [FDD - If the *MIMO Mode Indicator* IE is set to "Activate", then the Node B shall decide the UE reporting configuration (N/M ratio) according to [10] for MIMO and include the *MIMO N/M Ratio* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, then the Node B may if the value is set to "allowed" use 64 QAM for the HS-DSCH Radio Link, and the Node B shall include the *Sixtyfour QAM DL Usage Indicator* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD - If the *Sixtyfour QAM Usage Allowed Indicator* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE with value set to "not allowed", then the Node B shall not use 64 QAM for the HS-DSCH Radio Link.]
- [FDD - If MAC-ehs is applied in the new configuration, and if Sixtyfour QAM will not be used, the Node B shall include the *HS-DSCH TB Size Table Indicator* IE in the RADIO LINK RECONFIGURATION RESPONSE message if it decides to use the octet aligned table defined in [32] for HS-DSCH Transport Block Size signalling.]

HS-DSCH MAC-d Flow Addition/Deletion:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs and if the Serving HS-DSCH Radio Link is in the Node B, then the Node B shall use this information to add/delete the indicated HS-DSCH MAC-d flows on the Serving HS-DSCH Radio Link. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION REQUEST message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the HS-DSCH configuration from the Node B Communication Context and release any existing HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d Flows To Add* IE and if the Serving HS-DSCH Radio Link is in the Node B, then:

- The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being added, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24]. If Node B Communication Context is configured to use the "Flexible MAC-d PDU Size" format for the HS-DSCH, then Node B shall only set in the *HS-DSCH Initial Capacity Allocation* IE the values for the peer of *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE to the values of the corresponding peer received in RADIO LINK RECONFIGURATION REQUEST message in the *HS-DSCH MAC-d Flows To Add* IE for a Priority Queue including *Scheduling Priority Indicator* IE and *Maximum MAC-d PDU Size Extended* IE.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the Node B shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum MAC-d PDU Size Extended* IE for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* IE, then the Node B shall ignore the *SID* IE and *MAC-d PDU Size* IE in the *MAC-d PDU Size Index* IE and use *Maximum MAC-d PDU Size Extended* IE to optimise capacity allocation for the related HSDPA Priority Queue.
- [FDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

[FDD - E-DCH Setup:]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message:]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH Logical Channel information* IE in the *E-DCH MAC-d Flows Information* IE, then the Node B shall use this information to optimise MAC-e scheduling decisions.]
- [FDD - If the *TNL QoS* IE is included for an E-DCH MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink for the related MAC-d flow.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant* IE, the Node B shall use this information for the related resource allocation operation.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Reference Power Offset* IE, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Serving E-DCH RL* IE:]
 - [FDD - the Node B shall allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the corresponding RL and include these E-RNTI identifiers and the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
 - [FDD - The Node B may include the *Serving Grant Value* IE and *Primary/Secondary Grant Selector* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the initial grant for the serving E-DCH RL.]
 - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
 - [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2* IE in the RADIO LINK RECONFIGURATION RESPONSE message for the serving E-DCH RL.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]
- [FDD - If in the RADIO LINK RECONFIGURATION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the *HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]
- [FDD - If in the RADIO LINK RECONFIGURATION REQUEST message the E-DCH Grant Type is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-AGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-RGCH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-HICH Power Offset* IE in the *RL Specific E-DCH Information* IE, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DPCH Information IE* which contains the *HS-DSCH Configured Indicator IE* and/or the *Maximum Set of E-DPDCHs IE*, and/or the *Puncture Limit IE* and/or the *E-TTI IE*, the Node B shall use and apply the value(s) in the new configuration.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *SixteenQAM UL Operation Indicator IE*, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator IE*.]
 - [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]

[FDD - E-DCH Radio Link Handling:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH RL Indication IE* in the *RL Information IE*:]

- [FDD - The Node B shall setup the E-DCH resources, as requested or as configured in the Node B communication context, on the Radio Links indicated by the *E-DCH RL Indication IE*, set to "E-DCH", in the *RL Information IE*.]
- [FDD - The Node B may include the *E-AGCH And E-RGCH/E-HICH FDD Scrambling Code IE* and shall include the *E-RGCH/E-HICH Channelisation Code IE* and the corresponding *E-HICH Signature Sequence IE* and the Node B may include the corresponding *E-RGCH Signature Sequence IE* in the *E-DCH FDD DL Control Channel Information IE* in the RADIO LINK RECONFIGURATION RESPONSE message for every RL indicated by the *E-DCH RL Indication IE*, set to "E-DCH", in the *RL Information IE*.]
- [FDD - The Node B shall remove the E-DCH resources, if any, on the Radio Links, that are indicated by the *E-DCH RL Indication* set to "Non E-DCH".]
- [FDD - For each RL for which the *E-DCH RL Indication IE* is set to "E-DCH", and which has or can have a common generation of E-RGCH information with another RL (current or future) when the Node B would contain the E-DCH serving RL, the Node B shall include the *E-DCH RL Set ID IE* in the RADIO LINK RECONFIGURATION RESPONSE message. The value of the *E-DCH RL Set ID IE* shall allow the RNC to identify the E-DCH RLs that have or can have a common generation of E-RGCH information.]

[FDD - Serving E-DCH Radio Link Change:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Serving E-DCH RL IE*, this indicates the new Serving E-DCH Radio Link:]

- [FDD - If the old Serving E-DCH RL is in this Node B, the Node B shall de-allocate the E-AGCH resources of the old Serving E-DCH Radio Link.]
- [FDD - If the New Serving E-DCH RL is in this Node B:]
 - [FDD - The Node B may allocate a primary E-RNTI identifier or a secondary E-RNTI identifier or both for the new Serving E-DCH Radio Link and include these E-RNTI identifiers along with the channelisation code of the corresponding E-AGCH in the *E-DCH FDD DL Control Channel Information IE* in the RADIO LINK RECONFIGURATION RESPONSE message.]
 - [FDD - The Node B may include the *Serving Grant Value IE* and *Primary/Secondary Grant Selector IE* in the RADIO LINK RECONFIGURATION RESPONSE message for the initial grant for the new serving E-DCH RL.]
 - [FDD - If the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission shall be changed, the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response IE* in the RADIO LINK RECONFIGURATION RESPONSE message.]
 - [FDD - The Node B may include the *Default Serving Grant in DTX Cycle 2 IE* in the RADIO LINK RECONFIGURATION RESPONSE message for the new serving E-DCH RL.]

- [FDD - The Node B may include the *E-RGCH/E-HICH Channelisation Code* IE and/or the *E-HICH Signature Sequence* IE and/or the *E-RGCH Signature Sequence* IE or may alternatively include the *E-RGCH Release Indicator* IE in the *E-DCH FDD DL Control Channel Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every E-DCH Radio Links in the Node B.]

[FDD - E-DCH Modification:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information To Modify* IE, then:]

- [FDD - If the *E-DCH FDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the Node B shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the Node B shall use this information to report if the maximum number of retransmissions has been exceeded.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH HARQ Power Offset FDD* IE in the *E-DCH FDD Information To Modify* IE for an E-DCH MAC-d flow the Node B shall use this information for calculating the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$) as defined in [10].]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the E-DCH Grant Type and it is indicated as being "E-DCH Non-Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume non-scheduled grants being configured for that E-DCH MAC-d flow and shall use the information within the *HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant* IE, if included, for the related resource allocation operation.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the E-DCH Grant Type and it is indicated as being "E-DCH Scheduled Transmission Grant" for an E-DCH MAC-d flow the Node B shall assume scheduled grants being configured for that E-DCH MAC-d flow.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the Node B shall use this information to add/delete the indicated logical channels. When an logical channel is deleted, all its associated configuration data shall also be removed.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Logical Channel To Modify* IE, the Node B shall use this information to modify the indicated logical channels:]
 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the Node B shall apply the values in the new configuration.]
 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the Node B shall apply the values in the new configuration.]
 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the Node B shall apply the values in the new configuration.]
 - [FDD - If the *E-DCH Logical Channel To Modify* IE includes *E-DCH DDI Value* IE, the Node B shall apply the values in the new configuration.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Bundling Mode Indicator* IE for an E-DCH MAC-d flow in the *E-DCH MAC-d Flow Specific Information* IE in the *E-DCH FDD Information To Modify* IE and the *Bundling Mode Indicator* IE is set to "Bundling" and the *E-TTI* IE is set to "2ms", then the Node B shall use the bundling mode for the E-DCH UL data frames for the related MAC-d flow, otherwise the Node B shall use the non-bundling mode for the E-DCH UL data frames for the related MAC-d flow.]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *HARQ Process Allocation For 2ms Scheduled Transmission Grant IE*, the Node B shall use this information for the related resource allocation operation.]
- [FDD - If the E-DCH serving RL is in this Node B, the Node B may choose to change the E-DCH HARQ process allocation for 2ms TTI for scheduled and/or non-scheduled transmission. In this case the Node B shall allocate resources according to the new/changed configuration and include the new/changed configuration in the *E-DCH FDD Information Response IE* in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Maximum Bitrate IE* for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Processing Overload Level IE*, then if the Node B could not decode the E-DPCCH/E-DPDCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level IE*, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Reference Power Offset IE*, then the Node B may use this value as a default HARQ power offset if it is not able to decode the MAC-e PDU and to determine the value of the actual HARQ power offset.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Power Offset for Scheduling Info IE*, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-AGCH Power Offset IE* in the *RL Specific E-DCH Information IE*, then the Node B may use this value to determine the E-AGCH power. The E-AGCH Power Offset should be applied for any E-AGCH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-RGCH Power Offset IE* in the *RL Specific E-DCH Information IE*, then the Node B may use this value to determine the E-RGCH power for the RL. The E-RGCH Power Offset should be applied for any E-RGCH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-HICH Power Offset IE* in the *RL Specific E-DCH Information IE*, then the Node B may use this value to determine the E-HICH power for the RL. The E-HICH Power Offset should be applied for any E-HICH transmission to this UE.]
- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *SixteenQAM UL Operation Indicator IE* in the *E-DCH FDD Information To Modify IE*, the Node B shall activate/deactivate SixteenQAM UL Operation for the RL in accordance with the *SixteenQAM UL Operation Indicator IE*.]
 - [FDD - If SixteenQAM UL Operation is activated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 2 according to [32]. If SixteenQAM UL Operation is deactivated, then the Node B shall base the handling of the Relative Grant signalling on Scheduling Grant Table 1 according to [32].]
 - [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH DL Control Channel Grant Information IE* in the *E-DCH FDD Information To Modify IE*, the Node B may modify E-AGCH Channelisation Code, E-RGCH/E-HICH Channelisation Code, E-RGCH Signature Sequence and/or E-HICH Signature Sequence for the E-DCH RL indicated by the *E-DCH RL ID IE*. The Node B shall then report the modified configuration which is used in the new configuration specified in the *E-DCH FDD DL Control Channel Information IE* for each E-DCH RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

[FDD - E-DCH MAC-d Flow Addition/Deletion:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *E-DCH MAC-d Flows To Add* or *E-DCH MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the E-DCH configuration from the Node B Communication Context and release the E-DCH resources.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flows To Add* IE, then:]

- [FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-e scheduling decisions.]

[TDD - Intra-Node B Serving E-DCH Radio Link Change:]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH Serving RL* IE, this indicates the new Serving E-DCH Radio Link:]

- [TDD - In the new configuration the Node B shall de-allocate the E-DCH resources of the old Serving E-DCH Radio Link and allocate the E-DCH resources for the new Serving E-DCH Radio Link.]
- [TDD - The Node B shall allocate E-AGCH parameters [1.28Mcps TDD - and E-HICH parameter] corresponding to the E-DCH and include the *E-AGCH Specific Information Response TDD* IE [1.28Mcps TDD - and *E-HICH Specific Information Response TDD* IE] in the *E-DCH TDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [TDD - If the *TNL QoS* IE is included for a MAC-d flow and if ALCAP is not used, the *TNL QoS* IE may be used by the Node B to determine the transport bearer characteristics to apply in the uplink between the Node B and the CRNC for the related MAC-d flow.]

[TDD - E-PUCH Handling]:

[3.84Mcps TDD and 7.68Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-PUCH Information* IE, the Node B shall apply the parameters to the new configuration.]

[1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-PUCH Information LCR* IE, the Node B shall apply the parameters to the new configuration.]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-TFCS Information TDD* IE, the Node B shall apply the beta parameters to the new configuration.]

[3.84Mcps TDD - E-DCH Setup]:

[3.84Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information* IE and *E-DCH Non-scheduled Grant Information TDD* IE if there are to be non-scheduled grants.]

[1.28Mcps TDD - E-DCH Setup]:

[1.28Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information LCR* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information LCR* IE and *E-DCH Non-scheduled Grant Information LCR TDD* IE if there are to be non-scheduled grants.]

[7.68Mcps TDD - E-DCH Setup]:

[7.68Mcps TDD - the radio link may be reconfigured to support E-DCH by including the appropriate E-DCH information elements: *E-DCH Serving RL* IE, *E-PUCH Information* IE, *E-TFCS Information TDD* IE, *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information 7.68Mcps* IE and *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE if there are to be non-scheduled grants.]

[TDD - E-DCH MAC-d Flow Addition/Deletion:]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *E-DCH MAC-d Flows To Add* or *E-DCH MAC-d Flows To Delete* IEs, then the Node B shall use this information to add/delete the indicated E-DCH MAC-d flows. When an E-DCH MAC-d flow is deleted, all its associated configuration data shall also be removed.]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the E-DCH configuration from the Node B Communication Context and release the E-DCH resources.]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *E-DCH MAC-d Flows To Delete* IE requesting the deletion of all remaining non-scheduled E-DCH MAC-d flows for the Node B Communication Context, then the Node B shall delete the non-scheduled E-DCH configuration from the Node B Communication Context and release the non-scheduled E-DCH resources [1.28 Mcps TDD - and the related Signature Sequence of the Non-scheduled E-HICH].]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH MAC-d Flows To Add* IE, then if the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Guaranteed Bit Rate* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information to optimise MAC-e scheduling decisions.]

[1.28Mcps TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-es Maximum Bit Rate LCR* IE in the *E-DCH Logical Channel Information* IE in the *E-DCH MAC-d Flows To Add* IE, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]

[3.84Mcps TDD - E-DCH Non-scheduled allocations:]

[3.84Mcps TDD - If the *E-DCH Non-scheduled Grant Information TDD* IE is present in the RADIO LINK RECONFIGURATION REQUEST message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[1.28Mcps TDD - E-DCH Non-scheduled allocations:]

[1.28Mcps TDD - If the *E-DCH Non-scheduled Grant Information LCR TDD* IE is present in the RADIO LINK RECONFIGURATION REQUEST message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[7.68Mcps TDD - E-DCH Non-scheduled allocations:]

[7.68Mcps TDD - If the *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE is present in the RADIO LINK RECONFIGURATION REQUEST message the Node B shall assume that non-scheduled transmissions will take place according to the parameters in the information element.]

[TDD - E-DCH Modification:]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the [3.84Mcps TDD - *E-DCH TDD Information* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE], then:]

- [3.84Mcps TDD - If the *E-DCH TDD Information* IE includes the *E-DCH TDD Maximum Bitrate* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *E-DCH Physical Layer Category LCR* IE or *Extended E-DCH Physical Layer Category LCR* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [7.68Mcps TDD - If the *E-DCH TDD Information 7.68Mcps* IE includes the *E-DCH TDD Maximum Bitrate 7.68Mcps* IE for an E-DCH, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
- [TDD - If the [3.84Mcps TDD - *E-DCH TDD Information* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] includes the *E-DCH Processing Overload Level* IE, then if the Node B could not decode the E-PUCH for the last consecutive number of TTIs, indicated in the *E-DCH Processing Overload Level* IE, because of processing issue, the Node B shall notify the RNC by initiating the Radio Link Failure procedure.]
- [TDD - If the [3.84Mcps TDD - *E-DCH TDD Information* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE] includes the *E-DCH Power Offset for Scheduling Info* IE, then the Node B shall use this value as a power offset for the transmission of scheduling information without any MAC-d PDUs.]
- [1.28Mcps TDD - If the *E-DCH TDD Information LCR* IE includes the *Maximum Number of Retransmission for Scheduling Info* LCR IE and the *E-DCH Retransmission timer for Scheduling Info LCR* IE, then the Node B shall use these parameters for the transmission of scheduling information without any MAC-d PDUs.]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH TDD Information To Modify* IE, then:]

- [TDD - If the *E-DCH TDD Information To Modify* IE contains a *E-DCH MAC-d Flow Specific Information* IE which includes the *Allocation/Retention Priority* IE, the Node B shall apply the new Allocation/Retention Priority to this E-DCH in the new configuration according to Annex A.]
- [TDD - If the *E-DCH TDD Information To Modify* IE message includes the *Maximum Number of Retransmissions for E-DCH* IE for an E-DCH MAC-d flow then the Node B shall use this information to report if the maximum number of retransmissions has been exceeded.]
- [1.28Mcps TDD - If the *E-DCH TDD Information To Modify* IE message includes the *E-DCH MAC-d Flow Retransmission Timer* IE for an E-DCH MAC-d flow then the Node B shall use this information to set the retransmissions timer.]
- [TDD - If the *E-DCH TDD Information To Modify* IE message includes the *E-DCH HARQ Power Offset TDD* IE for an E-DCH MAC-d flow the Node B shall use this new power offset value.]
- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH MAC-d Flow Multiplexing List* IE for an E-DCH MAC-d flow the Node B shall use this information for the related resource allocation operation.]
- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Grant Type* IE, the Node B shall treat the E-DCH MAC-d flow as Scheduled or Non-scheduled accordingly.]
- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Add* or *E-DCH Logical Channel To Delete* IEs, the Node B shall use this information to add/delete the indicated logical channels. When a logical channel is deleted, all its associated configuration data shall also removed.]
- [TDD - If the *E-DCH TDD Information To Modify* IE includes the *E-DCH Logical Channel To Modify* IE, the Node B shall use this information to modify the indicated logical channels:]
 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Priority Indicator* IE, the Node B shall apply the values in the new configuration.]
 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *Scheduling Information* IE, the Node B shall apply the values in the new configuration.]
 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Guaranteed Bit Rate* IE, the Node B shall apply the values in the new configuration.]
 - [TDD - If the *E-DCH Logical Channel To Modify* IE includes *E-DCH DDI Value* IE, the Node B shall apply the values in the new configuration.]
 - [1.28Mcps TDD - If the *E-DCH Logical Channel To Modify* IE includes *MAC-es Maximum Bit Rate LCR* IE, the Node B shall use this information for the related resource allocation operation, and when applicable, for E-DCH scheduling.]
 - [TDD - If the *E-DCH TDD Information To Modify* IE includes the *MAC-e Reset Indicator* IE in the *E-DCH TDD Information To Modify* IE, then the Node B shall use this value to determine whether MAC-e Reset is performed in the UE for sending the HARQ Failure Indication.]

[1.28Mcps TDD - Power Control GAP:]

[1.28Mcps TDD - If the *Power Control GAP* IE is included in the RADIO LINK RECONFIGURATION REQUEST message, the Node B may use the value for the power control for HS-SCCH and HS-SICH according to the [21].]

General

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IEs in the *HS-DSCH Information* IE, *HS-DSCH Information To Modify Unsynchronised* IE, *HS-DSCH MAC-d Flows To Add* IE, [FDD -*RL Specific E-DCH Information* IE] [TDD - *E-DCH MAC-d Flows to Add* IE, *E-DCH TDD Information to Modify* IE] or in the *RL Specific DCH Information* IE, the Node B may use the transport layer address and the binding identifier received from the CRNC when establishing a transport bearer for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator* IE is not included] being added or any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator* IE was not included] or MAC-d flow [FDD - for which the

Transport Bearer Not Requested Indicator IE was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator IE*.

If the requested modifications are allowed by the Node B, the Node B has successfully allocated the required resources, and changed to the new configuration, it shall respond to the CRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

The Node B shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Transport Layer Address IE* and the *Binding ID IE* for any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator IE* is not included], or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator IE* is not included], being added or any Transport Channel [FDD - for which the *Transport Bearer Not Requested Indicator IE* was not included] or MAC-d flow [FDD - for which the *Transport Bearer Not Requested Indicator IE* was not included] being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator IE*. The detailed frame protocol handling during transport bearer replacement is described in [16], subclause 5.10.1 and in [24], subclause 5.8.3.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator IE* set to "Transport Bearer shall not be Established" for a DCH or an E-DCH MAC-d flow being added, then the Node B shall not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow and shall include the *Transport Bearer Not Setup Indicator IE* for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION RESPONSE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator IE* set to "Transport Bearer may not be Established" for a DCH or an E-DCH MAC-d flow being added and:]

- [FDD - if the Node B establishes a transport bearer for the concerned DCH or E-DCH MAC-d flow, the Node B shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Binding ID IE* and *Transport Layer Address IE* for establishment of a transport bearer for the DCH or E-DCH MAC-d flow being established.]
- [FDD - if the Node B does not establish a transport bearer for the concerned DCH or E-DCH MAC-d flow, the Node B shall include the *Transport Bearer Not Setup Indicator IE* for the corresponding DCH or E-DCH MAC-d flow in the RADIO LINK RECONFIGURATION RESPONSE message.]

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iub interface, the *Transport Layer Address IE* and the *Binding ID IE* in the *DCH Information Response IE* shall be included only for one of the DCH [FDD - for which the *Transport Bearer Not Requested Indicator IE* is not included] in the set of coordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the Node B, the *Transport Layer Address IE* and the *Binding ID IE* [FDD - for which the *Transport Bearer Not Requested Indicator IE* is not included] in the *DCH Information Response IE* shall be included only for one of the combined Radio Links.

[FDD - In the case of an E-DCH RL being combined with another E-DCH RL within the Node B, the *E-DCH FDD Information Response IE* shall be included only for one of the combined E-DCH RLs.]

In the case of a signalling bearer re-arrangement, the new Communication Control Port shall be used once the Node B has sent the RADIO LINK RECONFIGURATION RESPONSE message via the old Communication Control Port.

8.3.5.3 Unsuccessful Operation

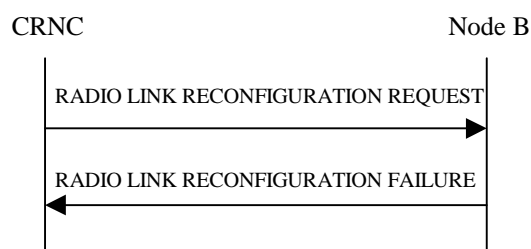


Figure 35: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

If the Node B cannot allocate the necessary resources for all the new DCHs of one set of co-ordinated DCHs requested to be set-up, it shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsynchronised Radio Link Reconfiguration procedure fails for one or more Radio Link(s), the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

Typical cause values are as follows:

Radio Network Layer Cause

- CM not supported
- [FDD - Continuous Packet Connectivity DTX-DRX operation not available]
- [FDD - Continuous Packet Connectivity UE DTX Cycle not available]
- [FDD - MIMO not available]

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.5.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

[FDD - If the concerned Node B Communication Context is configured to use DPCH in the downlink and if the *RL Information* IE contains the *DL Code Information* IE and this IE includes *DL Scrambling Code* and *FDD DL Channelisation Code Number* IEs not matching the DL Channelisation code(s) already allocated to the Radio Link identified by *RL ID* IE, then the Node B shall consider the Unsynchronised Radio Link Reconfiguration procedure as having failed and it shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Unsynchronised Radio Link Reconfiguration Preparation procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-Static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *DL Reference Power* IEs, but the power balancing is not active in the indicated RL(s), the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and the Node B shall respond the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Common" in the existing RL(s) but the *RL Information* IE includes more than one *DL Reference Power* IEs, the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and the Node B shall respond the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE, and not both are present for a transport bearer intended to be established, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the Node B, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information* IE, *HS-DSCH Information To Modify* IE, or *HS-DSCH MAC-d Flows To Add* IE and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned Node B Communication Context is configured to use "Indexed MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use Maximum MAC-d PDU Size Extended, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If, in the new configuration, the concerned Node B Communication Context is configured to use "Flexible MAC-d PDU Size" for an HS-DSCH but there exist a priority queue of the MAC-d flows of the HS-DSCH that is configured to use MAC-d PDU Size Index, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-DSCH Information* IE and if the *Measurement Power Offset* IE is not present, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION REQUEST message includes *HS-DSCH Information* IE and the HS-DSCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the concerned Node B Communication Context is configured to use F-DPCH in the downlink and if the *RL Information* IE contains the *DL Code Information* IE, then the Node B shall consider the Unsynchronised Radio Link Reconfiguration procedure as having failed and it shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.]

[FDD - If the *E-DCH FDD Information* IE is present in the RADIO LINK RECONFIGURATION REQUEST message, but the *E-DPCH Information* IE is not present, or if any of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE, *E-TFCS Information* IE, *E-TTI* IE, *E-DPCCH Power Offset* IE, *HS-DSCH Configured Indicator* IE, are not present in the *E-DPCH Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If any the *HS-DSCH Configured Indicator* IE, of the *Maximum Set of E-DPDCHs* IE, *Puncture Limit* IE or *E-TTI* IE are present in the *E-DPCH Information* IE and the *E-DCH FDD Information* IE is not present in the RADIO LINK RECONFIGURATION REQUEST message, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes one of the *Not Used* IEs, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH RL Indication* IE set to "E-DCH", but no *E-DCH FDD Information* IE, and the Node B Communication Context is not configured for E-DCH, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information* IE but no *E-DCH RL Indication* IE set to "E-DCH", then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-PDSCH RL ID* IE and/or the *Serving E-DCH RL* IE and if both HS-DSCH and E-DCH are configured in the new configuration but the Serving HS-DSCH Radio Link and the Serving E-DCH Radio Link are not in the same cell then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the *HS-PDSCH RL ID* IE and the *E-DPCH Information* IE which includes the *HS-DSCH Configured Indicator* IE set as "HS-DSCH not configured" then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE or *E-DCH MAC-d Flows To Delete* IE in addition to the *E-DCH FDD Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *E-DCH FDD Information To Modify* IE, *E-DCH MAC-d Flows To Add* IE, *E-DCH MAC-d Flows To Delete* IE and the Node B Communication Context is not configured for E-DCH, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *E-DCH FDD Information To Modify* IE deleting the last remaining E-DCH Logical Channel of an E-DCH MAC-d Flow, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes *E-DCH FDD Information* IE and the E-DCH is already configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[TDD - if the radio link was not previously configured to support E-DCH, then if the RADIO LINK RECONFIGURATION REQUEST message includes one of the following E-DCH information elements then it shall contain all of them otherwise the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.: *E-DCH Serving RL* IE, [3.84Mcps TDD and 7.68Mcps - *E-PUCH Information* IE, *E-TFCS Information TDD* IE], [1.28Mcps TDD - *E-PUCH Information LCR* IE, *E-TFCS Information TDD* IE], *E-DCH MAC-d Flows to Add* IE, and [3.84Mcps TDD - *E-DCH TDD Information* IE] [1.28Mcps TDD - *E-DCH TDD Information LCR* IE] [7.68Mcps TDD - *E-DCH TDD Information 7.68Mcps* IE].]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE in addition to the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE in addition to the *Continuous Packet Connectivity HS-SCCH less Information* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE while the Continuous Packet Connectivity HS-SCCH less configuration isn't configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Continuous Packet Connectivity DTX-DRX Information To Modify* IE while the Continuous Packet Connectivity *DTX-DRX* configuration isn't configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *DRX Information To Modify* IE in *Continuous Packet Connectivity DTX-DRX Information To Modify* IE while the Continuous Packet Connectivity DRX configuration isn't configured in the Node B Communication Context, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only" but no *Transport Format Set* IE for the uplink for this DCH and the Node B had ignored the configuration of Transport Format Set for uplink, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only" but no *Transport Format Set* IE for the downlink for this DCH and the Node B had ignored the configuration of Transport Format Set for downlink, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Bearer Not Requested Indicator* IE for a DCH but does not contain the corresponding *DCH ID* IE and the *Unidirectional DCH indicator* IE set to "Uplink DCH only" for the DCH in *DCH Information To Add* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply UL DPCCCH Slot Format 0 or 2 and execute Continuous Packet Connectivity DTX-DRX operation, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to apply MIMO or allowed to apply 64 QAM but is not configured to use flexible MAC-d PDU Size, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH in the *RL Specific DCH Information* IE but does not include the *DCH ID* IE for the DCH in the *DCHs to Add* IE, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message contains the *Continuous Packet Connectivity DTX-DRX Information* IE but the concerned Node B Communication Context is not previously configured to use F-DPCH, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the concerned Node B Communication Context is configured to have the Serving E-DCH Radio Link but there is at least one E-DCH MAC-d flow which the Transport Bearer is not configured in the Node B, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Bearer Not Requested Indicator* IE for a DCH for a specific RL and the specific RL is combined with existing RL which the transport bearer is established for the DCH in the Node B, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

8.3.6 Radio Link Deletion

8.3.6.1 General

The Radio Link Deletion procedure is used to release the resources in a Node B for one or more established radio links towards a UE.

The Radio Link Deletion procedure may be initiated by the CRNC at any time when the Node B Communication Context exists.

8.3.6.2 Successful Operation

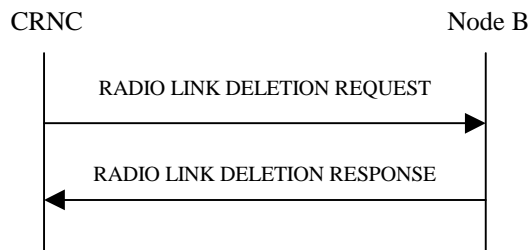


Figure 36: Radio Link Deletion procedure, Successful Operation

The procedure is initiated with a RADIO LINK DELETION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon receipt of this message, the Node B shall delete the radio link(s) identified by the *RL ID IE*, *Node B Communication Context ID IE* and *CRNC Communication Context ID IE* and release all associated resources and respond to the CRNC with a RADIO LINK DELETION RESPONSE message.

[FDD - After deletion of the RL(s), the UL out-of-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the maximum value of the parameters *N_OUTSYNC_IND* and *T_RLFAILURE* that are configured in the cells supporting the radio links of the RL Set and the UL in-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the minimum value of the parameters *N_INSYNC_IND* that are configured in the cells supporting the radio links of the RL Set.]

8.3.6.3 Unsuccessful Operation

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8.3.6.4 Abnormal Conditions

If the RL indicated by the *RL ID IE*, *Node B Communication Context ID IE* and *CRNC Communication Context ID IE* does not exist, the Node B shall respond with the RADIO LINK DELETION RESPONSE message and use the *CRNC Communication Context ID IE* received in the RADIO LINK DELETION REQUEST message.

8.3.7 Downlink Power Control [FDD]

8.3.7.1 General

The purpose of this procedure is to balance the DL transmission powers of one or more Radio Links used for the related UE-UTRAN connection within the Node B. The Downlink Power Control procedure may be initiated by the CRNC at any time when the Node B Communication Context exists, irrespective of other ongoing CRNC initiated dedicated NBAP procedures towards this Node B Communication Context. The only exception occurs when the CRNC has requested the deletion of the last RL via this Node B, in which case the Downlink Power Control procedure shall no longer be initiated.

8.3.7.2 Successful Operation



Figure 37: Downlink Power Control procedure, Successful Operation

The procedure is initiated by the CRNC sending a DL POWER CONTROL REQUEST message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

The *Power Adjustment Type* IE defines the characteristic of the power adjustment.

If the value of the *Power Adjustment Type* IE is "Common", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "Common". As long as the Power Balancing Adjustment Type of the Node B Communication Context is set to "Common", the Node B shall perform the power adjustment (see below) for all existing and future radio links associated with the context identified by the *Node B Communication Context ID* IE and use a common DL reference power level.

If the value of the *Power Adjustment Type* IE is "Individual", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "Individual". The Node B shall perform the power adjustment (see below) for all radio links addressed in the message using the given DL Reference Powers per RL. If the Power Balancing Adjustment Type of the Node B Communication Context was set to "Common" before this message was received, power balancing on all radio links not addressed by the DL POWER CONTROL REQUEST message shall remain to be executed in accordance with the existing power balancing parameters which are now considered RL individual parameters. Power balancing will not be started on future radio links without a specific request.

If the value of the *Power Adjustment Type* IE is "None", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "None" and the Node B shall suspend on going power adjustments for all radio links for the Node B Communication Context.

If the *Inner Loop DL PC Status* IE is present and set to "Active", the Node B shall activate inner loop DL power control for all radio links for the Node B Communication Context. If the *Inner Loop DL PC Status* IE is present and set to "Inactive", the Node B shall deactivate inner loop DL power control for all radio links for the Node B Communication Context according to ref. [10].

Power Adjustment

The power balancing adjustment shall be superimposed on the inner loop power control adjustment (see ref. [10]) if activated. The power balancing adjustment shall be such that:

$$\sum P_{bal} = (1-r)(P_{ref} + P_{P-CPICH} - P_{init}) \quad \text{with an accuracy of } \pm 0.5 \text{ dB}$$

where the sum is performed over an adjustment period corresponding to a number of frames equal to the value of the *Adjustment Period* IE, P_{ref} is the value of the *DL Reference Power* IE, $P_{P-CPICH}$ is the power used on the primary CPICH, P_{init} is the code power of the last slot of the previous adjustment period and r is given by the *Adjustment Ratio* IE. If the last slot of the previous adjustment period is within a transmission gap due to compressed mode, P_{init} shall be set to the same value as the code power of the slot just before the transmission gap.

The adjustment within one adjustment period shall in any case be performed with the constraints given by the *Max Adjustment Step* IE and the DL TX power range set by the CRNC.

The power adjustments shall be started at the first slot of a frame with CFN modulo the value of *Adjustment Period* IE equal to 0 and shall be repeated for every adjustment period and shall be restarted at the first slot of a frame with CFN=0, until a new DL POWER CONTROL REQUEST message is received or the RL is deleted.

8.3.7.3 Abnormal Conditions

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8.3.8 Dedicated Measurement Initiation

8.3.8.1 General

This procedure is used by a CRNC to request the initiation of measurements on dedicated resources in a Node B.

The Dedicated Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1 except when the *Node B Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message is set to the reserved value "All NBCC".

If the *Node B Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message is set to the reserved value "All NBCC", the Dedicated Measurement Initiation procedure may be initiated by the CRNC at any time when the Node B Communication Context exists.

8.3.8.2 Successful Operation

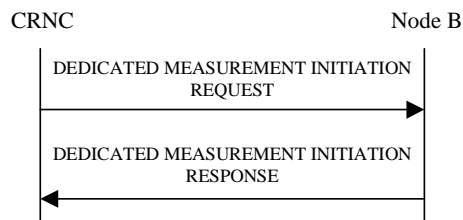


Figure 38: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the Node B Communication Context.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the DEDICATED MEASUREMENT INITIATION REQUEST message. Unless specified below the meaning of the parameters are given in other specifications.

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", this measurement request shall apply for all current and future Node B Communication Contexts controlled via the Communication Control Port on which the DEDICATED MEASUREMENT INITIATION REQUEST message was received. Otherwise, this measurement request shall apply for the requested Node B Communication Context ID only.

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", the measurement request shall be treated as a single measurement, despite applying to multiple contexts. This means that it may only be terminated or failed on "All NBCC".

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", the measurement shall be initiated only for those Node B Communication Contexts handling a mode (FDD, 3.84Mcps TDD, 7.68Mcps TDD or 1.28Mcps TDD) for which the concerned measurement is specified in [4] and [5]. The initiation of the measurement for a Node B Communication Context may be delayed until the Reconfiguration CFN has elapsed if either a Prepared Reconfiguration exists or a Prepared Reconfiguration no longer exists but the Reconfiguration CFN has not yet elapsed.

If the Dedicated Measurement Object Type is indicated as being "RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all indicated Radio Links.

[FDD - If the Dedicated Measurement Object Type is indicated as being "RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all indicated Radio Link Sets.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all current and future Radio Links within the Node B Communication Context.]

[TDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for one existing DPCH per CCTrCH in each used time slot of current and future Radio Links within the Node B Communication Context, provided the measurement type is applicable to the respective DPCH.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all existing and future Radio Link Sets within the Node B Communication Context.]

[TDD - If the *DPCH ID* IE or *DPCH ID 7.68Mcps* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually. If no *DPCH ID* IE, *HS-SICH ID* IE, *DPCH ID 7.68Mcps* IE and no *PUSCH Information* IE is provided within the RL Information, the measurement request shall apply for one existing physical channel per CCTrCH in each used time slot of the Radio Link, provided the measurement type is applicable to this physical channel.]

[TDD - If the *PUSCH Information* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually.]

[TDD - If the *HS-SICH Information* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually.]

[TDD - If the *Dedicated Measurement Type* IE is set to "HS-SICH reception quality", the Node B shall initiate measurements of the failed, missed and total HS-SICH transmissions on all of the HS-SICH assigned to this Node B Communication Context. If either the failed or missed HS-SICH transmission satisfies the requested report characteristics, the Node B shall report the result of both failed and missed transmission measurements along with the total number of transmissions.]

If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the DEDICATED MEASUREMENT REPORT message or in the DEDICATED MEASUREMENT INITIATION RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand". The reported CFN shall be the CFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25].

[FDD - If the *Number Of Reported Cell Portions* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message, the value shall be used to determine how many *Cell Portion ID* IEs and *SIR Value* IEs shall be included in *Best Cell Portions* IE in the DEDICATED MEASUREMENT REPORT message or in the DEDICATED MEASUREMENT INITIATION RESPONSE message.]

Report characteristics

The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *CFN* IE is not provided, the Node B shall return the result of the measurement immediately. If the *CFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Periodic", the Node B shall periodically initiate the Dedicated Measurement Report procedure for this measurement, with the requested report frequency. If the *CFN* IE is provided, it indicates the frame for which the first measurement value of a periodic reporting shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Event A", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event D", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the falling time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event E", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the

Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is not set to "On Demand", the Node B is required to perform reporting for a dedicated measurement object, in accordance with the conditions provided in the DEDICATED MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no dedicated measurement object for which a measurement is defined exists anymore, the Node B shall terminate the measurement locally, i.e. without reporting this to the CRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

Higher layer filtering

The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1 - a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows

F_n is the updated filtered measurement result

F_{n-1} is the old filtered measurement result

M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the DEDICATED MEASUREMENT INITIATION RESPONSE, DEDICATED MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for F_n)

$a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, a shall be set to 1 (no filtering)

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

Measurement Recovery Behavior:

If the *Measurement Recovery Behavior* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message, the Node B shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.3.9.2.

Response message

If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message using the Communication Control Port assigned to the Node B Communication Context. The message shall include the same Measurement ID that was used in the measurement request. The DEDICATED MEASUREMENT INITIATION RESPONSE message shall be sent even if the initiation is delayed for some Node B Communication Contexts due to an existing Prepared Reconfiguration or that the Reconfiguration CFN has not yet elapsed.

Only in the case where the *Report Characteristics* IE is set to "On Demand", the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the *Dedicated Measurement Object Type* IE containing the measurement result. [TDD - In the case that the measurement was performed on a particular HS-SICH, the Node B shall include the *HS-SICH ID* IE that indicates which HS-SICH was measured.]

In the case where the *Node B Communication Context ID* IE is set to "All NBCC", the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE shall be set to the value "All CRNCCC", which is reserved for this purpose.

[FDD - If the *Alternative Format Reporting Indicator* IE is set to "Alternative format is allowed" in the DEDICATED MEASUREMENT INITIATION REQUEST message, the Node B may include the *Extended Round Trip Time* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE message.]

Interaction with Reset Procedure:

If a measurement has been requested with the *Node B Communication Context ID* IE set to "All NBCC", the Node B shall terminate the measurement locally if either the CRNC or the Node B initiates the Reset procedure for the relevant Communication Control Port or the entire Node B.

8.3.8.3 Unsuccessful Operation

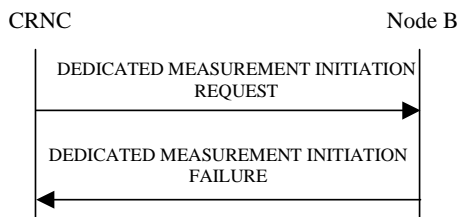


Figure 39: Dedicated Measurement Initiation procedure: Unsuccessful Operation

If the requested measurement cannot be initiated, the Node B shall send a DEDICATED MEASUREMENT INITIATION FAILURE message using the Communication Control Port assigned to the Node B Communication Context. The message shall include the same Measurement ID that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

In the case where the *Node B Communication Context ID* IE is set to "All NBCC" the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION FAILURE shall be set to the value "All CRNCCC", which is reserved for this purpose.

Typical cause values are as follows:

Radio Network Layer cause

- Measurement not supported for the object
- Measurement Temporarily not Available

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.8.4 Abnormal Conditions

The allowed combinations of the Dedicated Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

Table 4: Allowed Dedicated Measurement Type and Report Characteristics Type combinations

Dedicated Measurement Type	Report Characteristics Type								
	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
SIR	X	X	X	X	X	X	X	X	
SIR Error	X	X	X	X	X	X	X	X	
Transmitted Code Power	X	X	X	X	X	X	X	X	
RSCP	X	X	X	X	X	X	X	X	
Rx Timing Deviation	X	X	X	X			X	X	
Round Trip Time	X	X	X	X	X	X	X	X	
Rx Timing Deviation LCR	X	X	X	X			X	X	
HS-SICH reception quality	X	X	X	X			X	X	
Best Cell Portions	X	X							
Angle Of Arrival LCR	X	X							
Rx Timing Deviation 7.68Mcps	X	X	X	X			X	X	
Rx Timing Deviation 3.84Mcps Extended	X	X	X	X			X	X	

If the Dedicated Measurement Type received in the *Dedicated Measurement Type* IE is not defined in ref. [4] or [5] to be measured on the Dedicated Measurement Object Type received in the DEDICATED MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

If the *CFN* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic" or "On Demand", the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

8.3.9 Dedicated Measurement Reporting

8.3.9.1 General

This procedure is used by the Node B to report the result of measurements requested by the CRNC with the Dedicated Measurement Initiation procedure. The Node B may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link, as long as the Node B Communication Context exists.

8.3.9.2 Successful Operation

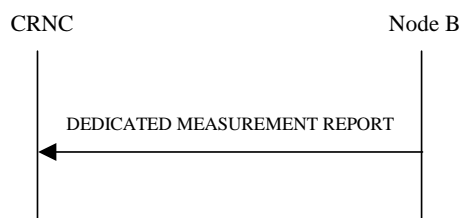


Figure 40: Dedicated Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the Node B shall initiate the Dedicated Measurement Reporting procedure. The DEDICATED MEASUREMENT REPORT message shall use the Communication Control Port assigned to the Node B Communication Context. If the measurement was initiated (by the Dedicated Measurement Initiation procedure) for multiple dedicated measurement objects, the Node B may include measurement values for

multiple objects in the DEDICATED MEASUREMENT REPORT message. Unless specified below, the meaning of the parameters are given in other specifications.

The *Measurement ID* IE shall be set to the Measurement ID provided by the CRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

[TDD - In the case that the measurement was performed on a particular HS-SICH, the Node B shall include the *HS-SICH ID* IE that indicates which HS-SICH was measured.]

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref.[22] and [23]) or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the Measurement not available shall be reported. If the Node B was configured to perform the Measurement Recovery Behavior, the Node B shall indicate Measurement Available to the CRNC when the achieved measurement accuracy again fulfils the given accuracy requirement (see ref. [22] and [23]) and include the *Measurement Recovery Report Indicator* IE in the DEDICATED MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

[FDD - If the *Alternative Format Reporting Indicator* IE was set to "Alternative format is allowed" in the DEDICATED MEASUREMENT INITIATION REQUEST message setting up the measurement to be reported, the Node B may include the *Extended Round Trip Time* IE in the DEDICATED MEASUREMENT REPORT message.]

8.3.9.3 Abnormal Conditions

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8.3.10 Dedicated Measurement Termination

8.3.10.1 General

This procedure is used by the CRNC to terminate a measurement previously requested by the Dedicated Measurement Initiation procedure.

The Dedicated Measurement Termination procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1 except if the measurement was initiated by the Dedicated Measurement Initiation procedure using the reserved value "All NBCC".

If the measurement was initiated by the Dedicated Measurement Initiation procedure using the reserved value "All NBCC", the Dedicated Measurement Termination procedure may be initiated by the CRNC at any time.

8.3.10.2 Successful Operation

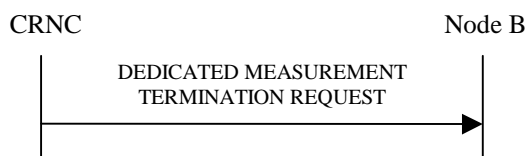


Figure 41: Dedicated Measurement Termination procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT TERMINATION REQUEST message, sent from the CRNC to the Node B using the Communication Control Port assigned to the Node B Communication Context.

Upon reception, the Node B shall terminate reporting of dedicated measurements corresponding to the received *Measurement ID* IE.

8.3.10.3 Abnormal Conditions

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8.3.11 Dedicated Measurement Failure

8.3.11.1 General

This procedure is used by the Node B to notify the CRNC that a measurement previously requested by the Dedicated Measurement Initiation procedure can no longer be reported. The Node B is allowed to initiate the DEDICATED MEASUREMENT FAILURE INDICATION message at any time after having sent the RADIO LINK SETUP RESPONSE message, as long as the Node B Communication Context exists.

8.3.11.2 Successful Operation



Figure 42: Dedicated Measurement Failure procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the Node B to the CRNC using the Communication Control Port assigned to the Node B Communication Context, to inform the CRNC that a previously requested measurement can no longer be reported. The Node B has locally terminated the indicated measurement.

If the failed measurement was initiated with the *Node B Communication Context ID* IE set to the reserved value "All NBCC" and the Node B has terminated the measurement reporting of the measurement corresponding to the Measurement ID indicated in the DEDICATED MEASUREMENT FAILURE INDICATION message, the *CRNC Communication Context ID* IE shall be set to the value "All CRNCCC".

8.3.11.3 Abnormal Conditions

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8.3.12 Radio Link Failure

8.3.12.1 General

This procedure is used by the Node B to indicate a failure in one or more Radio Links [FDD - or Radio Link Sets][TDD or CCTrCHs within a Radio Link].

The Node B may initiate the Radio Link Failure procedure at any time after establishing a Radio Link.

8.3.12.2 Successful Operation

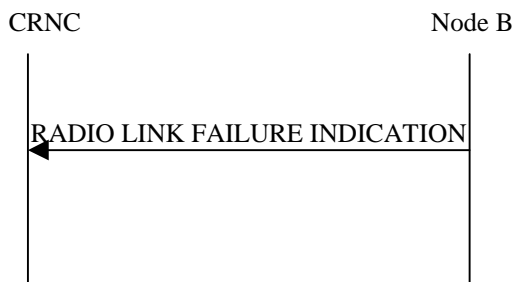


Figure 43: Radio Link Failure procedure, Successful Operation

When the Node B detects that one or more Radio Link(s) [FDD - or Radio Link Set(s)] [TDD - or CCTrCHs within a Radio Link] are no longer available, it sends the RADIO LINK FAILURE INDICATION message to the CRNC

indicating the failed Radio Link(s) or Radio Link Set(s) or CCTrCHs with the most appropriate cause values in the *Cause IE*. The message shall use the Communication Control Port assigned to the concerned Node B Communication Context.

If the failure concerns one or more individual Radio Link(s), the Node B shall indicate the affected Radio Link(s) using the *RL Information IE*. [FDD - If the failure concerns one or more Radio Link Set(s), the Node B shall indicate the affected Radio Link Set(s) using the *RL Set Information IE*.] [TDD - If the failure concerns only the failure of one or more CCTrCHs within a radio link, the Node B shall indicate the affected CCTrCHs using the *CCTrCH ID IE*.]

When the Radio Link Failure procedure is used to notify the loss of UL synchronisation of a [FDD - Radio Link Set] [TDD - Radio Link or CCTrCHs within a Radio Link] on the Uu interface, the RADIO LINK FAILURE INDICATION message shall be sent, with the *Cause IE* set to "Synchronisation Failure", when indicated by the UL out-of-sync algorithm defined in [10] and [21]. [FDD - The algorithms in [10] shall use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

[FDD - When the Radio Link Failure procedure is used to indicate permanent failure in one or more Radio Link(s) / Radio Link Set(s) due to the occurrence of an UL or DL frame with more than one transmission gap caused by one or more compressed mode pattern sequences, the DL transmission shall be stopped and the RADIO LINK FAILURE INDICATION message shall be sent with the cause value "Invalid CM Settings". After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the Node B shall not remove the Radio Link(s)/Radio Link Set(s) from the Node B Communication Context or the Node B Communication Context itself.]

[FDD - When the Radio Link Failure Procedure is used to indicate E-DCH non serving cell processing issue, the RADIO LINK FAILURE INDICATION shall be sent, with the *Cause IE* set to "Not enough user plane processing resources".]

In the other cases, the Radio Link Failure procedure is used to indicate that one or more Radio Link(s)/Radio Link Set(s) are permanently unavailable and cannot be restored. After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the Node B shall not remove the Radio Link/Radio Link Set from the Node B Communication Context or the Node B Communication Context itself. When applicable, the retention priorities associated with the transport channels shall be used by the Node B to prioritise which Radio Link(s)/Radio Link Set(s) to indicate as unavailable to the CRNC.

Typical cause values are:

Radio Network Layer Causes:

- Synchronisation Failure
- Invalid CM settings

Transport Layer Causes:

- Transport Resources Unavailable

Miscellaneous Causes:

- Control Processing Overload
- HW Failure
- O&M Intervention
- Not enough user plane processing resources

8.3.12.3 Abnormal Conditions

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8.3.13 Radio Link Restoration

8.3.13.1 General

This procedure is used by the Node B to notify the achievement and re-achievement of uplink synchronisation of one or more [FDD - Radio Link Sets][TDD - Radio Links or CCTrCHs within a Radio Link] on the Uu interface.

The Node B may initiate the Radio Link Restoration procedure at any time after establishing a Radio Link.

8.3.13.2 Successful Operation

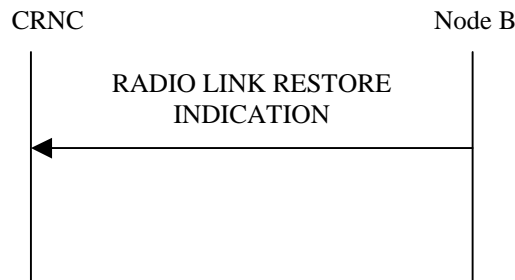


Figure 44: Radio Link Restoration procedure, Successful Operation

The Node B shall send the RADIO LINK RESTORE INDICATION message to the CRNC when indicated by the UL synchronisation detection algorithm defined in ref. [10] and [21] [FDD -, or when the *Fast Reconfiguration Mode IE* has been included in the RADIO LINK RECONFIGURATION COMMIT message and the Node B has detected that the UE has changed to the new configuration. The algorithm in ref. [10] shall use the minimum value of the parameters *N_INSYNC_IND* that are configured in the cells supporting the radio links of the RL Set.] The message shall use the Communication Control Port assigned to the concerned Node B Communication Context.

[TDD - If the re-established Uu synchronisation concerns one or more individual Radio Links, the Node B shall indicate the affected Radio Link(s) using the *RL Information IE*.] [TDD - If the re-established Uu synchronisation concerns one or more individual CCTrCHs within a radio link, the Node B shall indicate the affected CCTrCHs using the *CCTrCH ID IE*.] [FDD - If the re-established Uu synchronisation concerns one or more Radio Link Set(s), the Node B shall indicate the affected Radio Link Set(s) using the *RL Set Information IE*.]

[FDD - The Node B shall send the RADIO LINK RESTORE INDICATION message when the E-DCH processing issue condition has ceased.]

8.3.13.3 Abnormal Condition

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8.3.14 Compressed Mode Command [FDD]

8.3.14.1 General

The Compressed Mode Command procedure is used to activate or deactivate the compressed mode in the Node B for one Node B Communication Context.

The Compressed Mode Command procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.14.2 Successful Operation



Figure 47: Compressed Mode Command procedure, Successful Operation

The procedure is initiated by the CRNC sending a COMPRESSED MODE COMMAND message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

The Node B shall deactivate all the ongoing Transmission Gap Pattern Sequences at the *CM Configuration Change CFN* IE requested by the CRNC when receiving the COMPRESSED MODE COMMAND message from the CRNC. From that moment on, all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions (if present) shall be started when the indicated *TGCFN* IE elapses. The *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value.

If the values of the *CM Configuration Change CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CM Configuration Change CFN* IE.

If the concerned Node B Communication Context is configured to use F-DPCH in the downlink, the Node B shall not transmit the F-DPCH during the downlink transmission gaps according to [7]. But in all slots outside of the downlink transmission gaps the NodeB shall transmit the F-DPCH with the normal scrambling code and the assigned slot format, regardless of the configured downlink compressed mode method information and of the transmission gap pattern sequence code information, if existing.

8.3.14.3 Abnormal Conditions

[FDD – If the concerned Node B Communication Context is not configured to use F-DPCH in the downlink and if a transmission gap pattern sequence is activated with an SF/2 downlink compressed mode method and for any Radio Link the transmission gap pattern sequence code information is not available, the NodeB shall trigger the Radio Link Failure procedure with the cause value "Invalid CM Settings".]

8.3.15 Downlink Power Timeslot Control [TDD]

8.3.15.1 General

The purpose of this procedure is to enable the Node B to use the indicated DL Timeslot ISCP values when deciding the DL TX Power for each timeslot.

The Downlink Power Timeslot Control procedure can be initiated by the CRNC at any time when the Node B Communication Context exists, irrespective of other ongoing CRNC initiated dedicated NBAP procedures towards this Node B Communication Context. The only exception occurs when the CRNC has requested the deletion of the last RL via this Node B, in which case the Downlink Power Timeslot Control procedure shall no longer be initiated.

8.3.15.2 Successful Operation

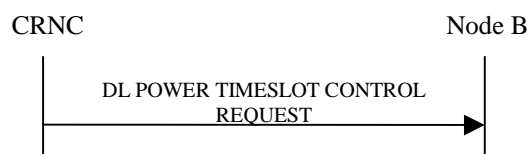


Figure 47A: Downlink Power Timeslot Control procedure, Successful Operation

The procedure is initiated by the CRNC sending a DL POWER TIMESLOT CONTROL REQUEST message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon reception, the Node B shall use the indicated DL Timeslot ISCP value when deciding the DL TX Power for each timeslot as specified in ref. [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.

If the *Primary CCPCH RSCP Delta* IE is included, the Node B shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [23], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the Node B shall assume that the reported value is in the non-negative range as per [23], and the value is equal to the *Primary CCPCH RSCP* IE. The Node B should use the indicated value for HS-DSCH scheduling and transmit power adjustment.

8.3.15.3 Abnormal Conditions

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8.3.16 Radio Link Pre-emption

8.3.16.1 General

This procedure is started by the Node B when resources need to be freed.

The Node B may initiate the Radio Link Pre-emption procedure at any time after establishing a Radio Link.

8.3.16.2 Successful Operation

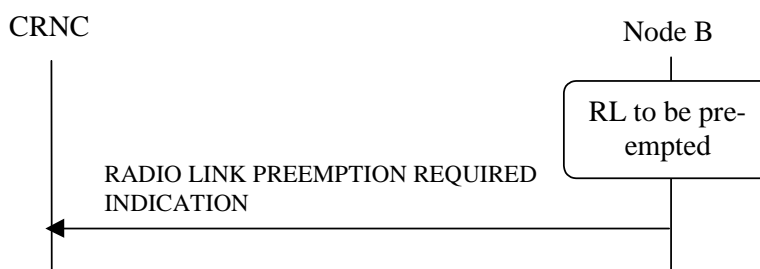


Figure 47B: Radio Link Pre-emption procedure, Successful Operation

When the Node B detects that a one or more Radio Links should be pre-empted (see Annex A), it shall send the RADIO LINK PREEMPTION REQUIRED INDICATION message to the CRNC using the Communication Control Port assigned to the concerned Node B Communication Context.

If all Radio Links for a CRNC Communication Context ID should be pre-empted, the *RL Information* IE shall be omitted. If one or several but not all Radio Links should be pre-empted for a CRNC Communication Context, the Radio Links that should be pre-empted shall be indicated in the *RL Information* IE. The Radio Link(s) that should be pre-empted should be deleted by the CRNC.

8.3.16.3 Abnormal Conditions

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8.3.17 Bearer Re-arrangement

8.3.17.1 General

This procedure is started by the Node B when Bearers for the Node B Communication Context need to be rearranged.

The Node B may initiate the Bearer Rearrangement procedure at any time after establishing a Radio Link.

8.3.17.2 Successful Operation

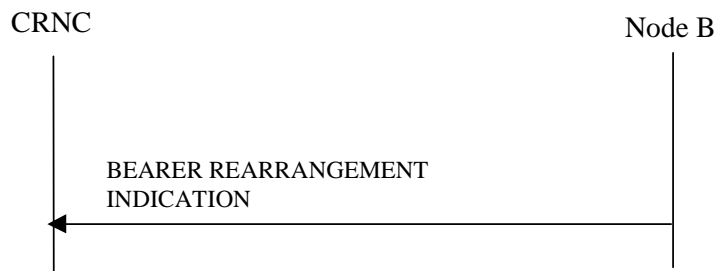


Figure 47C: Bearer Re-arrangement Indication, Successful Operation

When the Node B detects that a signaling bearer or a transport bearer or both need to be re-arranged for the Node B Communication Context, it shall send the BEARER REARRANGEMENT INDICATION message to the CRNC. The message shall use the Communication Control Port assigned for this Node B Communication Context.

If the signaling bearer for the control of the Node B Communication Context needs to be rearranged, the *Signalling Bearer Requested Indicator* IE shall be included in the BEARER REARRANGEMENT INDICATION message.

If the transport bearer for a transport channel needs to be rearranged, the ID of the transport channel for which a new transport bearer is required, shall be included in the BEARER REARRANGEMENT INDICATION message.

8.3.17.3 Abnormal Conditions

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8.3.18 Radio Link Activation

8.3.18.1 General

This procedure is used to activate or de-activate the DL transmission on the Uu interface regarding selected RLs.

8.3.18.2 Successful Operation



Figure 47D: Radio Link Activation procedure

This procedure is initiated by sending the RADIO LINK ACTIVATION COMMAND message from the CRNC to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context. Upon reception, the Node B shall for each concerned RL:

- if the *Delayed Activation Update* IE indicates "Activate":
 - if the *Activation Type* IE equals "Unsynchronised":
 - [FDD - start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [16].]
 - [TDD - start transmission on the new RL immediately as specified in [16].]

- if the *Activation Type* IE equals "Synchronised":
 - [FDD - start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [16], however never before the CFN indicated in the *Activation CFN* IE.]
 - [TDD - start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [16].]
 - [FDD - the Node B shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH or on the F-DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or power balancing is activated. During this period no inner loop power control shall be performed and, unless activated by the DL POWER CONTROL REQUEST message, no power balancing shall be performed. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and downlink power balancing adjustments (see subclause 8.3.7).]
 - [TDD - the Node B shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu interface is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]
 - [FDD - if the *Propagation Delay* IE and optionally the *Extended Propagation Delay* IE are included, the Node B may use this information to speed up the detection of UL synchronisation on the Uu interface.]
 - [FDD - if the *First RLS Indicator* IE is included, it indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the Node B together with the value of the *DL TPC Pattern 01 Count* IE which the Node B has received in the Cell Setup procedure, to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]
- if the *Delayed Activation Update* IE indicates "Deactivate":
 - stop DL transmission immediately, if the *Deactivation Type* IE equals "Unsynchronised", or at the CFN indicated by the *Deactivation CFN* IE, if the *Deactivation Type* IE equals "Synchronised".

8.3.18.3 Abnormal Conditions

[FDD - If the *Delayed Activation Update* IE is included in the RADIO LINK ACTIVATION COMMAND message, it indicates "Activate" and the *First RLS Indicator* IE is not included, the Node B shall initiate the Error Indication procedure.]

8.3.19 Radio Link Parameter Update

8.3.19.1 General

The Radio Link Parameter Update procedure is executed by the Node B when the update of HS-DSCH [FDD - or E-DCH] related radio link parameter values are needed on the Node B side. With this procedure, Node B can suggest some HS-DSCH [FDD - or E-DCH] related Radio Link Parameter values to RNC.

The Radio Link Parameter Update procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.19.2 Successful Operation



Figure 48: Radio Link Parameter Update Indication, Successful Operation

The Node B initiates the Radio Link Parameter Update procedure by sending the RADIO LINK PARAMETER UPDATE INDICATION message to the CRNC. The message contains suggested value(s) of the HS-DSCH [FDD - or E-DCH] related parameter(s) that should be reconfigured on the radio link(s).

If the Node B needs to update HS-DSCH related parameters, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including [FDD - *HS-DSCH FDD Update Information IE*] [TDD - *HS-DSCH TDD Update Information IE*].

If the Node B needs to allocate new HS-SCCH Codes, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *HS-SCCH Code Change Indicator IE*.

[FDD - If the Node B needs to allocate new HS-PDSCH Codes, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *HS-PDSCH Code Change Indicator IE*.]

[FDD - If the Node B needs to update the CQI Feedback Cycle k , CQI Repetition Factor, ACK-NACK Repetition Factor, CQI Power Offset, ACK Power Offset and/or NACK Power Offset, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *CQI Feedback Cycle k IE*, *CQI Repetition Factor IE*, *ACK-NACK Repetition Factor IE*, *CQI Power Offset IE*, *ACK Power Offset IE* and/or *NACK Power Offset IE*.]

[TDD - If the Node B needs to update the TDD ACK-NACK Power Offset the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *TDD ACK-NACK Power Offset IE*.]

[FDD - If the Node B needs to update E-DCH related parameters, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including the *E-DCH FDD Update Information IE*.]

[FDD - If the Node B needs to update the HARQ process allocation for non-scheduled transmission and/or HARQ process allocation for scheduled Transmission, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including the *HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant IE* for the concerned MAC-d Flows and/or *HARQ Process Allocation For 2ms Scheduled Transmission Grant IE*.]

[FDD - If the Node B needs to allocate new E-AGCH Channelisation Code, new E-RGCH/E-HICH Channelisation Code, new E-RGCH Signature Sequence and/or new E-HICH Signature Sequence, the Node B shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *E-DCH DL Control Channel Change Information IE*.]

8.3.19.3 Abnormal Conditions

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8.4 Error Handling Procedures

8.4.1 Error Indication

8.4.1.1 General

The Error Indication procedure is initiated by a node in order to report detected errors in one incoming message, provided they cannot be reported by an appropriate response message.

8.4.1.2 Successful Operation

When the conditions defined in subclause 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node.

In case the Error Indication procedure was triggered by a dedicated procedure, the following applies:

- When the ERROR INDICATION message is sent from a Node B to its CRNC, the *CRNC Communication Context ID IE* shall be included in the message if the corresponding Node B Communication Context, addressed by the *Node B Communication Context ID IE* which was received in the message triggering the Error Indication procedure, exists;
- When the ERROR INDICATION message is sent from a CRNC to a Node B, the *Node B Communication Context ID IE* shall be included in the message if the corresponding CRNC Communication Context, addressed by the *CRNC Communication Context ID IE* which was received in the message triggering the Error Indication procedure, exists;
- When the message triggering the Error Indication procedure is received in the Node B and there is no Node B Communication Context as indicated by the *Node B Communication Context ID IE*, the Node B shall include the unknown *Node B Communication Context ID IE* from the received message in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.
- When the message triggering the Error Indication procedure is received in the CRNC and there is no CRNC Communication Context as indicated by the *CRNC Communication Context ID IE*, the CRNC shall include the unknown *CRNC Communication Context ID IE* from the received message in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

The ERROR INDICATION message shall include either the *Cause IE*, or the *Criticality Diagnostics IE* or both the *Cause IE* and the *Criticality Diagnostics IE*.

Typical cause values for the ERROR INDICATION message are:

Protocol Causes:

- Transfer Syntax Error
- Abstract Syntax Error (Reject)
- Abstract Syntax Error (Ignore and Notify)
- Message not Compatible with Receiver State
- Unspecified

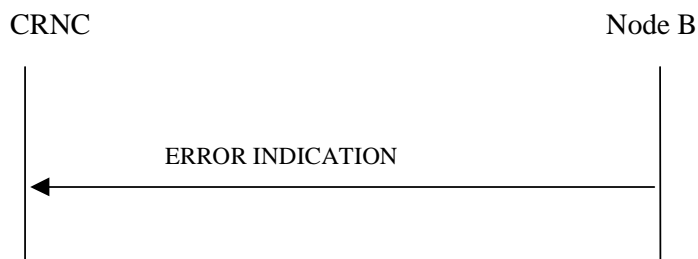


Figure 49: Error Indication procedure (Node B to CRNC): Successful Operation

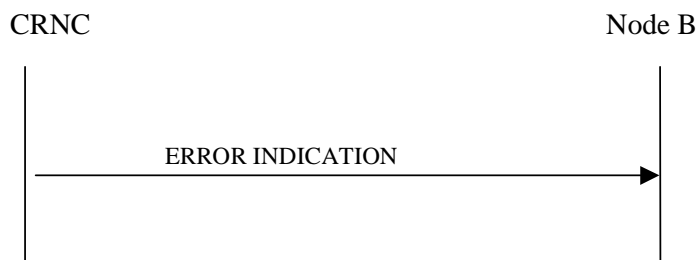


Figure 50: Error Indication procedure (CRNC to Node B), Successful Operation

8.4.1.3 Abnormal Conditions

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9 Elements for NBAP communication

9.1 Message Functional Definition and Contents

9.1.1 General

Subclause 9.1 presents the contents of NBAP messages in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, where the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in ref. [26].

9.1.2 Message Contents

9.1.2.1 Presence

An information element can be of the following types:

M	IEs marked as Mandatory (M) shall always be included in the message.
O	IEs marked as Optional (O) may or may not be included in the message.
C	IEs marked as Conditional (C) shall be included in a message only if the condition is satisfied. Otherwise the IE shall not be included.

In case of an Information Element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. The presence field of the Information Elements inside one group defines if the Information Element is mandatory, optional or conditional if the group is present.

9.1.2.2 Criticality

Each Information Element or Group of Information Elements may have a criticality information applied to it. Following cases are possible:

–	No criticality information is applied explicitly.
YES	Criticality information is applied. 'YES' is usable only for non-repeatable information elements.
GLOBAL	The information element and all its repetitions together have one common criticality information. 'GLOBAL' is usable only for repeatable information elements.
EACH	Each repetition of the information element has its own criticality information. It is not allowed to assign different criticality values to the repetitions. 'EACH' is usable only for repeatable information elements.

9.1.2.3 Range

The Range column indicates the allowed number of copies of repetitive IEs.

9.1.2.4 Assigned Criticality

This column provides the actual criticality information as defined in subclause 10.3.2, if applicable.

9.1.3 COMMON TRANSPORT CHANNEL SETUP REQUEST

9.1.3.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE <i>Common Physical Channel To Be Configured</i>	M				YES	ignore
>Secondary CCPCH						
>>Secondary CCPCH		1			–	
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>FDD SCCPCH Offset	M		9.2.2.15	Corresponds to [7]: S-CCPCH,k	–	
>>>DL Scrambling Code	C-PCH		9.2.2.13		–	
>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>TFCS	M		9.2.1.58	For the DL.	–	
>>>Secondary CCPCH Slot Format	M		9.2.2.43	If <i>Extended Secondary CCPCH Slot Format</i> IE is present, this IE shall be ignored	–	
>>>TFCI Presence	C-SlotFormat		9.2.1.57	Refer to TS [7]	–	
>>>Multiplexing Position	M		9.2.2.23		–	
>>>Power Offset Information		1			–	
>>>>PO1	M		Power Offset 9.2.2.29	Power offset for the TFCI bits	–	
>>>>PO3	M		Power Offset 9.2.2.29	Power offset for the pilot bits	–	
>>>STTD Indicator	M		9.2.2.48		–	
>>>FACH Parameters		0..<maxno ofFACHs>			GLOBAL	reject
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>>ToAWS	M		9.2.1.61		–	
>>>>ToAWE	M		9.2.1.60		–	
>>>>Max FACH Power	M		DL Power 9.2.1.21	Maximum allowed power on the FACH.	–	
>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment	YES	ignore

				with ALCAP.		
>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>Broadcast Reference	O		9.2.1.5C		YES	ignore
>>>>IP Multicast Indication	O		9.2.1.108		YES	ignore
>>>PCH Parameters		<i>0..1</i>			YES	reject
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>>ToAWS	M		9.2.1.61		–	
>>>>ToAWE	M		9.2.1.60		–	
>>>>PCH Power	M		DL Power 9.2.1.21		–	
>>>>PICH Parameters		<i>1</i>			–	
>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>>PICH Power	M		9.2.1.49A		–	
>>>>>PICH Mode	M		9.2.2.26	Number of PI per frame	–	
>>>>>STTD Indicator	M		9.2.2.48		–	
>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>MICH Parameters		<i>0..1</i>			YES	reject
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>MICH Power	M		PICH		–	

			Power 9.2.1.49A			
>>>>MICH Mode	M		9.2.2.21D	Number of NI per frame	–	
>>>>STTD Indicator	M		9.2.2.48		–	
>>>FDD S-CCPCH Frame Offset	O		9.2.2.14B		YES	reject
>>>Modulation Power Offset	O		9.2.2.91	Used for MBSFN operation only	YES	reject
>>>Extended Secondary CCPCH Slot Format	O		9.2.2.92	Used for MBSFN operation only	YES	reject
>PRACH						
>>PRACH		1			–	
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>Scrambling Code Number	M		9.2.2.42		–	
>>>TFCS	M		9.2.1.58	For the UL.	–	
>>>Preamble Signatures	M		9.2.2.31		–	
>>>Allowed Slot Format Information		<i>1..<maxno ofSlotForm atsPRACH ></i>			–	
>>>>RACH Slot Format	M		9.2.2.37		–	
>>>RACH Sub Channel Numbers	M		9.2.2.38		–	
>>>Puncture Limit	M		9.2.1.50	For the UL	–	
>>>Preamble Threshold	M		9.2.2.32		–	
>>>RACH Parameters		1			YES	reject
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Transport Format Set	M		9.2.1.59	For the UL.	–	
>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>AICH Parameters		1			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>AICH Transmission Timing	M		9.2.2.1		–	
>>>>FDD DL	M		9.2.2.14		–	

Channelisation Code Number						
>>>>AICH Power	M		9.2.2.D		–	
>>>>STTD Indicator	M		9.2.2.48		–	
>Not Used			NULL	This choice shall not be used. Reject procedure if received.		

Condition	Explanation
SlotFormat	The IE shall be present if the <i>Secondary CCPCH Slot Format</i> IE is set to any of the values from 8 to 17.
PCH	The IE shall be present if the <i>PCH Parameters</i> IE is not present.

Range Bound	Explanation
<i>maxnoofFACHs</i>	Maximum number of FACHs that can be defined on a Secondary CCPCH
<i>maxnoofSlotFormatsPRACH</i>	Maximum number of SF for a PRACH

9.1.3.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE <i>Common Physical Channel To Be Configured</i>	M				YES	ignore
>Secondary CCPCHs						
>>SCCPCH CCTrCH ID	M		CCTrCH ID 9.2.3.3	For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>>TFCS	M		9.2.1.58	For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>>TFCI Coding	M		9.2.3.22		–	
>>Puncture Limit	M		9.2.1.50		–	
>>CHOICE <i>HCR or LCR or 7.68 Mcps</i>	M			See note 1 below	–	
>>>3.84Mcps TDD					–	
>>>>Secondary CCPCH		1..<maxno ofSCCPC Hs>		See note 2 below	GLOBAL	reject
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>>Time Slot	M		9.2.3.23		–	
>>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>>Repetition Period	M		9.2.3.16		–	
>>>>Repetition Length	M		9.2.3.15		–	
>>>>SCCPCH Power	M		DL Power 9.2.1.21		–	
>>>>TFCI Presence	O		9.2.1.57		YES	notify
>>>1.28Mcps TDD					–	
>>>>Secondary CCPCH LCR		1..<maxno ofSCCPC HsLCR>		See note 2 below	GLOBAL	reject
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>TDD Channelisation Code	M		9.2.3.19a		–	

LCR						
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Midamble Shift LCR	M		9.2.3.7A	For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, the NodeB shall ignore the contents of this IE.	–	
>>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>>Repetition Period	M		9.2.3.16		–	
>>>>Repetition Length	M		9.2.3.15		–	
>>>>SCCPCH Power	M		DL Power 9.2.1.21		–	
>>>>SCCPCH Time Slot Format LCR	M		TDD DL DPCH Time Slot Format LCR 9.2.3.19D		–	
>>>>MBSFN Special Time Slot LCR	O		Time Slot LCR Extension 9.2.3.24B	Only for 1.28 Mcps TDD MBSFN only mode, this IE indicates the MBSFN Special Time Slot [19]. The <i>Time Slot LCR</i> IE for the Secondary CCPCH LCR shall be ignored if this IE appears.	YES	ignore
>>>7.68 Mcps TDD					–	
>>>>Secondary CCPCH 7.68 Mcps		<i>1..<maxno ofSCCPC Hs768></i>			GLOBAL	reject
>>>>Common Physical Channel ID 768Mcps	M		9.2.3.33		–	
>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>>>Time Slot	M		9.2.3.23		–	
>>>>TFCl Presence	O		9.2.1.57		–	
>>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>>Repetition	M		9.2.3.16		–	

Period						
>>>>Repetition Length	M		9.2.3.15		–	
>>>>SCCPCH Power	M		DL Power 9.2.1.21		–	
>>FACH Parameters		<i>0..<maxno ofFACHs></i>			GLOBAL	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>FACH CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>ToAWS	M		9.2.1.61		–	
>>>ToAWE	M		9.2.1.60		–	
>>>Max FACH Power	O		DL Power 9.2.1.21	Applicable to 1.28Mcps TDD only	YES	reject
>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>Broadcast Reference	O		9.2.1.5C		YES	ignore
>>>IP Multicast Indication	O		9.2.1.108		YES	ignore
>>PCH Parameters		<i>0..1</i>			YES	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>PCH CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>ToAWS	M		9.2.1.61		–	
>>>ToAWE	M		9.2.1.60		–	
>>>CHOICE <i>HCR or LCR or 7.68Mcps</i>	M			See note 1 below	–	
>>>>3.84Mcps TDD					–	
>>>>PICH Parameters		<i>0..1</i>			YES	reject
>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>>>Time Slot	M		9.2.3.23		–	

>>>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>>>Repetition Period	M		9.2.3.16		–	
>>>>>Repetition Length	M		9.2.3.15		–	
>>>>>Paging Indicator Length	M		9.2.3.8		–	
>>>>>PICH Power	M		9.2.1.49A		–	
>>>>1.28Mcps TDD					–	
>>>>>PICH Parameters LCR		0..1			YES	reject
>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>>>Repetition Period	M		9.2.3.16		–	
>>>>>Repetition Length	M		9.2.3.15		–	
>>>>>Paging Indicator Length	M		9.2.3.8		–	
>>>>>PICH Power	M		9.2.1.49A		–	
>>>>>Second TDD Channelisation Code LCR	M		TDD Channelisation Code LCR 9.2.3.19a		–	
>>>>>TSTD Indicator	O		9.2.1.64		YES	reject
>>>>7.68Mcps TDD					–	
>>>>>PICH Parameters		0..1			YES	reject
>>>>>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>>>>TDD	M		9.2.3.20		–	

Physical Channel Offset						
>>>>>Repetition Period	M		9.2.3.16		–	
>>>>>Repetition Length	M		9.2.3.15		–	
>>>>>Paging Indicator Length	M		9.2.3.8		–	
>>>>>PICH Power	M		9.2.1.49A		–	
>>>PCH Power	O		DL Power 9.2.1.21	Applicable to 1.28Mcps TDD only	YES	reject
>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>TSTD Indicator	O		9.2.1.64		YES	reject
>>MICH Parameters		0..1			YES	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>Notification Indicator Length	M		9.2.3.7Aa		–	
>>>MICH Power	M		PICH Power 9.2.1.49A		–	
>>>CHOICE HCR or LCR or 7.68 Mcps	M				–	
>>>>3.84Mcps TDD						
>>>>>MICH Parameters HCR		1			–	
>>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>>1.28Mcps TDD						
>>>>>MICH Parameters LCR		1			–	
>>>>>TDD Channelisation	M		9.2.3.19a		–	

Code LCR						
>>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>>Midamble Shift LCR	M		9.2.3.7A	For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, the NodeB shall ignore the contents of this IE.	–	
>>>>>Second TDD Channelisation Code LCR	M		TDD Channelisation Code LCR 9.2.3.19a		–	
>>>>>TSTD Indicator	M		9.2.1.64		–	
>>>>>MBSFN Special Time Slot LCR	O		Time Slot LCR Extension 9.2.3.24B	Only for 1.28 Mcps TDD MBSFN only mode, this IE indicates the MBSFN Special Time Slot [19]. The <i>Time Slot LCR</i> IE for the MICH parameters LCR shall be ignored if this IE appears.	YES	ignore
>>>>7.68 Mcps TDD						
>>>>>MICH Parameters 7.68 Mcps		1			–	
>>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>Modulation	O		9.2.1.87	Applicable to 3.84Mcps TDD and 7.68Mcps TDD in MBSFN operation only	YES	reject
>>Time Slot Configuration LCR		0..7		Applicable to 1.28Mcps TDD for MBSFN. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	GLOBAL	reject
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Time Slot Parameter ID	M		Cell Parameter ID 9.2.3.4		–	
>>UARFCN	O		9.2.1.65	Corresponds to	YES	reject

				Nt [15] This IE indicates the frequency of the Secondary Frequency on which SCCPCH is configured. Applicable to 1.28Mcps TDD MBSFN. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.		
>PRACH						
>>CHOICE HCR or LCR or 7.68 Mcps	M			See note 1 below	–	
>>>3.84Mcps TDD					–	
>>>>PRACH		1			YES	reject
>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>TFCS	M		9.2.1.58		–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>>>Max PRACH Midamble Shifts	M		9.2.3.6		–	
>>>>>PRACH Midamble	M		9.2.3.14		–	
>>>>>RACH		1			YES	reject
>>>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>>>Transport Format Set	M		9.2.1.59	For the UL	–	
>>>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>1.28Mcps TDD					–	
>>>>>PRACH LCR		1..<maxno ofPRACHL CRs>			GLOBAL	reject
>>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>>TFCS	M		9.2.1.58		–	

>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>> RACH		1			YES	reject
>>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>>Transport Format Set	M		9.2.1.59	For the UL	–	
>>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>UARFCN	O		9.2.1.65	Corresponds to Nt [15]. This IE indicates the frequency of the secondary frequency on which PRACH to be set up. See note 3 below.	YES	reject
>>>7.68 Mcps TDD					–	
>>>> PRACH		1			YES	reject
>>>>>Common Physical Channel ID 768Mcps	M		9.2.3.33		–	
>>>>>TFCS	M		9.2.1.58		–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>>>>Max PRACH Midamble Shifts	M		9.2.3.6		–	
>>>>>PRACH Midamble	M		9.2.3.14		–	
>>>>> RACH		1			YES	reject
>>>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>>>Transport	M		9.2.1.59	For the UL	–	

Format Set						
>>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>FPACH		0..1		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>Max FPACH Power	M		9.2.3.5E		–	
>>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] This IE indicates the frequency of Secondary Frequency on which FPACH to be set up.	YES	reject
>PLCCH				1.28 Mcps TDD only	YES	ignore
>>Max PLCCH Power	M		DL Power 9.2.1.21		–	
>>Common Physical Channel ID	M		9.2.1.13		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
>>Time Slot LCR	M		9.2.3.24A		–	
>>Midamble Shift LCR	M		9.2.3.7A		–	
>E-RUCCH				3.84Mcps TDD only	YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Time Slot	M		9.2.3.23		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
>>Max E-RUCCH Midamble Shifts	M		9.2.3.44		–	
>>E-RUCCH Midamble	M		9.2.3.14		–	
>E-RUCCH 7.68Mcps				7.68Mcps TDD only	YES	ignore

>>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>>Time Slot	M		9.2.3.23		–	
>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>Max E-RUCCH Midamble Shifts	M		9.2.3.44		–	
>>E-RUCCH Midamble	M		9.2.3.14		–	

Note 1: This information element is a simplified representation of the ASN.1. The choice is in reality performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

Note 2: This information element is a simplified representation of the ASN.1. Repetitions 1 to 8 and repetitions 9 to maxnoofSCCPCHs / maxnoofSCCPCHsLCR are represented by separate ASN.1 structures.

Note 3: The configured PRACH resources on secondary frequency shall only be used for E-DCH random access.

Range Bound	Explanation
<i>maxnoofSCCPCHs</i>	Maximum number of Secondary CCPCHs per CCTrCH for 3.84Mcps TDD
<i>maxnoofSCCPCHsLCR</i>	Maximum number of Secondary CCPCHs per CCTrCH for 1.28Mcps TDD
<i>maxnoofSCCPCHs768</i>	Maximum number of Secondary CCPCHs per CCTrCH for 7.68 Mcps TDD
<i>maxnoofFACHs</i>	Maximum number of FACHs that can be defined on a Secondary CCPCH
<i>maxnoofPRACHLCRs</i>	Maximum number of PRACHs LCR that can be defined on a RACH for 1.28Mcps TDD

9.1.4 COMMON TRANSPORT CHANNEL SETUP RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
FACH Parameters Info		<i>0..<maxno ofFACHs></i>		The FACH Parameters may be combined with PCH Parameters	GLOBAL	ignore
>FACH Parameters	M		Common Transport Channel Information Response 9.2.1.14A		–	
PCH Parameters	O		Common Transport Channel Information Response 9.2.1.14A	The PCH Parameters may be combined with FACH Parameters	YES	ignore
RACH Parameters	O		Common Transport Channel Information Response 9.2.1.14A	The RACH Parameters shall not be combined with FACH Parameters or PCH Parameters	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

Range Bound	Explanation
<i>maxnoofFACHs</i>	Maximum number of FACHs that can be defined on a Secondary CCPCH[FDD] / a group of Secondary CCPCHs [TDD]

9.1.5 COMMON TRANSPORT CHANNEL SETUP FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	–
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	–
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.6 COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST

9.1.6.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE <i>Common Physical Channel To Be Configured</i>	M				YES	reject
> <i>Secondary CCPCH</i>						
>> FACH Parameters		<i>0..<maxFA CHCell></i>			GLOBAL	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>Max FACH Power	O		DL Power 9.2.1.21	Maximum allowed power on the FACH.	–	
>>>ToAWS	O		9.2.1.61		–	
>>>ToAWE	O		9.2.1.60		–	
>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer reconfiguration with ALCAP.	YES	ignore
>> PCH Parameters		<i>0..1</i>			YES	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>PCH Power	O		DL Power 9.2.1.21	Power to be used on the PCH.	–	
>>>ToAWS	O		9.2.1.61		–	
>>>ToAWE	O		9.2.1.60		–	
>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer reconfiguration with ALCAP.	YES	ignore
>> PICH Parameters		<i>0..1</i>			YES	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>PICH Power	O		9.2.1.49A		–	
>> MICH Parameters		<i>0..1</i>			YES	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>MICH Power	O		PICH Power 9.2.1.49A		–	
> <i>PRACH</i>						
>> PRACH Parameters		<i>0..<maxP RACHCell></i>			GLOBAL	reject

>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>Preamble Signatures	O		9.2.2.31		–	
>>>Allowed Slot Format Information		<i>0..<maxno ofSlotFormatsPRACH ></i>			–	
>>>>RACH Slot Format	M		9.2.2.37		–	
>>>RACH Sub Channel Numbers	O		9.2.2.38		–	
>>>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer reconfiguration with ALCAP.	YES	ignore
>>AICH Parameters		<i>0..<maxP RACHCell ></i>			GLOBAL	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>AICH Power	O		9.2.2.D		–	
>Not Used			NULL	This choice shall not be used. Reject procedure if received.		

Range Bound	Explanation
<i>maxFACHCell</i>	Maximum number of FACHs that can be defined in a Cell
<i>maxPRACHCell</i>	Maximum number of PRACHs and AICHs that can be defined in a Cell
<i>maxnoofSlotFormatsPRACH</i>	Maximum number of SF for a PRACH

9.1.6.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
Secondary CCPCH Parameters		<i>0..1</i>			YES	reject

>CCTrCH ID	M		9.2.3.3	For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>Secondary CCPCHs To Be Configured		<i>0..<maxno ofSCCPCHs></i>		See note 1 below	GLOBAL	reject
>>Common Physical Channel ID	M		9.2.1.13		–	
>>SCCPCH Power	O		DL power 9.2.1.21		–	
PICH Parameters		<i>0..1</i>			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>PICH Power	O		9.2.1.49A		–	
FACH Parameters		<i>0..<maxno ofFACHs></i>			GLOBAL	reject
>Common Transport Channel ID	M		9.2.1.14		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>Max FACH Power	O		DL Power 9.2.1.21	Applicable to 1.28Mcps TDD only	YES	reject
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer reconfiguration with ALCAP.	YES	ignore
PCH Parameters		<i>0..1</i>			YES	reject
>Common Transport Channel ID	M		9.2.1.14		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>PCH Power	O		DL Power 9.2.1.21	Applicable to 1.28Mcps TDD only	YES	reject
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer reconfiguration with ALCAP.	YES	ignore
FPACH Parameters		<i>0..1</i>		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD..	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Max FPACH Power	O		9.2.3.5E		–	
MICH Parameters		<i>0..1</i>			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>MICH Power	O		PICH Power 9.2.1.49A		–	
PLCCH Parameters		<i>0..1</i>		Applicable to 1.28Mcps TDD only	YES	ignore

>Max PLCCH Power	O		DL Power 9.2.1.21		–	
Secondary CCPCH Parameters 7.68Mcps		0..1		Applicable to 7.68 Mcps TDD only	YES	reject
>CCTrCH ID	M		9.2.3.3	For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>Secondary CCPCHs To Be Configured		0..<maxno ofSCCPC Hs768>			–	
>>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>>SCCPC Power	O		DL power 9.2.1.21		–	
PICH Parameters 7.68Mcps		0..1		Applicable to 7.68 Mcps TDD only	YES	reject
>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>PICH Power	O		9.2.1.49A		–	
MICH Parameters 7.68Mcps		0..1		Applicable to 7.68Mcps TDD only	YES	reject
>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>MICH Power	O		PICH Power 9.2.1.49A		–	
UpPCH Parameters		0..1		Applicable to 1.28Mcps TDD only	YES	reject
>UpPCH Position LCR	O		9.2.3.4Q	This position of UpPCH. For a multi-frequency cell, if this IE is not included in this message, UpPCH in secondary frequency indicated by "UARFCN" shall be deleted.	–	
>UARFCN	O		9.2.1.65	Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15].	–	

Note 1: This information element is a simplified representation of the ASN.1. Repetitions 1 to 8 and repetitions 9 to maxnoofSCCPCHs are represented by separate ASN.1 structures. Furthermore, maxnoofSCCPCHs has different values in the ASN.1 for each of the two TDD options.

Range Bound	Explanation
<i>maxnoofSCCPCHs</i>	Maximum number of SCCPCHs that can be repeated in a Cell
<i>maxnoofFACHs</i>	Maximum number of FACHs that can be repeated in a Cell
<i>maxnoofSCCPCHs768</i>	Maximum number of SCCPCHs that can be repeated in a Cell at 7.68Mcps

9.1.7 COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.8 COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.9 COMMON TRANSPORT CHANNEL DELETION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Common Physical Channel ID	M		9.2.1.13	Indicates the Common Physical Channel for which the Common Transport Channels (together with the Common Physical Channel) shall be deleted.	YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
Common Physical Channel ID 7.68Mcps	O		9.2.3.33	Included at 7.68 Mcps when the physical channel ID exceeds the range of "Common Physical Channel ID"	YES	reject

9.1.10 COMMON TRANSPORT CHANNEL DELETION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.11 BLOCK RESOURCE REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Blocking Priority Indicator	M		9.2.1.5		YES	reject
Shutdown Timer	C-BlockNormal		9.2.1.56		YES	reject

Condition	Explanation
BlockNormal	The IE shall be present if the <i>Blocking Priority Indicator</i> IE indicates "Normal Priority".

9.1.12 BLOCK RESOURCE RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.13 BLOCK RESOURCE FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.14 UNBLOCK RESOURCE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	ignore

9.1.15 AUDIT REQUIRED INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	

9.1.16 AUDIT REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Start Of Audit Sequence Indicator	M		9.2.1.56B		YES	reject

9.1.17 AUDIT RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
End Of Audit Sequence Indicator	M		9.2.1.29A		YES	ignore
Cell Information		<i>0..<maxCellsInNodeB></i>			EACH	ignore
>C-ID	M		9.2.1.9		–	
>Configuration Generation ID	M		9.2.1.16		–	
>Resource Operational State	M		9.2.1.52		–	
>Availability Status	M		9.2.1.2		–	
>Local Cell ID	M		9.2.1.38	The local cell that the cell is configured on	–	
>Primary SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to FDD only	YES	ignore
>Secondary SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to FDD only	YES	ignore
>Primary CPICH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to FDD only	YES	ignore
>Secondary CPICH Information		<i>0..<maxSecondaryCPICHCells></i>		Applicable to FDD only	EACH	ignore
>>Secondary CPICH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>Primary CCPCH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>BCH Information	O		Common Transport Channel Status Information 9.2.1.14B		YES	ignore

>Secondary CCPCH Information		$0..<maxS$ $CCPCHCe$ $ll>$		See note 1 below	EACH	ignore
>>Secondary CCPCH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>PCH Information	O		Common Transport Channel Status Information 9.2.1.14B		YES	ignore
>PICH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>FACH Information		$0..<maxFA$ $CHCell>$			EACH	ignore
>>FACH Individual Information	M		Common Transport Channel Status Information 9.2.1.14B		–	
>PRACH Information		$0..<maxP$ $RACHCell$ $>$			EACH	ignore
>>PRACH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>RACH Information		$0..<maxR$ $ACHCell>$			EACH	ignore
>>RACH Individual Information	M		Common Transport Channel Status Information 9.2.1.14B		–	
>AICH Information		$0..<maxP$ $RACHCell$ $>$		Applicable to FDD only	EACH	ignore
>>AICH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>Not Used 1	O		NULL	This item shall not be used. Ignore if received.	–	
>Not Used 2	O		NULL	This item shall	–	

				not be used. Ignore if received.		
>Not Used 3	O		NULL	This item shall not be used. Ignore if received.	–	
>Not Used 4	O		NULL	This item shall not be used. Ignore if received.	–	
>SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	TDD Sync Channel Applicable to 3.84Mcps TDD only	YES	ignore
>FPACH Information		<i>0..<maxFPACHCell></i>		Applicable to 1.28Mcps TDD only	EACH	ignore
>>FPACH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>DwPCH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to 1.28Mcps TDD only	YES	ignore
>HS-DSCH Resources Information		<i>0..<maxFrequencyin Cell></i>		See note 2 below	EACH	ignore
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable to 1.28Mcps TDD when using multiple frequencies.	YES	ignore
>MICH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>E-DCH Resources Information		<i>0..<maxFrequencyin Cell></i>		See note 2 below	EACH	ignore
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable to 1.28Mcps TDD	YES	ignore

				when using multiple frequencies.		
>PLCCH Information		$0..<maxPL\ CCHCell>$		Applicable to 1.28Mcps TDD only	EACH	ignore
>>PLCCH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>Primary CCPCH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		YES	ignore
>Secondary CCPCH Information 7.68Mcps		$0..<maxS\ CCPCHCe\ //768>$			EACH	ignore
>>Secondary CCPCH Individual Information 7.68 Mcps	M		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		–	
>PICH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		YES	ignore
>PRACH Information 7.68Mcps		$0..<maxP\ RACHCell\ >$			EACH	ignore
>>PRACH Individual Information 7.68Mcps	M		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		–	
>SCH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36	TDD Sync Channel Applicable to 7.68Mcps TDD only	YES	ignore
>MICH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		YES	ignore
>E-RUCCH Information		$0..<maxE-\ RUCCHCe\ //>$		3.84Mcps TDD only	EACH	ignore
>>E-RUCCH Individual Information	M		Common		–	

			Physical Channel Status Information 9.2.1.13A			
>E-RUCCH Information 7.68Mcps		<i>0..<maxE-RUCCHCell></i>		7.68Mcps TDD only	EACH	ignore
>>E-RUCCH Individual Information 7.68Mcps	M		Common Physical Channel Status Information 7.68 Mcps 9.2.3.36		–	
>UARFCN Information LCR		<i>0..<maxFrequencyin Cell></i>		Applicable to 1.28Mcps TDD when using multiple frequencies.	EACH	ignore
>>UARFCN	M		9.2.1.65	Corresponds to Nt [15]	–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>UpPCH Information LCR		<i>0..<maxFrequencyin Cell></i>		Applicable to 1.28Mcps TDD only.	EACH	ignore
>>UARFCN	O		9.2.1.65	Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15]	–	
>>UpPCH Position LCR	M		9.2.3.4Q		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
Communication Control Port Information		<i>0..<maxC CPinNode B></i>			EACH	ignore
>Communication Control Port ID	M		9.2.1.15		–	
>Resource Operational State	M		9.2.1.52		–	
>Availability Status	M		9.2.1.2		–	
Local Cell Information		<i>0..<maxLocalCellinNode B></i>			EACH	ignore
>Local Cell ID	M		9.2.1.38		–	
>DL Or Global Capacity Credit	M		9.2.1.20B		–	
>UL Capacity Credit	O		9.2.1.65A		–	
>Common Channels Capacity Consumption Law	M		9.2.1.9A		–	
>Dedicated Channels Capacity Consumption Law	M		9.2.1.20A		–	

>Maximum DL Power Capability	O		9.2.1.39		–	
>Minimum Spreading Factor	O		9.2.1.47		–	
>Minimum DL Power Capability	O		9.2.1.46A		–	
>Local Cell Group ID	O		9.2.1.37A		–	
>Reference Clock Availability	O		9.2.3.14A	TDD only	YES	ignore
>Power Local Cell Group ID	O		9.2.1.49B		YES	ignore
>HSDPA Capability	O		9.2.1.31Ga		YES	ignore
>E-DCH Capability	O		9.2.1.70		YES	ignore
>E-DCH TTI2ms Capability	C-EDCHCapability		9.2.2.13V	FDD only	YES	ignore
>E-DCH SF Capability	C-EDCHCapability		9.2.2.13W	FDD only	YES	ignore
>E-DCH HARQ Combining Capability	C-EDCHCapability		9.2.2.13X	FDD only	YES	ignore
>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore
>F-DPCH Capability	O		9.2.2.16a	FDD only	YES	ignore
>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
>Continuous Packet Connectivity DTX-DRX Capability	O		9.2.2.64	FDD only	YES	ignore
>Max UE DTX Cycle	C-DTX-DRXCapability		9.2.2.95	FDD only	YES	ignore
>Continuous Packet Connectivity HS-SCCH less Capability	O		9.2.2.65	FDD only	YES	ignore
>MIMO Capability	O		9.2.2.70	FDD only	YES	ignore
>SixtyfourQAM DL Capability	O		9.2.2.74	FDD only	YES	ignore
>MBMS Capability	O		9.2.1.86		YES	ignore
>Enhanced FACH Capability	O		9.2.2.86	FDD only	YES	ignore
>Enhanced PCH Capability	C-Enhanced FACHCapability		9.2.2.87	FDD only	YES	ignore
>SixteenQAM UL Capability	O		9.2.2.88	FDD only	YES	ignore
>HS-DSCH MAC-d PDU Size Capability	O		9.2.1.31IC		YES	ignore
>MBSFN Only Mode Capability	O		9.2.3.71	1.28Mcps TDD only	YES	ignore
>F-DPCH Slot Format Capability	O		9.2.2.94	FDD only	YES	ignore
>E-DPCCH Power Boosting Capability	O		9.2.2.101		YES	ignore
>MIMO Power Offset For S-CPICH Capability	O		9.2.2.102	FDD only	YES	ignore
>TX Diversity on DL Control Channels by MIMO UE Capability	O		9.2.2.105	FDD only	YES	ignore
Local Cell Group Information		<i>0..<maxLocalCellinNode B></i>			EACH	ignore
>Local Cell Group ID	M		9.2.1.37A		–	
>DL Or Global Capacity Credit	M		9.2.1.20B		–	
>UL Capacity Credit	O		9.2.1.65A		–	

>Common Channels Capacity Consumption Law	M		9.2.1.9A		–	
>Dedicated Channels Capacity Consumption Law	M		9.2.1.20A		–	
>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore
>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Power Local Cell Group Information		<i>0..<maxLocalCellinNode B></i>			EACH	ignore
>Power Local Cell Group ID	M		9.2.1.49B		–	
>Maximum DL Power Capability	M		9.2.1.39		–	

Note 1: This information element is a simplified representation of the ASN.1. [TDD - Repetitions 1 to 8 and repetitions 9 to maxSCCPCHCell are represented by separate ASN.1 structures.] Furthermore, maxSCCPCHCell has different values in the ASN.1 for FDD and for each of the two TDD options.

Note 2: For 1.28Mcps TDD when using multiple frequencies, this information element for Repetition 1 and repetition 2 through maxFrequencyinCell are represented by respective ASN.1 structures with different criticalities.

Condition	Explanation
EDCHCapability	The IE shall be present if the <i>E-DCH Capability</i> IE is set to "E-DCH Capable".
EnhancedFACHCapability	The IE shall be present if the <i>Enhanced FACH Capability</i> IE is set to "Enhanced FACH Capable".
DTX-DRXCapability	The IE shall be present if the <i>Continuous Packet Connectivity DTX-DRX Capability</i> IE is present and set to "Continuous Packet Connectivity DTX-DRX Capable".

Range Bound	Explanation
<i>maxCellinNode B</i>	Maximum number of Cells that can be configured in Node B
<i>maxCCPinNode B</i>	Maximum number of Communication Control Ports that can exist in the Node B
<i>maxLocalCellinNode B</i>	Maximum number of Local Cells that can exist in the Node B
<i>maxSCPICHCell</i>	Maximum number of Secondary CPICHS that can be defined in a Cell.
<i>maxSCCPCHCell</i>	Maximum number of Secondary CCPCHs that can be defined in a Cell.
<i>maxSCCPCHCell768</i>	Maximum number of Secondary CCPCHs that can be defined in a Cell for 7.68 Mcps TDD.
<i>maxFACHCell</i>	Maximum number of FACHs that can be defined in a Cell
<i>maxPRACHCell</i>	Maximum number of PRACHs that can be defined in a Cell
<i>maxRACHCell</i>	Maximum number of RACHs that can be defined in a Cell
<i>maxFPACHCell</i>	Maximum number of FPACHs that can be defined in a Cell
<i>maxPLCCHCell</i>	Maximum number of PLCCHs that can be defined in a Cell
<i>maxE-RUCCHCell</i>	Maximum number of E-RUCCHs that can be defined in a Cell
<i>maxFrequencyinCell</i>	Maximum number of Frequencies that can be defined in a Cell

9.1.17A AUDIT FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.18 COMMON MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	reject
CHOICE <i>Common Measurement Object Type</i>	M				YES	reject
>Cell						
>>C-ID	M		9.2.1.9		–	
>>Time Slot	O		9.2.3.23	Applicable to 3.84McpsTDD and 7.68Mcps TDD only	–	
>>Time Slot LCR	O		9.2.3.24A	Applicable to 1.28Mcps TDD only	YES	reject
>>Neighbouring Cell Measurement Information		0..<maxno MeasNCells>			GLOBAL	ignore
>>>CHOICE Neighbouring Cell Measurement Information					–	
>>>>Neighbouring FDD Cell Measurement Information				FDD only		
>>>>>Neighbouring FDD Cell Measurement Information	M		9.2.1.47C		–	
>>>>Neighbouring TDD Cell Measurement Information				Applicable to 3.84Mcps TDD only		
>>>>>Neighbouring TDD Cell Measurement Information	M		9.2.1.47D		–	
>>>>Additional Neighbouring Cell Measurement Information				See Note 1		
>>>>>Neighbouring TDD Cell Measurement Information LCR				Applicable to 1.28Mcps TDD only		
>>>>>>Neighbouring TDD Cell Measurement Information LCR	M		9.2.1.47E		YES	reject
>>>>>Neighbouring TDD Cell Measurement Information 768Mcps				Applicable to 7.68 Mcps TDD only		
>>>>>>Neighbouring TDD Cell Measurement Information 768Mcps	M		9.2.3.37		YES	reject
>>UARFCN	O		9.2.1.65	Applicable for 1.28 Mcps TDD only	YES	reject

>>UpPCH Position LCR	O		9.2.3.4Q	Applicable to 1.28Mcps TDD only	YES	reject
>>Additional Time Slot LCR		$0..<maxFrequencyinCell - 1>$		Applicable to 1.28Mcps TDD only. If the IE present, the measurement type should also be applied to the time slot (s).	GLOBAL	ignore
>>>UARFCN	M		9.2.1.65		–	
>>>Time Slot Initiated LCR		0..6		If the value is zero, the measurement type should be applied to all time slots in the UARFCN which satisfies the requirement of the measurement type	–	
>>>>Time Slot LCR	M		9.2.3.24A		–	
>RACH				FDD only		
>>C-ID	M		9.2.1.9		–	
>>Common Transport Channel ID	M		9.2.1.14		–	
>Not Used			NULL	This choice shall not be used. Reject procedure if received.		
>Additional Common Measurement Object Types				See Note 1		
>>Power Local Cell Group					–	
>>>Power Local Cell Group ID	M		9.2.1.49B		YES	reject
Common Measurement Type	M		9.2.1.11		YES	reject
Measurement Filter Coefficient	O		9.2.1.41		YES	reject
Report Characteristics	M		9.2.1.51		YES	reject
SFN Reporting Indicator	M		FN Reporting Indicator 9.2.1.29B		YES	reject
SFN	O		9.2.1.53A		YES	reject
Common Measurement Accuracy	O		9.2.1.9B		YES	reject
Measurement Recovery Behavior	O		9.2.1.43A		YES	ignore
RTWP* Reporting Indicator	O		9.2.1.53b		YES	reject
RTWP* for Cell Portion Reporting Indicator	O		9.2.1.53c		YES	reject
Reference Received Total Wide Band Power Reporting	O		9.2.2.39C	FDD only	YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

Range Bound	Explanation
<i>maxnoMeasNCells</i>	Maximum number of neighbouring cells that can be measured on.
<i>maxFrequencyinCell - 1</i>	Maximum number of frequencies that can be used in the cell minus 1.

9.1.19 COMMON MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE <i>Common Measurement Object Type</i>	O			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
> <i>Cell</i>						
>>Common Measurement Value	M		9.2.1.12		–	
>>Additional Measurement Value		0..<maxFrequencyin Cell>		Applicable to 1.28Mcps TDD only. The Common Measurement Value Information in additional time slot will be reported if the number of Additional Time Slot LCR is not 0 in COMMON MEASUREMENT INITIATION REQUEST.	GLOBAL	ignore
>>>UARFCN	M		9.2.1.65		–	
>>>Time Slot Measurement Value LCR		1..6			–	
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Common Measurement Value	M		9.2.1.12		–	
> <i>RACH</i>				FDD only		
>>Common Measurement Value	M		9.2.1.12		–	
> <i>Not Used</i>			NULL	This choice shall not be used.		
> <i>Additional Common Measurement Object Types</i>				See Note 1		
>> <i>Power Local Cell Group</i>					–	
>>>Common Measurement Value	M		9.2.1.12		YES	ignore
SFN	O		9.2.1.53A	Common Measurement Time Reference	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Common Measurement Achieved Accuracy	O		Common Measurement Accuracy 9.2.1.9B		YES	ignore
Measurement Recovery Support Indicator	O		9.2.1.43C		YES	ignore
Reference Received Total	O		9.2.2.39D	FDD only	YES	ignore

Wide Band Power Support Indicator						
Reference Received Total Wide Band Power	O		9.2.2.39B	FDD only	YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

Range Bound	Explanation
<i>maxFrequencyinCell</i>	Maximum number of Frequencies that can be defined in a Cell.

9.1.20 COMMON MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.21 COMMON MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE <i>Common Measurement Object Type</i>	M			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
> <i>Cell</i>						
>>Common Measurement Value Information	M		9.2.1.12A		–	
>>Additional Measurement Value Information		0..<maxFrequencyin Cell>		Applicable to 1.28Mcps TDD only. The Common Measurement Value Information in additional time slot will be reported if the number of Additional Time Slot LCR is not 0 COMMON MEASUREMENT INITIATION REQUEST.	GLOBAL	ignore
>>>UARFCN			9.2.1.65			
>>>Time Slot Measurement Value LCR		1..6				
>>>>Time Slot LCR	M		9.2.3.24A			
>>>>Common Measurement Value Information	M		9.2.1.12A			
> <i>RACH</i>				FDD only		
>>Common Measurement Value Information	M		9.2.1.12A		–	
> <i>Not Used</i>			NULL	This choice shall not be used.		
> <i>Additional Common Measurement Object Types</i>				See Note 1		
>> <i>Power Local Cell Group</i>					–	
>>>Common Measurement Value Information	M		9.2.1.12A		YES	ignore
SFN	O		9.2.1.53A	Common Measurement Time Reference	YES	ignore
<i>Measurement Recovery Reporting Indicator</i>	O		9.2.1.43B		YES	ignore
Reference Received Total Wide Band Power	O		9.2.2.39B	FDD only	YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

Range Bound	Explanation
<i>maxFrequencyinCell</i> – 1	Maximum number of Frequencies that can be defined in a Cell.

9.1.22 COMMON MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore

9.1.23 COMMON MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore

9.1.24 CELL SETUP REQUEST

9.1.24.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Local Cell ID	M		9.2.1.38		YES	reject
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
T Cell	M		9.2.2.49		YES	reject
UARFCN	M		9.2.1.65	Corresponds to Nu [14]	YES	reject
UARFCN	M		9.2.1.65	Corresponds to Nd [14]	YES	reject

Maximum Transmission Power	M		9.2.1.40		YES	reject
Closed Loop Timing Adjustment Mode	O		9.2.2.2A		YES	reject
Primary Scrambling Code	M		9.2.2.34		YES	reject
Synchronisation Configuration		1			YES	reject
>N_INSYNC_IND	M		9.2.1.47A		–	
>N_OUTSYNC_IND	M		9.2.1.47B		–	
>T_RLFAILURE	M		9.2.1.56A		–	
DL TPC Pattern 01 Count	M		9.2.2.13A		YES	reject
Primary SCH Information		1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary SCH Power	M		DL Power 9.2.1.21		–	
>TSTD Indicator	M		9.2.1.64		–	
Secondary SCH Information		1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Secondary SCH Power	M		DL Power 9.2.1.21		–	
>TSTD Indicator	M		9.2.1.64		–	
Primary CPICH Information		1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary CPICH power	M		9.2.2.33		–	
>Transmit Diversity Indicator	M		9.2.2.53		–	
Secondary CPICH Information		$0..<maxS_{CPICHCell}>$			EACH	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>DL Scrambling Code	M		9.2.2.13		–	
>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>Secondary CPICH Power	M		DL Power 9.2.1.21		–	
>Transmit Diversity Indicator	M		9.2.2.53		–	
Primary CCPCH Information		1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>BCH Information		1			–	
>>Common Transport Channel ID	M		9.2.1.14		–	
>>BCH Power	M		DL Power 9.2.1.21		–	
>STTD Indicator	M		9.2.2.48		–	
Limited Power Increase Information		1			YES	reject
>Power_Raise_Limit	M		9.2.2.29A		–	
>DL_power_averaging_window_size	M		9.2.2.12A		–	
IPDL Parameter Information		0..1			YES	reject
>IPDL FDD Parameters	M		9.2.2.18C		–	
>IPDL Indicator	M		9.2.1.36F		–	
Cell Portion Information		$0..<maxno_{ofCellPortions}>$			EACH	reject
>Cell Portion ID	M		9.2.2.1Ca		–	
>Associated Secondary CPICH	M		Common Physical Channel ID 9.2.1.13		–	

>Maximum Transmission Power for Cell Portion	M		Maximum Transmission Power 9.2.1.40		–	
MIMO Pilot Configuration	O		9.2.2.73		YES	reject
MIMO Pilot Configuration Extension	O		9.2.2.104	Can only be present if the <i>MIMO Pilot Configuration</i> IE is present	YES	reject

Range Bound	Explanation
<i>maxSCPICHCell</i>	Maximum number of Secondary CPICHs that can be defined in a Cell.
<i>MaxNoofCellPortions</i>	Maximum number of Cell Portions in a cell

9.1.24.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Local Cell ID	M		9.2.1.38		YES	reject
C-ID	M		9.2.1.9		YES	reject
Configuration Generation Id	M		9.2.1.16		YES	reject
UARFCN	M		9.2.1.65	Corresponds to Nt [15] For 1.28Mcps TDD, if multiple frequencies exist within the cell indicated by C-ID, this IE indicates the frequency of Primary Frequency.	YES	reject
Cell Parameter ID	M		9.2.3.4	For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, this IE indicates the preamble code used in the MBSFN Special Time Slot [19].	YES	reject
Maximum Transmission Power	M		9.2.1.40		YES	reject
Transmission Diversity Applied	M		9.2.3.26		YES	reject
Sync Case	M		9.2.3.18		YES	reject
Synchronisation Configuration		1			YES	reject
>N_INSYNC_IND	M		9.2.1.47A		–	
>N_OUTSYNC_IND	M		9.2.1.47B		–	
>T_RLFAILURE	M		9.2.1.56A		–	
DPCH Constant Value	M		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
PUSCH Constant Value	M		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
PRACH Constant Value	M		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
Timing Advance Applied	M		9.2.3.22A		YES	reject
SCH Information		0..1		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD.	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>CHOICE Sync Case	M				YES	reject
>>Case 1						
>>>Time Slot	M		9.2.3.23		–	
>>Case 2						
>>>SCH Time Slot	M		9.2.3.17		–	

>SCH Power	M		DL Power 9.2.1.21		–	
>TSTD Indicator	M		9.2.1.64		–	
PCCPCH Information		0..1		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD.	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>TDD Physical Channel Offset	M		9.2.3.20		–	
>Repetition Period	M		9.2.3.16		–	
>Repetition Length	M		9.2.3.15		–	
>PCCPCH Power	M		9.2.3.9		–	
>SCTD Indicator	M		9.2.3.30		–	
Time Slot Configuration		0..15		Mandatory for 3.84Mcps TDD and 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD.	GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
>Time Slot Status	M		9.2.3.25		–	
>Time Slot Direction	M		9.2.3.24		–	
>MBSFN Cell Parameter ID	O		Cell Parameter ID 9.2.3.4		YES	reject
Time Slot Configuration LCR		0..7		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. If multiple frequencies exist within the cell indicated by C-ID, this IE indicates the Time Slot configuration of Primary Frequency.	GLOBAL	reject
>Time Slot LCR	M		9.2.3.24A		–	
>Time Slot Status	M		9.2.3.25		–	
>Time Slot Direction	M		9.2.3.24		–	
>Time Slot Parameter ID	O		Cell Parameter ID 9.2.3.4	Applicable only to MBSFN only mode	YES	reject

PCCPCH Information LCR		0..1		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, PCCPCH is deployed on the MBSFN Special Time Slot [19].	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>TDD Physical Channel Offset	M		9.2.3.20		–	
>Repetition Period	M		9.2.3.16		–	
>Repetition Length	M		9.2.3.15		–	
>PCCPCH Power	M		9.2.3.9		–	
>SCTD Indicator	M		9.2.3.30		–	
>TSTD Indicator	M		9.2.1.64		–	
DwPCH Information		0..1		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>TSTD Indicator	M		9.2.1.64		–	
>DwPCH Power	M		9.2.3.5B		–	
Reference SFN Offset	O		9.2.3.14B		YES	ignore
IPDL Parameter Information		0..1		Applicable to 3.84 Mcps TDD and 7.68 Mcps TDD only	YES	reject
>IPDL TDD Parameters	M		9.2.3.5D		–	
>IPDL Indicator	M		9.2.1.36F		–	
IPDL Parameter Information LCR		0..1		Applicable to 1.28Mcps TDD only	YES	reject
>IPDL TDD Parameters LCR	M		9.2.3.5H		–	
>IPDL Indicator	M		9.2.1.36F		–	

PCCPCH Information 7.68 Mcps TDD		0..1		Mandatory for 7.68 Mcps TDD. Not Applicable to 1.28Mcps TDD or 3.84 Mcps TDD.	YES	reject
>Common Physical Channel ID 7.68 Mcps	M		9.2.3.33		–	
>TDD Physical Channel Offset	M		9.2.3.20		–	
>Repetition Period	M		9.2.3.16		–	
>Repetition Length	M		9.2.3.15		–	
>PCCPCH Power	M		9.2.3.9		–	
>SCTD Indicator	M		9.2.3.30		–	
SCH Information 7.68Mcps TDD		0..1		Mandatory for 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD or 3.84Mcps TDD.	YES	reject
>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>CHOICE Sync Case	M				YES	reject
>>Case 1						
>>>Time Slot	M		9.2.3.23		–	
>>Case 2						
>>>SCH Time Slot	M		9.2.3.17		–	
>SCH Power	M		DL Power 9.2.1.21		–	
>TSTD Indicator	M		9.2.1.64		–	
MBSFN Only Mode Indicator	O		9.2.3.70	Mandatory for 1.28Mcps TDD when the cell is operating in MBSFN only mode. Not applicable to FDD, 3.84Mcps TDD or 7.68Mcps TDD	YES	reject
UARFCN Information LCR		0.. <maxFrequencyinCell-1>		Mandatory for 1.28Mcps TDD when using multiple frequencies. It indicates the UARFCN and Time Slot configuration information of the Secondary Frequencies. There could be several secondary frequencies	EACH	reject
>UARFCN	M		9.2.1.65	Corresponds to Nt [15] This IE indicates the frequency of a Secondary Frequency.	–	
>Time Slot Configuration LCR		1..7		This IE indicates the Time Slot	–	

				configuration of a Secondary Frequency.		
>>Time Slot LCR	M		9.2.3.24A		–	
>>Time Slot Status	M		9.2.3.25		–	
>>Time Slot Direction	M		9.2.3.24		–	
>>Time Slot Parameter ID	O		Cell Parameter ID 9.2.3.4		YES	reject

Range Bound	Explanation
<i>maxFrequencyinCell</i>	Maximum number of Frequencies that can be defined in a Cell

9.1.25 CELL SETUP RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.26 CELL SETUP FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.27 CELL RECONFIGURATION REQUEST

9.1.27.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
Maximum Transmission Power	O		9.2.1.40		YES	reject
Synchronisation Configuration		0..1			YES	reject
>N_INSYNC_IND	M		9.2.1.47A		–	
>N_OUTSYNC_IND	M		9.2.1.47B		–	
>T_RLFAILURE	M		9.2.1.56A		–	
Primary SCH Information		0..1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary SCH Power	M		DL Power 9.2.1.21		–	
Secondary SCH Information		0..1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Secondary SCH Power	M		DL Power 9.2.1.21		–	
Primary CPICH Information		0..1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary CPICH Power	M		9.2.2.33		–	
Secondary CPICH Information		0..<maxS CPICHCell >			EACH	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Secondary CPICH Power	M		DL Power 9.2.1.21		–	
Primary CCPCH Information		0..1			YES	reject
> BCH Information		1			–	
>>Common Transport Channel ID	M		9.2.1.14		–	
>>BCH Power	M		DL Power 9.2.1.21		–	
IPDL Parameter Information		0..1			YES	reject
>IPDL FDD Parameters	O		9.2.2.18C		–	
>IPDL Indicator	M		9.2.1.36F		–	
Cell Portion Information		0..<maxno ofCellPortions>			EACH	reject
>Cell Portion ID	M		9.2.2.1Ca		–	
>Maximum Transmission Power for Cell Portion	M		Maximum Transmission Power 9.2.1.40		–	
MIMO Pilot Configuration	O		9.2.2.73		YES	reject
MIMO Pilot Configuration Extension	O		9.2.2.104		YES	reject

Range Bound	Explanation
<i>maxSCPICHCell</i>	Maximum number of Secondary CPICH that can be defined in a Cell.

9.1.27.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
Synchronisation Configuration		0..1			YES	reject
>N_INSYNC_IND	M		9.2.1.47A		–	
>N_OUTSYNC_IND	M		9.2.1.47B		–	
>T_RLFAILURE	M		9.2.1.56A		–	
Timing Advance Applied	O		9.2.3.22A		YES	reject
SCH Information		0..1		Applicable to 3.84Mcps TDD only	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>SCH Power	M		DL Power 9.2.1.21		–	
PCCPCH Information		0..1		Not applicable to 7.68Mcps TDD only. For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, PCCPCH is deployed on the MBSFN Special Time Slot [19].	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>PCCPCH Power	M		9.2.3.9		–	
Maximum Transmission Power	O		9.2.1.40		YES	reject
DPCH Constant Value	O		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
PUSCH Constant Value	O		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
PRACH Constant Value	O		Constant Value 9.2.3.4A	This IE shall be ignored by the Node B.	YES	reject
Time Slot Configuration		0..15		Mandatory for 3.84Mcps TDD and 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD.	GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
>Time Slot Status	M		9.2.3.25		–	
>Time Slot Direction	M		9.2.3.24		–	
>MBSFN Cell Parameter ID	O		Cell Parameter ID 9.2.3.4		YES	reject
Time Slot Configuration LCR		0..7		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or	GLOBAL	reject

				7.68Mcps TDD. If multiple frequencies exist within the cell indicated by C-ID, this IE indicates the Time Slot reconfiguration of Primary Frequency.		
>Time Slot LCR	M		9.2.3.24A		–	
>Time Slot Status	M		9.2.3.25		–	
>Time Slot Direction	M		9.2.3.24		–	
DwPCH Information		0..1		Applicable to 1.28Mcps TDD only.	YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>DwPCH Power	M		9.2.3.5B		–	
IPDL Parameter Information		0..1		Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	YES	reject
>IPDL TDD Parameters	O		9.2.3.5D		–	
>IPDL Indicator	M		9.2.1.36F		–	
IPDL Parameter Information LCR		0..1		Applicable to 1.28Mcps TDD only	YES	reject
>IPDL TDD Parameters LCR	O		9.2.3.5H		–	
>IPDL Indicator	M		9.2.1.36F		–	
SCH Information 7.68Mcps		0..1		Applicable to 7.68Mcps TDD only	YES	reject
>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>SCH Power	M		DL Power 9.2.1.21		–	
PCCPCH Information 7.68Mcps		0..1		Applicable to 7.68Mcps TDD only	YES	reject
>Common Physical Channel ID 7.68Mcps	M		9.2.3.33		–	
>PCCPCH Power	M		9.2.3.9		–	
CHOICE UARFCN Adjustment	O			Applicable to 1.28Mcps TDD when using multiple frequencies	YES	reject
>Add						
>>UARFCN Information To Add LCR		1			–	
>>>UARFCN	M		9.2.1.65	Corresponds to Nt [15] This IE indicates the frequency of a Secondary Frequency to add.	–	
>>>Time Slot Configuration LCR		1..7		This IE indicates the Time Slot configuration of a Secondary Frequency to	–	

				add.		
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Time Slot Status	M		9.2.3.25		–	
>>>>Time Slot Direction	M		9.2.3.24		–	
<i>>Modify</i>						
>>UARFCN Information To Modify LCR		1.. <maxFrequencyinCell-1>		there could be several secondary frequencies	–	
>>>UARFCN	M		9.2.1.65	Corresponds to Nt [15] This IE indicates the frequency of a Secondary Frequency to modify.	–	
>>>Time Slot Configuration LCR		1..7		This IE indicates the Time Slot reconfiguration of a Secondary Frequency to modify.	–	
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Time Slot Status	M		9.2.3.25		–	
>>>>Time Slot Direction	M		9.2.3.24		–	
<i>>Delete</i>						
>>UARFCN Information To Delete LCR		1			–	
>>>UARFCN	M		9.2.1.65	Corresponds to Nt [15] This IE indicates the frequency of Secondary Frequency to delete.	–	

Range Bound	Explanation
<i>maxFrequencyinCell</i>	Maximum number of Frequencies that can be defined in a Cell

9.1.28 CELL RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.29 CELL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.30 CELL DELETION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject

9.1.31 CELL DELETION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.32 RESOURCE STATUS INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CHOICE <i>Indication Type</i>	M				YES	ignore
> <i>No Failure</i>						
>>Local Cell Information		1..<max LocalCellin Node B>			EACH	ignore
>>>Local Cell ID	M		9.2.1.38		–	
>>>Add/Delete Indicator	M		9.2.1.1		–	
>>>DL Or Global Capacity Credit	C-add		9.2.1.20B		–	
>>>UL Capacity Credit	O		9.2.1.65A		–	
>>>Common Channels Capacity Consumption Law	C-add		9.2.1.9A		–	
>>>Dedicated Channels Capacity Consumption Law	C-add		9.2.1.20A		–	
>>>Maximum DL Power Capability	C-add		9.2.1.39		–	
>>>Minimum Spreading Factor	C-add		9.2.1.47		–	
>>>Minimum DL Power Capability	C-add		9.2.1.46A		–	
>>>Local Cell Group ID	O		9.2.1.37A		–	
>>>Reference Clock Availability	O		9.2.3.14A	TDD only	YES	ignore
>>>Power Local Cell Group ID	O		9.2.1.49B		YES	ignore
>>>HSDPA Capability	O		9.2.1.31Ga		YES	ignore
>>>E-DCH Capability	O		9.2.1.70		YES	ignore
>>>E-DCH TTI2ms Capability	C-EDCHCapability		9.2.2.13V	FDD only	YES	ignore
>>>E-DCH SF Capability	C-EDCHCapability		9.2.2.13W	FDD only	YES	ignore
>>>E-DCH HARQ Combining Capability	C-EDCHCapability		9.2.2.13X	FDD only	YES	ignore
>>>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore
>>>F-DPCH Capability	O		9.2.2.16a	FDD only	YES	ignore
>>>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
>>>Continuous Packet Connectivity DTX-DRX Capability	O		9.2.2.64	FDD only	YES	ignore
>>>Max UE DTX Cycle	C-DTX-DRXCcapability		9.2.2.95	FDD only	YES	ignore
>>>Continuous Packet Connectivity HS-SCCH	O		9.2.2.65	FDD only	YES	ignore

less Capability						
>>>MIMO Capability	O		9.2.2.70	FDD only	YES	ignore
>>>SixtyfourQAM DL Capability	O		9.2.2.74	FDD only	YES	ignore
>>>MBMS Capability	O		9.2.1.86		YES	ignore
>>>Enhanced FACH Capability	O		9.2.2.86	FDD only	YES	ignore
>>>Enhanced PCH Capability	C-Enhanced FACH Capability		9.2.2.87	FDD only	YES	ignore
>>>SixteenQAM UL Capability	O		9.2.2.88	FDD only	YES	ignore
>>>HS-DSCH MAC-d PDU Size Capability	O		9.2.1.31IC		YES	ignore
>>>MBSFN Only Mode Capability	O		9.2.3.71	1.28Mcps TDD only	YES	ignore
>>>F-DPCH Slot Format Capability	O		9.2.2.94	FDD only	YES	ignore
>>>E-DPCCH Power Boosting Capability	O		9.2.2.101		YES	ignore
>>>MIMO Power Offset For S-CPICH Capability	O		9.2.2.102	FDD only	YES	ignore
>>>TX Diversity on DL Control Channels by MIMO UE Capability	O		9.2.2.105	FDD only	YES	ignore
>>Local Cell Group Information		<i>0..<maxLocalCellinNode B></i>			EACH	ignore
>>>Local Cell Group ID	M		9.2.1.37A		–	
>>>DL Or Global Capacity Credit	M		9.2.1.20B		–	
>>>UL Capacity Credit	O		9.2.1.65A		–	
>>>Common Channels Capacity Consumption Law	M		9.2.1.9A		–	
>>>Dedicated Channels Capacity Consumption Law	M		9.2.1.20A		–	
>>>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore
>>>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
>>Power Local Cell Group Information		<i>0..<maxLocalCellinNode B></i>			EACH	ignore
>>>Power Local Cell Group ID	M		9.2.1.49B		–	
>>>Maximum DL Power Capability	M		9.2.1.39		–	
<i>>Service Impacting</i>						
>>Local Cell Information		<i>0..<maxLocalCellinNode B></i>			EACH	ignore
>>>Local Cell ID	M		9.2.1.38		–	
>>>DL Or Global Capacity Credit	O		9.2.1.20B		–	
>>>UL Capacity Credit	O		9.2.1.65A		–	
>>>Common Channels	O		9.2.1.9A		–	

Capacity Consumption Law						
>>>Dedicated Channels Capacity Consumption Law	O		9.2.1.20A		--	
>>>Maximum DL Power Capability	O		9.2.1.39		--	
>>>Minimum Spreading Factor	O		9.2.1.47		--	
>>>Minimum DL Power Capability	O		9.2.1.46A		--	
>>>Reference Clock Availability	O		9.2.3.14A	TDD only	YES	ignore
>>>HSDPA Capability	O		9.2.1.31Ga		YES	ignore
>>>E-DCH Capability	O		9.2.1.70		YES	ignore
>>>E-DCH TT12ms Capability	C-EDCHCapability		9.2.2.13V	FDD only	YES	ignore
>>>E-DCH SF Capability	C-EDCHCapability		9.2.2.13W	FDD only	YES	ignore
>>>E-DCH HARQ Combining Capability	C-EDCHCapability		9.2.2.13X	FDD only	YES	ignore
>>>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore
>>>F-DPCH Capability	O		9.2.2.16a		YES	ignore
>>>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
>>>Continuous Packet Connectivity DTX-DRX Capability	O		9.2.2.64	FDD only	YES	ignore
>>>Max UE DTX Cycle	C-DTX-DRXCapability		9.2.2.95	FDD only	YES	ignore
>>>Continuous Packet Connectivity HS-SCCH less Capability	O		9.2.2.65	FDD only	YES	ignore
>>>MIMO Capability	O		9.2.2.70	FDD only	YES	ignore
>>>SixtyfourQAM DL Capability	O		9.2.2.74	FDD only	YES	ignore
>>>MBMS Capability	O		9.2.1.86		YES	ignore
>>>Enhanced FACH Capability	O		9.2.2.86	FDD only	YES	ignore
>>>Enhanced PCH Capability	C-Enhanced FACHCapability		9.2.2.87	FDD only	YES	ignore
>>>SixteenQAM UL Capability	O		9.2.2.88	FDD only	YES	ignore
>>>HS-DSCH MAC-d PDU Size Capability	O		9.2.1.31IC		YES	ignore
>>>MBSFN Only Mode Capability	O		9.2.3.71	1.28Mcps TDD only	YES	ignore
>>>F-DPCH Slot Format Capability	O		9.2.2.94	FDD only	YES	ignore
>>>E-DPCCH Power Boosting Capability	O		9.2.2.101		YES	ignore
>>>MIMO Power Offset	O		9.2.2.102	FDD only	YES	ignore

For S-CPICH Capability						
>>>TX Diversity on DL Control Channels by MIMO UE Capability	O		9.2.2.105	FDD only	YES	ignore
>>Local Cell Group Information		<i>0..<maxLocalCellInNode B></i>			EACH	ignore
>>>Local Cell Group ID	M		9.2.1.37A		–	
>>>DL Or Global Capacity Credit	O		9.2.1.20B		–	
>>>UL Capacity Credit	O		9.2.1.65A		–	
>>>Common Channels Capacity Consumption Law	O		9.2.1.9A		–	
>>>Dedicated Channels Capacity Consumption Law	O		9.2.1.20A		–	
>>>E-DCH Capacity Consumption Law	O		9.2.2.13Ja	FDD only	YES	ignore
>>>E-DCH TDD Capacity Consumption Law	O		9.2.3.60	TDD only	YES	ignore
>>Communication Control Port Information		<i>0..<maxCPinNode B></i>			EACH	ignore
>>>Communication Control Port ID	M		9.2.1.15		–	
>>>Resource Operational State	M		9.2.1.52		–	
>>>Availability Status	M		9.2.1.2		–	
>>Cell Information		<i>0..<maxCellInNode B></i>			EACH	ignore
>>>C-ID	M		9.2.1.9		–	
>>>Resource Operational State	O		9.2.1.52		–	
>>>Availability Status	O		9.2.1.2		–	
>>>Primary SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	FDD only	YES	ignore
>>>Secondary SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	FDD only	YES	ignore
>>>Primary CPICH Information	O		Common Physical Channel Status Information 9.2.1.13A	FDD only	YES	ignore
>>>Secondary CPICH Information		<i>0..<maxSCPICHCell></i>		FDD only	EACH	ignore
>>>>Secondary CPICH Individual Information	M		Common Physical Channel Status		–	

			Information 9.2.1.13A			
>>>Primary CCPCH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>>>BCH Information	O		Common Transport Channel Status Information 9.2.1.14B		YES	ignore
>>>Secondary CCPCH Information		$0..<maxS\ CCPCHCe\ ll>$		See note 1 below	EACH	ignore
>>>>Secondary CCPCH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>>>PCH Information	O		Common Transport Channel Status Information 9.2.1.14B		YES	ignore
>>>PICH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>>>FACH Information		$0..<maxFA\ CHCell>$			EACH	ignore
>>>>FACH Individual Information	M		Common Transport Channel Status Information 9.2.1.14B		–	
>>>PRACH Information		$0..<maxP\ RACHCell\ >$			EACH	ignore
>>>>PRACH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>>>RACH Information		$0..<maxP\ RACHCell\ >$			EACH	ignore
>>>>RACH Individual Information	M		Common Transport Channel Status Information 9.2.1.14B		–	
>>>AICH Information		$0..<maxP\ RACHCell\ >$		FDD only	EACH	ignore
>>>>AICH Individual Information	M		Common Physical Channel Status		–	

			Information 9.2.1.13A			
>>>Not Used 1	O		NULL	This item shall not be used. Ignore if received.	–	
>>>Not Used 2	O		NULL	This item shall not be used. Ignore if received.	–	
>>>Not Used 3	O		NULL	This item shall not be used. Ignore if received.	–	
>>>Not Used 4	O		NULL	This item shall not be used. Ignore if received.	–	
>>>SCH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to 3.84Mcps TDD only	YES	ignore
>>>FPACH Information		$0..<maxFPACHCell>$		Applicable to 1.28Mcps TDD only	EACH	ignore
>>>>FPACH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>>>DwPCH Information	O		Common Physical Channel Status Information 9.2.1.13A	Applicable to 1.28Mcps TDD only	YES	ignore
>>>HS-DSCH Resources Information		$0..<maxFrequencyinCell>$		See note 2 below	EACH	ignore
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable to 1.28Mcps TDD when using multiple frequencies.	YES	ignore
>>>MICH Information	O		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>>>E-DCH Resources Information		$0..<maxFrequencyinCell>$		See note 2 below	EACH	ignore
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability	M		9.2.1.2		–	

Status						
>>>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable to 1.28Mcps TDD when using multiple frequencies.	YES	ignore
>>>PLCCH Information		$0..<maxPL\ CCHCell>$		Applicable to 1.28Mcps TDD only	EACH	ignore
>>>>PLCCH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>>>Primary CCPCH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		YES	ignore
>>>>Secondary CCPCH Information 7.68Mcps		$0..<maxS\ CCPCHCe\ lI768>$			EACH	ignore
>>>>Secondary CCPCH Individual Information 7.68Mcps	M		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		–	
>>>PICH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		YES	ignore
>>>>PRACH Information 7.68Mcps		$0..<maxP\ RACHCell\ >$			EACH	ignore
>>>>PRACH Individual Information 7.68Mcps	M		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		–	
>>>>SCH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68Mcps 9.2.3.36	Applicable to 7.68Mcps TDD only	YES	ignore
>>>>MICH Information 7.68Mcps	O		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		YES	ignore
>>>>E-RUCCH Information		$0..<maxE\ RUCCHCe\ lI>$		Applicable to 3.84Mcps TDD only	EACH	ignore

>>>>E-RUCCH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		–	
>>>E-RUCCH Information 7.68Mcps		$0..<maxE-RUCCHCe ll>$		Applicable to 7.68Mcps TDD only	EACH	ignore
>>>>E-RUCCH Individual Information 7.68Mcps	M		Common Physical Channel Status Information 7.68Mcps 9.2.3.36		–	
>>>UARFCN Information LCR		$0..<maxFrequencyin Cell>$		Applicable to 1.28Mcps TDD when using multiple frequencies.	EACH	ignore
>>>>UARFCN	M		9.2.1.65	Corresponds to Nt [15]	–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>>Cause	O		9.2.1.6		–	
>>>UpPCH Information LCR		$0..<maxFrequencyin Cell>$		Applicable to 1.28Mcps TDD only.	EACH	ignore
>>>>UARFCN	O		9.2.1.65	Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15]	–	
>>>>UpPCH Position LCR	M		9.2.3.4Q		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>Power Local Cell Group Information		$0..<maxLocalCellinNode B>$			EACH	ignore
>>>Power Local Cell Group ID	M		9.2.1.49B		–	
>>>Maximum DL Power Capability	M		9.2.1.39		–	
Cause	O		9.2.1.6		YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. [TDD - Repetitions 1 to 8 and repetitions 9 to maxSCCPCHCell are represented by separate ASN.1 structures.] Furthermore, maxSCCPCHCell has different values in the ASN.1 for FDD and for each of the two TDD options.

Note 2: For 1.28Mcps TDD when using multiple frequencies, this information element for Repetition 1 and repetition 2 through maxFrequencyinCell are represented by respective ASN.1 structures with different criticalities.

Condition	Explanation
add	The IE shall be present if the <i>Add/Delete Indicator</i> IE is set to "Add".
EDCHCapability	The IE shall be present if the <i>E-DCH Capability</i> IE is set to "E-DCH Capable".
EnhancedFACHCapability	The IE shall be present if the <i>Enhanced FACH Capability</i> IE is set to "Enhanced FACH Capable".
DTX-DRXCapability	The IE shall be present if the <i>Continuous Packet Connectivity DTX-DRX Capability</i> IE is present and set to "Continuous Packet Connectivity DTX-DRX Capable".

Range Bound	Explanation
<i>maxLocalCellinNode B</i>	Maximum number of Local Cells that can exist in the Node B
<i>maxCellinNode B</i>	Maximum number of C-IDs that can be configured in the Node B
<i>maxSCPICHCell</i>	Maximum number of Secondary CPICHs that can be defined in a Cell.
<i>maxSCCPCHCell</i>	Maximum number of Secondary CCPCHs that can be defined in a Cell.
<i>maxFACHCell</i>	Maximum number of FACHs that can be defined in a Cell
<i>maxPRACHCell</i>	Maximum number of PRACHs and AICHs that can be defined in a Cell
<i>maxCCPinNode B</i>	Maximum number of Communication Control Ports that can exist in the Node B
<i>maxFPACHCell</i>	Maximum number of FPACHs that can be defined in a Cell
<i>maxPLCCHCell</i>	Maximum number of PLCCHs that can be defined in a Cell
<i>maxE-RUCCHCell</i>	Maximum number of E-RUCCHs that can be defined in a Cell
<i>maxFrequencyinCell</i>	Maximum number of Frequencies that can be defined in a Cell

9.1.33 SYSTEM INFORMATION UPDATE REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	

C-ID	M		9.2.1.9		YES	reject
BCCH Modification Time	O		9.2.1.3		YES	reject
MIB/SB/SIB Information		<i>1..<maxIB></i>			GLOBAL	reject
>IB Type	M		9.2.1.35		–	
>IB OC ID	M		9.2.1.31A	In one message, every occurrence of IB Type can only be deleted once and/or added once.	–	
>CHOICE <i>IB Deletion Indicator</i>	M				–	
>> <i>No Deletion</i>						
>>>SIB Originator	C-SIB		9.2.1.55		–	
>>>IB SG REP	O		9.2.1.34		–	
>>>Segment Information		<i>1..<maxIB SEG></i>			GLOBAL	reject
>>>>IB SG POS	O		9.2.1.33		–	
>>>>Segment Type	C-CRNCOrigination		9.2.1.53B		–	
>>>>IB SG DATA	C-CRNCOrigination		9.2.1.32		–	
>> <i>Deletion</i>			NULL			

Range bound	Explanation
<i>maxIB</i>	Maximum number of information Blocks supported in one message
<i>maxIBSEG</i>	Maximum number of segments for one Information Block

Condition	Explanation
CRNCOrigination	The IE shall be present if the <i>SIB Originator</i> IE is set to "CRNC" or if the <i>IB Type</i> IE is set to "MIB", "SB1" or "SB2".
SIB	The IE shall be present if the <i>IB Type</i> IE is set to "SIB".

9.1.34 SYSTEM INFORMATION UPDATE RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.35 SYSTEM INFORMATION UPDATE FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.36 RADIO LINK SETUP REQUEST

9.1.36.1 FDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	reject
UL DPCH Information		1			YES	reject
>UL Scrambling Code	M		9.2.2.59		–	
>Min UL Channelisation Code Length	M		9.2.2.22		–	
>Max Number of UL DPDCHs	C-CodeLen		9.2.2.21		–	
>Puncture Limit	M		9.2.1.50	For UL	–	
>TFCS	M		9.2.1.58	For UL	–	
>UL DPCCH Slot Format	M		9.2.2.57		–	
>UL SIR Target	M		UL SIR 9.2.1.67A		–	
>Diversity Mode	M		9.2.2.9		–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>DPC Mode	O		9.2.2.13C		YES	reject
>UL DPDCH Indicator For E-DCH Operation	O		9.2.2.61	This IE may be present without the presence of the <i>E-DPCH Information</i> IE	YES	reject
DL DPCH Information		0..1			YES	reject
>TFCS	M		9.2.1.58	For DL	–	
>DL DPCH Slot Format	M		9.2.2.10		–	
>TFCI Signalling Mode	M		9.2.2.50		–	
>TFCI Presence	C-SlotFormat		9.2.1.57		–	
>Multiplexing Position	M		9.2.2.23		–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>Power Offset Information		1			–	
>>PO1	M		Power Offset 9.2.2.29	Power offset for the TFCI bits	–	
>>PO2	M		Power Offset 9.2.2.29	Power offset for the TPC bits	–	
>>PO3	M		Power Offset 9.2.2.29	Power offset for the pilot bits	–	
>FDD TPC DL Step Size	M		9.2.2.16		–	
>Limited Power Increase	M		9.2.2.18A		–	
>Inner Loop DL PC Status	M		9.2.2.18B		–	
DCH Information	M		DCH FDD Information 9.2.2.4D		YES	reject
RL Information		1..<maxno			EACH	notify

		<i>ofRLs></i>				
>RL ID	M		9.2.1.53		–	
>C-ID	M		9.2.1.9		–	
>First RLS Indicator	M		9.2.2.16A		–	
>Frame Offset	M		9.2.1.31		–	
>Chip Offset	M		9.2.2.2		–	
>Propagation Delay	O		9.2.2.35		–	
>Diversity Control Field	C- NotFirstRL		9.2.1.25		–	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		–	
>Initial DL Transmission Power	M		DL Power 9.2.1.21	Initial power on DPCH or on F-DPCH	–	
>Maximum DL Power	M		DL Power 9.2.1.21	Maximum allowed power on DPCH or on F-DPCH	–	
>Minimum DL Power	M		DL Power 9.2.1.21	Minimum allowed power on DPCH or on F-DPCH	–	
>Not Used	O		NULL		–	
>Transmit Diversity Indicator	C-Diversity mode		9.2.2.53		–	
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>Delayed Activation	O		9.2.1.24C		YES	reject
>Primary CPICH Usage For Channel Estimation	O		9.2.2.33A		YES	ignore
>Secondary CPICH Information	O		Common Physical Channel ID 9.2.1.13		YES	ignore
>E-DCH RL Indication	O		9.2.2.13De		YES	reject
>RL Specific E-DCH Information	O		9.2.2.39a		YES	ignore
>Synchronisation Indicator	O		9.2.2.48A		YES	ignore
>Extended Propagation Delay	O		9.2.2.35A		YES	ignore
>F-DPCH Slot Format	O		9.2.2.93		YES	reject
Transmission Gap Pattern Sequence Information	O		9.2.2.53A		YES	reject
Active Pattern Sequence Information	O		9.2.2.A		YES	reject
DL Power Balancing Information	O		9.2.2.12B		YES	ignore
HS-DSCH Information	O		HS-DSCH FDD Information 9.2.2.18D		YES	reject
HS-DSCH-RNTI	C- InfoHSDS CH		9.2.1.31J		YES	reject
HS-PDSCH RL ID	C- InfoHSDS CH		RL ID 9.2.1.53		YES	reject
E-DPCH Information		<i>0..1</i>			YES	reject
>Maximum Set of E-DPDCHs	M		9.2.2.20C		–	

>Puncture Limit	M		9.2.1.50		–	
>E-TFCS Information	M		9.2.2.13Dh		–	
>E-TTI	M		9.2.2.13Di		–	
>E-DPCCH Power Offset	M		9.2.2.13Dj		–	
>E-RGCH 2-Index-Step Threshold	M		9.2.2.13lg		–	
>E-RGCH 3-Index-Step Threshold	M		9.2.2.13lh		–	
>HARQ Info for E-DCH	M		9.2.2.18ba		–	
>HS-DSCH Configured Indicator	M		9.2.2.18Ca		–	
E-DCH FDD Information	C-EDPCHInfo		9.2.2.13Da		YES	reject
Serving E-DCH RL	O		9.2.2.48B		YES	reject
F-DPCH Information		0..1			YES	reject
>Power Offset Information		1			–	
>>PO2	M		Power Offset 9.2.2.29	This IE shall be ignored by Node B.	–	
>FDD TPC DL Step Size	M		9.2.2.16		–	
>Limited Power Increase	M		9.2.2.18A		–	
>Inner Loop DL PC Status	M		9.2.2.18B		–	
Initial DL DPCH Timing Adjustment Allowed	O		9.2.2.18K		YES	ignore
DCH Indicator For E-DCH-HSDPA Operation	O		9.2.2.4F		YES	reject
Serving Cell Change CFN	O		CFN 9.2.1.7		YES	reject
Continuous Packet Connectivity DTX-DRX Information	O		9.2.2.66		YES	reject
Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.68		YES	reject

Condition	Explanation
CodeLen	The IE shall be present if <i>Min UL Channelisation Code Length</i> IE equals to 4.
NotFirstRL	The IE shall be present if the RL is not the first one in the <i>RL Information</i> IE.
SlotFormat	The IE shall be present if the <i>DL DPCH Slot Format</i> IE is equal to any of the values from 12 to 16.
Diversity mode	The IE shall be present if <i>Diversity Mode</i> IE in <i>UL DPCH Information</i> IE is not set to "none".
InfoHSDSCH	The IE shall be present if <i>HS-DSCH Information</i> IE is present.
EDPCHInfo	This IE shall be present if <i>E-DPCH Information</i> IE is present.

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for one UE

9.1.36.2 TDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	reject
UL CCTrCH Information		<i>0..<maxno CCTrCH></i>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>UL DPCH Information		<i>0..1</i>		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information	M		9.2.3.26C		–	
>UL DPCH Information LCR		<i>0..1</i>		Applicable to 1.28Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information LCR	M		9.2.3.26E		–	
>UL SIR Target	O		UL SIR 9.2.1.67A	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>TDD TPC UL Step Size	O		9.2.3.21a	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>UL DPCH Information 7.68Mcps		<i>0..1</i>		Applicable to 7.68Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information 7.68Mcps	M		9.2.3.38		–	
DL CCTrCH Information		<i>0..<maxno CCTrCH></i>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>TDD TPC DL Step Size	M		9.2.3.21		–	
>TPC CCTrCH List		<i>0..<maxno</i>		List of uplink	–	

		<i>CCTrCH></i>		CCTrCH which provide TPC		
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>DL DPCH information		<i>0..1</i>		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information	M		9.2.3.4E		–	
>DL DPCH information LCR		<i>0..1</i>		Applicable to 1.28Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information LCR	M		9.2.3.4O		–	
>>TSTD Indicator	M		9.2.1.64		–	
>CCTrCH Initial DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>CCTrCH Maximum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>CCTrCH Minimum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>DL DPCH information 7.68Mcps		<i>0..1</i>		Applicable to 7.68Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information 7.68Mcps	M		9.2.3.39		–	
DCH Information	O		DCH TDD Information 9.2.3.4C		YES	reject
DSCH Information	O		DSCH TDD Information 9.2.3.5A		YES	reject
USCH Information	O		9.2.3.28		YES	reject
RL Information		<i>1</i>			YES	reject
>RL ID	M		9.2.1.53		–	
>C-ID	M		9.2.1.9		–	
>Frame Offset	M		9.2.1.31		–	
>Special Burst Scheduling	M		9.2.3.18A		–	
>Initial DL Transmission Power	M		DL Power 9.2.1.21		–	
>Maximum DL Power	M		DL Power 9.2.1.21		–	
>Minimum DL Power	M		DL Power 9.2.1.21		–	
>DL Time Slot ISCP Info	O		9.2.3.4F	Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	–	
>DL Time Slot ISCP Info LCR	O		9.2.3.4P	Applicable to 1.28Mcps TDD only	YES	reject
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore

>Delayed Activation	O		9.2.1.24C		YES	reject
>UL Synchronisation Parameters LCR		0..1		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Uplink Synchronisation Step Size	M		9.2.3.26H		–	
>>Uplink Synchronisation Frequency	M		9.2.3.26G		–	
>UARFCN	O		9.2.1.65	Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15]	YES	reject
HS-DSCH Information	O		HS-DSCH TDD Information 9.2.3.5F		YES	reject
HS-DSCH-RNTI	C-InfoHSDSCH		9.2.1.31J		YES	reject
HS-PDSCH RL ID	C-InfoHSDSCH		RL ID 9.2.1.53		YES	reject
PDSCH-RL-ID	O		RL ID 9.2.1.53		YES	ignore
E-DCH Information		0..1		3.84Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.45		–	
>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information TDD	O		9.2.3.48		–	
>E-DCH TDD Information	M		9.2.3.49		–	
E-DCH Serving RL	O		9.2.1.53		YES	reject
E-DCH Information 7.68Mcps		0..1		7.68Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.45		–	
>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information 7.68Mcps TDD	O		9.2.3.64		–	
>E-DCH TDD Information 7.68Mcps	M		9.2.3.65		–	
E-DCH Information 1.28Mcps		0..1		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	M		9.2.3.45a		–	
>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information LCR TDD	O		9.2.3.48a		–	
>E-DCH TDD Information LCR	M		9.2.3.49a		–	
Power Control GAP	O		INTEGER (1..255)	Unit: Number of subframes Applicable to 1.28Mcps TDD only	YES	ignore

UE Selected MBMS Service Information	O		9.2.3.73	This IE indicates the Time Slot information and/or TDM information of UE selected MBMS service in the other frequency. For 1.28Mcps TDD only.	YES	ignore
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Range Bound	Explanation
<i>maxnoCCTrCH</i>	Number of CCTrCHs for one UE

Condition	Explanation
InfoHSDSCH	The IE shall be present if <i>HS-DSCH Information</i> IE is present.

9.1.37 RADIO LINK SETUP RESPONSE

9.1.37.1 FDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	ignore
Communication Control Port ID	M		9.2.1.15		YES	ignore
RL Information Response		1..<maxno ofRLs>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>RL Set ID	M		9.2.2.39		–	
>Received Total Wide Band Power	M		9.2.2.39A		–	
>CHOICE <i>Diversity Indication</i>	M				–	
>> <i>Combining</i>						
>>>RL ID	M		9.2.1.53	Reference RL ID for the combining	–	
>> <i>Non Combining or First RL</i>						
>>>DCH Information Response	M		9.2.1.20C		–	
>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>Not Used	O		NULL		–	
>SSDT Support Indicator	M		9.2.2.46		–	
>DL Power Balancing Activation Indicator	O		9.2.2.12C		YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.13Dc		YES	ignore
>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.10A		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
HS-DSCH Information Response	O		HS-DSCH FDD Information Response 9.2.2.18E		YES	ignore
Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.69		YES	ignore

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for one UE

9.1.37.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	ignore
Communication Control Port ID	M		9.2.1.15		YES	ignore
RL Information Response		0..1		Mandatory for 3.84Mcps TDD and 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD.	YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Time Slot ISCP Info	M		9.2.3.26D		–	
>UL PhysCH SF Variation	M		9.2.3.26B		–	
>DCH Information Response	O		9.2.1.20C		YES	ignore
>DSCH Information Response	O		9.2.3.5b		YES	ignore
>USCH Information Response	O		9.2.3.29		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
RL Information Response LCR		0..1		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Time Slot ISCP Info LCR	M		9.2.3.26F		–	
>UL PhysCH SF Variation	M		9.2.3.26B		–	
>DCH Information Response	O		9.2.1.20C		YES	ignore
>DSCH Information Response	O		9.2.3.5b		YES	ignore
>USCH Information Response	O		9.2.3.29		YES	ignore
HS-DSCH Information Response	O		HS-DSCH TDD Information Response 9.2.3.5G		YES	ignore
E-DCH Information Response	O		E-DCH TDD Information Response 9.2.3.50		YES	ignore

9.1.38 RADIO LINK SETUP FAILURE

9.1.38.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Node B Communication Context ID	C-Success		9.2.1.48	The reserved value "All NBCC" shall not be used	YES	ignore
Communication Control Port ID	O		9.2.1.15		YES	ignore
CHOICE <i>Cause Level</i>	M				YES	ignore
> <i>General</i>						
>> <i>Cause</i>	M		9.2.1.6		–	
> <i>RL Specific</i>						
>>> Unsuccessful RL Information Response		1..<maxno ofRLs>			EACH	ignore
>>>>RL ID	M		9.2.1.53		–	
>>>>Cause	M		9.2.1.6		–	
>>>> Successful RL Information Response		0..<maxno ofRLs>		Note: There will never be maxnoofRLs repetitions of this sequence.	EACH	ignore
>>>>>RL ID	M		9.2.1.53		–	
>>>>>RL Set ID	M		9.2.2.39		–	
>>>>>Received Total Wide Band Power	M		9.2.2.39A		–	
>>>>>CHOICE <i>Diversity Indication</i>	M				–	
>>>>>> <i>Combining</i>						
>>>>>>>>RL ID	M		9.2.1.53	Reference RL ID for the combining	–	
>>>>>>>> <i>Non Combining or First RL</i>						
>>>>>>>>>DCH Information Response	M		9.2.1.20C		–	
>>>>>>>>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>>>>>>>>>>>>Not Used	O		NULL		–	
>>>>>>>>>>>>Not Used	O		NULL		–	
>>>>>>>>>>>>>>SSDT Support Indicator	M		9.2.2.46		–	
>>>>>>>>>>>>>>>>DL Power Balancing Activation Indicator	O		9.2.2.12C		YES	ignore
>>>>>>>>>>>>>>>>>>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>>>>>>>>>>>>>>>>>>>>>>E-DCH FDD DL	O		9.2.2.13Dc		YES	ignore

Control Channel Information						
>>>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.10A		YES	ignore
>>HS-DSCH Information Response	O		HS-DSCH FDD Information Response 9.2.2.18E		YES	ignore
>>Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.69		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

Condition	Explanation
Success	The IE shall be present if at least one of the radio links has been successfully set up.

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for one UE

9.1.38.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE <i>Cause Level</i>	M				YES	ignore
> <i>General</i>						
>> <i>Cause</i>	M		9.2.1.6		–	
> <i>RL Specific</i>						
>> Unsuccessful RL Information Response		1			YES	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.39 RADIO LINK ADDITION REQUEST

9.1.39.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	reject
Compressed Mode Deactivation Flag	O		9.2.2.3A		YES	reject
RL Information		<i>1..<maxno ofRLs-1></i>			EACH	notify
>RL ID	M		9.2.1.53		–	
>C-ID	M		9.2.1.9		–	
>Frame Offset	M		9.2.1.31		–	
>Chip Offset	M		9.2.2.2		–	
>Diversity Control Field	M		9.2.1.25		–	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		–	
>Initial DL Transmission Power	O		DL Power 9.2.1.21	Initial power on DPCH or on F-DPCH	–	
>Maximum DL Power	O		DL Power 9.2.1.21	Maximum allowed power on DPCH or on F-DPCH	–	
>Minimum DL Power	O		DL Power 9.2.1.21	Minimum allowed power on DPCH or on F-DPCH	–	
>Not Used	O		NULL		–	
>Transmit Diversity Indicator	O		9.2.2.53		–	
>DL Reference Power	O		DL power 9.2.1.21	Power on DPCH or on F-DPCH	YES	ignore
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>Delayed Activation	O		9.2.1.24C		YES	reject
>E-DCH RL Indication	O		9.2.2.13De		YES	reject
>RL Specific E-DCH Information	O		9.2.2.39a		YES	ignore
>Synchronisation Indicator	O		9.2.2.48A		YES	ignore
>F-DPCH Slot Format	O		9.2.2.93		YES	reject
Initial DL DPCH Timing Adjustment Allowed	O		9.2.2.18K		YES	ignore
Serving E-DCH RL	O		9.2.2.48B		YES	reject
Serving Cell Change CFN	O		CFN 9.2.1.7		YES	reject
HS-DSCH Serving Cell Change Information	O		9.2.2.18Eb		YES	reject
E-DPCH Information		<i>0..1</i>			YES	reject
>Maximum Set of E-DPDCHs	M		9.2.2.20C		–	

>Puncture Limit	M		9.2.1.50		–	
>E-TFCS Information	M		9.2.2.13Dh		–	
>E-TTI	M		9.2.2.13Di		–	
>E-DPCCH Power Offset	M		9.2.2.13Dj		–	
>E-RGCH 2-Index-Step Threshold	M		9.2.2.13lg		–	
>E-RGCH 3-Index-Step Threshold	M		9.2.2.13lh		–	
>HARQ Info for E-DCH	M		9.2.2.18ba		–	
>HS-DSCH Configured Indicator	M		9.2.2.18Ca		YES	reject
E-DCH FDD Information	C-EDPCHInfo		9.2.2.13Da		YES	reject

Condition	Explanation
EDPCHInfo	This IE shall be present if <i>E-DPCH Information</i> IE is present.

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for one UE

9.1.39.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	reject
UL CCTrCH Information		<i>0..<maxno CCTrCH></i>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>UL DPCH Information		<i>0..1</i>		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information	M		9.2.3.26C		–	
>UL DPCH Information LCR		<i>0..1</i>		Applicable to 1.28Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information LCR	M		9.2.3.26E		–	
>TDD TPC UL Step Size	O		9.2.3.21a	Applicable to 1.28Mcps TDD only	YES	reject
>UL DPCH Information 7.68Mcps		<i>0..1</i>		Applicable to 7.68Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information 7.68Mcps	M		9.2.3.38		–	
DL CCTrCH Information		<i>0..<maxno CCTrCH></i>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>DL DPCH information		<i>0..1</i>		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information	M		9.2.3.4E		–	
>DL DPCH information LCR		<i>0..1</i>		Applicable to 1.28Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information LCR	M		9.2.3.4O		–	
>CCTrCH Initial DL	O		DL Power		YES	ignore

Transmission Power			9.2.1.21			
>TDD TPC DL Step Size	O		9.2.3.21		YES	reject
>CCTrCH Maximum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>CCTrCH Minimum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>DL DPCH information 7.68Mcps		0..1		Applicable to 7.68Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information 7.68Mcps	M		9.2.3.39		–	
RL Information		1			YES	reject
>RL ID	M		9.2.1.53		–	
>C-ID	M		9.2.1.9		–	
>Frame Offset	M		9.2.1.31		–	
>Diversity Control Field	M		9.2.1.25		–	
>Initial DL Transmission Power	O		DL Power 9.2.1.21		–	
>Maximum DL Power	O		DL Power 9.2.1.21		–	
>Minimum DL Power	O		DL Power 9.2.1.21		–	
>DL Time Slot ISCP Info	O		9.2.3.4F	Applicable to 3.84Mcps TDD and 7.68Mcps TDD only	–	
>DL Time Slot ISCP Info LCR	O		9.2.3.4P	Applicable to 1.28Mcps TDD only	YES	reject
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>Delayed Activation	O		9.2.1.24C		YES	reject
>UL Synchronisation Parameters LCR		0..1		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Uplink Synchronisation Step Size	M		9.2.3.26H		–	
>>Uplink Synchronisation Frequency	M		9.2.3.26G		–	
>UARFCN	O		9.2.1.65	Mandatory for 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15]	YES	reject
HS-DSCH Information	O		HS-DSCH TDD Information 9.2.3.5F		YES	reject
HS-DSCH-RNTI	C- HSDSCH RadioLink		9.2.1.31J		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.53		YES	reject
E-DCH Information		0..1		3.84Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.45		–	

>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information TDD	O		9.2.3.48		–	
>E-DCH TDD Information	M		9.2.3.49		–	
E-DCH Serving RL	O		9.2.1.53		YES	reject
E-DCH Information 7.68Mcps		0..1		7.68Mcps TDD only	YES	reject
>E-PUCH Information	M		9.2.3.45		–	
>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information 7.68Mcps TDD	O		9.2.3.64		–	
>E-DCH TDD Information 7.68Mcps	M		9.2.3.65		–	
E-DCH Information 1.28Mcps		0..1		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	M		9.2.3.45a		–	
>E-TFCS Information TDD	M		9.2.3.46		–	
>E-DCH MAC-d Flows Information TDD	M		9.2.3.47		–	
>E-DCH Non-scheduled Grant Information LCR TDD	O		9.2.3.48a		–	
>E-DCH TDD Information LCR	M		9.2.3.49a		–	
Power Control GAP	O		INTEGER (1..255)	Unit: Number of subframes Applicable to 1.28Mcps TDD only	YES	ignore
UE Selected MBMS Service Information	O		9.2.3.73	This IE indicates the Time Slot information and/or TDM information of UE selected MBMS service in the other frequency. For 1.28Mcps TDD only .	YES	ignore

Range Bound	Explanation
<i>maxnoCCTrCH</i>	Number of CCTrCH for one UE

Condition	Explanation
HSDSCHRadioLink	The IE shall be present if <i>HS-PDSCH RL ID</i> IE is present

9.1.40 RADIO LINK ADDITION RESPONSE

9.1.40.1 FDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
RL Information Response		<i>1..<maxno ofRLs-1></i>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>RL Set ID	M		9.2.2.39		–	
>Received Total Wide Band Power	M		9.2.2.39A		–	
>CHOICE <i>Diversity Indication</i>	M				–	
>> <i>Combining</i>						
>>>RL ID	M		9.2.1.53	Reference RL	–	
>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>> <i>Non Combining</i>						
>>>DCH Information Response	M		9.2.1.20C		–	
>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>SSDT Support Indicator	M		9.2.2.46		–	
>DL Power Balancing Activation Indicator	O		9.2.2.12C		YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.13Dc		YES	ignore
>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.10A		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
HS-DSCH Serving Cell Change Information Response	O		9.2.2.18Ec		YES	ignore
E-DCH Serving Cell Change Information Response	O		9.2.2.18Ed		YES	ignore
MAC-hs Reset Indicator	O		9.2.1.38Ac		YES	ignore

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for one UE

9.1.40.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
RL Information Response		0..1		Mandatory for 3.84Mcps TDD and 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD.	YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Time Slot ISCP Info	M		9.2.3.26D		–	
>UL PhysCH SF Variation	M		9.2.3.26B		–	
>DCH Information		0..1			–	
>>CHOICE <i>Diversity Indication</i>	M				–	
>>>Combining				Indicates whether the old Transport Bearer shall be reused or not		
>>>>RL ID	M		9.2.1.53	Reference RL	–	
>>>>Non Combining						
>>>>DCH Information Response	M		9.2.1.20C		–	
>DSCH Information Response	O		9.2.3.5b		YES	ignore
>USCH Information Response	O		9.2.3.29		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
RL Information Response LCR		0..1		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Time Slot ISCP Info LCR	M		9.2.3.26F		–	
>UL PhysCH SF Variation	M		9.2.3.26B		–	
>DCH Information		0..1			–	
>>CHOICE <i>Diversity indication</i>	M				–	
>>>Combining				Indicates whether the old Transport Bearer shall be reused or not		
>>>>RL ID	M		9.2.1.53	Reference RL	–	
>>>>Non Combining						
>>>>DCH Information Response	M		9.2.1.20C		–	
>DSCH Information Response	O		9.2.3.5b		YES	ignore

>USCH Information Response	O		9.2.3.29		YES	ignore
HS-DSCH Information Response	O		HS-DSCH TDD Information Response 9.2.3.5G		YES	ignore
E-DCH Information Response	O		E-DCH TDD Information Response 9.2.3.50		YES	ignore

9.1.41 RADIO LINK ADDITION FAILURE

9.1.41.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE <i>Cause Level</i>	M				YES	ignore
> <i>General</i>						
>> <i>Cause</i>	M		9.2.1.6		–	
> <i>RL Specific</i>						
>> Unsuccessful RL Information Response		1..<maxno ofRLs-1>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
>> Successful RL Information Response		0..<maxno ofRLs-2>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>RL Set ID	M		9.2.2.39		–	
>>>Received Total Wide Band Power	M		9.2.2.39A		–	
>>>CHOICE <i>Diversity Indication</i>	M				–	
>>>> <i>Combining</i>						
>>>>>RL ID	M		9.2.1.53	Reference RL	–	
>>>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>>>> <i>Non Combining</i>						
>>>>>DCH Information Response	M		9.2.1.20C		–	
>>>>>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
>>>>SSDT Support Indicator	M		9.2.2.46		–	
>>>>DL Power Balancing Activation Indicator	O		9.2.2.12C		YES	ignore
>>>>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>>>>E-DCH FDD DL Control Channel Information	O		9.2.2.13Dc		YES	ignore
>>>>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.10A		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
HS-DSCH Serving Cell Change Information Response	O		9.2.2.18Ec		YES	ignore

E-DCH Serving Cell Change Information Response	O		9.2.2.18Ed		YES	ignore
MAC-hs Reset Indicator	O		9.2.1.38Ac		YES	ignore

Range Bound	Explanation
<i>maxnrofRLs</i>	Maximum number of RLs for one UE

9.1.41.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE <i>Cause Level</i>	M				YES	ignore
> <i>General</i>						
>> <i>Cause</i>	M		9.2.1.6		–	
> <i>RL Specific</i>						
>> Unsuccessful RL Information Response		1			YES	ignore
>>>RL ID	M		9.2.1.53		–	
>>> <i>Cause</i>	M		9.2.1.6		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.42 RADIO LINK RECONFIGURATION PREPARE

9.1.42.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	reject
UL DPCH Information		0..1			YES	reject
>UL Scrambling Code	O		9.2.2.59		–	
>UL SIR Target	O		UL SIR 9.2.1.67A		–	
>Min UL Channelisation Code Length	O		9.2.2.22		–	
>Max Number of UL DPDCHs	C-CodeLen		9.2.2.21		–	
>Puncture Limit	O		9.2.1.50	For UL	–	
>TFCS	O		9.2.1.58		–	
>UL DPCCH Slot Format	O		9.2.2.57		–	
>Diversity Mode	O		9.2.2.9		–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>UL DPDCH Indicator For E-DCH Operation	O		9.2.2.61		YES	reject
DL DPCH Information		0..1			YES	reject
>TFCS	O		9.2.1.58		–	
>DL DPCH Slot Format	O		9.2.2.10		–	
>TFCI Signalling Mode	O		9.2.2.50		–	
>TFCI Presence	C-SlotFormat		9.2.1.57		–	
>Multiplexing Position	O		9.2.2.23		–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>Limited Power Increase	O		9.2.2.18A		–	
>DL DPCH Power Information		0..1			YES	reject
>>Power Offset Information		1			–	
>>>PO1	M		Power Offset 9.2.2.29	Power offset for the TFCI bits	–	
>>>PO2	M		Power Offset 9.2.2.29	Power offset for the TPC bits	–	
>>>PO3	M		Power Offset 9.2.2.29	Power offset for the pilot bits	–	
>>FDD TPC DL Step Size	M		9.2.2.16		–	
>>Inner Loop DL PC Status	M		9.2.2.18B		–	
DCHs To Modify	O		DCHs FDD To Modify 9.2.2.4E		YES	reject
DCHs To Add	O		DCH FDD Information		YES	reject

			9.2.2.4D			
DCHs To Delete		<i>0..<maxno ofDCHs></i>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
RL Information		<i>0..<maxno ofRLs></i>			EACH	reject
>RL ID	M		9.2.1.53		–	
>DL Code Information	O		FDD DL Code Information 9.2.2.14A		–	
>Maximum DL Power	O		DL Power 9.2.1.21	Maximum allowed power on DPCH or on F-DPCH	–	
>Minimum DL Power	O		DL Power 9.2.1.21	Minimum allowed power on DPCH or on F-DPCH	–	
>Not Used	O		NULL		–	
>Not Used	O		NULL		–	
>Transmit Diversity Indicator	C-Diversity mode		9.2.2.53		–	
>DL Reference Power	O		DL Power 9.2.1.21	Power on DPCH or on F-DPCH	YES	ignore
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>DL DPCH Timing Adjustment	O		9.2.2.10A	Required RL Timing Adjustment	YES	reject
>Primary CPICH Usage For Channel Estimation	O		9.2.2.33A		YES	ignore
>Secondary CPICH Information Change	O		9.2.2.43A		YES	ignore
>E-DCH RL Indication	O		9.2.2.13De		YES	reject
>RL Specific E-DCH Information	O		9.2.2.39a		YES	ignore
>F-DPCH Slot Format	O		9.2.2.93		YES	reject
Transmission Gap Pattern Sequence Information	O		9.2.2.53A		YES	reject
Signalling Bearer Request Indicator	O		9.2.1.55A		YES	reject
HS-DSCH Information	O		HS-DSCH FDD Information 9.2.2.18D		YES	reject
HS-DSCH Information To Modify	O		9.2.1.31H		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information 9.2.1.31IA		YES	reject
HS-DSCH MAC-d Flows To Delete	O		9.2.1.31IB		YES	reject
HS-DSCH-RNTI	C-HSDSCH RadioLink		9.2.1.31J		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.53		YES	reject
E-DPCH Information		<i>0..1</i>			YES	reject

>Maximum Set of E-DPDCHs	O		9.2.2.20C		–	
>Puncture Limit	O		9.2.1.50		–	
>E-TFCS Information	O		9.2.2.13Dh		–	
>E-TTI	O		9.2.2.13Di		–	
>E-DPCCH Power Offset	O		9.2.2.13Dj		–	
>E-RGCH 2-Index-Step Threshold	O		9.2.2.13Ig		–	
>E-RGCH 3-Index-Step Threshold	O		9.2.2.13Ih		–	
>HARQ Info for E-DCH	O		9.2.2.18ba		–	
>HS-DSCH Configured Indicator	O		9.2.2.18Ca		–	
E-DCH FDD Information	O		E-DCH FDD Information 9.2.2.13Da		YES	reject
E-DCH FDD Information To Modify	O		9.2.2.13Df		YES	reject
E-DCH MAC-d Flows To Add	O		E-DCH MAC-d Flows Information 9.2.2.13M		YES	reject
E-DCH MAC-d Flows To Delete	O		9.2.1.73		YES	reject
Serving E-DCH RL	O		9.2.2.48B		YES	reject
F-DPCH Information		0..1			YES	reject
> Power Offset Information		1			–	
>>PO2	M		Power Offset 9.2.2.29	This IE shall be ignored by Node B.	–	
>FDD TPC DL Step Size	M		9.2.2.16		–	
>Limited Power Increase	M		9.2.2.18A		–	
>Inner Loop DL PC Status	M		9.2.2.18B		–	
Fast Reconfiguration Mode	O		9.2.2.62		YES	ignore
CPC Information		0..1			YES	reject
>Continuous Packet Connectivity DTX-DRX Information	O		9.2.2.66		–	
>Continuous Packet Connectivity DTX-DRX Information To Modify	O		9.2.2.67		–	
>Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.68		–	
>Continuous Packet Connectivity HS-SCCH less Deactivate Indicator	O		9.2.2.69A		YES	reject

Condition	Explanation
CodeLen	The IE shall be present if the <i>Min UL Channelisation Code Length</i> IE is equals to 4.
SlotFormat	The IE shall be present if the <i>DL DPCH Slot Format</i> IE is equal to any of the values from 12 to 16.
Diversity mode	The IE shall be present if the <i>Diversity Mode</i> IE is present in the <i>UL DPCH Information</i> IE and is not set to "none".
HSDSCH Radio Link	The IE shall be present if <i>HS-PDSCH RL ID</i> IE is present.

Range Bound	Explanation
<i>maxnoofDCHs</i>	Maximum number of DCHs for a UE
<i>maxnoofRLs</i>	Maximum number of RLs for a UE

9.1.42.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	reject
UL CCTrCH To Add		<i>0..<maxno of CCTrCHs></i>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>UL DPCH To Add Per RL		<i>0..<maxno of RLS></i>		See note 1 below	–	
>>UL DPCH Information		<i>0..1</i>		Applicable to 3.84Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information	M		9.2.3.26C		–	
>>UL DPCH Information LCR		<i>0..1</i>		Applicable to 1.28Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information LCR	M		9.2.3.26E		–	
>>UL SIR Target	O		UL SIR 9.2.1.67A	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD	YES	reject
>>TDD TPC UL Step Size	O		9.2.3.21a	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>RL ID	O		9.2.1.53		YES	ignore
>>UL DPCH Information 7.68Mcps		<i>0..1</i>		Applicable to 7.68Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information 7.68Mcps	M		9.2.3.38		–	
UL CCTrCH To Modify		<i>0..<maxno of CCTrCHs></i>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	

>TFCS	O		9.2.1.58		–	
>TFCI Coding	O		9.2.3.22		–	
>Puncture Limit	O		9.2.1.50		–	
>UL DPCH To Modify Per RL		<i>0..<maxno ofRLs></i>		See note 1 below	–	
>>UL DPCH To Add		<i>0..1</i>		Applicable to 3.84Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information	M		9.2.3.26C		–	
>>UL DPCH To Modify		<i>0..1</i>			YES	reject
>>>Repetition Period	O		9.2.3.16		–	
>>>Repetition Length	O		9.2.3.15		–	
>>>TDD DPCH Offset	O		9.2.3.19A		–	
>>>UL Timeslot Information		<i>0..<maxno ofULts></i>		Applicable to 3.84Mcps TDD only	–	
>>>>Time Slot	M		9.2.3.23		–	
>>>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>>>TFCI Presence	O		9.2.1.57		–	
>>>>UL Code Information		<i>0..<maxno ofDPCHs></i>			–	
>>>>>DPCH ID	M		9.2.3.5		–	
>>>>>TDD Channelisation Code	O		9.2.3.19		–	
>>>>UL Timeslot Information LCR		<i>0..<maxno ofULtsLCR></i>		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>>Midamble Shift LCR	O		9.2.3.7A		–	
>>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>UL Code Information LCR		<i>0..<maxno ofDPCHsLCR></i>			–	
>>>>>>DPCH ID	M		9.2.3.5		–	
>>>>>>TDD Channelisation Code LCR	O		9.2.3.19a		–	
>>>>>>TDD UL DPCH Time Slot Format LCR	O		9.2.3.21C		YES	reject
>>>>>>PLCCH Information	O		9.2.3.31		YES	reject
>>>>UL Timeslot Information 7.68Mcps		<i>0..<maxno ofULts></i>		Applicable to 7.68Mcps TDD only	GLOBAL	reject
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35		–	
>>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>UL Code Information 7.68Mcps		<i>0..<maxno ofDPCHs></i>			–	
>>>>>>DPCH ID	M		9.2.3.5		–	

>>>>TDD Channelisation Code 7.68Mcps	O		9.2.3.34		–	
>>UL DPCH To Delete		0..<maxno ofDPCHs>			GLOBAL	reject
>>>DPCH ID	M		9.2.3.5		–	
>>UL DPCH To Add LCR		0..1		Applicable to 1.28Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information LCR	M		9.2.3.26E		–	
>>UL SIR Target	O		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD only	YES	reject
>>TDD TPC UL Step Size	O		9.2.3.21a	Applicable to 1.28Mcps TDD only	YES	reject
>>RL ID	O		9.2.1.53		YES	ignore
>>UL DPCH To Add 7.68Mcps		0..1		Applicable to 7.68Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>UL Timeslot Information 7.68Mcps	M		9.2.3.38		–	
UL CCTrCH To Delete		0..<maxno ofCCTrCHs>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
DL CCTrCH To Add		0..<maxno ofCCTrCHs>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>TPC CCTrCH List		0..<maxno ofCCTrCHs>		List of uplink CCTrCH which provide TPC	–	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>DL DPCH To Add Per RL		0..<maxno ofRLs>		See Note 1 below	–	
>>DL DPCH Information		0..1		Applicable to 3.84Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot Information	M		9.2.3.4E		–	
>>DL DPCH Information LCR		0..1		Applicable to 1.28Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot	M		9.2.3.4O		–	

Information LCR						
>>CCTrCH Initial DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>>TDD TPC DL Step Size	O		9.2.3.21		YES	reject

>>CCTrCH Maximum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>>CCTrCH Minimum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>>RL ID	O		9.2.1.53		YES	ignore
>>DL DPCH Information 7.68Mcps		0..1		Applicable to 7.68Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot Information 7.68Mcps	M		9.2.3.39		–	
DL CCTrCH To Modify		0..<maxno ofCCTrCHs>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>TFCI Coding	O		9.2.3.22		–	
>Puncture Limit	O		9.2.1.50		–	
>TPC CCTrCH List		0..<maxno ofCCTrCHs>		List of uplink CCTrCH which provide TPC	–	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>DL DPCH To Modify Per RL		0..<maxno ofRLs>		See Note 1 below	–	
>>DL DPCH To Add		0..1		Applicable to 3.84Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot Information	M		9.2.3.4E		–	
>>DL DPCH To Modify		0..1			YES	reject
>>>Repetition Period	O		9.2.3.16		–	
>>>Repetition Length	O		9.2.3.15		–	
>>>TDD DPCH Offset	O		9.2.3.19A		–	
>>>DL Timeslot Information		0..<maxno ofDLts>		Applicable to 3.84Mcps TDD only	–	
>>>>Time Slot	M		9.2.3.23		–	
>>>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>>>TFCI Presence	O		9.2.1.57		–	
>>>>DL Code Information		0..<maxno ofDPCHs>			–	
>>>>>DPCH ID	M		9.2.3.5		–	
>>>>>TDD Channelisation Code	O		9.2.3.19		–	
>>>DL Timeslot Information LCR		0..<maxno ofDLtsLCR>		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Midamble Shift LCR	O		9.2.3.7A		–	
>>>>TFCI Presence	O		9.2.1.57		–	
>>>>DL Code Information LCR		0..<maxno ofDPCHsLCR>			–	

>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code LCR	O		9.2.3.19a		–	
>>>>TDD DL DPCH Time Slot Format LCR	O		9.2.3.19D		YES	reject
>>>>Maximum DL Power to Modify LCR	O		DL Power 9.2.1.21	Maximum allowed power on DPCH	YES	ignore
>>>>Minimum DL Power to Modify LCR	O		DL Power 9.2.1.21	Minimum allowed power on DPCH	YES	ignore
>>>DL Timeslot Information 7.68Mcps		<i>0..<maxno ofDLts></i>		Applicable to 7.68Mcps TDD only	GLOBAL	reject
>>>>Time Slot	M		9.2.3.23		–	
>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35		–	
>>>>TFCI Presence	O		9.2.1.57		–	
>>>>DL Code Information 7.68Mcps		<i>0..<maxno ofDPCHs7 68></i>			–	
>>>>DPCH ID 7.68Mcps	M		9.2.3.42		–	
>>>>TDD Channelisation Code 7.68Mcps	O		9.2.3.34		–	
>>DL DPCH To Delete		<i>0..<maxno ofDPCHs></i>			GLOBAL	reject
>>>DPCH ID	M		9.2.3.5		–	
>>DL DPCH To Add LCR		<i>0..1</i>		Applicable to 1.28Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot Information LCR	M		9.2.3.40		–	
>>TDD TPC DL Step Size	O		9.2.3.21		YES	reject
>>Maximum CCTrCH DL Power to Modify	O		DL Power 9.2.1.21		YES	ignore
>>Minimum CCTrCH DL Power to Modify	O		DL Power 9.2.1.21		YES	ignore
>>RL ID	O		9.2.1.53		YES	ignore
>>DL DPCH To Add 7.68Mcps		<i>0..1</i>		Applicable to 7.68Mcps TDD only	YES	reject
>>>Repetition Period	M		9.2.3.16		–	
>>>Repetition Length	M		9.2.3.15		–	
>>>TDD DPCH Offset	M		9.2.3.19A		–	
>>>DL Timeslot Information 7.68Mcps	M		9.2.3.39		–	
DL CCTrCH To Delete		<i>0..<maxno ofCCTrCH s></i>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
DCHs To Modify	O		DCHs TDD To Modify 9.2.3.4D		YES	reject

DCHs To Add	O		DCH TDD Information 9.2.3.4C		YES	reject
DCHs To Delete		<i>0..<maxno ofDCHs></i>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
DSCH To Modify		<i>0..<maxno ofDSCHs></i>			GLOBAL	reject
>DSCH ID	M		9.2.3.5a		–	
>CCTrCH ID	O		9.2.3.3	DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	O		9.2.1.59		–	
>Allocation/Retention Priority	O		9.2.1.1A		–	
>Frame Handling Priority	O		9.2.1.30		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
DSCH To Add	O		DSCH TDD Information 9.2.3.5A		YES	reject
DSCH To Delete		<i>0..<maxno ofDSCHs></i>			GLOBAL	reject
>DSCH ID	M		9.2.3.5a		–	
USCH To Modify		<i>0..<maxno ofUSCHs></i>			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
>Transport Format Set	O		9.2.1.59		–	
>Allocation/Retention Priority	O		9.2.1.1A		–	
>CCTrCH ID	O		9.2.3.3	UL CCTrCH in which the USCH is mapped	–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore

>TNL QoS	O		9.2.1.58A		YES	ignore
USCH To Add	O		USCH Information 9.2.3.28		YES	reject
USCH To Delete		<i>0..<maxno ofUSCHs></i>			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
RL Information		<i>0..<maxno ofRLs></i>		See Note 1 below	YES	reject
>RL ID	M		9.2.1.53		–	
>Maximum Downlink Power	O		DL Power 9.2.1.21		–	
>Minimum Downlink Power	O		DL Power 9.2.1.21		–	
>Initial DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>UL Synchronisation Parameters LCR		<i>0..1</i>		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	ignore
>>Uplink Synchronisation Step Size	M		9.2.3.26H		–	
>>Uplink Synchronisation Frequency	M		9.2.3.26G		–	
>DL Time Slot ISCP Info LCR	O		9.2.3.4P	Applicable to 1.28Mcps TDD only	YES	ignore
>UARFCN	O		9.2.1.65	Applicable to 1.28Mcps TDD when using multiple frequencies. Corresponds to Nt [15]	YES	reject
Signalling Bearer Request Indicator	O		9.2.1.55A		YES	reject
HS-DSCH Information	O		HS-DSCH TDD Information 9.2.3.5F		YES	reject
HS-DSCH Information To Modify	O		9.2.1.31H		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information 9.2.1.31IA		YES	reject
HS-DSCH MAC-d Flows To Delete	O		9.2.1.31IB		YES	reject
HS-DSCH-RNTI	C-HSDSCH RadioLink		9.2.1.31J		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.53		YES	reject
PDSCH-RL-ID	O		RL ID 9.2.1.53		YES	ignore
E-DCH Information		<i>0..1</i>		3.84Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.45		–	
>E-TFCS Information TDD	O		9.2.3.46		–	

>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information TDD	O		9.2.3.48		–	
>E-DCH TDD Information	O		9.2.3.49		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	
E-DCH Serving RL	O		9.2.1.53		YES	reject
E-DCH Information 7.68Mcps		0..1		7.68Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.45		–	
>E-TFCS Information TDD	O		9.2.3.46		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information 7.68Mcps TDD	O		9.2.3.64		–	
>E-DCH TDD Information 7.68Mcps	O		9.2.3.65		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	
E-DCH Information 1.28Mcps		0..1		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	O		9.2.3.45a		–	
>E-TFCS Information TDD	O		9.2.3.46		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information LCR TDD	O		9.2.3.48a		–	
>E-DCH TDD Information LCR	O		9.2.3.49a		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	
Power Control GAP	O		INTEGER (1..255)	Unit: Number of subframes Applicable to 1.28Mcps TDD only	YES	ignore
UE Selected MBMS Service Information	O		9.2.3.73	This IE indicates the Time Slot information and/or TDM information of UE selected MBMS service in the other frequency. For 1.28Mcps TDD only.	YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticalities.

Condition	Explanation
HSDSCHRadioLink	The IE shall be present if <i>HS-PDSCH RL ID</i> IE is present.

Range Bound	Explanation
<i>maxnoofDCHs</i>	Maximum number of DCHs for a UE
<i>maxnoofCCTrCHs</i>	Maximum number of CCTrCHs for a UE
<i>maxnoofDPCHs</i>	Maximum number of DPCHs in one CCTrCH for 3.84Mcps TDD. Maximum number of uplink DPCHs in one CCTrCH for 7.68Mcps TDD
<i>maxnoofDPCHsLCR</i>	Maximum number of DPCHs in one CCTrCH for 1.28Mcps TDD
<i>maxnoofDPCHs768</i>	Maximum number of downlink DPCHs in one CCTrCH for 7.68Mcps TDD
<i>maxnoofDSCHs</i>	Maximum number of DSCHs for one UE
<i>maxnoofUSCHs</i>	Maximum number of USCHs for one UE
<i>maxnoofDLts</i>	Maximum number of Downlink time slots per Radio Link for 3.84Mcps TDD
<i>maxnoofDLtsLCR</i>	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD
<i>maxnoofULts</i>	Maximum number of Uplink time slots per Radio Link for 3.84Mcps TDD
<i>maxnoofULtsLCR</i>	Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD
<i>maxnoofRLs</i>	Maximum number of RLs for one UE

9.1.43 RADIO LINK RECONFIGURATION READY

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
RL Information Response		<i>0..<maxno ofRLs></i>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>DCH Information Response	O		9.2.1.20C		YES	ignore
>DSCH Information Response	O		9.2.3.5b	TDD only	YES	ignore
>USCH Information Response	O		9.2.3.29	TDD only	YES	ignore
>Not Used	O		NULL		–	
>DL Power Balancing Updated Indicator	O		9.2.2.12D		YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.13Dc		YES	ignore
>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Target Communication Control Port ID	O		Communication Control Port ID 9.2.1.15		YES	ignore
HS-DSCH FDD Information Response	O		9.2.2.18E	FDD only	YES	ignore
HS-DSCH TDD Information Response	O		9.2.3.5G	TDD only	YES	ignore
E-DCH TDD Information Response	O		E-DCH TDD Information Response 9.2.3.50	TDD only	YES	ignore
MAC-hs Reset Indicator	O		9.2.1.38Ac		YES	ignore
Fast Reconfiguration Permission	O		9.2.2.63	FDD only	YES	ignore
Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.69	FDD only	YES	ignore

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for a UE

9.1.44 RADIO LINK RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE <i>Cause Level</i>	M				YES	ignore
> <i>General</i>						
>> <i>Cause</i>	M		9.2.1.6		YES	ignore
> <i>RL Specific</i>						
>> RLs Causing Reconfiguration Failure		0..<maxno ofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for a UE

9.1.45 RADIO LINK RECONFIGURATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	ignore
CFN	M		9.2.1.7		YES	ignore
Active Pattern Sequence Information	O		9.2.2.A	FDD only	YES	ignore
Fast Reconfiguration Mode	O		9.2.2.62	FDD only	YES	reject

9.1.46 RADIO LINK RECONFIGURATION CANCEL

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	ignore

9.1.47 RADIO LINK RECONFIGURATION REQUEST

9.1.47.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	reject
UL DPCH Information		0..1			YES	reject
>TFCS	O		9.2.1.58	For the UL.	–	
>UL DPDCH Indicator For E-DCH Operation	O		9.2.2.61		YES	reject
DL DPCH Information		0..1			YES	reject
>TFCS	O		9.2.1.58	For the DL.	–	
>TFCI Signalling Mode	O		9.2.2.50		–	
>Limited Power Increase	O		9.2.2.18A		–	
DCHs To Modify	O		DCHs FDD To Modify 9.2.2.4E		YES	reject
DCHs To Add	O		DCH FDD Information 9.2.2.4D		YES	reject
DCHs To Delete		0..<maxno ofDCHs>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
Radio Link Information		0..<maxno ofRLs>			EACH	reject
>RL ID	M		9.2.1.53		–	
>Maximum DL Power	O		DL Power 9.2.1.21	Maximum allowed power on DPCH or on F-DPCH	–	
>Minimum DL Power	O		DL Power 9.2.1.21	Minimum allowed power on DPCH or on F-DPCH	–	
>DL Code Information	C-SF/2		FDD DL Code Information 9.2.2.14A		–	
>DL Reference Power	O		DL Power 9.2.1.21	Power on DPCH or on F-DPCH	YES	ignore
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>E-DCH RL Indication	O		9.2.2.13De		YES	reject
>RL Specific E-DCH Information	O		9.2.2.39a		YES	ignore
>F-DPCH Slot Format	O		9.2.2.93		YES	reject
Transmission Gap Pattern Sequence Information	O		9.2.2.53A		YES	reject
Signalling Bearer Request Indicator	O		9.2.1.55A		YES	reject
HS-DSCH Information	O		HS-DSCH FDD Information		YES	reject

			9.2.2.18D			
HS-DSCH Information To Modify Unsynchronised	O		9.2.1.31HA		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information 9.2.1.31IA		YES	reject
HS-DSCH MAC-d Flows To Delete	O		9.2.1.31IB		YES	reject
HS-DSCH-RNTI	C-HSDSCH RadioLink		9.2.1.31J		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.53		YES	reject
E-DPCH Information		0..1			YES	reject
>Maximum Set of E-DPCHs	O		9.2.2.20C		–	
>Puncture Limit	O		9.2.1.50		–	
>E-TFCS Information	O		9.2.2.13Dh		–	
>E-TTI	O		9.2.2.13Di		–	
>E-DPCCH Power Offset	O		9.2.2.13Dj		–	
>E-RGCH 2-Index-Step Threshold	O		9.2.2.13lg		–	
>E-RGCH 3-Index-Step Threshold	O		9.2.2.13lh		–	
>HARQ Info for E-DCH	O		9.2.2.18ba		–	
>HS-DSCH Configured Indicator	O		9.2.2.18Ca		–	
E-DCH FDD Information	O		E-DCH FDD Information 9.2.2.13Da		YES	reject
E-DCH FDD Information To Modify	O		9.2.2.13Df		YES	reject
E-DCH MAC-d Flows To Add	O		E-DCH FDD MAC-d Flows Information 9.2.2.13M		YES	reject
E-DCH MAC-d Flows To Delete	O		9.2.1.73		YES	reject
Serving E-DCH RL	O		9.2.2.48B		YES	reject
CPC Information		0..1			YES	reject
>Continuous Packet Connectivity DTX-DRX Information	O		9.2.2.66		–	
>Continuous Packet Connectivity DTX-DRX Information To Modify	O		9.2.2.67		–	
>Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.68		–	
>Continuous Packet Connectivity HS-SCCH less Deactivate Indicator	O		9.2.2.69A		YES	reject

Range Bound	Explanation
<i>maxnoofDCHs</i>	Maximum number of DCHs for a UE
<i>maxnoofRLs</i>	Maximum number of RLs for a UE

Condition	Explanation
SF/2	The IE shall be present if the <i>Transmission Gap Pattern Sequence Information</i> IE is included and the indicated Downlink Compressed Mode method for at least one of the included Transmission Gap Pattern Sequence is set to "SF/2".
HSDSCH Radio Link	The IE shall be present if <i>HS-PDSCH RL ID</i> IE is present.

9.1.47.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	reject
UL CCTrCH To Modify		<i>0..<maxno of CCTrCHs></i>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>Puncture Limit	O		9.2.1.50		–	
>UL SIR Target	O		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD only	YES	reject
UL CCTrCH To Delete		<i>0..<maxno of CCTrCHs></i>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
DL CCTrCH To Modify		<i>0..<maxno of CCTrCHs></i>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>Puncture Limit	O		9.2.1.50		–	
>DL CCTrCH To Modify Per RL		<i>0..<maxno of RLs></i>		See note 1 below		
>>DL DPCH To Modify LCR		<i>0..1</i>		Applicable to 1.28Mcps TDD only	YES	ignore
>>>DL Timeslot Information LCR		<i>0..<maxno of DLtsLCR></i>			–	
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Maximum DL Power	O		DL Power 9.2.1.21	Maximum allowed power on DPCH	–	
>>>>Minimum DL Power	O		DL Power 9.2.1.21	Minimum allowed power on DPCH	–	
>>CCTrCH Maximum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>>CCTrCH Minimum DL Transmission Power	O		DL Power 9.2.1.21		YES	ignore
>>RL ID	O		9.2.1.53		YES	ignore
DL CCTrCH To Delete		<i>0..<maxno of CCTrCHs></i>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
DCHs To Modify	O		DCHs TDD To Modify 9.2.3.4D		YES	reject
DCHs To Add	O		DCH TDD Information 9.2.3.4C		YES	reject
DCHs To Delete		<i>0..<maxno of DCHs></i>			GLOBAL	reject

>DCH ID	M		9.2.1.20		–	
RL Information		<i>0..<maxno ofRLs></i>		See note 1 below	YES	reject
>RL ID	M		9.2.1.53		–	
>Maximum Downlink Power	O		DL Power 9.2.1.21		–	
>Minimum Downlink Power	O		DL Power 9.2.1.21		–	
>RL Specific DCH Information	O		9.2.1.53G		YES	ignore
>UL Synchronisation Parameters LCR		<i>0..1</i>		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	ignore
>>Uplink Synchronisation Step Size	M		9.2.3.26H		–	
>>Uplink Synchronisation Frequency	M		9.2.3.26G		–	
Signalling Bearer Request Indicator	O		9.2.1.55A		YES	reject
HS-DSCH Information	O		HS-DSCH TDD Information 9.2.3.5F		YES	reject
HS-DSCH Information To Modify Unsynchronised	O		9.2.1.31HA		YES	reject
HS-DSCH MAC-d Flows To Add	O		HS-DSCH MAC-d Flows Information 9.2.1.31IA		YES	reject
HS-DSCH MAC-d Flows To Delete	O		9.2.1.31IB		YES	reject
HS-DSCH-RNTI	C- HSDSCH RadioLink		9.2.1.31J		YES	reject
HS-PDSCH RL ID	O		RL ID 9.2.1.53		YES	reject
E-DCH Information		<i>0..1</i>		3.84Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.45		–	
>E-TFCS Information TDD	O		9.2.3.46		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information TDD	O		9.2.3.48		–	
>E-DCH TDD Information	O		9.2.3.49		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	
E-DCH Serving RL	O		9.2.1.53		YES	reject
E-DCH Information 7.68Mcps		<i>0..1</i>		7.68Mcps TDD only	YES	reject
>E-PUCH Information	O		9.2.3.45		–	
>E-TFCS Information TDD	O		9.2.3.46		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information 7.68Mcps TDD	O		9.2.3.64		–	

>E-DCH TDD Information 7.68Mcps	O		9.2.3.65		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	
E-DCH Information 1.28Mcps		0..1		1.28Mcps TDD only	YES	reject
>E-PUCH Information LCR	O		9.2.3.45a		–	
>E-TFCS Information TDD	O		9.2.3.46		–	
>E-DCH MAC-d Flows to Add	O		9.2.3.47		–	
>E-DCH MAC-d Flows to Delete	O		9.2.1.73		–	
>E-DCH Non-scheduled Grant Information LCR TDD	O		9.2.3.48a		–	
>E-DCH TDD Information LCR	O		9.2.3.49a		–	
>E-DCH TDD Information to Modify	O		9.2.3.52		–	
Power Control GAP	O		INTEGER (1..255)	Unit: Number of subframes Applicable to 1.28Mcps TDD only	YES	ignore
UE Selected MBMS Service Information	O		9.2.3.73	This IE indicates the Time Slot information and/or TDM information of UE selected MBMS service in the other frequency. For 1.28Mcps TDD only.	YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticality.

Range Bound	Explanation
<i>maxnoofCCTrCHs</i>	Maximum number of CCTrCHs for a UE
<i>maxnoofDLtsLCR</i>	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD
<i>maxnoofDCHs</i>	Maximum number of DCHs for a UE
<i>maxnoofRLs</i>	Maximum number of RLs for one UE

Condition	Explanation
HSDSCHRadioLink	The IE shall be present if <i>HS-PDSCH RL ID</i> IE is present.

9.1.48 RADIO LINK RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
RL Information Response		<i>0..<maxno ofRLs></i>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>DCH Information Response	O		9.2.1.20C		YES	ignore
>DL Power Balancing Updated Indicator	O		9.2.2.12D	FDD only	YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.39		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.13Dc		YES	ignore
>E-DCH FDD Information Response	O		9.2.2.13Db		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Target Communication Control Port ID	O		Communication Control Port ID 9.2.1.15		YES	ignore
HS-DSCH FDD Information Response	O		9.2.2.18E	FDD only	YES	ignore
HS-DSCH TDD Information Response	O		9.2.3.5G	TDD only	YES	ignore
E-DCH TDD Information Response	O		E-DCH TDD Information Response 9.2.3.50	TDD only	YES	ignore
MAC-hs Reset Indicator	O		9.2.1.38Ac		YES	ignore
Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.69	FDD only	YES	ignore

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for a UE

9.1.49 RADIO LINK DELETION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	reject
RL Information		1..<maxno ofRLs>			EACH	notify
>RL ID	M		9.2.1.53		–	

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of radio links for one UE

9.1.50 RADIO LINK DELETION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.51 DL POWER CONTROL REQUEST [FDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	ignore
Power Adjustment Type	M		9.2.2.27		YES	ignore
DL Reference Power	C-Common		DL power 9.2.1.21	Power on DPCH or on F-DPCH	YES	ignore
Inner Loop DL PC Status	O		9.2.2.18B		YES	ignore
DL Reference Power Information	C-Individual	1..<maxno ofRLs>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>DL Reference Power	M		DL power 9.2.1.21	Power on DPCH or on F-DPCH	–	
Max Adjustment Step	C-CommonOrIndividual		9.2.2.20		YES	ignore
Adjustment Period	C-CommonOrIndividual		9.2.2.B		YES	ignore
Adjustment Ratio	C-CommonOrIndividual		9.2.2.C		YES	ignore

Condition	Explanation
Common	The IE shall be present if the <i>Adjustment Type</i> IE is equal to "Common".
Individual	The IE shall be present if the <i>Adjustment Type</i> IE is equal to "Individual".
CommonOrIndividual	The IE shall be present if the <i>Adjustment Type</i> IE is equal to "Common" or "Individual".

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of Radio Links for a UE

9.1.52 DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used when the Report characteristics type is set to "On Demand".	YES	reject
Measurement ID	M		9.2.1.42		YES	reject
CHOICE <i>Dedicated Measurement Object Type</i>	M				YES	reject
>RL						
>>RL Information		1..<maxno ofRLs>			EACH	reject
>>>RL ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5	TDD only	–	
>>>PUSCH Information		0..<maxno ofPUSCHs >		TDD only	GLOBAL	reject
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>HS-SICH Information		0..<maxno ofHSSICH s>		TDD only	GLOBAL	reject
>>>>HS-SICH ID	M		9.2.3.5Gb	For 1.28Mcps TDD, if the <i>Extended HS-SICH ID</i> IE is included in the <i>HS-SICH Information</i> IE, the <i>HS-SICH ID</i> IE shall be ignored	–	
>>>>Extended HS-SICH ID	O		9.2.3.5K	Applicable to 1.28Mcps TDD only, the <i>Extended HS-SICH ID</i> IE shall be used if the HS-SICH identity has a value larger than 31. See note 1 below.	–	
>>>DPCH ID 7.68Mcps	O		9.2.3.42	Included for 7.68Mcps TDD for downlink DPCH	YES	reject
>RLS				FDD only		

>>RL Set Information		1..<maxno ofRLSets>			–	
>>>RL Set ID	M		9.2.2.39		–	
>ALL RL			NULL			
>ALL RLS			NULL	FDD only		
Dedicated Measurement Type	M		9.2.1.23		YES	reject
Measurement Filter Coefficient	O		9.2.1.41		YES	reject
Report Characteristics	M		9.2.1.51		YES	reject
CFN Reporting Indicator	M		FN Reporting Indicator 9.2.1.29B		YES	reject
CFN	O		9.2.1.7		YES	reject
Number Of Reported Cell Portions	C-BestCellPortionsMeasurement		9.2.2.23D	FDD only	YES	reject
Measurement Recovery Behavior	O		9.2.1.43A		YES	ignore
Alternative Format Reporting Indicator	O		9.2.1.1B		YES	ignore

Note 1: This information element is a simplified representation of the ASN.1.

Condition	Explanation
BestCellPortionsMeas	The IE shall be present if the <i>Dedicated Measurement Type</i> IE is set to "Best Cell Portions".

Range Bound	Explanation
maxnoofRLs	Maximum number of individual RLs a measurement can be started on
maxnoofPUSCHs	Maximum number of PUSCHs per RL a measurement can be started on
maxnoofRLSets	Maximum number of individual RL Sets a measurement can be started on
maxnoofHSSICHs	Maximum number of HSSICHs per RL a measurement can be started on

9.1.53 DEDICATED MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>RL or ALL RL				See Note 1		
>>RL Information		1..<maxno ofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5	TDD only	–	
>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>CFN	O		9.2.1.7	Dedicated Measurement Time Reference	–	
>>>PUSCH Information		0..<maxno ofPUSCHs >		TDD only See note 3	GLOBAL	reject
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>Dedicated Measurement Value	O		9.2.1.24		–	
>>>HS-SICH ID	O		9.2.3.5Gb	TDD only For 1.28Mcps TDD, if the <i>Extended HS-SICH ID</i> IE is included in the <i>HS-SICH Information</i> IE, the <i>HS-SICH ID</i> IE shall be ignored	YES	reject
>>>Multiple Dedicated Measurement Value Information		0..<maxno ofDPCHsPerRL-1>		Applicable to 3.84Mcps TDD only	GLOBAL	ignore
>>>>DPCH ID	M		9.2.3.5		–	
>>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>Multiple Dedicated Measurement Value Information LCR		0..<maxno ofDPCHsLCRPerRL-1>		Applicable to 1.28McpsTDD only	GLOBAL	ignore
>>>>DPCH ID	M		9.2.3.5		–	
>>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>Multiple HS-SICH		0..<maxno		TDD only	GLOBAL	ignore

Measurement Value Information		<i>ofHSSICHs -1></i>				
>>>>HS-SICH ID	M		9.2.3.5Gb	For 1.28Mcps TDD, if the <i>Extended HS-SICH ID IE</i> is included in the <i>HS-SICH Information IE</i> , the <i>HS-SICH ID IE</i> shall be ignored	–	
>>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>>Extended HS-SICH ID	O		9.2.3.5K	Applicable to 1.28Mcps TDD only, the <i>Extended HS-SICH ID IE</i> shall be used if the HS-SICH identity has a value larger than 31.	YES	ignore
>>>DPCH ID 7.68Mcps	O		9.2.3.42	Included for 7.68Mcps TDD for downlink DPCH	YES	reject
>>>Multiple Dedicated Measurement Value Information 768Mcps		<i>0..<maxno ofDPCHs768PerRL-1></i>		Applicable to 7.68McpsTDD only	GLOBAL	ignore
>>>>DPCH ID 7.68Mcps	M		9.2.3.42		–	
>>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>Extended HS-SICH ID	O		9.2.3.5K	Applicable to 1.28Mcps TDD only, the <i>Extended HS-SICH ID IE</i> shall be used if the HS-SICH identity has a value larger than 31.	YES	reject
>RLS or ALL RLS				FDD only See Note 2		
>>RL Set Information		<i>1..<maxno ofRLSets></i>			EACH	ignore
>>>RL Set ID	M		9.2.2.39		–	
>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>CFN	O		9.2.1.7	Dedicated Measurement Time Reference	–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Measurement Recovery	O		9.2.1.43C		YES	ignore

Support Indicator						
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Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of individual RLs the measurement can be started on
<i>maxnoofPUSCHs</i>	Maximum number of PUSCHs per RL a measurement can be started on
<i>maxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on
<i>maxnoofDPCHsPerRL</i>	Maximum number of DPCHs per RL a measurement can be started on for 3.84Mcps TDD
<i>maxnoofDPCHsLCRPerRL</i>	Maximum number of DPCHs per RL a measurement can be started on for 1.28Mcps TDD
<i>maxnoofHSSICHs</i>	Maximum number of HSSICHs per RL a measurement can be started on
<i>maxnoofDPCHs768PerRL</i>	Maximum number of DPCHs per RL a measurement can be started on for 7.68Mcps TDD

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

Note 3: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through *maxnoofPUSCHs* are represented by separate ASN.1 structures with different criticality.

9.1.54 DEDICATED MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.55 DEDICATED MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>	M			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>RL or ALL RL				See Note 1		
>>RL Information		1..<maxno ofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5	TDD only	–	
>>>Dedicated Measurement Value Information	M		9.2.1.24A		–	
>>>PUSCH Information		0..<maxno ofPUSCHs >		TDD only See note 3	GLOBAL	reject
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>Dedicated Measurement Value	O		9.2.1.24		–	
>>>HS-SICH ID	O		9.2.3.5Gb	TDD only For 1.28Mcps TDD, if the <i>Extended HS-SICH ID</i> IE is included in the <i>HS-SICH Information</i> IE, the <i>HS-SICH ID</i> IE shall be ignored	YES	reject
>>>DPCH ID 7.68Mcps	O		9.2.3.42	Included for 7.68Mcps TDD for downlink DPCH	YES	reject
>>>Extended HS-SICH ID	O		9.2.3.5K	Applicable to 1.28Mcps TDD only, the <i>Extended HS-SICH ID</i> IE shall be used if the HS-SICH identity has a value larger than 31.	YES	ignore
>RLS or ALL RLS				FDD only		

				See Note 2		
>>RL Set Information		<i>1..<maxno ofRLSets></i>			EACH	ignore
>>>RL Set ID	M		9.2.2.39		–	
>>>Dedicated Measurement Value Information	M		9.2.1.24A		–	
<i>Measurement Recovery Reporting Indicator</i>	O		9.2.1.43B		YES	ignore

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of individual RLs the measurement can be started on
<i>maxnoofPUSCHs</i>	Maximum number of PUSCHs per RL a measurement can be started on
<i>maxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

Note 3: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through *maxnoofPUSCHs* are represented by separate ASN.1 structures with different criticality.

9.1.56 DEDICATED MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall be used if this value was used when initiating the measurement. Otherwise, the reserved value "All NBCC" shall not be used.	YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore

9.1.57 DEDICATED MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall be used if the Node B Communication Context ID was set to "All NBCC" when initiating the measurement. Otherwise, the reserved value "All CRNCCC" shall not be used.	YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore

9.1.58 RADIO LINK FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE <i>Reporting Object</i>	M			Object for which the Failure shall be reported.	YES	ignore
>RL						
>>RL Information		1..<maxno ofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
>RL Set				FDD only		
>>RL Set Information		1..<maxno ofRL Sets>			EACH	ignore
>>>RL Set ID	M		9.2.2.39		–	
>>>Cause	M		9.2.1.6		–	
>CCTrCH				TDD only		
>>RL ID	M		9.2.1.53		–	
>>CCTrCH List		1..<maxno ofCCTrCH s>			EACH	ignore
>>>CCTrCH ID	M		9.2.3.3		–	
>>>Cause	M		9.2.1.6		–	

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for one UE
<i>maxnoofRLSets</i>	Maximum number of RL Sets for one UE
<i>maxnoofCCTrCHs</i>	Maximum number of CCTrCHs for a UE

9.1.59 RADIO LINK RESTORE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
CHOICE <i>Reporting Object</i>	M			Object for which the Restoration shall be reported.	YES	ignore
>RL				TDD only		
>>Radio Link Information		1..<maxno ofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>RL Set				FDD only		
>>RL Set Information		1..<maxno ofRLSets>			EACH	ignore
>>>RL Set ID	M		9.2.2.39		–	
>CCTrCH				TDD only		
>>RL ID	M		9.2.1.53		–	
>>CCTrCH List		1..<maxno ofCCTrCHs>			EACH	ignore
>>>CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for one UE
<i>maxnoofRLSets</i>	Maximum number of RL Sets for one UE
<i>maxnoofCCTrCHs</i>	Maximum number of CCTrCHs for a UE

9.1.60 COMPRESSED MODE COMMAND [FDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	ignore
Active Pattern Sequence Information	M		9.2.2.A		YES	ignore

9.1.61 ERROR INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	O		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Node B Communication Context ID	O		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	ignore
Cause	O		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.62 PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST

9.1.62.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
SFN	O		9.2.1.53A		YES	reject
HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH Total Power	O		Maximum Transmission Power 9.2.1.40	Maximum transmission power to be allowed for HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH codes	YES	reject
HS-PDSCH And HS-SCCH Scrambling Code	O		DL Scrambling Code 9.2.2.13	Scrambling code on which HS-PDSCH and HS-SCCH is transmitted. 0= Primary scrambling code of the cell 1...15 = Secondary scrambling code	YES	reject
HS-PDSCH FDD Code Information	O		9.2.2.18F		YES	reject
HS-SCCH FDD Code Information	O		9.2.2.18G		YES	reject

E-AGCH And E-RGCH/E-HICH FDD Scrambling Code	O		DL Scrambling Code 9.2.2.13	Scrambling code on which E-AGCH, E-RGCH and E-HICH are transmitted. 0= Primary scrambling code of the cell 1...15 = Secondary scrambling code	YES	reject
E-AGCH Code FDD Information	O		9.2.2.13b		YES	reject
E-RGCH/E-HICH Code FDD Information	O		9.2.2.13a		YES	reject
HSDPA And E-DCH Cell Portion Information		<i>0..<maxNo ofCellPortions></i>			GLOBAL	reject
>Cell Portion ID	M		9.2.2.1Ca		–	
>HS-PDSCH And HS-SCCH Scrambling Code	O		DL Scrambling Code 9.2.2.13	Scrambling code on which HS-PDSCH and HS-SCCH is transmitted over cell portion.	–	
>HS-PDSCH FDD Code Information	O		9.2.2.18F		–	
>HS-SCCH FDD Code Information	O		9.2.2.18G		–	
>HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH and E-HICH Total Power	O		Maximum Transmission Power 9.2.1.40	Maximum transmission power to be allowed for HS-PDSCH, HS-SCCH and E-AGCH, E-RGCH and E-HICH codes over cell portion	–	
>E-AGCH And E-RGCH/E-HICH FDD Scrambling Code	O		DL Scrambling Code 9.2.2.13	Scrambling code on which E-AGCH, E-RGCH and E-HICH are transmitted over cell portion.	–	
>E-AGCH Code FDD Information	O		9.2.2.13b		–	
>E-RGCH/E-HICH Code FDD Information	O		9.2.2.13a		–	
Maximum Target Received Total Wide Band Power	O		9.2.2.21a		YES	reject
Reference Received Total Wide Band Power	O		9.2.2.39B		YES	ignore
Target Non-serving E-DCH to Total E-DCH Power ratio	O		9.2.2.21b		YES	reject
HS-DSCH Common System Information	O		9.2.2.75		YES	reject

Common MAC Flows to Delete	O		9.2.2.97		YES	reject
HS-DSCH Paging System Information	O		9.2.2.76		YES	reject
Paging MAC Flows to Delete	O		9.2.2.98		YES	reject

Range Bound	Explanation
<i>MaxNoofCellPortions</i>	Maximum number of Cell Portions in a cell

9.1.62.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
SFN	O		9.2.1.53A		YES	reject
PDSCH Sets To Add		<i>0..<maxno ofPDSCH Sets></i>			GLOBAL	reject
>PDSCH Set ID	M		9.2.3.11		–	
>PDSCH To Add Information		<i>0..1</i>		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>DL Timeslot Information		<i>1..<maxno ofDLts></i>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>DL Code Information		<i>1..<maxno ofPDSCHs ></i>			–	
>>>>PDSCH ID	M		9.2.3.10		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>PDSCH To Add Information LCR		<i>0..1</i>		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>DL Timeslot Information LCR		<i>1..<maxno ofDLtsLCR ></i>			–	
>>>Time Slot LCR	M		9.2.3.24A		–	

>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>DL Code Information LCR		1..<maxno ofPDSCHs >			–	
>>>>PDSCH ID	M		9.2.3.10		–	
>>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>>TDD DL DPCH Time Slot Format LCR	O		9.2.3.19D		YES	reject
>>TSTD Indicator	O		9.2.1.64		YES	reject
>PDSCH To Add Information 7.68Mcps		0..1		Mandatory for 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD or 3.84Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>DL Timeslot Information 7.68Mcps		1..<maxno ofDLts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>DL Code Information 7.68Mcps		1..<maxno ofPDSCHs >			–	
>>>>PDSCH ID 7.68Mcps	M		9.2.3.43		–	
>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
PDSCH Sets To Modify		0..<maxno of PDSCHSets>			GLOBAL	reject
>PDSCH Set ID	M		9.2.3.11		–	
>CHOICE HCR or LCR or 7.68 Mcps	M			See note 1 below	–	
>>3.84Mcps TDD					–	
>>>PDSCH To Modify Information		1			YES	reject
>>>>Repetition Period	O		9.2.3.16		–	
>>>>Repetition Length	O		9.2.3.15		–	
>>>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>>>DL Timeslot Information		0..<maxno ofDLts>			–	
>>>>>Time Slot	M		9.2.3.23		–	

>>>>Midamble Shift And Burst Type	O		9.2.3.7		-	
>>>>TFCI Presence	O		9.2.1.57		-	
>>>>DL Code Information		0..<maxno ofPDSCHs >			-	
>>>>>PDSCH ID	M		9.2.3.10		-	
>>>>>TDD Channelisation Code	M		9.2.3.19		-	
>>1.28Mcps TDD					-	
>>>PDSCH To Modify Information LCR		1			YES	reject
>>>>Repetition Period	O		9.2.3.16		-	
>>>>Repetition Length	O		9.2.3.15		-	
>>>>TDD Physical Channel Offset	O		9.2.3.20		-	
>>>>DL Timeslot Information LCR		0..<maxno ofDLtsLCR >			-	
>>>>>Time Slot LCR	M		9.2.3.24A		-	
>>>>>Midamble Shift LCR	O		9.2.3.7A		-	
>>>>>TFCI Presence	O		9.2.1.57		-	
>>>>>DL Code Information LCR		0..<maxno ofPDSCHs >			-	
>>>>>>PDSCH ID	M		9.2.3.10		-	
>>>>>>TDD Channelisation Code LCR	M		9.2.3.19a		-	
>>>>>>TDD DL DPCH Time Slot Format LCR	O		9.2.3.19D		YES	reject
>>7.68Mcps TDD					-	
>>>PDSCH To Modify Information 7.68Mcps		1			YES	reject
>>>>Repetition Period	O		9.2.3.16		-	
>>>>Repetition Length	O		9.2.3.15		-	
>>>>TDD Physical Channel Offset	O		9.2.3.20		-	
>>>>>DL Timeslot Information 7.68Mcps		0..<maxno ofDLts>			-	
>>>>>>Time Slot	M		9.2.3.23		-	
>>>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35		-	

>>>>TFCI Presence	O		9.2.1.57		–	
>>>>DL Code Information 7.68Mcps		0..<maxno ofPDSCHs >			–	
>>>>>PDSCH ID 7.68Mcps	M		9.2.3.43		–	
>>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
PDSCH Sets To Delete		0..<maxno of PDSCHSets>			GLOBAL	reject
>PDSCH Set ID	M		9.2.3.11		–	
PUSCH Sets To Add		0..<maxno of PUSCHSets>			GLOBAL	reject
>PUSCH Set ID	M		9.2.3.13		–	
>PUSCH To Add Information		0..1		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>UL Timeslot Information		1..<maxno ofULts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>UL Code Information		1..<maxno ofPUSCHs >			–	
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>PUSCH To Add Information LCR		0..1		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>UL Timeslot Information LCR		1..<maxno ofULtsLCR >			–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>>UL Code Information LCR		1..<maxno ofPUSCHs >			–	

>>>>PUSCH ID	M		9.2.3.12		–	
>>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>>TDD UL DPCH Time Slot Format LCR	O		9.2.3.21C		YES	reject
>PUSCH To Add Information 7.68Mcps		0..1		Mandatory for 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD or 3.84 Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>UL Timeslot Information 7.68Mcps		1..<maxno ofULts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>UL Code Information 7.68Mcps		1..<maxno ofPUSCHs >			–	
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
PUSCH Sets To Modify		0..<maxno of PUSCHsets>			GLOBAL	reject
>PUSCH Set ID	M		9.2.3.13		–	
>CHOICE HCR or LCR or 7.68Mcps	M			See note 1 below	–	
>>3.84Mcps TDD					–	
>>>PUSCH To Modify Information		1			YES	reject
>>>>Repetition Period	O		9.2.3.16		–	
>>>>Repetition Length	O		9.2.3.15		–	
>>>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>>>UL Timeslot Information		0..<maxno ofULts>			–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>UL Code Information		0..<maxno ofPUSCHs >			–	
>>>>>>PUSCH ID	M		9.2.3.12		–	

>>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>1.28Mcps TDD					–	
>>>PUSCH To Modify Information LCR		1			YES	reject
>>>>Repetition Period	O		9.2.3.16		–	
>>>>Repetition Length	O		9.2.3.15		–	
>>>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>>>UL Timeslot Information LCR		0..<maxno ofULtsLCR>			–	
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>Midamble Shift LCR	O		9.2.3.7A		–	
>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>UL Code Information LCR		0..<maxno ofPUSCHs>			–	
>>>>>PUSCH ID	M		9.2.3.12		–	
>>>>>TDD Channelisation Code LCR	M		9.2.3.19a		–	
>>>>>TDD UL DPCH Time Slot Format LCR	O		9.2.3.21C		YES	reject
>>7.68Mcps TDD					–	
>>>PUSCH To Modify Information 7.68Mcps		1			YES	reject
>>>>Repetition Period	O		9.2.3.16		–	
>>>>Repetition Length	O		9.2.3.15		–	
>>>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>>>UL Timeslot Information 7.68Mcps		0..<maxno ofULts>			–	
>>>>>Time Slot	M		9.2.3.23		–	
>>>>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35		–	
>>>>>TFCI Presence	O		9.2.1.57		–	
>>>>>UL Code Information 7.68Mcps		0..<maxno ofPUSCHs>			–	
>>>>>>PUSCH ID	M		9.2.3.12		–	
>>>>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	

PUSCH Sets To Delete		<i>0..<maxno ofPUSCH Sets></i>			GLOBAL	reject
>PUSCH Set ID	M		9.2.3.13		–	
HS-PDSCH TDD Information		<i>0..1</i>			GLOBAL	reject
>DL Timeslot and Code Information		<i>0..<maxno ofDLts></i>		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD.	–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>Codes		<i>1..<maxno ofHSPDS CHs></i>			–	
>>>TDD Channelisation Code	M		9.2.3.19		–	
>>HS-PDSCH and HS-SCCH Total Power	O		Maximum Transmission Power 9.2.1.40	Maximum transmission power to be allowed for HS-PDSCH and HS-SCCH codes in the timeslot	YES	reject
>DL Timeslot and Code Information LCR per UARFCN		<i>0..<maxFrequencyinCell></i>		Mandatory for 1.28Mcps TDD Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. See note 2 below	EACH	reject
>>DL Timeslot and Code Information LCR		<i>0..<maxno ofDLtsLCR></i>			–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>Codes LCR		<i>1..<maxno ofHSPDS CHs></i>			–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>>HS-PDSCH and HS-SCCH Total Power	O		Maximum Transmission Power 9.2.1.40	Maximum transmission power to be allowed for HS-PDSCH and HS-SCCH codes in the timeslot	YES	reject
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	–	

>DL Timeslot and Code Information 7.68Mcps		<i>0..<maxno ofDLts></i>		Mandatory for 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD or 3.84 Mcps TDD.	GLOBAL	reject
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>>Codes 7.68Mcps		<i>1..<maxno ofHSPDS CHs768></i>			–	
>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>HS-PDSCH and HS-SCCH Total Power	O		Maximum Transmission Power 9.2.1.40	Maximum transmission power to be allowed for HS-PDSCH and HS-SCCH codes in the timeslot	–	–
Add to HS-SCCH Resource Pool		<i>0..1</i>			GLOBAL	reject
>HS-SCCH Information		<i>0..<maxno ofHSSCC Hs></i>		Applicable to 3.84Mcps TDD only	–	
>>HS-SCCH ID	M		9.2.3.5Ga		–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
>>Maximum HS-SCCH Power	M		DL Power 9.2.1.21		–	
>>>HS-SICH Information		<i>1</i>			–	
>>>HS-SICH ID	M		9.2.3.5Gb		–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>>TDD Channelisation Code	M		9.2.3.19		–	
>HS-SCCH Information LCR		<i>0..<maxno ofHSSCC Hs></i>		Applicable to 1.28Mcps TDD only See note 3 below	–	
>>HS-SCCH ID	M		9.2.3.5Ga	If the <i>Extended HS-SCCH ID</i> IE is included in the <i>HS-SCCH Information LCR</i> IE, the <i>HS-SCCH ID</i> IE shall be ignored.	–	
>>Time Slot LCR	M		9.2.3.24A		–	
>>Midamble Shift LCR	M		9.2.3.7A		–	
>>First TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	

>>Second TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	
>>Maximum HS-SCCH Power	M		DL Power 9.2.1.21		–	
>>>HS-SICH Information LCR		1			–	
>>>HS-SICH ID	M		9.2.3.5Gb	If the <i>Extended HS-SICH ID IE</i> is included in the <i>HS-SICH Information LCR IE</i> , the <i>HS-SICH ID IE</i> shall be ignored.	–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>Extended HS-SICH ID	O		9.2.3.5K	The <i>Extended HS-SICH ID IE</i> shall be used if the HS-SICH identity has a value larger than 31.	YES	ignore
>>Extended HS-SCCH ID	O		9.2.3.5J	The <i>Extended HS-SCCH ID IE</i> shall be used if the HS-SCCH identity has a value larger than 31.	YES	ignore
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES–	ignore
>HS-SCCH Information 7.68Mcps		0..<maxno ofHSSCC Hs>		Applicable to 7.68Mcps TDD only	GLOBAL	reject
>>HS-SCCH ID	M		9.2.3.5Ga		–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>Maximum HS-SCCH Power	M		DL Power 9.2.1.21		–	
>>>HS-SICH Information 7.68Mcps		1			–	
>>>HS-SICH ID	M		9.2.3.5Gb		–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	

>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
Modify HS-SCCH Resource Pool		0..1			GLOBAL	reject
>HS-SCCH Information		0..<maxno ofHSSCC Hs>		Applicable to 3.84Mcps TDD only	–	
>>HS-SCCH ID	M		9.2.3.5Ga		–	
>>Time Slot	O		9.2.3.23		–	
>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>TDD Channelisation Code	O		9.2.3.19		–	
>>Maximum HS-SCCH Power	O		DL Power 9.2.1.21		–	
>>HS-SICH Information		0..1			–	
>>>HS-SICH ID	M		9.2.3.5Gb		–	
>>>Time Slot	O		9.2.3.23		–	
>>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>>TDD Channelisation Code	O		9.2.3.19		–	
>HS-SCCH Information LCR		0..<maxno ofHSSCC Hs>		Applicable to 1.28Mcps TDD only See note 3 below	–	
>>HS-SCCH ID	M		9.2.3.5Ga	If the <i>Extended HS-SCCH ID IE</i> is included in the <i>HS-SCCH Information LCR IE</i> , the <i>HS-SCCH ID IE</i> shall be ignored.	–	
>>Time Slot LCR	O		9.2.3.24A		–	
>>Midamble Shift LCR	O		9.2.3.7A		–	
>>First TDD Channelisation Code	O		TDD Channelisation Code 9.2.3.19		–	
>>Second TDD Channelisation Code	O		TDD Channelisation Code 9.2.3.19		–	
>>Maximum HS-SCCH Power	O		DL Power 9.2.1.21		–	
>>HS-SICH Information LCR		0..1			–	
>>>HS-SICH ID	M		9.2.3.5Gb	If the <i>Extended HS-SICH ID IE</i> is included in the <i>HS-SICH Information LCR IE</i> , the <i>HS-SICH ID IE</i> shall be ignored.	–	
>>>Time Slot LCR	O		9.2.3.24A		–	
>>Midamble Shift LCR	O		9.2.3.7A		–	

>>>TDD Channelisation Code	O		9.2.3.19		–	
>>>Extended HS-SICH ID	O		9.2.3.5K	The <i>Extended HS-SICH ID</i> IE shall be used if the HS-SICH identity has a value larger than 31.	YES	ignore
>>Extended HS-SCCH ID	O		9.2.3.5J	The <i>Extended HS-SCCH ID</i> IE shall be used if the HS-SCCH identity has a value larger than 31.	YES	ignore
>>JARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable to 1.28Mcps TDD when using multiple frequencies.	YES	ignore
>HS-SCCH Information 7.68Mcps		<i>0..<maxno ofHSSCC Hs></i>		Applicable to 7.68Mcps TDD only	GLOBAL	reject
>>HS-SCCH ID	M		9.2.3.5Ga		–	
>>Time Slot	O		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>Maximum HS-SCCH Power	O		DL Power 9.2.1.21		–	
>>HS-SICH Information 7.68Mcps		<i>0..1</i>			–	
>>>HS-SICH ID	M		9.2.3.5Gb		–	
>>>Time Slot	O		9.2.3.23		–	
>>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
Delete from HS-SCCH Resource Pool		<i>0..<maxno of HSSCCHs ></i>		For 1.28Mcps TDD ,see note 3 below	GLOBAL	reject
>HS-SCCH ID	M		9.2.3.5Ga	For 1.28Mcps TDD, if the <i>Extended HS-SCCH ID</i> IE is included in the <i>Delete from HS-SCCH Resource Pool</i> IE, the <i>HS-SCCH ID</i> IE shall be ignored	–	

>Extended HS-SCCH ID	O		9.2.3.5J	Applicable to 1.28Mcps TDD only, the <i>Extended HS-SCCH ID</i> IE shall be used if the HS-SCCH identity has a value larger than 31.	YES	ignore
Configuration Generation ID	O		9.2.1.16		YES	reject
E-PUCH Information		0..1		3.84Mcps TDD only	GLOBAL	reject
>LTGI Presence	M		9.2.3.58		–	
>SNPL Reporting Type	M		9.2.3.62		–	
>Midamble Shift And Burst Type	M		9.2.3.7		–	
>E-PUCH Timeslot Information		1..<maxno of EPUCHs lots>			–	
>>Time Slot	M		9.2.3.23			
Add to E-AGCH Resource Pool		0..1		3.84Mcps TDD only	GLOBAL	reject
>E-AGCH Information		0..<maxno of EAG CHs>			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
>>Maximum E-AGCH Power	M		DL Power 9.2.1.21		–	
Modify E-AGCH Resource Pool		0..1		3.84Mcps TDD only	GLOBAL	reject
>E-AGCH Information		0..<maxno of EAG CHs>			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot	O		9.2.3.23		–	
>>Midamble Shift And Burst Type	O		9.2.3.7		–	
>>TDD Channelisation Code	O		9.2.3.19		–	
>>Maximum E-AGCH Power	O		DL Power 9.2.1.21		–	
Delete from E-AGCH Resource Pool		0..<maxno of EAG CHs>			GLOBAL	reject
>E-AGCH ID TDD	M		9.2.3.51		–	
E-HICH Information		0..1		3.84Mcps TDD only	GLOBAL	reject
>Midamble Shift And Burst Type	M		9.2.3.7		–	
>TDD Channelisation Code	M		9.2.3.19		–	
>Maximum E-HICH Power	M		DL Power 9.2.1.21		–	
Maximum Generated Received Total Wide Band Power in Other Cells	O		9.2.3.63	Applicable to 3.84Mcps and 7.68 Mcps TDD only	YES	reject
E-PUCH Information 7.68Mcps		0..1		7.68Mcps TDD only	GLOBAL	reject

>LTGI Presence	M		9.2.3.58		–	
>SNPL Reporting Type	M		9.2.3.62		–	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>E-PUCH Timeslot Information		<i>1..<maxno ofEPUCHs lots></i>			–	
>>Time Slot	M		9.2.3.23		–	
Add to E-AGCH Resource Pool 7.68Mcps		<i>0..1</i>		7.68Mcps TDD only	GLOBAL	reject
>E-AGCH Information		<i>0..<maxno ofEAG CHs></i>			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>>Maximum E-AGCH Power	M		DL Power 9.2.1.21		–	
Modify E-AGCH Resource Pool 7.68Mcps		<i>0..1</i>		7.68Mcps TDD only	GLOBAL	reject
>E-AGCH Information		<i>0..<maxno ofEAG CHs></i>			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot	O		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35		–	
>>TDD Channelisation Code 7.68Mcps	O		9.2.3.34		–	
>>Maximum E-AGCH Power	O		DL Power 9.2.1.21		–	
E-HICH Information 7.68Mcps		<i>0..1</i>		7.68Mcps TDD only	GLOBAL	reject

>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.34		–	
>Maximum E-HICH Power	M		DL Power 9.2.1.21		–	
E-PUCH Information 1.28Mcps		0..1		1.28Mcps TDD only	GLOBAL	reject
>LTGI Presence	M		9.2.3.58		–	
>SNPL Reporting Type	M		9.2.3.62		–	
>E-PUCH Timeslot information 1.28Mcps per UARFCN		0..<maxFrequencyin Cell>		See note 2 below		
>>E-PUCH Timeslot Information 1.28Mcps		0..<maxno ofEPUCHs lotsLCR>			–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>Codes LCR		1..<maxno ofEPUCHcodes>			–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES	ignore
Add to E-AGCH Resource Pool 1.28Mcps		0..1		1.28Mcps TDD only	GLOBAL	reject
>E-AGCH Information 1.28Mcps		1..<maxno ofEAG CHs>			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot LCR	M		9.2.3.24A		–	
>>Midamble Shift LCR	M		9.2.3.7A		–	
>>First TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	
>>Second TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	
>>Maximum E-AGCH Power	M		DL Power 9.2.1.21		–	
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES	ignore
Modify E-AGCH Resource Pool 1.28Mcps		0..1		1.28Mcps TDD only	GLOBAL	reject
>E-AGCH Information 1.28Mcps		1..<maxno ofEAG CHs>			–	
>>E-AGCH ID TDD	M		9.2.3.51		–	
>>Time Slot LCR	O		9.2.3.24A		–	
>>Midamble Shift LCR	O		9.2.3.7A		–	

>>First TDD Channelisation Code	O		TDD Channelisation Code 9.2.3.19		–	
>>Second TDD Channelisation Code	O		TDD Channelisation Code 9.2.3.19		–	
>>Maximum E-AGCH Power	O		DL Power 9.2.1.21		–	
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES	ignore
Add to E-HICH Resource Pool 1.28Mcps		0..1		1.28Mcps TDD only	GLOBAL	reject
>E-HICH Information 1.28Mcps		1..<maxno ofEHICHs >			–	
>>E-HICH ID TDD	M		9.2.3.51a	If the <i>Extended E-HICH ID TDD</i> IE is included in the <i>E-HICH Information 1.28Mcps</i> IE, the <i>E-HICH ID TDD</i> IE shall be ignored.	–	
>>E-HICH Type	M		9.2.3.68		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
>>Time Slot LCR	M		9.2.3.24A		–	
>>Midamble Shift LCR	M		9.2.3.7A		–	
>>Maximum E-HICH Power	M		DL Power 9.2.1.21		–	
>>Extended E-HICH ID TDD	O		9.2.3.51b	Applicable to 1.28Mcps TDD only, the <i>Extended E-HICH ID TDD</i> IE shall be used if the E-HICH identity has a value larger than 31.	YES	ignore
>>UARFCN	O		9.2.1.65	Corresponds to Nt[15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES	ignore
Modify E-HICH Resource Pool 1.28Mcps		0..1		1.28Mcps TDD only	GLOBAL	reject
>E-HICH Information 1.28Mcps		1..<maxno ofEHICHs >			–	

>>E-HICH ID TDD	M		9.2.3.51a	If the <i>Extended E-HICH ID TDD</i> IE is included in the <i>E-HICH Information 1.28Mcps</i> IE, the <i>E-HICH ID TDD</i> IE shall be ignored.	–	
>>E-HICH Type	O		9.2.3.68		–	
>>TDD Channelisation Code	O		9.2.3.19		–	
>>Time Slot LCR	O		9.2.3.24A		–	
>>Midamble Shift LCR	O		9.2.3.7A		–	
>>Maximum E-HICH Power	O		DL Power 9.2.1.21		–	
>>Extended E-HICH ID TDD	O		9.2.3.51b	Applicable to 1.28Mcps TDD only, the <i>Extended E-HICH ID TDD</i> IE shall be used if the E-HICH identity has a value larger than 31.	YES	ignore
>>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Mandatory for 1.28Mcps TDD when using multiple frequencies.	YES	ignore
Delete from E-HICH Resource Pool 1.28Mcps		<i>0..<maxno ofEHICHs ></i>		1.28Mcps TDD only	GLOBAL	reject
>E-HICH ID TDD	M		9.2.3.51a	If the <i>Extended E-HICH ID TDD</i> IE is included in the <i>Delete from E-HICH Resource Pool 1.28Mcps</i> IE, the <i>E-HICH ID TDD</i> IE shall be ignored.	–	
>Extended E-HICH ID TDD	O		9.2.3.51b	Applicable to 1.28Mcps TDD only, the <i>Extended E-HICH ID TDD</i> IE shall be used if the E-HICH identity has a value larger than 31.	YES	ignore

SYNC_UL Partition Information		<i>0..1</i>		Applicable to 1.28Mcps TDD to indicate the SYNC_UL partition information for the Primary Frequency. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.	GLOBAL	reject
>E-RUCCH SYNC_UL codes bitmap	M		BITSTRING (8)	Each bit indicates availability of a SYNC_UL code, where the SYNC_UL codes are numbered "code 0" to "code 7". The value 1 of a bit indicates that the corresponding SYNC_UL code can be used. The value 0 of a bit indicates that the corresponding SYNC_UL code can not be used.	–	
Maximum Target Received Total Wide Band Power LCR	O		9.2.3.69	1.28Mcps TDD only	YES	reject

Note 1: This information element is a simplified representation of the ASN.1. The choice is in reality performed through the use of ProtocolIE-Single-Container within the ASN.1.

Note 2: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through *maxFrequencyinCell* are represented by separate ASN.1 structures with different criticalities.

Note 3: This information element is a simplified representation of the ASN.1. Repetitions 1 to 32 and repetitions 33 to *maxnoofHSSCHs* are represented by separate ASN.1 structures.

Range Bound	Explanation
<i>maxnoofPDSCHSets</i>	Maximum number of PDSCH Sets in a cell.
<i>maxnoofPDSCHs</i>	Maximum number of PDSCH in a cell.
<i>maxnoofPUSCHSets</i>	Maximum number of PUSCH Sets in a cell.
<i>maxnoofPUSCHs</i>	Maximum number of PUSCH in a cell.
<i>maxnoofDLts</i>	Maximum number of Downlink time slots in a cell for 3.84Mcps TDD.
<i>maxnoofDLtsLCR</i>	Maximum number of Downlink time slots in a cell for 1.28Mcps TDD.
<i>maxnoofULts</i>	Maximum number of Uplink time slots in a cell for 3.84Mcps TDD.
<i>maxnoofULtsLCR</i>	Maximum number of Uplink time slots in a cell for 1.28Mcps TDD
<i>maxnoofHSSCCHs</i>	Maximum number of HS-SCCHs in a Cell
<i>maxnoofHSPDSCHs</i>	Maximum number of HS-PDSCHs in one time slot of a Cell for 1.28Mcps TDD and 3.84Mcps TDD
<i>maxnoofHSPDSCHs768</i>	Maximum number of HS-PDSCHs in one time slot of a Cell for 7.68Mcps TDD
<i>maxnoofEAGCHs</i>	Maximum number of E-AGCHs in a Cell
<i>maxnoofEPUCHslots</i>	Maximum number of E-PUCH time slots in a Cell for 3.84Mcps TDD and 7.68Mcps TDD
<i>maxnoofEHICHs</i>	Maximum number of E-HICHs in a Cell
<i>maxnoofEPUCHslotsLCR</i>	Maximum number of E-PUCH time slots in a Carrier for 1.28Mcps TDD
<i>maxnoofEPUCHcodes</i>	Maximum number of E-PUCH codes in one time slot for 1.28Mcps TDD
<i>maxFrequencyinCell</i>	Maximum number of Frequencies that can be defined in a Cell

9.1.63 PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore
E-HICH Time Offset	O		9.2.3.59	Applicable to 3.84Mcps and 7.68 Mcps TDD only	YES	reject
E-HICH Time Offset LCR per UARFCN		0.. < maxFrequencyinCell >		1.28Mcps TDD only. See note 1 below	EACH	reject
>E-HICH Time Offset LCR	M		9.2.3.59a		–	
>UARFCN	O		9.2.1.65	Corresponds to Nt [15]. Mandatory for 1.28Mcps TDD when using multiple frequencies.	–	
HS-DSCH Common System Information Response	O		9.2.2.77		YES	ignore
HS-DSCH Paging System Information Response	O		9.2.2.78		YES	ignore

Note 1 This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxFrequencyinCell are represented by separate ASN.1 structures with different criticalities.

Range Bound	Explanation
<i>maxFrequencyinCell</i>	Maximum number of Frequencies that can be defined in a Cell

9.1.64 PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CHOICE Cause Level	M				YES	ignore
>General						
>>Cause	M		9.2.1.6		–	
>Set Specific				TDD Only		
>>Unsuccessful DL Shared Channel Set		0..<maxno ofPDSCH Sets>			EACH	ignore
>>>PDSCH Set ID	M		9.2.3.13		–	
>>>Cause	M		9.2.1.6		–	
>>Unsuccessful UL Shared Channel Set		0..<maxno ofPUSCH Sets>			EACH	ignore
>>>PUSCH Set ID	M		9.2.3.13		–	
>>>Cause	M		9.2.1.6		–	
>Extension Cause Level						
>>UARFCN Specific		1		Applicable to 1.28Mcps TDD only when using multiple frequencies	YES	ignore
>>>Unsuccessful UARFCN		0..<maxFrequencyinCell>			EACH	ignore
>>>>UARFCN	M		9.2.1.65	Corresponds to Nt [15] Used to indicate the carrier on which HSDPA or E-DCH related resources configuration failure occurs.	–	
>>>>Cause	M		9.2.1.6		–	
>>>>HS-Cause	O		9.2.1.6	Used to indicate the cause of HSDPA configuration Failure	YES	ignore
>>>>E-Cause	O		9.2.1.6	Used to indicate the cause of E-DCH related configuration failure.	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

Range Bound	Explanation
maxnoofPDSCHSets	Maximum number of PDSCH Sets in a cell
maxnoofPUSCHSets	Maximum number of PUSCH Sets in a cell
maxFrequencyinCell	Maximum number of Frequencies that can be defined in a Cell

9.1.65 RESET REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CHOICE <i>Reset Indicator</i>	M				YES	ignore
> <i>Communication Context</i>						
>> Communication Context Information		1..<maxCommunicationContext>			EACH	reject
>>>CHOICE <i>Communication Context Type</i>	M				–	
>>>>CRNC <i>Communication Context</i>						
>>>>>CRNC <i>Communication Context ID</i>	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	–	
>>>>Node B <i>Communication Context</i>						
>>>>>Node B <i>Communication Context ID</i>	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	–	
> <i>Communication Control Port</i>						
>> Communication Control Port Information		1..<maxCCPinNodeB>			EACH	reject
>>>Communication <i>Control Port ID</i>	M		9.2.1.15		–	
> <i>Node B</i>			NULL			

Range Bound	Explanation
<i>maxCommunicationContext</i>	Maximum number of Communication Contexts that can exist in the Node B
<i>maxCCPinNodeB</i>	Maximum number of Communication Control Ports that can exist in the Node B

9.1.66 RESET RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.67 DL POWER TIMESLOT CONTROL REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	ignore
DL Time Slot ISCP Info	O		9.2.3.4F	Mandatory for 3.84Mcps TDD and 7.68Mcps TDD. Not Applicable to 1.28Mcps TDD.	YES	ignore
DL Time Slot ISCP Info LCR	O		9.2.3.4P	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD and 7.68Mcps TDD.	YES	ignore
Primary CCPCH RSCP	O		9.2.3.11A		YES	ignore
Primary CCPCH RSCP Delta	O		9.2.3.11B		YES	ignore

9.1.68 RADIO LINK PREEMPTION REQUIRED INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
RL Information		<i>0..<maxno ofRLs></i>			EACH	ignore
>RL ID	M		9.2.1.53		–	

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of radio links for one UE

9.1.69 INFORMATION EXCHANGE INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	reject
CHOICE <i>Information Exchange Object Type</i>	M				YES	reject
>Cell						
>>C-ID	M		9.2.1.9		–	
Information Type	M		9.2.1.36D		YES	reject
Information Report Characteristics	M		9.2.1.36B		YES	reject

9.1.70 INFORMATION EXCHANGE INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	ignore
CHOICE <i>Information Exchange Object Type</i>	O				YES	ignore
>Cell						
>>Requested Data Value	M		9.2.1.51A		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.71 INFORMATION EXCHANGE INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.72 INFORMATION REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	ignore
CHOICE <i>Information Exchange Object Type</i>	M				YES	ignore
>Cell						
>>Requested Data Value Information	M		9.2.1.51B		–	

9.1.73 INFORMATION EXCHANGE TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	ignore

9.1.74 INFORMATION EXCHANGE FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Information Exchange ID	M		9.2.1.36C		YES	ignore
Cause	M		9.2.1.6		YES	ignore

9.1.75 CELL SYNCHRONISATION INITIATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Cell Sync Burst Repetition Period	M		9.2.3.4J		YES	reject
Time Slot Information		0..15		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
Cell Sync Burst Transmission Initiation Information		0..1		Applicable to 3.84Mcps TDD only	GLOBAL	reject
>CSB Transmission ID	M		9.2.3.4N		–	
>SFN	M		9.2.1.53A		–	
>Cell Sync Burst Code	M		9.2.3.4G		–	
>Cell Sync Burst Code Shift	M		9.2.3.4H		–	
>Initial DL Transmission Power	M		DL Power 9.2.1.21		–	
Cell Sync Burst Measurement Initiation Information		0..1		Applicable to 3.84Mcps TDD only	GLOBAL	reject
>CSB Measurement ID	M		9.2.3.4I		–	
>Cell Sync Burst Code	M		9.2.3.4G		–	
>Cell Sync Burst Code Shift	M		9.2.3.4H		–	
>Synchronisation Report Type	M		9.2.3.18E		–	
>SFN	O		9.2.1.53A		–	
>Synchronisation Report Characteristics	M		9.2.3.18D		–	
SYNC_DL Code Transmission Initiation Information LCR		0..1		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>CSB Transmission ID	M		9.2.3.4N		–	
>SFN	M		9.2.1.53A		–	
>UARFCN	M		9.2.1.65		–	
>SYNC_DL Code ID	M		9.2.3.18B		–	
>DwPCH Power	M		9.2.3.5B		–	
SYNC_DL Code Measurement Initiation Information LCR		0..1		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>CSB Measurement ID	M		9.2.3.4I		–	

>SFN	O		9.2.1.53A		–	
>UARFCN	M		9.2.1.65		–	
>SYNC_DL Code ID	M		9.2.3.18B		–	
>Synchronisation Report Type	M		9.2.3.18E		–	
>Synchronisation Report Characteristics	M		9.2.3.18D		–	

9.1.76 CELL SYNCHRONISATION INITIATION RESPONSE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.77 CELL SYNCHRONISATION INITIATION FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.78 CELL SYNCHRONISATION RECONFIGURATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Time Slot	M		9.2.3.23	Applicable to 3.84Mcps TDD only. For 1.28Mcps TDD, the CRNC should set this to 0 and the Node B shall ignore it	YES	reject
Number Of Cycles Per SFN Period	M		9.2.3.7B		YES	reject
Number Of Repetitions Per Cycle Period	M		9.2.3.7C		YES	reject
Cell Sync Burst Transmission Reconfiguration Information		<i>0..<maxno ofCellSync Bursts></i>		Applicable to 3.84Mcps TDD only	GLOBAL	reject
>CSB Transmission ID	M		9.2.3.4N		–	
>Sync Frame Number To Transmit	M		Sync Frame Number 9.2.3.18C		–	
>Cell Sync Burst Code	O		9.2.3.4G		–	
>Cell Sync Burst Code Shift	O		9.2.3.4H		–	
>DL Transmission Power	O		DL Power 9.2.1.21		–	
Cell Sync Burst Measurement Reconfiguration Information		<i>0..1</i>		Applicable to 3.84Mcps TDD only	YES	reject
>>Cell Sync Burst Measurement Information		<i>1..<maxno ofCellSync Bursts></i>			GLOBAL	reject
>>>Sync Frame Number To Receive	M		Sync Frame Number 9.2.3.18C		–	
>>>Cell Sync Burst Information		<i>1..<maxno ofreceptionssperSync Frame></i>			–	
>>>>CSB Measurement ID	M		9.2.3.4I		–	
>>>>Cell Sync Burst Code	M		9.2.3.4G		–	
>>>>Cell Sync Burst Code Shift	M		9.2.3.4H		–	
>Synchronisation Report Type	O		9.2.3.18E		YES	reject
>Synchronisation Report Characteristics	O		9.2.3.18D		YES	reject
Number Of Subcycles Per Cycle Period	O		9.2.3.7D	Applicable to 1.28Mcps TDD only	YES	reject

SYNC_DL Code Transmission Reconfiguration Information LCR		<i>0..<maxno ofSyncFramesLCR></i>		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>CSB Transmission ID	M		9.2.3.4N		--	
>Sync Frame Number For Transmission	M		Sync Frame Number 9.2.3.18C		--	
>UARFCN	M		9.2.1.65		--	
>SYNC_DL Code ID	O		9.2.3.18B		--	
>DwPCH Power	O		9.2.3.5B		--	
SYNC_DL Code Measurement Reconfiguration Information LCR		<i>0..1</i>		Applicable to 1.28Mcps TDD only	YES	reject
>SYNC_DL Code Measurement Information LCR		<i>1..<maxno ofSyncDL CodesLCR></i>			--	
>>Sync Frame Number To Receive	M		Sync Frame Number 9.2.3.18C		--	
>>Sync_DLCode Information LCR		<i>1..<maxno ofreceptionsperSyncFrameLCR></i>			--	
>>>CSB Measurement ID	M		9.2.3.4I		--	
>>>SYNC_DL Code ID	M		9.2.3.18B		--	
>>>UARFCN	M		9.2.1.65		--	
>>>Propagation Delay Compensation	O		Timing Adjustment Value LCR 9.2.3.22b		--	
>Synchronisation Report Type	O		9.2.3.18E		YES	reject
>Synchronisation Report Characteristics	O		9.2.3.18D		YES	reject

Range Bound	Explanation
<i>maxnoofCellSyncBursts</i>	Maximum number of cell synchronisation bursts per cycle for 3.84Mcps TDD
<i>maxnoofreceptionsperSyncFrame</i>	Maximum number of cell synchronisation burst receptions per Sync Frame for 3.84Mcps TDD
<i>maxnoofSyncFramesLCR</i>	Maximum number of Sync Frames per subcycle for 1.28Mcps TDD
<i>maxnoofreceptionsperSyncFrameLCR</i>	Maximum number of SYNC_DL Code ID receptions per Sync Frame for 1.28Mcps TDD
<i>maxnoofSyncDLCodesLCR</i>	Maximum number of SYNC_DL Codes for 1.28Mcps TDD

9.1.79 CELL SYNCHRONISATION RECONFIGURATION RESPONSE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.80 CELL SYNCHRONISATION RECONFIGURATION FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.81 CELL SYNCHRONISATION REPORT [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Cell Synchronisation Information		<i>1..<maxCellsInNodeB></i>			GLOBAL	ignore
>C-ID	M		9.2.1.9		YES	ignore
>CHOICE <i>Synchronisation Report Type</i>	O				YES	ignore
>> <i>Initial Phase or Steady-State Phase</i>						
>>> Cell Sync Burst Measured Information		<i>0..<maxNumberOfCellSyncBursts></i>		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	–	
>>>>SFN	M		9.2.1.53A		–	
>>>> Cell Sync Burst Information		<i>1..<maxNumberOfReceptionSyncFrame></i>			–	
>>>>>CHOICE <i>Cell Sync Burst Availability Indicator</i>	M				–	
>>>>>> <i>Cell Sync Burst Available</i>						
>>>>>>>Cell Sync Burst Timing	M		9.2.3.4L		–	
>>>>>>>Cell Sync Burst SIR	M		9.2.3.4K		–	
>>>>>>>> <i>Cell Sync Burst Not Available</i>			NULL			

>>>Accumulated Clock Update	O		Timing Adjustment Value 9.2.3.22a		YES	ignore
>>>SYNC_DL Codes Measured Information		0..<maxno ofSyncFramesLCR>		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	ignore
>>>>SFN	M		9.2.1.53A		–	
>>>>SYNC_DL Code Information		1..<maxno ofreceptionsperSyncFrameLCR>			–	
>>>>>CHOICE SYNC_DL Code Availability Indicator	M				–	
>>>>>SYNC_DL Code Available						
>>>>>>SYNC_DL Code ID Timing	M		Cell Sync Burst Timing LCR 9.2.3.4La		–	
>>>>>>SYNC_DL Code ID SIR	M		Cell Sync Burst SIR 9.2.3.4K		–	
>>>>>>SYNC_DL Code Not Available			NULL			
>>Late-Entrant Cell			NULL			
>>Frequency Acquisition			NULL			

Range Bound	Explanation
<i>maxCellinNode B</i>	Maximum number of Cells in a Node B
<i>maxnoofCellSyncBursts</i>	Maximum number of cell synchronisation bursts per cycle for 3.84Mcps TDD
<i>maxnoofreceptionsperSyncFrame</i>	Maximum number of cell synchronisation burst receptions per Sync Frame for 3.84Mcps TDD
<i>maxnoofSyncFramesLCR</i>	Maximum number of SYNC Frames per measurement reporting period for 1.28Mcps TDD
<i>maxnoofreceptionsperSyncFrameLCR</i>	Maximum number of SYNC_DL Code ID receptions per Sync Frame for 1.28Mcps TDD

9.1.82 CELL SYNCHRONISATION TERMINATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	ignore
CSB Transmission ID	O		9.2.3.4N		YES	ignore
CSB Measurement ID	O		9.2.3.4I		YES	ignore

9.1.83 CELL SYNCHRONISATION FAILURE INDICATION [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	ignore
CSB Transmission ID	O		9.2.3.4N		YES	ignore
CSB Measurement ID	O		9.2.3.4I		YES	ignore
Cause	M		9.2.1.6		YES	ignore

9.1.84 CELL SYNCHRONISATION ADJUSTMENT REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cell Adjustment Information		$1..<maxCellinNodeB>$			EACH	ignore
>C-ID	M		9.2.1.9		–	
>Frame Adjustment Value	O		9.2.3.5C		–	
>Timing Adjustment Value	O		9.2.3.22a	Applicable to 3.84Mcps TDD only	–	
>DL Transmission Power	O		9.2.1.21	Applicable to 3.84Mcps TDD only	–	
>SFN	O		9.2.1.53A		–	
>DwPCH Power	O		9.2.3.5B	Applicable to 1.28Mcps TDD only	YES	ignore
>Timing Adjustment Value LCR	O		9.2.3.22b	Applicable to 1.28Mcps TDD only	YES	ignore

Range Bound	Explanation
$maxCellinNodeB$	Maximum number of Cells in a Node B

9.1.85 CELL SYNCHRONISATION ADJUSTMENT RESPONSE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.86 CELL SYNCHRONISATION ADJUSTMENT FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CHOICE <i>Cause Level</i>	M				YES	ignore
> <i>General</i>						
>> <i>Cause</i>	M		9.2.1.6		–	
> <i>Cell Specific</i>						
>> Unsuccessful Cell Information Response		1..<maxCellsInNodeB>			EACH	ignore
>>>C-ID	M		9.2.1.9		–	
>>>Cause	M		9.2.1.6		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

Range Bound	Explanation
<i>maxCellsInNodeB</i>	Maximum number of Cells in a Node B

9.1.87 BEARER REARRANGEMENT INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Signalling Bearer Request Indicator	O		9.2.1.55A		YES	ignore
DCHs To Re-arrange		0..<maxno ofDCHs>			GLOBAL	ignore
>DCH ID	M		9.2.1.20		–	
DSCHs To Re-arrange		0..<maxno ofDSCHs>		TDD only	GLOBAL	ignore
>DSCH ID	M		9.2.3.5a		–	
USCHs To Re-arrange		0..<maxno ofUSCHs>		TDD only	GLOBAL	ignore
>USCH ID	M		9.2.3.27		–	
HS-DSCHs MAC-d Flow To Re-arrange		0..<maxno ofMACdFlows>			GLOBAL	ignore
>HS-DSCH MAC-d Flow ID	M		9.2.1.31l		–	
E-DCHs MAC-d Flow To Re-arrange		0..<maxno ofEDCHMACdFlows>			GLOBAL	ignore
>E-DCH MAC-d Flow ID	M		9.2.1.29ad		–	

Range bound	Explanation
<i>maxnoofDCHs</i>	Maximum number of DCHs for a UE
<i>maxnoofDSCHs</i>	Maximum number of DSCHs for a UE
<i>maxnoofUSCHs</i>	Maximum number of USCHs for a UE
<i>maxnoofMACdFlows</i>	Maximum number of HS-DSCH MAC-d flows
<i>maxnoofEDCHMACdFlows</i>	Maximum number of E-DCH MAC-d flows

9.1.88 RADIO LINK ACTIVATION COMMAND

9.1.88.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48		YES	ignore
Delayed Activation Information		1..<maxno ofRLs>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>Delayed Activation Update	M		9.2.1.24D		–	

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for one UE

9.1.88.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48		YES	ignore
Delayed Activation Information		1..<maxno ofRLs>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>Delayed Activation Update	M		9.2.1.24D		–	

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of RLs for one UE

9.1.89 RADIO LINK PARAMETER UPDATE INDICATION

9.1.89.1 FDD Message

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
HS-DSCH FDD Update Information	O		9.2.2.18Ea		YES	ignore
E-DCH FDD Update Information	O		9.2.2.13DA		YES	ignore

9.1.89.2 TDD Message

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
HS-DSCH TDD Update Information	O		9.2.3.5GA		YES	ignore

9.1.90 MBMS NOTIFICATION UPDATE COMMAND

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	ignore
Common Physical Channel ID	M		9.2.1.13		YES	ignore
Modification Period	O		9.2.1.47a	This IE shall be present in the very first message	YES	ignore
MICH CFN	M		9.2.1.46a		YES	ignore
NI Information		1..<maxNo ofNIs>			GLOBAL	ignore
>NI	M		9.2.1.47F		–	

Range Bound	Explanation
<i>maxNoofNIs</i>	Maximum number of NIs

9.2 Information Element Functional Definition and Contents

9.2.0 General

Subclause 9.2 presents the NBAP IE definitions in tabular format. The corresponding ASN.1 definition is presented in Subclause 9.3. In case there is a contradiction between the tabular format in Subclause 9.2 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, where the tabular format shall take precedence.

When specifying information elements which are to be represented by bitstrings, if not otherwise specifically stated in the semantics description of the concerned IE or elsewhere, the following principle applies with regards to the ordering of bits:

- The first bit (leftmost bit) contains the most significant bit (MSB);
- The last bit (rightmost bit) contains the least significant bit (LSB);
- When importing bitstrings from other specifications, the first bit of the bitstring contains the first bit of the concerned information;

9.2.1 Common parameters

9.2.1.1 Add/Delete Indicator

The add/delete indicator shall notify the CRNC whether the associated resource has been added to or removed from the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Add/Delete Indicator			ENUMERATED (Add, Delete)	

9.2.1.1A Allocation/Retention Priority

This parameter indicates the priority level in the allocation and retention of Node B internal resources. See Annex A.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Priority Level	M		INTEGER (0..15)	This IE indicates the priority of the request. Usage: Value "0" means "Spare"; It shall be treated as a logical error if received. Values between "1" and "14" are ordered in decreasing order of priority, "1" being the highest and "14" the lowest. Value "15" means "No Priority".
Pre-emption Capability	M		ENUMERATED (shall not trigger pre-emption, may trigger pre-emption)	
Pre-emption Vulnerability	M		ENUMERATED (not pre-emptable, pre-emptable)	

9.2.1.1B Alternative Format Reporting Indicator

This IE indicates if Node B may report a measurement using an alternative format.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Alternative Format Reporting Indicator			ENUMERATED (Alternative format is allowed, ...)	

9.2.1.2 Availability Status

The availability status is used to indicate more detailed information of the availability of the resource. In accordance with ref. [3], following values are defined. If the value of this IE is "empty", this implies that none of the status conditions described in ref. [3] are present.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Availability Status			ENUMERATED (empty, in test, failed, power off, off line, off duty, dependency, degraded, not installed, log full, ...)	

9.2.1.3 BCCH Modification Time

Indicates the time after which the new system information shall be applied on BCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
BCCH Modification Time			INTEGER (0..511)	All SFN values in which MIB may be mapped are allowed. The tabular description is presented in [18].

9.2.1.4 Binding ID

The Binding ID is the identifier of a user data stream.

In case of transport bearer establishment with ALCAP [2][31], this IE contains the identifier that is allocated at the Node B and that is unique for each transport bearer under establishment to/from the Node B.

If the Transport Layer Address contains an IP address [29], this IE contains the UDP port [30] intended to be used for the user plane transport.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Binding ID			OCTET STRING (1..4,...)	If the Binding ID includes an UDP port, the UDP port is included in octets 1 and 2. The first octet of the UDP port field shall be included in the first octet of the Binding ID.

9.2.1.4A BLER

Void.

9.2.1.5 Blocking Priority Indicator

The Blocking priority indicator shall indicate the immediacy with which a resource should be blocked from use. The following priority classes shall be supported in the Blocking priority indicator.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Blocking Priority Indicator			ENUMERATED (High, Normal, Low, ...)	"High" priority: Block resource immediately. "Normal" priority: Block resource when idle or upon timer expiry. "Low" priority: Block resource when idle.

9.2.1.5A Burst Mode Parameters

The *Burst Mode Parameters* IE provides information to be applied for IPDL burst mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Burst Start	M		INTEGER (0..15)	See [10] and [21]
Burst Length	M		INTEGER (10..25)	See [10] and [21]
Burst Freq	M		INTEGER (1..16)	See [10] and [21]

9.2.1.5B Broadcast Common Transport Bearer Indication

The *Broadcast Common Transport Bearer Indication* IE is used by the Node B to inform the CRNC that the transport bearer of the existing Common Transport Channel which is indicated by the *Common Transport Channel ID* IE and *C-ID* IE, shall be used instead of establishing a new transport bearer. If there are more than one Common Transport Channels sharing the same transport bearer, Node B may include any one of these Common Transport Channels together with its corresponding C-ID in *Broadcast Common Transport Bearer Indication* IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Transport Channel ID	M		9.2.1.14	
C-ID	M		9.2.1.9	

9.2.1.5C Broadcast Reference

The *Broadcast Reference* IE is a unique identifier within the CRNC identifying the intended usage of a requested Common Transport Channel (e.g. the *Broadcast Reference* IE may identify a particular MBMS session).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Broadcast Reference			BIT STRING (SIZE(24))	

9.2.1.6 Cause

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Cause Group	M			
>Radio Network Layer				
>>Radio Network Layer Cause	M		ENUMERATED (unknown C-ID, Cell not available, Power level not supported, DL radio resources not available, UL radio resources not available, RL Already Activated/allocated, Node B Resources Unavailable, Measurement not supported for the object, Combining Resources not available, Requested configuration not supported, Synchronization failure, Priority transport channel established, SIB Origination in Node B not Supported, Requested Tx Diversity Mode not supported, Unspecified, BCCH scheduling error, Measurement Temporarily not Available, Invalid CM Setting, Reconfiguration CFN not elapsed, Number of DL codes not supported, S-CPICH not supported, Combining not supported, UL SF not supported, DL SF not supported, Common Transport Channel Type not supported, Dedicated Transport Channel Type not supported, Downlink Shared Channel Type not supported, Uplink Shared Channel Type not supported, CM not supported, Tx diversity no longer supported, Unknown Local Cell ID, ..., Number of UL codes not supported, Information temporarily not available, Information Provision not supported for the object, Cell Synchronisation not supported, Cell Synchronisation Adjustment not supported, DPC Mode Change not Supported,	

			IPDL already activated, IPDL not supported, IPDL parameters not available, Frequency Acquisition not supported, Power Balancing status not compatible, Requested type of Bearer Re-arrangement not supported, Signalling Bearer Re-arrangement not supported, Bearer Re-arrangement needed, Delayed Activation not Supported, RL Timing Adjustment not supported, MICH not supported, F-DPCH Not Supported, Modification Period not available, PLCCH not supported, Continuous Packet Connectivity DTX-DRX operation not available, Continuous Packet Connectivity UE DTX Cycle not available, MIMO not available, S-CPICH power offset support not available, TX diversity for MIMO UE on DL Control Channels not available)	
>Transport Layer				
>>Transport Layer Cause	M		ENUMERATED (Transport resource unavailable, Unspecified, ...)	
>Protocol				
>>Protocol Cause	M		ENUMERATED (Transfer syntax error, Abstract syntax error (reject), Abstract syntax error (ignore and notify), Message not compatible with receiver state, Semantic error, Unspecified, Abstract syntax error (falsely constructed message), ...)	
>Misc				
>>Miscellaneous Cause	M		ENUMERATED (Control processing overload Hardware failure, O&M intervention, Not enough user plane processing resources, Unspecified, ...)	

The meaning of the different cause values is described in the following table. In general, "not supported" cause values indicate that the concerned capability is missing. On the other hand, "not available" cause values indicate that the concerned capability is present, but insufficient resources were available to perform the requested action.

Radio Network Layer cause	Meaning
BCCH scheduling error	The Node B has detected an illegal BCCH schedule update (see subclause 8.2.16.3).
Bearer Re-arrangement needed	The Node B cannot perform the requested Radio Link Reconfiguration without bearer re-arrangement.
Cell not Available	The concerned cell or local cell is not available.
Cell Synchronisation not supported	The concerned cell(s) do not support Cell Synchronisation.
Combining not supported	The Node B does not support RL combining for the concerned cells.
Combining Resources Not Available	The value of the received <i>Diversity Control Field</i> IE was set to "Must", but the Node B cannot perform the requested combining.
CM not supported	The concerned cell(s) do not support Compressed Mode.
Common Transport Channel Type not supported	The concerned cell(s) do not support the RACH and/or FACH Common Transport Channel Type.
Continuous Packet Connectivity DTX-DRX operation not available	CPC resources for DTX-DRX operation not available in the concerned cell(s).
Continuous Packet Connectivity UE DTX Cycle not available	CPC resources for the UE DTX Cycle not available in the concerned cell(s).
Dedicated Transport Channel Type not supported	The concerned cell(s) do not support the Dedicated Transport Channel Type.
Delayed Activation not Supported	The concerned cell(s) do not support delayed activation of RLs.
DL Radio Resources not Available	The Node B does not have sufficient DL radio resources available.
DL SF not supported	The concerned cell(s) do not support the requested DL SF.
DL Shared Channel Type not supported	The concerned cell(s) do not support the Downlink Shared Channel Type.
DPC Mode Change not Supported	The concerned cells do not support DPC mode changes.
Frequency Acquisition not supported	The concerned cell(s) do not support Frequency Acquisition.
F-DPCH not supported	The concerned cell(s) do not support the Fractional DPCH
Information Provision not supported for the object	The requested information provision is not supported for the concerned object types.
Information temporarily not available	The requested information can temporarily not be provided.
Invalid CM Settings	The concerned cell(s) consider the requested Compressed Mode settings invalid.
IPDL already activated	The concerned cell(s) have already active IPDL ongoing.
IPDL not supported	The concerned cell(s) do not support the IPDL.
IPDL parameters not available	The concerned cell(s) do not have IPDL parameters defining IPDL to be applied.
Measurement not Supported For The Object	At least one of the concerned cell(s) does not support the requested measurement on the concerned object type.
Measurement Temporarily not Available	The Node B can temporarily not provide the requested measurement value.
MICH not supported	The concerned cell does not support MICH.
MIMO not available	MIMO resources not available in the concerned cell(s).
Modification Period not available	The Node B does not have modification period available.
Node B resources unavailable	The Node B does not have sufficient resources available.
Number of DL codes not supported	The concerned cell(s) do not support the requested number of DL codes.
Number of UL codes not supported	The concerned cell(s) do not support the requested number of UL codes.
Power Level not Supported	A DL power level was requested which the concerned cell(s) do not support.
Power Balancing status not compatible	The power balancing status in the SRNC is not compatible with that of the Node B.
PLCCH not supported	The concerned cell does not support PLCCH.
Priority transport channel established	The CRNC cannot perform the requested blocking since a transport channel with a high priority is present.
RL Timing Adjustment not Supported	The concerned cell(s) do not support adjustments of the RL timing.
Reconfiguration CFN not elapsed	The requested action cannot be performed due to that a RADIO LINK RECONFIGURATION COMMIT message was received previously, but the concerned CFN has not yet elapsed.
Requested Configuration not Supported	The concerned cell(s) do not support the requested configuration i.e. power levels, Transport Formats, physical channel parameters.
Requested Type of Bearer Re-	The Node B does not support the requested type of bearer re-

arrangement not supported	arrangement.
Requested Tx Diversity mode not supported	The concerned cell(s) do not support the requested transmit diversity mode.
RL already Activated/ allocated	The Node B has already allocated an RL with the requested RL-id for this UE context.
S-CPICH not supported	The concerned cell(s) do not support S-CPICH.
S-CPICH power offset support not available	The support for setting up the desired power offset on S-CPICH with respect to P-CPICH is not available
SIB Origination in Node B not Supported	The Node B does not support the origination of the requested SIB for the concerned cell.
Signalling Bearer Re-arrangement not supported	The Node B does not support the Signalling bearer re-arrangement.
Synchronisation Failure	Loss of UL Uu synchronisation.
Cell Synchronisation Adjustment not supported	The concerned cell(s) do not support Cell Synchronisation Adjustment.
TX diversity for MIMO UE on DL Control Channels not available	The Node B does not have sufficient radio resources available to support transmit diversity on downlink control channels when the UE is configured in MIMO mode with P-CPICH & S-CPICH as phase references [7]
Tx diversity no longer supported	Tx diversity can no longer be supported in the concerned cell.
UL Radio Resources not Available	The Node B does not have sufficient UL radio resources available.
UL SF not supported	The concerned cell(s) do not support the requested minimum UL SF.
UL Shared Channel Type not supported	The concerned cell(s) do not support the Uplink Shared Channel Type.
Unknown C-ID	The Node B is not aware of a cell with the provided C-ID.
Unknown Local Cell ID	The Node B is not aware of a local cell with the provided Local Cell ID
Unspecified	Sent when none of the above cause values applies but still the cause is Radio Network layer related.

Transport Network Layer cause	Meaning
Transport resource unavailable	The required transport resources are not available.
Unspecified	Sent when none of the above cause values applies but still the cause is Transport Network layer related.

Protocol cause	Meaning
Abstract Syntax Error (Reject)	The received message included an abstract syntax error and the concerned criticality indicated "reject" (see subclause 10.3).
Abstract Syntax Error (Ignore and Notify)	The received message included an abstract syntax error and the concerned criticality indicated "ignore and notify" (see subclause 10.3).
Abstract syntax error (falsely constructed message)	The received message contained IEs in wrong order or with too many occurrences (see subclause 10.3).
Message not Compatible with Receiver State	The received message was not compatible with the receiver state (see subclause 10.4).
Semantic Error	The received message included a semantic error (see subclause 10.4).
Transfer Syntax Error	The received message included a transfer syntax error (see subclause 10.2).
Unspecified	Sent when none of the above cause values applies but still the cause is protocol related.

Miscellaneous cause	Meaning
Control Processing Overload	Node B control processing overload.
Hardware Failure	Node B hardware failure.
Not enough User Plane Processing Resources	Node B has insufficient user plane processing resources available.
O&M Intervention	Operation and Maintenance intervention related to Node B equipment.
Unspecified	Sent when none of the above cause values applies and the cause is not related to any of the categories Radio Network Layer, Transport Network Layer or Protocol.

9.2.1.7 CFN

Connection Frame Number for the radio connection, see ref. [17].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CFN			INTEGER (0..255)	

9.2.1.8 CFN Offset

Void.

9.2.1.9 C-ID

The C-ID (Cell identifier) is the identifier of a cell in one RNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
C-ID			INTEGER (0..65535)	

9.2.1.9A Common Channels Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor. [FDD - For the PRACH, the reference spreading factor shall be the minimum possible spreading factor amongst the ones defined by the *RACH Slot Format* IE(s) in the Common Transport Channel Setup or Reconfiguration procedures.]

This capacity consumption law indicates the consumption law to be used with the following procedures:

- Common Transport Channel Setup
- Common Transport Channel Deletion
- [FDD - Common Transport Channel Reconfiguration]

For the Common Transport Channel Setup procedure, the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall be credited to the Capacity Credit for the Common Transport Channel Deletion one.

[FDD - For the Common Transport Channel Reconfiguration procedure, the difference of the consumption cost for the new spreading factor and the consumption cost for the old spreading factor shall be debited from the Capacity Credit (or credited if this difference is negative).]

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

[FDD - When the Common Transport Channel Setup, Deletion or Reconfiguration procedures are used, the Capacity Credit shall be updated considering all physical channels related in these procedures (S-CCPCH, PICH, PRACH and AICH), i.e. one cost shall be credited to or debited from the Capacity Credit per physical channel.]

[FDD - The costs given in the consumption law are the costs per channelization code. When multiple channelization codes are used by a physical channel, the cost credited to or debited from the Capacity Credit for this physical channel shall be taken as N times the cost given in the consumption law, where N is the number of channelization codes.]

[TDD - When the Common Transport Channel Setup or Deletion procedures are used, the Capacity Credit shall be updated considering all physical channels related in these procedures (S-CCPCH, PICH, PRACH), i.e. one cost shall be credited to or debited from the Capacity Credit per physical channel.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SF Allocation Law		<i>1..<maxno of SFs></i>		[FDD - For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.] [TDD - For each SF, cost of its allocation: the first instance corresponds to SF = 1, the second to SF = 2, the third to SF = 4 and so on.]
>DL cost	M		INTEGER (0..65535)	
>UL cost	M		INTEGER (0..65535)	

Range Bound	Explanation
<i>maxno of SFs</i>	Maximum number of Spreading Factors

9.2.1.9B Common Measurement Accuracy

The *Common Measurement Accuracy* IE indicates the accuracy of the common measurement.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Common Measurement Accuracy</i>	M			
> <i>T_{UTRAN-GPS} Measurement Accuracy Class</i>				
>> <i>T_{UTRAN-GPS} Measurement Accuracy Class</i>	M		<i>T_{UTRAN-GPS} Accuracy Class</i> 9.2.1.64C	
> <i>T_{UTRAN-GANSS} Measurement Accuracy Class</i>				
>> <i>T_{UTRAN-GANSS} Measurement Accuracy Class</i>	M		<i>T_{UTRAN-GANSS} Accuracy Class</i> 9.2.1.98	

9.2.1.10 Common Measurement Object Type

Void.

9.2.1.11 Common Measurement Type

The *Common Measurement Type* identifies which measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Measurement Type			ENUMERATED (Received Total Wide Band Power, Transmitted Carrier Power, Acknowledged PRACH Preambles, UL Timeslot ISCP, NotUsed-1, NotUsed-2, ..., UTRAN GPS Timing of Cell Frames for UE Positioning, SFN-SFN Observed Time Difference, Transmitted carrier power of all codes not used for HS transmission, HS-DSCH Required Power, HS-DSCH Provided Bit Rate, Received Total Wide Band Power for Cell Portion, Transmitted Carrier Power for Cell Portion, Transmitted carrier power of all codes not used for HS-PDSCH HS-SCCH E-AGCH E-RGCH or E-HICH transmission for Cell Portion, UpPCH Interference, DL Transmission Branch Load, HS-DSCH Required Power for Cell Portion, HS-DSCH Provided Bit Rate for Cell Portion, E-DCH Provided Bit Rate, E-DCH Non-serving Relative Grant Down Commands, Received Scheduled E-DCH Power Share, Received Scheduled E-DCH Power Share for Cell Portion, UTRAN GANSS Timing of Cell Frames for UE Positioning)	"UL Timeslot ISCP" is used by TDD only, "Acknowledged PRACH Preambles", "DL Transmission Branch Load" are used by FDD only, "UpPCH interference" is used by 1.28Mcps TDD only. This IE shall never be set to the values that are prefixed "NotUsed-". [TDD - The IE Type "Transmitted carrier power of all codes not used for HS transmission" corresponds to the measurement "Transmitted carrier power of all codes not used for HS-PDSCH [TDD - E-AGCH, E-HICH] or HS-SCCH transmission" in [5] and [23].] [FDD - The IE Type "Transmitted carrier power of all codes not used for HS transmission" corresponds to the measurement "Transmitted carrier power of all codes not used for HS-PDSCH HS-SCCH E-AGCH E-RGCH or E-HICH transmission" in [4] and [22].]

9.2.1.12 Common Measurement Value

The Common Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE <i>Common Measurement Value</i>	M				–	
> <i>Transmitted Carrier Power</i>						
>> <i>Transmitted Carrier Power Value</i>	M		INTEGER (0..100)	According to mapping in [22] and [23]	–	
> <i>Received Total Wide Band Power</i>						
>> <i>Received Total Wide Band Power Value</i>	M		INTEGER (0..621)	According to mapping in [22] and [23]	–	
> <i>Acknowledged PRACH Preambles</i>				FDD Only		
>> <i>Acknowledged PRACH Preamble Value</i>	M		INTEGER (0..240,...)	According to mapping in [22]	–	
> <i>UL Timeslot ISCP</i>				TDD Only		
>> <i>UL Timeslot ISCP</i>	M		INTEGER (0..127)	According to mapping in [23]	–	
> <i>Not used 1</i>			NULL	This choice shall not be used. Ignore if received.		
> <i>Not Used 2</i>			NULL	This choice shall not be used. Ignore if received.		
> <i>Additional Common Measurement Values</i>				See Note 1		
>> <i>UTRAN GPS Timing Of Cell Frames for UE Positioning</i>						
>>> <i>T_{UTRAN-GPS} Measurement Value Information</i>	M		9.2.1.64A		YES	ignore
>> <i>SFN-SFN Observed Time Difference</i>						
>>> <i>SFN-SFN Measurement Value Information</i>	M		9.2.1.53E		YES	ignore
>> <i>Transmitted Carrier Power Of All Codes Not Used For HSTransmission</i>						
>>> <i>Transmitted Carrier Power Of All Codes Not Used For HSTransmission Value</i>	M		INTEGER (0..100)	According to mapping in [22], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICHTransmission" and mapping in [23], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission"	YES	ignore
>> <i>HS-DSCH Required Power</i>						
>>> <i>HS-DSCH Required Power</i>	M		9.2.1.31lc		YES	ignore

Value Information						
>>HS-DSCH Provided Bit Rate						
>>>HS-DSCH Provided Bit Rate Value Information	M		9.2.1.31Ib		YES	ignore
>>Transmitted Carrier Power For Cell Portion				FDD Only		
>>>Transmitted Carrier Power For Cell Portion Value		1..<max NrOfCel lPortion s>			GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>Transmitted Carrier Power Value	M		INTEGER (0..100)	According to mapping in [22]	–	
>>Received Total Wide Band Power For Cell Portion				FDD Only		
>>>Received Total Wide Band Power For Cell Portion Value		1..<max NrOfCel lPortion s>			GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>Received Total Wide Band Power Value	M		INTEGER (0..621)	According to mapping in [22]	–	
>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E- AGCH, E-RGCH or E-HICH Transmission For Cell Portion				FDD Only		
>>>Transmitted Carrier Power Of All Codes Not Used For HS- PDSCH, HS- SCCH, E-AGCH, E-RGCH or E- HICH Transmission For Cell Portion Value		1..<max NrOfCel lPortion s>			GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E- AGCH, E- RGCH or E- HICH Transmission Value	M		INTEGER (0..100)	According to mapping in [22]	–	
>>UpPCH interference				1.28Mcps TDD Only		
>>>UpPCH interference Value	M		INTEGER (0..127,...)	According to mapping in [23]	YES	ignore

>>DL Transmission Branch Load				FDD Only		
>>>Node B DL Transmission Branch Load Values	M		INTEGER (0..101,...)	According to mapping in [22]	YES	ignore
>>HS-DSCH Required Power For Cell Portion				FDD Only		
>>>HS-DSCH Required Power For Cell Portion Information		1..<max NrOfCellPortions>			GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>HS-DSCH Required Power Value Information	M		9.2.1.31lc		–	
>>HS-DSCH Provided Bit Rate For Cell Portion				FDD Only		
>>>HS-DSCH Provided Bit Rate For Cell Portion Information		1..<max NrOfCellPortions>			GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>HS-DSCH Provided Bit Rate Value Information	M		9.2.1.31lb		–	
>>E-DCH Provided Bit Rate						
>>>E-DCH Provided Bit Rate Value Information	M		9.2.1.78		YES	ignore
>>E-DCH Non-serving Relative Grant Down Commands				FDD Only		
>>>E-DCH Non-serving Relative Grant Down Commands Value Information	M		INTEGER (0..100,...)	Down Commands per second	YES	ignore
>>Received Scheduled E-DCH Power Share				FDD Only According to definition in [4]		
>>>Received Scheduled E-DCH Power Share		1			YES	ignore
>>>>RSEPS Value	M		INTEGER (0..151)	According to mapping in [22]	–	
>>>>RTWP* Value	O		INTEGER (0..621)	According to mapping of RTWP in [22]	–	
>>Received Scheduled E-DCH Power Share for Cell Portion				FDD only According to definition in [4]		
>>>Received Scheduled E-DCH Power Share For Cell Portion Value		1..<max NrOfCellPortions>			GLOBAL	ignore

>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>RSEPS for Cell Portion Value	M		INTEGER (0..151)	According to mapping in [22].	–	
>>>>RTWP* for Cell Portion Value	O		INTEGER (0..621)	According to mapping of RTWP in [22]	–	
>>UTRAN GANSS Timing Of Cell Frames for UE Positioning						
>>>T _{UTRAN-GANSS} Measurement Value Information	M		9.2.1.100		YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

Range Bound	Explanation
MaxNrOfCellPortions	Maximum number of Cell Portions in a cell

9.2.1.12A Common Measurement Value Information

The *Common Measurement Value Information* IE provides information both on whether the Common Measurement Value is provided in the message or not and if provided also the Common Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Measurement Availability Indicator</i>	M			
> <i>Measurement Available</i>				
>>Common Measurement Value	M		9.2.1.12	
> <i>Measurement Not Available</i>			NULL	

9.2.1.13 Common Physical Channel ID

Common Physical Channel ID is the unique identifier for one common physical channel within a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Physical Channel ID			INTEGER (0..255)	

9.2.1.13A Common Physical Channel Status Information

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Physical Channel ID	M		9.2.1.13	
Resource Operational State	M		9.2.1.52	
Availability Status	M		9.2.1.2	

9.2.1.14 Common Transport Channel ID

Common Transport Channel ID is the unique identifier for one common transport channel within a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Transport Channel ID			INTEGER (0..255)	

9.2.1.14A Common Transport Channel Information Response

The *Common Transport Channel Information Response* IE provides information for Common Transport Channels that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Common Transport Channel ID	M		9.2.1.14		–	
Binding ID	O		9.2.1.4		–	
Transport Layer Address	O		9.2.1.63		–	
Broadcast Common Transport Bearer Indication	O		9.2.1.5B		YES	ignore
IP Multicast Data Bearer Indication	O		9.2.1.109		YES	ignore

9.2.1.14B Common Transport Channel Status Information

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Transport Channel ID	M		9.2.1.14	
Resource Operational State	M		9.2.1.52	
Availability Status	M		9.2.1.2	

9.2.1.15 Communication Control Port ID

A Communication Control Port corresponds to one signalling bearer between the CRNC and the Node B for the control of Node B Communication Contexts. The Node B may have multiple Communication Control Ports (one per Traffic Termination Point). The Communication Control Port is selected at creation of the Node B Communication Context. The Communication Control Port ID is the identifier of the Communication Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Communication Control Port ID			INTEGER (0..65535)	

9.2.1.16 Configuration Generation ID

The Configuration Generation ID describes the generation of the configuration of logical resources in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Configuration Generation ID			INTEGER (0..255)	Value "0" means "No configuration". At possible wraparound of the ID counter in CRNC the value "0" shall not be used.

9.2.1.17 Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by a Node B or the CRNC when parts of a received message have not been comprehended or are missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the *Criticality Diagnostics* IE, see Annex C.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Procedure ID		0..1		Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error	–	
>Procedure Code	M		INTEGER (0..255)		–	
>Ddmode	M		ENUMERATED (TDD, FDD, Common, ...)	"Common" = common to FDD and TDD.	–	
Triggering Message	O		ENUMERATED (initiating message, successful outcome, unsuccessful outcome, outcome)	The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication.	–	
Procedure Criticality	O		ENUMERATED (reject, ignore, notify)	This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure).	–	
Transaction ID	O		9.2.1.62		–	
Information Element Criticality Diagnostics		0..<max nooferrors>			–	
>IE Criticality	M		ENUMERATED (reject, ignore, notify)	The IE Criticality is used for reporting the criticality of the triggering IE. The value "ignore" shall never be used.	–	
>IE ID	M		INTEGER (0..65535)	The IE ID of the not understood or missing IE	–	
>Repetition Number	O		INTEGER (0..255)	The <i>Repetition Number</i> IE gives: for a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence for a missing IE: The number of occurrences up to but not including the missing occurrence. Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them.	–	

>Message Structure	O		9.2.1.45A	The <i>Message Structure</i> IE describes the structure where the not understood or missing IE was detected. This IE is included if the not understood IE is not the top level of the message.	YES	ignore
>Type Of Error	M		ENUMERATED (not understood, missing, ...)		YES	ignore

Range Bound	Explanation
<i>maxnooferrors</i>	Maximum number of IE errors allowed to be reported with a single message.

9.2.1.18 CRNC Communication Context ID

The CRNC Communication Context ID is the identifier of the Communication Context in the CRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CRNC Communication Context ID			INTEGER (0..2 ²⁰ – 1)	"2 ²⁰ -1" is a reserved value indicating all the CRNC Communication Contexts that can be reached by the Communication Control Port (All CRNCCC).

9.2.1.18A CTFC

The CTFC is an integer number calculated in accordance with [18], subclause 14.10. Regarding the channel ordering, for all transport channels, 'TrCH1' corresponds to the transport channel having the lowest transport channel identity among all configured transport channels on this CCTrCH. 'TrCH2' corresponds to the transport channel having the next lowest transport channel identity, and so on.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>CTFC Format</i>	M			
>2 bits long				
>>CTFC value	M		INTEGER (0..3)	
>4 bits long				
>>CTFC value	M		INTEGER (0..15)	
>6 bits long				
>>CTFC value	M		INTEGER (0..63)	
>8 bits long				
>>CTFC value	M		INTEGER (0..255)	
>12 bits long				
>>CTFC value	M		INTEGER (0..4095)	
>16 bits long				
>>CTFC value	M		INTEGER (0..65535)	
>max nb bits long				
>>CTFC value	M		INTEGER (0..maxCTFC)	

Range Bound	Explanation
MaxCTFC	Maximum number of the CTFC value is calculated according to the following: $\sum_{i=1}^J (L_i - 1)P_i$ with the notation according to ref. [18]

9.2.1.19 DCH Combination Indicator

Void.

9.2.1.20 DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCH ID			INTEGER (0..255)	

9.2.1.20A Dedicated Channels Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the [FDD - allocated Spreading Factor and the RL/RLS situation] [TDD - allocated Spreading Factor on each DPCH and the assigned timeslot]. [FDD - In Uplink, the reference spreading factor shall be the minimum spreading factor signalled in the Radio Link Setup Request message. This is signalled using the *Min UL Channelisation Code Length* IE.]

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Radio Link Setup
- Radio Link Addition
- Radio Link Reconfiguration
- Radio Link Deletion
- [TDD - Physical Shared Channel Reconfiguration]

For the Radio Link Setup and Radio Link Addition procedures, the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall be credited to the Capacity Credit for the Radio Link Deletion procedure. For the Radio Link Reconfiguration procedure, the difference of the consumption cost for the new spreading factor and the consumption cost for the old spreading factor shall be debited from the Capacity Credit (or credited when this difference is negative).

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the DL cost shall be applied to the DL or Global Capacity Credit and the UL Cost shall be applied to the UL Capacity Credit. If it is modelled as shared resources, both the DL costs and the UL costs shall be applied to the DL or Global Capacity Credit.

[FDD - For a Radio Link creating a Radio Link Set (first RL of a RLS), the cost for the RL (cost 2) and RLS (cost 1) shall be taken into account. When adding a Radio Link to a Radio Link Set, only the RL cost (cost 2) shall be taken into account.

In the case where multiple Radio Links are established in one procedure, for every created Radio Link Set, the first Radio Link is always the Radio Link with the lowest repetition number.]

[FDD - The costs given in the consumption law are the costs per channelization code. When multiple channelization codes are used by either the radio links, the cost credited to or debited from the Capacity Credit shall be taken as N times the cost for one code, where N is the number of channelization codes.]

[TDD - The cost for a radio link is a sum of the costs for each DPCH. For the first DPCH assigned to any user in a cell within a timeslot, the initial cost for a DPCH in a timeslot (cost 1) and the cost for a DPCH (cost 2) shall be taken into account. For any DPCH that is not the first DPCH assigned for any user in a cell within a timeslot, only the cost for a DPCH (cost 2) shall be taken into account.]

[TDD - The cost for shared channels is the sum of the costs for each PDSCH and PUSCH assigned to a PUSCH or PDSCH set. For the first PDSCH or PUSCH assigned to any user in a cell within a timeslot, the initial cost for a PDSCH/PUSCH in a timeslot (cost 1) and the cost for a PDSCH/PUSCH (cost 2) shall be taken into account. For any PDSCH/PUSCH that is not the first PDSCH/PUSCH assigned to any user in a cell within a timeslot, only the cost for a PDSCH/PUSCH (cost 2) shall be taken into account.]

[TDD - In the case of Physical Shared Channel Reconfiguration, the sum of the consumption cost of the each PDSCH/PUSCH of the previous configuration shall be credited to the capacity credit, and the sum of the consumption cost of each PDSCH/PUSCH of the new configuration shall be subtracted from the capacity credit.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SF Allocation Law		<i>1..<maxno of SFs></i>		[FDD - For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.] [TDD - For each SF, cost of its allocation: the first instance corresponds to SF = 1, the second to SF = 2, the third to SF = 4 and so on.]
>DL Cost 1	M		INTEGER (0..65535)	[FDD - This is the cost of a RLS.] [TDD - This is the additional cost of the first DPCH/PDSCH/PUSCH assigned to any user in a cell within a timeslot.]
>DL Cost 2	M		INTEGER (0..65535)	[FDD - This is the cost of a RL.] [TDD - This is the cost of a DPCH/PDSCH/PUSCH]
>UL Cost 1	M		INTEGER (0..65535)	[FDD - This is the cost of a RLS.] [TDD - This is the additional cost of the first DPCH/PDSCH/PUSCH assigned to any user in a cell within a timeslot.]
>UL Cost 2	M		INTEGER (0..65535)	[FDD - This is the cost of a RL.] [TDD - This is the cost of a DPCH/PDSCH/PUSCH.]

Range Bound	Explanation
<i>maxnoofSFs</i>	Maximum number of Spreading Factors

9.2.1.20B DL Or Global Capacity Credit

The capacity credit indicates to the CRNC the Downlink or global capacity of a Local Cell or a Local Cell Group.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Or Global Capacity Credit			INTEGER (0..65535)	

9.2.1.20C DCH Information Response

The *DCH Information Response* IE provides information for DCHs that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH Information Response		<i>1..<maxnoo fDCHs></i>		Only one DCH per set of coordinated DCHs shall be included	–	
>DCH ID	M		9.2.1.20		–	
>Binding ID	O		9.2.1.4		–	
>Transport Layer Address	O		9.2.1.63		–	
>Transport Bearer Not Setup Indicator	O		9.2.2.4H	FDD only	YES	ignore

Range Bound	Explanation
<i>maxnoofDCHs</i>	Maximum number of DCH per UE

9.2.1.21 DL Power

The *DL Power* IE indicates a power level relative to the [FDD - primary CPICH power] [TDD - primary CCPCH power] configured in a cell. If Transmit Diversity is applied to a downlink physical channel, the *DL Power* IE indicates the power offset between the linear sum of the power for this downlink physical channel on all branches and the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell.

[FDD - If referred to a DPCH, it indicates the power of the transmitted DPDCH symbols.] [FDD - If referred to an F-DPCH, it indicates the Reference F-DPCH TX Power.]

[TDD - If referred to a DPCH or PDSCH, it indicates the power of a spreading factor 16 code, the power for a spreading factor 1 code would be 12 dB higher. If referred to a SCCPCH, the *DL Power* IE specifies the maximum power of the SCCPCH.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power			INTEGER (-350..150)	Value = DL Power /10 Unit: dB Range: -35.0 .. +15.0 dB Step: 0.1dB

9.2.1.22 Dedicated Measurement Object Type

Void.

9.2.1.23 Dedicated Measurement Type

The Dedicated Measurement Type identifies the type of measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dedicated Measurement Type			ENUMERATED (SIR, SIR Error, Transmitted Code Power, RSCP, Rx Timing Deviation, Round Trip Time, ..., Rx Timing Deviation LCR, Angle Of Arrival LCR, HS-SICH reception quality, Best Cell Portions, Rx Timing Deviation 7.68Mcps, Rx Timing Deviation 3.84 Mcps Extended)	"RSCP" and "HS-SICH reception quality" are used by TDD only. "Rx Timing Deviation" and "Rx Timing Deviation 3.84 Mcps Extended" are used by 3.84Mcps TDD only. "Rx Timing Deviation LCR", "Angle Of Arrival LCR" are used by 1.28Mcps TDD only. "Round Trip Time", "SIR Error" are used by FDD only. "Best Cell Portions" is used by FDD only. "Rx Timing Deviation 7.68Mcps" is used by 7.68Mcps TDD only.

Note: For definitions of the measurement types refer to [4] and [5].

9.2.1.24 Dedicated Measurement Value

The Dedicated Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE <i>Dedicated Measurement Value</i>	M				–	
> <i>SIR Value</i>						
>> <i>SIR Value</i>	M		INTEGER (0..63)	According to mapping in [22] and [23]	–	
> <i>SIR Error Value</i>				FDD only		
>> <i>SIR Error Value</i>	M		INTEGER (0..125)	According to mapping in [22]	–	
> <i>Transmitted Code Power Value</i>						
>> <i>Transmitted Code Power Value</i>	M		INTEGER (0..127)	According to mapping in [22] and [23]. Values 0 to 9 and 123 to 127 shall not be used.	–	
> <i>RSCP</i>				TDD only		
>> <i>RSCP</i>	M		INTEGER (0..127)	According to mapping in [23]	–	
> <i>Rx Timing Deviation Value</i>				Applicable to 3.84Mcps TDD only		
>> <i>Rx Timing Deviation</i>	M		INTEGER (0..8191)	According to mapping in [23]	–	
> <i>Round Trip Time</i>				FDD only		
>> <i>Round Trip Time</i>	M		INTEGER (0..32767)	According to mapping in [22]	–	
> <i>Additional Dedicated Measurement Values</i>				See Note 1.		
>> <i>Rx Timing Deviation Value LCR</i>				Applicable to 1.28Mcps TDD only		
>>> <i>Rx Timing Deviation LCR</i>	M		INTEGER (0..511)	According to mapping in [23]	YES	reject
>> <i>Angle Of Arrival Value LCR</i>				Applicable to 1.28Mcps TDD only		
>>> <i>AOA Value LCR</i>		1			YES	reject
>>>> <i>AOA LCR</i>	M		INTEGER (0..719)	According to mapping in [23]	–	
>>>> <i>AOA LCR Accuracy Class</i>	M		ENUMERATE D (A, B, C, D, E, F, G, H,...)	According to mapping in [23]	–	
>> <i>HS-SICH Reception Quality</i>				Applicable to TDD only		
>>> <i>HS-SICH Reception Quality Value</i>		1			YES	reject
>>>> <i>Failed HS-SICH</i>	M		INTEGER (0..20)	According to mapping in [23]	–	
>>>> <i>Missed HS-SICH</i>	M		INTEGER (0..20)	According to mapping in [23]	–	
>>>> <i>Total HS-SICH</i>	M		INTEGER (0..20)	According to mapping in [23]	–	
>>>> <i>Failed HS-SICH LCR extension</i>	O		INTEGER (0..20)	According to mapping in [23] Mandatory for LCR TDD when there are more than 20 failed HS-SICH	YES	reject
>>>> <i>Missed HS-SICH LCR extension</i>	O		INTEGER (0..20)	According to mapping in [23] Mandatory for LCR TDD when there are more than 20 missed	YES	reject

				HS-SICH		
>>>Total HS-SICH LCR extension	O		INTEGER (0..20)	According to mapping in [23] Mandatory for LCR TDD when there are more than 20 total HS-SICH	YES	reject
>>Best Cell Portions				FDD only		
>>>Best Cell Portions	M		9.2.2.1Ba		YES	reject
>>Rx Timing Deviation Value 7.68Mcps				Applicable to 7.68Mcps TDD only		
>>>Rx Timing Deviation 7.68Mcps	M		INTEGER (0..65535)	According to mapping in [23]	YES	reject
>>Rx Timing Deviation Value 3.84Mcps Extended				Applicable to 3.84Mcps TDD only		
>>>Rx Timing Deviation 3.84Mcps Extended	M		INTEGER (0..32767)	According to mapping in [23]	YES	reject
>>Extended Round Trip Time				FDD only		
>>>Extended Round Trip Time Value	M		INTEGER (32767..103041)	Continuation of intervals with step size as defined in [22].	YES	reject

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

9.2.1.24A Dedicated Measurement Value Information

The *Dedicated Measurement Value Information* IE provides information both on whether or not the Dedicated Measurement Value is provided in the message or not and if provided also the Dedicated Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Measurement Availability Indicator</i>	M			
> <i>Measurement Available</i>				
>>Dedicated Measurement Value	M		9.2.1.24	
>>CFN	O		9.2.1.7	Dedicated Measurement Time Reference
> <i>Measurement Not Available</i>			NULL	

9.2.1.24B DGPS Corrections

The DGPS Corrections IE contains DGPS information used by the UE Positioning A-GPS method. For further details on the meaning of parameters, see [28].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GPS TOW	M		INTEGER (0..604799)	Time in seconds. This field indicates the baseline time for which the corrections are valid.
Status/Health	M		ENUMERATED (UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.1, no data, invalid data)	This field indicates the status of the differential corrections.
Satellite Information		<i>1..<maxNo Sat></i>		
>SatID	M		INTEGER (0..63)	Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27].
>IODE	M		BIT STRING (8)	This IE is the sequence number for the ephemeris for the particular satellite. It can be used to determine if new ephemeris is used for calculating the corrections that are provided. This eight-bit IE is incremented for each new set of ephemeris for the satellite and may occupy the numerical range of [0, 239] during normal operations.
>UDRE	M		ENUMERATED (UDRE ≤1.0m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE)	User Differential Range Error. This field provides an estimate of the uncertainty (1-σ) in the corrections for the particular satellite. The value in this field shall be multiplied by the UDRE Scale Factor in the common Corrections Status/Health field to determine the final UDRE estimate for the particular satellite
>PRC	M		INTEGER (-2047..2047)	Pseudo Range Correction Unit: m (meters) Step: 0.32 meters
>Range Correction Rate	M		INTEGER (-127..127)	Unit: m/s Step: 0.032 m/s

Range Bound	Explanation
<i>maxNoSat</i>	Maximum number of satellites for which information can be provided

9.2.1.24C Delayed Activation

The *Delayed Activation* IE indicates that the activation of the DL power shall be delayed until an indicated CFN or until a separate activation indication is received.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Delayed Activation</i>	M			
>CFN				
>>Activation CFN	M		CFN 9.2.1.7	
>Separate Indication			NULL	

9.2.1.24D Delayed Activation Update

The *Delayed Activation Update* IE indicates a change of the activation of the DL power for a specific RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned criticality
CHOICE <i>Delayed Activation Update</i>	M				–	
> <i>Activate</i>						
>>CHOICE <i>Activation Type</i>	M				–	
>>> <i>Synchronised</i>						
>>>>Activation CFN	M		CFN 9.2.1.7		–	
>>>> <i>Unsynchronised</i>			NULL			
>>Initial DL TX Power	M		DL Power 9.2.1.21		–	
>>First RLS Indicator	O		9.2.2.16A	FDD Only	–	
>>Propagation Delay	O		9.2.2.35	FDD Only	–	
>>Extended Propagation Delay	O		9.2.2.35A	FDD Only	YES	reject
> <i>Deactivate</i>						
>>CHOICE <i>Deactivation Type</i>	M				–	
>>> <i>Synchronised</i>						
>>>>Deactivation CFN	M		CFN 9.2.1.7		–	
>>>> <i>Unsynchronised</i>			NULL			

9.2.1.24E Discard Timer

The *Discard Timer* IE defines the time to live for a MAC-hs SDU starting from the instant of its arrival into an HSDPA Priority Queue. The Node B shall use this information to discard out-of-data MAC-hs SDUs from the HSDPA Priority Queues.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Discard Timer			ENUMERATED (20, 40, 60, 80, 100, 120, 140, 160, 180, 200, 250, 300, 400, 500, 750, 1000, 1250, 1500, 1750, 2000, 2500, 3000, 3500, 4000, 4500, 5000, 7500, ...)	Unit: ms

9.2.1.25 Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Diversity Control Field			ENUMERATED (May, Must, Must Not, ...)	

9.2.1.26 Diversity Indication

Void.

9.2.1.26A DL DPCH Timing Adjustment

Void.

9.2.1.27 DSCH ID

Void.

9.2.1.27A DSCH Information Response

Void

9.2.1.28 DSCH Transport Format Set

Void.

9.2.1.29 DSCH Transport Format Combination Set

Void.

9.2.1.29A End Of Audit Sequence Indicator

Indicates if the AUDIT RESPONSE message ends an audit sequence or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
End Of Audit Sequence Indicator			ENUMERATED (End of audit sequence, Not end of audit sequence)	"End of audit sequence" = all audit information has been provided by the Node B. "Not end of audit sequence" = more audit information is available.

9.2.1.29B FN Reporting Indicator

The Frame Number Reporting Indicator indicates if the SFN or CFN shall be included together with the reported measurement value.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FN Reporting Indicator			ENUMERATED (FN Reporting Required, FN Reporting Not Required)	

9.2.1.30 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH [TDD - DSCH] for temporary restriction of the allocated resources due overload reason.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Handling Priority			INTEGER (0..15)	"0" = lowest priority, ... "15" = highest priority

9.2.1.31 Frame Offset

The Frame Offset is the required offset between the dedicated channel downlink transmission frames (CFN, Connection Frame Number) and the broadcast channel frame offset (Cell Frame Number). The Frame Offset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and the least significant 8 bits of SFN (System Frame Number) on Uu. The Frame Offset is UE and cell specific.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Offset			INTEGER (0..255)	Frames

9.2.1.31A IB_OC_ID

The IB OC ID identifies the occurrence of a specific Information Block.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB OC ID			INTEGER (1..16)	

9.2.1.31B GPS Navigation Model & Time Recovery

This IE contains subframes 1 to 3 of the GPS navigation message. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Navigation Message 1to3		<i>1..<maxNoSat></i>		
>Transmission TOW	M		INTEGER (0..1048575)	Time of the Week when the message is broadcast.
>SatID	M		INTEGER (0..63)	Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27].
>TLM Message	M		BIT STRING (14)	
>TIm Revd (C)	M		BIT STRING (2)	
>HO-Word	M		BIT STRING (22)	
>WN	M		BIT STRING (10)	
>C/A or P on L2	M		BIT STRING (2)	
>User Range Accuracy Index	M		BIT STRING (4)	
>SV Health	M		BIT STRING (6)	
>IODC	M		BIT STRING (10)	
>L2 P Data Flag	M		BIT STRING (1)	
>SF 1 Reserved	M		BIT STRING (87)	
>T _{GD}	M		BIT STRING (8)	
>t _{oc}	M		BIT STRING (16)	
>af ₂	M		BIT STRING (8)	
>af ₁	M		BIT STRING (16)	
>af ₀	M		BIT STRING (22)	
>C _{rs}	M		BIT STRING (16)	
>Δn	M		BIT STRING (16)	
>M ₀	M		BIT STRING (32)	
>C _{uc}	M		BIT STRING (16)	
>e	M		BIT STRING (32)	
>C _{us}	M		BIT STRING (16)	
>(A) ^{1/2}	M		BIT STRING (32)	
>t _{oe}	M		BIT STRING (16)	
>Fit Interval Flag	M		BIT STRING (1)	
>AODO	M		BIT STRING (5)	
>C _{ic}	M		BIT STRING (16)	
>OMEGA ₀	M		BIT STRING (32)	
>C _{is}	M		BIT STRING (16)	
>i ₀	M		BIT STRING (32)	
>C _{rc}	M		BIT STRING (16)	
>ω	M		BIT STRING (32)	
>OMEGA _{dot}	M		BIT STRING (24)	
>Idot	M		BIT STRING (14)	
>Spare/zero fill	M		BIT STRING (20)	

Range Bound	Explanation
<i>maxNoSat</i>	Maximum number of satellites for which information can be provided

9.2.1.31C GPS Ionospheric Model

This IE provides the information regarding the GPS Ionospheric Model. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
α_0	M		BIT STRING (8)	
α_1	M		BIT STRING (8)	
α_2	M		BIT STRING (8)	
α_3	M		BIT STRING (8)	
β_0	M		BIT STRING (8)	
β_1	M		BIT STRING (8)	
β_2	M		BIT STRING (8)	
β_3	M		BIT STRING (8)	

9.2.1.31D GPS UTC Model

This IE provides the information regarding the GPS UTC Model. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
A_1	M		BIT STRING (24)	
A_0	M		BIT STRING (32)	
t_{ot}	M		BIT STRING (8)	
Δt_{LS}	M		BIT STRING (8)	
WN_t	M		BIT STRING (8)	
WN_{LSF}	M		BIT STRING (8)	
DN	M		BIT STRING (8)	
Δt_{LSF}	M		BIT STRING (8)	

9.2.1.31E GPS Real-Time Integrity

This IE provides the information regarding the status of the GPS constellation. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Bad Satellites Presence</i>	M			
<i>>Bad Satellites</i>				
>>Satellite Information		<i>1..<maxNo Sat></i>		
<i>>>>BadSatID</i>	M		INTEGER (0..63)	Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27].
<i>>No Bad Satellites</i>			NULL	

Range Bound	Explanation
<i>maxNoSat</i>	Maximum number of satellites for which information can be provided

9.2.1.31F GPS Almanac

This IE provides the information regarding the GPS Almanac. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
WN _a	M		BIT STRING (8)	
Satellite Information	M	1..<maxNoOfSatAlmanac>		See Note 1.
>DataID	M		INTEGER (0..3)	
>SatID	M		INTEGER (0..63)	Identifies the satellite and is equal to (SV ID No - 1) where SV ID No is defined in [27].
>e	M		BIT STRING (16)	
>t _{oa}	M		BIT STRING (8)	
>δi	M		BIT STRING (16)	
>OMEGADOT	M		BIT STRING (16)	
>SV Health	M		BIT STRING (8)	
>A ^{1/2}	M		BIT STRING (24)	
>OMEGA ₀	M		BIT STRING (24)	
>M ₀	M		BIT STRING (24)	
>ω	M		BIT STRING (24)	
>af ₀	M		BIT STRING (11)	
>af ₁	M		BIT STRING (11)	
SV Global Health	O		BIT STRING (364)	

Range Bound	Explanation
maxNoOfSatAlmanac	Maximum number of satellite almanacs for which information can be provided

Note 1: This information element is a simplified representation of the ASN.1 description. Repetitions 1 through maxNoSat and repetitions maxNoSat+1 through maxNoOfSatAlmanac are represented by separate ASN.1 structures with different criticality.

9.2.1.31G GPS Receiver Geographical Position (GPS RX Pos)

The GPS Receiver Geographical Position is used to identify the geographical coordinates of a GPS receiver relevant for a certain Information Exchange Object.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Latitude Sign	M		ENUMERATED (North, South)	
Degrees of Latitude	M		INTEGER (0..2 ²³ -1)	The IE value (N) is derived by this formula: $N \leq 2^{23} \times X / 90 < N+1$ X being the latitude in degree (0°.. 90°)
Degrees of Longitude	M		INTEGER (-2 ²³ ..2 ²³ -1)	The IE value (N) is derived by this formula: $N \leq 2^{24} \times X / 360 < N+1$ X being the longitude in degree (-180°..+180°)
Direction of Altitude	M		ENUMERATED (Height, Depth)	
Altitude	M		INTEGER (0..2 ¹⁵ -1)	The relation between the value (N) and the altitude (a) in meters it describes is $N \leq a < N+1$, except for $N=2^{15}-1$ for which the range is extended to include all greater values of (a).

9.2.1.31Ga HSDPA Capability

This parameter defines the HSDPA capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HSDPA Capability			ENUMERATED (HSDPA Capable, HSDPA non Capable)	

9.2.1.31H HS-DSCH Information To Modify

The *HS-DSCH Information To Modify* IE is used for modification of HS-DSCH information in a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		<i>0..<maxno ofMACdFlows></i>			–	
>HS-DSCH MAC-d Flow ID	M		9.2.1.311		–	
>Allocation/Retention Priority	O		9.2.1.1A		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	–	
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
Priority Queue Information		<i>0..<maxno ofPrioQueues></i>			–	
>CHOICE <i>Priority Queue</i>	M				–	
>>Add <i>Priority Queue</i>						
>>>Priority Queue ID	M		9.2.1.49C		–	
>>>Associated HS-DSCH MAC-d Flow	M		HS-DSCH MAC-d Flow ID 9.2.1.311	Shall only refer to an HS-DSCH MAC-d flow already existing in the old configuration. Multiple Priority Queues can be associated with the same HS-DSCH MAC-d Flow ID.	–	
>>>Scheduling Priority Indicator	M		9.2.1.53H		–	
>>>T1	M		9.2.1.56a		–	
>>>Discard Timer	O		9.2.1.24E		–	
>>>MAC-hs Window Size	M		9.2.1.38B		–	
>>>MAC-hs Guaranteed Bit Rate	O		9.2.1.38Aa		–	
>>>MAC-d PDU Size Index		<i>1..<maxno ofMACdPDUindexes></i>			–	
>>>>SID	M		9.2.1.53I	Shall be ignored if <i>Maximum MAC-d PDU Size Extended</i> IE is present.	–	
>>>>MAC-d PDU Size	M		9.2.1.38A	Shall be ignored if <i>Maximum</i>	–	

				MAC-d PDU Size Extended IE is present.		
>>>RLC Mode	M		9.2.1.52B		–	
>>>Maximum MAC-d PDU Size Extended	O		MAC PDU Size Extended 9.2.1.38C		YES	reject
>>Modify Priority Queue						
>>>Priority Queue ID	M		9.2.1.49C	Shall only refer to a Priority Queue already existing in the old configuration.	–	
>>>Scheduling Priority Indicator	O		9.2.1.53H		–	
>>>T1	O		9.2.1.56a		–	
>>>Discard Timer	O		9.2.1.24E		–	
>>>MAC-hs Window Size	O		9.2.1.38B		–	
>>>MAC-hs Guaranteed Bit Rate	O		9.2.1.38Aa		–	
>>>MAC-d PDU Size Index		0..<maxno ofMACdP DUindexes >			–	
>>>>SID	M		9.2.1.53I	Shall be ignored if Maximum MAC-d PDU Size Extended IE is present.	–	
>>>>MAC-d PDU Size	M		9.2.1.38A	Shall be ignored if Maximum MAC-d PDU Size Extended IE is present.	–	
>>>Maximum MAC-d PDU Size Extended	O		MAC PDU Size Extended 9.2.1.38C		YES	reject
>>Delete Priority Queue						
>>>Priority Queue ID	M		9.2.1.49C	Shall only refer to a Priority Queue already existing in the old configuration.	–	
MAC-hs Reordering Buffer Size for RLC-UM	O		9.2.1.38Ab		–	
CQI Feedback Cycle k	O		9.2.2.21B	For FDD only	–	
CQI Repetition Factor	O		9.2.2.4Cb	For FDD only	–	
ACK-NACK Repetition Factor	O		9.2.2.a	For FDD only	–	
CQI Power Offset	O		9.2.2.4Ca	For FDD only	–	
ACK Power Offset	O		9.2.2.b	For FDD only	–	
NACK Power Offset	O		9.2.2.23a	For FDD only	–	
HS-SCCH Power Offset	O		9.2.2.18I	For FDD only	–	
Measurement Power Offset	O		9.2.2.21C	For FDD only	–	
HS-SCCH Code Change Grant	O		9.2.1.31L		–	
TDD ACK NACK Power Offset	O		9.2.3.18F	For TDD only	–	
HARQ Preamble Mode	O		9.2.2.18a	For FDD only	YES	ignore
HS-SICH SIR Target	O		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD	YES	ignore

				only		
UE Capabilities Information		0..1			YES	ignore
>HS-DSCH Physical Layer Category	M		9.2.1.31Ia		–	
>1.28 Mcps TDD Uplink Physical Channel Capability	O		9.2.3.5Gc	Applicable to 1.28Mcps TDD only	YES	ignore
>Number of Supported Carriers	O		ENUMERATED (One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Three-six carrier, Six-six carrier, ...)	Applicable to 1.28Mcps TDD only This IE indicates the number of carrier(s) the UE can support at the same time, where "x-y carrier" means x for the uplink, and y for the downlink.	YES	reject
>Multi-carrier HS-DSCH Physical Layer Category	O		9.2.1.31Ia	Applicable to 1.28Mcps TDD only	YES	ignore
HS-SICH TPC step size	O		9.2.3.21a	Applicable to 1.28Mcps TDD only	YES	ignore
HS-PDSCH Code Change Grant	O		9.2.1.31N	For FDD only	YES	ignore
MIMO Mode Indicator	O		9.2.2.72	For FDD only	YES	reject
HS-DSCH MAC-d PDU Size Format	O		9.2.1.31ID		YES	reject
Sixtyfour QAM Usage Allowed Indicator	O		9.2.2.74A	For FDD only	YES	ignore

Range Bound	Explanation
<i>maxnoofMACdFlows</i>	Maximum number of HS-DSCH MAC-d flows
<i>maxnoofPrioQueues</i>	Maximum number of Priority Queues
<i>maxnoofMACdPDUindexes</i>	Maximum number of different MAC-d PDU SIDs

9.2.1.31HA HS-DSCH Information To Modify Unsynchronised

The *HS-DSCH Information To Modify Unsynchronised* IE is used for modification of HS-DSCH information in a Node B Communication Context with the Unsynchronised Radio Link Reconfiguration procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		<i>0..<maxno ofMACdFlows></i>			–	
>HS-DSCH MAC-d Flow ID	M		9.2.1.31I		–	
>Allocation/Retention Priority	O		9.2.1.1A		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	–	
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
Priority Queue Information		<i>0..<maxno ofPrioQueues></i>			–	
>Priority Queue ID	M		9.2.1.49C		–	
>Scheduling Priority Indicator	O		9.2.1.53H		–	
>Discard Timer	O		9.2.1.24E		–	
>MAC-hs Guaranteed Bit Rate	O		9.2.1.38Aa		–	
CQI Power Offset	O		9.2.2.4Ca	For FDD only	–	
ACK Power Offset	O		9.2.2.b	For FDD only	–	
NACK Power Offset	O		9.2.2.23a	For FDD only	–	
HS-SCCH Power Offset	O		9.2.2.18I	For FDD only	–	
TDD ACK NACK Power Offset	O		9.2.3.18F	For TDD only	–	
HARQ Preamble Mode	O		9.2.2.18a	For FDD only	YES	ignore
HS-SICH SIR Target	O		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD only	YES	ignore
UE Capabilities Information		<i>0..1</i>			YES	ignore
>HS-DSCH Physical Layer Category	M		9.2.1.31Ia		YES	ignore
>1.28 Mcps TDD Uplink Physical Channel Capability	O		9.2.3.5Gc	Applicable to 1.28Mcps TDD only	YES	ignore
>Number of Supported Carriers	O		ENUMERATED (One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Three-six carrier, Six-six carrier, ...)	Applicable to 1.28Mcps TDD only This IE indicates the number of carrier(s) the UE can support at the same time, where "x-y carrier" means x for the uplink, and y for the downlink.	YES	reject
>Multi-carrier HS-DSCH Physical Layer Category	O		9.2.1.31Ia	Applicable to 1.28Mcps TDD	YES	ignore

HS-SICH TPC step size	O		9.2.3.21a	only Applicable to 1.28Mcps TDD only	YES	ignore
MIMO Mode Indicator	O		9.2.2.72	For FDD only	YES	reject
Sixtyfour QAM Usage Allowed Indicator	O		9.2.2.74A	For FDD only	YES	ignore

Range Bound	Explanation
<i>maxnoofMACdFlows</i>	Maximum number of HS-DSCH MAC-d flows
<i>maxnoofPrioQueues</i>	Maximum number of Priority Queues

9.2.1.31Ha HS-DSCH Initial Capacity Allocation

The *HS-DSCH Initial Capacity Allocation* IE provides flow control information for each scheduling priority class for the HS-DSCH FP over Iub.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH Initial Capacity Allocation		$1..<maxnoofPrioQueues>$			–	
>Scheduling Priority Indicator	M		9.2.1.53H		–	
>Maximum MAC-d PDU Size	M		MAC-d PDU Size 9.2.1.38A	Shall be ignored if <i>Maximum MAC-d PDU Size Extended</i> IE is present.	–	
>HS-DSCH Initial Window Size	M		9.2.1.31Hb		–	
>Maximum MAC-d PDU Size Extended	O		MAC PDU Size Extended 9.2.1.38C		YES	ignore

Range Bound	Explanation
<i>maxnoofPrioQueues</i>	Maximum number of Priority Queues

9.2.1.31Hb HS-DSCH Initial Window Size

Indicates the initial number of MAC-d PDUs (or octets in case *HS-DSCH MAC-d PDU Size Format* = "Flexible MAC-d PDU Size") that may be transmitted before new credits are received from the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Initial Window Size			INTEGER (1..255)	Number of MAC-d PDUs If <i>HS-DSCH MAC-d PDU Size Format</i> = "Flexible MAC-d PDU Size" the credit shall be determined in octets: credit (in octets) = <i>Maximum MAC-d PDU Size Extended</i> * <i>HS-DSCH Initial Window Size</i>

9.2.1.31I HS-DSCH MAC-d Flow ID

HS-DSCH MAC-d Flow ID is the unique identifier for one MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flow ID			INTEGER (0..7)	

9.2.1.31IA HS-DSCH MAC-d Flows Information

The *HS-DSCH MAC-d Flows Information* IE is used for the establishment of HS-DSCH MAC-d flows for a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		1..<maxno ofMACdFlows>			–	

>HS-DSCH MAC-d Flow ID	M		9.2.1.31I		–	
>Allocation/Retention Priority	M		9.2.1.1A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	–	
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
Priority Queue Information		<i>1..<maxno ofPrioQueues></i>			–	
>Priority Queue ID	M		9.2.1.49C		–	
>Associated HS-DSCH MAC-d Flow	M		HS-DSCH MAC-d Flow ID 9.2.1.31I	The HS-DSCH MAC-d Flow ID shall be one of the flow IDs defined in the HS-DSCH MAC-d Flow Specific Information of this IE. Multiple Priority Queues can be associated with the same HS-DSCH MAC-d Flow ID.	–	
>Scheduling Priority Indicator	M		9.2.1.53H		–	
>T1	M		9.2.1.56a		–	
>Discard Timer	O		9.2.1.24E		–	
>MAC-hs Window Size	M		9.2.1.38B		–	
>MAC-hs Guaranteed Bit Rate	O		9.2.1.38Aa		–	
>MAC-d PDU Size Index		<i>1..<maxno ofMACdPDUindexes></i>			–	
>>SID	M		9.2.1.53I	Shall be ignored if <i>Maximum MAC-d PDU Size Extended</i> IE is present.	–	
>>MAC-d PDU Size	M		9.2.1.38A	Shall be ignored if <i>Maximum MAC-d PDU Size Extended</i> IE is present.	–	
>RLC Mode	M		9.2.1.52B		–	
>Maximum MAC-d PDU Size Extended	O		MAC PDU Size Extended 9.2.1.38C		YES	reject

Range Bound	Explanation
<i>maxnoofMACdFlows</i>	Maximum number of HS-DSCH MAC-d flows
<i>maxnoofPrioQueues</i>	Maximum number of Priority Queues
<i>maxnoofMACdPDUindexes</i>	Maximum number of different MAC-d PDU SIDs

9.2.1.311B HS-DSCH MAC-d Flows To Delete

The *HS-DSCH MAC-d Flows To Delete* IE is used for the removal of HS-DSCH MAC-d flows from a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flows To Delete		<i>1..<maxnoofMACdFlows></i>		
>HS-DSCH MAC-d Flow ID	M		9.2.1.311	

Range Bound	Explanation
<i>maxnoofMACdFlows</i>	Maximum number of HS-DSCH MAC-d flows

9.2.1.311C HS-DSCH MAC-d PDU Size Capability

This parameter defines the capability for a Local Cell to support different MAC-d PDU Size formats. If this IE is set to "Flexible Size Capable" the Local Cell is "Indexed Size Capable" and "Flexible Size Capable". If not present or set to "Indexed Size Capable" the Local Cell is only "Indexed Size Capable".

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d PDU Size Capability			ENUMERATED (Indexed Size Capable, Flexible Size Capable)	

9.2.1.311D HS-DSCH MAC-d PDU Size Format

The *HS-DSCH MAC-d PDU Size Format* IE provides information about the type of MAC-d PDU Size Format used for HS-DSCH. "Indexed MAC-d PDU Size" uses MAC-d PDU sizes based on *SID* IE and *MAC-d PDU Size* IE of *MAC-d PDU Size Index* IE. "Flexible MAC-d PDU Size" uses a flexible MAC-d PDU size with a maximum PDU size as defined by *Maximum MAC-d PDU Size Extended* IE of *Priority Queue Information* IE. The actual MAC-d PDU size is determined as specified in [24] and [32].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d PDU Size Format			ENUMERATED (Indexed MAC-d PDU Size, Flexible MAC-d PDU Size)	

9.2.1.311a HS-DSCH Physical Layer Category

The *HS-DSCH Physical Layer Category* IE defines a set of UE radio access capabilities related to HSDPA, as defined in [33].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Physical Layer Category			INTEGER (1..64,...)	

9.2.1.311aa HS-DSCH Provided Bit Rate Value

The *HS-DSCH Provided Bit Rate Value* IE indicates the HS-DSCH Provided Bit Rate as defined in [32].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Provided Bit Rate Value			INTEGER (0..2 ²⁴ -1, ..., 2 ²⁴ ..256,000,000)	Expressed in bit/s for FDD, 1.28Mcps TDD and 3.84Mcps TDD. For 7.68Mcps TDD the value shall be doubled to give the value in bit/s.

9.2.1.311b HS-DSCH Provided Bit Rate Value Information

The *HS-DSCH Provided Bit Rate Value Information* IE reports the *HS-DSCH Provided Bit Rate Value* IE for each priority class.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Provided Bit Rate Value Information		1..<maxNo ofPriorityClasses>		
>Scheduling Priority Indicator	M		9.2.1.53H	
>HS-DSCH Provided Bit Rate Value	M		9.2.1.311aa	

Range Bound	Explanation
<i>maxNoofPriorityClasses</i>	Maximum number of HS-DSCH Scheduling Priorities

9.2.1.311ba HS-DSCH Required Power Value

The *HS-DSCH Required Power Value* IE indicates the minimum necessary power for a given priority class to meet the Guaranteed Bit Rate for all the established HS-DSCH connections belonging to this priority class.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Required Power Value			INTEGER (0..1000)	Expressed in thousandths of the max transmission power

9.2.1.311c HS-DSCH Required Power Value Information

The *HS-DSCH Required Power Value Information* IE reports the *HS-DSCH Required Power Value* IE for each priority class. For each priority class, a list of UEs, identified by the *CRNC Communication Context* IEs, requiring a particularly high amount of power to meet the Guaranteed Bit Rate for their established HS-DSCH connections may be included. Additionally, the *HS-DSCH Required Power Per UE Weight* IE may be included for each of those UEs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Required Power Value Information		<i>1..<maxNo ofPriorityClasses></i>		
>Scheduling Priority Indicator	M		9.2.1.53H	
>HS-DSCH Required Power Value	M		9.2.1.31Iba	
>HS-DSCH Required Power Per UE Information		<i>0..<maxNo ofContextsonUeList></i>		List of UEs with Guaranteed Bit Rate indicating their required power consumption relative to the HS-DSCH Required Power Value.
>>CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.
>>HS-DSCH Required Power Per UE Weight	O		INTEGER (0..100)	Expressed in percentage of the value provided in the <i>HS-DSCH Required Power Value</i> IE

Range Bound	Explanation
<i>maxNoofContextsonUeList</i>	Maximum number of Communication Contexts to include in the list of UEs
<i>maxNoofPriorityClasses</i>	Maximum number of HS-DSCH Scheduling Priorities

9.2.1.31J HS-DSCH RNTI

The HS-DSCH RNTI is used for the UE-specific CRC in HS-SCCH and HS-DSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH RNTI			INTEGER (0..65535)	

9.2.1.31K HS-SCCH Code Change Indicator

The HS-SCCH Code Change Indicator indicates whether the HS-SCCH Code change is needed or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Code Change Indicator			ENUMERATED (HS-SCCH Code Change needed)	

9.2.1.31L HS-SCCH Code Change Grant

The *HS-SCCH Code Change Grant* IE indicates that modification of HS-SCCH Codes is granted.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Code Change Grant			ENUMERATED (Change Granted)	

9.2.1.31M HS-PDSCH Code Change Indicator [FDD]

The HS-PDSCH Code Change Indicator indicates whether the HS-PDSCH Code change is needed or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-PDSCH Code Change Indicator			ENUMERATED (HS-PDSCH Code Change needed)	

9.2.1.31N HS-PDSCH Code Change Grant [FDD]

The *HS-PDSCH Code Change Grant* IE indicates that modification of HS-PDSCH Codes is granted.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-PDSCH Code Change Grant			ENUMERATED (Change Granted)	

9.2.1.32 IB_SG_DATA

Segment as defined in ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB_SG_DATA			BIT STRING	Contains "SIB data fixed" or "SIB data variable" in segment as encoded in ref. [18]. See Annex D

9.2.1.33 IB_SG_POS

The lowest position of a specific Information Block segment in the SFN cycle ($IB_SG_POS < IB_SG_REP$).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB_SG_POS			INTEGER (0..4094)	Only even positions are allowed. See ref. [18]

9.2.1.34 IB_SG_REP

Repetition distance for an Information Block segment. The segment shall be transmitted when $SFN \bmod IB_SG_REP = IB_SG_POS$.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB_SG_REP			ENUMERATED (4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096)	Repetition period for the IB segment in frames

9.2.1.35 IB Type

The IB Type identifies a specific system information block.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB Type			ENUMERATED (MIB, SB1, SB2, SIB1, SIB2, SIB3, SIB4, SIB5, SIB6, SIB7, not-Used-SIB8, not-Used-SIB9, not-Used-SIB10, SIB11, SIB12, SIB13, SIB13.1, SIB13.2, SIB13.3, SIB13.4, SIB14, SIB15, SIB15.1, SIB15.2, SIB15.3, SIB16, ..., SIB17, SIB15.4, SIB18, SIB15.5, SIB5bis, SIB11bis, SIB15bis, SIB15.1bis, SIB15.2bis, SIB15.3bis, 15.6, 15.7, 15.8)	

9.2.1.36 Indication Type

Void.

9.2.1.36A Information Exchange Object Type

Void.

9.2.1.36B Information Report Characteristics

The information report characteristics defines how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Information Report Characteristics Type</i>	M			
> <i>On Demand</i>			NULL	
> <i>Periodic</i>				
>>CHOICE <i>Information Report Periodicity Scale</i>	M			The frequency with which the Node B shall send information reports.
>>> <i>minute</i>				
>>>>Report Periodicity Value	M		INTEGER (1..60,...)	Unit: min
>>> <i>hour</i>				
>>>>Report Periodicity Value	M		INTEGER (1..24,...)	Unit: h
> <i>On Modification</i>				
>>Information Threshold	O		9.2.1.36E	

9.2.1.36C Information Exchange ID

The Information Exchange ID uniquely identifies any requested information per Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Information Exchange ID	M		INTEGER (0..2 ²⁰ -1)	

9.2.1.36D Information Type

The Information Type indicates which kind of information the Node B shall provide.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Information Type Item	M		ENUMERATED (GPS Information, DGPS Corrections, GPS RX Pos, ..., GANSS Information, DGANSS Corrections, GANSS RX Pos)		–	
GPS Information	C-GPS	<i>0..<maxNo GPSItems></i>			–	
>GPS Information Item			ENUMERATED (GPS Navigation Model & Time Recovery, GPS Ionospheric Model, GPS UTC Model, GPS Almanac, GPS Real-Time Integrity, ...)		–	
GANSS Information	C-GANSS	<i>1</i>			YES	ignore
> GANSS Common Data		<i>0..1</i>			–	
>>Ionospheric Model	O		BOOLEAN	True means requested	–	
> GANSS Generic Data		<i>0..<maxNo GANSS></i>			–	
>>GANSS ID	O		9.2.1.104		–	
>>GANSS Navigation Model And Time Recovery	O		BOOLEAN	True means requested	–	
>>GANSS Time Model GNSS-GNSS	O		BIT STRING(9)	Defines the time model required. Bit 1 is the MSB and bit 9 is the LSB (see section 9.2.0). Bit 1:GPS, Bit 2:Galileo Other bits are reserved.	–	
>>GANSS UTC Model	O		BOOLEAN	True means requested	–	
>>GANSS Almanac	O		BOOLEAN	True means requested	–	
>>GANSS Real Time Integrity	O		BOOLEAN	True means requested	–	
>> GANSS Data Bit Assistance		<i>0..1</i>			–	
>>>GANSS TOD	M		INTEGER (0..86399)	The GANSS Time Of Day for	–	

				which the data bits are requested		
>>>>Data Bit Assistance		1			–	
>>>>DGANSS Signal ID	M		BIT STRING(8)	Defined in [18]	–	
>>>>GANSS Data Bit Interval	M		INTEGER (0..15)	Defined in [18]	–	
>>>>Satellite Information		0..<maxGANNSSSat>			–	
>>>>Sat ID	M		INTEGER(0..63)	Identifies the satellite and is equal to (SV ID No - 1)	–	
DGANSS Corrections Req	C-DGANSS Corrections	1			YES	ignore
>DGANSS Signal ID	M		BIT STRING(8)	Defined in [18]	–	

Condition	Explanation
DGANSSCorrections	The IE shall be present if the Information Type Item IE indicates "DGANSS Corrections".
GPS	The IE shall be present if the Information Type Item IE indicates "GPS Information".
GANSS	The IE shall be present if the Information Type Item IE indicates "GANSS Information".

Range Bound	Explanation
maxGANNSSSat	Maximum number of satellites for which data is included in the IE
maxNoGPSItems	Maximum number of GPS Information Items supported in one Information Exchange
maxNoGANSS	Maximum number of GANSS Systems

9.2.1.36E Information Threshold

The Information Threshold indicates which kind of information shall trigger the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Information Type Item	M			
>DGPS				
>>PRC Deviation	M		ENUMERATED (1, 2, 5, 10, ...)	PRC deviation in meters from the previously reported value, which shall trigger a report
>DGANSS				
>>PRC Deviation	M		ENUMERATED (1, 2, 5, 10, ...)	PRC deviation in meters from the previously reported value, which shall trigger a report

9.2.1.36F IPDL Indicator

Indicates if IPDL periods shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IPDL Indicator			ENUMERATED (active, inactive)	

9.2.1.37 Limited Power Increase

Void.

9.2.1.37A Local Cell Group ID

The Local Cell Group ID represents resources in the Node B, which have been pooled from a capacity point of view.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Local Cell Group ID			Local Cell ID 9.2.1.38	

9.2.1.38 Local Cell ID

The local cell ID represents resources in the Node B that can be used for the configuration of a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Local Cell ID			INTEGER (0...268435455)	

9.2.1.38A MAC-d PDU Size

The *MAC-d PDU Size* provides the size in bits of the MAC-d PDU.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-d PDU Size			INTEGER (1..5000,...)	In case of E-DCH, value 8 and values not multiple of 8 shall not be used.

9.2.1.38Aa MAC-hs Guaranteed Bit Rate

The *MAC-hs Guaranteed Bit Rate* IE indicates the guaranteed number of bits per second that Node B should deliver over the air interface under normal operating conditions (provided there is data to deliver). If the *MAC-hs Guaranteed Bit Rate* IE is received with the value set to 0 during RL set up or modification, no guarantee is applied.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Guaranteed Bit Rate			INTEGER (0..2 ²⁴ -1, ..., 2 ²⁴ ..256,000,000)	Unit: bit/s

9.2.1.38Ab MAC-hs Reordering Buffer Size for RLC-UM

The *MAC-hs Reordering Buffer Size for RLC-UM* IE indicates the portion of the buffer in the UE that can be used for RLC-UM traffic (i.e. for Priority Queues whose *RLC Mode* IE is set to "RLC-UM").

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Reordering Buffer Size			INTEGER (0..300,...)	Unit: kBytes And N kBytes = N*1024 Bytes. The Node B shall use this value to avoid the overflow of the MAC-hs reordering buffer.

9.2.1.38Ac MAC-hs Reset Indicator

The *MAC-hs Reset Indicator* IE indicates that a reset of the MAC-hs is not required.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Reset Indicator			ENUMERATED (MAC-hs Not Reset)	

9.2.1.38B MAC-hs Window Size

The *MAC-hs Window Size* IE is used for MAC-hs PDU retransmission as defined in [32].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Window Size			ENUMERATED (4, 6, 8, 12, 16, 24, 32,...)	For 1.28Mcps TDD when TSN length is configured to 9bits, ENUMERATED (32, 64, 96, 128, 160, 192, 256,...)

9.2.1.38C MAC PDU Size Extended

The *MAC PDU Size Extended* IE provides the size in octets of the MAC level PDU when an extended MAC level PDU size is required.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC PDU Size Extended			INTEGER (1..1504,...,1505)	

9.2.1.39 Maximum DL Power Capability

This parameter indicates the maximum DL power capability for a local cell or a Power Local Cell Group within the Node B. The reference point is the antenna connector. If Transmit Diversity can be used in the local cell, the parameter indicates the maximum for the linear sum of the power that can be used on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum DL Power Capability			INTEGER (0..500)	Unit: dBm Range: 0..50 dBm Step: 0.1 dB

9.2.1.40 Maximum Transmission Power

The Maximum Transmission Power is the maximum value for the linear sum of the power of all downlink physical channels, that is allowed to be used in a cell. If Transmit Diversity is applied to one downlink physical channel, the power to be considered for this downlink physical channel is the linear sum of the power used for this downlink physical channel on all branches. [1.28Mcps TDD - For a multi-frequency cell, the Maximum Transmission Power is

the maximum value for the linear sum of the power of all downlink physical channels, that is allowed to be used on one frequency in a cell.] The reference point is the antenna connector.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Transmission Power			INTEGER (0..500)	Unit: dBm Range: 0..50 Step: 0.1 dB

9.2.1.40A Measurement Availability Indicator

Void.

9.2.1.40B Measurement Change Time

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Time Scale</i>	M			
> <i>millisecond</i>				
>>Measurement Change Time Value	M		INTEGER (1..6000,...)	Unit: ms Range: 10..60000 ms Step: 10 ms

9.2.1.41 Measurement Filter Coefficient

The Measurement Filter Coefficient determines the amount of filtering to be applied for measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Filter Coefficient			ENUMERATED (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19,...)	

9.2.1.41A Measurement Hysteresis Time

The Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the Measurement Reporting procedure to be triggered.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Time Scale</i>	M			
> <i>millisecond</i>				
>>Measurement Hysteresis Time Value	M		INTEGER (1..6000,...)	Unit: ms Range: 10..60000 ms Step: 10 ms

9.2.1.42 Measurement ID

The Measurement ID uniquely identifies any measurement per (Node B or Communication) Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement ID			INTEGER (0..2 ²⁰ -1)	

9.2.1.43 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE <i>Measurement Increase/Decrease Threshold</i>	M				–	
> <i>Received Total Wide Band Power</i>						
>>Received Total Wide Band Power	M		INTEGER (0..620)	Unit: dB Range: 0..62 dB Step: 0.1 dB	–	
> <i>Transmitted Carrier Power</i>						
>>Transmitted Carrier Power	M		INTEGER (0..100)	According to mapping in [22] and [23]	–	
> <i>Acknowledged PRACH Preambles</i>				FDD only		
>>Acknowledged PRACH Preambles	M		INTEGER (0..240,...)	According to mapping in [22]	–	
> <i>UL Timeslot ISCP</i>				TDD only		
>>UL Timeslot ISCP	M		INTEGER (0..126)	Unit: dB Range: 0..63 dB Step: 0.5 dB	–	
> <i>SIR</i>						
>>SIR	M		INTEGER (0..62)	Unit: dB Range: 0..31 dB Step: 0.5 dB	–	
> <i>SIR Error</i>				FDD only		
>>SIR Error	M		INTEGER (0..124)	Unit: dB Range: 0..62 dB Step: 0.5 dB	–	
> <i>Transmitted Code Power</i>						
>>Transmitted Code Power	M		INTEGER (0..112,...)	Unit: dB Range: 0..56 dB Step: 0.5 dB	–	
> <i>RSCP</i>				TDD only		
>>RSCP	M		INTEGER (0..126)	Unit: dB Range: 0..63 dB Step: 0.5 dB	–	
> <i>Round Trip Time</i>				FDD only		
>>Round Trip Time	M		INTEGER (0..32766)	Unit: chips Range: 0 .. 2047.875 chips Step: 0.625 chips	–	
> <i>Not Used 1</i>			NULL	This choice shall not be used. Reject procedure if received.		
> <i>Not Used 2</i>			NULL	This choice shall not be used. Reject procedure if received.		
> <i>Additional Measurement Thresholds</i>				See Note 1.		
>> <i>Transmitted Carrier Power Of All Codes Not Used For HSTransmission</i>						
>>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission	M		INTEGER (0..100)	According to mapping in [22], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICHTransmission"	YES	reject

				and mapping in [23], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission"		
>>Transmitted Carrier Power For Cell Portion				FDD only		
>>>Transmitted Carrier Power For Cell Portion	M		INTEGER (0..100)	Mapping identical to the one for Transmitted Carrier Power measurement in [22]	YES	reject
>>Received Total Wide Band Power For Cell Portion				FDD only		
>>>Received Total Wide Band Power For Cell Portion	M		INTEGER (0..620)	Unit: dB Range: 0..62 dB Step: 0.1 dB	YES	reject
>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion				FDD only		
>>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion	M		INTEGER (0..100)	Mapping identical to the one for Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission measurement in [22]	YES	reject
>>UpPCH interference				1.28Mcps TDD Only		
>>>UpPCH interference Value	M		INTEGER (0..127,...)	According to mapping in [23]	YES	reject
>>Received Scheduled E-DCH Power Share				FDD only		
>>>RSEPS value	M		INTEGER (0..151)	According to mapping in [22]	YES	reject
>>Received Scheduled E-DCH Power Share For Cell Portion				FDD only		
>>>RSEPS value	M		INTEGER (0..151)	According to mapping in [22]	YES	reject

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

9.2.1.43A Measurement Recovery Behavior

This IE controls the Measurement Recovery Behavior.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Recovery Behavior			NULL	

9.2.1.43B Measurement *Recovery Reporting Indicator*

This IE indicates the Measurement Recovery Reporting.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Recovery Reporting Indicator			NULL	

9.2.1.43C Measurement Recovery Support Indicator

This IE indicates the Measurement Recovery Support.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Recovery Support Indicator			NULL	

9.2.1.44 Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event A, B, E, F or On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE <i>Measurement Threshold</i>	M				–	
> <i>Received Total Wide Band Power</i>						
>> <i>Received Total Wide Band Power</i>	M		INTEGER (0..621)	According to mapping in [22] and [23]	–	
> <i>Transmitted Carrier Power</i>						
>> <i>Transmitted Carrier Power</i>	M		INTEGER (0..100)	According to mapping in [22] and [23]	–	
> <i>Acknowledged PRACH Preambles</i>				FDD only		
>> <i>Acknowledged PRACH Preambles</i>	M		INTEGER (0..240,...)	According to mapping in [22]	–	
> <i>UL Timeslot ISCP</i>				TDD only		
>> <i>UL Timeslot ISCP</i>	M		INTEGER (0..127)	According to mapping in [23]	–	
> <i>SIR</i>						
>> <i>SIR</i>	M		INTEGER (0..63)	According to mapping in [22] and [23]	–	
> <i>SIR Error</i>				FDD only		
>> <i>SIR Error</i>	M		INTEGER (0..125)	According to mapping in [22]	–	
> <i>Transmitted Code Power</i>						
>> <i>Transmitted Code Power</i>	M		INTEGER (0..127)	According to mapping in [22] and [23]	–	
> <i>RSCP</i>				TDD only		
>> <i>RSCP</i>	M		INTEGER (0..127)	According to mapping in [23]	–	
> <i>Rx Timing Deviation</i>				Applicable to 3.84Mcps TDD only		
>> <i>Rx Timing Deviation</i>	M		INTEGER (0..8191)	According to mapping in [23]	–	
> <i>Round Trip Time</i>				FDD only		
>> <i>Round Trip Time</i>	M		INTEGER (0..32767)	According to mapping in [22]	–	
> <i>Not Used 1</i>			NULL	This choice shall not be used. Reject procedure if received.		
> <i>Not Used 2</i>			NULL	This choice shall not be used. Reject procedure if received.		
> <i>Additional Measurement Thresholds</i>				See Note 1.		
>> <i>UTRAN GPS Timing Of Cell Frames For UE Positioning</i>					–	
>>> <i>T_{UTRAN-GPS} Measurement Threshold Information</i>	M		9.2.1.64B		YES	reject
>> <i>SFN-SFN Observed Time Difference</i>						
>>> <i>SFN-SFN Measurement Threshold Information</i>	M		9.2.1.53C		YES	reject
>> <i>Rx Timing Deviation LCR</i>				Applicable to 1.28Mcps TDD Only		
>>> <i>Rx Timing Deviation LCR</i>	M		INTEGER (0..511)	According to mapping in [23]	YES	reject

>>HS-SICH Reception Quality				Applicable to TDD Only		
>>>HS-SICH Reception Quality	M		INTEGER (0..20)	According to mapping in [23]	YES	reject
>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission						
>>>Transmitted Carrier Power Of All Codes Not Used For HSTransmission	M		INTEGER (0..100)	According to mapping in [22], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICHTransmission" and [23], measurement "Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission"	YES	reject
>>HS-DSCH Required Power						
>>>HS-DSCH Required Power Value	M		9.2.1.31Iba		YES	reject
>>Transmitted Carrier Power For Cell Portion				FDD only		
>>>Transmitted Carrier Power For Cell Portion	M		INTEGER (0..100)	Mapping identical to the one for Transmitted Carrier Power measurement in [22]	YES	reject
>>Received Total Wide Band Power For Cell Portion				FDD only		
>>>Received Total Wide Band Power For Cell Portion	M		INTEGER (0..621)	Mapping identical to the one for Received Total Wide Band Power measurement in [22]	YES	reject
>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission For Cell Portion				FDD only		
>>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission Value For Cell Portion	M		INTEGER (0..100)	Mapping identical to the one for Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH, HS-SCCH, E-AGCH, E-RGCH or E-HICH Transmission measurement in [22]	YES	reject
>>UpPCH interference				1.28Mcps TDD Only		
>>>UpPCH	M		INTEGER	According to mapping	YES	reject

interference Value			(0..127,...)	in [23]		
>>DL Transmission Branch Load				FDD Only		
>>>DL Transmission Branch Load Value	M		INTEGER (0..101,...)	According to mapping in [22]	YES	reject
>>HS-DSCH Required Power For Cell Portion				FDD only		
>>>HS-DSCH Required Power Value For Cell Portion	M		HS-DSCH Required Power Value 9.2.1.31ba		YES	reject
>>E-DCH Non-serving Relative Grant Down Commands				FDD only		
>>>E-DCH Non-serving Relative Grant Down Commands Value	M		INTEGER (0..100,...)	Down Commands per second	YES	reject
>>Rx Timing Deviation 768				Applicable to 7.68Mcps TDD Only		
>>>Rx Timing Deviation 768	M		INTEGER (0..65535)	According to mapping in [23]	YES	reject
>>Rx Timing Deviation 384 Extended				Applicable to 3.84Mcps TDD Only		
>>>Rx Timing Deviation 384 Extended	M		INTEGER (0..32767)	According to mapping in [23]	YES	reject
>>Extended Round Trip Time				FDD only		
>>>Extended Round Trip Time Value	M		INTEGER (32767..103041)	Continuation of intervals with step size as defined in [22].	YES	reject
>>Received Scheduled E-DCH Power Share				FDD only		
>>>RSEPS value	M		INTEGER (0..151)	According to mapping in [22]	YES	reject
>>Received Scheduled E-DCH Power Share for Cell Portion				FDD only		
>>>RSEPS value	M		INTEGER (0..151)	According to mapping in [22]	YES	reject
>>Additional HS-SICH Reception Quality				Applicable to 1.28Mcps TDD Only		
>>>HS-SICH Reception Quality LCR	M		INTEGER (0..20)	According to mapping in [23] used when the Measurement Threshold Value for HS-SICH Reception Quality are more than 20, Measurement Threshold Value = 20 + IE Value	YES	reject
>>UTRAN GANSS Timing Of Cell Frames For UE Positioning						

>>>T _{UTRAN-GANSS} Measurement Threshold Information	M		9.2.1.99		YES	reject
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Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

9.2.1.45 Message Discriminator

This field is used to discriminate between Dedicated NBAP and Common NBAP messages.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Message Discriminator			ENUMERATED (Common, Dedicated)	

9.2.1.45A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occurred error (reported in the *Information Element Criticality Diagnostics* IE).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Message Structure		1..<maxnooflevels>		The first repetition of the <i>Message Structure</i> IE corresponds to the top level of the message. The last repetition of the <i>Message Structure</i> IE corresponds to the level above the reported level for the occurred error of the message.
>IE ID	M		INTEGER (0..65535)	The IE ID of this level's IE containing the not understood or missing IE.
>Repetition Number	O		INTEGER (1..256)	The <i>Repetition Number</i> IE gives, if applicable, the number of occurrences of this level's reported IE up to and including the occurrence containing the not understood or missing IE. Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them.

Range Bound	Explanation
maxnooflevels	Maximum number of message levels to report. The value for maxnooflevels is 256.

9.2.1.46 Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Procedure ID	M	1		
>Procedure Code	M		INTEGER (0..255)	"0" = Audit "1" = Audit Required "2" = Block Resource "3" = Cell Deletion "4" = Cell Reconfiguration "5" = Cell Setup "6" = Common Measurement Failure "7" = Common Measurement Initiation "8" = Common Measurement Report "9" = Common Measurement Termination "10" = Common Transport Channel Delete "11" = Common Transport Channel Reconfigure "12" = Common Transport Channel Setup "13" = Reset "14" = Compressed Mode Command "16" = Dedicated Measurement Failure "17" = Dedicated Measurement Initiation "18" = Dedicated Measurement Report "19" = Dedicated Measurement Termination "20" = Downlink Power Control "21" = Error Indication (For Dedicated Procedures) "23" = Radio Link Addition "24" = Radio Link Deletion "25" = Radio Link Failure "26" = Radio Link Restoration "27" = Radio Link Setup "28" = Resource Status Indication "29" = Synchronised Radio Link Reconfiguration Cancellation "30" = Synchronised Radio Link Reconfiguration Commit "31" = Synchronised Radio Link Reconfiguration Preparation "32" = System Information Update "33" = Unblock Resource "34" = Unsynchronised Radio Link Reconfiguration "35" = Error Indication (For Common Procedures) "37" = Physical Shared Channel Reconfiguration "38" = Downlink Power Timeslot Control "39" = Radio Link Preemption "40" = Information Exchange Failure "41" = Information Exchange Initiation "42" = Information Exchange Termination "43" = Information Reporting "44" = Cell Synchronisation Adjustment "45" = Cell Synchronisation Initiation "46" = Cell Synchronisation Reconfiguration "47" = Cell Synchronisation Reporting "48" = Cell Synchronisation Termination "49" = Cell Synchronisation Failure "50" = Bearer Rearrangement "51" = Radio Link Activation "52" = Radio Link Parameter Update "53" = MBMS Notification Update
>Ddmode	M		ENUMERATED (TDD, FDD, Common, ...)	Common = common to FDD and TDD.
Type of Message	M		ENUMERATED (

			Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	
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9.2.1.46a MICH CFN

The MICH CFN indicates the Connection Frame Number for the MICH. It corresponds to the Cell SFN of the frame in which the start of the S-CCPCH frame is located, see ref [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MICH CFN			INTEGER (0..4095)	

9.2.1.46A Minimum DL Power Capability

This parameter indicates the minimum DL power capability for a local cell within the Node B. The reference point is the antenna connector. If Transmit Diversity can be used in the local cell, the parameter indicates the minimum for the linear sum of the power that can be used on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum DL Power Capability			INTEGER (0..800)	Unit: dBm Range: -30 .. +50 dBm Step: 0.1 dB

9.2.1.47 Minimum Spreading Factor

This parameter indicates the minimum spreading factor supported at a cell within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum Spreading Factor			ENUMERATED (4, 8, 16, 32, 64, 128, 256, 512)	[TDD - Mapping scheme for the minimum spreading factor 1 and 2: "256" means 1 "512" means 2]

9.2.1.47a Modification Period

The Modification Period of the MICH, see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Modification Period			ENUMERATED (1280, 2560, 5120, 10240,...)	Unit: ms

9.2.1.47A N_INSYNC_IND

This parameter is used by the Node B for achievement/re-achievement of UL synchronisation on the Uu interface as defined in ref. [10] and [21].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
N_INSYNC_IND			INTEGER (1..256)	

9.2.1.47B N_OUTSYNC_IND

This parameter defines the number of consecutive out-of-sync indications after which the timer T_RLFAILURE shall be started (see also ref. [10] and [21]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
N_OUTSYNC_IND			INTEGER (1..256)	

9.2.1.47C Neighbouring FDD Cell Measurement Information

This IE provides information on the FDD neighbouring cells used for the purpose of measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UC-Id	M		9.2.1.65B	
UARFCN	M		9.2.1.65	Corresponds to Nd [14]
Primary Scrambling Code	M		9.2.2.34	

9.2.1.47D Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time Slot* IE and *Midamble Shift And Burst Type* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UC-Id	M		9.2.1.65B	
UARFCN	M		9.2.1.65	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.3.4	
Time Slot	O		9.2.3.23	
Midamble Shift And Burst Type	O		9.2.3.7	

9.2.1.47E Neighbouring TDD Cell Measurement Information LCR

This IE provides information on the neighbouring 1.28Mcps TDD cells used for the purpose of measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time Slot LCR* IE and *Midamble Shift LCR* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UC-Id	M		9.2.1.65B	
UARFCN	M		9.2.1.65	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.3.4	
Time Slot LCR	O		9.2.3.24A	
Midamble Shift LCR	O		9.2.3.7A	

9.2.1.47F NI

The *NI* IE provides a Notification Indicator determined as specified in [37].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
NI			INTEGER (0..65535)	

9.2.1.48 Node B Communication Context ID

The Node B Communication Context ID is the identifier of the Communication Context in the Node B, it corresponds to the dedicated resources which are necessary for an UE using one or more dedicated channels in a given Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Node B Communication Context ID			INTEGER (0..2 ²⁰ -1)	"2 ²⁰ -1" is a reserved value indicating all the existing and future Node B Communication Contexts that can be reached by the Communication Control Port (All NBCC).

9.2.1.49 Payload CRC Presence Indicator

This parameter indicates whether FP payload 16 bit CRC is used or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Payload CRC Presence Indicator			ENUMERATED (CRC Included, CRC Not Included, ...)	

9.2.1.49A PICH Power

The *PICH Power* IE indicates a power level relative to the [FDD - Primary CPICH power] [TDD - Primary CCPCH power] configured in a cell. If Transmit Diversity is applied to the PICH (resp. the MICH), the *PICH Power* IE indicates the power offset between the linear sum of the power for the PICH (resp. the MICH) on all branches and the [FDD - Primary CPICH power] [TDD - Primary CCPCH power] configured in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PICH Power			INTEGER (-10..+5)	Unit: dB Range: -10 .. +5 dB Step: 1dB

9.2.1.49B Power Local Cell Group ID

The Power Local Cell Group ID represents resources in the Node B which have been pooled from a DL power capability point of view.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Local Cell Group ID			Local Cell ID 9.2.1.38	

9.2.1.49C Priority Queue ID

The Priority Queue ID provides the identity of the Priority Queue. The Priority Queue ID is unique across all MAC-d flows that are currently allocated for one Node B Communication Context or across all Common MAC flows within a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Priority Queue ID			INTEGER (0..7)	

9.2.1.49D Process Memory Size

The *Process Memory Size* IE is the size of an HARQ process in the Node B expressed in bits. It provides the maximum number of soft channel bits in the virtual IR buffer [8] or [34].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Process Memory Size			ENUMERATED (800, 1600, 2400, 3200, 4000, 4800, 5600, 6400, 7200, 8000, 8800, 9600, 10400, 11200, 12000, 12800, 13600, 14400, 15200, 16000, 17600, 19200, 20800, 22400, 24000, 25600, 27200, 28800, 30400, 32000, 36000, 40000, 44000, 48000, 52000, 56000, 60000, 64000, 68000, 72000, 76000, 80000, 88000, 96000, 104000, 112000, 120000, 128000, 136000, 144000, 152000, 160000, 176000, 192000, 208000, 224000, 240000, 256000, 272000, 288000, 304000,...)	

9.2.1.50 Puncture Limit

The Puncture Limit limits the amount of puncturing that can be applied in order to minimise the number of dedicated physical channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Puncture Limit			INTEGER (0..15)	Unit: % Range: 40..100 % Step: 4 % 100% means no puncturing [FDD - Value "0" is not applicable for E-DPCH.]

9.2.1.50A QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
QE-Selector			ENUMERATED (Selected, Non-Selected)	

9.2.1.51 Report Characteristics

The report characteristics define how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE <i>Report Characteristics</i>	M				–	
> <i>On Demand</i>			NULL			
> <i>Periodic</i>						
>>Report Periodicity	M		9.2.1.51a	The frequency with which the Node B shall send measurement reports.	–	
> <i>Event A</i>						
>>Measurement Threshold	M		9.2.1.44	The threshold for which the Node B shall trigger a measurement report.	–	
>>Measurement Hysteresis Time	O		9.2.1.41A		–	
> <i>Event B</i>						
>>Measurement Threshold	M		9.2.1.44	The threshold for which the Node B shall trigger a measurement report.	–	
>>Measurement Hysteresis Time	O		9.2.1.41A		–	
> <i>Event C</i>						
>>Measurement Increase/Decrease Threshold	M		9.2.1.43		–	
>>Measurement Change Time	M		9.2.1.40B	The time the measurement entity shall rise on (in ms), in order to trigger a measurement report.	–	
> <i>Event D</i>						
>>Measurement Increase/Decrease Threshold	M		9.2.1.43		–	
>>Measurement Change Time	M		9.2.1.40B	The time the measurement entity shall fall (in ms), in order to trigger a measurement report.	–	
> <i>Event E</i>						
>>Measurement Threshold 1	M		Measurement Threshold 9.2.1.44		–	
>>Measurement Threshold 2	O		Measurement Threshold 9.2.1.44		–	
>>Measurement Hysteresis Time	O		9.2.1.41A		–	
>>Report Periodicity	O		9.2.1.51a	The frequency with which the Node B shall send measurement reports.	–	
> <i>Event F</i>						
>>Measurement Threshold 1	M		Measurement Threshold 9.2.1.44		–	
>>Measurement Threshold 2	O		Measurement Threshold 9.2.1.44		–	
>>Measurement Hysteresis Time	O		9.2.1.41A		–	
>>Report Periodicity	O		9.2.1.51a	The frequency with which the Node B shall send	–	

				measurement reports.		
>Additional Report Characteristics				See Note 1		
>>On Modification						
>>>On Modification		1			YES	reject
>>>>Measurement Threshold	M		9.2.1.44		–	

Note 1: This information element is a simplified representation of the ASN.1. The choice is performed through the use of a ProtocolIE-Single-Container and a ProtocolExtensionContainer within the ASN.1.

9.2.1.51a Report Periodicity

The Report Periodicity defines the frequency at which the Node B shall send measurement reports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Report Periodicity Scale</i>	M			
> <i>millisecond</i>				
>>Report Periodicity Value	M		INTEGER (1..6000,...)	Unit: ms Range: 10..60000 ms Step: 10 ms
> <i>minute</i>				
>>Report Periodicity Value	M		INTEGER (1..60,...)	Unit: min Range: 1..60 min Step: 1 min

9.2.1.51A Requested Data Value

The *Requested Data Value* IE contains the relevant data concerning the ongoing information exchange. The *Requested Data Value* IE shall include at least one of the following IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DGPS Corrections	O		9.2.1.24B		–	
GPS Navigation Model & Time Recovery	O		9.2.1.31B		–	
GPS Ionospheric Model	O		9.2.1.31C		–	
GPS UTC Model	O		9.2.1.31D		–	
GPS Almanac	O		9.2.1.31F		–	
GPS Real-Time Integrity	O		9.2.1.31E		–	
GPS RX Pos	O		9.2.1.31G		–	
GANSS Common Data		0..1			YES	ignore
>GANSS Ionospheric Model	O		9.2.1.91		–	
>GANSS RX Pos	O		9.2.1.95		–	
GANSS Generic Data		0..<max NoGANSS>			GLOBAL	ignore
>GANSS ID	O		9.2.1.104		–	
>DGANSS Corrections	O		9.2.1.88		–	
>GANSS Navigation Model And Time Recovery	O		9.2.1.105		–	
>GANSS Time Model	O		9.2.1.96		–	
>GANSS UTC Model	O		9.2.1.97		–	
>GANSS Almanac	O		9.2.1.89		–	
>GANSS Real Time Integrity	O		9.2.1.94		–	
>GANSS Data Bit Assistance	O		9.2.1.103		–	

Range Bound	Explanation
maxNoGANSS	Maximum number of GANSS Systems

9.2.1.51B Requested Data Value Information

The *Requested Data Value Information* IE provides information on whether or not the Requested Data Value is available in the message and also the Requested Data Value itself if available. In case of "Periodic" and "On Modification" reporting, "Information Not Available" shall be used when at least one part of the requested information was not available at the moment of initiating the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Information Availability Indicator</i>	M			
> <i>Information Available</i>				
>>Requested Data Value	M		9.2.1.51A	
> <i>Information Not Available</i>			NULL	

9.2.1.52 Resource Operational State

The Resource Operational State is used to indicate the current operational state of the associated resource following a Node B failure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Resource Operational State			ENUMERATED (Enabled, Disabled)	When a resource is marked as disabled, then its child resources are implicitly disabled. Cell Resource hierarchy can be referred to [6].

9.2.1.52A Retention Priority

Void.

9.2.1.52B RLC Mode

The *RLC Mode* IE indicates the RLC Mode used for a Priority Queue.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RLC Mode			ENUMERATED (RLC-AM, RLC-UM,...)	

9.2.1.53 RL ID

The RL ID is the unique identifier for one RL associated with a UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL ID			INTEGER (0..31)	

9.2.1.53a RNC-Id

This is the identifier of one RNC in UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RNC-Id			INTEGER (0..4095)	

9.2.1.53b RTWP* Reporting Indicator

The RTWP* Reporting Indicator indicates if the RTWP* measurement value shall be included together with the reported RSEPS measurement value.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RTWP* Indicator			ENUMERATED (RTWP* Reporting Required)	

9.2.1.53c RTWP* for Cell Portion Reporting Indicator

The RTWP* for Cell Portion Reporting Indicator indicates if the RTWP* for Cell Portion measurement value shall be included together with the reported RSEPS measurement value.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RTWP* per Cell Portion Indicator			ENUMERATED (RTWP* for Cell Portion Reporting Required)	

9.2.1.53A SFN

System Frame Number of the cell, see ref. [17].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN			INTEGER (0..4095)	

9.2.1.53B Segment Type

Segment type as defined in [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Segment Type			ENUMERATED (First segment, First segment short, Subsequent segment, Last segment, Last segment short, Complete SIB, Complete SIB short, ...)	

9.2.1.53C SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN-SFN Change Limit	O		INTEGER(1..256)	Change of SFN-SFN value compared to previously reported value, which shall trigger a new report. Unit: chip Step: 1/16 chip
Predicted SFN-SFN Deviation Limit	O		INTEGER(1..256)	Deviation of the predicated SFN-SFN from the latest measurement result, which shall trigger a new report. Unit: chip Step: 1/16 chip

9.2.1.53D SFN-SFN Measurement Time Stamp

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Mode</i>	M			
> <i>FDD</i>				
>>SFN	M		9.2.1.53A	Indicates the SFN of the reference cell at which the measurement has been performed.
> <i>TDD</i>				
>>SFN	M		9.2.1.53A	Indicates the SFN of the reference cell at which the measurement has been performed.
>>Time Slot	M		9.2.3.23	Indicates the Time Slot of the reference cell at which this measurement has been performed.

9.2.1.53E SFN-SFN Measurement Value Information

The *SFN-SFN Measurement Value Information* IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information		<i>1..<maxno MeasNCell ></i>		
>UC-Id	M		9.2.1.65B	
>SFN-SFN Value	M		9.2.1.53F	
>SFN-SFN Quality	O		INTEGER (0..255)	Indicates the standard deviation (std) of the SFN-SFN Observed Time Difference measurements in 1/16 chip. $SFN-SFN\ Quality = \sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN-SFN Value and $\mu = E[x]$ is the expectation value of x.
>SFN-SFN Drift Rate	M		INTEGER (-100..+100)	Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell.
>SFN-SFN Drift Rate Quality	O		INTEGER (0..100)	Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. $SFN-SFN\ Drift\ Rate\ Quality = \sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Drift Rate, where x is the reported SFN-SFN Drift Rate and $\mu = E[x]$ is the expectation value of x.
>SFN-SFN Measurement Time Stamp	M		9.2.1.53D	
Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information		<i>0..<maxno MeasNCell -1></i>		
>UC-Id	M		9.2.1.65B	

Range Bound	Explanation
<i>maxnoMeasNCell</i>	Maximum number of neighbouring cells that can be measured on

9.2.1.53F SFN-SFN Value

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Mode	M			
>FDD				
>>SFN-SFN	M		INTEGER (0..614399)	According to mapping in [22].
>TDD				1.28 Mcps and 3.84 Mcps only
>>SFN-SFN	M		INTEGER (0..40961)	According to mapping in [23].
>TDD 7.68 Mcps				
>>SFN-SFN	M		INTEGER (0..81923)	According to mapping in [23].

9.2.1.53G RL Specific DCH Information

The *RL Specific DCH Information* IE provides RL specific DCH Information for DCHs. In the case of a set of co-ordinated DCHs requiring a new transport bearer on Iub, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE shall be included only for one of the DCHs in the set of co-ordinated DCHs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
RL Specific DCH Information		<i>1..<maxno ofDCHs></i>			–	
>DCH ID	M		9.2.1.20		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	–	
>Transport Bearer Not Requested Indicator	O		9.2.2.4G	FDD Only	YES	ignore

Range Bound	Explanation
<i>maxnoofDCHs</i>	Maximum number of DCHs for one UE

9.2.1.53H Scheduling Priority Indicator

Indicates the relative priority of the HS-DSCH [FDD - or E-DCH data frame]. Used by the Node B when scheduling HS-DSCH[FDD - or E-DCH].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Scheduling Priority Indicator			INTEGER (0..15)	Relative priority of the HS-DSCH [FDD - or E-DCH data frame]: "0" =Lowest Priority ... "15" =Highest Priority

9.2.1.53I SID

The *SID* IE provides the identity of the Size Index.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SID			INTEGER (0..7)	

9.2.1.54 SIB Deletion Indicator

Void.

9.2.1.55 SIB Originator

Indicates if the Node B shall fill in the SIB information or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SIB Originator			ENUMERATED (Node B, CRNC, ...)	

9.2.1.55A Signalling Bearer Request Indicator

The *Signalling Bearer Request Indicator* IE indicates if a new signalling bearer needs to be established for the control of Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Signalling Bearer Request Indicator			ENUMERATED (Bearer Requested)	

9.2.1.56 Shutdown Timer

The shutdown timer shall indicate the length of time available to the CRNC to perform the block of a resource when a Normal priority block is requested.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Shutdown Timer			INTEGER (1..3600)	Unit: second

9.2.1.56a T1

The *T1* IE is used as described in ref [32] subclause 11.6.2.3.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
T1			ENUMERATED (10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 120, 140, 160, 200, 300, 400, ...)	Unit: ms Node B may use this value to stop the re-transmission of the corresponding MAC-hs PDU.

9.2.1.56A T_RLFAILURE

The Radio Link Failure procedure shall be triggered after a period of time T_RLFAILURE has elapsed with a persisting out-of-sync indication (see also ref. [10] and [21]).

Information Element/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T_RLFAILURE			INTEGER (0..255)	Unit: second Range: 0 .. 25.5 s Step: 0.1 s

9.2.1.56B Start Of Audit Sequence Indicator

Indicates if the AUDIT REQUEST message initiates a new audit sequence or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Start Of Audit Sequence Indicator			ENUMERATED (Start Of Audit Sequence, Not Start Of Audit Sequence)	

9.2.1.56C TFCI2 Bearer Request Indicator

Void.

9.2.1.57 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included. [TDD - If it is present in the timeslot, it will be mapped to the channelisation code defined by [19].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI presence			ENUMERATED (Present, Not Present)	

9.2.1.58 TFCS (Transport Format Combination Set)

The Transport Format Combination Set is defined as a set of Transport Format Combinations on a Coded Composite Transport Channel. It is the allowed Transport Format Combinations of the corresponding Transport Channels. The DL Transport Format Combination Set is applicable for DL Transport Channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>TFCS Values</i>	M			
> <i>Always Used</i>				This choice is always made.
>> TFCS		1.. <i>maxno ofTFCS</i> >		The first instance of the parameter corresponds to TFCI zero, the second to 1 and so on. [TDD - The first entry (for TFCI 0) should be ignored by the receiver.]
>>>CTFC	M		9.2.1.18A	
>>>CHOICE <i>Gain Factors</i>	C-PhysChan			
>>>> <i>Signalled Gain Factors</i>				
>>>>>CHOICE <i>Mode</i>	M			
>>>>>>FDD				
>>>>>>>Gain Factor β_c	M		INTEGER (0..15)	For UL DPCH or control part of PRACH; mapping in accordance to [9]
>>>>>>>Gain Factor β_D	M		INTEGER (0..15)	For UL DPCH or data part of PRACH: mapping in accordance to [9]
>>>>>>>TDD				
>>>>>>>>Gain Factor β	M		INTEGER (0..15)	For UL DPCH in TDD; mapping in accordance to [20].
>>>>>>>>Reference TFC nr	O		INTEGER (0..3)	If this TFC is a reference TFC, this IE indicates the reference number.
>>>>>Computed <i>Gain Factors</i>				
>>>>>>>>Reference TFC nr	M		INTEGER (0..3)	Indicates the reference TFC to be used to calculate the gain factors for this TFC.
> <i>Not Used</i>				This choice shall never be made by the CRNC and the Node B shall consider the procedure as failed if it is received.

Condition	Explanation
PhysChan	The IE shall be present if the TFCS concerns a UL DPCH or PRACH channel .

Range Bound	Explanation
<i>maxnoofTFCS</i>	The maximum number of Transport Format Combinations

9.2.1.58A TNL QoS

This IE indicates the TNL QoS characteristics of the transport bearer for the uplink data traffic.

When the *DS Field* IE is used, the value of this IE is configurable by the operator.

When the *Generic Traffic Category* IE is used, generic traffic categories are implementation-specific (e.g. they may be determined by the sender from the application parameters). The value assigned to each of these categories and sent in the *Generic Traffic Category* IE is configurable by the operator, as well as the mapping of this value to DS field [35] at the Node B side.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>TNL QoS type</i>	M			
> <i>DS Field</i>				
>>DS Field	M		BIT STRING (8)	DS Field as defined in [35]. Typically used when the Node B and its CRNC are in the same DS domain as defined in [36].
> <i>Generic Traffic Category</i>				
>>Generic Traffic Category	M		BIT STRING (8)	

9.2.1.59 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

[TDD - The Transport Format Set for each transport channel within the same CCTrCH shall have the same value for the 2nd *Interleaving Mode* IE.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dynamic Transport Format Information		<i>1..<maxTFcount></i>		The first instance of the parameter corresponds to TFI zero, the second to 1 and so on.
>Number of Transport Blocks	M		INTEGER (0..512)	
>Transport Block Size	C-Blocks		INTEGER (0..5000)	Unit: Bits
>CHOICE <i>Mode</i>	M			
>> <i>TDD</i>				
>>>Transmission Time Interval Information	C-TTIdynamic	<i>1..<maxTTIcount></i>		
>>>>Transmission Time Interval	M		ENUMERATED (10, 20, 40, 80,...)	Unit: ms
Semi-Static Transport Format Information		1		
>Transmission Time Interval	M		ENUMERATED (10, 20, 40, 80, dynamic,...,5)	Unit: ms; Value "dynamic" for TDD only; Value "5" for LCR TDD only; For FDD DCH, the value "80" is applicable only when <i>DL DPCH Slot Format</i> IE indicates a slot format with SF=512.
>Type Of Channel Coding	M		ENUMERATED (No codingTDD, Convolutional, Turbo, ...)	[FDD - The value "No codingTDD" shall be treated as logical error if received]
>Coding Rate	C-Coding		ENUMERATED (1/2, 1/3,...)	
>Rate Matching Attribute	M		INTEGER (1..maxRM)	
>CRC Size	M		ENUMERATED (0, 8, 12, 16, 24,...)	
>CHOICE <i>Mode</i>	M			
>> <i>TDD</i>				
>>>2 nd Interleaving Mode	M		ENUMERATED (Frame related, Timeslot related, ...)	

Condition	Explanation
Blocks	The IE shall be present if the <i>Number Of Transport Blocks</i> IE is set to a value greater than 0.
Coding	The IE shall be present if the <i>Type Of Channel Coding</i> IE is set to "Convolutional" or "Turbo".
TTLdynamic	The IE shall be present if the <i>Transmission Time Interval</i> IE in the <i>Semi-Static Transport Format Information</i> IE is set to "dynamic".

Range Bound	Explanation
<i>maxTFcount</i>	Maximum number of different Transport Formats that can be included in the Transport Format Set for one transport channel
maxRM	Maximum number that could be set as rate matching attribute for a transport channel
<i>maxTTLcount</i>	The amount of different TTIs that are possible for that Transport Format

9.2.1.60 ToAWE

TOAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. TOAWE is defined with a positive value relative Latest Time of Arrival (LTOA). A data frame arriving after TOAWE gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ToAWE			INTEGER (0..2559)	Unit: ms

9.2.1.61 ToAWS

TOAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. TOAWS is defined with a positive value relative Time of Arrival Window Endpoint (TOAWE). A data frame arriving before TOAWS gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ToAWS			INTEGER (0..1279)	Unit: ms

9.2.1.62 Transaction ID

The transaction ID is used to associate all the messages belonging to the same procedure. Messages belonging to the same procedure shall use the same transaction ID.

The transaction ID is determined by the initiating peer of a procedure. For common procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and signalled over the same Node B Control Port. For dedicated procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and initiated towards the same Node B/CRNC context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Transaction ID Length</i>				The Transaction ID shall be interpreted for its integer value, not for the type of encoding ("short" or "long").
>Short				
>>Transaction ID Value	M		INTEGER (0..127)	
>Long				
>>Transaction ID Value	M		INTEGER (0..32767)	

9.2.1.62A Transport Bearer Request Indicator

Indicates whether a new transport bearer needs to be established for carrying the concerned transport channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer Request Indicator			ENUMERATED (Bearer Requested, Bearer Not Requested, ...)	

9.2.1.63 Transport Layer Address

In case of transport bearer establishment with ALCAP [2][31], this IE contains the address to be used for Transport Network Control Plane signalling to establish the transport bearer according to [2][31].

In order to allow transport bearer establishment without ALCAP, this IE contains the address of the transport bearer to be used for the user plane transport.

For details on the Transport Address used see ref. [2][31].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Layer Address			BIT STRING (1..160, ...)	

9.2.1.64 TSTD Indicator

Indicates if TSTD shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TSTD Indicator			ENUMERATED (active, inactive)	

9.2.1.64A T_{UTRAN-GPS} Measurement Value Information

The T_{UTRAN-GPS} *Measurement Value Information* IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frames for UE Positioning measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
$T_{\text{UTRAN-GPS}}$		1		Indicates the UTRAN GPS Timing of Cell Frames for UE Positioning. According to mapping in [22]. Significant values range from 0 to 37158911999999.
>MS	M		INTEGER (0..16383)	Most Significant Part
>LS	M		INTEGER (0..4294967295)	Least Significant Part
$T_{\text{UTRAN-GPS}}$ Quality	O		INTEGER (0..255)	Indicates the standard deviation (std) of the $T_{\text{UTRAN-GPS}}$ measurements in 1/16 chip. $T_{\text{UTRAN-GPS}}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{\text{UTRAN-GPS}}$ Value, where x is the reported $T_{\text{UTRAN-GPS}}$ Value and $\mu = E[x]$ is the expectation value of x.
$T_{\text{UTRAN-GPS}}$ Drift Rate	M		INTEGER (-50..+50)	Indicates the $T_{\text{UTRAN-GPS}}$ drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock.
$T_{\text{UTRAN-GPS}}$ Drift Rate Quality	O		INTEGER (0..50)	Indicates the standard deviation (std) of the $T_{\text{UTRAN-GPS}}$ drift rate measurements in 1/256 chip per second. $T_{\text{UTRAN-GPS}}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{\text{UTRAN-GPS}}$ Drift Rate, where x is the reported $T_{\text{UTRAN-GPS}}$ Drift Rate and $\mu = E[x]$ is the expectation value of x.

9.2.1.64B $T_{\text{UTRAN-GPS}}$ Measurement Threshold Information

The $T_{\text{UTRAN-GPS}}$ Measurement Threshold Information defines the related thresholds for UTRAN GPS Timing of Cell Frames for UE Positioning measurements shall trigger the event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
$T_{\text{UTRAN-GPS}}$ Change Limit	O		INTEGER (1..256)	Change of $T_{\text{UTRAN-GPS}}$ value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted $T_{\text{UTRAN-GPS}}$ Deviation Limit	O		INTEGER (1..256)	Deviation of the predicated $T_{\text{UTRAN-GPS}}$ from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

9.2.1.64C $T_{\text{UTRAN-GPS}}$ Accuracy Class

The $T_{\text{UTRAN-GPS}}$ Accuracy Class IE indicates the accuracy class of the UTRAN GPS Timing of Cell Frames for UE Positioning measurement.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T _{UTRAN-GPS} Accuracy Class			ENUMERATED (Accuracy Class A, Accuracy Class B, Accuracy Class C, ...)	More information about T _{UTRAN-GPS} Measurement Accuracy Class is included in [22] and [23].

9.2.1.65 UARFCN

Designates the carrier frequency.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UARFCN			INTEGER (0..16383,...)	As defined in subclause 5.4.3 in [14] and [15]

9.2.1.65A UL Capacity Credit

The capacity credit indicates to the CRNC the Uplink capacity of a Local Cell or a Local Cell Group.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Capacity Credit			INTEGER (0..65535)	

9.2.1.65B UTRAN Cell Identifier (UC-Id)

The UC-Id (UTRAN Cell identifier) is the identifier of a cell in one UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
RNC-Id	M		9.2.1.53a	If the <i>Extended RNC-ID</i> IE is included in the <i>UC-Id</i> IE, the <i>RNC-Id</i> IE shall be ignored.	–	–
C-Id	M		9.2.1.9		–	–
Extended RNC-ID	O		9.2.1.65C	The <i>Extended RNC-ID</i> IE shall be used if the RNC identity has a value larger than 4095.	YES	reject

9.2.1.65C Extended RNC-ID

This is the identifier of one RNC in UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended RNC-ID			INTEGER(4096..65535)	Note: Application of the <i>Extended RNC-ID</i> IE to very large networks is FFS.

9.2.1.66 UL FP Mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL FP Mode			ENUMERATED (Normal, Silent, ...)	

9.2.1.67 UL interference level

Void.

9.2.1.67A UL SIR

The UL SIR indicates a received UL SIR.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL SIR			INTEGER (-82..173)	Value = UL SIR/10 Unit: dB Range: -8.2 .. +17.3 dB Step: 0.1 dB

9.2.1.68 Unidirectional DCH Indicator

The *Unidirectional DCH Indicator* IE indicates that the DCH is unidirectional.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Unidirectional DCH Indicator			ENUMERATED (Downlink DCH only, Uplink DCH only)	

9.2.1.69 E-DCH MAC-d Flow Multiplexing List

The E-DCH MAC-d Flow Multiplexing List indicates which E-DCH MAC-d flows are allowed to be multiplexed within a MAC-e PDU with the MAC-d flow it is associated to. If the E-DCH MAC-d Flow Multiplexing List is signalled for an E-DCH MAC-d flow it indicates that E-DCH MAC-d PDUs of this E-DCH MAC-d flow are the first E-DCH MAC-d PDU in the MAC-e PDU. If an E-DCH MAC-d Flow Multiplexing List was already received within a previous Radio Link related procedure and no E-DCH MAC-d Flow Multiplexing List is signalled for an E-DCH MAC-d flow, the Node B shall continue to use the previously received one. If no E-DCH MAC-d Flow Multiplexing List was ever received for an E-DCH MAC-d flow no restrictions shall be assumed for the related E-DCH MAC-d flow for multiplexing E-DCH MAC-d flows.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Multiplexing List			BIT STRING (8)	The first Bit corresponds to E-DCH MAC-d flow 0, the second bit corresponds to E-DCH MAC-d flow 1, etc.

9.2.1.70 E-DCH Capability

This parameter defines the E-DCH capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Capability			ENUMERATED (E-DCH Capable, E-DCH non Capable)	

9.2.1.71 E-DCH Logical Channel Information

The *E-DCH Logical Channel Information* IE is used for the establishment of E-DCH Logical Channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH Logical Channel Information		<i>1..<maxno of logical channels></i>				
>Logical Channel ID	M		9.2.1.80			
>Scheduling Priority Indicator	M		9.2.1.53H			
>Scheduling Information	M		9.2.1.84			
>MAC-es Guaranteed Bit Rate	O		9.2.1.82			
>E-DCH DDI Value	M		9.2.1.76	If more than 1 MAC-d PDU size is configured for this Logical Channel, the different sizes will use subsequent DDI values starting from this DDI value. Value "0x3F" is reserved		
>MAC-d PDU Size List		<i>1..<maxno of MACdP DUSize></i>				
>>MAC-d PDU Size	M		9.2.1.38A			
>MAC-es Maximum Bit Rate LCR	O		9.2.3.72	1.28Mcps TDD only	YES	ignore

Range Bound	Explanation
<i>Maxnooflogicalchannels</i>	Maximum number of logical channels
<i>maxnoofMACdPDUSize</i>	Maximum number of MAC-d PDU size per Logical Channels

9.2.1.72 E-DCH Logical Channel To Modify

The *E-DCH Logical Channel To Modify* IE is used for the reconfiguration of E-DCH Logical Channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH Logical Channel Information		<i>1..<maxno oflogicalchannels></i>				
>Logical Channel ID	M		9.2.1.80			
>Scheduling Priority Indicator	O		9.2.1.53H			
>Scheduling Information	O		9.2.1.84			
>MAC-es Guaranteed Bit Rate	O		9.2.1.82			
>E-DCH DDI Value	O		9.2.1.76	If more than 1 MAC-d PDU size is configured for this Logical Channel, the different sizes will use subsequent DDI values starting from this DDI value. Value "0x3F" is reserved		
>MAC-d PDU Size List		<i>0..<maxno ofMACdPDUSize></i>				
>>MAC-d PDU Size	M		9.2.1.38A			
>MAC-es Maximum Bit Rate LCR	O		9.2.3.72	1.28Mcps TDD only	YES	ignore

Range Bound	Explanation
<i>maxnooflogicalchannels</i>	Maximum number of logical channels
<i>maxnoofMACdPDUSize</i>	Maximum number of MAC-d PDU size per Logical Channels

9.2.1.73 E-DCH MAC-d Flows To Delete

The *E-DCH MAC-d Flows To Delete* IE is used for the removal of E-DCH MAC-d flows.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flows To Delete		<i>1..<maxno ofEDCHMACdFlows></i>		
>E-DCH MAC-d Flow ID	M		9.2.1.74	

Range Bound	Explanation
<i>maxnoofEDCHMACdFlows</i>	Maximum number of E-DCH MAC-d flows

9.2.1.74 E-DCH MAC-d Flow ID

The E-DCH MAC-d Flow ID is the unique identifier for one MAC-d flow on E-DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow ID			INTEGER (0..maxnoofEDCHMACdFlows - 1)	

Range Bound	Explanation
<i>maxNoofEDCHMACdFlows</i>	Maximum number of E-DCH MAC-d flows

9.2.1.75 E-RNTI

The E-RNTI is needed for the UE (or UE group) specific CRC in E-AGCH, see ref. [38].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RNTI			INTEGER (0..65535)	

9.2.1.76 E-DCH DDI Value

The E-DCH DDI Value is the Data Description Indicator value identifying a unique combination of E-DCH MAC-d Flow ID and MAC-d PDU Size.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH DDI Value			INTEGER (0..62)	

9.2.1.77 E-DCH Provided Bit Rate Value

The *E-DCH Provided Bit Rate Value* IE indicates the E-DCH Provided Bit Rate as defined in [32].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Provided Bit Rate Value			INTEGER (0..2 ²⁴ -1, ..., 2 ²⁴ ..256,000,000)	Expressed in bit/s.

9.2.1.78 E-DCH Provided Bit Rate Value Information

The *E-DCH Provided Bit Rate Value Information* IE reports the *E-DCH Provided Bit Rate Value* IE for each priority class.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Provided Bit Rate Value Information		<i>1..<maxNo ofPriorityClasses></i>		
>Scheduling Priority Indicator	M		9.2.1.53H	
>E-DCH Provided Bit Rate Value	M		9.2.1.77	

Range Bound	Explanation
<i>maxNoofPriorityClasses</i>	Maximum number of E-DCH Scheduling Priorities

9.2.1.79 E-DCH Processing Overload Level

The *E-DCH Processing Overload Level* IE defines the threshold that determines when the Node B shall indicate processing issue problems to the RNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
E-DCH Processing Overload Level			INTEGER (0..10,...)	Number of consecutive TTIs. The value '0' is a special value that means infinity, i.e. when this value is used, the Node B shall never indicate processing issue to the RNC.

9.2.1.80 Logical channel ID

The *Logical Channel ID* IE is used to identify a E-DCH logical channel in Sheduling Information that is sent over Uu.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Logical Channel ID			INTEGER (1..15)	

9.2.1.81 Maximum Number Of Retransmissions For E-DCH

The *Maximum Number Of Retransmissions For E-DCH* IE specifies the upper boundary for retransmissions for a single MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number Of Retransmissions For E-DCH			INTEGER (0..15)	

9.2.1.82 MAC-es Guaranteed Bit Rate

The *MAC-es Guaranteed Bit Rate* IE indicates the guaranteed number of bits per second to be delivered over the air interface under normal operating conditions (provided there is data to deliver) for which the Node B shall provide sufficient UL resources. If the *MAC-es Guaranteed Bit Rate* IE is received with the value set to 0 during RL set up or modification, no guarantee is applied.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-es Guaranteed Bit Rate			INTEGER (0..2 ²⁴ -1, ..., 2 ²⁴ ..256,000,000)	Unit: bit/s

9.2.1.83 MAC-e Reset Indicator

Indicates the MAC-e Reset is performed in UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-e Reset Indicator			ENUMERATED (MAC-e Reset)	

9.2.1.84 Scheduling Information

The *Scheduling Information* IE indicates whether the scheduling information is included for the E-DCH logical channel or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Scheduling Information			ENUMERATED (Included, Not Included)	

9.2.1.85 E-DCH Power Offset for Scheduling Info

The *E-DCH Power Offset for Scheduling Info* is used to calculate the [FDD - E-DPDCH][TDD - E-PUCH] power for transmission of scheduling information without any MAC-d PDUs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Power Offset for Scheduling Info			INTEGER (0..6)	Unit: dB Step: 1 dB

9.2.1.86 MBMS Capability

This parameter defines the MBMS capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MBMS Capability			ENUMERATED (MBMS Capable, MBMS non Capable)	

9.2.1.87 Modulation

Indicates the modulation to be used for a S-CCPCH CCTrCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Modulation			ENUMERATED (QPSK, 16QAM, ...)	

9.2.1.88 DGANSS Corrections

This IE contains DGANSS corrections.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
DGANSS Reference Time	M		INTEGER(0..3570 by step of 30)	Seconds. Time in GNSS system time (modulo 3600 s) when the DGANSS corrections were calculated
DGANSS Information		1 to <maxSgnType>		
>GANSS Signal ID	O		9.2.1.106	

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
>Status/Health	M		ENUMERATED(UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.2, UDRE scale 0.1, no data, invalid data)	
>DGANSS Signal Information	C- Status/Health	1 to <maxGANSat>		If the Cipher information is included these fields are ciphered.
>>Sat ID	M		INTEGER(0..63)	Identifies the satellite and is equal to (SV ID No - 1)
>>IOD	M		BIT STRING(10)	
>>UDRE	M		ENUMERATED(UDRE ≤ 1.0 m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE)	The value in this field shall be multiplied by the UDRE Scale Factor in the IE Status/Health to determine the final UDRE estimate for the particular satellite.
>>PRC	M		INTEGER(-2047..2047)	Scaling factor 0.32 meters
>>RRC	M		INTEGER(-127..127)	Scaling factor 0.032 meters/sec

Condition	Explanation
Status/Health	This IE shall be present if the Status/Health IE value is not equal to "no data" or "invalid data".

Range Bound	Explanation
maxGANSat	Maximum number of satellites for which data is included in the IE
maxSgnType	Maximum number of signals for which data is included in the IE

9.2.1.89 GANSS Almanac

This IE contains a reduced-precision subset of the ephemeris and clock correction parameters.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
Week Number	M		INTEGER(0. .255)	Almanac reference week , number of weeks since the beginning of GANSS specific system time (mod 256)
<i>CHOICE Almanac Model</i> > <i>Keplerian Parameters</i>	M			
>>T _{oa}	M		INTEGER(0. .255)	Scaling factor 2 ¹² s Reference time of almanac within week in GANSS TOD time base
>>IOD _a	M		INTEGER(0. .3)	Issue-Of –Data, common to all satellites
>>> Satellite Information KP		1 to <maxGAN SSSatAlm anac>		Almanacs are in the order of the SV IDs, the smallest ID first.
>>>>Sat ID	M		INTEGER(0. .63)	Identifies the satellite and is equal to (SV ID No - 1)
>>>>e	M		BIT STRING(11)	Eccentricity, dimensionless [39]
>>>>δi	M		BIT STRING(11)	semi-circles [39]
>>>>OMEGADOT	M		BIT STRING(11)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles/sec) [39]
>>>>SV Health KP	M		BIT STRING(4)	dimensionless
>>>>delta A ^{1/2}	M		BIT STRING(17)	Semi-Major Axis delta (meters) ^{1/2} [39]
>>>>OMEGA ₀	M		BIT STRING(16)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles) [39]
>>>>M ₀	M		BIT STRING(16)	Mean Anomaly at Reference Time (semi-circles) [39]
>>>>ω	M		BIT STRING(16)	Argument of Perigee (semi- circles) [39]
>>>>af ₀	M		BIT STRING(14)	Seconds [39]
>>>>af ₁	M		BIT STRING(11)	sec/sec [39]

Range Bound	Explanation
maxGANSSSatAlmanac	Maximum number of satellites for which data is included in the IE

9.2.1.90 GANSS Clock Model

The IE contains fields needed to model the GANSS clock parameters.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
Satellite Clock Model		1 to <maxGANSSClockMod>		There may be more than one clock model included if defined in SIS ICD (e.g. two for Galileo)
>t _{oc}	M		BIT STRING(14)	defined in [39]
>a _{i2}	M		BIT STRING(12)	defined in [39]
>a _{i1}	M		BIT STRING(18)	defined in [39]
>a _{i0}	M		BIT STRING(28)	defined in [39]
>T _{GD}	O		BIT STRING(10)	defined in [39]
>Model ID	O		INTEGER(0..1,...)	Coded as defined in [18].

Range bound	Explanation
maxGANSSClockMod	Maximum number of satellite clock models for which data is included in the IE.

9.2.1.91 GANSS Ionospheric Model

The IE contains fields needed to model the propagation delays of the GANSS signals through the ionosphere.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
a _{i0}	M		BIT STRING(12)	This parameter is used as defined in [39]
a _{i1}	M		BIT STRING(12)	This parameter is used as defined in [39]
a _{i2}	M		BIT STRING(12)	This parameter is used as defined in [39]
GANSS Ionosphere Regional Storm Flags		0..1		
>Storm Flag 1	M		BOOLEAN	This parameter is used as defined in [39]
>Storm Flag 2	M		BOOLEAN	This parameter is used as defined in [39]
>Storm Flag 3	M		BOOLEAN	This parameter is used as defined in [39]
>Storm Flag 4	M		BOOLEAN	This parameter is used as defined in [39]
>Storm Flag 5	M		BOOLEAN	This parameter is used as defined in [39]

9.2.1.92 GANSS Navigation Model

Void.

9.2.1.93 GANSS Orbit Model

This IE contains information for GANSS orbit model parameters.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
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IE/Group name	Presence	Range	IE Type and Reference	Semantics description
CHOICE <i>Orbit Model</i>	M			
> <i>Keplerian Parameters</i>				
>> <i>t_{oe}</i>	M		BIT STRING(14)	Time-of-Ephemeris in seconds, scale factor 60 [39]
>> <i>ω</i>	M		BIT STRING(32)	Argument of Perigee (semi-circles) [39]
>> <i>Δn</i>	M		BIT STRING(16)	Mean Motion Difference From Computed Value (semi-circles/sec) [39]
>> <i>M₀</i>	M		BIT STRING(32)	Mean Anomaly at Reference Time (semi-circles) [39]
>> <i>OMEGA_{dot}</i>	M		BIT STRING(24)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles/sec) [39]
>> <i>e</i>	M		BIT STRING(32)	Eccentricity, scale factor 2 ⁻³³ [39]
>> <i>l_{dot}</i>	M		BIT STRING(14)	Rate of Inclination Angle (semi-circles/sec) [39]
>> <i>sqrtA</i>	M		BIT STRING(32)	Semi-Major Axis in (meters) ^{1/2} , scale factor 2 ⁻¹⁹ [39]
>> <i>i₀</i>	M		BIT STRING(32)	Inclination Angle at Reference Time (semi-circles) [39]
>> <i>OMEGA₀</i>	M		BIT STRING(32)	Longitude of Ascending Node of Orbit Plane at Weekly Epoch (semi-circles) [39]
>> <i>C_{rs}</i>	M		BIT STRING(16)	Amplitude of the Sine Harmonic Correction Term to the Orbit Radius (meters) [39]
>> <i>C_{is}</i>	M		BIT STRING(16)	Amplitude of the Sine Harmonic Correction Term To The Angle Of Inclination (radians) [39]
>> <i>C_{us}</i>	M		BIT STRING(16)	Amplitude of the Sine Harmonic Correction Term To The Argument Of Latitude (radians) [39]
>> <i>C_{rc}</i>	M		BIT STRING(16)	Amplitude of the Cosine Harmonic Correction Term to the Orbit Radius (meters) [39]
>> <i>C_{ic}</i>	M		BIT STRING(16)	Amplitude of the Cosine Harmonic Correction Term To The Angle Of Inclination (radians) [39]
>> <i>C_{uc}</i>	M		BIT STRING(16)	Amplitude of the Cosine Harmonic Correction Term To The Argument Of Latitude (radians) [39]

9.2.1.94 GANSS Real Time Integrity

This IE contains parameters that describe the real-time status of the GANSS constellation.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
Satellite Information		1 to < <i>maxGAN</i> <i>SSSat</i> >		
>Bad GANSS Sat ID	M		INTEGER(0. .63)	Identifies the satellite and is equal to (SV ID No - 1).
>Bad GANSS Signal ID	O		BIT STRING(8)	Coded as defined in [18].

Range Bound	Explanation
<i>maxGANSSSat</i>	Maximum number of satellites for which data is included in the IE

9.2.1.95 GANSS Receiver Geographical Position (GANSS RX Pos)

The *GANSS Receiver Geographical Position* IE is used to identify the geographical coordinates of a GANSS receiver relevant for a certain Information Exchange Object.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Latitude Sign	M		ENUMERATED (North, South)	
Degrees of Latitude	M		INTEGER (0..2 ³¹ -1)	The IE value (N) is derived by this formula: $N \leq 2^{31} \times X / 90 < N+1$ X being the latitude in degree (0°.. 90°)
Degrees of Longitude	M		INTEGER (-2 ³¹ ..2 ³¹ -1)	The IE value (N) is derived by this formula: $N \leq 2^{32} \times X / 360 < N+1$ X being the longitude in degree (-180°..+180°)
Direction of Altitude	M		ENUMERATED (Height, Depth)	
Altitude	M		INTEGER (0..2 ¹⁵ -1)	The relation between the value (N) and the altitude (a) in meters it describes is $N \leq a < N+1$, except for $N=2^{15}-1$ for which the range is extended to include all greater values of (a).

9.2.1.96 GANSS Time Model

The *GANSS Time Model* IE contains a set of parameters needed to relate GANSS time to selected time reference indicated by GNSS_TO_ID.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
GANSS Time Model Reference Time	M		INTEGER(0..37799)	GANSS reference time (modulo 1 week) in seconds. The scale factor is 2 ⁴
T _{A0}	M		INTEGER(-2147483648..2147483647)	Seconds, scale factor 2 ⁻³⁵
T _{A1}	O		INTEGER(-8388608..8388607)	sec/sec, scale factor 2 ⁻⁵¹
T _{A2}	O		INTEGER(-64..63)	sec/sec ² , scale factor 2 ⁻⁶⁸
GNSS_TO_ID	M		ENUMERATED(GPS,...)	
Week Number	O		INTEGER(0..8191)	Reference week of GANSS Time Model

9.2.1.97 GANSS UTC Model

The *GANSS UTC Model* IE contains a set of parameters needed to relate GANSS time to Universal Time Coordinate (UTC).

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
A ₁	M		BIT STRING(24)	sec/sec [39]
A ₀	M		BIT STRING(32)	seconds [39]
t _{ot}	M		BIT STRING(8)	seconds [39]
WN _t	M		BIT STRING(8)	weeks [39]
Δt _{LS}	M		BIT STRING(8)	seconds [39]
WN _{LSF}	M		BIT STRING(8)	weeks [39]
DN	M		BIT STRING(8)	days [39]
Δt _{LSF}	M		BIT STRING(8)	seconds [39]

9.2.1.98 T_{UTRAN-GANSS} Accuracy Class

The *T_{UTRAN-GANSS} Accuracy Class* IE indicates the accuracy class of the UTRAN GANSS Timing of Cell Frames for UE Positioning measurement.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T _{UTRAN-GANSS} Accuracy Class			ENUMERATED (Accuracy Class A, Accuracy Class B, Accuracy Class C, ...)	More information about T _{UTRAN-GANSS} Measurement Accuracy Class is included in [22] and [23].

9.2.1.99 T_{UTRAN-GANSS} Measurement Threshold Information

The *T_{UTRAN-GANSS} Measurement Threshold Information* IE defines the related thresholds for UTRAN GANSS Timing of Cell Frames for UE Positioning measurements shall trigger the event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T _{UTRAN-GANSS} Change Limit	O		INTEGER (1..256)	Change of T _{UTRAN-GANSS} value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted T _{UTRAN-GANSS} Deviation Limit	O		INTEGER (1..256)	Deviation of the predicated T _{UTRAN-GANSS} from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

9.2.1.100 T_{UTRAN-GANSS} Measurement Value Information

The *T_{UTRAN-GANSS} Measurement Value Information* IE indicates the measurement results related to the UTRAN GANSS Timing of Cell Frames for UE Positioning measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T_{UTRAN-GANSS}	M			Indicates the UTRAN GANSS Timing of Cell Frames for UE Positioning. According to mapping in [23]; significant values range from 0 to 37158911999999.
>MS	M		INTEGER(0..16383)	Most Significant Part
>LS	M		INTEGER(0..4294967295)	Least Significant Part
T _{UTRAN-GANSS} Quality	O		INTEGER(0..255)	Indicates the standard deviation (std) of the T _{UTRAN-GANSS} measurements in 1/16 chip. $T_{UTRAN-GANSS} \text{ Quality} = \sqrt{E[(x-\mu)^2]}$ = std of reported T _{UTRAN-GANSS} Value, where x is the reported T _{UTRAN-GANSS} Value and $\mu = E[x]$ is the expectation value of x.
T _{UTRAN-GANSS} Drift Rate	M		INTEGER(-50..50)	Indicates the T _{UTRAN-GANSS} drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GANSS clock.
T _{UTRAN-GANSS} Drift Rate Quality	O		INTEGER(0..50)	Indicates the standard deviation (std) of the T _{UTRAN-GANSS} drift rate measurements in 1/256 chip per second. $T_{UTRAN-GANSS} \text{ Drift Rate Quality} = \sqrt{E[(x-\mu)^2]}$ = std of reported T _{UTRAN-GANSS} Drift Rate, where x is the reported T _{UTRAN-GANSS} Drift Rate and $\mu = E[x]$ is the expectation value of x.

9.2.1.101 GANSS Reference Time

Void.

9.2.1.102 HARQ Memory Partitioning

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE <i>HARQ Memory Partitioning</i>		1			–	
> <i>Implicit</i>						
>>Number of Processes	M		INTEGER (1..8,...12,14,16)	For HARQ process IDs going from 0 to "Number of Processes" – 1 the Total number of soft channel bits [33] is partitioned equally between all HARQ processes according to the rules in [18].	–	
> <i>Explicit</i>						
>>HARQ Memory Partitioning Information		1..<maxnoofHARQprocesses>		The first instance of the parameter corresponds to HARQ process with identifier 0, the second instance to HARQ process with identifier 1, and so on.	–	
>>>Process Memory Size	M		9.2.1.49D	See [18]	–	
>>HARQ Memory Partitioning Information Extension For MIMO		0, 4, 6 or 8		FDD only The 1 st instance corresponds to HARQ process with identifier set to "maxnoofHARQprocesses", the 2 nd instance to HARQ process with identifier set to "maxnoofHARQprocesses+1", and so on.	GLOBAL	ignore
>>>Process Memory Size	M		9.2.1.49D	See [18]	–	

Range Bound	Explanation
<i>MaxnoofHARQprocesses</i>	Maximum number of HARQ processes for one UE [FDD - per stream (the maximum number of HARQ processes per UE is 2 * <i>MaxnoofHARQprocesses</i> in dual stream transmission mode)]

9.2.1.103 GANSS Data Bit Assistance

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GANSS TOD	M		INTEGER(0..59,...)	Reference time (modulo 1 minute) of the first bit of the data in <i>Data Bits</i> IE, in seconds.
Data Bit Assistance List		1..<maxGANS SSat>		
>Sat ID	M		INTEGER(0..63)	Identifies the satellite and is equal to (SV ID No - 1)
>Data Bit Assistance Sgn List		1..<maxSgnTy pe>		
>>GANSS Signal ID	M		9.2.1.106	
>>Data Bits	M		BIT STRING(1..1024)	Raw data bits as transmitted from a specific satellite at the time indicated by GANSS_TOD.

Range Bound	Explanation
<i>maxGANSSSat</i>	Maximum number of satellites for which data is included in the IE
<i>maxSgnType</i>	Maximum number of GANSS signals included in the IE

9.2.1.104 GANSS ID

This IE defines a particular GANSS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GANSS ID	M		INTEGER(0..7 ...)	Defines the GANSS and is coded as defined in [18]. All values are reserved in this version of the protocol.

9.2.1.105 GANSS Navigation Model And Time Recovery

This IE contain information required to manage the transfer of precise navigation data to the GANSS-capable UE.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
GANSS Transmission Time	M		9.2.1.107	GANSS Time when the Navigation model has been retrieved
Non-Broadcast Indication	O		ENUMERAT ED(true)	If this IE is present, GANSS navigation model is not derived from satellite broadcast. See NOTE 1
Satellite Information		1 to <maxGAN SSSat>		
>Sat ID	M		INTEGER(0. .63)	Identifies the satellite and is equal to (SV ID No - 1).
>SV Health	M		BIT STRING(5)	Coded as defined in [39]
>IOD	M		BIT STRING(10)	
>GANSS Clock Model	M		9.2.1.90	
>GANSS Orbit Model	M		9.2.1.93	

Condition	Explanation
<i>Orbit model</i>	The IE shall be present if the <i>GANSS Orbit Model</i> IE indicates "Keplerian Parameters".

Range bound	Explanation
<i>maxGANSSSat</i>	Maximum number of satellites for which data is included in the IE.

NOTE 1 : The Non-Broadcast Indication allows to inform that the navigation model is not bit-to-bit the one broadcast by the satellite. If it is set to 1, the UE is informed that techniques such as data wiping off applied to the navigation model may not work for instance.

9.2.1.106 GANSS Signal ID

This IE defines a specific signal within a particular GANSS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GANSS Signal ID	M		INTEGER(0..7,...)	Coded as defined in [18].

9.2.1.107 GANSS Transmission Time

This IE indicates the GANSS Transmission Time

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
GANSS Day	O		INTEGER(0..8191)	The sequential number of days from the origin of the GNSS system time (indicated by the GANSS_ID given in the <i>Requested Data Value</i> IE) modulo 8192 days (about 22 years).
GANSS TOD	M		INTEGER(0..86399)	GANSS Time of Day in seconds

9.2.1.108 IP Multicast Indication

The *IP Multicast Indication* IE indicates the IP multicast group information dedicated to an MBMS service and the CFN Offset, defined as the offset between MFN and CFN for a FACH. When Node B receives such an indication, if supported, it may join the corresponding IP multicast group. When Node B receives data frame from this IP multicast group, it shall consider the value of the CFN field in the data frame as MFN and calculate the actual CFN for the concerned FACH according to following equation:

$$CFN = (MFN - CFN \text{ Offset}) \bmod 256.$$

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Layer Address	M		9.2.1.63	An MBMS service corresponds to a dedicated IP multicast address.
Binding ID	M		9.2.1.4	Indicating multicast port.
CFN Offset	M		INTEGER (0..255)	

9.2.1.109 IP Multicast Data Bearer Indication

The *IP Multicast Data Bearer Indication* IE indicates whether the Node B is ready for receiving concerned MBMS service data through IP multicast transport bearer.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IP Multicast Data Bearer Indication			BOOLEAN	True: IP multicast data bearer is used. False: IP multicast data bearer is not used.

9.2.2 FDD specific parameters

9.2.2.a ACK-NACK Repetition Factor

The *ACK-NACK Repetition Factor* IE indicates the number of consecutive repetitions of the ACK and NACK.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ACK-NACK Repetition Factor			INTEGER (1..4,...)	Step: 1

9.2.2.b ACK Power Offset

The *ACK Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ ACK information and the associated DPCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ACK Power Offset			INTEGER (0..8,...)	According to mapping in ref. [9] subclause 4.2.1.

9.2.2.A Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CM Configuration Change CFN	M		CFN 9.2.1.7	
Transmission Gap Pattern Sequence Status		<i>0..<maxT GPS></i>		
>TGPS Identifier	M		INTEGER (1..maxTGPS)	If the group is not present, none of the pattern sequences are activated. References an already defined sequence.
>TGPRC	M		INTEGER (0..511)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence. "0"=Infinity
>TGCFN	M		CFN 9.2.1.7	Connection Frame Number of the first frame of the first pattern 1 within the Transmission Gap Pattern Sequence.

Range Bound	Explanation
<i>maxTGPS</i>	Maximum number of active pattern sequences. Value 6.

9.2.2.B Adjustment Period

The *Adjustment Period* IE defines the period to be used for power balancing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Adjustment Period			INTEGER (1..256)	Unit: Frames

9.2.2.C Adjustment Ratio

The *Adjustment Ratio* IE (*Radj*) defines the convergence rate used for the associated Adjustment Period.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Adjustment Ratio			INTEGER (0..100)	Unit: None Range: 0..1 Step: 0.01

9.2.2.D AICH Power

The *AICH Power* IE indicates a power level (measured as the power per transmitted acquisition indicator when several AIs are transmitted in parallel) relative to the primary CPICH power configured in a cell. If Transmit Diversity is applied to the AICH, the *AICH Power* IE indicates the power offset between the linear sum of the power for the AICH on all branches and the Primary CPICH power configured in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
AICH Power			INTEGER (-22..+5)	Unit: dB Range: -22 .. +5 dB Step: 1 dB

9.2.2.1 AICH Transmission Timing

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
AICH Transmission Timing			ENUMERATED (0, 1)	See parameter AICH_Transmission_Timing in ref. [7].

9.2.2.1A AP Preamble Signature

Void.

9.2.2.1B AP Sub Channel Number

Void.

9.2.2.1Ba Best Cell Portions

Best Cell Portions IE indicates the best received cell portions and their SIR values when Cell Portions are defined in the cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Best Cell Portions		<i>1..<maxno ofBestCell Portions></i>		
>Cell Portion ID	M		9.2.2.1Ca	
>SIR Value	M		INTEGER (0..63)	According to mapping in [22] and [23]

Range Bound	Explanation
<i>maxnoofBestCellPortions</i>	Maximum number of reported Best Received Cell Portions

9.2.2.1Bb Bundling Mode Indicator

The Bundling Mode Indicator indicates whether the bundling shall be done or shall not be done for Iub.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Bundling Mode Indicator			ENUMERATED (Bundling, No bundling)	The value "Bundling" is applicable only when E-TTI indicates "2ms".

9.2.2.1C CD Sub Channel Numbers

Void.

9.2.2.1Ca Cell Portion ID

Cell Portion ID is the unique identifier for a cell portion within a cell. See [4].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Portion ID			INTEGER (0..63,...)	

9.2.2.1D Channel Assignment Indication

Void.

9.2.2.2 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip offset is used as offset relative to the Primary CPICH timing for the DL DPCH or for the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Chip Offset			INTEGER (0..38399)	Unit: chips

9.2.2.2A Closed Loop Timing Adjustment Mode

Indicates when the phase/amplitude adjustment is performed in the DL in relation to the receipt of the UL feedback command in case of closed loop mode transmit diversity on DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Closed Loop Timing Adjustment Mode			ENUMERATED (Offset1, Offset2, ...)	According to ref. [10] subclause 7.1: "Offset1" = slot(j+1)mod15 "Offset2" = slot(j+2)mod15

9.2.2.3 Common Channels Capacity Consumption Law

Void.

9.2.2.3A Compressed Mode Deactivation Flag

The Compressed Mode Deactivation Flag indicates whether Compressed Mode shall be deactivated or not in the new RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Compressed Mode Deactivation Flag			ENUMERATED (Deactivate, Maintain Active)	

9.2.2.4 Compressed Mode Method

Void.

9.2.2.4A CPCH Allowed Total Rate

Void.

9.2.2.4B CPCH Scrambling Code Number

Void.

9.2.2.4C CPCH UL DPCCH Slot Format

Void.

9.2.2.4Ca CQI Power Offset

The *CQI Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slots carrying CQI information and the associated DPCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CQI Power Offset			INTEGER (0..8,...)	According to mapping in ref. [9] subclause 4.2.1.

9.2.2.4Cb CQI Repetition Factor

The *CQI Repetition Factor* IE indicates the number of consecutive repetitions of the CQI.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CQI Repetition Factor			INTEGER (1..4,...)	Step: 1

9.2.2.4D DCH FDD Information

The *DCH FDD Information* IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH FDD Information		<i>1..<maxno ofDCHs></i>			–	
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>UL FP Mode	M		9.2.1.66		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
>DCH Specific Info		<i>1..<maxno ofDCHs></i>			–	
>>DCH ID	M		9.2.1.20		–	
>>Transport Format Set	M		9.2.1.59	For UL	–	
>>Transport Format Set	M		9.2.1.59	For DL	–	
>>Allocation/Retention Priority	M		9.2.1.1A		–	
>>Frame Handling Priority	M		9.2.1.30		–	
>>QE-Selector	M		9.2.1.50A		–	
>>Unidirectional DCH Indicator	O		9.2.1.68		YES	reject
>TNL QoS	O		9.2.1.58A		YES	ignore

Range Bound	Explanation
<i>maxnoofDCHs</i>	Maximum number of DCHs for one UE

9.2.2.4E DCHs FDD To Modify

The *DCHs FDD To Modify* IE provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCHs FDD To Modify		1..<maxno ofDCHs>			–	
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>DCH Specific Info		1..<maxno ofDCHs>			–	
>>DCH ID	M		9.2.1.20		–	
>>Transport Format Set	O		9.2.1.59	For the UL.	–	
>>Transport Format Set	O		9.2.1.59	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1A		–	
>>Frame Handling Priority	O		9.2.1.30		–	
>>Unidirectional DCH Indicator	O		9.2.1.68		YES	reject
>TNL QoS	O		9.2.1.58A		YES	ignore

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE

9.2.2.4F DCH Indicator For E-DCH-HSDPA Operation

The DCH Indicator For E-DCH-HSDPA Operation parameter indicates whether *DCH Information* IE should be ignored in the message in which the *DCH Indicator For E-DCH-HSDPA Operation* IE is included.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCH Indicator For E-DCH-HSDPA Operation			ENUMERATED (DCH not present)	

9.2.2.4G Transport Bearer Not Requested Indicator

The Transport Bearer Not Requested Indicator parameter indicates that a transport bearer shall not be established or may not to be established for a DCH or an E-DCH MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer Not Requested Indicator			ENUMERATED (Transport Bearer shall not be Established, Transport Bearer may not be Established)	

9.2.2.4H Transport Bearer Not Setup Indicator

The Transport Bearer Not Setup Indicator parameter indicates that a transport bearer will not be established for a DCH or an E-DCH MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer Not Setup Indicator			ENUMERATED (Transport Bearer Not Setup)	

9.2.2.5 D-Field Length

Void.

9.2.2.6 Dedicated Channels Capacity Consumption Law

Void.

9.2.2.7 Diversity Control Field

Void.

9.2.2.8 Diversity Indication

Void.

9.2.2.9 Diversity Mode

Define the diversity mode to be applied.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Diversity Mode			ENUMERATED (None, STTD, Closed loop mode 1, Not Used,...)	The <i>Diversity Mode</i> IE shall never be set to "Not Used". If received it shall be rejected.

9.2.2.10 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, accordingly to ref. [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL DPCH Slot Format			INTEGER (0..16,...)	

9.2.2.10A DL DPCH Timing Adjustment

The DL DPCH Timing Adjustment indicates that a timing adjustment of the related radio link is required or that an Initial DL DPCH Timing Adjustment has been performed by the Node B. It also indicates whether the timing adjustment consists of a timing advance or a timing delay with respect to the SFN timing. The adjustment always consists of 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL DPCH Timing Adjustment			ENUMERATED (timing advance, timing delay)	The size of the timing adjustment is 256 chips.

9.2.2.11 DL frame type

Void.

9.2.2.12 DL or Global Capacity Credit

Void.

9.2.2.12A DL_power_averaging_window_size

The *DL_power_averaging_window_size* IE defines the window size when Limited Power Increase is used [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL_power_averaging_window_size			INTEGER (1..60)	Unit: inner loop power adjustments Range: 1..60 Step: 1 adjustment

9.2.2.12B DL Power Balancing Information

The *DL Power Balancing Information* IE provides information for power balancing to be activated in the relevant RL(s).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Adjustment Type	M		9.2.2.27	
DL Reference Power	C-Common		DL Power 9.2.1.21	Power on DPCH or on F-DPCH
DL Reference Power Information	C-Individual	1..<maxno ofRLs>		
>RL ID	M		9.2.1.53	
>DL Reference Power	M		DL Power 9.2.1.21	Power on DPCH or on F-DPCH
Max Adjustment Step	C-Common O rIndividual		9.2.2.20	
Adjustment Period	C-Common O rIndividual		9.2.2.B	
Adjustment Ratio	C-Common O rIndividual		9.2.2.C	

Condition	Explanation
Common	The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Common".
Individual	The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Individual".
CommonOrIndividual	The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Common" or "Individual".

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of Radio Links for a UE

9.2.2.12C DL Power Balancing Activation Indicator

The *DL Power Balancing Activation Indicator* IE indicates that the power balancing is activated in the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power Balancing Activation Indicator			ENUMERATED (DL Power Balancing Activated)	

9.2.2.12D DL Power Balancing Updated Indicator

The *DL Power Balancing Updated Indicator* IE indicates that the power balancing related parameters is updated in the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power Balancing Updated Indicator			ENUMERATED (DL Power Balancing Updated)	

9.2.2.13 DL Scrambling Code

DL scrambling code to be used by the RL. One cell may have multiple DL scrambling codes available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Scrambling Code			INTEGER (0..15)	"0" = Primary scrambling code of the cell "1".."15" = Secondary scrambling code

9.2.2.13A DL TPC Pattern 01 Count

The *DL TPC Pattern 01 Count* IE contains the value of the parameter n, which is used for determining the DL TPC pattern on Radio Links marked with "first RLS" by the *First RLS indicator* IE before UL synchronisation is achieved.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL TPC Pattern 01 Count			INTEGER(0..30,...)	

9.2.2.13B DSCH FDD Information

Void.

9.2.2.13C DPC Mode

The *DPC Mode* IE indicates the DPC mode to be applied [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPC Mode			ENUMERATED (Mode0, Mode1, ...)	"Mode0": The Node B shall estimate the UE transmitted TPC command and update the DL power in every slot "Mode1": The Node B shall estimate the UE transmitted TPC command over three slots and shall update the DL power in every three slots

9.2.2.13D DSCH FDD Common Information

Void.

9.2.2.13Da E-DCH FDD Information

The E-DCH *FDD Information* IE provides information for an E-DCH to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flows Information	M		9.2.2.13M		–	
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn	If this IE is not included, scheduled transmission in all HARQ processes is allowed.	–	
E-DCH Maximum Bitrate	O		9.2.2.13T		–	
E-DCH Processing Overload Level	O		9.2.1.79		–	
E-DCH Reference Power Offset	O		9.2.2.13Y		–	
E-DCH Power Offset for Scheduling Info	O		9.2.1.85		YES	ignore
SixteenQAM UL Operation Indicator	O		9.2.2.88A		YES	reject
E-AGCH Table Choice	C- SixteenQAM UL Operation		9.2.2.100	If the SixteenQAM UL operation is not configured for this UE, Table 16B for E-AGCH in [8] shall be used.	YES	ignore

Condition	Explanation
SixteenQAM UL Operation	The IE shall be present if the <i>SixteenQAM UL Operation Indicator</i> IE is set to "Activate".

9.2.2.13DA E-DCH FDD Update Information

The *E-DCH FDD Update Information* IE provides information for E-DCH to be updated. At least one IE shall be present.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Update Information		$0..<max\ noofED\ CHMAC\ dFlows>$			–	
>E-DCH MAC-d Flow ID	M		9.2.1.74		–	
>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn		–	
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn		–	
E-DCH DL Control Channel Change Information		$0..<max\ noofED\ CHRLs\ >$			GLOBAL	ignore
>E-DCH RL ID	M		RL ID 9.2.1.53		–	

Range bound	Explanation
$maxnoofEDCHMACdFlows$	Maximum number of MAC-d flows.
$maxnoofEDCHRLs$	Maximum number of E-DCH RLs for one UE

9.2.2.13Db E-DCH FDD Information Response

The *E-DCH FDD Information Response* IE provides information for E-DCH MAC-d flows that have been established or modified. It also provides additional E-DCH information determined within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Information Response		$0..<max\ noofED\ CHMAC\ dFlows>$			–	
>E-DCH MAC-d Flow ID	M		9.2.1.74		–	
>Binding ID	O		9.2.1.4		–	
>Transport Layer Address	O		9.2.1.63		–	
>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn		–	
>Transport Bearer Not Setup Indicator	O		9.2.2.4H		YES	ignore
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn		–	

Range bound	Explanation
$maxnoofEDCHMACdFlows$	Maximum number of MAC-d flows.

9.2.2.13Dc E-DCH FDD DL Control Channel Information

The *E-DCH FDD DL Control Channel Information* IE provides information for E-DCH specific DL Control Channels to be provided to UE via RRC signalling.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-AGCH And E-RGCH/E-HICH FDD Scrambling Code	O		DL Scrambling Code 9.2.2.13	Scrambling code on which E-AGCH, E-RGCH and E-HICH are transmitted.	–	
E-AGCH Channelisation Code	O		FDD DL Channelisation Code Number 9.2.2.14		–	
Primary E-RNTI	O		E-RNTI 9.2.1.75		–	
Secondary E-RNTI	O		E-RNTI 9.2.1.75		–	
E-RGCH/E-HICH Channelisation Code	O		FDD DL Channelisation Code Number 9.2.2.14		–	
E-RGCH Signature Sequence	O		INTEGER (0..maxnoofSigSeqE-RGHICH - 1)		–	
E-HICH Signature Sequence	O		INTEGER (0..maxnoofSigSeqE-RGHICH - 1)		–	
Serving Grant Value	O		INTEGER (0..37,38)	(0..37) indicates E-DCH serving grant index as defined in [32]; index 38 means zero grant	–	
Primary/Secondary Grant Selector	O		ENUMERATED (Primary, Secondary)	Indicates whether the Serving Grant Value is granted with a primary E-RNTI or a secondary E-RNTI	–	
E-RGCH Release Indicator	O		9.2.2.13lc		–	
Default Serving Grant in DTX Cycle 2	O		INTEGER (0..37,38)	Serving Grant value to be used in DTX-Cycle-2. (0..37) indicates E-DCH serving grant index as defined in [32]; index 38 means zero grant	YES	ignore

Range bound	Explanation
<i>maxnoofSigSeqE-RGHICH</i>	Maximum number of Signature Sequences for E-RGCH/E-HICH.

9.2.2.13De E-DCH RL Indication

Indicates whether a RL is an E-DCH RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH RL Indication			ENUMERATED(E-DCH, non E-DCH)	

9.2.2.13Df E-DCH FDD Information to Modify

The *E-DCH FDD Information to Modify* IE is used for the modification of an E-DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Information		<i>0..<maxno ofEDCHM ACdFlows ></i>			–	
>E-DCH MAC-d Flow ID	M		9.2.1.74		–	
>Allocation/Retention Priority	O		9.2.1.1A		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>TNL QoS	O		9.2.1.58A		–	
>Maximum Number Of Retransmissions For E-DCH	O		9.2.1.81		–	
>E-DCH HARQ Power Offset FDD	O		9.2.2.13Dk		–	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.69		–	
>CHOICE <i>E-DCH Grant Type</i>	O				–	
>> <i>E-DCH Non-Scheduled Transmission Grant</i>						
>>>Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission	M		9.2.2.13Dm	If the <i>Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission</i> IE is present, this IE shall be ignored	–	
>>>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn		–	
>>>Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission	O		9.2.2.13Dr		YES	reject
>> <i>E-DCH Scheduled Transmission Grant</i>			NULL			
>Bundling Mode Indicator	O		9.2.2.1Bb		–	
>E-DCH Logical Channel To Add	O		E-DCH Logical Channel Information 9.2.1.71		–	
>E-DCH Logical Channel To Modify	O		9.2.1.72		–	
> E-DCH Logical Channel To Delete		<i>0..<maxno oflogicalch annels></i>			–	
>>Logical Channel ID	M		9.2.1.80		–	
HARQ Process Allocation For 2ms Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn		–	
E-DCH Maximum Bitrate	O		9.2.2.13T		–	
E-DCH Processing Overload Level	O		9.2.1.79		–	
E-DCH Reference Power	O		9.2.2.13Y		–	

Offset						
MAC-e Reset Indicator	O		9.2.1.83		–	
E-DCH Power Offset for Scheduling Info	O		9.2.1.85		YES	ignore
SixteenQAM UL Operation Indicator	O		9.2.2.88A		YES	reject
E-DCH DL Control Channel Grant Information		<i>0..<maxno ofEDCHR Ls></i>			GLOBAL	ignore
>E-DCH RL ID	M		RL ID 9.2.1.53		–	
E-AGCH Table Choice	C- SixteenQAM UL Operation		9.2.2.100	If sixteenQAM UL operation is not used in the new configuration for this UE, Table 16B for E-AGCH in [8] shall be used in the new configuration.	YES	ignore

Condition	Explanation
SixteenQAM UL Operation	The IE shall be present if the <i>SixteenQAM UL Operation Indicator</i> IE is set to "Activate".

Range bound	Explanation
<i>maxnoofEDCHMACdFlows</i>	Maximum number of E-DCH MAC-d flows.
<i>maxnooflogicalchannels</i>	Maximum number of logical channels
<i>maxnoofEDCHRLs</i>	Maximum number of E-DCH RLs for one UE

9.2.2.13Dh E-DCH Transport Format Combination Set Information (E-TFCS Information)

Whereas the related Transport Block sizes are standardised in [32] this IE gives details on the referenced Transport Block Size Table, the E-DCH Minimum Set E-TFCI, the Reference E-TFCIs and configuration parameters used for the calculation of the gain factors β_{ec} and β_{ed} defined in [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-TFCI Table Index	M		INTEGER (0..1,..., 2..7)	Indicates which standardised E-TFCS Transport Block Size Table shall be used. The related tables are specified in [32].	–	
E-DCH Minimum Set E-TFCI	O		INTEGER (0..127)	For the concept of "E-DCH Minimum Set of TFCs" see [32] and [18].	–	
Reference E-TFCI Information		<i>1..<maxnoofRefETFCIs></i>			–	
>Reference E-TFCI	M		INTEGER (0..127)		–	
>Reference E-TFCI Power Offset	M		9.2.2.13Dp	If the <i>Extended Reference E-TFCI Power Offset</i> IE is present, this IE shall be ignored	–	
>Extended Reference E-TFCI Power Offset	O		9.2.2.13Dq		YES	reject
E-TFCI Boost Information	O		9.2.2.88B		YES	reject
E-DPDCH Power Interpolation	O		BOOLEAN	True means that the E-DPDCH power interpolation formula shall be applied, False means that the E-DPDCH power extrapolation formula shall be applied for the computation of the gain factor β_{ed} according to [10]	YES	reject

Range Bound	Explanation
<i>maxnoofRefETFCIs</i>	Maximum number of signalled reference E-TFCIs

9.2.2.13Di E-TTI

The E-TTI parameter indicates the Transmission Time Interval for E-DPCH operation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-TTI			ENUMERATED (2ms, 10ms)	

9.2.2.13Dj E-DPCCH Power Offset

The E-DPCCH Power Offset is used to calculate the E-DPCCH gain factor β_{ec} as defined in [10], whereas β_{ec} is related to the power difference between DPCCH and E-DPCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DPCCH Power Offset			INTEGER (0..8)	According to mapping in ref. [9] subclause 4.2.1.3.

9.2.2.13Dk E-DCH HARQ Power Offset FDD

The E-DCH HARQ Power Offset FDD is used to calculate the unquantised gain factor for an E-TFC ($\beta_{ed,j,uq}$) as defined in [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH HARQ Power Offset FDD			INTEGER (0..6)	According to mapping in ref. [9] subclause 4.2.1.3.

9.2.2.13DI E-DCH MAC-d Flow Multiplexing List

Void.

9.2.2.13Dm Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission

The Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission indicates the number of bits allowed to be included in a MAC-e PDU per E-DCH MAC-d flow configured for non-scheduled transmissions. If the range of the *Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE is insufficient to represent the value to be sent to the Node B, the *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE shall be used to represent the value to be sent to the Node B, see section 9.2.2.13Dr.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission			INTEGER (1..19982)	

9.2.2.13Dn HARQ Process Allocation For 2ms TTI

The HARQ Process Allocation for 2ms TTI indicates those HARQ processes that are allowed. MAC-d PDU's for a MAC-d flow are only allowed to be transmitted in those processes for which the bit is set to "1".

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HARQ Process Allocation For 2ms TTI			BIT STRING (8)	The first Bit corresponds to HARQ process ID = 0, the second bit corresponds to HARQ process ID = 1, etc. The HARQ process ID for 2ms TTI is defined in [32], chapter 11.8.1.3.

9.2.2.13Dp Reference E-TFCI Power Offset

The Reference E-TFCI Power Offset is used to calculate the reference E-TFC gain factor $\beta_{ed,ref}$ as defined in [10]. If the range of the *Reference E-TFCI Power Offset* IE is insufficient to represent the value to be sent to the Node B, the *Extended Reference E-TFCI Power Offset* IE shall be used to represent the value to be sent to the Node B, see section 9.2.2.13Dq.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference E-TFCI Power Offset			INTEGER (0..29)	According to mapping in ref. [9] subclause 4.2.1.3

9.2.2.13Dq Extended Reference E-TFCI Power Offset

The *Extended Reference E-TFCI Power Offset* IE shall be used if the range of the *Reference E-TFCI Power Offset* IE (see section 9.2.2.13Dp) is insufficient to represent the value of the Reference E-TFCI Power Offset to be sent to the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended Reference E-TFCI Power Offset			INTEGER (30..31,...)	According to mapping in ref. [9] subclause 4.2.1.3

9.2.2.13Dr Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission

The *Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE shall be used if the range of the *Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission* IE (see section 9.2.2.13Dm) is insufficient to represent the value of the Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission to be sent to the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission			INTEGER (19983..22978,...)	

9.2.2.13E Enhanced DSCH PC

Void.

9.2.2.13F Enhanced DSCH PC Counter

Void.

9.2.2.13G Enhanced DSCH PC Indicator

Void.

9.2.2.13H Enhanced DSCH PC Wnd

Void.

9.2.2.13I Enhanced DSCH Power Offset

Void.

9.2.2.13Ia E- RGCH/E-HICH Code Information

This parameter defines the codes which will be assigned for E- RGCH and E-HICH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>replaceremove</i>	M			
<i>>replace</i>				
>>E-RGCH/E-HICH Code		<i>1..<Maxno ofERGCH EHICHs></i>		
<i>>>>Code Number</i>	M		FDD DL Channelisation Code Number 9.2.2.14	
<i>>remove</i>			NULL	

Range Bound	Explanation
MaxnoofERGCH/EHICHs	Maximum number of E-RGCH/E-HICH channelisation codes for one cell.

9.2.2.13Ib E- AGCH Code Information

This parameter defines the codes which will be assigned for E- AGCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>replaceremove</i>	M			
<i>>replace</i>				
>>E-AGCH Code		<i>1..<Maxno ofEAGCHs></i>		
<i>>>>Code Number</i>	M		FDD DL Channelisation Code Number 9.2.2.14	
<i>>remove</i>			NULL	

Range Bound	Explanation
MaxnoofEAGCHs	Maximum number of E-AGCH channelisation codes for one cell.

9.2.2.13lc E-RGCH Release Indicator

Indicates the E-RGCH is released.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH Release Indicator			ENUMERATED (E-RGCH released)	

9.2.2.13ld E-AGCH Power Offset

The *E-AGCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-AGCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-AGCH Power Offset			INTEGER (0...255,...)	Unit: dB Range: -32 .. +31.75 dB Step: 0.25 dB

9.2.2.13le E-RGCH Power Offset

The *E-RGCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-RGCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH Power Offset			INTEGER (0...255,...)	Unit: dB Range: -32 .. +31.75 dB Step: 0.25 dB

9.2.2.13lf E-HICH Power Offset

The *E-HICH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCH except when F-DPCH is configured. When F-DPCH is configured, the *E-HICH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH Power Offset			INTEGER (0...255,...)	Unit: dB Range: -32 .. +31.75 dB Step: 0.25 dB

9.2.2.13lg E-RGCH 2-Index-Step Threshold

The E-RGCH 2-index-step-threshold IE is used to determine the Serving Grant.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH 2-Index-Step Threshold			INTEGER (0..37)	Refers to an index in the "SG-Table" (see [32]).

9.2.2.13lh E-RGCH 3-Index-Step Threshold

The E-RGCH 3-index-step-threshold IE is used to determine the Serving Grant.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-RGCH 3-Index-Step Threshold			INTEGER (0..37)	Refers to an index in the "SG-Table" (see [32]).

9.2.2.13J E-DCH Capability

Void

9.2.2.13Ja E-DCH Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the RL/RLS situation and the number of uplink E-DPDCHs and their spreading factors. The reference spreading factor and number of E-DPDCH is signalled using the *Maximum Set of E-DPDCHs* IE.

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Radio Link Setup
- Radio Link Addition
- Radio Link Reconfiguration
- Radio Link Deletion

For the Radio Link Setup and Radio Link Addition procedures, the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall be credited to the Capacity Credit for the Radio Link Deletion procedure. For the Radio Link Reconfiguration procedure, the difference of the consumption cost for the new spreading factor and the consumption cost for the old spreading factor shall be debited from the Capacity Credit (or credited when this difference is negative).

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the DL cost shall be applied to the DL or Global Capacity Credit and the UL Cost shall be applied to the UL Capacity Credit. If it is modelled as shared resources, both the DL costs and the UL costs shall be applied to the DL or Global Capacity Credit.

For a Radio Link creating a Radio Link Set (first RL of a RLS), the cost for the RL (cost 2) and RLS (cost 1) shall be taken into account. When adding a Radio Link to a Radio Link Set, only the RL cost (cost 2) shall be taken into account.

In the case where multiple Radio Links are established in one procedure, for every created Radio Link Set, the first Radio Link is always the Radio Link with the lowest repetition number.

The costs given in the consumption law are the costs per channelization code/no of E-DPDCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SF Allocation Law		<i>1..<maxno ofCombED PDCH></i>		The cost of SF allocation: the first instance corresponds to $v2 \times N2 + 2 \times N4$, the second to $v2 \times N2$, the third to $v2 \times N4$, the fourth to $vN4$, the fifth to $vN8$, the sixth to $vN16$, the seventh to $vN32$, the eighth to $vN64$, the ninth to $vN128$, the tenth to $vN256$ and the eleventh to $v2 \times M2 + 2 \times M4$.
>UL Cost 1	M		INTEGER (0..65535)	This is the cost of a RLS
>UL Cost 2	M		INTEGER (0..65535)	This is the cost of a RL
DL Cost 1	O		INTEGER (0..65535)	This is the cost of a RLS. If not present, zero cost shall be applied. .
DL Cost 2	O		INTEGER (0..65535)	This is the cost of a RL. If not present, zero cost shall be applied.

Range Bound	Explanation
<i>maxno ofCombEDPDCH</i>	Maximum number of Configurations in the <i>Maximum Set of E-DPDCH</i> IE

9.2.2.13K E-DCH Logical Channel Information

Void

9.2.2.13L E-DCH Logical Channel To Modify

Void

9.2.2.13M E-DCH MAC-d Flows Information

The *E-DCH MAC-d Flows Information* IE is used for the establishment of E-DCH MAC-d flows.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH MAC-d Flow Specific Information		<i>1..<maxno ofEDCHMACdFlows ></i>			–	
>E-DCH MAC-d Flow ID	M		9.2.1.74		–	
>Allocation/Retention Priority	M		9.2.1.1A		–	
>TNL QoS	O		9.2.1.58A		–	
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>Maximum Number Of Retransmissions For E-DCH	M		9.2.1.81		–	
>E-DCH HARQ Power Offset FDD	M		9.2.2.13Dk		–	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.69		–	
>CHOICE <i>E-DCH Grant Type</i>	M				–	
>> <i>E-DCH Non-Scheduled Transmission Grant</i>						
>>>Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission	M		9.2.2.13Dm	If the <i>Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission</i> IE is present, this IE shall be ignored	–	
>>>HARQ Process Allocation For 2ms Non-Scheduled Transmission Grant	O		HARQ Process Allocation for 2ms TTI 9.2.2.13Dn	If this IE is not included, transmission in all HARQ processes is allowed.	–	
>>>Extended Maximum Number of Bits per MAC-e PDU for Non-scheduled Transmission	O		9.2.2.13Dr		YES	reject
>> <i>E-DCH Scheduled Transmission Grant</i>			NULL			
>Bundling Mode Indicator	O		9.2.2.1Bb		–	
>E-DCH Logical Channel Information	M		9.2.1.71		–	
>Transport Bearer Not Requested Indicator	O		9.2.2.4G		YES	ignore

Range Bound	Explanation
<i>maxnoofEDCHMACdFlows</i>	Maximum number of E-DCH MAC-d flows

9.2.2.13N E-DCH MAC-d Flows To Delete

Void

9.2.2.13O E-DCH MAC-d Flow ID

Void

9.2.2.13P E-RNTI

Void

9.2.2.13Q E-DCH DDI Value

Void

9.2.2.13R E-DCH Provided Bit Rate Value

Void

9.2.2.13S E-DCH Provided Bit Rate Value Information

Void

9.2.2.13T E-DCH Maximum Bitrate

The E-DCH Maximum Bitrate parameter indicates the Maximum Bitrate for an E-DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Maximum Bitrate			INTEGER (0..5742,..., 5743..11498)	Bitrate on transport block level. Unit is kbits per second.

9.2.2.13U E-DCH Processing Overload Level

Void

9.2.2.13V E-DCH TTI Capability

This parameter defines the E-DCH TTI Capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TTI2ms Capability			BOOLEAN	True = TTI 10ms and 2ms supported for E-DCH False = only TTI 10ms supported for E-DCH

9.2.2.13W E-DCH SF Capability

This parameter defines the E-DCH Capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH SF Capability			ENUMERATED (sf64, sf32, sf16, sf8, sf4, 2sf4, 2sf2, 2sf2and2sf4,...)	Min SF supported by the cell in E-DCH

9.2.2.13X E-DCH HARQ Combining Capability

This parameter defines the E-DCH HARQ Combining capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH HARQ Combining Capability			ENUMERATED (IR Combining Capable, Chase Combining Capable, IR and Chase Combining Capable)	

9.2.2.13Y E-DCH Reference Power Offset

The E-DCH Reference Power Offset is used to estimate the E-DPDCH power from E-TFCI without decoding MAC-e PDUs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Reference Power Offset			INTEGER (0..6)	According to mapping in ref. [9] subclause 4.2.1.3.

9.2.2.13Z E-DCH Power Offset for Scheduling Info

Void

9.2.2.14 FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD DL Channelisation Code Number			INTEGER (0..511)	According to the mapping in [9]. The maximum value is equal to the DL spreading factor -1.

9.2.2.14A FDD DL Code Information

The *FDD DL Code Information* IE provides DL Code information for the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD DL Code Information		<i>1..<maxno ofCodes></i>		
>DL Scrambling Code	M		9.2.2.13	
>FDD DL Channelisation Code Number	M		9.2.2.14	
>Transmission Gap Pattern Sequence Code Information	O		9.2.2.53B	

Range Bound	Explanation
<i>maxnoofCodes</i>	Maximum number of DL code information

9.2.2.14B FDD S-CCPCH Frame Offset

The *FDD S-CCPCH Frame Offset* IE represents a frame offset between the concerned S-CCPCH's CFN (Connection Frame Number) relatively to the P-CCPCH's SFN (System Frame Number) of the respective cell. The *FDD S-CCPCH Frame Offset* IE shall be the constant difference between the S-CCPCH's CFN and the least significant 8 bits of the SFN (System Frame Number) on Uu.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD S-CCPCH Frame Offset			ENUMERATED (1, 2, 4,...)	Offset in frames (corresponding to 10msec, 20msec or 40msec offset in time)

9.2.2.15 FDD SCCPCH Offset

The Secondary CCPCH offset is defined as the time offset towards the Primary CCPCH in the cell. The offset is a multiple of 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD SCCPCH Offset			INTEGER (0..149)	Unit: chip Range: 0..38144 chips Step: 256 chips See ref. [7]

9.2.2.16 FDD TPC DL Step Size

This parameter indicates step size for the DL power adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD TPC Downlink Step Size			ENUMERATED (0.5, 1, 1.5, 2,...)	Unit: dB

9.2.2.16a F-DPCH Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
F-DPCH Capability			ENUMERATED (F-DPCH Capable, F-DPCH Non-Capable)	

9.2.2.16A First RLS Indicator

The *First RLS Indicator* IE indicates if a specific Radio Link and all Radio Links which are part of the same Radio Link Set, shall be considered as the first radio links established towards the UE or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
First RLS Indicator			ENUMERATED (First RLS, Not First RLS, ...)	

9.2.2.17 Gap Period

Void.

9.2.2.18 Gap Position Mode

Void.

9.2.2.18a HARQ Preamble Mode

The *HARQ Preamble Mode* IE is used as described as in ref [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HARQ Preamble Mode			ENUMERATED (mode0, mode1)	"mode0" means HARQ Preamble Mode =0 "mode1" means HARQ Preamble Mode =1

9.2.2.18b HARQ Preamble Mode Activation Indicator

The HARQ Preamble Activation Indicator indicates if the configured HARQ Preamble Mode has been activated in the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HARQ Preamble Mode Activation Indicator			ENUMERATED(HARQ Preamble Mode Activated).	

9.2.2.18ba HARQ Info for E-DCH

The E-DCH HARQ Info is used to indicate the use of redundancy version (RV) for the EDCH HARQ transmissions.

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
HARQ Info for E-DCH			ENUMERATED (rv0, rvtable)	"rv0" indicates that the UE will only use E_DCH RV index 0. "rvtable" indicates that the UE will use an RSN based RV index as specified in [8]

9.2.2.18c Logical channel ID

Void

9.2.2.18A Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, the Node B shall use the limited power increase algorithm as specified in [10], subclause 5.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Limited Power Increase			ENUMERATED (Used, Not Used)	

9.2.2.18B Inner Loop DL PC Status

The *Inner Loop DL PC Status* IE indicates whether inner loop DL control shall be active or inactive for all radio links associated with the context identified by the *Node B Communication Context Id* IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Inner Loop DL PC Status			ENUMERATED (Active, Inactive)	

9.2.2.18C IPDL FDD Parameters

The *IPDL FDD Parameters* IE provides information about IPDL to be applied for FDD when activated.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IP SpacingFDD	M		ENUMERATED (5, 7, 10, 15, 20, 30, 40, 50,...)	See [10]
IP Length	M		ENUMERATED (5, 10)	See [10]
Seed	M		INTEGER (0..63)	See [10]
Burst Mode Parameters	O		9.2.1.5A	
IP Offset	M		INTEGER (0..9)	See [10]

9.2.2.18Ca HS-DSCH configured indicator

The *HS-DSCH Configured Indicator* IE indicates the configuration of HS-DSCH for the UE. The *HS-DSCH Configured Indicator* IE shall be used for the configuration of the E-DPDCH IQ branch mapping [9].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-DSCH Configured Indicator			ENUMERATED (HS-DSCH configured, HS-DSCH not configured)	Indicator of the HS-DSCH for configuration of the E-DPDCHs IQ branch mapping [9].

9.2.2.18D HS-DSCH FDD Information

The *HS-DSCH FDD Information* IE is used for initial addition of HS-DSCH information to a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flows Information	M		9.2.1.31IA		–	
UE Capabilities Information		1			–	
>HS-DSCH Physical Layer Category	M		9.2.1.31Ia		–	
>1.28 Mcps TDD Uplink Physical Channel Capability	O		9.2.3.5Gc	Not to be used.	YES	ignore
>Number of Supported Carriers	O		ENUMERATED (One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Three-six carrier, Six-six carrier, ...)	Not to be used.	YES	reject
>Multi-carrier HS-DSCH Physical Layer Category	O		9.2.1.31Ia	Not to be used.	YES	ignore
MAC-hs Reordering Buffer Size for RLC-UM	M		9.2.1.38Ab		–	
CQI Feedback Cycle k	M		9.2.2.21B		–	
CQI Repetition Factor	C-CQICyclek		9.2.2.4Cb		–	
ACK-NACK Repetition Factor	M		9.2.2.a		–	
CQI Power Offset	M		9.2.2.4Ca		–	
ACK Power Offset	M		9.2.2.b		–	
NACK Power Offset	M		9.2.2.23a		–	
HS-SCCH Power Offset	O		9.2.2.18I		–	
Measurement Power Offset	O		9.2.2.21C		–	
HARQ Preamble Mode	O		9.2.2.18a		YES	ignore
MIMO Activation Indicator	O		9.2.2.71		YES	reject
HS-DSCH MAC-d PDU Size Format	O		9.2.1.31ID	If not present, "Indexed MAC-d PDU Size" shall be used.	YES	reject
Sixtyfour QAM Usage Allowed Indicator	O		9.2.2.74A		YES	ignore

Condition	Explanation
CQICyclek	The IE shall be present if the <i>CQI Feedback Cycle k</i> IE is set to a value greater than 0.

9.2.2.18E HS-DSCH FDD Information Response

The HS-DSCH Information Response provides information for HS-DSCH that have been established or modified. It also provides additional HS-DSCH information determined within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information Response		<i>0..<maxno ofMACdFlows></i>			–	
>HS-DSCH MAC-d Flow ID	M		9.2.1.31I		–	
>Binding ID	O		9.2.1.4		–	
>Transport Layer Address	O		9.2.1.63		–	
>HS-DSCH Initial Capacity Allocation	O		9.2.1.31Ha		–	
HS-SCCH Specific Information Response		<i>0..<maxno ofHSSCCHcodes></i>			–	
>Code Number	M		INTEGER (0..127)		–	
HARQ Memory Partitioning	O		9.2.1.102		–	
HARQ Preamble Mode Activation Indicator	O		9.2.2.18b		YES	ignore
MIMO N/M Ratio	O		9.2.2.96		YES	ignore
SixtyfourQAM DL Usage Indicator	O		9.2.2.74B		YES	ignore
HS-DSCH TB Size Table Indicator	O		9.2.2.18Ee		YES	ignore

Range Bound	Explanation
<i>maxnoofMACdFlows</i>	Maximum number of HS-DSCH MAC-d flows
<i>maxnoofHSSCCHcodes</i>	Maximum number of HS-SCCH codes

9.2.2.18Ea HS-DSCH FDD Update Information

The *HS-DSCH FDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be present.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-SCCH Code Change Indicator	O		9.2.1.31K		–	
CQI Feedback Cycle k	O		9.2.2.21B		–	
CQI Repetition Factor	O		9.2.2.4Cb		–	
ACK-NACK Repetition Factor	O		9.2.2.a		–	
CQI Power Offset	O		9.2.2.4Ca		–	
ACK Power Offset	O		9.2.2.b		–	
NACK Power Offset	O		9.2.2.23a		–	
HS-PDSCH Code Change Indicator	O		9.2.1.31M		YES	ignore

9.2.2.18Eb HS-DSCH Serving Cell Change Information

The *HS-DSCH Serving Cell Change Information* IE contains information which is used in HS-DSCH Serving Cell change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-PDSCH RL ID	M		RL ID 9.2.1.53		–	
HS-DSCH Information	O		HS-DSCH FDD Information 9.2.2.18D		–	
HS-DSCH-RNTI	M		9.2.1.31J		–	
Continuous Packet Connectivity HS-SCCH less Information	O		9.2.2.68		YES	reject

9.2.2.18Ec HS-DSCH Serving Cell Change Information Response

The *HS-DSCH Serving Cell Change Information Response* IE contains information which is used in HS-DSCH Serving Cell change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE <i>Serving Cell Change</i>					–	
> <i>Successful</i>						
>>HS-DSCH FDD Information Response	M		9.2.2.18E		–	
>>Continuous Packet Connectivity HS-SCCH less Information Response	O		9.2.2.69		YES	ignore
> <i>Unsuccessful</i>						
>>Cause	M		9.2.1.6		–	

9.2.2.18Ed E-DCH Serving Cell Change Information Response

The *E-DCH Serving Cell Change Information Response* IE contains information which is used in E-DCH Serving Cell change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Serving Cell Change</i>				
> <i>Successful</i>				
>>RL Information Response		0..<maxno ofRLs>		
>>>RL ID	M		9.2.1.53	
>>>E-DCH FDD DL Control Channel Information	M		9.2.2.13Dc	
> <i>Unsuccessful</i>				
>>Cause	M		9.2.1.6	

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.2.2.18Ee HS-DSCH TB Size Table Indicator

The *HS-DSCH TB Size Table Indicator* IE is used to indicate that octet aligned table [32] shall be used.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH TB Size Table Indicator			ENUMERATED (octet aligned)	

9.2.2.18F HS-PDSCH FDD Code Information

This parameter defines the codes which will be assigned for HS-PDSCHs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of HS-PDSCH Codes	M		INTEGER (0..maxHS-PDSCHCodeNrComp-1)	
Start Code Number	C-NumCodes		INTEGER (1..maxHS-PDSCHCodeNrComp-1)	

Condition	Explanation
NumCodes	The IE shall be present if the <i>Number Of HS-PDSCH Codes</i> IE is set to a value greater than 0.

Range Bound	Explanation
MaxHS-PDSCHCodeNrComp	Maximum number of codes at the defined spreading factor, within the complete code tree

9.2.2.18G HS-SCCH FDD Code Information

This parameter defines the codes which will be assigned for HS-SCCH. The Node B will assign codes for HS-SCCHs among these codes when it sets up a HS-DSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>replacremove</i>	M			
<i>>replace</i>				
>>HS-SCCH Code		<i>1..<Maxno ofHSSCC Hs></i>		
<i>>>>Code Number</i>	M		INTEGER (0..maxHS-SCCHCodeNrComp-1)	
<i>>remove</i>			NULL	

Range Bound	Explanation
MaxnoofHSSCCHs	Maximum number of HS-SCCHs for one cell.
MaxHS-SCCHCodeNrComp	Maximum number of codes at the defined spreading factor, within the complete code tree

9.2.2.18H HS-SCCH ID

Void.

9.2.2.18I HS-SCCH Power Offset

The *HS-SCCH Power Offset* IE indicates the Power offset relative to the pilot bits on the DL DPCCCH except when FDPCH is configured. When F-DPCH is configured, the *HS-SCCH Power Offset* IE indicates the Power offset relative to the power of transmitted TPC bits on the F-DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Power Offset			INTEGER (0...255)	Unit: dB Range: -32 .. +31.75 dB Step: 0.25 dB

9.2.2.18K Initial DL DPCH Timing Adjustment Allowed

The *Initial DL DPCH Timing Adjustment Allowed* IE indicates that the Node B is allowed to perform a timing adjustment (either a timing advance or a timing delay with respect to the SFN timing) when establishing a radio link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Initial DL DPCH Timing Adjustment Allowed			ENUMERATED (initial DL DPCH Timing Adjustment Allowed)	

9.2.2.19 Max Adjustment Period

Void.

9.2.2.20 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level during a certain number of slots that can be utilised by the downlink power balancing algorithm. *Max Adjustment Step* IE defines a time period, in terms of number of slots, in which the accumulated power adjustment shall be maximum 1dB. This value does not include the DL inner loop PC adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max Adjustment Step			INTEGER (1..10)	Unit: Slots

9.2.2.20A Max Number Of PCPCHs

Void.

9.2.2.20B Max Number Of UL E-DPDCHs

Void.

9.2.2.20C Maximum Set of E-DPDCHs

The Maximum Set of E-DPDCHs as defined in [8]. Needed by rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Set of E-DPDCHs			ENUMERATED (vN256, vN128, vN64, vN32, vN16, vN8, vN4, v2xN4, v2xN2, v2xN2plus2xN4,..., v2xM2plus2xM4)	

9.2.2.20D Maximum Number Of Retransmissions For E-DCH

Void

9.2.2.20E MAC-es Guaranteed Bit Rate

Void

9.2.2.20F MAC-e Reset Indicator

Void

9.2.2.21 Maximum Number Of UL DPDCHs

Maximum number of uplink DPDCHs to be used during the connection. Needed by the rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max Number Of UL DPDCHs			INTEGER (1..6)	

9.2.2.21a Maximum Target Received Total Wide Band Power

The Maximum Target Received Total Wide Band Power indicates the maximum target UL interference for a certain cell under CRNC, including received wide band power from all sources.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Target Received Total Wide Band Power			INTEGER (0..621)	The Value mapping is according to mapping for measurement type "Received Total Wide Band Power" in [22].

9.2.2.21b Target Non-serving E-DCH to Total E-DCH Power Ratio

The Target Non-serving E-DCH to Total E-DCH Power Ratio indicates the target ratio of the received E-DCH power from non-serving UEs to the received total E-DCH power.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Target Non-serving E-DCH to Total E-DCH Power Ratio			INTEGER (0..100)	Unit: % Range: 0..100 % Step: 1 %

9.2.2.21A Maximum PDSCH Power

Void.

9.2.2.21B CQI Feedback Cycle k

The *CQI Feedback Cycle k* IE provides the duration of the CQI feedback cycle.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CQI Feedback Cycle k			ENUMERATED (0, 2, 4, 8, 10, 20, 40, 80, 160,..., 16, 32, 64)	Unit ms

9.2.2.21C Measurement Power Offset

The *Measurement Power Offset* IE is used as described in ref [10] subclause 6A.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
<i>Measurement Power Offset</i>			INTEGER (-12..26)	Unit: dB Range: -6..13dB Step: 0.5dB

9.2.2.21D MICH Mode

The number of Notification Indicators (NIs) transmitted in a MICH frame.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MICH Mode			ENUMERATED (18, 36, 72, 144,...)	Number of NIs per frame

9.2.2.22 Minimum UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH which is used during the connection. Needed by rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Min UL Channelisation Code Length			ENUMERATED (4, 8, 16, 32, 64, 128, 256,...)	

9.2.2.22a Min UL Channelisation Code Length For E-DCH FDD

Void.

9.2.2.23 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Multiplexing Position			ENUMERATED (Fixed, Flexible)	

9.2.2.23a NACK Power Offset

The *NACK Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ NACK information and the associated DPCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
NACK Power Offset			INTEGER (0..8,...)	According to mapping in ref. [9] subclause 4.2.1.

9.2.2.23A N_EOT

Void.

9.2.2.23B NF_max

Void.

9.2.2.23C N_Start_Message

Void.

9.2.2.23D Number Of Reported Cell Portions

Number of Reported Cell Portions indicates the number of Best Cell Portions values which shall be included in the measurement report.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of Reported Cell Portions			INTEGER (1..64,...)	

9.2.2.24 Pattern Duration (PD)

Void.

9.2.2.24A PCP Length

Void.

9.2.2.25 PDSCH Code Mapping

Void.

9.2.2.26 PICH Mode

The number of paging indicators (PIs) in a PICH frame.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PICH Mode			ENUMERATED (18, 36, 72, 144,...)	Number of PIs per frame

9.2.2.27 Power Adjustment Type

Defines the characteristic of the power adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Adjustment Type			ENUMERATED (None, Common, Individual)	

9.2.2.28 Power Control Mode

Void.

9.2.2.29 Power Offset

This IE defines a power offset relative to the Downlink transmission power of a DPDCH in case the Node B Communication Context is configured to use DPCH in the downlink or relative to a Secondary CCPCH data field.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Offset			INTEGER (0..24)	Unit: dB Range: 0..6 dB Step: 0.25 dB

9.2.2.29A Power_Raise_Limit

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power_Raise_Limit			INTEGER (0..10)	Unit: dB Range: 0..10 dB Step: 1 dB

9.2.2.30 Power Resume Mode

Void.

9.2.2.31 Preamble Signature

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Preamble Signatures			BIT STRING (16)	Each bit indicates availability for a signature, where the signatures are numbered "signature 0" up to "signature 15". The value 1 of a bit indicates that the corresponding signature is available and the value 0 that it is not available. The order of bits is to be interpreted according to subclause 9.3.4. See also [9].

9.2.2.32 Preamble Threshold

The IE sets the threshold for preamble detection. The ratio between received preamble power during the preamble period and interference level shall be above this threshold in order to be acknowledged.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Preamble Threshold			INTEGER (0..72)	Unit: dB Range: -36 .. 0 dB Step: 0.5 dB

9.2.2.33 Primary CPICH Power

The Primary CPICH power is the power that shall be used for transmitting the P-CPICH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CPICH, the Primary CPICH power is the linear sum of the power that is used for transmitting the Primary CPICH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CPICH Power			INTEGER (-100..500)	Value = Primary CPICH Power/10 Unit: dBm Range: -10.0..+50.0 dBm Step: 0.1 dB

9.2.2.33A Primary CPICH Usage For Channel Estimation

The *Primary CPICH Usage For Channel Estimation* IE indicates whether the Primary CPICH may be used for channel estimation or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CPICH Usage For Channel Estimation			ENUMERATED (Primary CPICH may be used, Primary CPICH shall not be used)	

9.2.2.34 Primary Scrambling Code

The Primary scrambling code to be used in the cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary Scrambling Code			INTEGER (0..511)	

9.2.2.35 Propagation Delay

The Propagation delay is the one-way propagation delay of the radio signal from the MS to the Node B. If the range of the *Propagation Delay* IE is insufficient to represent the measured value, the *Propagation Delay* IE shall be set to its maximum value, and the *Extended Propagation Delay* IE shall be used to represent the propagation delay value, see subclause 9.2.2.35A.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Propagation Delay			INTEGER (0..255)	Unit: chip Range: 0..765 chips Step: 3 chips

9.2.2.35A Extended Propagation Delay

The Extended Propagation delay is the one-way propagation delay of the radio signal from the MS to the Node B. It shall be used if the *Propagation Delay* IE (see 9.2.2.35) cannot represent the measured value, due to range limitation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended Propagation Delay			INTEGER (255..1023)	Continuation of intervals as defined in [22]. Unit: chip Range: 765..3069 chips Step: 3 chips

9.2.2.36 QE-Selector

Void.

9.2.2.36A Qth Parameter

Void.

9.2.2.37 RACH Slot Format

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RACH Slot Format			ENUMERATED (0..3,...)	See ref. [7].

9.2.2.38 RACH Sub Channel Numbers

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RACH Sub Channel Numbers			BIT STRING (12)	Each bit indicates availability for a subchannel, where the subchannels are numbered "subchannel 0" to "subchannel 11". The value 1 of a bit indicates that the corresponding subchannel is available and the value 0 indicates that it is not available. The order of bits is to be interpreted according to subclause 9.3.4.

9.2.2.39 RL Set ID

The RL Set ID uniquely identifies one RL Set within a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL Set ID			INTEGER (0..31)	

9.2.2.39a RL Specific E-DCH Information

The *RL Specific E-DCH Information* IE provides RL specific E-DCH Information.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL Specific E-DCH Information		<i>1..<maxno of EDCH MACdFlows ></i>		
>E-DCH MAC-d Flow ID	M		9.2.1.74	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.
E-AGCH Power Offset	O		9.2.2.13Id	
E-RGCH Power Offset	O		9.2.2.13Ie	
E-HICH Power Offset	O		9.2.2.13If	

Range Bound	Explanation
<i>maxno of EDCH MACdFlows</i>	Maximum number of E-DCH MAC-d flows

9.2.2.39A Received Total Wide Band Power

The Received total wide band power indicates the UL interference at a certain cell under CRNC, see ref. [4].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Received Total Wide Band Power			INTEGER (0..621)	According to mapping in [22].

9.2.2.39B Reference Received Total Wide Band Power

When sent by the CRNC, the Reference Received Total Wide Band Power indicates the reference UL interference (received noise level) for a certain cell under CRNC. This value may be used for E-DCH scheduling in the Node B.

When reported by the Node B, the Reference Received Total Wide Band Power indicates the reference UL interference (received noise level as an estimate of the noise floor) estimate from the Node B. This value may be used, e.g. for admission or congestion control in the CRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Received Total Wide Band Power			INTEGER (0..621)	The Value mapping is according to mapping for measurement type "Received Total Wide Band Power" in [22].

9.2.2.39C Reference Received Total Wide Band Power Reporting

The Reference Received Total Wide Band Power Reporting controls the indication of the Reference Received Total Wide Band Power estimate from the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Received Total Wide Band Power Reporting			ENUMERATED (Reference Received Total Wide Band Power Requested)	

9.2.2.39D Reference Received Total Wide Band Power Support Indicator

The Reference Received Total Wide Band Power Support Indicator indicates whether indication of Reference Received Total Wide Band Power is supported by the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Received Total Wide Band Power Support Indicator			ENUMERATED (Indication of Reference Received Total Wide Band Power supported)	

9.2.2.40 S-Field Length

Void.

9.2.2.40A Scheduling Information

Void

9.2.2.41 Scrambling Code Change

Void.

9.2.2.42 Scrambling Code Number

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Scrambling Code Number			INTEGER (0..15)	Identification of scrambling code see ref. [9].

9.2.2.43 Secondary CCPCH Slot Format

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Secondary CCPCH Slot Format			INTEGER (0..17,...)	

9.2.2.43A Secondary CPICH Information Change

The *Secondary CPICH Information Change* IE indicates modification of information of the Secondary CPICH for channel estimation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Secondary CPICH Information Change</i>	M			
> <i>New Secondary CPICH</i>				
>> <i>Secondary CPICH Information</i>	M		Common Physical Channel ID 9.2.1.13	
> <i>Secondary CPICH Shall Not Be Used</i>			NULL	

9.2.2.44 SS DT Cell Identity

Void.

9.2.2.44A SS DT Cell Identity For EDSCHPC

Void.

9.2.2.45 SS DT Cell ID Length

Void.

9.2.2.46 SS DT Support Indicator

The SS DT Support Indicator indicates whether a RL supports SS DT or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Support Indicator			ENUMERATED (Not Used, SSDT Not Supported)	The <i>SSDT Support Indicator</i> IE shall never be set to "Not Used". If received it shall be rejected.

9.2.2.47 SSDT Indication

Void.

9.2.2.48 STTD Indicator

Indicates if STTD shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
STTD Indicator			ENUMERATED (active, inactive, ...)	

9.2.2.48A Synchronisation Indicator

The *Synchronisation Indicator* IE indicates that Timing Maintained Synchronisation shall be used at start of Radio Link, see also [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Synchronisation Indicator			ENUMERATED (Timing Maintained Synchronisation, ...)	

9.2.2.48B Serving E-DCH RL

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Serving E-DCH RL</i>	M			
> <i>Serving E-DCH RL in this Node B</i>				
>>Serving E-DCH RL ID	M		RL ID 9.2.1.53	
> <i>Serving E-DCH RL not in this Node B</i>			NULL	

9.2.2.49 T Cell

Timing delay used for defining start of SCH, CPICH and the DL scrambling code(s) in a cell relative BFN. Resolution 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T Cell			ENUMERATED (0, 1,...,9)	Unit: chip Range: 0..2304 chips Step: 256 chips See ref. [17]

9.2.2.49A TFCI2 Bearer Information Response

Void.

9.2.2.50 TFCI Signalling Mode

This parameter indicates if the normal or split mode is used for the TFCI. In the event that the split mode is to be used then the IE indicates whether the split is "Hard" or "Logical", and in the event that the split is "Logical" the IE indicates the number of bits in TFCI (field 2).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Signalling Option	M		ENUMERATED (Normal, Not Used)	The value "Not Used" shall not be used by the CRNC. The procedure shall be rejected by the Node B if the value "Not Used" is received.
Not Used	O		NULL	
Not Used	O		NULL	

9.2.2.51 TGD

Void.

9.2.2.52 TGL

Void.

9.2.2.53 Transmit Diversity Indicator

The Transmit Diversity Indicator indicates whether transmit diversity shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmit Diversity Indicator			ENUMERATED (active, inactive)	

9.2.2.53A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		<i>1..<maxT GPS></i>		
>TGPS Identifier	M		INTEGER (1..maxTGPS)	Transmission Gap Pattern Sequence Identifier: Establish a reference to the compressed mode pattern sequence. Up to <maxTGPS> simultaneous compressed mode pattern sequences can be used.
>TGSN	M		INTEGER (0..14)	Transmission Gap Starting Slot Number: The slot number of the first transmission gap slot within the TGCFN.
>TGL1	M		INTEGER (1..14)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	O		INTEGER (1..14)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	M		INTEGER (0, 15.. 269)	Transmission Gap Distance: indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to "0" ("0" =undefined).
>TGPL1	M		INTEGER (1..144,...)	The duration of transmission gap pattern 1 in frames.
>Not-to-be-used-1	O		INTEGER (1..144,...)	This IE shall never be included in the IE group. If received it shall be ignored.
>UL/DL Mode	M		ENUMERATED (UL only, DL only, UL/DL)	Defines whether only DL, only UL or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERATED (Not Used, SF/2, Higher Layer Scheduling, ...)	Method for generating downlink compressed mode gap. The <i>Downlink Compressed Mode Method</i> IE shall never be set to "Not Used".
>Uplink Compressed Mode Method	C-UL		ENUMERATED (SF/2, Higher Layer Scheduling, ...)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	M		ENUMERATED (A, B,...)	Defines if frame structure type "A" or "B" shall be used in downlink compressed mode.
>DeltaSIR1	M		INTEGER (0..30)	Delta in SIR target value to be set in the Node B during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). Unit: dB Range: 0..3 dB Step: 0.1 dB

>DeltaSIRafter1	M		INTEGER (0..30)	Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the first transmission gap in the transmission gap pattern. Unit: dB Range: 0..3 dB Step: 0.1 dB
>DeltaSIR2	O		INTEGER (0..30)	Delta in SIR target value to be set in the Node B during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). When omitted, DeltaSIR2 = DeltaSIR1. Unit: dB Range: 0..3 dB Step: 0.1 dB
>DeltaSIRafter2	O		INTEGER (0..30)	Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Unit: dB Range: 0..3 dB Step: 0.1 dB

Condition	Explanation
UL	The IE shall be present if the <i>UL/DL mode</i> IE is set to "UL only" or "UL/DL".
DL	The IE shall be present if the <i>UL/DL mode</i> IE is set to "DL only" or "UL/DL".

Range Bound	Explanation
<i>maxTGPS</i>	Maximum number of transmission gap pattern sequences

9.2.2.53B Transmission Gap Pattern Sequence Code Information

This IE indicates whether the alternative scrambling code shall used for the Downlink compressed mode method or not in the Transmission Gap Pattern Sequence. For details see [9].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Code Information			ENUMERATED (Code Change, No Code Change)	Indicates whether the alternative scrambling code is used for compressed mode method "SF/2".

9.2.2.54 UL/DL compressed mode selection

Void.

9.2.2.55 UL delta SIR

Void.

9.2.2.56 UL delta SIR after

Void.

9.2.2.57 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, according to ref. [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL DPCCH Slot Format			INTEGER (0..5,...)	Value 5 shall not be used. If value 5 is received, the procedure shall be rejected.

9.2.2.58 UL SIR

Void.

9.2.2.59 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Scrambling Code Number	M		INTEGER (0..2 ²⁴ -1)	
UL Scrambling Code Length	M		ENUMERATED (Short, Long)	

9.2.2.60 UL Capacity Credit

Void.

9.2.2.61 UL DPDCH Indicator For E-DCH Operation

The UL DPDCH Indicator For E-DCH Operation parameter indicates whether some UL DPCH parameters should be ignored or not in the message in which the *UL DPDCH Indicator For E-DCH Operation* IE was included or that any UL DPDCH resources shall be removed from the communication context configuration.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL DPDCH Indicator For E-DCH Operation			ENUMERATED (UL-DPDCH present, UL-DPDCH not present)	

9.2.2.62 Fast Reconfiguration Mode

The *Fast Reconfiguration Mode* IE is used to notify the Node B that the SRNC would like to use the activation time “when the UE is detected on the new configuration” as the timing for the reconfiguration.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Fast Reconfiguration Mode			ENUMERATED (Fast,...)	

9.2.2.63 Fast Reconfiguration Permission

The *Fast Reconfiguration Permission* IE is used to indicate to the CRNC that the Node B can apply the activation time “when the UE is detected on the new configuration” for this reconfiguration.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Fast Reconfiguration Permission			ENUMERATED (Allowed,...)	

9.2.2.64 Continuous Packet Connectivity DTX-DRX Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Continuous Packet Connectivity DTX-DRX Capability			ENUMERATED (Continuous Packet Connectivity DTX-DRX Capable, Continuous Packet Connectivity DTX-DRX Non-Capable)	

9.2.2.65 Continuous Packet Connectivity HS-SCCH less Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Continuous Packet Connectivity HS-SCCH less Capability			ENUMERATED (Continuous Packet Connectivity HS-SCCH less Capable, Continuous Packet Connectivity HS-SCCH less Non-Capable)	

9.2.2.66 Continuous Packet Connectivity DTX-DRX Information

The *Continuous Packet Connectivity DTX-DRX Information* IE defines the parameters used for Continuous Packet Connectivity DTX-DRX operation (see ref. [10]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE DTX DRX Offset	M		INTEGER (0..159)	Units of subframes. Offset of the UE DTX and DRX cycles at the given TTI
Enabling Delay	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128)	Units of radio frames
DTX Information		1		
>CHOICE E-DCH TTI	M			

Length				
>>2ms				
>>>UE DTX Cycle 1	M		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>>UE DTX Cycle 2	M		ENUMERATED (4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160)	Units of subframes
>>>MAC DTX Cycle	M		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>10ms				
>>>UE DTX Cycle 1	M		ENUMERATED (1, 5, 10, 20)	Units of subframes
>>>UE DTX Cycle 2	M		ENUMERATED (5, 10, 20, 40, 80, 160)	Units of subframes
>>>MAC DTX Cycle	M		ENUMERATED (5, 10, 20)	Units of subframes
>Inactivity Threshold for UE DTX Cycle 2	M		ENUMERATED (1, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs
>UE DTX Long Preamble	M		ENUMERATED (2,4,15)	Units of slots
>MAC Inactivity Threshold	M		ENUMERATED (1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of E-DCH TTIs
>CQI DTX Timer	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of subframes
>UE DPCCH burst1	M		ENUMERATED (1, 2, 5)	Units of subframes
>UE DPCCH burst2	M		ENUMERATED (1, 2, 5)	Units of subframes
DRX Information		0..1		
>UE DRX Cycle	M		ENUMERATED (4, 5, 8, 10, 16, 20)	Units of subframes
>Inactivity Threshold for UE DRX Cycle	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512)	Units of subframes
>Inactivity Threshold for UE Grant Monitoring	M		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs
>UE DRX Grant Monitoring	M		BOOLEAN	True: DRX Grant Monitoring shall be applied. False: DRX Grant Monitoring shall not be applied.

9.2.2.67 Continuous Packet Connectivity DTX-DRX Information To Modify

The *Continuous Packet Connectivity DTX-DRX Information To Modify* IE is used for modification of Continuous Packet Connectivity DTX-DRX information in a Node B Communication Context. The *Continuous Packet Connectivity DTX-DRX Information To Modify* IE shall include at least one of the following IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UE DTX DRX Offset	O		INTEGER (0..159)	Units of subframes. Offset of the UE DTX and DRX cycles at the given TTI
Enabling Delay	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128)	Units of radio frames
<i>CHOICE DTX Information To Modify</i>	O			
> <i>Modify</i>				
>>CHOICE E-DCH TTI	O			

Length				
>>>2ms				
>>>>UE DTX Cycle 1	M		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>>>UE DTX Cycle 2	M		ENUMERATED (4, 5, 8, 10, 16, 20, 32, 40, 64, 80, 128, 160)	Units of subframes
>>>>MAC DTX Cycle	M		ENUMERATED (1, 4, 5, 8, 10, 16, 20)	Units of subframes
>>>10ms				
>>>>UE DTX Cycle 1	M		ENUMERATED (1, 5, 10, 20)	Units of subframes
>>>>UE DTX Cycle 2	M		ENUMERATED (5, 10, 20, 40, 80, 160)	Units of subframes
>>>>MAC DTX Cycle	M		ENUMERATED (5, 10, 20)	Units of subframes
>>Inactivity Threshold for UE DTX Cycle 2	O		ENUMERATED (1, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs
>>UE DTX Long Preamble	O		ENUMERATED (2,4,15)	Units of slots
>>MAC Inactivity Threshold	O		ENUMERATED (1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of E-DCH TTIs
>>CQI DTX Timer	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, Infinity)	Units of Subframes
>>UE DPCCH burst1	O		ENUMERATED (1, 2, 5)	Units of Subframes
>>UE DPCCH burst2	O		ENUMERATED (1, 2, 5)	Units of Subframes
>Deactivate			NULL	
CHOICE DRX Information To Modify	O			
>Modify				
>>UE DRX Cycle	O		ENUMERATED (4, 5, 8, 10, 16, 20)	Units of subframes
>>Inactivity Threshold for UE DRX Cycle	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512)	Units of subframes
>>Inactivity Threshold for UE Grant Monitoring	O		ENUMERATED (0, 1, 2, 4, 8, 16, 32, 64, 128, 256)	Units of E-DCH TTIs
>>UE DRX Grant Monitoring	O		BOOLEAN	True: DRX Grant Monitoring shall be applied. False: DRX Grant Monitoring shall not be applied.
>Deactivate			NULL	

9.2.2.68 Continuous Packet Connectivity HS-SCCH less Information

The *Continuous Packet Connectivity HS-SCCH less Information* IE defines the parameters used for Continuous Packet Connectivity HS-SCCH less operation (see ref. [10]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Block Size List		1..<maxno ofHS-DSCHTBS> sHS-SCCHless		
>Transport Block Size Index	M		INTEGER	

			(1..maxnoofHS-DSC HTBSs)	
>HS-PDSCH Second Code Support	M		BOOLEAN	True = The second HS-PDSCH code shall also be used False = The second HS-PDSCH code shall not be used

Range Bound	Explanation
<i>maxnoofHS-DSCHTBSsHS-SCCHless</i>	Maximum number of HS-DSCH Transport Block Sizes used for HS-SCCH-less operation
<i>maxnoofHS-DSCHTBSs</i>	Maximum number of HS-DSCH Transport Block Sizes

9.2.2.69 Continuous Packet Connectivity HS-SCCH less Information Response

The *Continuous Packet Connectivity HS-SCCH less Information Response* IE provides information for HS-SCCH less operation determined within the Node B (see ref. [10]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-PDSCH First Code Index	M		INTEGER (1..maxHS-PDSCHCodeNrComp-1)	Index of first HS-PDSCH code
HS-PDSCH Second Code Index	O		INTEGER (1..maxHS-PDSCHCodeNrComp-1)	Index of second HS-PDSCH code

9.2.2.69A Continuous Packet Connectivity HS-SCCH less Deactivate Indicator

The *Continuous Packet Connectivity HS-SCCH less Deactivate Indicator* IE is used to deactivate HS-SCCH less operation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Continuous Packet Connectivity HS-SCCH less Deactivate Indicator	M		NULL	

Range Bound	Explanation
<i>maxHS-PDSCHCodeNrComp</i>	Maximum number of codes at the defined spreading factor, within the complete code tree

9.2.2.70 MIMO Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MIMO Capability			ENUMERATED (MIMO Capable, MIMO Non-Capable)	

9.2.2.71 MIMO Activation Indicator

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MIMO Activation Indicator	M		NULL	

9.2.2.72 MIMO Mode Indicator

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MIMO Mode Indicator			ENUMERATED (Activate, Deactivate)	

9.2.2.73 MIMO Pilot Configuration

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Pilot Configuration	M			
>Primary and Secondary CPICH				
>>Associated Secondary CPICH	M		Common Physical Channel ID 9.2.1.13	
>Normal and Diversity Primary CPICH			NULL	

9.2.2.74 SixtyfourQAM DL Capability

This parameter defines the SixtyfourQAM downlink capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SixtyfourQAM DL Capability			ENUMERATED (SixtyfourQAM DL Capable, SixtyfourQAM DL Non-Capable)	

9.2.2.74A Sixtyfour QAM Usage Allowed Indicator

The *Sixtyfour QAM Usage Allowed Indicator* IE indicates whether the Node B is allowed to use 64 QAM modulation for HS-DSCH transmission or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Sixtyfour QAM Usage Allowed Indicator	M		ENUMERATED (Allowed, Not-Allowed)	

9.2.2.74B SixtyfourQAM DL Usage Indicator

The *SixtyfourQAM DL Usage Indicator* IE indicates if the Node B is using 64 QAM modulation for the HS-DSCH transmission, or if the Node B is not using 64 QAM modulation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SixtyfourQAM DL Usage Indicator			ENUMERATED (SixtyfourQAM DL Used, SixtyfourQAM DL Not Used)	

9.2.2.75 HS-DSCH Common System Information

The *HS-DSCH Common System Information* IE provides information for HS-DSCH configured for UE in Cell_FACH, in Cell_PCH and in URA_PCH and Information related to BCCH modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Common Information		0..1		
>CCCH Priority Queue ID	M		Priority Queue ID 9.2.1.49C	
>SRB#1 Priority Queue ID	M		Priority Queue ID 9.2.1.49C	
>Associated Common MAC Flow	M		Common MAC Flow ID 9.2.2.79	The Common MAC Flow ID shall be one of the flow IDs defined in the Common MAC Flow Specific Information of this IE or shall only refer to a Common MAC flow already existing in the old configuration.
>FACH Measurement Occasion Cycle Length Coefficient	O		9.2.2.82	
>RACH Measurement Result	M		9.2.2.84	
>BCCH Specific HS-DSCH-RNTI Information	M		9.2.2.85	
Common MAC Flow Specific Information		0..<maxno of Common MACFlows >		
>Common MAC Flow ID	M		9.2.2.79	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.
>Common MAC Flow Priority Queue Information		0..<maxno of Common MACQueues >		
>>Priority Queue Information for Enhanced FACH	M		Priority Queue Information for Enhanced FACH/PCH 9.2.2.83	
>Transport Bearer Request Indicator	O		9.2.1.62A	Shouldn't be contained if the MAC flow is setup in procedure. Should be contained if the MAC flow is modified in procedure

Range bound	Explanation
<i>maxnoofCommonMACFlows</i>	Maximum number of Common MAC Flows
<i>maxnoofCommonMACQueues</i>	Maximum number of Priority Queues for Common MAC Flow

9.2.2.76 HS-DSCH Paging System Information

The *HS-DSCH Paging System Information* IE provides information for HS-DSCH configured for UE in Cell_PCH and URA_PCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging MAC Flow Specific Information		<i>1..<maxno ofPagingMACFlow></i>		
>Paging MAC Flow ID	M		9.2.2.80	
>HSDPA Associated PICH Information	M		9.2.2.81	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.
>ToAWS	M		9.2.1.61	
>ToAWE	M		9.2.1.60	
>Paging MAC Flow Priority Queue Information		<i>0..<maxno ofPagingMACQueues></i>		
>>Priority Queue Information for Enhanced PCH	M		Priority Queue Information for Enhanced FACH/PCH 9.2.2.83	
>>Transport Bearer Request Indicator	O		9.2.1.62A	Shouldn't be contained if the MAC flow is setup in procedure. Should be contained if the MAC flow is modified in procedure
HS-SCCH Power	M		DL Power 9.2.1.21	
HS-PDSCH Power	M		DL Power 9.2.1.21	
Number of PCCH transmissions	M		INTEGER (1..5)	Number of subframes used to transmit the PCCH.
Transport Block Size List		<i>1..<maxno ofHS-DSCHTBSsE-PCH></i>		
>Transport Block Size Index for Enhanced PCH	M		INTEGER (1..32)	Index of the value range 1 to 32 of the MAC-ehs transport block size as specified in appendix A of [32]

Range bound	Explanation
<i>maxnoofPagingMACFlow</i>	Maximum number of Paging MAC Flows
<i>maxnoofPagingMACQueues</i>	Maximum number of Priority Queues for Paging MAC Flow
<i>maxnoofHS-DSCHTBSsE-PCH</i>	Maximum number of HS-DSCH Transport Block Sizes used for Enhanced PCH operation associated HS-SCCH less

9.2.2.77 HS-DSCH Common System Information Response

The *HS-DSCH Common System Information Response* IE provides information for HS-DSCH configured for UE not in Cell_DCH that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Specific Information Response		<i>0..<maxno ofHSSCH Hcodes></i>		Channelization codes on HS-SCCH is transmitted for UE not in Cell_DCH
>Code Number	M		INTEGER (0..127)	First indexed HS-SCCH Channelisation code should be used for the BCCH specific H-RNTI.

HARQ Memory Partitioning	O		9.2.1.102	
Common MAC Flow Specific Information Response		<i>0..<maxno ofCommon MACFlows ></i>		
>Common MAC Flow ID	M		9.2.2.79	
>Binding ID	O		9.2.1.4	
>Transport Layer Address	O		9.2.1.63	
>HS-DSCH Initial Capacity Allocation	O		9.2.1.31Ha	

Range Bound	Explanation
<i>maxnoofCommonMACFlows</i>	Maximum number of Common MAC Flows
<i>maxnoofHSSCCHcodes</i>	Maximum number of HS-SCCH codes

9.2.2.78 HS-DSCH Paging System Information Response

The *HS-DSCH Paging System Information Response* IE provides information for HS-DSCH configured for UE in Cell_PCH and URA_PCH that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging MAC Flow Specific Information Response		<i>1..<maxno ofPagingMACFlow></i>		
>Paging MAC Flow ID	M		9.2.2.80	
>Binding ID	O		9.2.1.4	
>Transport Layer Address	O		9.2.1.63	
>HS-PDSCH Code Index	M		INTEGER (1..maxHS-PDSCHCodeNrComp-1)	Index of HS-PDSCH code

Range bound	Explanation
<i>maxnoofPagingMACFlow</i>	Maximum number of Paging MAC Flows

9.2.2.79 Common MAC Flow ID

Common MAC Flow ID is the unique identifier for one Common MAC flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common MAC Flow ID			INTEGER (0..7)	

9.2.2.80 Paging MAC Flow ID

Paging MAC Flow ID is the unique identifier for one Paging MAC flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging MAC Flow ID			INTEGER (0..3)	

9.2.2.81 HSDPA Associated PICH Information

The *HSDPA Associated PICH Information* IE provides information for PICH used for Enhanced PCH operation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>HSDPA PICH</i>				
> <i>Shared with PCH</i>				
>>Common Physical Channel ID	M		9.2.1.13	
> <i>Not shared with PCH</i>				
>>Common Physical Channel ID	M		9.2.1.13	
>>FDD DL Channelisation Code Number	M		9.2.2.14	
>>PICH Power	M		9.2.1.49A	
>>PICH Mode	M		9.2.2.26	Number of PI per frame
>>STTD Indicator	M		9.2.2.48	

9.2.2.82 FACH Measurement Occasion Cycle Length Coefficient

The *FACH Measurement Occasion Cycle Length Coefficient* IE provides information used for MAC-hs scheduling decision for MAC-c PDU in Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FACH Measurement Occasion Cycle Length Coefficient			INTEGER (1..12)	

9.2.2.83 Priority Queue Information for Enhanced FACH/PCH

The *Priority Queue Information for Enhanced FACH/PCH* IE provides information associated to HSDPA Priority Queue used for Enhanced FACH and/or Enhanced PCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Priority Queue ID	M		9.2.1.49C	
Scheduling Priority Indicator	M		9.2.1.53H	
T1	M		9.2.1.56a	
MAC-ehs Reset Timer	M		9.2.2.99	
Discard Timer	O		9.2.1.24E	Shall be ignored in case of Enhanced PCH
MAC-hs Window Size	M		9.2.1.38B	
Maximum MAC-c PDU Size	M		MAC PDU Size Extended 9.2.1.38C	

9.2.2.84 RACH Measurement Result

The RACH Measurement Result identifies which RACH measurement result is forwarded to Node B in Frame Protocol.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RACH Measurement Result			ENUMERATED (CPICH Ec/No, CPICH RSCP, Pathloss,...)	

9.2.2.85 BCCH Specific HS-DSCH RNTI Information

The *BCCH Specific HS-DSCH RNTI Information* IE provides information for BCCH Transmission using HS-DSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
BCCH Specific HS-DSCH RNTI	M		HS-DSCH-RNTI 9.2.1.31J	
HS-SCCH Power	M		DL Power 9.2.1.21	
HS-PDSCH Power	M		DL Power 9.2.1.21	

9.2.2.86 Enhanced FACH Capability

This parameter defines the Enhanced FACH capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced FACH Capability			ENUMERATED (Enhanced FACH Capable, Enhanced FACH Non-Capable)	

9.2.2.87 Enhanced PCH Capability

This parameter defines the Enhanced PCH capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced PCH Capability			ENUMERATED (Enhanced PCH Capable, Enhanced PCH Non-Capable)	

9.2.2.88 SixteenQAM UL Capability

This parameter defines the SixteenQAM uplink capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SixteenQAM UL Capability			ENUMERATED (SixteenQAM UL Capable, SixteenQAM UL Non-Capable)	

9.2.2.88A SixteenQAM UL Operation Indicator

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SixteenQAM UL Operation Indicator			ENUMERATED (Activate, Deactivate)	

9.2.2.88B E-TFCI Boost Information

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-TFCI BetaEC Boost	M		INTEGER (0..127,...)	E-TFCI threshold beyond which boosting of E-DPCCH is enabled
UL Delta T2TP	<i>C-E-TFCIboost</i> 127		INTEGER (0..6,...)	Total E-DPDCH power across all codes to the combined power of DPCCH and E-DPCCH

Condition	Explanation
<i>E-TFCIboost</i> 127	The IE shall be present if the <i>E-TFCI BetaEC Boost</i> IE value is not set o 127.

9.2.2.89 SixteenQAM UL Information

Void.

9.2.2.90 SixteenQAM UL Information To Modify

Void.

9.2.2.91 Modulation Power Offset

Indicates the modulation, and power offset in case of 16QAM, to be used for the Secondary CCPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Modulation</i>	M			
>QPSK			NULL	
>QAM				
>>CPICH Secondary CCPCH Power Offset	M		INTEGER (-11..4,...)	Power offset between CPICH and secondary CCPCH. Unit: dB Range: -11 .. +4 dB Step: 1 dB

9.2.2.92 Extended Secondary CCPCH Slot Format

Indicates the slot format used for the Secondary CCPCH. The extended slot format shall only be used for MBSFN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended Secondary CCPCH Slot Format			INTEGER(18..23,...)	

9.2.2.93 F-DPCH Slot Format

The *F-DPCH Slot Format* IE defines the F-DPCH slot format for the TPC bits, as defined in [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
F-DPCH Slot Format			INTEGER (0..9)	

9.2.2.94 F-DPCH Slot Format Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
F-DPCH Slot Format Capability			ENUMERATED (F-DPCH Slot Format Capable, F-DPCH Slot Format Non-Capable)	

9.2.2.95 Max UE DTX Cycle

The *Max UE DTX Cycle* IE defines the maximum UE DTX cycle supported by the Node B for Continuous Packet Connectivity DTX-DRX operation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max UE DTX Cycle	M		ENUMERATED (v5, v10, v20, v40, v64, v80, v128, v160,...)	Units of subframes

9.2.2.96 MIMO N/M Ratio

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MIMO N/M Ratio	M		ENUMERATED (1/2, 2/3, 3/4, 4/5, 5/6, 6/7, 7/8, 8/9, 9/10, 1/1,...)	

9.2.2.97 Common MAC Flows To Delete

The *Common MAC Flows To Delete* IE is used for the removal of Common MAC flows from a Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common MAC Flows To Delete		$1..<maxno\ of\ Common\ MACFlows>$		
>Common MAC Flow ID	M		9.2.2.79	

Range Bound	Explanation
$maxnoofCommonMACFlows$	Maximum number of Common MAC Flows

9.2.2.98 Paging MAC Flows To Delete

The *Paging MAC Flows To Delete* IE is used for the removal of Paging MAC flows from a Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging MAC Flows To Delete		<i>1..<maxno ofPagingMACFlow></i>		
>Paging MAC Flow ID	M		9.2.2.80	

Range Bound	Explanation
<i>maxnoofPagingMACFlow</i>	Maximum number of Paging MAC Flows

9.2.2.99 MAC-ehs Reset Timer

The *MAC-ehs Reset Timer* IE is used as Reset Timer(Treset) described in ref [32] subclause 11.6.4.5.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-ehs Reset Timer			ENUMERATED (1, 2, 3, 4, ...)	Timer in multiples of T1 values (milliseconds). Used when MAC-ehs reordering queue is reset in CELL_FACH and CELL_PCH

9.2.2.100 E-AGCH Table Choice

The E-AGCH Table Choice IE indicates the choice of the E-AGCH table in[8].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-AGCH Table Choice	M		ENUMERATED (Table 16B, Table 16B-12, ...)	Table 16B indicates the Table 16B: Mapping of Absolute Grant Value in [8] and Table 16B-12 indicates the Table 16B.12: Alternative Mapping of Absolute Grant Value in [8].

9.2.2.101 E-DPCCH Power Boosting Capability

This parameter defines the E-DPCCH Power Boosting Capability for a Local Cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DPCCH Power Boosting Capability			ENUMERATED (E-DPCCH Power Boosting Capable, E-DPCCH Power Boosting Non-Capable)	

9.2.2.102 MIMO Power Offset For S-CPICH Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MIMO Power Offset For S-CPICH Capability			ENUMERATED (S-CPICH Power Offset Capable, S-CPICH Power Offset Not Capable)	

9.2.2.103 Power Offset For Secondary CPICH for MIMO

The *Power Offset For Secondary CPICH for MIMO* IE indicates the the relative transmit power of the S-CPICH compared to the primary CPICH transmit power, when S-CPICH is used as a phase reference for a second transmit antenna in MIMO mode [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Offset For Secondary CPICH for MIMO			INTEGER(-6 .. 0)	Offset in dB

9.2.2.104 MIMO Pilot Configuration Extension

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Pilot Configuration	M			
>Primary and Secondary CPICH				
>>Power Offset For Secondary CPICH for MIMO	M		9.2.2.103	
>Normal and Diversity Primary CPICH			NULL	This IE is not used in this release.

9.2.2.105 TX Diversity on DL Control Channels by MIMO UE Capability

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TX Diversity on DL Control Channels by MIMO UE Capability			ENUMERATED (DL Control Channel Tx Diversity for MIMO UE with non-diverse P-CPICH Capable, DL Control Channel Tx Diversity for MIMO UE with non-diverse P-CPICH Not Capable)	

9.2.3 TDD specific Parameters

9.2.3.1 Block STTD Indicator

Void.

9.2.3.2 Burst Type

Void.

9.2.3.3 CCTrCH ID

The CCTrCH ID for dedicated and shared channels identifies unambiguously an uplink or downlink CCTrCH inside a Radio Link. For S-CCPCH, it identifies unambiguously a downlink CCTrCH within a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CCTrCH ID			INTEGER (0..15)	

9.2.3.4 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the [3.84 Mcps TDD and 7.68Mcps TDD - Code Groups, Scrambling Codes, Midambles and Toffset] [1.28 Mcps TDD - SYNC-DL and SYNC-UL sequences, the scrambling codes and the midamble codes] (see ref. [20]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Parameter ID			INTEGER (0..127,...)	

9.2.3.4A Constant Value

The Constant Value is the power margin used by a UE to set the proper uplink power for a DCH, USCH, or a RACH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Constant Value			INTEGER (-10..10,...)	Unit: dB Range: -10 .. +10 dB Step: 1 dB.

9.2.3.4B DL Timeslot ISCP

The DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot ISCP			INTEGER (0..91)	According to mapping in ref. [5].

9.2.3.4C DCH TDD Information

The *DCH TDD Information* IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH TDD Information		1..<maxno ofDCHs>			–	
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>UL FP Mode	M		9.2.1.66		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
>DCH Specific Info		1..<maxno ofDCHs>			–	
>>DCH ID	M		9.2.1.20		–	
>>CCTrCH ID	M		9.2.3.3	UL CCTrCH in which the DCH is mapped	–	
>>CCTrCH ID	M		9.2.3.3	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	M		9.2.1.59	For UL	–	
>>Transport Format Set	M		9.2.1.59	For DL	–	
>>Allocation/Retention Priority	M		9.2.1.1A		–	
>>Frame Handling Priority	M		9.2.1.30		–	
>>QE-Selector	C-CoordCH		9.2.1.50A		–	
>>Unidirectional DCH Indicator	O		9.2.1.68		YES	reject
>TNL QoS	O		9.2.1.58A		YES	ignore

Condition	Explanation
CoordCH	The IE shall be present if this DCH is part of a set of coordinated DCHs (number of instances of the <i>DCH Specific Info</i> IE is greater than 1).

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE

9.2.3.4D DCHs TDD To Modify

The *DCHs TDD To Modify* IE provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCHs TDD To Modify		1..<maxno ofDCHs>			–	
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>Transport Bearer Request Indicator	M		9.2.1.62A		–	
>DCH Specific Info		1..<maxno ofDCHs>			–	
>>DCH ID	M		9.2.1.20		–	
>>CCTrCH ID	O		9.2.3.3	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	O		9.2.3.3	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	O		9.2.1.59	For the UL.	–	
>>Transport Format Set	O		9.2.1.59	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1A		–	
>>Frame Handling Priority	O		9.2.1.30		–	
>TNL QoS	O		9.2.1.58A		YES	ignore

Range Bound	Explanation
<i>maxnoofDCHs</i>	Maximum number of DCHs for one UE

9.2.3.4E DL Timeslot Information

The *DL Timeslot Information* IE provides information for DL Time slot to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot Information		1..<maxno ofDLts>		
>Time Slot	M		9.2.3.23	
>Midamble Shift And Burst Type	M		9.2.3.7	
>TFCI Presence	M		9.2.1.57	
>DL Code Information	M		TDD DL Code Information 9.2.3.19B	

Range Bound	Explanation
<i>maxnoofDLts</i>	Maximum number of Downlink time slots per Radio Link

9.2.3.4F DL Time Slot ISCP Info

The *DL Time Slot ISCP Info* IE provides information for DL Interference level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Time Slot ISCP Info		<i>1..<maxno ofDLts></i>		
>Time Slot	M		9.2.3.23	
>DL Timeslot ISCP	M		9.2.3.4B	

Range Bound	Explanation
<i>maxnoofDLts</i>	Maximum number of Downlink time slots per Radio Link for 3.84Mcps TDD.

9.2.3.4G Cell Sync Burst Code

The *Cell Sync Burst Code* IE indicates which Code is used for a given Cell Sync Burst.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Code			INTEGER (0..7,...)	

9.2.3.4H Cell Sync Burst Code Shift

The *Cell Sync Burst Code Shift* IE indicates the number of code shifts used for a given Cell Sync Burst.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Code Shift			INTEGER (0..7)	

9.2.3.4I CSB Measurement ID

The *Cell Sync Burst Measurement ID* IE uniquely identifies any cell synchronisation burst measurement per Node B Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CSB Measurement ID			INTEGER (0..65535)	

9.2.3.4J Cell Sync Burst Repetition Period

The *Cell Sync Burst Repetition Period* IE represents the number of consecutive Radio Frames after which the cell synchronisation burst transmission/measurement is repeated. This means that if the Time Slot K is assigned to the cell synchronisation burst transmission/measurements in the Radio Frame J , the cell synchronisation burst transmission/measurement is also in all the Radio Frames $J+n*Repetition\ Period$.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Repetition Period			INTEGER (0..4095)	

9.2.3.4K Cell Sync Burst SIR

Indicates the Signal to Interference Ratio of the cell synchronisation burst measurement according definition in [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst SIR			INTEGER (0..31)	According to mapping in [23]

9.2.3.4L Cell Sync Burst Timing

The *Cell Sync Burst Timing* IE defines the time of start (defined by the first detected path in time) of the cell synchronisation burst of a neighbouring cell see [5] for 3.84Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Phase</i>				According to mapping in [23]
> <i>Initial Phase</i>				
>>Cell Synch Burst Timing Value	M		INTEGER (0..1048575,...)	
> <i>Steady State Phase</i>				
>>Cell Synch Burst Timing Value	M		INTEGER (0..255,...)	

9.2.3.4La Cell Sync Burst Timing LCR

The *Cell Sync Burst Timing LCR* IE defines the time of start (defined by the first detected path in time) of the cell synchronisation burst of a neighbouring cell see [5] for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Phase</i>				According to mapping in [23]
> <i>Initial Phase</i>				
>>Cell Synch Burst Timing Value	M		INTEGER (0..524287,...)	
> <i>Steady State Phase</i>				
>>Cell Synch Burst Timing Value	M		INTEGER (0..127,...)	

9.2.3.4M Cell Sync Burst Timing Threshold

The *Cell Sync Burst Timing Threshold* IE defines the threshold that shall trigger a CELL SYNCHRONISATION REPORT message.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Timing Threshold			INTEGER (0..254)	Unit: chip Range: 0 .. 31.75 chips Step: 0.125 chip

9.2.3.4N CSB Transmission ID

The *Cell Sync Burst Transmisson ID* IE uniquely identifies any cell synchronisation burst transmission per Node B Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CSB Transmission ID			INTEGER (0..65535)	

9.2.3.4O DL Timeslot Information LCR

The *DL Timeslot Information LCR* IE provides information for DL Time slot to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Timeslot Information LCR		$1..<maxnoofDLtsLCR>$			–	
>Time Slot LCR	M		9.2.3.24A		–	
>Midamble Shift LCR	M		9.2.3.7A		–	
>TFCI Presence	M		9.2.1.57		–	
>DL Code Information	M		TDD DL Code Information LCR 9.2.3.19C		–	
>Initial DL Transmission Power	O		DL Power 9.2.1.21	Initial power on DPCH	YES	ignore
>Maximum DL Power	O		DL Power 9.2.1.21	Maximum allowed power on DPCH	YES	ignore
>Minimum DL Power	O		DL Power 9.2.1.21	Minimum allowed power on DPCH	YES	ignore

Range Bound	Explanation
$maxnoofDLtsLCR$	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD.

9.2.3.4P DL Time Slot ISCP Info LCR

The *DL Time Slot ISCP Info LCR* IE provides information for DL Interference level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Time Slot ISCP Info LCR		$1..<maxnoofDLtsLCR>$		
>Time Slot LCR	M		9.2.3.24A	
>DL Timeslot ISCP	M		9.2.3.4B	

Range Bound	Explanation
$maxnoofDLtsLCR$	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD.

9.2.3.4Q UpPCH Position LCR

The *UpPCH Position LCR* IE indicates the start point of the UpPCH channel, where the step size is 16chips, the maximum allowed value that can be utilised is $127*16=2032$ chips, The reference point (UpPCH Position LCR =0) is the startpoint of the timeslot of UpPTS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UpPCH Position LCR			INTEGER (0..127)	

9.2.3.5 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPCH ID			INTEGER (0..239)	

9.2.3.5a DSCH ID

The DSCH ID uniquely identifies a DSCH within a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DSCH ID			INTEGER (0..255)	

9.2.3.5b DSCH Information Response

The *DSCH Information Response* IE provides information for DSCHs that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DSCH Information Response		<i>1..<maxno of DSCHs></i>		
>DSCH ID	M		9.2.3.5a	
>Binding ID	O		9.2.1.4	
>Transport Layer Address	O		9.2.1.63	

Range Bound	Explanation
<i>maxno of DSCHs</i>	Maximum number of DSCHs for one UE

9.2.3.5A DSCH TDD Information

The *DSCH TDD Information* IE provides information for DSCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DSCH TDD Information		<i>1..<max no of DS CHs></i>			–	
>DSCH ID	M		9.2.3.5a		–	
>CCTrCH ID	M		9.2.3.3	DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	M		9.2.1.59	For DSCH	–	
>Allocation/Retention Priority	M		9.2.1.1A		–	
>Frame Handling Priority	M		9.2.1.30		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>TNL QoS	O		9.2.1.58A	Shall be ignored if bearer establishment with ALCAP.	YES	ignore

Range Bound	Explanation
<i>MaxnoofDSCHs</i>	Maximum number of DSCH for one UE

9.2.3.5B DwPCH Power

DwPCH Power is the power that shall be used for transmitting the DwPCH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the DwPCH, the DwPCH power is the linear sum of the power that is used for transmitting the DwPCH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DwPCH Power			INTEGER (-150..+400,...)	Unit: dBm Range: -15 ..+40 dBm Step: 0.1 dB

9.2.3.5C Frame Adjustment Value

The *Frame Adjustment Value* IE represents the frame number correction within the initial synchronisation phase.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Adjustment Value			INTEGER (0..4095)	$SFN_{new}=(SFN_{old}+Frame\ Adjustment\ Value)\ mod\ 4096$

9.2.3.5D IPDL TDD Parameter

The *IPDL TDD Parameter* IE provides information about IPDL to be applied for 3.84Mcps TDD or 7.68Mcps TDD when activated.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IP SpacingTDD	M		ENUMERATED (30, 40, 50, 70, 100, ...)	See [21]
IP Start	M		INTEGER (0..4095)	See [21]
IP Slot	M		INTEGER (0..14)	See [21]
IP PCCPCH	M		ENUMERATED (Switch off 1 frame, Switch off 2 frames)	See [21]
Burst Mode parameters	O		9.2.1.5A	

9.2.3.5E Max FPACH Power

Max FPACH Power is the maximum power that shall be used for transmitting the FPACH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the FPACH, the Max FPACH Power is maximum of the linear sum of the power that is allowed for transmitting the FPACH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FPACH Power			INTEGER (-150..+400,...)	Unit: dBm Range: -15 ..+40 dBm Step: 0.1 dB

9.2.3.5F HS-DSCH TDD Information

The *HS-DSCH TDD Information* IE is used for initial addition of HS-DSCH information to a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flows Information	M		9.2.1.31IA		–	
UE Capabilities Information		1			–	
>HS-DSCH Physical Layer Category	M		9.2.1.31Ia		–	
>1.28 Mcps TDD Uplink Physical Channel Capability	O		9.2.3.5Gc	Applicable to 1.28Mcps TDD only	YES	ignore
>Number of Supported Carriers	O		ENUMERATED (One-one carrier, One-three carrier, Three-three carrier, One-six carrier, Three-six carrier, Six-six carrier, ...)	Applicable to 1.28Mcps TDD only This IE indicates the number of carrier that UE can support at the same time, where "One-three carrier" means the number of supported carrier is one for the uplink, and three for the downlink.	YES	reject
>Multi-carrier HS-DSCH Physical Layer Category	O		9.2.1.31Ia	Applicable to 1.28Mcps TDD only	YES	ignore
MAC-hs Reordering Buffer Size for RLC-UM	M		9.2.1.38Ab		–	
TDD ACK NACK Power Offset	M		9.2.3.18F		–	
HS-SICH SIR Target	O		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD only	YES	ignore
HS-SICH TPC step size	O		9.2.3.21a	Applicable to 1.28Mcps TDD only	YES	ignore
HS-DSCH MAC-d PDU Size Format	O		9.2.1.31ID	If not present, "Indexed MAC-d PDU Size" shall be used.	YES	reject
TSN-Length	O		9.2.3.5I	Applicable for 1.28Mcps TDD when using multiple frequencies	YES	reject

9.2.3.5G HS-DSCH TDD Information Response

The HS-DSCH TDD Information Response provides information for HS-DSCH MAC-d flows that have been established or modified. It also provides additional HS-DSCH information determined within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information Response		<i>0..<max noofMA CdFlows></i>			–	
>HS-DSCH MAC-d Flow ID	M		9.2.1.31l		–	
>Binding ID	O		9.2.1.4		–	
>Transport Layer Address	O		9.2.1.63		–	
>HS-DSCH Initial Capacity Allocation	O		9.2.1.31Ha		–	
HS-SCCH Specific Information Response		<i>0..<max NoOfHS SCCHcodes></i>		Not applicable to 1.28 Mcps TDD or 7.68Mcps TDD	GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
>Midamble Shift And Burst Type	M		9.2.3.7		–	
>TDD Channelisation Code	M		9.2.3.19		–	
>HS-SICH Information		<i>1</i>			–	
>>HS SICH ID	M		9.2.3.5Gb		–	
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type	M		9.2.3.7		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
HS-SCCH Specific Information Response LCR per UARFCN		<i>0..<max HSDPA Frequency></i>		Not applicable to 3.84 Mcps TDD or 7.68Mcps TDD See note1 below	–	
>HS-SCCH Specific Information Response LCR		<i>1..<max NoOfHS SCCHcodes></i>		Not applicable to 3.84 Mcps TDD or 7.68Mcps TDD	GLOBAL	reject
>>Time Slot LCR	M		9.2.3.24A		–	
>>Midamble Shift LCR	M		9.2.3.7A		–	
>>First TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	
>>Second TDD Channelisation Code	M		TDD Channelisation Code 9.2.3.19		–	
>>HS-SICH Information LCR		<i>1</i>			–	
>>>HS SICH ID	M		9.2.3.5Gb	If the <i>Extended HS-SICH ID</i> IE is included in the <i>HS-SICH Information LCR</i> IE, the <i>HS-SICH ID</i> IE shall be ignored.	–	
>>>Time Slot LCR	M		9.2.3.24A		–	
>>>Midamble Shift LCR	M		9.2.3.7A		–	
>>>TDD Channelisation Code	M		9.2.3.19		–	
>>>Extended HS-SICH ID	O		9.2.3.5K	The <i>Extended HS-SICH ID</i> IE shall be used if the HS-SICH	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				identity has a value larger than 31.		
>>UsedFrequency	O		UARFCN 9.2.1.65	Applicable for 1.28Mcps TDD when using multiple frequencies. this IE indicates the frequency which is actually used by the HS-SCCH.	YES	reject
>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable for 1.28Mcps TDD when using multiple frequencies. See note2 below	YES	ignore
HARQ Memory Partitioning per UARFCN		<i>0..<max HSDPA Frequency></i>		See note 1 below	–	
>HARQ Memory Partitioning	O		9.2.1.102		–	
>UARFCN	O		9.2.1.65	Corresponds to Nt [15] Applicable for 1.28Mcps TDD when using multiple frequencies. See note2 below	YES	ignore
HS-SCCH Specific Information Response 7.68Mcps		<i>0..<max NoOfHS SCCHs></i>		Not applicable to 3.84 Mcps TDD or 1.28Mcps TDD	GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>Channelisation Code 7.68Mcps	M		TDD Channelisation Code 7.68Mcps 9.2.3.34		–	
>HS-SICH Information 7.68Mcps		<i>1</i>			–	
>>HS SICH ID	M		9.2.3.5Gb			
>>Time Slot	M		9.2.3.23		–	
>>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35		–	
>>Channelisation Code 7.68Mcps	M		TDD Channelisation Code 7.68Mcps 9.2.3.34		–	
Multi-Carrier number	O		INTEGER(1..maxHSDPAFrequency)	Applicable for 1.28Mcps TDD when using multiple frequencies.	YES	ignore

Range Bound	Explanation
<i>maxnoofMACdFlows</i>	Maximum number of HS-DSCH MAC-d flows.
<i>maxnoofHSSCCHcodes</i>	Maximum number of HS-SCCH codes
<i>maxHSDPAFrequency</i>	Maximum number of Frequencies that UE can support

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through *maxHSDPAFrequency* are represented by separate ASN.1 structures with different criticalities.

Note 2: The *UARFCN* IE in the *HARQ Memory Partitioning per UARFCN* IE has the same content as that in the *HS-SCCH Specific Information Response LCR per UARFCN* IE. They will be represented by one ASN.1 structure with same criticalities

9.2.3.5GA HS-DSCH TDD Update Information

The *HS-DSCH TDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be present.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Code Change Indicator	O		9.2.1.31K	
TDD ACK NACK Power Offset	O		9.2.3.18F	

9.2.3.5Ga HS-SCCH ID

The HS-SCCH ID identifies unambiguously a HS-SCCH and its paired HS-SICH within the set of HS-SCCHs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS SCCH ID			INTEGER (0..31)	

9.2.3.5Gb HS-SICH ID

The HS-SICH ID identifies unambiguously a HS-SICH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS SICH ID			INTEGER (0..31)	

9.2.3.5Gc 1.28 Mcps TDD Uplink Physical Channel Capability

The *1.28 Mcps TDD Uplink Physical Channel Capability* IE defines the UE uplink radio access capacity, see ref [33].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of timeslots per subframe	M		INTEGER (1..6)	
Maximum number of physical channels per timeslot	M		ENUMERATED (one, two, ..., three, four)	

9.2.3.5H IPDL TDD Parameters LCR

The *IPDL TDD Parameters LCR* IE provides information about IPDL to be applied for 1.28Mcps TDD when activated.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
---------------	----------	-------	-------------	-----------------------

			Reference	
IP SpacingTDD	M		ENUMERATED (30, 40, 50, 70, 100, ...)	See [21]
IP Start	M		INTEGER (0..4095)	See [21]
IP_Sub	M		ENUMERATED (First, Second, Both)	See [21]
Burst Mode Parameters	O		9.2.1.5A	

9.2.3.5I TSN-Length

Indicates the TSN bits applied to the MAC-hs PDU frame.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TSN-Length			ENUMERATED (tsn-6bits, tsn-9bits)	

9.2.3.5J Extended HS-SCCH ID

The Extended HS-SCCH ID LCR identifies unambiguously a HS-SCCH and its paired HS-SICH within the set of HS-SCCHs in a cell for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended HS-SCCH ID			INTEGER(32..255)	The <i>Extended HS-SCCH ID</i> IE shall be used if the HS-SCCH identity has a value larger than 31.

9.2.3.5K Extended HS-SICH ID

The Extended HS-SICH ID LCR identifies unambiguously a HS-SICH in a cell for 1.28Mcps TDD

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended HS-SICH ID			INTEGER(32..255)	The <i>Extended HS-SICH ID</i> IE shall be used if the HS-SICH identity has a value larger than 31.

9.2.3.6 Max PRACH Midamble Shift

Indicates the maximum number of Midamble shifts to be used in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max PRACH Midamble Shift			ENUMERATED (4, 8,...,16)	

9.2.3.7 Midamble Shift And Burst Type

This information element indicates burst type and midamble allocation for burst types 1, 2 and 3.

The 256 chip midamble supports 3 different time shifts, the 512 chips midamble may support 8 or even 16 time shifts.

Three different midamble allocation schemes exist:

Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL)

Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only)

UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL)

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Burst Type</i>				
> <i>Type1</i>				
>>Midamble Configuration Burst Type 1 And 3	M		ENUMERATED (4, 8, 16)	As defined in [19]
>>CHOICE <i>Midamble Allocation Mode</i>	M			
>>>Default <i>Midamble</i>			NULL	
>>>Common <i>Midamble</i>			NULL	
>>>UE Specific <i>Midamble</i>				
>>Midamble Shift Long	M		INTEGER (0..15)	
> <i>Type2</i>				
>>Midamble Configuration Burst Type 2	M		ENUMERATED (3, 6)	As defined in [19]
>>CHOICE <i>Midamble Allocation Mode</i>	M			
>>>Default <i>Midamble</i>			NULL	
>>>Common <i>Midamble</i>			NULL	
>>>UE Specific <i>Midamble</i>				
>>Midamble Shift Short	M		INTEGER (0..5)	
> <i>Type3</i>				UL only
>>Midamble Configuration Burst Type 1 And 3	M		ENUMERATED (4, 8, 16)	As defined in [19]
>>CHOICE <i>Midamble Allocation Mode</i>	M			
>>>Default <i>Midamble</i>			NULL	
>>>UE Specific <i>Midamble</i>				
>>Midamble Shift Long	M		INTEGER (0..15)	

9.2.3.7A Midamble Shift LCR

This information element indicates midamble allocation in 1.28Mcps TDD.

Three different midamble allocation schemes exist:

Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL)

Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only)

UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL)

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Midamble Allocation Mode	M		ENUMERATED (Default midamble, Common midamble, UE specific midamble, ...)	
Midamble Shift Long	C-UE		INTEGER (0..15)	
Midamble Configuration LCR	M		ENUMERATED (2, 4, 6, 8, 10, 12, 14, 16, ...)	As defined in [19]

Condition	Explanation
UE	The IE shall be present if the <i>Midamble Allocation Mode</i> IE is set to "UE-specific midamble".

9.2.3.7Aa Notification Indicator Length

The Notification Indicator Length indicates the number of symbols for Notification Indication transmitted in one timeslot (see ref [19]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Notification Indicator Length			ENUMERATED (2, 4, 8,...)	

9.2.3.7B Number Of Cycles Per SFN Period

The *Number Of Cycles Per SFN Period* IE indicates the number of repetitions per SFN period where the same schedule shall apply.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of Cycles Per SFN Period			ENUMERATED (1, 2, 4, 8, ..., 16, 32, 64)	

9.2.3.7C Number Of Repetitions Per Cycle Period

The *Number Of Repetitions Per Cycle Period* IE indicates the number of Sync frames per Cycle Length where the [3.84Mcps TDD - cell synchronisation bursts] [1.28Mcps TDD - Sync_DL Codes] shall be transmitted or the cell synchronisation bursts from the neighbouring cells shall be measured.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of Repetitions Per Cycle Period			INTEGER (2..10)	

9.2.3.7D Number Of Subcycles Per Cycle Period

The *Number Of Subcycles Per Cycle Period* IE indicates the number of subcycles within a Synchronisation Cycle. Within each subcycle, the same sequence of SYNC_DL Code transmissions and receptions is performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of Subcycles Per Cycle Period			INTEGER (1..16,...)	

9.2.3.8 Paging Indicator Length

The Paging Indicator Length indicates the number of symbols for Page Indication transmitted in one timeslot (see ref [19]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging Indicator Length			ENUMERATED (2, 4, 8,...)	

9.2.3.9 PCCPCH Power

The Primary CCPCH power is the power that shall be used for transmitting the P CCPCH in a cell. The P CCPCH power is the reference power in a TDD-cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CCPCH, the Primary CCPCH power is the linear sum of the power that is used for transmitting the Primary CCPCH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PCCPCH Power			INTEGER (-150..+400,...)	Unit: dBm Range: -15 ..+40 dBm Step: 0.1 dB

9.2.3.10 PDSCH ID

The PDSCH ID identifies unambiguously a PDSCH inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PDSCH ID			INTEGER (0..255)	

9.2.3.11 PDSCH Set ID

The PDSCH Set Id identifies unambiguously a PDSCH Set inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PDSCH Set ID			INTEGER (0..255)	See ref. [6]

9.2.3.11A Primary CCPCH RSCP

Received Signal Code Power is the received power on PCCPCH of the target cell after despreading. The reference point for the RSCP is the antenna connector at the UE, see ref. [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CCPCH RSCP			INTEGER (0..91)	According to mapping of the non-negative values in ref. [23].

9.2.3.11B Primary CCPCH RSCP Delta

Primary CCPCH RSCP Delta is the offset used to report the negative reporting range of P-CCPCH RSCP as per [23].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CCPCH RSCP Delta			INTEGER(-5..-1,...)	If present, the actual value of Primary CCPCH RSCP = Primary CCPCH RSCP Delta

9.2.3.12 PUSCH ID

The PUSCH ID identifies unambiguously a PUSCH inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PUSCH ID			INTEGER (0..255)	

9.2.3.13 PUSCH Set ID

The PUSCH Set ID identifies unambiguously a PUSCH Set inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PUSCH Set ID			INTEGER (0..255)	See ref. [6]

9.2.3.14 PRACH Midamble

The PRACH Midamble indicates if only the Basic Midamble Sequence or also the time-inverted Midamble Sequence is used.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PRACH Midamble			ENUMERATED (Inverted, Direct, ...)	

9.2.3.14A Reference Clock Availability

The *Reference Clock Availability* IE is used to indicate the presence and operating of a Reference Clock connected to a TDD cell for cell synchronisation purpose.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Clock Availability			ENUMERATED (Available, Not Available)	

9.2.3.14B Reference SFN Offset

The *Reference SFN Offset* IE indicates the number of frames the reference SFN shall be shifted compared to the SFN derived from the synchronisation port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference SFN Offset			INTEGER (0..255)	

9.2.3.15 Repetition Length

The Repetition Length represents the number of consecutive Radio Frames inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [18].

[1.28Mcps TDD - When applied to configure the E-DCH Non-scheduled Grant Information, the Repetition Length represents the number of consecutive Subframes, i.e. 5ms inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [18].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Repetition Length			INTEGER (1..63)	

9.2.3.16 Repetition Period

The Repetition Period represents the number of consecutive Radio Frames after which the same assignment scheme of Time Slots to a Physical Channel is repeated. This means that if the Time Slot K is assigned to a physical channel in the Radio Frame J , it is assigned to the same physical channel also in all the Radio Frames $J+n*Repetition\ Period$ (where n is an integer) see ref. [18].

[1.28Mcps TDD - When applied to configure the E-DCH Non-scheduled Grant Information, the Repetition Period represents the number of consecutive Subframes, i.e. 5ms after which the same assignment scheme of Time Slots to a Physical Channel is repeated see ref. [18].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Repetition Period			ENUMERATED (1, 2, 4, 8, 16, 32, 64,...)	

9.2.3.17 SCH Time Slot

The *SCH Time Slot* IE represents the first time slot (k) of a pair of time slots inside a Radio Frame that shall be assigned to the Physical Channel SCH. The *SCH Time Slot* IE is only applicable if the value of *Sync Case* IE is Case 2 since in this case the SCH is allocated in TS# k and TS# $k+8$.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SCH Time Slot			INTEGER (0..6)	

9.2.3.18 Sync Case

The SCH and PCCPCH are mapped on one or two downlink slots per frame. There are two cases of SCH and PCCPCH allocation as follows:

- Case 1) SCH and PCCPCH allocated in a single TS# k
- Case 2) SCH allocated in two TS: TS# k and TS# $k+8$
PCCPCH allocated in TS# k

[1.28Mcps TDD - There is no Sync Case indication needed for 1.28Mcps TDD. If the *Sync Case* IE must be included in a message from CRNC to Node B used for 1.28Mcps TDD, the CRNC should indicate Sync Case 1 and the Node B shall ignore it.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Sync Case			INTEGER (1..2,...)	

9.2.3.18A Special Burst Scheduling

The number of frames between special burst transmissions during DTX.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Special Burst Scheduling			INTEGER (1..256)	Number of frames between special burst transmission during DTX

9.2.3.18B SYNC_DL Code ID

The SYNC_DL Code ID identifies the SYNC_DL Code which used by DwPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SYNC_DL Code ID			INTEGER (1..32,...)	

9.2.3.18C Sync Frame Number

The *Sync Frame Number* IE indicates the number of the Sync frame within a Synchronisation Cycle or Subcycle, respectively, where the cell synchronisation bursts shall be transmitted or the cell synchronisation bursts from the neighbouring cells shall be measured.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Sync Frame Number			INTEGER (1..10)	

9.2.3.18D Synchronisation Report Characteristics

The *Synchronisation Report Characteristics* IE defines how the reporting on measured [3.84Mcps TDD - cell synchronisation bursts] [1.28Mcps TDD - Sync_DL Codes] shall be performed

Different methods shall apply for the measured [3.84Mcps TDD - cell synchronisation burst] [1.28Mcps TDD - Sync_DL Codes] reports. [3.84Mcps TDD - In the frequency acquisition phase the measurement report shall be sent when the frequency locking is completed.] In the initial phase and for the measurement on late-entrant cells an immediate report after the measured frame is expected.

In the steady-state phase measurement reports may be given after every measured frame, after every SFN period, after every cycle length or only when the requested threshold is exceeded.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Synchronisation Report Characteristics Type	M		ENUMERATED (Frame related, SFN period related, Cycle length related, Threshold exceeding, Frequency Acquisition completed, ...)		–	
Threshold Exceeding	C-ThresholdExceeding			Applies only to the Steady State Phase	–	
>Cell Sync Burst Threshold Information		0..<maxNumberOfCellSyncBursts >		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	–	

>>Sync Frame Number To Receive	M		Sync Frame Number 9.2.3.18C		–	
>>Cell Sync Burst Information		<i>1..<maxnoofreceptionsperSyncFrame></i>			–	
>>>Cell Sync Burst Code	M		9.2.3.4G		–	
>>>Cell Sync Burst Code Shift	M		9.2.3.4H		–	
>>>Cell Sync Burst Arrival Time	O		Cell Sync Burst Timing 9.2.3.4L		–	
>>>Cell Sync Burst Timing Threshold	O		9.2.3.4M		–	
>SYNC_DL Code Threshold Information LCR		<i>0..<maxnoofSyncFramesLCR></i>		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	GLOBAL	ignore
>>Sync Frame Number To Receive	M		Sync Frame Number 9.2.3.18C		–	
>>SYNC_DL Code Information LCR		<i>1..<maxnoofreceptionsperSyncFrameLCR></i>			–	
>>>SYNC_DL Code ID	M		9.2.3.18B		–	
>>>SYNC_DL Code ID Arrival Time	O		Cell Sync Burst Timing LCR 9.2.3.4La		–	
>>>SYNC_DL Code ID Timing Threshold	O		Cell Sync Burst Timing Threshold 9.2.3.4M		–	

Range Bound	Explanation
<i>maxnoofCellSyncBursts</i>	Maximum number of cell synchronisation burst per cycle for 3.84Mcps TDD
<i>maxnoofreceptionsperSyncFrame</i>	Maximum number of cell synchronisation burst receptions per Sync Frame for 3.84Mcps TDD
<i>maxnoofSyncFramesLCR</i>	Maximum number of SYNC Frames per repetition period for 1.28Mcps TDD
<i>maxnoofreceptionsperSyncFrameLCR</i>	Maximum number of SYNC_DL Code ID receptions per Sync Frame for 1.28Mcps TDD

9.2.3.18E Synchronisation Report Type

The *Synchronisation Report Type* IE represents the individual types of synchronisation reports that shall apply within the individual synchronisation phases. (see [17]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Synchronisation Report Type			ENUMERATED (Initial Phase, Steady-State Phase, Late-Entrant Cell, Frequency Acquisition, ...)	

9.2.3.18F TDD ACK NACK Power Offset

The *TDD ACK NACK Power Offset* IE indicates Power offset used in the UL in the HS-SICH between transmissions carrying positive and negative acknowledgements as per [18].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD ACK NACK Power Offset			INTEGER (-7..8,...)	Unit: dB Range: -7..+8 dB Step: 1 dB

9.2.3.19 TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code			ENUMERATED ((1/1), (2/1), (2/2), (4/1), .. (4/4), (8/1), .. (8/8), (16/1), .. (16/16),...)	

9.2.3.19a TDD Channelisation Code LCR

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 1.28Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16 and there is a choice between QPSK and 8PSK modulation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code			9.2.3.19	
Modulation			ENUMERATED (QPSK, 8PSK,...)	Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD. 8PSK denotes 16QAM for S-CCPCH

9.2.3.19A TDD DPCH Offset

The Offset represents the phase information for the allocation of a group of dedicated physical channels. The *Offset Type* IE = "No Initial Offset" is used when a starting offset is not required and the TDD Physical channel offset for each DPCH in the CCTrCH shall be directly determined from the TDD DPCH Offset. The *Offset Type* IE = "Initial Offset" is used when a starting offset is required. The TDD DPCH Offset shall map to the CFN and the TDD Physical Channel Offset for each DPCH in this CCTrCH shall be calculated by TDD DPCH Offset *mod* Repetition period, see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Offset Type</i>				
> <i>Initial Offset</i>				
>>TDD DPCH Offset Value	M		INTEGER (0..255)	
> <i>No Initial Offset</i>				
>>TDD DPCH Offset Value	M		INTEGER (0..63)	

9.2.3.19B TDD DL Code Information

The *TDD DL Code Information* IE provides DL Code information for the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD DL Code Information		<i>1..<maxno ofDPCHs></i>		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code	M		9.2.3.19	

Range Bound	Explanation
<i>maxnoofDPCHs</i>	Maximum number of DPCHs in one CCTrCH

9.2.3.19C TDD DL Code Information LCR

The *TDD DL Code Information LCR* IE provides DL Code information for the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD DL Code Information LCR		<i>1..<maxno ofDPCHsLCR></i>		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code LCR	M		9.2.3.19a	
>TDD DL DPCH Time Slot Format LCR	M		9.2.3.19D	

Range Bound	Explanation
<i>maxnoofDPCHsLCR</i>	Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD

9.2.3.19D TDD DL DPCH Time Slot Format LCR

TDD DL DPCH Time Slot Format LCR indicates the time slot formats used in DL DPCH for 1.28Mcps TDD (see ref. [19]). It also applies to PDSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Modulation</i>	M			
> <i>QPSK</i>				
>>QPSK TDD DL DPCH Time Slot Format LCR	M		INTEGER (0..24,...)	
> <i>8PSK</i>				
>>8PSK TDD DL DPCH Time Slot Format LCR	M		INTEGER (0..24,...)	For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, this IE denotes MBSFN S-CCPCH time slot format , INTEGER (0..11,...).

9.2.3.20 TDD Physical Channel Offset

The Offset represents the phase information for the allocation of a physical channel. (SFN mod Repetition Period = Offset) see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Physical Channel Offset			INTEGER (0..63)	

9.2.3.21 TDD TPC DL Step Size

This parameter indicates step size for the DL power adjustment (see ref. [21]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD TPC Downlink Step Size			ENUMERATED (1, 2, 3,...)	Unit: dB

9.2.3.21a TDD TPC UL Step Size

This parameter indicates step size for the UL power adjustment (see ref. [21]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD TPC Uplink Step Size			ENUMERATED (1, 2, 3,...)	Unit: dB

9.2.3.21A TDD UL Code Information

The *TDD UL Code Information* IE provides information for UL Code to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD UL Code Information		1..<maxno ofDPCHs>		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code	M		9.2.3.19	

Range Bound	Explanation
<i>maxnoofDPCHs</i>	Maximum number of DPCHs in one CCTrCH

9.2.3.21B TDD UL Code Information LCR

The *TDD UL Code Information LCR* IE provides information for UL Code to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD UL Code Information LCR		1..<maxno ofDPCHsL CR>		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code LCR	M		9.2.3.19a	
>TDD UL DPCH Time Slot Format LCR	M		9.2.3.21C	

Range Bound	Explanation
<i>maxnoofDPCHsLCR</i>	Maximum number of DPCHs in one CTRCH for 1.28Mcps TDD

9.2.3.21C TDD UL DPCH Time Slot Format LCR

TDD UL DPCH Time Slot Format LCR indicates the time slot formats used in UL DPCH for 1.28Mcps TDD (see ref. [19]). It also applies to PUSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Modulation</i>	M			
> <i>QPSK</i>				
>>QPSK TDD UL DPCH Time Slot Format LCR	M		INTEGER (0..69,...)	
> <i>8PSK</i>				
>>8PSK TDD UL DPCH Time Slot Format LCR	M		INTEGER (0..24,...)	

9.2.3.22 TFCI Coding

The TFCI Coding describes the way how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Coding			ENUMERATED (4, 8, 16, 32,...)	

9.2.3.22a Timing Adjustment Value

The *Timing Adjustment Value* IE indicates the timing correction within a Frame for 3.84Mcps TDD. Type 1 is used for the initial phase of Node B synchronisation. Type 2 is used for the steady-state phase of Node B synchronisation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Phase</i>				According to mapping in [23]
> <i>Initial Phase</i>				
>>Timing Adjustment Value	M		INTEGER (0..1048575,...)	
> <i>Steady State Phase</i>				
>>Timing Adjustment Value	M		INTEGER (0..255,...)	

9.2.3.22b Timing Adjustment Value LCR

The *Timing Adjustment Value LCR* IE indicates the timing correction within a Frame for 1.28Mcps TDD. Type 1 is used for the initial phase of Node B synchronisation. Type 2 is used for the steady-state phase of Node B synchronisation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Phase</i>				According to mapping in [23]
> <i>Initial Phase</i>				
>>Timing Adjustment Value	M		INTEGER (0..524287,...)	
> <i>Steady State Phase</i>				
>>Timing Adjustment Value	M		INTEGER (0..127,...)	

9.2.3.22A Timing Advance Applied

Defines the need for Rx Timing Deviation measurement results to be reported in a particular cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timing Advance Applied			ENUMERATED (Yes, No)	

9.2.3.23 Time Slot

The Time Slot represents the minimum time interval inside a Radio Frame that can be assigned to a Physical Channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot			INTEGER (0..14)	

9.2.3.24 Time Slot Direction

This parameter indicates whether the TS in the cell is used in Uplink or Downlink direction.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot Direction			ENUMERATED (UL, DL, ...)	

9.2.3.24A Time Slot LCR

The Time Slot LCR is the number of the traffic time slot within a 5 ms subframe of LCR TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot LCR			INTEGER (0..6)	

9.2.3.24B Time Slot LCR Extension

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot LCR Extension			ENUMERATED (ts7,...)	ts7 indicates the MBSFN Special Timeslot for 1.28Mcps TDD MBSFN Dedicated Carrier.

9.2.3.25 Time Slot Status

This parameter indicates whether the TS in the cell is active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot Status			ENUMERATED (Active, Not Active, ...)	

9.2.3.26 Transmission Diversity Applied

Defines if Transmission Diversity on physical channels that may use closed loop transmit diversity is to be applied in a cell (see ref. [19]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Diversity Applied			BOOLEAN	True: Transmission Diversity shall be applied in this Cell. False: Transmission Diversity shall not be applied in this Cell.

9.2.3.26A UL Timeslot ISCP

UL Timeslot ISCP is the measured interference in a uplink timeslot at the Node B, see ref. [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Timeslot ISCP			INTEGER (0..127)	According to mapping in [23].

9.2.3.26B UL PhysCH SF Variation

Indicates whether variation of SF in UL is supported by Radio Link or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL PhysCH SF Variation			ENUMERATED (SF_Variation_supported, SF_Variation_NOT_supported)	

9.2.3.26C UL Timeslot Information

The *UL Timeslot Information* IE provides information on the time slot allocation for an UL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Timeslot Information		<i>1..<maxno ofULts></i>		
>Time Slot	M		9.2.3.23	
>Midamble Shift And Burst Type	M		9.2.3.7	
>TFCI Presence	M		9.2.1.57	
>UL Code Information	M		TDD UL Code Information 9.2.3.21A	

Range Bound	Explanation
<i>maxnoofULts</i>	Maximum number of Uplink time slots per Radio Link

9.2.3.26D UL Time Slot ISCP Info

The *UL Time Slot ISCP Info* IE provides information for UL Interference level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Time Slot ISCP Info		<i>1..<maxno ofULts></i>		
>Time Slot	M		9.2.3.23	
>UL Timeslot ISCP	M		9.2.3.26A	

Range Bound	Explanation
<i>maxnoofULts</i>	Maximum number of Uplink time slots per Radio Link

9.2.3.26E UL Timeslot Information LCR

The *UL Timeslot Information* IE provides information on the time slot allocation for an UL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UL Timeslot Information LCR		<i>1..<maxno ofULtsLCR ></i>			–	
>Time Slot LCR	M		9.2.3.24A		–	
>Midamble Shift LCR	M		9.2.3.7A		–	
>TFCI Presence	M		9.2.1.57		–	
>UL Code Information	M		TDD UL Code Information LCR 9.2.3.21B		–	
>PLCCH Information	O		9.2.3.31		YES	reject

Range Bound	Explanation
<i>maxnoofULtsLCR</i>	Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD.

9.2.3.26F UL Time Slot ISCP Info LCR

The *UL Time Slot ISCP Info LCR* IE provides information for UL Interference level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Time Slot ISCP Info LCR		<i>1..<maxno ofULtsLCR ></i>		
>Time Slot LCR	M		9.2.3.24A	
>UL Timeslot ISCP	M		9.2.3.26A	

Range Bound	Explanation
<i>maxnoofULtsLCR</i>	Maximum number of Uplink time slots per Radio Link for 1.28Mcps TDD

9.2.3.26G Uplink Synchronisation Frequency

The *UL Synchronisation Frequency* IE specifies the frequency of the adjustment of the uplink transmission timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Synchronisation Frequency			INTEGER (1..8)	Unit: subframe Step: 1

9.2.3.26H Uplink Synchronisation Step Size

The *UL Synchronisation Step Size* IE specifies the step size to be used for the adjustment of the uplink transmission timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Synchronisation Step Size			INTEGER (1..8)	Unit: 1/8 chip Step: 1.

9.2.3.27 USCH ID

The USCH ID uniquely identifies a USCH within a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
USCH ID			INTEGER (0..255)	

9.2.3.28 USCH Information

The *USCH Information* IE provides information for USCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
USCH Information		<i>1..<max noofUS CHs></i>			–	
>USCH ID	M		9.2.3.27		–	
>CCTrCH ID	M		9.2.3.3	UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M		9.2.1.59	For USCH	–	
>Allocation/Retention Priority	M		9.2.1.1A		–	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>TNL QoS	O		9.2.1.58A		YES	ignore

Range Bound	Explanation
<i>maxnoofUSCHs</i>	Maximum number of USCHs for one UE

9.2.3.29 USCH Information Response

The *USCH Information Response* IE provides information for USCHs that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
USCH Information Response		<i>1..<maxno ofUSCHs></i>		
>USCH ID	M		9.2.3.27	
>Binding ID	O		9.2.1.4	
>Transport Layer Address	O		9.2.1.63	

Range Bound	Explanation
<i>maxnoofUSCHs</i>	Maximum number of USCHs for one UE

9.2.3.30 SCTD Indicator

Indicates if SCTD antenna diversity is applied or not to beacon channels (see ref. [19]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SCTD Indicator			ENUMERATED (active, inactive)	

9.2.3.31 PLCCH Information

The *PLCCH Information* IE carries a PLCCH assignment for a timeslot of an UL DCH-type CCTrCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Physical Channel ID	M		9.2.1.13	
PLCCH Sequence Number	M		9.2.3.32	

9.2.3.32 PLCCH Sequence Number

This sequence number represents a portion of a PLCCH used to signal TPC / SS bits to a single UE. A value of zero indicates that the PLCCH assignment has been deleted.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PLCCH Sequence Number			INTEGER (0..14)	

9.2.3.33 Common Physical Channel ID 7.68Mcps

Common Physical Channel ID is the unique identifier for one common physical channel within a cell for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Physical Channel ID 7.68 Mcps			INTEGER (0..511)	

9.2.3.34 TDD Channelisation Code 7.68Mcps

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 7.68Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code that can have a spreading factor of 1, 2, 4, 8, 16 or 32.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code			ENUMERATED((1/1), (2/1), (2/2), (4/1), .. (4/4), (8/1), .. (8/8), (16/1), .. (16/16), (32/1), .. (32,32),...)	

9.2.3.35 Midamble Shift And Burst Type 7.68Mcps

This information element indicates burst type and midamble allocation for burst types 1,2 and 3 for 7.68Mcps TDD.

Three different midamble allocation schemes exist:

Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL)

Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only)

UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL)

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Burst Type</i>				
> <i>Type1</i>				
>>Midamble Configuration Burst Type 1 And 3	M		ENUMERATED (4, 8, 16)	As defined in [19]
>>CHOICE <i>Midamble Allocation Mode</i>	M			
>>>Default <i>Midamble</i>			NULL	
>>>Common <i>Midamble</i>			NULL	
>>>UE Specific <i>Midamble</i>				
>>Midamble Shift Long	M		INTEGER (0..15)	
> <i>Type2</i>				
>>Midamble Configuration Burst Type 2	M		ENUMERATED (4, 8)	As defined in [19]
>>CHOICE <i>Midamble Allocation Mode</i>	M			
>>>Default <i>Midamble</i>			NULL	
>>>Common <i>Midamble</i>			NULL	
>>>UE Specific <i>Midamble</i>				
>>Midamble Shift Short	M		INTEGER (0..7)	
> <i>Type3</i>				UL only
>>Midamble Configuration Burst Type 1 And 3	M		ENUMERATED (4, 8, 16)	As defined in [19]
>>CHOICE <i>Midamble Allocation Mode</i>	M			
>>>Default <i>Midamble</i>			NULL	
>>>UE Specific <i>Midamble</i>				
>>Midamble Shift Long	M		INTEGER (0..15)	

9.2.3.36 Common Physical Channel Status Information 7.68Mcps

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Physical Channel ID 7.68 Mcps	M		9.2.3.33	
Resource Operational State	M		9.2.1.52	
Availability Status	M		9.2.1.2	

9.2.3.37 Neighbouring TDD Cell Measurement Information 7.68Mcps

This IE provides information on the 7.68 Mcps TDD neighbouring cells used for the purpose of measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time Slot* IE and *Midamble Shift And Burst Type 7.68Mcps* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UC-Id	M		9.2.1.65B	
UARFCN	M		9.2.1.65	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.3.4	
Time Slot	O		9.2.3.23	
Midamble Shift And Burst Type 7.68Mcps	O		9.2.3.35	

9.2.3.38 UL Timeslot Information 7.68Mcps TDD

The *UL Timeslot Information* IE provides information on the time slot allocation for an UL DPCH for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Timeslot Information		1..<maxno ofULts>		
>Time Slot	M		9.2.3.23	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35	
>TFCI Presence	M		9.2.1.57	
>UL Code Information	M		TDD UL Code Information 7.68Mcps TDD 9.2.3.40	

Range Bound	Explanation
<i>maxnoofULts</i>	Maximum number of Uplink time slots per Radio Link

9.2.3.39 DL Timeslot Information 7.68Mcps TDD

The *DL Timeslot Information* IE provides information for DL Time slot to be established for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot Information		1..<maxno ofDLts>		
>Time Slot	M		9.2.3.23	
>Midamble Shift And Burst Type 7.68Mcps	M		9.2.3.35	
>TFCI Presence	M		9.2.1.57	
>DL Code Information	M		TDD DL Code Information 7.68Mcps TDD 9.2.3.41	

Range Bound	Explanation
<i>maxnoofDLts</i>	Maximum number of Downlink time slots per Radio Link

9.2.3.40 TDD UL Code Information 7.68Mcps TDD

The *TDD UL Code Information 7.68Mcps TDD* IE provides information for UL Code to be established for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD UL Code Information		1..<maxno ofDPCHs>		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.34	

Range Bound	Explanation
maxnoofDPCHs	Maximum number of uplink DPCHs in one CCTrCH at 7.68Mcps

9.2.3.41 TDD DL Code Information 7.68Mcps TDD

The *TDD Code Information 7.68Mcps TDD* IE provides DL Code information for the RL for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD DL Code Information		1..<maxno ofDPCHs768>		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code 7.68Mcps	M		9.2.3.34	

Range Bound	Explanation
maxnoofDPCHs768	Maximum number of downlink DPCHs in one CCTrCH at 7.68Mcps

9.2.3.42 DPCH ID 7.68Mcps

The *DPCH ID 7.68Mcps* identifies unambiguously a DPCH inside a downlink Radio Link for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPCH ID			INTEGER (0..479)	

9.2.3.43 PDSCH ID 7.68Mcps

The *PDSCH ID 7.68Mcps* identifies unambiguously a PDSCH inside a cell for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PDSCH ID			INTEGER (0..511)	

9.2.3.44 Max E-RUCCH Midamble Shift

Indicates the maximum number of Midamble shifts to be used in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max E-RUCCH Midamble Shift			ENUMERATED (4, 8, ..., 16)	

9.2.3.45 E-PUCH Information

The *E-PUCH Information* IE provides parameters to configure the E-PUCH physical channel for 3.84Mcps TDD and 7.68 Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055 ..1 Step: 0.015
Maximum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055 ..1 Step: 0.015
HARQ Info for E-DCH	M		ENUMERATED (rv0, rvtable)	“rv0” indicates that the UE will only use E_DCH RV index 0. “rvtable” indicates that the UE will use an RSN based RV index as specified in [8]
N _{E-UCCH}	M		INTEGER (1..12)	Number of slots that are required to carry TPC and TFCI (consecutively allocated slots beginning with the first).

9.2.3.45a E-PUCH Information LCR

The *E-PUCH Information LCR* IE provides parameters to configure the E-PUCH physical channel for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Minimum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055 ..1 Step: 0.015	–	
Maximum code rate	M		INTEGER (0..63)	Unit: - Range: 0.055 ..1 Step: 0.015	–	
HARQ Info for E-DCH	M		ENUMERATED (rv0, rvtable)	“rv0” indicates that the UE will only use E_DCH RV index 0. “rvtable” indicates that the UE will use an RSN based RV index as specified in [8]	–	
PRXdes_base	M		INTEGER (-112..-50)	dBm. Reference Desired RX power level for E-PUCH. Reference to Pe-base in [21]	–	
E-PUCH TPC Step Size	M		TDD TPC UL Step Size 9.2.3.21a		–	
E-AGCH TPC Step Size	M		TDD TPC DL Step Size 9.2.3.21		–	
E-PUCH Power Control GAP	O		INTEGER (1..255)	Unit: Number of subframes. Reference to E-PUCH Power Control for 1.28Mcps TDD in [21]. If it is not present, UE shall deem it to be infinite in which case closed loop power control shall always be used.	YES	ignore

9.2.3.46 E-TFCS Information TDD

Whereas the related E-DCH Transport Block sizes are standardised in [32] this IE gives details on the Reference Betas.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Beta Information QPSK		1..<maxno ofRefbetas>		
>Reference Code Rate	M		INTEGER (0..10)	Unit: - Range: 0 ..1 Step: 0.1
>Reference Beta	M		INTEGER(-15..16)	Unit: - Range: -15..+16 Step: 1 dB
Reference Beta Information 16QAM		1..<maxno ofRefbetas>		
>Reference Code Rate	M		INTEGER (0..10)	Unit: - Range: 0 ..1 Step: 0.1
>Reference Beta	M		INTEGER(-15..16)	Unit: - Range: -15..+16 Step: 1 dB

Range Bound	Explanation
maxnoofRefbetas	Maximum number of signalled reference betas

9.2.3.47 E-DCH MAC-d Flows Information TDD

The *E-DCH MAC-d Flows Information TDD* IE is used for the establishment of E-DCH MAC-d flows for TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Specific Information		1..<maxno ofEDCHMACdFlows>		
>E-DCH MAC-d Flow ID	M		9.2.1.74	
>Allocation/Retention Priority	M		9.2.1.1A	
>TNL QoS	O		9.2.1.58A	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.
>Payload CRC Presence Indicator	M		9.2.1.49	
>Maximum Number Of Retransmissions For E-DCH	M		9.2.1.81	
>E-DCH HARQ Power Offset TDD	M		9.2.3.61	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.69	
>E-DCH Grant TypeTDD	M		9.2.3.53	
>E-DCH Logical Channel Information	M		9.2.1.71	
>E-DCH MAC-d Flow Retransmission Timer	O		9.2.3.61a	Mandatory for LCR TDD. Not applicable for 3.84Mcps TDD and 7.68Mcps TDD.

Range Bound	Explanation
maxnoofEDCHMACdFlows	Maximum number of E-DCH MAC-d flows

9.2.3.48 E-DCH Non-scheduled Grant Information TDD

The *E-DCH Non-scheduled Grant Information TDD* IE is used to specify the details of a non-scheduled grant for TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information	M		9.2.3.54	
Power Resource Related Information	M		9.2.3.55	
Repetition Period	M		9.2.3.16	
Repetition Length	M		9.2.3.15	
TDD E-PUCH Offset	M		9.2.3.56	
TDD Channelisation Code	M		9.2.3.19	

9.2.3.48a E-DCH Non-scheduled Grant Information LCR TDD

Only for 1.28Mcps TDD. The *E-DCH Non-scheduled Grant Information LCR TDD* IE is used to specify the details of a non-scheduled grant for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Timeslot Resource Related Information LCR	M		9.2.3.54a		–	
Power Resource Related Information	M		9.2.3.55		–	
Repetition Period	M		9.2.3.16		–	
Repetition Length	M		9.2.3.15		–	
Subframe Number	M		ENUMERATED (0,1)	Used to indicate from which subframe of the Radio Frame indicated by <i>TDD E-PUCH Offset</i> IE the physical resources are assigned to the E-DCH Non-scheduled Grant.	–	
TDD E-PUCH Offset	M		9.2.3.56		–	
TDD Channelisation Code	M		9.2.3.19		–	
N_{E-UCCH}	M		INTEGER (1..8)	Number of E-UCCH and TPC instances within an E-DCH TTI. Details are described in [19].	–	
E-HICH Information		1				
>E-HICH ID TDD	M		9.2.3.51a	If the <i>Extended E-HICH ID TDD</i> IE is included in the <i>E-HICH Information</i> IE, the <i>E-HICH ID TDD</i> IE shall be ignored.	–	
>Signature Sequence Group Index	M		INTEGER (0..19)		–	
>Extended E-HICH ID TDD	O		9.2.3.51b	Applicable to 1.28Mcps TDD only, the <i>Extended E-HICH ID TDD</i> IE shall be used if the E-HICH identity has a value larger than 31.	YES	ignore

9.2.3.49 E-DCH TDD Information

The *E-DCH TDD Information* specifies the details of the maximum bit rate and processing overload level.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate	O		9.2.3.57	
E-DCH Processing Overload Level	O		9.2.1.79	
E-DCH Power Offset for Scheduling Info	O		9.2.1.85	

9.2.3.49a E-DCH TDD Information LCR

Only for 1.28Mcps TDD. The *E-DCH TDD Information LCR* IE specifies the details of the UE physical layer category, Node B processing overload level and power offset, Maximum Number of Retransmission and E-DCH Retransmission timer for scheduling info.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH Physical Layer Category LCR	O		9.2.3.67	If the <i>Extended E-DCH Physical Layer Category LCR</i> IE is included in the <i>E-DCH TDD Information LCR</i> IE, the <i>E-DCH Physical Layer Category LCR</i> IE shall be ignored.	–	
E-DCH Processing Overload Level	O		9.2.1.79		–	
E-DCH Power Offset for Scheduling Info	O		9.2.1.85		–	
Extended E-DCH Physical Layer Category LCR	O		9.2.3.67A	The <i>Extended E-DCH Physical Layer Category LCR</i> IE shall be used if the E-DCH Physical Layer Category has a value larger than 5.	YES	reject
Maximum Number of Retransmission for Scheduling Info LCR	O		Maximum Number of Retransmission for E-DCH 9.2.1.81		YES	ignore
E-DCH Retransmission timer for Scheduling Info LCR	O		E-DCH MAC-d Flow Retransmission Timer 9.2.3.61a		YES	ignore

9.2.3.50 E-DCH TDD Information Response

The *E-DCH TDD Information Response* IE provides information for E-DCH MAC-d flows that have been established or modified. It also provides additional E-DCH information determined within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
E-DCH TDD MAC-d Flow Specific Information Response		$0..<maxno\ ofEDCHM\ ACdFlows>$			–	
>E-DCH MAC-d Flow ID	M		9.2.1.74		–	
>Binding ID	O		9.2.1.4		–	
>Transport Layer Address	O		9.2.1.63		–	
E-AGCH Specific Information Response TDD		$0..<maxNo\ OfEAGCH\ codes>$			–	
>E-AGCH ID TDD	M		9.2.3.51		–	
E-RNTI	M		9.2.1.75		–	
Scheduled E-HICH Specific Information Response 1.28Mcps TDD		$0..<maxNo\ OfEHICHc\ odes>$		1.28Mcps TDD only	–	
>EI	M		INTEGER (0..3)	E-HICH indication which is used to indicate UE on which E-HICH the feedback info is carried.	–	
>E-HICH ID TDD	M		9.2.3.51a	If the <i>Extended E-HICH ID TDD</i> IE is included in the <i>E-HICH Information</i> IE, the <i>E-HICH ID TDD</i> IE shall be ignored.	–	
>Extended E-HICH ID TDD	O		9.2.3.51b	Applicable to 1.28Mcps TDD only, the <i>Extended E-HICH ID TDD</i> IE shall be used if the E-HICH identity has a value larger than 31.	YES	ignore

Range bound	Explanation
$maxnoofEDCHMACdFlows$	Maximum number of MAC-d flows
$maxnoofEAGCHcodes$	Maximum number of E-AGCHs assigned to one UE
$maxNoOfEHICHcodes$	Maximum number of E-HICHs assigned to one UE

9.2.3.51 E-AGCH ID TDD

The *E-AGCH ID* identifies unambiguously an E-AGCH inside a cell for TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-AGCH ID			INTEGER (0..31,...,32..255)	

9.2.3.51a E-HICH ID TDD

The *E-HICH ID TDD* IE identifies unambiguously an E-HICH inside a cell for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH ID TDD			INTEGER (0..31)	

9.2.3.51b Extended E-HICH ID TDD

The *Extended E-HICH ID TDD* IE identifies unambiguously an E-HICH inside a cell for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended E-HICH ID TDD			INTEGER (32..255)	

9.2.3.52 E-DCH TDD Information to Modify

The *E-DCH TDD Information to Modify* IE is used for the modification of an E-DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Specific Information		<i>0..<maxno ofEDCHMACdFlows></i>		
>E-DCH MAC-d Flow ID	M		9.2.1.74	
>Allocation/Retention Priority	O		9.2.1.1A	
>Transport Bearer Request Indicator	M		9.2.1.62A	
>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.
>TNL QoS	O		9.2.1.58A	
>Maximum Number Of Retransmissions for E-DCH	O		9.2.1.81	
>E-DCH HARQ Power Offset TDD	O		9.2.3.61	
>E-DCH MAC-d Flow Multiplexing List	O		9.2.1.69	
>E-DCH Grant Type	O		9.2.3.53	
>E-DCH Logical Channel To Add	O		E-DCH Logical Channel Information 9.2.1.71	
>E-DCH Logical Channel To Modify	O		9.2.1.72	
>E-DCH Logical Channel To Delete		<i>0..<maxno oflogicalchannels></i>		
>>Logical Channel ID	M		9.2.1.80	
>E-DCH MAC-d Flow Retransmission Timer	O		9.2.3.61a	LCR TDD only.
MAC-e Reset Indicator	O		9.2.1.83	

Range Bound	Explanation
<i>maxnoofEDCHMACdFlows</i>	Maximum number of E-DCH MAC-d flows
<i>maxnooflogicalchannels</i>	Maximum number of logical channels

9.2.3.53 E-DCH Grant Type TDD

The *E-DCH Grant Type* identifies whether a MAC-d flow is scheduled or non-scheduled.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Grant Type			ENUMERATED (Scheduled, Non-scheduled)	

9.2.3.54 Timeslot Resource Related Information

The *Timeslot Resource Related Information* is a bitmap indicating which of the timeslots configured for E-DCH are allocated for non-scheduled transmissions.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information			BIT STRING (13)	

9.2.3.54a Timeslot Resource Related Information LCR

Only for 1.28Mcps TDD. The *Timeslot Resource Related Information LCR* IE is a bitmap indicating which of the timeslots configured for E-DCH are allocated for non-scheduled transmissions.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information LCR			BIT STRING (5)	

9.2.3.55 Power Resource Related Information

The *Power Resource Related Information* specifies the maximum allowed E-PUCH power resource (dB relative to $P_{e,base}$) that the UE may use for non-scheduled transmissions.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Resource Related Information			INTEGER (1..32)	

9.2.3.56 E-PUCH Offset

The *E-PUCH Offset* represents the CFN offset at which a non-scheduled E-DCH grant begins.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-PUCH Offset			INTEGER (0..255)	

9.2.3.57 E-DCH TDD Maximum Bitrate

The *E-DCH TDD Maximum Bitrate* parameter indicates the Maximum Bitrate for an E-DCH in TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate			INTEGER (0..9201,...)	Bitrate on transport block level. Unit is kbits per second.

9.2.3.58 LTGI Presence

The *LTGI Presence* indicates to the Node B whether it shall use the Long Term Grant Indicator within E-DCH grants issued in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
LTGI Indicator			BOOLEAN	True = LTGI shall be included

9.2.3.59 E-HICH Time Offset

The *E-HICH Time Offset* (aka n_{E-HICH} [19]) is determined by the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH Time Offset			INTEGER (4..44)	

9.2.3.59a E-HICH Time Offset LCR

Only for 1.28Mcps TDD. The *E-HICH Time Offset LCR* IE(aka n_{E-HICH} [19]) is determined by the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH Time Offset LCR			INTEGER (4..15)	

9.2.3.60 E-DCH TDD Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the number of E-AGCH.

This capacity consumption law indicates the consumption law to be used with the following procedures:

- Physical Shared Channel Reconfiguration.

When one or more radio links have been configured to use E-DCH (via Radio Link Setup, Radio Link Addition or radio link reconfiguration procedures) the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall be credited to the Capacity Credit for the Radio Link Deletion procedure that removes the last radio link configured for E-DCH.

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the DL cost shall be applied to the DL or Global Capacity Credit and the UL Cost shall be applied to the UL Capacity Credit. If it is modelled as shared resources, both the DL costs and the UL costs shall be applied to the DL or Global Capacity Credit.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Cost	M		INTEGER (0..65535)	Cost per timeslot of the E-DCH. If not present, zero cost shall be applied.
DL Cost	O		INTEGER (0..65535)	Cost per E-AGCH or E-HICH configured. If not present, zero cost shall be applied. .

9.2.3.61 E-DCH HARQ Power Offset TDD

The *E-DCH HARQ Power Offset TDD* is the power offset measured in dB.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH HARQ Power Offset TDD			INTEGER (0..6)	

9.2.3.61a E-DCH MAC-d Flow Retransmission Timer

Only for 1.28Mcps TDD. The *E-DCH MAC-d Flow Retransmission Timer* IE is used in the E-DCH retransmission control as defined in [32].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH MAC-d Flow Retransmission Timer			ENUMERATED (10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 140, 160, 200, 240, 280, 320, 400, 480, 560,...)	Unit: ms Node B may use this value to stop the re-transmission of the corresponding MAC-e PDU.

9.2.3.62 SNPL Reporting Type

The *SNPL Reporting Type* indicates to the Node B whether the UEs in a cell shall use the type 1 or type 2 Serving and Neighbour Cell Pathloss metric [21].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SNPL Reporting Type			ENUMERATED (type1, type2)	

9.2.3.63 Maximum Generated Received Total Wide Band Power in Other Cells

The *Maximum Generated Received Total Wide Band Power in Other Cells* indicates the maximum aggregate UL interference that may be generated from scheduled transmissions into other (non-serving) cells.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Generated Received Total Wide Band Power in Other Cells			INTEGER (0..621)	The Value mapping is according to mapping for measurement type "Received Total Wide Band Power" in [23].

9.2.3.64 E-DCH Non-scheduled Grant Information 7.68Mcps TDD

The *E-DCH Non-scheduled Grant Information 7.68Mcps TDD* IE is used to specify the details of a non-scheduled grant for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timeslot Resource Related Information	M		9.2.3.54	
Power Resource Related Information	M		9.2.3.55	
Repetition Period	M		9.2.3.16	
Repetition Length	M		9.2.3.15	
TDD E-PUCH Offset	M		9.2.3.56	
TDD Channelisation Code 7.68Mcps	M		9.2.3.34	

9.2.3.65 E-DCH TDD Information 7.68Mcps

The *E-DCH TDD Information 7.68Mcps* specifies the details of the maximum bit rate and processing overload level for 7.68Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate 7.68Mcps	O		9.2.3.66	
E-DCH Processing Overload Level	O		9.2.1.79	
E-DCH Power Offset for Scheduling Info	O		9.2.1.85	

9.2.3.66 E-DCH TDD Maximum Bitrate 7.68Mcps

The *E-DCH TDD Maximum Bitrate 7.68Mcps* parameter indicates the Maximum Bitrate for an E-DCH in 7.68Mcps TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH TDD Maximum Bitrate 7.68Mcps			INTEGER (0..17713,...)	Bitrate on transport block level. Unit is kbits per second.

9.2.3.67 E-DCH Physical Layer Category LCR

Only for 1.28Mcps TDD. The *E-DCH Physical Layer Category LCR* IE parameter indicates the E-DCH physical layer capability of UE in LCR TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-DCH Physical Layer Category LCR			INTEGER(1..5)	As defined in [33]

9.2.3.67A Extended E-DCH Physical Layer Category LCR

Only for 1.28Mcps TDD. The *Extended E-DCH Physical Layer Category LCR* IE parameter indicates the E-DCH physical layer capability of UE in LCR TDD mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Extended E-DCH Physical Layer Category LCR			INTEGER(6,...)	As defined in [33]

9.2.3.68 E-HICH Type

The *E-HICH Type* IE identifies whether a E-HICH is scheduled or non-scheduled inside a cell for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
E-HICH Type			ENUMERATED (Scheduled, Non-scheduled)	

9.2.3.69 Maximum Target Received Total Wide Band Power LCR

The *Maximum Target Received Total Wide Band Power LCR* indicates the maximum target UL interference for a certain cell under CRNC, including received wide band power from all sources.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Target Received Total Wide Band Power LCR			INTEGER (0..621)	The Value mapping is according to mapping for measurement type "Received Total Wide Band Power" in [23].

9.2.3.70 MBSFN Only Mode Indicator

The MBSFN only mode indicator indicates from CRNC to the Node B whether the cell is setup for MBSFN only mode for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MBSFN Only Mode Indicator			ENUMERATED (MBSFN Only Mode)	

9.2.3.71 MBSFN Only Mode Capability

This parameter defines the MBSFN only mode capability for a local cell for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MBSFN Only Mode Capability			ENUMERATED (MBSFN Only Mode capable, MBSFN Only Mode non capable)	

9.2.3.72 MAC-es Maximum Bit Rate LCR

The *MAC-es Maximum Bit Rate LCR* IE indicates the maximum number of bits per second to be delivered over the air interface.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-es Maximum Bit Rate LCR			INTEGER (0.. 256,000,000,...)	Unit: bit/s

9.2.3.73 UE Selected MBMS Service Information

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE <i>Status</i>	O					
> <i>None</i>			NULL			
> <i>Some</i>						
>>Selected MBMS Service List		1..MaxMB MSService Select				
>>>Selected MBMS Service Time Slot Information LCR	M	0..7		This IE indicates the Time Slot information of UE selected MBMS service in the other frequency. For 1.28Mcps TDD only. Mandatory if the IE UE Selected MBMS Service Action set to Selected. Otherwise optional.	–	
>>>>Time Slot LCR	M		9.2.3.24A		–	
>>>>MBMS Service TDM Information		0..1		Indicating the MBMS service TDM Information		
>>>> Transmission Time Interval	M		ENUMERATED (10, 20, 40, 80,...)	Unit: ms		
>>>>TDM_Rep	M		Integer (2..9)			
>>>>TDM_Offset	M		Integer (0..8)			
>>>>TDM_Length	M		Integer (1..8)			

9.3 Message and Information Element Abstract Syntax (with ASN.1)

9.3.0 General

Subclause 9.3 presents the Abstract Syntax of NBAP protocol with ASN.1. In case there is contradiction between the ASN.1 definition in this subclause and the tabular format in subclauses 9.1 and 9.2, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, where the tabular format shall take precedence.

The ASN.1 definition specifies the structure and content of NBAP messages. NBAP messages can contain any IEs specified in the object set definitions for that message without the order or number of occurrence being restricted by ASN.1. However, for this version of the standard, a sending entity shall construct a NBAP message according to the PDU definitions module and with the following additional rules (Note that in the following IE means an IE in the object set with an explicit id. If one IE needed to appear more than once in one object set, then the different occurrences have different IE ids):

- IEs shall be ordered (in an IE container) in the order they appear in object set definitions.
- Object set definitions specify how many times IEs may appear. An IE shall appear exactly once if the presence field in an object has value "mandatory". An IE may appear at most once if the presence field in an object has value "optional" or "conditional". If in a tabular format there is multiplicity specified for an IE (i.e. an IE list) then in the corresponding ASN.1 definition the list definition is separated into two parts. The first part defines an IE container list where the list elements reside. The second part defines list elements. The IE container list appears as an IE of its own. For this version of the standard an IE container list may contain only one kind of list elements.

If a NBAP message that is not constructed as defined above is received, this shall be considered as Abstract Syntax Error, and the message shall be handled as defined for Abstract Syntax Error in subclause 10.3.6.

9.3.1 Usage of Private Message mechanism for non-standard use

The private message mechanism for non-standard use may be used.

- For special operator- (and/or vendor) specific features considered not to be part of the basic functionality, i.e. the functionality required for a complete and high-quality specification in order to guarantee multi-vendor inter-operability.
- By vendors for research purposes, e.g. to implement and evaluate new algorithms/features before such features are proposed for standardisation.

The private message mechanism shall not be used for basic functionality. Such functionality shall be standardised.

9.3.2 Elementary Procedure Definitions

```
-- *****
--
-- Elementary Procedure definitions
--
-- *****
```

```
NBAP-PDU-Descriptions {
```

```
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-PDU-Descriptions (0) }
```

```
DEFINITIONS AUTOMATIC TAGS ::=
```

```
BEGIN
```

```
-- *****
--
-- IE parameter types from other modules.
--
-- *****
```

```
IMPORTS
```

```
    Criticality,
    ProcedureID,
    MessageDiscriminator,
    TransactionID
```

```
FROM NBAP-CommonDataTypes
```

```
    CommonTransportChannelSetupRequestFDD,
    CommonTransportChannelSetupRequestTDD,
    CommonTransportChannelSetupResponse,
    CommonTransportChannelSetupFailure,
    CommonTransportChannelReconfigurationRequestFDD,
    CommonTransportChannelReconfigurationRequestTDD,
    CommonTransportChannelReconfigurationResponse,
    CommonTransportChannelReconfigurationFailure,
    CommonTransportChannelDeletionRequest,
    CommonTransportChannelDeletionResponse,
    BlockResourceRequest,
    BlockResourceResponse,
    BlockResourceFailure,
    UnblockResourceIndication,
    AuditFailure,
    AuditRequiredIndication,
    AuditRequest,
    AuditResponse,
    CommonMeasurementInitiationRequest,
    CommonMeasurementInitiationResponse,
    CommonMeasurementInitiationFailure,
    CommonMeasurementReport,
    CommonMeasurementTerminationRequest,
    CommonMeasurementFailureIndication,
    CellSetupRequestFDD,
    CellSetupRequestTDD,
    CellSetupResponse,
    CellSetupFailure,
    CellReconfigurationRequestFDD,
    CellReconfigurationRequestTDD,
    CellReconfigurationResponse,
    CellReconfigurationFailure,
    CellDeletionRequest,
    CellDeletionResponse,
```

InformationExchangeInitiationRequest,
InformationExchangeInitiationResponse,
InformationExchangeInitiationFailure,
InformationReport,
InformationExchangeTerminationRequest,
InformationExchangeFailureIndication,
BearerRearrangementIndication,
ResourceStatusIndication,
SystemInformationUpdateRequest,
SystemInformationUpdateResponse,
SystemInformationUpdateFailure,
ResetRequest,
ResetResponse,
RadioLinkActivationCommandFDD,
RadioLinkActivationCommandTDD,
RadioLinkPreemptionRequiredIndication,
RadioLinkSetupRequestFDD,
RadioLinkSetupRequestTDD,
RadioLinkSetupResponseFDD,
RadioLinkSetupResponseTDD,
RadioLinkSetupFailureFDD,
RadioLinkSetupFailureTDD,
RadioLinkAdditionRequestFDD,
RadioLinkAdditionRequestTDD,
RadioLinkAdditionResponseFDD,
RadioLinkAdditionResponseTDD,
RadioLinkAdditionFailureFDD,
RadioLinkAdditionFailureTDD,
RadioLinkParameterUpdateIndicationFDD,
RadioLinkParameterUpdateIndicationTDD,
RadioLinkReconfigurationPrepareFDD,
RadioLinkReconfigurationPrepareTDD,
RadioLinkReconfigurationReady,
RadioLinkReconfigurationFailure,
RadioLinkReconfigurationCommit,
RadioLinkReconfigurationCancel,
RadioLinkReconfigurationRequestFDD,
RadioLinkReconfigurationRequestTDD,
RadioLinkReconfigurationResponse,
RadioLinkDeletionRequest,
RadioLinkDeletionResponse,
DL-PowerControlRequest,
DL-PowerTimeslotControlRequest,
DedicatedMeasurementInitiationRequest,
DedicatedMeasurementInitiationResponse,
DedicatedMeasurementInitiationFailure,
DedicatedMeasurementReport,
DedicatedMeasurementTerminationRequest,
DedicatedMeasurementFailureIndication,
RadioLinkFailureIndication,
RadioLinkRestoreIndication,
CompressedModeCommand,
ErrorIndication,
PrivateMessage,

PhysicalSharedChannelReconfigurationRequestTDD,
PhysicalSharedChannelReconfigurationRequestFDD,
PhysicalSharedChannelReconfigurationResponse,
PhysicalSharedChannelReconfigurationFailure,
CellSynchronisationInitiationRequestTDD,
CellSynchronisationInitiationResponseTDD,
CellSynchronisationInitiationFailureTDD,
CellSynchronisationReconfigurationRequestTDD,
CellSynchronisationReconfigurationResponseTDD,
CellSynchronisationReconfigurationFailureTDD,
CellSynchronisationAdjustmentRequestTDD,
CellSynchronisationAdjustmentResponseTDD,
CellSynchronisationAdjustmentFailureTDD,
CellSynchronisationReportTDD,
CellSynchronisationTerminationRequestTDD,
CellSynchronisationFailureIndicationTDD,
MBMSNotificationUpdateCommand

FROM NBAP-PDU-Contents

id-audit,
id-auditRequired,
id-blockResource,
id-cellDeletion,
id-cellReconfiguration,
id-cellSetup,
id-cellSynchronisationInitiation,
id-cellSynchronisationReconfiguration,
id-cellSynchronisationReporting,
id-cellSynchronisationTermination,
id-cellSynchronisationFailure,
id-commonMeasurementFailure,
id-commonMeasurementInitiation,
id-commonMeasurementReport,
id-commonMeasurementTermination,
id-commonTransportChannelDelete,
id-commonTransportChannelReconfigure,
id-commonTransportChannelSetup,
id-compressedModeCommand,
id-dedicatedMeasurementFailure,
id-dedicatedMeasurementInitiation,
id-dedicatedMeasurementReport,
id-dedicatedMeasurementTermination,
id-downlinkPowerControl,
id-downlinkPowerTimeslotControl,
id-errorIndicationForDedicated,
id-errorIndicationForCommon,
id-informationExchangeFailure,
id-informationExchangeInitiation,
id-informationReporting,
id-informationExchangeTermination,
id-BearerRearrangement,
id-mBMSNotificationUpdate,
id-physicalSharedChannelReconfiguration,
id-privateMessageForDedicated,


```

    id-privateMessageForCommon,
    id-radioLinkActivation,
    id-radioLinkAddition,
    id-radioLinkDeletion,
    id-radioLinkFailure,
    id-radioLinkParameterUpdate,
    id-radioLinkPreemption,
    id-radioLinkRestoration,
    id-radioLinkSetup,
    id-reset,
    id-resourceStatusIndication,
    id-cellSynchronisationAdjustment,
    id-synchronisedRadioLinkReconfigurationCancellation,
    id-synchronisedRadioLinkReconfigurationCommit,
    id-synchronisedRadioLinkReconfigurationPreparation,
    id-systemInformationUpdate,
    id-unblockResource,
    id-unSynchronisedRadioLinkReconfiguration
FROM NBAP-Constants;

-- *****
--
-- Interface Elementary Procedure Class
--
-- *****

NBAP-ELEMENTARY-PROCEDURE ::= CLASS {
    &InitiatingMessage          ,
    &SuccessfulOutcome          OPTIONAL,
    &UnsuccessfulOutcome        OPTIONAL,
    &Outcome                    OPTIONAL,
    &messageDiscriminator        MessageDiscriminator,
    &procedureID                ProcedureID    UNIQUE,
    &criticality                 Criticality    DEFAULT ignore
}

WITH SYNTAX {
    INITIATING MESSAGE          &InitiatingMessage
    [SUCCESSFUL OUTCOME        &SuccessfulOutcome]
    [UNSUCCESSFUL OUTCOME      &UnsuccessfulOutcome]
    [OUTCOME                    &Outcome]
    MESSAGE DISCRIMINATOR      &messageDiscriminator
    PROCEDURE ID                &procedureID
    [CRITICALITY                &criticality]
}

-- *****
--
-- Interface PDU Definition
--
-- *****

NBAP-PDU ::= CHOICE {
    initiatingMessage          InitiatingMessage,

```

```

    succesfulOutcome      SuccessfulOutcome,
    unsuccessfulOutcome   UnsuccessfulOutcome,
    outcome               Outcome,
    ...
}

InitiatingMessage ::= SEQUENCE {
    procedureID           NBAP-ELEMENTARY-PROCEDURE.&procedureID   ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality           NBAP-ELEMENTARY-PROCEDURE.&criticality   ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID        TransactionID,
    value                NBAP-ELEMENTARY-PROCEDURE.&InitiatingMessage ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

SuccessfulOutcome ::= SEQUENCE {
    procedureID           NBAP-ELEMENTARY-PROCEDURE.&procedureID   ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality           NBAP-ELEMENTARY-PROCEDURE.&criticality   ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID        TransactionID,
    value                NBAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

UnsuccessfulOutcome ::= SEQUENCE {
    procedureID           NBAP-ELEMENTARY-PROCEDURE.&procedureID   ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality           NBAP-ELEMENTARY-PROCEDURE.&criticality   ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID        TransactionID,
    value                NBAP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

Outcome ::= SEQUENCE {
    procedureID           NBAP-ELEMENTARY-PROCEDURE.&procedureID   ({NBAP-ELEMENTARY-PROCEDURES}),
    criticality           NBAP-ELEMENTARY-PROCEDURE.&criticality   ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    messageDiscriminator NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID        TransactionID,
    value                NBAP-ELEMENTARY-PROCEDURE.&Outcome   ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

-- *****
--
-- Interface Elementary Procedure List
--
-- *****

NBAP-ELEMENTARY-PROCEDURES NBAP-ELEMENTARY-PROCEDURE ::= {
    NBAP-ELEMENTARY-PROCEDURES-CLASS-1 |
    NBAP-ELEMENTARY-PROCEDURES-CLASS-2 |
    ...
}

NBAP-ELEMENTARY-PROCEDURES-CLASS-1 NBAP-ELEMENTARY-PROCEDURE ::= {
    cellSetupFDD |
    cellSetupTDD |
    cellReconfigurationFDD |

```

```

cellReconfigurationTDD
cellDeletion
commonTransportChannelSetupFDD
commonTransportChannelSetupTDD
commonTransportChannelReconfigureFDD
commonTransportChannelReconfigureTDD
commonTransportChannelDelete
audit
blockResource
radioLinkSetupFDD
radioLinkSetupTDD
systemInformationUpdate
commonMeasurementInitiation
radioLinkAdditionFDD
radioLinkAdditionTDD
radioLinkDeletion
reset
synchronisedRadioLinkReconfigurationPreparationFDD
synchronisedRadioLinkReconfigurationPreparationTDD
unsynchronisedRadioLinkReconfigurationFDD
unsynchronisedRadioLinkReconfigurationTDD
dedicatedMeasurementInitiation
physicalSharedChannelReconfigurationTDD
...,
informationExchangeInitiation
cellSynchronisationInitiationTDD
cellSynchronisationReconfigurationTDD
cellSynchronisationAdjustmentTDD
physicalSharedChannelReconfigurationFDD
}

NBAP-ELEMENTARY-PROCEDURES-CLASS-2 NBAP-ELEMENTARY-PROCEDURE ::= {
resourceStatusIndication
auditRequired
commonMeasurementReport
commonMeasurementTermination
commonMeasurementFailure
synchronisedRadioLinkReconfigurationCommit
synchronisedRadioLinkReconfigurationCancellation
radioLinkFailure
radioLinkPreemption
radioLinkRestoration
dedicatedMeasurementReport
dedicatedMeasurementTermination
dedicatedMeasurementFailure
downlinkPowerControlFDD
downlinkPowerTimeslotControl
compressedModeCommand
unblockResource
errorIndicationForDedicated
errorIndicationForCommon
privateMessageForDedicated
privateMessageForCommon
...,

```

```

informationReporting
informationExchangeTermination
informationExchangeFailure
cellSynchronisationReportingTDD
cellSynchronisationTerminationTDD
cellSynchronisationFailureTDD
bearerRearrangement
radioLinkActivationFDD
radioLinkActivationTDD
radioLinkParameterUpdateFDD
radioLinkParameterUpdateTDD
mBMSNotificationUpdate
}

-- *****
--
-- Interface Elementary Procedures
--
-- *****

-- Class 1

-- *** CellSetup (FDD) ***
cellSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CellSetupRequestFDD
  SUCCESSFUL OUTCOME      CellSetupResponse
  UNSUCCESSFUL OUTCOME    CellSetupFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-cellSetup, ddMode fdd }
  CRITICALITY             reject
}

-- *** CellSetup (TDD) ***
cellSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CellSetupRequestTDD
  SUCCESSFUL OUTCOME      CellSetupResponse
  UNSUCCESSFUL OUTCOME    CellSetupFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-cellSetup, ddMode tdd }
  CRITICALITY             reject
}

-- *** CellReconfiguration(FDD) ***
cellReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CellReconfigurationRequestFDD
  SUCCESSFUL OUTCOME      CellReconfigurationResponse
  UNSUCCESSFUL OUTCOME    CellReconfigurationFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-cellReconfiguration, ddMode fdd }
  CRITICALITY             reject
}

-- *** CellReconfiguration(TDD) ***
cellReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {

```

```
INITIATING MESSAGE      CellReconfigurationRequestTDD
SUCCESSFUL OUTCOME      CellReconfigurationResponse
UNSUCCESSFUL OUTCOME    CellReconfigurationFailure
MESSAGE DISCRIMINATOR   common
PROCEDURE ID            { procedureCode id-cellReconfiguration, ddMode tdd }
CRITICALITY             reject
}

-- *** CellDeletion ***
cellDeletion NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CellDeletionRequest
  SUCCESSFUL OUTCOME      CellDeletionResponse
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-cellDeletion, ddMode common }
  CRITICALITY             reject
}

-- *** CommonTransportChannelSetup (FDD) ***
commonTransportChannelSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CommonTransportChannelSetupRequestFDD
  SUCCESSFUL OUTCOME      CommonTransportChannelSetupResponse
  UNSUCCESSFUL OUTCOME    CommonTransportChannelSetupFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-commonTransportChannelSetup, ddMode fdd }
  CRITICALITY             reject
}

-- *** CommonTransportChannelSetup (TDD) ***
commonTransportChannelSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CommonTransportChannelSetupRequestTDD
  SUCCESSFUL OUTCOME      CommonTransportChannelSetupResponse
  UNSUCCESSFUL OUTCOME    CommonTransportChannelSetupFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-commonTransportChannelSetup, ddMode tdd }
  CRITICALITY             reject
}

-- *** CommonTransportChannelReconfigure (FDD) ***
commonTransportChannelReconfigureFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CommonTransportChannelReconfigurationRequestFDD
  SUCCESSFUL OUTCOME      CommonTransportChannelReconfigurationResponse
  UNSUCCESSFUL OUTCOME    CommonTransportChannelReconfigurationFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-commonTransportChannelReconfigure, ddMode fdd }
  CRITICALITY             reject
}

-- *** CommonTransportChannelReconfigure (TDD) ***
commonTransportChannelReconfigureTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CommonTransportChannelReconfigurationRequestTDD
  SUCCESSFUL OUTCOME      CommonTransportChannelReconfigurationResponse
  UNSUCCESSFUL OUTCOME    CommonTransportChannelReconfigurationFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-commonTransportChannelReconfigure, ddMode tdd }
```

```
    CRITICALITY          reject
  }

-- *** CommonTransportChannelDelete ***
commonTransportChannelDelete NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CommonTransportChannelDeletionRequest
  SUCCESSFUL OUTCOME      CommonTransportChannelDeletionResponse
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-commonTransportChannelDelete, ddMode common }
  CRITICALITY             reject
}

-- *** Audit ***
audit NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      AuditRequest
  SUCCESSFUL OUTCOME      AuditResponse
  UNSUCCESSFUL OUTCOME   AuditFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-audit, ddMode common }
  CRITICALITY             reject
}

-- *** BlockResourceRequest ***
blockResource NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      BlockResourceRequest
  SUCCESSFUL OUTCOME      BlockResourceResponse
  UNSUCCESSFUL OUTCOME   BlockResourceFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-blockResource, ddMode common }
  CRITICALITY             reject
}

-- *** RadioLinkSetup (FDD) ***
radioLinkSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkSetupRequestFDD
  SUCCESSFUL OUTCOME      RadioLinkSetupResponseFDD
  UNSUCCESSFUL OUTCOME   RadioLinkSetupFailureFDD
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-radioLinkSetup, ddMode fdd }
  CRITICALITY             reject
}

-- *** RadioLinkSetup (TDD) ***
radioLinkSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkSetupRequestTDD
  SUCCESSFUL OUTCOME      RadioLinkSetupResponseTDD
  UNSUCCESSFUL OUTCOME   RadioLinkSetupFailureTDD
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-radioLinkSetup, ddMode tdd }
  CRITICALITY             reject
}

-- *** SystemInformationUpdate ***
systemInformationUpdate NBAP-ELEMENTARY-PROCEDURE ::= {
```

```

INITIATING MESSAGE      SystemInformationUpdateRequest
SUCCESSFUL OUTCOME      SystemInformationUpdateResponse
UNSUCCESSFUL OUTCOME    SystemInformationUpdateFailure
MESSAGE DISCRIMINATOR   common
PROCEDURE ID            { procedureCode id-systemInformationUpdate, ddMode common }
CRITICALITY             reject
}

-- *** Reset ***
reset NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      ResetRequest
  SUCCESSFUL OUTCOME      ResetResponse
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-reset, ddMode common }
  CRITICALITY             reject
}

-- *** CommonMeasurementInitiation ***
commonMeasurementInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CommonMeasurementInitiationRequest
  SUCCESSFUL OUTCOME      CommonMeasurementInitiationResponse
  UNSUCCESSFUL OUTCOME    CommonMeasurementInitiationFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-commonMeasurementInitiation, ddMode common }
  CRITICALITY             reject
}

-- *** RadioLinkAddition (FDD) ***
radioLinkAdditionFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkAdditionRequestFDD
  SUCCESSFUL OUTCOME      RadioLinkAdditionResponseFDD
  UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureFDD
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-radioLinkAddition, ddMode fdd }
  CRITICALITY             reject
}

-- *** RadioLinkAddition (TDD) ***
radioLinkAdditionTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkAdditionRequestTDD
  SUCCESSFUL OUTCOME      RadioLinkAdditionResponseTDD
  UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureTDD
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-radioLinkAddition, ddMode tdd }
  CRITICALITY             reject
}

-- *** RadioLinkDeletion ***
radioLinkDeletion NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkDeletionRequest
  SUCCESSFUL OUTCOME      RadioLinkDeletionResponse
  MESSAGE DISCRIMINATOR   dedicated

```

```

    PROCEDURE ID          { procedureCode id-radioLinkDeletion, ddMode common }
    CRITICALITY          reject
  }

-- *** SynchronisedRadioLinkReconfigurationPreparation (FDD) ***
synchronisedRadioLinkReconfigurationPreparationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE    RadioLinkReconfigurationPrepareFDD
  SUCCESSFUL OUTCOME    RadioLinkReconfigurationReady
  UNSUCCESSFUL OUTCOME RadioLinkReconfigurationFailure
  MESSAGE DISCRIMINATOR dedicated
  PROCEDURE ID          { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
  CRITICALITY          reject
}

-- *** SynchronisedRadioLinkReconfigurationPreparation (TDD) ***
synchronisedRadioLinkReconfigurationPreparationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE    RadioLinkReconfigurationPrepareTDD
  SUCCESSFUL OUTCOME    RadioLinkReconfigurationReady
  UNSUCCESSFUL OUTCOME RadioLinkReconfigurationFailure
  MESSAGE DISCRIMINATOR dedicated
  PROCEDURE ID          { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
  CRITICALITY          reject
}

-- *** UnSynchronisedRadioLinkReconfiguration (FDD) ***
unSynchronisedRadioLinkReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE    RadioLinkReconfigurationRequestFDD
  SUCCESSFUL OUTCOME    RadioLinkReconfigurationResponse
  UNSUCCESSFUL OUTCOME RadioLinkReconfigurationFailure
  MESSAGE DISCRIMINATOR dedicated
  PROCEDURE ID          { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
  CRITICALITY          reject
}

-- *** UnSynchronisedRadioLinkReconfiguration (TDD) ***
unSynchronisedRadioLinkReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE    RadioLinkReconfigurationRequestTDD
  SUCCESSFUL OUTCOME    RadioLinkReconfigurationResponse
  UNSUCCESSFUL OUTCOME RadioLinkReconfigurationFailure
  MESSAGE DISCRIMINATOR dedicated
  PROCEDURE ID          { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
  CRITICALITY          reject
}

-- *** DedicatedMeasurementInitiation ***
dedicatedMeasurementInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE    DedicatedMeasurementInitiationRequest
  SUCCESSFUL OUTCOME    DedicatedMeasurementInitiationResponse
  UNSUCCESSFUL OUTCOME DedicatedMeasurementInitiationFailure
  MESSAGE DISCRIMINATOR dedicated
  PROCEDURE ID          { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
  CRITICALITY          reject
}

```



```

-- *** PhysicalSharedChannelReconfiguration (FDD) ***
physicalSharedChannelReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE   PhysicalSharedChannelReconfigurationRequestFDD
  SUCCESSFUL OUTCOME   PhysicalSharedChannelReconfigurationResponse
  UNSUCCESSFUL OUTCOME PhysicalSharedChannelReconfigurationFailure
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID         { procedureCode id-physicalSharedChannelReconfiguration, ddMode fdd }
  CRITICALITY          reject
}

-- *** PhysicalSharedChannelReconfiguration (TDD) ***
physicalSharedChannelReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE   PhysicalSharedChannelReconfigurationRequestTDD
  SUCCESSFUL OUTCOME   PhysicalSharedChannelReconfigurationResponse
  UNSUCCESSFUL OUTCOME PhysicalSharedChannelReconfigurationFailure
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID         { procedureCode id-physicalSharedChannelReconfiguration, ddMode tdd }
  CRITICALITY          reject
}

-- *** InformationExchangeInitiation ***
informationExchangeInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE   InformationExchangeInitiationRequest
  SUCCESSFUL OUTCOME   InformationExchangeInitiationResponse
  UNSUCCESSFUL OUTCOME InformationExchangeInitiationFailure
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID         { procedureCode id-informationExchangeInitiation, ddMode common }
  CRITICALITY          reject
}

-- *** CellSynchronisationInitiation (TDD only) ***
cellSynchronisationInitiationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE   CellSynchronisationInitiationRequestTDD
  SUCCESSFUL OUTCOME   CellSynchronisationInitiationResponseTDD
  UNSUCCESSFUL OUTCOME CellSynchronisationInitiationFailureTDD
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID         { procedureCode id-cellSynchronisationInitiation, ddMode tdd }
  CRITICALITY          reject
}

-- *** CellSynchronisationReconfiguration (TDD only) ***
cellSynchronisationReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE   CellSynchronisationReconfigurationRequestTDD
  SUCCESSFUL OUTCOME   CellSynchronisationReconfigurationResponseTDD
  UNSUCCESSFUL OUTCOME CellSynchronisationReconfigurationFailureTDD
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID         { procedureCode id-cellSynchronisationReconfiguration, ddMode tdd }
  CRITICALITY          reject
}

-- *** CellSynchronisationAdjustment (TDD only) ***
cellSynchronisationAdjustmentTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE   CellSynchronisationAdjustmentRequestTDD
  SUCCESSFUL OUTCOME   CellSynchronisationAdjustmentResponseTDD

```

```
    UNSUCCESSFUL OUTCOME      CellSynchronisationAdjustmentFailureTDD
    MESSAGE DISCRIMINATOR      common
    PROCEDURE ID               { procedureCode id-cellSynchronisationAdjustment, ddMode tdd }
    CRITICALITY                reject
}

-- Class 2

-- *** ResourceStatusIndication ***
resourceStatusIndication NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE         ResourceStatusIndication
    MESSAGE DISCRIMINATOR      common
    PROCEDURE ID               { procedureCode id-resourceStatusIndication, ddMode common }
    CRITICALITY                ignore
}

-- *** AuditRequired ***
auditRequired NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE         AuditRequiredIndication
    MESSAGE DISCRIMINATOR      common
    PROCEDURE ID               { procedureCode id-auditRequired, ddMode common }
    CRITICALITY                ignore
}

-- *** CommonMeasurementReport ***
commonMeasurementReport NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE         CommonMeasurementReport
    MESSAGE DISCRIMINATOR      common
    PROCEDURE ID               { procedureCode id-commonMeasurementReport, ddMode common }
    CRITICALITY                ignore
}

-- *** CommonMeasurementTermination ***
commonMeasurementTermination NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE         CommonMeasurementTerminationRequest
    MESSAGE DISCRIMINATOR      common
    PROCEDURE ID               { procedureCode id-commonMeasurementTermination, ddMode common }
    CRITICALITY                ignore
}

-- *** CommonMeasurementFailure ***
commonMeasurementFailure NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE         CommonMeasurementFailureIndication
    MESSAGE DISCRIMINATOR      common
    PROCEDURE ID               { procedureCode id-commonMeasurementFailure, ddMode common }
    CRITICALITY                ignore
}

-- *** SynchronisedRadioLinkReconfigurationCommit ***
synchronisedRadioLinkReconfigurationCommit NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE         RadioLinkReconfigurationCommit
    MESSAGE DISCRIMINATOR      dedicated
    PROCEDURE ID               { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
    CRITICALITY                ignore
}
```

```
}

-- *** SynchronisedRadioReconfigurationCancellation ***
synchronisedRadioLinkReconfigurationCancellation NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkReconfigurationCancel
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
  CRITICALITY             ignore
}

-- *** RadioLinkFailure ***
radioLinkFailure NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkFailureIndication
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-radioLinkFailure, ddMode common }
  CRITICALITY             ignore
}

-- *** RadioLinkPreemption ***
radioLinkPreemption NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkPreemptionRequiredIndication
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-radioLinkPreemption, ddMode common }
  CRITICALITY             ignore
}

-- *** RadioLinkRestoration ***
radioLinkRestoration NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkRestoreIndication
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-radioLinkRestoration, ddMode common }
  CRITICALITY             ignore
}

-- *** DedicatedMeasurementReport ***
dedicatedMeasurementReport NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      DedicatedMeasurementReport
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-dedicatedMeasurementReport, ddMode common }
  CRITICALITY             ignore
}

-- *** DedicatedMeasurementTermination ***
dedicatedMeasurementTermination NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      DedicatedMeasurementTerminationRequest
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-dedicatedMeasurementTermination, ddMode common }
  CRITICALITY             ignore
}

-- *** DedicatedMeasurementFailure ***
dedicatedMeasurementFailure NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      DedicatedMeasurementFailureIndication
  MESSAGE DISCRIMINATOR   dedicated
}
```

```
    PROCEDURE ID          { procedureCode id-dedicatedMeasurementFailure, ddMode common }
    CRITICALITY           ignore
}

-- *** DLPowerControl (FDD only) ***
downlinkPowerControlFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE    DL-PowerControlRequest
    MESSAGE DISCRIMINATOR dedicated
    PROCEDURE ID          { procedureCode id-downlinkPowerControl, ddMode fdd }
    CRITICALITY           ignore
}

-- *** DLPowerTimeslotControl (TDD only) ***
downlinkPowerTimeslotControl NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE    DL-PowerTimeslotControlRequest
    MESSAGE DISCRIMINATOR dedicated
    PROCEDURE ID          { procedureCode id-downlinkPowerTimeslotControl, ddMode tdd }
    CRITICALITY           ignore
}

-- *** CompressedModeCommand (FDD only) ***
compressedModeCommand NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE    CompressedModeCommand
    MESSAGE DISCRIMINATOR dedicated
    PROCEDURE ID          { procedureCode id-compressedModeCommand, ddMode fdd }
    CRITICALITY           ignore
}

-- *** UnblockResourceIndication ***
unblockResource NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE    UnblockResourceIndication
    MESSAGE DISCRIMINATOR common
    PROCEDURE ID          { procedureCode id-unblockResource, ddMode common }
    CRITICALITY           ignore
}

-- *** ErrorIndication for Dedicated procedures ***
errorIndicationForDedicated NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE    ErrorIndication
    MESSAGE DISCRIMINATOR dedicated
    PROCEDURE ID          { procedureCode id-errorIndicationForDedicated, ddMode common }
    CRITICALITY           ignore
}

-- *** ErrorIndication for Common procedures ***
errorIndicationForCommon NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE    ErrorIndication
    MESSAGE DISCRIMINATOR common
    PROCEDURE ID          { procedureCode id-errorIndicationForCommon, ddMode common }
    CRITICALITY           ignore
}

-- *** CellSynchronisationReporting (TDD only) ***
cellSynchronisationReportingTDD NBAP-ELEMENTARY-PROCEDURE ::= {
```

```
INITIATING MESSAGE      CellSynchronisationReportTDD
MESSAGE DISCRIMINATOR   common
PROCEDURE ID            { procedureCode id-cellSynchronisationReporting, ddMode tdd }
CRITICALITY             ignore
}

-- *** CellSynchronisationTermination (TDD only) ***
cellSynchronisationTerminationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CellSynchronisationTerminationRequestTDD
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-cellSynchronisationTermination, ddMode tdd }
  CRITICALITY             ignore
}

-- *** CellSynchronisationFailure (TDD only) ***
cellSynchronisationFailureTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CellSynchronisationFailureIndicationTDD
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-cellSynchronisationFailure, ddMode tdd }
  CRITICALITY             ignore
}

-- *** PrivateMessage for Dedicated procedures ***
privateMessageForDedicated NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      PrivateMessage
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-privateMessageForDedicated, ddMode common }
  CRITICALITY             ignore
}

-- *** PrivateMessage for Common procedures ***
privateMessageForCommon NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      PrivateMessage
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-privateMessageForCommon, ddMode common }
  CRITICALITY             ignore
}

-- *** InformationReporting ***
informationReporting NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      InformationReport
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-informationReporting, ddMode common }
  CRITICALITY             ignore
}

-- *** InformationExchangeTermination ***
informationExchangeTermination NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      InformationExchangeTerminationRequest
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-informationExchangeTermination, ddMode common }
  CRITICALITY             ignore
}
```

```
-- *** InformationExchangeFailure ***
informationExchangeFailure NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      InformationExchangeFailureIndication
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-informationExchangeFailure, ddMode common }
  CRITICALITY             ignore
}

-- *** BearerRearrangement ***
bearerRearrangement NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      BearerRearrangementIndication
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-BearerRearrangement, ddMode common }
  CRITICALITY             ignore
}

-- *** RadioLinkActivation (FDD) ***
radioLinkActivationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkActivationCommandFDD
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-radioLinkActivation, ddMode fdd }
  CRITICALITY             ignore
}

-- *** RadioLinkActivation (TDD) ***
radioLinkActivationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkActivationCommandTDD
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-radioLinkActivation, ddMode tdd }
  CRITICALITY             ignore
}

-- *** RadioLinkParameterUpdate (FDD) ***
radioLinkParameterUpdateFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkParameterUpdateIndicationFDD
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode fdd }
  CRITICALITY             ignore
}

-- *** RadioLinkParameterUpdate (TDD) ***
radioLinkParameterUpdateTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkParameterUpdateIndicationTDD
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode tdd }
  CRITICALITY             ignore
}

-- *** MBMSNotificationUpdate ***
mBMSNotificationUpdate NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      MBMSNotificationUpdateCommand
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-mBMSNotificationUpdate, ddMode common }
  CRITICALITY             ignore
}
```

```
}

```

```
END

```

9.3.3 PDU Definitions

```
-- *****
--
-- PDU definitions for NBAP.
--
-- *****

NBAP-PDU-Contents {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- *****
--
-- IE parameter types from other modules.
--
-- *****

IMPORTS
  Active-Pattern-Sequence-Information,
  AddorDeleteIndicator,
  AICH-Power,
  AICH-TransmissionTiming,
  AllocationRetentionPriority,
  AlternativeFormatReportingIndicator,
  AvailabilityStatus,
  BCCH-ModificationTime,
  BindingID,
  BlockingPriorityIndicator,
  BroadcastReference,
  SCTD-Indicator,
  Cause,
  CCTrCH-ID,
  CellParameterID,
  CellPortionID,
  CellSyncBurstCode,
  CellSyncBurstCodeShift,
  CellSyncBurstRepetitionPeriod,
  CellSyncBurstSIR,
  CellSyncBurstTiming,
  CellSyncBurstTimingThreshold,
  CFN,
  ChipOffset,
```

C-ID,
ClosedloopTimingAdjustmentMode,
CommonChannelsCapacityConsumptionLaw,
Compressed-Mode-Deactivation-Flag,
Common-MACFlows-to-DeleteFDD,
CommonMeasurementAccuracy,
CommonMeasurementType,
CommonMeasurementValue,
CommonMeasurementValueInformation,
CommonPhysicalChannelID,
CommonPhysicalChannelID768,
Common-PhysicalChannel-Status-Information,
Common-PhysicalChannel-Status-Information768,
Common-TransportChannel-Status-Information,
CommonTransportChannelID,
CommonTransportChannel-InformationResponse,
CommunicationControlPortID,
ConfigurationGenerationID,
ConstantValue,
ContinuousPacketConnectivityDTX-DRX-Capability,
ContinuousPacketConnectivityDTX-DRX-Information,
ContinuousPacketConnectivityHS-SCCH-less-Capability,
ContinuousPacketConnectivityHS-SCCH-less-Information,
ContinuousPacketConnectivityHS-SCCH-less-Information-Response,
CPC-Information,
CriticalityDiagnostics,
CRNC-CommunicationContextID,
CSBMeasurementID,
CSBTransmissionID,
DCH-FDD-Information,
DCH-Indicator-For-E-DCH-HSDPA-Operation,
DCH-InformationResponse,
DCH-ID,
FDD-DCHs-to-Modify,
TDD-DCHs-to-Modify,
DCH-TDD-Information,
DedicatedChannelsCapacityConsumptionLaw,
DedicatedMeasurementType,
DedicatedMeasurementValue,
DedicatedMeasurementValueInformation,
DelayedActivation,
DelayedActivationUpdate,
DiversityControlField,
DiversityMode,
DL-DPCH-SlotFormat,
DL-DPCH-TimingAdjustment,
DL-or-Global-CapacityCredit,
DL-Power,
DL-PowerBalancing-Information,
DL-PowerBalancing-ActivationIndicator,
DLPowerAveragingWindowSize,
DL-PowerBalancing-UpdatedIndicator,
DL-ScramblingCode,
DL-TimeslotISCP,

DL-Timeslot-Information,
DL-TimeslotLCR-Information,
DL-TimeslotISCPInfo,
DL-TimeslotISCPInfoLCR,
DL-TPC-Pattern01Count,
DPC-Mode,
DPCH-ID,
DPCH-ID768,
DSCH-ID,
DSCH-InformationResponse,
DSCH-TDD-Information,
DwPCH-Power,
E-AGCH-FDD-Code-Information,
E-DCH-Capability,
E-DCHCapacityConsumptionLaw,
E-DCH-TTI2ms-Capability,
E-DCH-SF-Capability,
E-DCH-HARQ-Combining-Capability,
E-DCH-FDD-DL-Control-Channel-Information,
E-DCH-FDD-Information,
E-DCH-FDD-Information-Response,
E-DCH-FDD-Information-to-Modify,
E-DCH-FDD-Update-Information,
E-DCH-MACdFlow-ID,
E-DCH-MACdFlows-Information,
E-DCH-MACdFlows-to-Delete,
E-DCH-RL-Indication,
E-DCH-Serving-Cell-Change-Info-Response,
E-DPCCH-PO,
E-RGCH-E-HICH-FDD-Code-Information,
E-RGCH-2-IndexStepThreshold,
E-RGCH-3-IndexStepThreshold,
End-Of-Audit-Sequence-Indicator,
Enhanced-FACH-Capability,
Enhanced-PCH-Capability,
E-TFCS-Information,
E-TTI,
ExtendedPropagationDelay,
Fast-Reconfiguration-Mode,
Fast-Reconfiguration-Permission,
FDD-DL-ChannelisationCodeNumber,
FDD-DL-CodeInformation,
FDD-S-CCPCH-FrameOffset,
FDD-S-CCPCH-Offset,
FDD-TPC-DownlinkStepSize,
F-DPCH-Capability,
F-DPCH-SlotFormat,
F-DPCH-SlotFormatCapability,
FirstRLS-Indicator,
FNReportingIndicator,
FPACH-Power,
FrameAdjustmentValue,
FrameHandlingPriority,
FrameOffset,

HARQ-Info-for-E-DCH,
HSDPA-Capability,
HSDSCH-Common-System-InformationFDD,
HSDSCH-Common-System-Information-ResponseFDD,
HSDSCH-Configured-Indicator,
HSDSCH-Paging-System-InformationFDD,
HSDSCH-Paging-System-Information-ResponseFDD,
HS-DSCH-Serving-Cell-Change-Info,
HS-DSCH-Serving-Cell-Change-Info-Response,
HSDSCH-MACdPDU-SizeCapability,
HS-PDSCH-FDD-Code-Information,
HS-SCCH-ID,
HS-SCCH-FDD-Code-Information,
HS-SICH-ID,
IB-OC-ID,
IB-SG-DATA,
IB-SG-POS,
IB-SG-REP,
IB-Type,
InformationExchangeID,
InformationReportCharacteristics,
InformationType,
Initial-DL-DPCH-TimingAdjustment-Allowed,
InnerLoopDLPCStatus,
IPDL-FDD-Parameters,
IPDL-TDD-Parameters,
IPDL-Indicator,
IPDL-TDD-Parameters-LCR,
IPMulticastIndication,
LimitedPowerIncrease,
Local-Cell-ID,
MaximumDL-PowerCapability,
Maximum-Target-ReceivedTotalWideBandPower,
MaximumTransmissionPower,
MaxNrOfUL-DPDCHs,
Max-Set-E-DPDCHs,
MaxPRACH-MidambleShifts,
Max-UE-DTX-Cycle,
MBMS-Capability,
MeasurementFilterCoefficient,
MeasurementID,
MeasurementRecoveryBehavior,
MeasurementRecoveryReportingIndicator,
MeasurementRecoverySupportIndicator,
MICH-CFN,
MICH-Mode,
MidambleAllocationMode,
MidambleShiftAndBurstType,
MidambleShiftAndBurstType768,
MidambleShiftLCR,
MinimumDL-PowerCapability,
MinSpreadingFactor,
MIMO-Capability,
MIMO-PilotConfiguration,

MinUL-ChannelisationCodeLength,
Modification-Period,
MultiplexingPosition,
NCyclesPerSFNperiod,
NRepetitionsPerCyclePeriod,
N-INSYNC-IND,
N-OUTSYNC-IND,
NeighbouringCellMeasurementInformation,
NeighbouringFDDCellMeasurementInformation,
NeighbouringTDDCellMeasurementInformation,
NI-Information,
NodeB-CommunicationContextID,
NotificationIndicatorLength,
NumberOfReportedCellPortions,
NSubCyclesPerCyclePeriod,
PagingIndicatorLength,
Paging-MACFlows-to-DeleteFDD,
PayloadCRC-PresenceIndicator,
PCCPCH-Power,
PDSCHSet-ID,
PDSCH-ID,
PDSCH-ID768,
PICH-Mode,
PICH-Power,
PLCCHinformation,
PowerAdjustmentType,
PowerOffset,
PowerRaiseLimit,
PRACH-Midamble,
PreambleSignatures,
PreambleThreshold,
PredictedSFNSFNDeviationLimit,
PredictedTUTRANGPSDeviationLimit,
PrimaryCPICH-Power,
Primary-CPICH-Usage-for-Channel-Estimation,
PrimaryScramblingCode,
PropagationDelay,
SCH-TimeSlot,
PunctureLimit,
PUSCHSet-ID,
PUSCH-ID,
QE-Selector,
RACH-SlotFormat,
RACH-SubChannelNumbers,
Reference-ReceivedTotalWideBandPower,
Reference-ReceivedTotalWideBandPowerReporting,
Reference-ReceivedTotalWideBandPowerSupportIndicator,
Maximum-Target-ReceivedTotalWideBandPower-LCR,
ReferenceClockAvailability,
ReferenceSFNoffset,
RepetitionLength,
RepetitionPeriod,
ReportCharacteristics,
RequestedDataValue,

RequestedDataValueInformation,
ResourceOperationalState,
RL-Set-ID,
RL-ID,
RL-Specific-DCH-Info,
RL-Specific-E-DCH-Info,
Received-total-wide-band-power-Value,
AdjustmentPeriod,
ScaledAdjustmentRatio,
MaxAdjustmentStep,
RNC-ID,
ScramblingCodeNumber,
Secondary-CPICH-Information-Change,
SecondaryCCPCH-SlotFormat,
Segment-Type,
Serving-E-DCH-RL-ID,
SixteenQAM-UL-Capability,
SixtyfourQAM-DL-Capability,
SFN,
SFNSFNChangeLimit,
SFNSFNDriftRate,
SFNSFNDriftRateQuality,
SFNSFNQuality,
ShutdownTimer,
SIB-Originator,
SpecialBurstScheduling,
SignallingBearerRequestIndicator,
Start-Of-Audit-Sequence-Indicator,
STTD-Indicator,
SSDT-SupportIndicator,
E-DPCCH-Power-Boosting-Capability,
SyncCase,
SYNCdlCodeId,
SyncFrameNumber,
SynchronisationReportCharacteristics,
SynchronisationReportType,
Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio,
T-Cell,
T-RLFAILURE,
TDD-ChannelisationCode,
TDD-ChannelisationCodeLCR,
TDD-ChannelisationCode768,
TDD-DL-Code-LCR-Information,
TDD-DPCHoffset,
TDD-TPC-DownlinkStepSize,
TDD-PhysicalChannelOffset,
TDD-UL-Code-LCR-Information,
TFCI-Coding,
TFCI-Presence,
TFCI-SignallingMode,
TFCS,
TimeSlot,
TimeSlotLCR,
TimeSlotDirection,

TimeSlotStatus,
TimingAdjustmentValue,
TimingAdvanceApplied,
TnlQos,
ToAWE,
ToAWS,
TransmissionDiversityApplied,
TransmitDiversityIndicator,
TransmissionGapPatternSequenceCodeInformation,
Transmission-Gap-Pattern-Sequence-Information,
TransportBearerRequestIndicator,
TransportFormatSet,
TransportLayerAddress,
TSTD-Indicator,
TUTRANGPS,
TUTRANGPSChangeLimit,
TUTRANGPSDriftRate,
TUTRANGPSDriftRateQuality,
TUTRANGPSQuality,
UARFCN,
UC-Id,
USCH-Information,
USCH-InformationResponse,
UL-CapacityCredit,
UL-DPCCH-SlotFormat,
UL-DPDCH-Indicator-For-E-DCH-Operation,
UL-SIR,
UL-FP-Mode,
UL-PhysCH-SF-Variation,
UL-ScramblingCode,
UL-Timeslot-Information,
UL-TimeslotLCR-Information,
UL-TimeSlot-ISCP-Info,
UL-TimeSlot-ISCP-LCR-Info,
UL-TimeslotISCP-Value,
UL-TimeslotISCP-Value-IncrDecrThres,
USCH-ID,
HSDSCH-FDD-Information,
HSDSCH-FDD-Information-Response,
HSDSCH-Information-to-Modify,
HSDSCH-Information-to-Modify-Unsynchronised,
HSDSCH-MACdFlow-ID,
HSDSCH-MACdFlows-Information,
HSDSCH-MACdFlows-to-Delete,
HSDSCH-RNTI,
HSDSCH-TDD-Information,
HSDSCH-TDD-Information-Response,
PrimaryCCPCH-RSCP,
HSDSCH-FDD-Update-Information,
HSDSCH-TDD-Update-Information,
UL-Synchronisation-Parameters-LCR,
TDD-DL-DPCH-TimeSlotFormat-LCR,
TDD-UL-DPCH-TimeSlotFormat-LCR,
TDD-TPC-UplinkStepSize-LCR,

CellSyncBurstTimingLCR,
TimingAdjustmentValueLCR,
PrimaryCCPCH-RSCP-Delta,
SynchronisationIndicator,
TDD-UL-Code-768-Information,
UL-Timeslot768-Information,
TDD-DL-Code-768-Information,
DL-Timeslot768-Information,
E-DCH-TDD-CapacityConsumptionLaw,
E-DCH-Information,
E-DCH-Information-Response,
E-DCH-Information-Reconfig,
LTGI-Presence,
SNPL-Reporting-Type,
E-AGCH-Id,
E-HICH-TimeOffset,
Maximum-Generated-ReceivedTotalWideBandPowerInOtherCells,
E-DCH-768-Information,
E-DCH-768-Information-Reconfig,
RTWP-ReportingIndicator,
RTWP-CellPortion-ReportingIndicator,
MACHs-ResetIndicator,
E-DCH-LCR-Information,
E-DCH-LCR-Information-Reconfig,
E-HICH-ID-TDD,
E-HICH-TimeOffsetLCR,
E-HICH-Type,
ModulationPO-MBSFN,
Secondary-CCPCH-SlotFormat-Extended,
ModulationMBSFN,
MBSFN-Only-Mode-Indicator,
MBSFN-Only-Mode-Capability,
UPPCHPositionLCR,
ControlGAP,
Extended-HS-SICH-ID,
Extended-HS-SCCH-ID,
TimeslotLCR-Extension,
Extended-E-HICH-ID-TDD,
AdditionalTimeSlotListLCR,
AdditionalMeasurementValueList,
UE-Selected-MBMS-Service-Information,
TimeSlotMeasurementValueListLCR,
MIMO-PowerOffsetForS-CPICHCapability,
MIMO-PilotConfigurationExtension,
TxDiversityOnDLControlChannelsByMIMOUECapability

FROM NBAP-IEs

PrivateIE-Container{ },
ProtocolExtensionContainer{ },
ProtocolIE-Container{ },

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ProtocolIE-Single-Container{},
ProtocolIE-ContainerList{},
NBAP-PRIVATE-IES,
NBAP-PROTOCOL-IES,
NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers

id-Active-Pattern-Sequence-Information,
id-Additional-S-CCPCH-Parameters-CTCH-ReconfRqstTDD,
id-Additional-S-CCPCH-Parameters-CTCH-SetupRqstTDD,
id-Additional-S-CCPCH-LCR-Parameters-CTCH-ReconfRqstTDD,
id-Additional-S-CCPCH-LCR-Parameters-CTCH-SetupRqstTDD,
id-AdjustmentRatio,
id-AICH-Information,
id-AICH-ParametersListIE-CTCH-ReconfRqstFDD,
id-AlternativeFormatReportingIndicator,
id-BCH-Information,
id-BCCH-ModificationTime,
id-bindingID,
id-BlockingPriorityIndicator,
id-BroadcastReference,
id-Cause,
id-CauseLevel-PSCH-ReconfFailure,
id-CauseLevel-RL-AdditionFailureFDD,
id-CauseLevel-RL-AdditionFailureTDD,
id-CauseLevel-RL-ReconfFailure,
id-CauseLevel-RL-SetupFailureFDD,
id-CauseLevel-RL-SetupFailureTDD,
id-CauseLevel-SyncAdjustmntFailureTDD,
id-CCP-InformationItem-AuditRsp,
id-CCP-InformationList-AuditRsp,
id-CCP-InformationItem-ResourceStatusInd,
id-CCTrCH-InformationItem-RL-FailureInd,
id-CCTrCH-InformationItem-RL-RestoreInd,
id-CCTrCH-Initial-DL-Power-RL-AdditionRqstTDD,
id-CCTrCH-Initial-DL-Power-RL-ReconfPrepTDD,
id-CCTrCH-Initial-DL-Power-RL-SetupRqstTDD,
id-CellAdjustmentInfo-SyncAdjustmntRqstTDD,
id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD,
id-Cell-InformationItem-AuditRsp,
id-Cell-InformationItem-ResourceStatusInd,
id-Cell-InformationList-AuditRsp,
id-CellParameterID,
id-CellPortion-InformationItem-Cell-SetupRqstFDD,
id-CellPortion-InformationList-Cell-SetupRqstFDD,
id-CellPortion-InformationItem-Cell-ReconfRqstFDD,
id-CellPortion-InformationList-Cell-ReconfRqstFDD,
id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD,
id-CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD,
id-cellSyncBurstRepetitionPeriod,
id-CellSyncBurstTransReconfiguration-CellSyncReconfRqstTDD,
id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD,
id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD,
id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD,
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id-CellSyncBurstInfoList-CellSyncReconfRqstTDD,
id-CellSyncInfo-CellSyncReprtTDD,
id-CFN,
id-CFNReportingIndicator,
id-C-ID,
id-Closed-Loop-Timing-Adjustment-Mode,
id-Common-MACFlows-to-DeleteFDD,
id-CommonMeasurementAccuracy,
id-CommonMeasurementObjectType-CM-Rprt,
id-CommonMeasurementObjectType-CM-Rqst,
id-CommonMeasurementObjectType-CM-Rsp,
id-CommonMeasurementType,
id-CommonPhysicalChannelID,
id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD,
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD,
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD,
id-CommunicationContextInfoItem-Reset,
id-CommunicationControlPortID,
id-CommunicationControlPortInfoItem-Reset,
id-Compressed-Mode-Deactivation-Flag,
id-ConfigurationGenerationID,
id-ContinuousPacketConnectivityDTX-DRX-Capability,
id-ContinuousPacketConnectivityDTX-DRX-Information,
id-ContinuousPacketConnectivityHS-SCCH-less-Capability,
id-ContinuousPacketConnectivityHS-SCCH-less-Information,
id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response,
id-CPC-Information,
id-CRNC-CommunicationContextID,
id-CriticalityDiagnostics,
id-CSBTransmissionID,
id-CSBMeasurementID,
id-DCHs-to-Add-FDD,
id-DCHs-to-Add-TDD,
id-DCH-AddList-RL-ReconfPrepTDD,
id-DCH-DeleteList-RL-ReconfPrepFDD,
id-DCH-DeleteList-RL-ReconfPrepTDD,
id-DCH-DeleteList-RL-ReconfRqstFDD,
id-DCH-DeleteList-RL-ReconfRqstTDD,
id-DCH-FDD-Information,
id-DCH-TDD-Information,
id-DCH-Indicator-For-E-DCH-HSDPA-Operation,
id-DCH-InformationResponse,
id-DCH-RearrangeList-Bearer-RearrangeInd,
id-DSCH-RearrangeList-Bearer-RearrangeInd,
id-FDD-DCHs-to-Modify,
id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD,
id-TDD-DCHs-to-Modify,
id-DedicatedMeasurementObjectType-DM-Rprt,
id-DedicatedMeasurementObjectType-DM-Rqst,
id-DedicatedMeasurementObjectType-DM-Rsp,
id-DedicatedMeasurementType,
id-DelayedActivation,
id-DelayedActivationList-RL-ActivationCmdFDD,
id-DelayedActivationList-RL-ActivationCmdTDD,

id-DelayedActivationInformation-RL-ActivationCmdFDD,
id-DelayedActivationInformation-RL-ActivationCmdTDD,
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD,
id-DL-DPCH-InformationList-RL-SetupRqstTDD,
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD,
id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,
id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD,
id-DL-DPCH-Information-RL-ReconfPrepFDD,
id-DL-DPCH-Information-RL-ReconfRqstFDD,
id-DL-DPCH-Information-RL-SetupRqstFDD,
id-DL-DPCH-TimingAdjustment,
id-DL-DPCH-Power-Information-RL-ReconfPrepFDD,
id-DL-PowerBalancing-Information,
id-DL-PowerBalancing-ActivationIndicator,
id-DL-ReferencePowerInformationItem-DL-PC-Rqst,
id-DL-PowerBalancing-UpdatedIndicator,
id-DLReferencePower,
id-DLReferencePowerList-DL-PC-Rqst,
id-DL-TPC-Pattern01Count,
id-DPC-Mode,
id-DPCHConstant,
id-DSCHs-to-Add-TDD,
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD,
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD,
id-DSCH-InformationResponse,
id-DSCH-TDD-Information,
id-E-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code,
id-E-AGCH-FDD-Code-Information,
id-E-DCH-Capability,
id-E-DCH-TTI2ms-Capability,
id-E-DCH-SF-Capability,
id-E-DCH-HARQ-Combining-Capability,
id-E-DCH-FDD-DL-Control-Channel-Information,
id-E-DCH-FDD-Information,
id-E-DCH-FDD-Information-Response,
id-E-DCH-FDD-Information-to-Modify,
id-E-DCH-FDD-Update-Information,
id-E-DCH-MACdFlows-to-Add,
id-E-DCH-MACdFlows-to-Delete,
id-E-DCH-RearrangeList-Bearer-RearrangeInd,
id-E-DCH-Resources-Information-AuditRsp,
id-E-DCH-Resources-Information-ResourceStatusInd,
id-E-DCH-RL-Indication,

id-E-DCH-RL-Set-ID,
id-E-DCH-Serving-Cell-Change-Info-Response,
id-E-DCH-CapacityConsumptionLaw,
id-E-DPCH-Information-RL-ReconfPrepFDD,
id-E-DPCH-Information-RL-ReconfRqstFDD,
id-E-DPCH-Information-RL-SetupRqstFDD,
id-E-DPCH-Information-RL-AdditionReqFDD,
id-E-RGCH-E-HICH-FDD-Code-Information,
id-End-Of-Audit-Sequence-Indicator,
id-Enhanced-FACH-Capability,
id-Enhanced-PCH-Capability,
id-ExtendedPropagationDelay,
id-FACH-Information,
id-FACH-ParametersList-CTCH-ReconfRqstTDD,
id-FACH-ParametersList-CTCH-SetupRsp,
id-FACH-ParametersListIE-CTCH-ReconfRqstFDD,
id-FACH-ParametersListIE-CTCH-SetupRqstFDD,
id-FACH-ParametersListIE-CTCH-SetupRqstTDD,
id-Fast-Reconfiguration-Mode,
id-Fast-Reconfiguration-Permission,
id-F-DPCH-Capability,
id-F-DPCH-Information-RL-ReconfPrepFDD,
id-F-DPCH-Information-RL-SetupRqstFDD,
id-F-DPCH-SlotFormat,
id-F-DPCH-SlotFormatCapability,
id-HSDPA-And-EDCH-CellPortion-Information-PSCH-ReconfRqst,
id-HSDSCH-Configured-Indicator,
id-HS-DSCH-Serving-Cell-Change-Info,
id-HS-DSCH-Serving-Cell-Change-Info-Response,
id-IndicationType-ResourceStatusInd,
id-InformationExchangeID,
id-InformationExchangeObjectType-InfEx-Rqst,
id-InformationExchangeObjectType-InfEx-Rsp,
id-InformationExchangeObjectType-InfEx-Rprt,
id-InformationReportCharacteristics,
id-InformationType,
id-InitDL-Power,
id-Initial-DL-DPCH-TimingAdjustment,
id-Initial-DL-DPCH-TimingAdjustment-Allowed,
id-InnerLoopDLPCStatus,
id-IntStdPhCellSyncInfoItem-CellSyncReprtTDD,
id-IPDLParameter-Information-Cell-ReconfRqstFDD,
id-IPDLParameter-Information-Cell-SetupRqstFDD,
id-IPDLParameter-Information-Cell-ReconfRqstTDD,
id-IPDLParameter-Information-Cell-SetupRqstTDD,
id-IPMulticastIndication,
id-LateEntranceCellSyncInfoItem-CellSyncReprtTDD,
id-Limited-power-increase-information-Cell-SetupRqstFDD,
id-Local-Cell-ID,
id-Local-Cell-Group-InformationItem-AuditRsp,
id-Local-Cell-Group-InformationItem-ResourceStatusInd,
id-Local-Cell-Group-InformationItem2-ResourceStatusInd,
id-Local-Cell-Group-InformationList-AuditRsp,
id-Local-Cell-InformationItem-AuditRsp,

id-Local-Cell-InformationItem-ResourceStatusInd,
id-Local-Cell-InformationItem2-ResourceStatusInd,
id-Local-Cell-InformationList-AuditRsp,
id-AdjustmentPeriod,
id-MaxAdjustmentStep,
id-MaximumTransmissionPower,
id-Max-UE-DTX-Cycle,
id-MeasurementFilterCoefficient,
id-MeasurementID,
id-MeasurementRecoveryBehavior,
id-MeasurementRecoveryReportingIndicator,
id-MeasurementRecoverySupportIndicator,
id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst,
id-MBMS-Capability,
id-MICH-CFN,
id-MICH-Information-AuditRsp,
id-MICH-Information-ResourceStatusInd,
id-MICH-Parameters-CTCH-ReconfRqstFDD,
id-MICH-Parameters-CTCH-ReconfRqstTDD,
id-MICH-Parameters-CTCH-SetupRqstFDD,
id-MICH-Parameters-CTCH-SetupRqstTDD,
id-MIMO-Capability,
id-MIMO-PilotConfiguration,
id-Modification-Period,
id-multipleRL-dl-DPCH-InformationList,
id-multipleRL-dl-DPCH-InformationModifyList,
id-multipleRL-dl-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-multiple-RL-Information-RL-ReconfPrepTDD,
id-multiple-RL-Information-RL-ReconfRqstTDD,
id-multipleRL-ul-DPCH-InformationList,
id-multipleRL-ul-DPCH-InformationModifyList,
id-NCyclesPerSFNperiod,
id-NeighbouringCellMeasurementInformation,
id-NI-Information-NotifUpdateCmd,
id-NodeB-CommunicationContextID,
id-NRepetitionsPerCyclePeriod,
id-NumberOfReportedCellPortions,
id-Paging-MACFlows-to-DeleteFDD,
id-P-CCPCH-Information,
id-P-CPICH-Information,
id-P-SCH-Information,
id-PCCPCH-Information-Cell-ReconfRqstTDD,
id-PCCPCH-Information-Cell-SetupRqstTDD,
id-PCH-Parameters-CTCH-ReconfRqstTDD,
id-PCH-Parameters-CTCH-SetupRsp,
id-PCH-ParametersItem-CTCH-ReconfRqstFDD,
id-PCH-ParametersItem-CTCH-SetupRqstFDD,
id-PCH-ParametersItem-CTCH-SetupRqstTDD,
id-PCH-Information,
id-PICH-ParametersItem-CTCH-ReconfRqstFDD,
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst,
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst,
id-PDSCH-RL-ID,
id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR,

id-PDSCHSets-AddList-PSCH-ReconfRqst,
id-PDSCHSets-DeleteList-PSCH-ReconfRqst,
id-PDSCHSets-ModifyList-PSCH-ReconfRqst,
id-PICH-Information,
id-PICH-Parameters-CTCH-ReconfRqstTDD,
id-PICH-ParametersItem-CTCH-SetupRqstTDD,
id-PLCCH-Information-AuditRsp,
id-PLCCH-Information-ResourceStatusInd,
id-PLCCH-Information-RL-ReconfPrepTDDLRCR,
id-PLCCH-InformationList-AuditRsp,
id-PLCCH-InformationList-ResourceStatusInd,
id-PLCCH-Parameters-CTCH-ReconfRqstTDD,
id-PowerAdjustmentType,
id-Power-Local-Cell-Group-choice-CM-Rqst,
id-Power-Local-Cell-Group-choice-CM-Rsp,
id-Power-Local-Cell-Group-choice-CM-Rprt,
id-Power-Local-Cell-Group-InformationItem-AuditRsp,
id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd,
id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd,
id-Power-Local-Cell-Group-InformationList-AuditRsp,
id-Power-Local-Cell-Group-InformationList-ResourceStatusInd,
id-Power-Local-Cell-Group-InformationList2-ResourceStatusInd,
id-Power-Local-Cell-Group-ID,
id-PRACH-Information,
id-PRACHConstant,
id-PRACH-ParametersItem-CTCH-SetupRqstTDD,
id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD,
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD,
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD,
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD,
id-PrimaryCPICH-Information-Cell-SetupRqstFDD,
id-PrimaryCPICH-Usage-for-Channel-Estimation,
id-PrimarySCH-Information-Cell-ReconfRqstFDD,
id-PrimarySCH-Information-Cell-SetupRqstFDD,
id-PrimaryScramblingCode,
id-SCH-Information-Cell-ReconfRqstTDD,
id-SCH-Information-Cell-SetupRqstTDD,
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst,
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst,
id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR,
id-PUSCHConstant,
id-PUSCHSets-AddList-PSCH-ReconfRqst,
id-PUSCHSets-DeleteList-PSCH-ReconfRqst,
id-PUSCHSets-ModifyList-PSCH-ReconfRqst,
id-RACH-Information,
id-RACH-Parameters-CTCH-SetupRsp,
id-RACH-ParametersItem-CTCH-SetupRqstFDD,
id-RACH-ParameterItem-CTCH-SetupRqstTDD,
id-ReferenceClockAvailability,
id-ReferenceSFNOffset,
id-ReportCharacteristics,
id-Reporting-Object-RL-FailureInd,
id-Reporting-Object-RL-RestoreInd,
id-ResetIndicator,

id-RL-ID,
id-RL-InformationItem-DM-Rprt,
id-RL-InformationItem-DM-Rqst,
id-RL-InformationItem-DM-Rsp,
id-RL-InformationItem-RL-AdditionRqstFDD,
id-RL-InformationItem-RL-DeletionRqst,
id-RL-InformationItem-RL-FailureInd,
id-RL-InformationItem-RL-PreemptRequiredInd,
id-RL-InformationItem-RL-ReconfPrepFDD,
id-RL-InformationItem-RL-ReconfRqstFDD,
id-RL-InformationItem-RL-RestoreInd,
id-RL-InformationItem-RL-SetupRqstFDD,
id-RL-InformationList-RL-AdditionRqstFDD,
id-RL-InformationList-RL-DeletionRqst,
id-RL-InformationList-RL-PreemptRequiredInd,
id-RL-InformationList-RL-ReconfPrepFDD,
id-RL-InformationList-RL-ReconfRqstFDD,
id-RL-InformationList-RL-SetupRqstFDD,
id-RL-InformationResponseItem-RL-AdditionRspFDD,
id-RL-InformationResponseItem-RL-ReconfReady,
id-RL-InformationResponseItem-RL-ReconfRsp,
id-RL-InformationResponseItem-RL-SetupRspFDD,
id-RL-InformationResponseList-RL-AdditionRspFDD,
id-RL-InformationResponseList-RL-ReconfReady,
id-RL-InformationResponseList-RL-ReconfRsp,
id-RL-InformationResponseList-RL-SetupRspFDD,
id-RL-InformationResponse-RL-AdditionRspTDD,
id-RL-InformationResponse-RL-SetupRspTDD,
id-RL-Information-RL-AdditionRqstTDD,
id-RL-Information-RL-ReconfRqstTDD,
id-RL-Information-RL-ReconfPrepTDD,
id-RL-Information-RL-SetupRqstTDD,
id-RL-ReconfigurationFailureItem-RL-ReconfFailure,
id-RL-Set-InformationItem-DM-Rprt,
id-RL-Set-InformationItem-DM-Rsp,
id-RL-Set-InformationItem-RL-FailureInd,
id-RL-Set-InformationItem-RL-RestoreInd,
id-RL-Specific-DCH-Info,
id-RL-Specific-E-DCH-Info,
id-S-CCPCH-Information,
id-S-CCPCH-InformationListExt-AuditRsp,
id-S-CCPCH-InformationListExt-ResourceStatusInd,
id-S-CCPCH-LCR-InformationListExt-AuditRsp,
id-S-CCPCH-LCR-InformationListExt-ResourceStatusInd,
id-S-CPICH-Information,
id-SCH-Information,
id-S-SCH-Information,
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD,
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD,
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD,
id-Secondary-CPICH-Information,
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD,
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD,
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD,

id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD,
id-Secondary-CPICH-Information-Change,
id-SecondarySCH-Information-Cell-ReconfRqstFDD,
id-SecondarySCH-Information-Cell-SetupRqstFDD,
id-SegmentInformationListIE-SystemInfoUpdate,
id-Serving-Cell-Change-CFN,
id-Serving-E-DCH-RL-ID,
id-SixteenQAM-UL-Capability,
id-SixtyfourQAM-DL-Capability,
id-SFN,
id-SFNReportingIndicator,
id-ShutdownTimer,
id-SignallingBearerRequestIndicator,
id-Start-Of-Audit-Sequence-Indicator,
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD,
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD,
id-E-DPCCCH-Power-Boosting-Capability,
id-Synchronisation-Configuration-Cell-ReconfRqst,
id-Synchronisation-Configuration-Cell-SetupRqst,
id-SyncCase,
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH,
id-SyncFrameNumber,
id-SynchronisationReportType,
id-SynchronisationReportCharacteristics,
id-SyncReportType-CellSyncReprtTDD,
id-T-Cell,
id-TargetCommunicationControlPortID,
id-Transmission-Gap-Pattern-Sequence-Information,
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD,
id-TimeSlotConfigurationList-Cell-SetupRqstTDD,
id-timeslotInfo-CellSyncInitiationRqstTDD,
id-TimeslotISCPInfo,
id-TimingAdvanceApplied,
id-TnlQos,
id-TransmissionDiversityApplied,
id-transportlayeraddress,
id-Tstd-indicator,
id-UARFCNforNt,
id-UARFCNforNd,
id-UARFCNforNu,
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,
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id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,
id-UL-DPCH-InformationItem-RL-AdditionRqstTDD,
id-UL-DPCH-InformationList-RL-SetupRqstTDD,
id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD,

id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,
id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD,
id-UL-DPCH-Information-RL-ReconfPrepFDD,
id-UL-DPCH-Information-RL-ReconfRqstFDD,
id-UL-DPCH-Information-RL-SetupRqstFDD,
id-UL-DPCH-Indicator-For-E-DCH-Operation,
id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD,
id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD,
id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD,
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD,
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD,
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD,
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD,
id-USCH-Information-Add,
id-USCH-Information-DeleteList-RL-ReconfPrepTDD,
id-USCH-Information-ModifyList-RL-ReconfPrepTDD,
id-USCH-InformationResponse,
id-USCH-Information,
id-USCH-RearrangeList-Bearer-RearrangeInd,
id-DL-DPCH-LCR-Information-RL-SetupRqstTDD,
id-DwPCH-LCR-Information ,
id-DwPCH-LCR-InformationList-AuditRsp,
id-DwPCH-LCR-Information-Cell-SetupRqstTDD,
id-DwPCH-LCR-Information-Cell-ReconfRqstTDD,
id-DwPCH-LCR-Information-ResourceStatusInd,
id-maxFACH-Power-LCR-CTCH-SetupRqstTDD,
id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD,
id-FPACH-LCR-Information,
id-FPACH-LCR-Information-AuditRsp,
id-FPACH-LCR-InformationList-AuditRsp,
id-FPACH-LCR-InformationList-ResourceStatusInd,
id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD,
id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD,
id-PCCPCH-LCR-Information-Cell-SetupRqstTDD,
id-PCH-Power-LCR-CTCH-SetupRqstTDD,
id-PCH-Power-LCR-CTCH-ReconfRqstTDD,
id-PICH-LCR-Parameters-CTCH-SetupRqstTDD,
id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD,
id-RL-InformationResponse-LCR-RL-SetupRspTDD ,
id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD,
id-TimeSlot,
id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD,
id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD,
id-TimeslotISCP-LCR-InfoList-RL-SetupRqstTDD,
id-TimeSlotLCR-CM-Rqst ,
id-UL-DPCH-LCR-Information-RL-SetupRqstTDD,
id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD,
id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD,
id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD,
id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD,
id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD,
id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD,
id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD,
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD,

id-UL-DPCH-LCR-InformationModify-AddList,
id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD,
id-UL-SIRTarget,
id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst,
id-PDSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst,
id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst,
id-PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst,
id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst,
id-PUSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst,
id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst,
id-PUSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst,
id-PUSCH-Info-DM-Rqst,
id-PUSCH-Info-DM-Rsp,
id-PUSCH-Info-DM-Rprt,
id-RL-InformationResponse-LCR-RL-AdditionRspTDD,
id-IPDLParameter-Information-LCR-Cell-SetupRqstTDD,
id-IPDLParameter-Information-LCR-Cell-ReconfRqstTDD,
id-HS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst,
id-HS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst,
id-HS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst,
id-HS-SCCH-FDD-Code-Information-PSCH-ReconfRqst,
id-HS-PDSCH-TDD-Information-PSCH-ReconfRqst,
id-Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
id-Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
id-Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
id-SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD,
id-SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD,
id-SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD,
id-SYNCDlCodeIdMeasReconfigurationLCR-CellSyncReconfRqstTDD,
id-SYNCDlCodeIdMeasInfoList-CellSyncReconfRqstTDD,
id-SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD,
id-NSubCyclesPerCyclePeriod-CellSyncReconfRqstTDD,
id-DwPCH-Power,
id-AccumulatedClockupdate-CellSyncReprtTDD,
id-HSDPA-Capability,
id-HSDSCH-FDD-Information,
id-HSDSCH-Common-System-InformationFDD,
id-HSDSCH-Common-System-Information-ResponseFDD,
id-HSDSCH-FDD-Information-Response,
id-HSDSCH-Information-to-Modify,
id-HSDSCH-Information-to-Modify-Unsynchronised,
id-HSDSCH-MACdFlows-to-Add,
id-HSDSCH-MACdFlows-to-Delete,
id-HSDSCH-Paging-System-InformationFDD,
id-HSDSCH-Paging-System-Information-ResponseFDD,
id-HSDSCH-RearrangeList-Bearer-RearrangeInd,
id-HSDSCH-Resources-Information-AuditRsp,
id-HSDSCH-Resources-Information-ResourceStatusInd,
id-HSDSCH-RNTI,
id-HSDSCH-TDD-Information,
id-HSDSCH-TDD-Information-Response,
id-HSPDSCH-RL-ID,
id-HSSICH-Info-DM-Rprt,
id-HSSICH-Info-DM-Rqst,

id-HSSICH-Info-DM-Rsp,
id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
id-HSDSCH-FDD-Update-Information,
id-HSDSCH-TDD-Update-Information,
id-UL-Synchronisation-Parameters-LCR,
id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD,
id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD,
id-CCTrCH-Maximum-DL-Power-RL-SetupRqstTDD,
id-CCTrCH-Minimum-DL-Power-RL-SetupRqstTDD,
id-CCTrCH-Maximum-DL-Power-RL-AdditionRqstTDD,
id-CCTrCH-Minimum-DL-Power-RL-AdditionRqstTDD,
id-CCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD,
id-CCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD,
id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD,
id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD,
id-Maximum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD,
id-Minimum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD,
id-DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD,
id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD,
id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD,
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD,
id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD,
id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD,
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD,
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD,
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD,
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD,
id-TimeslotISCP-LCR-InfoList-RL-ReconfPrepTDD,
id-TimingAdjustmentValueLCR,
id-PrimaryCCPCH-RSCP-Delta,
id-Maximum-Target-ReceivedTotalWideBandPower,
id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp,
id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp,
id-SynchronisationIndicator,
id-Reference-ReceivedTotalWideBandPower,
id-Reference-ReceivedTotalWideBandPowerReporting,
id-Reference-ReceivedTotalWideBandPowerSupportIndicator,
id-Maximum-Target-ReceivedTotalWideBandPower-LCR,
id-multiple-PUSCH-InfoList-DM-Rsp,
id-multiple-PUSCH-InfoList-DM-Rprt,
id-Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio,
id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp,
id-PCCPCH-768-Information-Cell-SetupRqstTDD,
id-SCH-768-Information-Cell-SetupRqstTDD,
id-SCH-768-Information-Cell-ReconfRqstTDD,
id-PCCPCH-768-Information-Cell-ReconfRqstTDD,
id-P-CCPCH-768-Information-AuditRsp,
id-PICH-768-Information-AuditRsp,
id-PRACH-768-InformationList-AuditRsp,
id-SCH-768-Information-AuditRsp,
id-MICH-768-Information-AuditRsp,
id-CommonPhysicalChannelID768-CommonTrChDeletionReq,
id-MICH-768-Parameters-CTCH-ReconfRqstTDD,
id-PICH-768-Parameters-CTCH-SetupRqstTDD,

id-PICH-768-Parameters-CTCH-ReconfRqstTDD,
id-PRACH-768-Parameters-CTCH-SetupRqstTDD,
id-S-CCPCH-768-InformationList-AuditRsp,
id-S-CCPCH-768-Information-AuditRsp,
id-S-CCPCH-768-Parameters-CTCH-SetupRqstTDD,
id-S-CCPCH-768-Parameters-CTCH-ReconfRqstTDD,
id-S-CCPCH-768-Information-ResourceStatusInd,
id-P-CCPCH-768-Information-ResourceStatusInd,
id-PICH-768-Information-ResourceStatusInd,
id-PRACH-768-InformationList-ResourceStatusInd,
id-SCH-768-Information-ResourceStatusInd,
id-MICH-768-Information-ResourceStatusInd,
id-S-CCPCH-768-InformationList-ResourceStatusInd,
id-PRACH-768-Information,
id-UL-DPCH-768-Information-RL-SetupRqstTDD,
id-DL-DPCH-768-Information-RL-SetupRqstTDD,
id-DL-DPCH-InformationItem-768-RL-AdditionRqstTDD,
id-UL-DPCH-InformationItem-768-RL-AdditionRqstTDD,
id-UL-DPCH-768-InformationAddItemIE-RL-ReconfPrepTDD,
id-UL-DPCH-768-InformationAddListIE-RL-ReconfPrepTDD,
id-UL-DPCH-768-InformationModify-AddItem,
id-UL-DPCH-768-InformationModify-AddList,
id-UL-Timeslot768-Information-RL-ReconfPrepTDD,
id-DL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD,
id-DL-DPCH-768-InformationAddList-RL-ReconfPrepTDD,
id-DL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD,
id-DL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD,
id-DL-Timeslot-768-InformationModify-ModifyList-RL-ReconfPrepTDD,
id-DPCH-ID768-DM-Rqst,
id-multiple-DedicatedMeasurementValueList-768-TDD-DM-Rsp,
id-DPCH-ID768-DM-Rsp,
id-DPCH-ID768-DM-Rprt,
id-PDSCH-AddInformation-768-PSCH-ReconfRqst,
id-PDSCH-ModifyInformation-768-PSCH-ReconfRqst,
id-PUSCH-AddInformation-768-PSCH-ReconfRqst,
id-PUSCH-ModifyInformation-768-PSCH-ReconfRqst,
id-dL-HS-PDSCH-Timeslot-Information-768-PSCH-ReconfRqst,
id-hS-SCCH-Information-768-PSCH-ReconfRqst,
id-hS-SCCH-InformationModify-768-PSCH-ReconfRqst,
id-tFCI-Presence,
id-E-RUCCH-InformationList-AuditRsp,
id-E-RUCCH-InformationList-ResourceStatusInd,
id-E-RUCCH-Information,
id-E-DCH-Information,
id-E-DCH-Information-Response,
id-E-DCH-Information-Reconfig,
id-E-PUCH-Information-PSCH-ReconfRqst,
id-Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst,
id-Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst,
id-Delete-From-E-AGCH-Resource-Pool-PSCH-ReconfRqst,
id-E-HICH-Information-PSCH-ReconfRqst,
id-E-DCH-TDD-CapacityConsumptionLaw,
id-E-HICH-TimeOffset,
id-Maximum-Generated-ReceivedTotalWideBandPowerInOtherCells,

id-E-DCH-Serving-RL-ID,
id-E-RUCCH-768-InformationList-AuditRsp,
id-E-RUCCH-768-InformationList-ResourceStatusInd,
id-E-RUCCH-768-Information,
id-E-DCH-768-Information,
id-E-DCH-768-Information-Reconfig,
id-E-PUCH-Information-768-PSCH-ReconfRqst,
id-Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst,
id-Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst,
id-E-HICH-Information-768-PSCH-ReconfRqst,
id-RTWP-ReportingIndicator,
id-RTWP-CellPortion-ReportingIndicator,
id-Received-Scheduled-EDCH-Power-Share-Value,
id-Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value,
id-Received-Scheduled-EDCH-Power-Share,
id-Received-Scheduled-EDCH-Power-Share-For-CellPortion,
id-ueCapability-Info,
id-MACHs-ResetIndicator,
id-SYNC-UL-Partition-LCR,
id-E-DCH-LCR-Information,
id-E-DCH-LCR-Information-Reconfig,
id-E-PUCH-Information-LCR-PSCH-ReconfRqst,
id-Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst,
id-Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst,
id-Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst,
id-Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst,
id-Delete-From-E-HICH-Resource-Pool-PSCH-ReconfRqst,
id-E-HICH-TimeOffsetLCR,
id-HSDSCH-MACdPDU-SizeCapability,
id-ModulationPO-MBSFN,
id-Secondary-CCPCH-SlotFormat-Extended,
id-MBSFN-Only-Mode-Indicator-Cell-SetupRqstTDD-LCR,
id-Time-Slot-Parameter-ID,
id-MBSFN-Only-Mode-Capability,
id-MBSFN-Cell-ParameterID-Cell-SetupRqstTDD,
id-MBSFN-Cell-ParameterID-Cell-ReconfRqstTDD,
id-S-CCPCH-Modulation,
id-TimeSlotConfigurationList-LCR-CTCH-SetupRqstTDD,
id-Cell-Frequency-List-Information-LCR-MulFreq-AuditRsp,
id-Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp,
id-Cell-Frequency-List-LCR-MulFreq-Cell-SetupRqstTDD,
id-UARFCN-Adjustment,
id-Cell-Frequency-List-Information-LCR-MulFreq-ResourceStatusInd,
id-Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd,
id-UPPCHPositionLCR,
id-UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD,
id-UPPCH-LCR-InformationList-AuditRsp,
id-UPPCH-LCR-InformationItem-AuditRsp,
id-UPPCH-LCR-InformationList-ResourceStatusInd,
id-UPPCH-LCR-InformationItem-ResourceStatusInd,
id-multipleFreq-dL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst,
id-multipleFreq-HS-DSCH-Resources-InformationList-AuditRsp,
id-multipleFreq-HS-DSCH-Resources-InformationList-ResourceStatusInd,
id-UARFCNSpecificCauseList, id-Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD,

id-MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst,
id-Extended-HS-SCCH-ID,
id-Extended-HS-SICH-ID,
id-HSSICH-InfoExt-DM-Rqst,
id-Delete-From-HS-SCCH-Resource-PoolExt-PSCH-ReconfRqst,
id-HS-SCCH-InformationExt-LCR-PSCH-ReconfRqst,
id-HS-SCCH-InformationModifyExt-LCR-PSCH-ReconfRqst,
id-PowerControlGAP,
id-MBSFN-SpecialTimeSlot-LCR,
id-MultipleFreq-E-DCH-Resources-InformationList-AuditRsp,
id-MultipleFreq-E-DCH-Resources-InformationList-ResourceStatusInd,
id-MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst,
id-MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst,
id-Extended-E-HICH-ID-TDD,
id-E-HICH-TimeOffset-Extension,
id-MultipleFreq-E-HICH-TimeOffsetLCR,
id-PLCCH-parameters,
id-E-RUCCH-parameters,
id-E-RUCCH-768-parameters,
id-HS-Cause,
id-E-Cause,
id-AdditionalTimeSlotListLCR,
id-AdditionalMeasurementValueList,
id-UE-Selected-MBMS-Service-Information,
id-TimeSlotMeasurementValueListLCR,
id-MIMO-Power-Offset-For-S-CPICH-Capability,
id-MIMO-PilotConfigurationExtension,
id-TxDiversityOnDLControlChannelsByMIMOUECapability,

maxNrOfCCTrCHs,
maxNrOfCellSyncBursts,
maxNrOfCodes,
maxNrOfDCHs,
maxNrOfDLTSs,
maxNrOfDLTSLCRs,
maxNrOfDPCHs,
maxNrOfDPCHsPerRL-1,
maxNrOfDPCHLCRs,
maxNrOfDPCHsLCRPerRL-1,
maxNrOfDPCHs768,
maxNrOfDPCHs768PerRL-1,
maxNrOfDSCHs,
maxNrOfFACHs,
maxNrOfRLs,
maxNrOfRLs-1,
maxNrOfRLs-2,
maxNrOfRLSets,
maxNrOfPDSCHs,
maxNrOfPUSCHs,
maxNrOfPUSCHs-1,
maxNrOfPRACHLCRs,
maxNrOfPDSCHSets,

```
maxNrOfPUSCHSets,  
maxNrOfReceptsPerSyncFrame,  
maxNrOfSCCPCHs,  
maxNrOfSCCPCHsinExt,  
maxNrOfSCCPCHLCRs,  
maxNrOfSCCPCHsLCRinExt,  
maxNrOfSCCPCHs768,  
maxNrOfULTSs,  
maxNrOfULTSLCRs,  
maxNrOfUSCHs,  
maxFACHCell,  
maxFPACHCell,  
maxRACHCell,  
maxPLCCHCell,  
maxPRACHCell,  
maxSCCPCHCell,  
maxSCCPCHCell768,  
maxSCCPCHCellinExt,  
maxSCCPCHCellinExtLCR,  
maxSCPICHCell,  
maxCellinNodeB,  
maxCCPinNodeB,  
maxCommunicationContext,  
maxLocalCellinNodeB,  
maxNrOfSlotFormatsPRACH,  
maxIB,  
maxIBSEG,  
maxNrOfCellPortionsPerCell,  
maxNrOfHSSCCHs,  
maxNrOfHSSICHs,  
maxNrOfHSSICHs-1,  
maxNrOfHSPDSCHs,  
maxNrOfHSPDSCHs768,  
maxNrOfSyncFramesLCR,  
maxNrOfReceptionsperSyncFrameLCR,  
maxNrOfSyncDLCodesLCR,  
maxNrOfMACdFlows,  
maxNrOfEDCHMACdFlows,  
maxE-RUCCHCell,  
maxNrOfE-PUCHSlots,  
maxNrOfEAGCHs,  
maxNrOfEAGCHCodes,  
maxNrOfE-PUCHSlotsLCR,  
maxNrOfEPUCHcodes,  
maxNrOfEHICHs,  
maxFrequencyinCell,  
maxFrequencyinCell-1,  
maxNrOfHSSCCHsinExt
```

```
FROM NBAP-Constants;
```

```
-- *****  
--  
-- COMMON TRANSPORT CHANNEL SETUP REQUEST FDD
```

```

--
-- *****
CommonTransportChannelSetupRequestFDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{CommonTransportChannelSetupRequestFDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CommonTransportChannelSetupRequestFDD-Extensions}} OPTIONAL,
    ...
}

CommonTransportChannelSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonTransportChannelSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                               CRITICALITY reject      TYPE C-ID                PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID          CRITICALITY reject      TYPE ConfigurationGenerationID PRESENCE mandatory }|
    { ID id-CommonPhysicalChannelType-CTCH-SetupRqstFDD CRITICALITY ignore     TYPE CommonPhysicalChannelType-CTCH-SetupRqstFDD PRESENCE mandatory },
    ...
}

CommonPhysicalChannelType-CTCH-SetupRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters Secondary-CCPCH-CTCH-SetupRqstFDD,
    pRACH-parameters          PRACH-CTCH-SetupRqstFDD,
    notUsed-pCPCHes-parameters NULL,
    ...
}

Secondary-CCPCH-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID CommonPhysicalChannelID,
    fdd-S-CCPCH-Offset      FDD-S-CCPCH-Offset,
    dl-ScramblingCode       DL-ScramblingCode          OPTIONAL,
    -- This IE shall be present if the PCH Parameters IE is not present
    fdd-DL-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
    tFCS                      TFCS,
    secondary-CCPCH-SlotFormat SecondaryCCPCH-SlotFormat,
    tFCI-Presence             TFCI-Presence              OPTIONAL,
    -- This IE shall be present if the Secondary CCPCH Slot Format is set to any of the values from 8 to 17
    multiplexingPosition      MultiplexingPosition,
    powerOffsetInformation     PowerOffsetInformation-CTCH-SetupRqstFDD,
    sTTD-Indicator            STTD-Indicator,
    fACH-Parameters           FACH-ParametersList-CTCH-SetupRqstFDD OPTIONAL,
    pCH-Parameters            PCH-Parameters-CTCH-SetupRqstFDD OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer { { Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MICH-Parameters-CTCH-SetupRqstFDD CRITICALITY reject EXTENSION MICH-Parameters-CTCH-SetupRqstFDD PRESENCE optional }|
    { ID id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD CRITICALITY reject EXTENSION FDD-S-CCPCH-FrameOffset PRESENCE optional }|
    { ID id-ModulationPO-MBSFN CRITICALITY reject EXTENSION ModulationPO-MBSFN PRESENCE optional }|
    { ID id-Secondary-CCPCH-SlotFormat-Extended CRITICALITY reject EXTENSION Secondary-CCPCH-SlotFormat-Extended PRESENCE optional },
    ...
}

```

```

PowerOffsetInformation-CTCH-SetupRqstFDD ::= SEQUENCE {
    p01-ForTFCT-Bits          PowerOffset,
    p03-ForPilotBits         PowerOffset,
    iE-Extensions             ProtocolExtensionContainer { { PowerOffsetInformation-CTCH-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

PowerOffsetInformation-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-ParametersList-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstFDD }}

FACH-ParametersListIEs-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersListIE-CTCH-SetupRqstFDD CRITICALITY reject TYPE FACH-ParametersListIE-CTCH-SetupRqstFDD PRESENCE mandatory }
}

FACH-ParametersListIE-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstFDD

FACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID CommonTransportChannelID,
    transportFormatSet       TransportFormatSet,
    toAWS                    ToAWS,
    toAWE                    ToAWE,
    maxFACH-Power            DL-Power,
    iE-Extensions            ProtocolExtensionContainer { { FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID CRITICALITY ignore EXTENSION BindingID PRESENCE optional } |
    { ID id-transportlayeraddress CRITICALITY ignore EXTENSION TransportLayerAddress PRESENCE optional } |
    { ID id-TnlQos CRITICALITY ignore EXTENSION TnlQos PRESENCE optional } |
    { ID id-BroadcastReference CRITICALITY ignore EXTENSION BroadcastReference PRESENCE optional } |
    { ID id-IPMulticastIndication CRITICALITY ignore EXTENSION IPMulticastIndication PRESENCE optional },
    ...
}

PCH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-SetupRqstFDD }}

PCH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-ParametersItem-CTCH-SetupRqstFDD CRITICALITY reject TYPE PCH-ParametersItem-CTCH-SetupRqstFDD PRESENCE mandatory }
}

PCH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID CommonTransportChannelID,
    transportFormatSet       TransportFormatSet,
    toAWS                    ToAWS,
    toAWE                    ToAWE,
    pCH-Power                DL-Power,
    pICH-Parameters          PICH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions            ProtocolExtensionContainer { { PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

```

```

}

PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID      id-bindingID          CRITICALITY ignore      EXTENSION BindingID          PRESENCE optional }|
  { ID      id-transportlayeraddress CRITICALITY ignore      EXTENSION TransportLayerAddress PRESENCE optional }|
  { ID      id-TnlQos             CRITICALITY ignore      EXTENSION TnlQos             PRESENCE optional },
  ...
}

PICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  fdd-dl-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
  pICH-Power                   PICH-Power,
  pICH-Mode                    PICH-Mode,
  sTTD-Indicator              STTD-Indicator,
  iE-Extensions                ProtocolExtensionContainer { { PICH-Parameters-CTCH-SetupRqstFDD-ExtIEs } } OPTIONAL,
  ...
}

PICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

MICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  fdd-dl-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
  mICH-Power                   MICH-Power,
  mICH-Mode                    MICH-Mode,
  sTTD-Indicator              STTD-Indicator,
  iE-Extensions                ProtocolExtensionContainer { { MICH-Parameters-CTCH-SetupRqstFDD-ExtIEs } } OPTIONAL,
  ...
}

MICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PRACH-CTCH-SetupRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  scramblingCodeNumber         ScramblingCodeNumber,
  tFCS                         TFCS,
  preambleSignatures           PreambleSignatures,
  allowedSlotFormatInformation AllowedSlotFormatInformationList-CTCH-SetupRqstFDD,
  rACH-SubChannelNumbers       RACH-SubChannelNumbers,
  ul-punctureLimit             PunctureLimit,
  preambleThreshold            PreambleThreshold,
  rACH-Parameters              RACH-Parameters-CTCH-SetupRqstFDD,
  aICH-Parameters              AICH-Parameters-CTCH-SetupRqstFDD,
  iE-Extensions                ProtocolExtensionContainer { { PRACHItem-CTCH-SetupRqstFDD-ExtIEs } } OPTIONAL,
  ...
}

PRACHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```



```

}

AllowedSlotFormatInformationList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1.. maxNrOfSlotFormatsPRACH)) OF AllowedSlotFormatInformationItem-CTCH-
SetupRqstFDD

AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    rACHSlotFormat          RACH-SlotFormat,
    iE-Extensions          ProtocolExtensionContainer  { { AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD-ExtIEs} }
    OPTIONAL,
    ...
}

AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RACH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container { { RACH-ParametersIE-CTCH-SetupRqstFDD } }

RACH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-ParametersItem-CTCH-SetupRqstFDD    CRITICALITY reject    TYPE RACH-ParametersItem-CTCH-SetupRqstFDD    PRESENCE mandatory }
}

RACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    transportFormatSet            TransportFormatSet,
    iE-Extensions                ProtocolExtensionContainer  { { RACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

RACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID              CRITICALITY ignore      EXTENSION BindingID              PRESENCE optional }|
    { ID id-transportlayeraddress  CRITICALITY ignore      EXTENSION TransportLayerAddress  PRESENCE optional }|
    { ID id-TnlQos                 CRITICALITY ignore      EXTENSION TnlQos                 PRESENCE optional },
    ...
}

AICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    aICH-TransmissionTiming      AICH-TransmissionTiming,
    fdd-dl-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
    aICH-Power                   AICH-Power,
    sTTD-Indicator               STTD-Indicator,
    iE-Extensions                ProtocolExtensionContainer  { { AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- COMMON TRANSPORT CHANNEL SETUP REQUEST TDD
--

```

```

-- *****
CommonTransportChannelSetupRequestTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{CommonTransportChannelSetupRequestTDD-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{CommonTransportChannelSetupRequestTDD-Extensions}}    OPTIONAL,
    ...
}

CommonTransportChannelSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID          CRITICALITY reject  TYPE C-ID          PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID CRITICALITY reject  TYPE ConfigurationGenerationID PRESENCE mandatory }|
    { ID id-CommonPhysicalChannelType-CTCH-SetupRqstTDD CRITICALITY ignore  TYPE CommonPhysicalChannelType-CTCH-SetupRqstTDD PRESENCE mandatory },
    ...
}

CommonTransportChannelSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonPhysicalChannelType-CTCH-SetupRqstTDD ::= CHOICE {
    secondary-CCPCH-parameters          Secondary-CCPCH-CTCH-SetupRqstTDD,
    PRACH-parameters                    PRACH-CTCH-SetupRqstTDD,
    ...,
    extension-CommonPhysicalChannelType-CTCH-SetupRqstTDD Extension-CommonPhysicalChannelType-CTCH-SetupRqstTDD
}

Extension-CommonPhysicalChannelType-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ Extension-CommonPhysicalChannelType-CTCH-SetupRqstTDDIE }}

Extension-CommonPhysicalChannelType-CTCH-SetupRqstTDDIE NBAP-PROTOCOL-IES ::= {
    { ID id-PLCCH-parameters          CRITICALITY ignore  TYPE PLCCH-parameters          PRESENCE mandatory }|
    { ID id-E-RUCCH-parameters        CRITICALITY ignore  TYPE E-RUCCH-parameters        PRESENCE mandatory }|
    { ID id-E-RUCCH-768-parameters    CRITICALITY ignore  TYPE E-RUCCH-768-parameters    PRESENCE mandatory },
    ...
}

Secondary-CCPCH-CTCH-SetupRqstTDD ::= SEQUENCE {
    sCCPCH-CCTrCH-ID          CCTrCH-ID, -- For DL CCTrCH supporting one or several Secondary CCPCHs
    tFCS                      TFCS, -- For DL CCTrCH supporting one or several Secondary CCPCHs
    tFCI-Coding               TFCI-Coding,
    punctureLimit             PunctureLimit,
    secondaryCCPCH-parameterList Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD,
    fACH-ParametersList       FACH-ParametersList-CTCH-SetupRqstTDD    OPTIONAL,
    pCH-Parameters            PCH-Parameters-CTCH-SetupRqstTDD    OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer {{Secondary-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs}}    OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Tstd-indicator          CRITICALITY reject  EXTENSION TSTD-Indicator          PRESENCE optional }|
    { ID id-MICH-Parameters-CTCH-SetupRqstTDD CRITICALITY reject  EXTENSION MICH-Parameters-CTCH-SetupRqstTDD PRESENCE optional }|
    }|
    { ID id-Additional-S-CCPCH-Parameters-CTCH-SetupRqstTDD CRITICALITY reject  EXTENSION Secondary-CCPCH-parameterExtendedList-CTCH-SetupRqstTDD PRESENCE optional }|
}

```

```

-- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be established.
{ ID id-Additional-S-CCPCH-LCR-Parameters-CTCH-SetupRqstTDD CRITICALITY reject EXTENSION Secondary-CCPCH-LCR-parameterExtendedList-CTCH-
SetupRqstTDD PRESENCE optional }|
-- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHLCRs SCCPCHs are to be established.
{ ID id-S-CCPCH-768-Parameters-CTCH-SetupRqstTDD CRITICALITY reject EXTENSION Secondary-CCPCH-768-parameterList-CTCH-SetupRqstTDD
PRESENCE optional }|
{ ID id-S-CCPCH-Modulation CRITICALITY reject EXTENSION ModulationMBSFN PRESENCE optional
}| -- Applicable to 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
{ ID id-TimeSlotConfigurationList-LCR-CTCH-SetupRqstTDD CRITICALITY reject EXTENSION TimeSlotConfigurationList-LCR-CTCH-SetupRqstTDD
PRESENCE optional }|
{ ID id-UARFCNforNt CRITICALITY reject EXTENSION UARFCN PRESENCE optional },
-- Applicable to 1.28Mcps TDD when using multiple frequencies. This IE indicates the frequency of Secondary Frequency on which SCCPCH to be set
up
...
}

Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ Secondary-CCPCH-parameterListIEs-CTCH-SetupRqstTDD }}

Secondary-CCPCH-parameterListIEs-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
{ ID id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD CRITICALITY reject TYPE Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD
PRESENCE optional }|
{ ID id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD CRITICALITY reject TYPE Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD
PRESENCE optional }
}

Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD

Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
commonPhysicalChannelID CommonPhysicalChannelID,
tdd-ChannelisationCode TDD-ChannelisationCode,
timeslot Timeslot,
midambleShiftandBurstType MidambleShiftAndBurstType,
tdd-PhysicalChannelOffset TDD-PhysicalChannelOffset,
repetitionPeriod RepetitionPeriod,
repetitionLength RepetitionLength,
s-CCPCH-Power DL-Power,
iE-Extensions ProtocolExtensionContainer { { Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD-ExtIEs } }
OPTIONAL,
...
}

Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
{ ID id-tFCI-Presence CRITICALITY notify EXTENSION TFCI-Presence PRESENCE optional},
...
}

Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHLCRs)) OF Secondary-CCPCH-LCR-parameterItem-CTCH-
SetupRqstTDD

Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
commonPhysicalChannelID CommonPhysicalChannelID,
tdd-ChannelisationCodeLCR TDD-ChannelisationCodeLCR,
timeslotLCR TimeslotLCR,
midambleShiftLCR MidambleShiftLCR,

```

```

-- For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, NodeB shall ignore the contents of this IE.
tdd-PhysicalChannelOffset      TDD-PhysicalChannelOffset,
repetitionPeriod               RepetitionPeriod,
repetitionLength               RepetitionLength,
s-CCPCH-Power                  DL-Power,
s-CCPCH-TimeSlotFormat-LCR     TDD-DL-DPCH-TimeSlotFormat-LCR,
iE-Extensions                  ProtocolExtensionContainer { { Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD-ExtIEs } }
OPTIONAL,
...
}

Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID      id-MBSFN-SpecialTimeSlot-LCR      CRITICALITY ignore      EXTENSION  TimeslotLCR-Extension      PRESENCE optional },
  -- Only for 1.28 Mcps TDD MBSFN only mode, this IE indicates the MBSFN Special Time Slot [19]. The IE "Time Slot LCR" shall be ignored if this
  IE appears
  ...
}

Secondary-CCPCH-768-parameterList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs768)) OF Secondary-CCPCH-768-parameterItem-CTCH-
SetupRqstTDD

Secondary-CCPCH-768-parameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID768      CommonPhysicalChannelID768,
  tdd-ChannelisationCode768       TDD-ChannelisationCode768,
  timeslot                         TimeSlot,
  tFCI-Presence768                 TFCI-Presence      OPTIONAL,
  midambleShiftandBurstType768     MidambleShiftAndBurstType768,
  tdd-PhysicalChannelOffset        TDD-PhysicalChannelOffset,
  repetitionPeriod                 RepetitionPeriod,
  repetitionLength                 RepetitionLength,
  s-CCPCH-Power                     DL-Power,
  iE-Extensions                    ProtocolExtensionContainer { { Secondary-CCPCH-parameterItem-768-CTCH-SetupRqstTDD-ExtIEs } }
  OPTIONAL,
  ...
}

Secondary-CCPCH-parameterItem-768-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

FACH-ParametersList-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstTDD }}

FACH-ParametersListIEs-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-FACH-ParametersListIE-CTCH-SetupRqstTDD  CRITICALITY reject  TYPE FACH-ParametersListIE-CTCH-SetupRqstTDD  PRESENCE mandatory }
}

FACH-ParametersListIE-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstTDD

FACH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonTransportChannelID      CommonTransportChannelID,
  fACH-CCTrCH-ID                 CCTrCH-ID,
  dl-TransportFormatSet          TransportFormatSet,
  toAWS                           ToAWS,
  toAWE                           ToAWE,
}

```

```

    iE-Extensions          ProtocolExtensionContainer { { FACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-maxFACH-Power-LCR-CTCH-SetupRqstTDD    CRITICALITY reject  EXTENSION DL-Power          PRESENCE optional }|
  -- Applicable to 1.28Mcps TDD only
  { ID id-bindingID                               CRITICALITY ignore   EXTENSION BindingID          PRESENCE optional }|
  -- Shall be ignored if bearer establishment with ALCAP.
  { ID id-transportlayeraddress                   CRITICALITY ignore   EXTENSION TransportLayerAddress  PRESENCE optional }|
  -- Shall be ignored if bearer establishment with ALCAP.
  { ID id-TnlQos                                   CRITICALITY ignore   EXTENSION TnlQos              PRESENCE optional }|
  -- Shall be ignored if bearer establishment with ALCAP.
  { ID id-BroadcastReference                       CRITICALITY ignore   EXTENSION BroadcastReference     PRESENCE optional }|
  { ID id-IPMulticastIndication                    CRITICALITY ignore   EXTENSION IPMulticastIndication  PRESENCE optional },
  ...
}

PCH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-SetupRqstTDD }}

PCH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-PCH-ParametersItem-CTCH-SetupRqstTDD    CRITICALITY reject    TYPE PCH-ParametersItem-CTCH-SetupRqstTDD  PRESENCE mandatory }
}

PCH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonTransportChannelID      CommonTransportChannelID,
  pCH-CCTrCH-ID                 CCTrCH-ID,
  dl-TransportFormatSet         TransportFormatSet, -- For the DL.
  toAWS                          ToAWS,
  toAWE                          ToAWE,
  pICH-Parameters               PICH-Parameters-CTCH-SetupRqstTDD,
  iE-Extensions                 ProtocolExtensionContainer { { PCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs } }    OPTIONAL,
  ...
}

PCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-PCH-Power-LCR-CTCH-SetupRqstTDD        CRITICALITY reject    EXTENSION DL-Power          PRESENCE optional }|
  { ID id-bindingID                               CRITICALITY ignore   EXTENSION BindingID          PRESENCE optional }|
  -- Shall be ignored if bearer establishment with ALCAP.
  { ID id-transportlayeraddress                   CRITICALITY ignore   EXTENSION TransportLayerAddress  PRESENCE optional }|
  -- Shall be ignored if bearer establishment with ALCAP.
  { ID id-PICH-768-Parameters-CTCH-SetupRqstTDD  CRITICALITY reject    EXTENSION PICH-768-ParametersItem-CTCH-SetupRqstTDD  PRESENCE optional }|
  { ID id-TnlQos                                   CRITICALITY ignore   EXTENSION TnlQos              PRESENCE optional }|
  -- Shall be ignored if bearer establishment with ALCAP.
  ...
}

PICH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PICH-ParametersIE-CTCH-SetupRqstTDD }}

```

```
PICH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-PICH-ParametersItem-CTCH-SetupRqstTDD  CRITICALITY reject  TYPE PICH-ParametersItem-CTCH-SetupRqstTDD  PRESENCE optional } |
  { ID id-PICH-LCR-Parameters-CTCH-SetupRqstTDD   CRITICALITY reject  TYPE PICH-LCR-Parameters-CTCH-SetupRqstTDD  PRESENCE optional }
}
```

```
PICH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID          CommonPhysicalChannelID,
  tdd-ChannelisationCode           TDD-ChannelisationCode,
  timeSlot                          TimeSlot,
  midambleShiftAndBurstType        MidambleShiftAndBurstType,
  tdd-PhysicalChannelOffset        TDD-PhysicalChannelOffset,
  repetitionPeriod                 RepetitionPeriod,
  repetitionLength                  RepetitionLength,
  pagingIndicatorLength             PagingIndicatorLength,
  pICH-Power                        PICH-Power,
  iE-Extensions                    ProtocolExtensionContainer { { PICH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }  OPTIONAL,
  ...
}
```

```
PICH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
PICH-LCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID          CommonPhysicalChannelID,
  tdd-ChannelisationCodeLCR        TDD-ChannelisationCodeLCR,
  timeSlotLCR                      TimeSlotLCR,
  midambleShiftLCR                MidambleShiftLCR,
  tdd-PhysicalChannelOffset        TDD-PhysicalChannelOffset,
  repetitionPeriod                 RepetitionPeriod,
  repetitionLength                  RepetitionLength,
  pagingIndicatorLength             PagingIndicatorLength,
  pICH-Power                        PICH-Power,
  second-TDD-ChannelisationCodeLCR TDD-ChannelisationCodeLCR,
  iE-Extensions                    ProtocolExtensionContainer { { PICH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }  OPTIONAL,
  ...
}
```

```
PICH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-Tstd-indicator           CRITICALITY reject      EXTENSION TSTD-Indicator      PRESENCE      optional },
  -- Applicable to 1.28 Mcps TDD only
  ...
}
```

```
PICH-768-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID768      CommonPhysicalChannelID768,
  tdd-ChannelisationCode768       TDD-ChannelisationCode768,
  timeSlot                         TimeSlot,
  midambleShiftAndBurstType768    MidambleShiftAndBurstType768,
  tdd-PhysicalChannelOffset        TDD-PhysicalChannelOffset,
  repetitionPeriod                 RepetitionPeriod,
  repetitionLength                  RepetitionLength,
  pagingIndicatorLength             PagingIndicatorLength,
  pICH-Power                        PICH-Power,
}
```

```

    iE-Extensions          ProtocolExtensionContainer { { PICH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

PICH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    tdd-PhysicalChannelOffset        TDD-PhysicalChannelOffset,
    repetitionPeriod                 RepetitionPeriod,
    repetitionLength                 RepetitionLength,
    notificationIndicatorLength      NotificationIndicatorLength,
    mICH-Power                       PICH-Power,
    mICH-TDDOption-Specific-Parameters MICH-TDDOption-Specific-Parameters-CTCH-SetupRqstTDD,
    iE-Extensions                   ProtocolExtensionContainer { { MICH-Parameters-CTCH-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

MICH-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-TDDOption-Specific-Parameters-CTCH-SetupRqstTDD ::= CHOICE {
    hCR-TDD                          MICH-HCR-Parameters-CTCH-SetupRqstTDD,
    LCR-TDD                          MICH-LCR-Parameters-CTCH-SetupRqstTDD,
    ...,
    cHipRate768-TDD                  MICH-768-Parameters-CTCH-SetupRqstTDD
}

MICH-HCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    tdd-ChannelisationCode          TDD-ChannelisationCode,
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType       MidambleShiftAndBurstType,
    iE-Extensions                   ProtocolExtensionContainer { { MICH-HCR-Parameters-CTCH-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

MICH-HCR-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-LCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    tdd-ChannelisationCodeLCR       TDD-ChannelisationCodeLCR,
    timeSlotLCR                    TimeSlotLCR,
    midambleShiftLCR               MidambleShiftLCR,
    -- For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, NodeB shall ignore the contents of this IE.
    second-TDD-ChannelisationCodeLCR TDD-ChannelisationCodeLCR,
    tSTD-Indicator                 TSTD-Indicator,
    iE-Extensions                   ProtocolExtensionContainer { { MICH-LCR-Parameters-CTCH-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

```

```

MICH-LCR-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-MBSFN-SpecialTimeSlot-LCR CRITICALITY ignore EXTENSION TimeslotLCR-Extension PRESENCE optional },
  -- Only for 1.28 Mcps TDD MBSFN only mode, this IE indicates the MBSFN Special Time Slot [19]. The IE "Time Slot LCR" shall be ignored if this
  IE appears
  ...
}

MICH-768-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
  tdd-ChannelisationCode768 TDD-ChannelisationCode768,
  timeSlot TimeSlot,
  midambleShiftAndBurstType768 MidambleShiftAndBurstType768,
  iE-Extensions ProtocolExtensionContainer { { MICH-768-Parameters-CTCH-SetupRqstTDD-ExtIEs } } OPTIONAL,
  ...
}

MICH-768-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

TimeSlotConfigurationList-LCR-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..7)) OF TimeSlotConfigurationItem-LCR-CTCH-SetupRqstTDD

TimeSlotConfigurationItem-LCR-CTCH-SetupRqstTDD ::= SEQUENCE {
  timeslotLCR TimeSlotLCR,
  timeslotLCR-Parameter-ID CellParameterID,
  iE-Extensions ProtocolExtensionContainer { { TimeSlotConfigurationItem-LCR-CTCH-SetupRqstTDD-ExtIEs} } OPTIONAL,
  ...
}

TimeSlotConfigurationItem-LCR-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Secondary-CCPCH-parameterExtendedList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsinExt)) OF Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD
  -- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be established.

Secondary-CCPCH-LCR-parameterExtendedList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsLCRinExt)) OF Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD
  -- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHLCRs SCCPCHs are to be established.

PRACH-CTCH-SetupRqstTDD ::= SEQUENCE {
  pRACH-Parameters-CTCH-SetupRqstTDD PRACH-Parameters-CTCH-SetupRqstTDD,
  iE-Extensions ProtocolExtensionContainer { { PRACH-CTCH-SetupRqstTDD-ExtIEs } } OPTIONAL,
  ...
}

PRACH-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD CRITICALITY reject EXTENSION FPACH-LCR-Parameters-CTCH-SetupRqstTDD PRESENCE optional }|
  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
  { ID id-PRACH-768-Parameters-CTCH-SetupRqstTDD CRITICALITY reject EXTENSION PRACH-768-ParametersItem-CTCH-SetupRqstTDD PRESENCE optional },
  ...
}

```



```

PRACH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PRACH-ParametersIE-CTCH-SetupRqstTDD }}

PRACH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-PRACH-ParametersItem-CTCH-SetupRqstTDD    CRITICALITY reject  TYPE PRACH-ParametersItem-CTCH-SetupRqstTDD    PRESENCE optional }|
  { ID id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD CRITICALITY reject  TYPE PRACH-LCR-ParametersList-CTCH-SetupRqstTDD PRESENCE optional }
}

PRACH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  tFCS                          TFCS,
  timeslot                      TimeSlot,
  tdd-ChannelisationCode       TDD-ChannelisationCode,
  maxPRACH-MidambleShifts      MaxPRACH-MidambleShifts,
  pRACH-Midamble                PRACH-Midamble,
  rACH                          RACH-Parameter-CTCH-SetupRqstTDD,
  iE-Extensions                 ProtocolExtensionContainer { { PRACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs } }    OPTIONAL,
  ...
}

PRACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RACH-Parameter-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ RACH-ParameterIE-CTCH-SetupRqstTDD }}

RACH-ParameterIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-RACH-ParameterItem-CTCH-SetupRqstTDD    CRITICALITY reject  TYPE RACH-ParameterItem-CTCH-SetupRqstTDD    PRESENCE mandatory }
}

RACH-ParameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonTransportChannelID      CommonTransportChannelID,
  uL-TransportFormatSet         TransportFormatSet, -- For the UL
  iE-Extensions                 ProtocolExtensionContainer { { RACH-ParameterItem-CTCH-SetupRqstTDD-ExtIEs } }    OPTIONAL,
  ...
}

RACH-ParameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-bindingID              CRITICALITY ignore  EXTENSION BindingID              PRESENCE optional }|
  -- Shall be ignored if bearer establishment with ALCAP.
  { ID id-transportlayeraddress   CRITICALITY ignore  EXTENSION TransportLayerAddress   PRESENCE optional }|
  -- Shall be ignored if bearer establishment with ALCAP.
  { ID id-TnlQos                  CRITICALITY ignore  EXTENSION TnlQos                  PRESENCE optional },
  ...
}

PRACH-LCR-ParametersList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfPRACHLCRs)) OF PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD

PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  tFCS                          TFCS,
  timeslotLCR                  TimeSlotLCR,
  tdd-ChannelisationCodeLCR    TDD-ChannelisationCodeLCR,
}

```

```

midambleShiftLCR                MidambleShiftLCR,
rACH                             RACH-Parameter-CTCH-SetupRqstTDD,
iE-Extensions                    ProtocolExtensionContainer { { PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
...
}

PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UARFCNforNt    CRITICALITY reject    EXTENSION UARFCN    PRESENCE optional },
  -- Applicable to 1.28Mcps TDD when using multiple frequencies. This IE indicates the frequency of secondary on which PRACH to be set up.
  ...
}

PRACH-768-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID768    CommonPhysicalChannelID768,
  tFCS                          TFCS,
  timeslot                      Timeslot,
  tdd-ChannelisationCode768     TDD-ChannelisationCode768,
  maxPRACH-MidambleShifts      MaxPRACH-MidambleShifts,
  pRACH-Midamble               PRACH-Midamble,
  rACH                          RACH-Parameter-CTCH-SetupRqstTDD,
  iE-Extensions                ProtocolExtensionContainer { { PRACH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
  ...
}

PRACH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

FPACH-LCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID       CommonPhysicalChannelID,
  tdd-ChannelisationCodeLCR     TDD-ChannelisationCodeLCR,
  timeslotLCR                  TimeslotLCR,
  midambleShiftLCR            MidambleShiftLCR,
  fPACH-Power                  FPACH-Power,
  iE-Extensions                ProtocolExtensionContainer { { FPACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
  ...
}

FPACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UARFCNforNt    CRITICALITY reject    EXTENSION UARFCN    PRESENCE optional },
  -- Applicable to 1.28Mcps TDD when using multiple frequencies. This IE indicates the frequency of Secondary Frequency on which FPACH to be set up.
  ...
}

PLCCH-parameters ::= SEQUENCE {
  maxPowerPLCCH                DL-Power,
  commonPhysicalChannelID      CommonPhysicalChannelID,
  tdd-ChannelisationCode       TDD-ChannelisationCode,
  timeslotLCR                  TimeslotLCR,
  midambleShiftLCR            MidambleShiftLCR,
  iE-Extensions                ProtocolExtensionContainer { { PLCCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }    OPTIONAL,
  ...
}

```

```

PLCCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-RUCCH-parameters ::= SEQUENCE {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    timeslot                          TimeSlot,
    tdd-ChannelisationCode           TDD-ChannelisationCode,
    maxE-RUCCH-MidambleShifts        MaxPRACH-MidambleShifts,
    e-RUCCH-Midamble                 PRACH-Midamble,
    iE-Extensions                     ProtocolExtensionContainer { { E-RUCCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

E-RUCCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-RUCCH-768-parameters ::= SEQUENCE {
    commonPhysicalChannelID768        CommonPhysicalChannelID768,
    timeslot                          TimeSlot,
    tdd-ChannelisationCode768         TDD-ChannelisationCode768,
    maxE-RUCCH-MidambleShifts        MaxPRACH-MidambleShifts,
    e-RUCCH-Midamble                 PRACH-Midamble,
    iE-Extensions                     ProtocolExtensionContainer { { E-RUCCH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}

E-RUCCH-768-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- COMMON TRANSPORT CHANNEL SETUP RESPONSE
--
-- *****

CommonTransportChannelSetupResponse ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container          {{CommonTransportChannelSetupResponse-IEs}},
    protocolExtensions   ProtocolExtensionContainer    {{CommonTransportChannelSetupResponse-Extensions}} OPTIONAL,
    ...
}

CommonTransportChannelSetupResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersList-CTCH-SetupRsp   CRITICALITY ignore TYPE FACH-CommonTransportChannel-InformationResponse PRESENCE optional } |
    { ID id-PCH-Parameters-CTCH-SetupRsp       CRITICALITY ignore TYPE CommonTransportChannel-InformationResponse PRESENCE optional } |
    { ID id-RACH-Parameters-CTCH-SetupRsp      CRITICALITY ignore TYPE CommonTransportChannel-InformationResponse PRESENCE optional } |
    { ID id-CriticalityDiagnostics              CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional } |
    ...
}

```

```

CommonTransportChannelSetupResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-CommonTransportChannel-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF CommonTransportChannel-InformationResponse

-- *****
--
-- COMMON TRANSPORT CHANNEL SETUP FAILURE
--
-- *****

CommonTransportChannelSetupFailure ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CommonTransportChannelSetupFailure-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CommonTransportChannelSetupFailure-Extensions}} OPTIONAL,
    ...
}

CommonTransportChannelSetupFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause          CRITICALITY ignore   TYPE Cause          PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics CRITICALITY ignore   TYPE CriticalityDiagnostics PRESENCE optional   },
    ...
}

CommonTransportChannelSetupFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST FDD
--
-- *****

CommonTransportChannelReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CommonTransportChannelReconfigurationRequestFDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CommonTransportChannelReconfigurationRequestFDD-Extensions}} OPTIONAL,
    ...
}

CommonTransportChannelReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID          CRITICALITY reject   TYPE C-ID          PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID CRITICALITY reject   TYPE ConfigurationGenerationID PRESENCE mandatory }|
    { ID id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD CRITICALITY reject   TYPE CommonPhysicalChannelType-CTCH-ReconfRqstFDD PRESENCE mandatory },
    ...
}

CommonTransportChannelReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

CommonPhysicalChannelType-CTCH-ReconfRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters      Secondary-CCPCHList-CTCH-ReconfRqstFDD,
    pRACH-parameters                PRACHList-CTCH-ReconfRqstFDD,
    notUsed-cPCH-parameters         NULL,
    ...
}

Secondary-CCPCHList-CTCH-ReconfRqstFDD ::= SEQUENCE {
    fACH-ParametersList-CTCH-ReconfRqstFDD  FACH-ParametersList-CTCH-ReconfRqstFDD  OPTIONAL,
    pCH-Parameters-CTCH-ReconfRqstFDD      PCH-Parameters-CTCH-ReconfRqstFDD      OPTIONAL,
    pICH-Parameters-CTCH-ReconfRqstFDD     PICH-Parameters-CTCH-ReconfRqstFDD     OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { Secondary-CCPCH-CTCH-ReconfRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

Secondary-CCPCH-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MICH-Parameters-CTCH-ReconfRqstFDD      CRITICALITY reject  EXTENSION MICH-Parameters-CTCH-ReconfRqstFDD      PRESENCE optional },
    ...
}

FACH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container { { FACH-ParametersListIEs-CTCH-ReconfRqstFDD } }

FACH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersListIE-CTCH-ReconfRqstFDD  CRITICALITY reject  TYPE FACH-ParametersListIE-CTCH-ReconfRqstFDD  PRESENCE mandatory }
}

FACH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxFACHCell)) OF FACH-ParametersItem-CTCH-ReconfRqstFDD

FACH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    maxFACH-Power                 DL-Power          OPTIONAL,
    toAWS                         ToAWS             OPTIONAL,
    toAWE                         ToAWE             OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { FACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs } }  OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos                CRITICALITY ignore  EXTENSION TnlQos      PRESENCE optional },
    ...
}

PCH-Parameters-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container { { PCH-ParametersIE-CTCH-ReconfRqstFDD } }

PCH-ParametersIE-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-ParametersItem-CTCH-ReconfRqstFDD  CRITICALITY reject  TYPE PCH-ParametersItem-CTCH-ReconfRqstFDD  PRESENCE mandatory }
}

PCH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    pCH-Power                     DL-Power          OPTIONAL,
    toAWS                         ToAWS             OPTIONAL,
    toAWE                         ToAWE             OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { PCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs } }  OPTIONAL,
}

```

```

}
...
}
PCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-TnlQos CRITICALITY ignore EXTENSION TnlQos PRESENCE optional },
  ...
}
PICH-Parameters-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ PICH-ParametersIE-CTCH-ReconfRqstFDD }}
PICH-ParametersIE-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
  { ID id-PICH-ParametersItem-CTCH-ReconfRqstFDD CRITICALITY reject TYPE PICH-ParametersItem-CTCH-ReconfRqstFDD PRESENCE mandatory }
}
PICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID CommonPhysicalChannelID,
  pICH-Power PICH-Power OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { PICH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs } } OPTIONAL,
  ...
}
PICH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
MICH-Parameters-CTCH-ReconfRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID CommonPhysicalChannelID,
  mICH-Power PICH-Power OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { MICH-Parameters-CTCH-ReconfRqstFDD-ExtIEs } } OPTIONAL,
  ...
}
MICH-Parameters-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
PRACHList-CTCH-ReconfRqstFDD ::= SEQUENCE {
  pRACH-ParametersList-CTCH-ReconfRqstFDD PRACH-ParametersList-CTCH-ReconfRqstFDD OPTIONAL,
  aICH-ParametersList-CTCH-ReconfRqstFDD AICH-ParametersList-CTCH-ReconfRqstFDD OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { PRACH-CTCH-ReconfRqstFDD-ExtIEs } } OPTIONAL,
  ...
}
PRACH-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
PRACH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ PRACH-ParametersListIEs-CTCH-ReconfRqstFDD }}
PRACH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
  { ID id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD CRITICALITY reject TYPE PRACH-ParametersListIE-CTCH-ReconfRqstFDD PRESENCE mandatory }
}
PRACH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF PRACH-ParametersItem-CTCH-ReconfRqstFDD

```

```

PRACH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    preambleSignatures           PreambleSignatures                               OPTIONAL,
    allowedSlotFormatInformation  AllowedSlotFormatInformationList-CTCH-ReconfRqstFDD  OPTIONAL,
    rACH-SubChannelNumbers       RACH-SubChannelNumbers                               OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { PRACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs } }  OPTIONAL,
    ...
}

PRACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
{ ID    id-TnlQos          CRITICALITY ignore      EXTENSION TnlQos      PRESENCE optional },
    ...
}

AllowedSlotFormatInformationList-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1.. maxNrOfSlotFormatsPRACH)) OF AllowedSlotFormatInformationItem-CTCH-
ReconfRqstFDD

AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    rACH-SlotFormat              RACH-SlotFormat,
    iE-Extensions                ProtocolExtensionContainer { { AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD-ExtIEs } }
    OPTIONAL,
    ...
}

AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AICH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container { { AICH-ParametersListIEs-CTCH-ReconfRqstFDD } }

AICH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-AICH-ParametersListIE-CTCH-ReconfRqstFDD      CRITICALITY reject      TYPE AICH-ParametersListIE-CTCH-ReconfRqstFDD      PRESENCE mandatory }
}

AICH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF AICH-ParametersItem-CTCH-ReconfRqstFDD

AICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    aICH-Power                    AICH-Power                OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs } }      OPTIONAL,
    ...
}

AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST TDD
--
-- *****

```

```

CommonTransportChannelReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{CommonTransportChannelReconfigurationRequestTDD-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{CommonTransportChannelReconfigurationRequestTDD-Extensions}} OPTIONAL,
    ...
}

CommonTransportChannelReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID          CRITICALITY reject TYPE C-ID          PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID CRITICALITY reject TYPE ConfigurationGenerationID PRESENCE mandatory }|
    { ID id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD CRITICALITY reject TYPE Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD PRESENCE optional }|
    { ID id-PICH-Parameters-CTCH-ReconfRqstTDD CRITICALITY reject TYPE PICH-Parameters-CTCH-ReconfRqstTDD PRESENCE optional }|
    { ID id-FACH-ParametersList-CTCH-ReconfRqstTDD CRITICALITY reject TYPE FACH-ParametersList-CTCH-ReconfRqstTDD PRESENCE optional }|
    { ID id-PCH-Parameters-CTCH-ReconfRqstTDD CRITICALITY reject TYPE PCH-Parameters-CTCH-ReconfRqstTDD PRESENCE optional },
    ...
}

CommonTransportChannelReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD CRITICALITY reject EXTENSION FPACH-LCR-Parameters-CTCH-ReconfRqstTDD PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-MICH-Parameters-CTCH-ReconfRqstTDD CRITICALITY reject EXTENSION MICH-Parameters-CTCH-ReconfRqstTDD PRESENCE optional }|
    { ID id-PLCCH-Parameters-CTCH-ReconfRqstTDD CRITICALITY ignore EXTENSION PLCCH-Parameters-CTCH-ReconfRqstTDD PRESENCE optional }|
    { ID id-S-CCPCH-768-Parameters-CTCH-ReconfRqstTDD CRITICALITY reject EXTENSION Secondary-CCPCH-768-Parameters-CTCH-ReconfRqstTDD PRESENCE optional }|
    { ID id-PICH-768-Parameters-CTCH-ReconfRqstTDD CRITICALITY reject EXTENSION PICH-768-Parameters-CTCH-ReconfRqstTDD PRESENCE optional }|
    { ID id-MICH-768-Parameters-CTCH-ReconfRqstTDD CRITICALITY reject EXTENSION MICH-768-Parameters-CTCH-ReconfRqstTDD PRESENCE optional }|
    { ID id-UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD CRITICALITY reject EXTENSION UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD PRESENCE optional }, -- Applicable to 1.28Mcps TDD only
    ...
}

Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID          CCTrCH-ID,
    secondaryCCPCHList Secondary-CCPCHList-CTCH-ReconfRqstTDD OPTIONAL,
    iE-Extensions      ProtocolExtensionContainer { { Secondary-CCPCH-CTCH-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

Secondary-CCPCH-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Additional-S-CCPCH-Parameters-CTCH-ReconfRqstTDD CRITICALITY reject EXTENSION Secondary-CCPCH-parameterExtendedList-CTCH-ReconfRqstTDD PRESENCE optional }|
    -- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.
    { ID id-Additional-S-CCPCH-LCR-Parameters-CTCH-ReconfRqstTDD CRITICALITY reject EXTENSION Secondary-CCPCH-LCR-parameterExtendedList-CTCH-ReconfRqstTDD PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.
    ...
}

Secondary-CCPCHList-CTCH-ReconfRqstTDD ::= ProtocolIE-Single-Container {{ Secondary-CCPCHListIEs-CTCH-ReconfRqstTDD }}

```



```
Secondary-CCPCHListIEs-CTCH-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD    CRITICALITY reject    TYPE Secondary-CCPCHListIE-CTCH-ReconfRqstTDD    PRESENCE mandatory }
}
```

```
Secondary-CCPCHListIE-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCHItem-CTCH-ReconfRqstTDD
```

```
Secondary-CCPCHItem-CTCH-ReconfRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  sCCPCH-Power                 DL-Power          OPTIONAL,
  iE-Extensions                ProtocolExtensionContainer { { Secondary-CCPCHItem-CTCH-ReconfRqstTDD-ExtIEs } }    OPTIONAL,
  ...
}
```

```
Secondary-CCPCHItem-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
Secondary-CCPCH-parameterExtendedList-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsinExt)) OF Secondary-CCPCHItem-CTCH-ReconfRqstTDD
-- Applicable to 3.84Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.
```

```
Secondary-CCPCH-LCR-parameterExtendedList-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHsLCRinExt)) OF Secondary-CCPCHItem-CTCH-ReconfRqstTDD
-- Applicable to 1.28Mcps TDD only, used when more than maxNrOfSCCPCHs SCCPCHs are to be reconfigured.
```

```
PICH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  pICH-Power                   PICH-Power          OPTIONAL,
  iE-Extensions                ProtocolExtensionContainer { { PICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs } }    OPTIONAL,
  ...
}
```

```
PICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
FACH-ParametersList-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (0..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-ReconfRqstTDD
```

```
FACH-ParametersItem-CTCH-ReconfRqstTDD ::= SEQUENCE {
  commonTransportChannelID      CommonTransportChannelID,
  toAWS                          ToAWS          OPTIONAL,
  toAWE                          ToAWE          OPTIONAL,
  iE-Extensions                ProtocolExtensionContainer { { FACH-ParametersItem-CTCH-ReconfRqstTDD-ExtIEs } }    OPTIONAL,
  ...
}
```

```
FACH-ParametersItem-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD    CRITICALITY reject    EXTENSION DL-Power    PRESENCE optional } |
  -- Applicable to 1.28Mcps TDD only
  { ID id-TnlQos                                CRITICALITY ignore    EXTENSION TnlQos     PRESENCE optional },
  ...
}
```

```
PCH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
```

```

    commonTransportChannelID      CommonTransportChannelID,
    toAWS                          ToAWS          OPTIONAL,
    toAWE                          ToAWE          OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { { PCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

PCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PCH-Power-LCR-CTCH-ReconfRqstTDD          CRITICALITY reject          EXTENSION DL-Power          PRESENCE optional } |
    -- Applicable to 1.28Mcps TDD only
    { ID id-TnIQos                                  CRITICALITY ignore          EXTENSION TnIQos          PRESENCE optional },
    ...
}

FPACH-LCR-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelId      CommonPhysicalChannelID,
    fPACHPower                    FPACH-Power          OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { { FPACH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

FPACH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    mICH-Power                    PICH-Power          OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { { MICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

MICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PLCCH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    maxPowerPLCCH                DL-Power,
    iE-Extensions                  ProtocolExtensionContainer { { PLCCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

PLCCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-768-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                    CCTrCH-ID,
    secondaryCCPCH768List        Secondary-CCPCH-768-List-CTCH-ReconfRqstTDD          OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { { Secondary-CCPCH-768-CTCH-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

Secondary-CCPCH-768-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
Secondary-CCPCH-768-List-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs768)) OF Secondary-CCPCH-768-Item-CTCH-ReconfRqstTDD

Secondary-CCPCH-768-Item-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768      CommonPhysicalChannelID768,
    sCCPCH-Power                    DL-Power          OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { Secondary-CCPCH-768-Item-CTCH-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

Secondary-CCPCH-768-Item-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PICH-768-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768      CommonPhysicalChannelID768,
    pICH-Power                      PICH-Power          OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { PICH-768-Parameters-CTCH-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

PICH-768-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-768-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768      CommonPhysicalChannelID768,
    mICH-Power                      PICH-Power          OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { MICH-768-Parameters-CTCH-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

MICH-768-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    uPPCHPositionLCR                UPPCHPositionLCR      OPTIONAL,
    uARFCN                          UARFCN                OPTIONAL,
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies Corresponds to Nt [15]
    iE-Extensions                    ProtocolExtensionContainer { { UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--

```

```

-- COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE
--
-- *****
CommonTransportChannelReconfigurationResponse ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{CommonTransportChannelReconfigurationResponse-IEs}},
  protocolExtensions  ProtocolExtensionContainer {{CommonTransportChannelReconfigurationResponse-Extensions}}  OPTIONAL,
  ...
}

CommonTransportChannelReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
  { ID    id-CriticalityDiagnostics    CRITICALITY ignore    TYPE    CriticalityDiagnostics    PRESENCE optional},
  ...
}

CommonTransportChannelReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
-- COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE
--
-- *****
CommonTransportChannelReconfigurationFailure ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{CommonTransportChannelReconfigurationFailure-IEs}},
  protocolExtensions  ProtocolExtensionContainer {{CommonTransportChannelReconfigurationFailure-Extensions}}  OPTIONAL,
  ...
}

CommonTransportChannelReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
  { ID    id-Cause                    CRITICALITY ignore    TYPE    Cause                    PRESENCE mandatory },
  { ID    id-CriticalityDiagnostics    CRITICALITY ignore    TYPE    CriticalityDiagnostics    PRESENCE optional },
  ...
}

CommonTransportChannelReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
-- COMMON TRANSPORT CHANNEL DELETION REQUEST
--
-- *****
CommonTransportChannelDeletionRequest ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{CommonTransportChannelDeletionRequest-IEs}},
  protocolExtensions  ProtocolExtensionContainer {{CommonTransportChannelDeletionRequest-Extensions}}  OPTIONAL,
  ...
}

CommonTransportChannelDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-C-ID                CRITICALITY reject      TYPE C-ID                PRESENCE mandatory }|
    { ID id-CommonPhysicalChannelID  CRITICALITY reject      TYPE CommonPhysicalChannelID  PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID  CRITICALITY reject      TYPE ConfigurationGenerationID  PRESENCE mandatory }|
    ...
}

CommonTransportChannelDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-CommonPhysicalChannelID768-CommonTrChDeletionReq  CRITICALITY reject  EXTENSION CommonPhysicalChannelID768  PRESENCE optional },
  ...
}

-- *****
--
-- COMMON TRANSPORT CHANNEL DELETION RESPONSE
--
-- *****

CommonTransportChannelDeletionResponse ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container          {{CommonTransportChannelDeletionResponse-IEs}},
  protocolExtensions  ProtocolExtensionContainer    {{CommonTransportChannelDeletionResponse-Extensions}}      OPTIONAL,
  ...
}

CommonTransportChannelDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CriticalityDiagnostics  CRITICALITY  ignore  TYPE  CriticalityDiagnostics  PRESENCE optional},
  ...
}

CommonTransportChannelDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- BLOCK RESOURCE REQUEST
--
-- *****

BlockResourceRequest ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container          {{BlockResourceRequest-IEs}},
  protocolExtensions  ProtocolExtensionContainer    {{BlockResourceRequest-Extensions}}      OPTIONAL,
  ...
}

BlockResourceRequest-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-C-ID                CRITICALITY reject      TYPE C-ID                PRESENCE mandatory }|
  { ID id-BlockingPriorityIndicator  CRITICALITY reject      TYPE BlockingPriorityIndicator  PRESENCE mandatory }|
  { ID id-ShutdownTimer            CRITICALITY reject      TYPE ShutdownTimer            PRESENCE conditional },
  -- The IE shall be present if the Blocking Priority Indicator IE indicates "Normal Priority"--
  ...
}

BlockResourceRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

}
-- *****
--
-- BLOCK RESOURCE RESPONSE
--
-- *****

BlockResourceResponse ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container          {{BlockResourceResponse-IEs}},
    protocolExtensions   ProtocolExtensionContainer    {{BlockResourceResponse-Extensions}}
    ...
}

BlockResourceResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics    CRITICALITY ignore    TYPE CriticalityDiagnostics    PRESENCE optional},
    ...
}

BlockResourceResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- BLOCK RESOURCE FAILURE
--
-- *****

BlockResourceFailure ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container          {{BlockResourceFailure-IEs}},
    protocolExtensions   ProtocolExtensionContainer    {{BlockResourceFailure-Extensions}}
    ...
}

BlockResourceFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause                CRITICALITY ignore    TYPE Cause                PRESENCE mandatory    }|
    { ID id-CriticalityDiagnostics    CRITICALITY ignore    TYPE CriticalityDiagnostics    PRESENCE optional    },
    ...
}

BlockResourceFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- UNBLOCK RESOURCE INDICATION
--
-- *****

UnblockResourceIndication ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container          {{UnblockResourceIndication-IEs}},
    protocolExtensions   ProtocolExtensionContainer    {{UnblockResourceIndication-Extensions}}
    ...
}

```

```

}
...
}
UnblockResourceIndication-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-C-ID          CRITICALITY ignore      TYPE C-ID          PRESENCE mandatory },
  ...
}
UnblockResourceIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
-- *****
--
-- AUDIT REQUIRED INDICATION
--
-- *****

AuditRequiredIndication ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{AuditRequiredIndication-IEs}},
  protocolExtensions   ProtocolExtensionContainer {{AuditRequiredIndication-Extensions}}
  ...
}
OPTIONAL,

AuditRequiredIndication-IEs NBAP-PROTOCOL-IES ::= {
  ...
}

AuditRequiredIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- AUDIT REQUEST
--
-- *****

AuditRequest ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{AuditRequest-IEs}},
  protocolExtensions   ProtocolExtensionContainer {{AuditRequest-Extensions}}
  ...
}
OPTIONAL,

AuditRequest-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-Start-Of-Audit-Sequence-Indicator    CRITICALITY reject  TYPE Start-Of-Audit-Sequence-Indicator    PRESENCE mandatory },
  ...
}

AuditRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****

```

```

--
-- AUDIT RESPONSE
--
-- *****

AuditResponse ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{AuditResponse-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{AuditResponse-Extensions}}    OPTIONAL,
    ...
}

AuditResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-End-Of-Audit-Sequence-Indicator          CRITICALITY ignore TYPE End-Of-Audit-Sequence-Indicator          PRESENCE mandatory } |
    { ID id-Cell-InformationList-AuditRsp           CRITICALITY ignore TYPE Cell-InformationList-AuditRsp           PRESENCE optional } |
    { ID id-CCP-InformationList-AuditRsp           CRITICALITY ignore TYPE CCP-InformationList-AuditRsp           PRESENCE optional } |
    -- CCP (Communication Control Port) --
    { ID id-Local-Cell-InformationList-AuditRsp     CRITICALITY ignore TYPE Local-Cell-InformationList-AuditRsp     PRESENCE optional } |
    { ID id-Local-Cell-Group-InformationList-AuditRsp CRITICALITY ignore TYPE Local-Cell-Group-InformationList-AuditRsp PRESENCE optional } |
    { ID id-CriticalityDiagnostics                 CRITICALITY ignore TYPE CriticalityDiagnostics                 PRESENCE optional },
    ...
}

AuditResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Power-Local-Cell-Group-InformationList-AuditRsp CRITICALITY ignore EXTENSION Power-Local-Cell-Group-InformationList-AuditRsp
    PRESENCE optional },
    ...
}

Cell-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ Cell-InformationItemIE-AuditRsp}}

Cell-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-Cell-InformationItem-AuditRsp          CRITICALITY ignore          TYPE Cell-InformationItem-AuditRsp          PRESENCE optional }
}

Cell-InformationItem-AuditRsp ::= SEQUENCE {
    c-ID                      C-ID,
    configurationGenerationID ConfigurationGenerationID,
    resourceOperationalState  ResourceOperationalState,
    availabilityStatus        AvailabilityStatus,
    local-Cell-ID             Local-Cell-ID,
    primary-SCH-Information   P-SCH-Information-AuditRsp          OPTIONAL,
    secondary-SCH-Information S-SCH-Information-AuditRsp          OPTIONAL,
    primary-CPICH-Information P-CPICH-Information-AuditRsp          OPTIONAL,
    secondary-CPICH-InformationList S-CPICH-InformationList-AuditRsp OPTIONAL,
    primary-CCPCH-Information P-CCPCH-Information-AuditRsp          OPTIONAL,
    bCH-Information           BCH-Information-AuditRsp          OPTIONAL,
    secondary-CCPCH-InformationList S-CCPCH-InformationList-AuditRsp OPTIONAL,
    pCH-Information           PCH-Information-AuditRsp          OPTIONAL,
    pICH-Information           PICH-Information-AuditRsp          OPTIONAL,
    fACH-InformationList      FACH-InformationList-AuditRsp          OPTIONAL,
    pRACH-InformationList     PRACH-InformationList-AuditRsp          OPTIONAL,
    rACH-InformationList      RACH-InformationList-AuditRsp          OPTIONAL,
    aICH-InformationList      AICH-InformationList-AuditRsp          OPTIONAL,
    notUsed-1-pCPCH-InformationList NULL                                OPTIONAL,
}

```



```

notUsed-2-cPCH-InformationList      NULL                OPTIONAL,
notUsed-3-aP-AICH-InformationList   NULL                OPTIONAL,
notUsed-4-cDCA-ICH-InformationList  NULL                OPTIONAL,
sCH-Information                     SCH-Information-AuditRsp  OPTIONAL,
iE-Extensions                       ProtocolExtensionContainer { { Cell-InformationItem-AuditRsp-ExtIEs } } OPTIONAL,
...
}

Cell-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-FPACH-LCR-InformationList-AuditRsp      CRITICALITY ignore EXTENSION FPACH-LCR-InformationList-AuditRsp      PRESENCE optional } |
  -- Applicable to 1.28Mcps TDD only
  { ID id-DWPCH-LCR-InformationList-AuditRsp      CRITICALITY ignore EXTENSION Common-PhysicalChannel-Status-Information PRESENCE optional } |
  -- Applicable to 1.28Mcps TDD only
  { ID id-HSDSCH-Resources-Information-AuditRsp   CRITICALITY ignore EXTENSION HS-DSCH-Resources-Information-AuditRsp   PRESENCE optional } |
  -- For 1.28Mcps TDD, this HS-DSCH Resource Information is for the first Frequency repetition, HS-DSCH Resource Information for Frequency
repetitions 2 and on, should be defined in MultipleFreq-HS-DSCH-Resources-InformationList-AuditRsp.
  { ID id-MICH-Information-AuditRsp              CRITICALITY ignore EXTENSION Common-PhysicalChannel-Status-Information PRESENCE optional } |
  { ID id-S-CCPCH-InformationListExt-AuditRsp    CRITICALITY ignore EXTENSION S-CCPCH-InformationListExt-AuditRsp    PRESENCE optional } |
  -- Applicable to 3.84Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the cell.
  { ID id-S-CCPCH-LCR-InformationListExt-AuditRsp CRITICALITY ignore EXTENSION S-CCPCH-LCR-InformationListExt-AuditRsp PRESENCE optional } |
  -- Applicable to 1.28Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the cell.
  { ID id-E-DCH-Resources-Information-AuditRsp   CRITICALITY ignore EXTENSION E-DCH-Resources-Information-AuditRsp   PRESENCE optional } |
  -- For 1.28Mcps TDD, this E-DCH Resource Information is for the first Frequency repetition, E-DCH Resource Information for Frequency
repetitions 2 and on, should be defined in MultipleFreq-E-DCH-Resources-InformationList-AuditRsp.
  { ID id-PLCCH-InformationList-AuditRsp        CRITICALITY ignore EXTENSION PLCCH-InformationList-AuditRsp        PRESENCE optional } |
  { ID id-P-CCPCH-768-Information-AuditRsp      CRITICALITY ignore EXTENSION Common-PhysicalChannel-Status-Information768 PRESENCE optional } |
  { ID id-S-CCPCH-768-InformationList-AuditRsp  CRITICALITY ignore EXTENSION S-CCPCH-768-InformationList-AuditRsp  PRESENCE optional } |
  { ID id-PICH-768-Information-AuditRsp        CRITICALITY ignore EXTENSION Common-PhysicalChannel-Status-Information768 PRESENCE optional } |
  { ID id-PRACH-768-InformationList-AuditRsp    CRITICALITY ignore EXTENSION PRACH-768-InformationList-AuditRsp    PRESENCE optional } |
  { ID id-SCH-768-Information-AuditRsp         CRITICALITY ignore EXTENSION Common-PhysicalChannel-Status-Information768 PRESENCE optional } |
  { ID id-MICH-768-Information-AuditRsp        CRITICALITY ignore EXTENSION Common-PhysicalChannel-Status-Information768 PRESENCE optional } |
  { ID id-E-RUCCH-InformationList-AuditRsp     CRITICALITY ignore EXTENSION E-RUCCH-InformationList-AuditRsp     PRESENCE optional } |
  { ID id-E-RUCCH-768-InformationList-AuditRsp CRITICALITY ignore EXTENSION E-RUCCH-768-InformationList-AuditRsp PRESENCE optional } |
  { ID id-Cell-Frequency-List-Information-LCR-MulFreq-AuditRsp CRITICALITY ignore EXTENSION Cell-Frequency-List-Information-LCR-MulFreq-AuditRsp PRESENCE optional } |
  -- Applicable to 1.28Mcps TDD when using multiple frequencies
  { ID id-UPPCH-LCR-InformationList-AuditRsp    CRITICALITY ignore EXTENSION UPPCH-LCR-InformationList-AuditRsp    PRESENCE optional } |
  -- Applicable to 1.28Mcps TDD only
  { ID id-multipleFreq-HS-DSCH-Resources-InformationList-AuditRsp CRITICALITY ignore EXTENSION MultipleFreq-HS-DSCH-Resources-InformationList-AuditRsp PRESENCE optional } |
  -- Applicable to 1.28Mcps TDD when using multiple frequencies. This HS-DSCH Resource Information is for the 2nd and beyond frequencies.
  { ID id-MultipleFreq-E-DCH-Resources-InformationList-AuditRsp CRITICALITY ignore EXTENSION MultipleFreq-E-DCH-Resources-InformationList-AuditRsp PRESENCE optional } |
  -- Applicable to 1.28Mcps TDD when using multiple frequencies. This E-DCH Resource Information is for the 2nd and beyond frequencies.
  ...
}

P-SCH-Information-AuditRsp ::= ProtocolIE-Single-Container { { P-SCH-InformationIE-AuditRsp } }

P-SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-P-SCH-Information CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information PRESENCE mandatory }
}

S-SCH-Information-AuditRsp ::= ProtocolIE-Single-Container { { S-SCH-InformationIE-AuditRsp } }

```

```

S-SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-S-SCH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

P-CPICH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ P-CPICH-InformationIE-AuditRsp }}

P-CPICH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-P-CPICH-Information CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

S-CPICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container {{ S-CPICH-InformationItemIE-AuditRsp }}

S-CPICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-S-CPICH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

P-CCPCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ P-CCPCH-InformationIE-AuditRsp }}

P-CCPCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-P-CCPCH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

BCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ BCH-InformationIE-AuditRsp }}

BCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-BCH-Information  CRITICALITY ignore  TYPE Common-TransportChannel-Status-Information          PRESENCE mandatory }
}

S-CCPCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCell)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-AuditRsp }}

S-CCPCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-S-CCPCH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

PCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ PCH-InformationIE-AuditRsp }}

PCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-PCH-Information  CRITICALITY ignore  TYPE Common-TransportChannel-Status-Information          PRESENCE mandatory }
}

PICH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ PICH-InformationIE-AuditRsp }}

PICH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-PICH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

FACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFACHCell)) OF ProtocolIE-Single-Container {{ FACH-InformationItemIE-AuditRsp }}

FACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-FACH-Information  CRITICALITY ignore  TYPE Common-TransportChannel-Status-Information          PRESENCE mandatory }
}

PRACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-InformationItemIE-AuditRsp }}

```

```

PRACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-PRACH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

RACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxRACHCell)) OF ProtocolIE-Single-Container {{ RACH-InformationItemIE-AuditRsp }}

RACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-RACH-Information  CRITICALITY ignore  TYPE Common-TransportChannel-Status-Information          PRESENCE mandatory }
}

AICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ AICH-InformationItemIE-AuditRsp }}

AICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-AICH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

SCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ SCH-InformationIE-AuditRsp }}

SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-SCH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

FPACH-LCR-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFPACHCell)) OF ProtocolIE-Single-Container {{ FPACH-LCR-InformationItemIE-AuditRsp }}

FPACH-LCR-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-FPACH-LCR-Information-AuditRsp  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

HS-DSCH-Resources-Information-AuditRsp ::= SEQUENCE {
  resourceOperationalState      ResourceOperationalState,
  availabilityStatus             AvailabilityStatus,
  iE-Extensions                  ProtocolExtensionContainer  {{ HS-DSCH-Resources-Information-AuditRsp-ExtIEs }}    OPTIONAL,
  ...
}

HS-DSCH-Resources-Information-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UARFCNforNt  CRITICALITY ignore  EXTENSION UARFCN          PRESENCE  optional },
  -- Applicable to 1.28Mcps TDD when using multiple frequencies.
  ...
}

S-CCPCH-InformationListExt-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExt)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-AuditRsp }}

S-CCPCH-LCR-InformationListExt-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExtLCR)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-AuditRsp }}

E-DCH-Resources-Information-AuditRsp ::= SEQUENCE {
  resourceOperationalState      ResourceOperationalState,
  availabilityStatus             AvailabilityStatus,
  iE-Extensions                  ProtocolExtensionContainer  {{ E-DCH-Resources-Information-AuditRsp-ExtIEs }}    OPTIONAL,
  ...
}

```

```

E-DCH-Resources-Information-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UARFCNforNt      CRITICALITY ignore      EXTENSION UARFCN      PRESENCE optional },
  -- Applicable to 1.28Mcps TDD when using multiple frequencies.
  ...
}

PLCCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPLCCHCell)) OF ProtocolIE-Single-Container {{ PLCCH-InformationItemIE-AuditRsp }}

PLCCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-PLCCH-Information-AuditRsp  CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information      PRESENCE mandatory }
}

S-CCPCH-768-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCell768)) OF ProtocolIE-Single-Container {{ S-CCPCH-768-InformationItemIE-AuditRsp }}

S-CCPCH-768-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-S-CCPCH-768-Information-AuditRsp  CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information768      PRESENCE mandatory }
}

PRACH-768-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-768-InformationItemIE-AuditRsp }}

PRACH-768-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-PRACH-768-Information  CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information768      PRESENCE mandatory }
}

E-RUCCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxE-RUCCHCell)) OF ProtocolIE-Single-Container {{ E-RUCCH-InformationItemIE-AuditRsp }}

E-RUCCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-E-RUCCH-Information  CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information      PRESENCE mandatory }
}

E-RUCCH-768-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxE-RUCCHCell)) OF ProtocolIE-Single-Container {{ E-RUCCH-768-InformationItemIE-AuditRsp }}

E-RUCCH-768-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-E-RUCCH-768-Information  CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information768      PRESENCE mandatory }
}

Cell-Frequency-List-Information-LCR-MulFreq-AuditRsp ::= SEQUENCE (SIZE (1..maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ Cell-Frequency-List-InformationIE-LCR-MulFreq-AuditRsp }}

Cell-Frequency-List-InformationIE-LCR-MulFreq-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp  CRITICALITY ignore TYPE Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp      PRESENCE mandatory }
}

Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp ::= SEQUENCE {
  uARFCN          UARFCN,
  resourceOperationalState  ResourceOperationalState,
  availabilityStatus  AvailabilityStatus,
  iE-Extensions  ProtocolExtensionContainer {{ Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp-ExtIEs }}
  OPTIONAL,
  ...
}

```

```

Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UPPCH-LCR-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ UPPCH-LCR-InformationIE-AuditRsp
}}

UPPCH-LCR-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-UPPCH-LCR-InformationItem-AuditRsp    CRITICALITY ignore TYPE UPPCH-LCR-InformationItem-AuditRsp          PRESENCE mandatory }
}

UPPCH-LCR-InformationItem-AuditRsp ::= SEQUENCE {
    uARFCN                UARFCN                OPTIONAL,
    uPPCHPositionLCR      UPPCHPositionLCR,
    resourceOperationalState ResourceOperationalState,
    availabilityStatus     AvailabilityStatus,
    iE-Extensions         ProtocolExtensionContainer {{ UPPCH-LCR-InformationItem-AuditRsp-ExtIEs }}    OPTIONAL,
    ...
}

UPPCH-LCR-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleFreq-HS-DSCH-Resources-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-Container
{{ MultipleFreq-HS-DSCH-Resources-InformationItem-AuditRsp}}
--Includes the 2nd through the max number of frequencies information repetitions.

MultipleFreq-HS-DSCH-Resources-InformationItem-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-HSDSCH-Resources-Information-AuditRsp    CRITICALITY ignore TYPE HS-DSCH-Resources-Information-AuditRsp    PRESENCE mandatory }
}

MultipleFreq-E-DCH-Resources-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-Container {{ MultipleFreq-
E-DCH-Resources-InformationItem-AuditRsp}}
-- Includes the 2nd through the max number of frequencies information repetitions.

MultipleFreq-E-DCH-Resources-InformationItem-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-E-DCH-Resources-Information-AuditRsp    CRITICALITY ignore TYPE E-DCH-Resources-Information-AuditRsp    PRESENCE mandatory }
}

CCP-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCCPinNodeB)) OF ProtocolIE-Single-Container {{ CCP-InformationItemIE-AuditRsp }}

CCP-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-CCP-InformationItem-AuditRsp            CRITICALITY ignore          TYPE CCP-InformationItem-AuditRsp          PRESENCE mandatory }
}

CCP-InformationItem-AuditRsp ::= SEQUENCE {
    communicationControlPortID CommunicationControlPortID,
    resourceOperationalState ResourceOperationalState,
    availabilityStatus     AvailabilityStatus,
    iE-Extensions         ProtocolExtensionContainer {{ CCP-InformationItem-AuditRsp-ExtIEs }}    OPTIONAL,
    ...
}

```

```

}

CCP-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Local-Cell-InformationList-AuditRsp ::=SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-InformationItemIE-AuditRsp }}

Local-Cell-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-InformationItem-AuditRsp      CRITICALITY ignore   TYPE Local-Cell-InformationItem-AuditRsp      PRESENCE mandatory}
}

Local-Cell-InformationItem-AuditRsp ::= SEQUENCE {
    local-Cell-ID                               Local-Cell-ID,
    dl-or-global-capacityCredit                 DL-or-Global-CapacityCredit,
    ul-capacityCredit                           UL-CapacityCredit                               OPTIONAL,
    commonChannelsCapacityConsumptionLaw       CommonChannelsCapacityConsumptionLaw,
    dedicatedChannelsCapacityConsumptionLaw     DedicatedChannelsCapacityConsumptionLaw,
    maximumDL-PowerCapability                   MaximumDL-PowerCapability                       OPTIONAL,
    minSpreadingFactor                          MinSpreadingFactor                             OPTIONAL,
    minimumDL-PowerCapability                   MinimumDL-PowerCapability                       OPTIONAL,
    local-Cell-Group-ID                         Local-Cell-ID                                  OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer {{ Local-Cell-InformationItem-AuditRsp-ExtIEs}}  OPTIONAL,
    ...
}

Local-Cell-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-ReferenceClockAvailability           CRITICALITY ignore   EXTENSION ReferenceClockAvailability           PRESENCE optional }|
    { ID id-Power-Local-Cell-Group-ID           CRITICALITY ignore   EXTENSION Local-Cell-ID                       PRESENCE optional }|
    { ID id-HSDPA-Capability                     CRITICALITY ignore   EXTENSION HSDPA-Capability                     PRESENCE optional }|
    { ID id-E-DCH-Capability                     CRITICALITY ignore   EXTENSION E-DCH-Capability                     PRESENCE optional }|
    { ID id-E-DCH-TTI2ms-Capability             CRITICALITY ignore   EXTENSION E-DCH-TTI2ms-Capability             PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to "E-DCH Capable".
    { ID id-E-DCH-SF-Capability                 CRITICALITY ignore   EXTENSION E-DCH-SF-Capability                 PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to "E-DCH Capable".
    { ID id-E-DCH-HARQ-Combining-Capability     CRITICALITY ignore   EXTENSION E-DCH-HARQ-Combining-Capability     PRESENCE conditional }|
    -- The IE shall be present if E-DCH Capability IE is set to "E-DCH Capable".
    { ID id-E-DCH-CapacityConsumptionLaw       CRITICALITY ignore   EXTENSION E-DCHCapacityConsumptionLaw       PRESENCE optional }|
    { ID id-F-DPCH-Capability                     CRITICALITY ignore   EXTENSION F-DPCH-Capability                     PRESENCE optional }|
    { ID id-E-DCH-TDD-CapacityConsumptionLaw   CRITICALITY ignore   EXTENSION E-DCH-TDD-CapacityConsumptionLaw   PRESENCE optional }|
    { ID id-ContinuousPacketConnectivityDTX-DRX-Capability CRITICALITY ignore   EXTENSION ContinuousPacketConnectivityDTX-DRX-
    Capability PRESENCE optional }|
    { ID id-Max-UE-DTX-Cycle                     CRITICALITY ignore   EXTENSION Max-UE-DTX-Cycle                     PRESENCE conditional }|
    -- The IE shall be present if Continuous Packet Connectivity DTX-DRX Capability IE is present and set to "Continuous Packet Connectivity DTX-DRX Capable".
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Capability CRITICALITY ignore   EXTENSION ContinuousPacketConnectivityHS-SCCH-less-
    Capability PRESENCE optional }|
    { ID id-MIMO-Capability                       CRITICALITY ignore   EXTENSION MIMO-Capability                       PRESENCE optional }|
    { ID id-SixtyfourQAM-DL-Capability           CRITICALITY ignore   EXTENSION SixtyfourQAM-DL-Capability           PRESENCE optional }|
    { ID id-MBMS-Capability                       CRITICALITY ignore   EXTENSION MBMS-Capability                       PRESENCE optional }|
    { ID id-Enhanced-FACH-Capability             CRITICALITY ignore   EXTENSION Enhanced-FACH-Capability             PRESENCE optional }|
    { ID id-Enhanced-PCH-Capability             CRITICALITY ignore   EXTENSION Enhanced-PCH-Capability             PRESENCE conditional }|
    -- The IE shall be present if Enhanced FACH Capability IE is set to "Enhanced FACH Capable".
}

```

```

    { ID id-SixteenQAM-UL-Capability          CRITICALITY ignore          EXTENSION SixteenQAM-UL-Capability          PRESENCE optional }|
    { ID id-HSDSCH-MACdPDU-SizeCapability      CRITICALITY ignore          EXTENSION HSDSCH-MACdPDU-SizeCapability      PRESENCE optional }|
    { ID id-MBSFN-Only-Mode-Capability        CRITICALITY ignore          EXTENSION MBSFN-Only-Mode-Capability        PRESENCE optional }|
    { ID id-F-DPCH-SlotFormatCapability        CRITICALITY ignore          EXTENSION F-DPCH-SlotFormatCapability        PRESENCE optional }|
    { ID id-E-DPCCH-Power-Boosting-Capability CRITICALITY ignore          EXTENSION E-DPCCH-Power-Boosting-Capability PRESENCE optional }|
    { ID id-MIMO-Power-Offset-For-S-CPICH-Capability CRITICALITY ignore EXTENSION MIMO-PowerOffsetForS-CPICHCapability PRESENCE optional }|
    { ID id-TxDiversityOnDLControlChannelsByMIMOUECapability CRITICALITY ignore EXTENSION TxDiversityOnDLControlChannelsByMIMOUECapability PRESENCE optional },
    ...
}

Local-Cell-Group-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-InformationItemIE-AuditRsp }}

Local-Cell-Group-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-Local-Cell-Group-InformationItem-AuditRsp CRITICALITY ignore TYPE Local-Cell-Group-InformationItem-AuditRsp PRESENCE mandatory}
}

Local-Cell-Group-InformationItem-AuditRsp ::= SEQUENCE {
  local-Cell-Group-ID Local-Cell-ID,
  dl-or-global-capacityCredit DL-or-Global-CapacityCredit,
  ul-capacityCredit UL-CapacityCredit OPTIONAL,
  commonChannelsCapacityConsumptionLaw CommonChannelsCapacityConsumptionLaw,
  dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw,
  iE-Extensions ProtocolExtensionContainer {{ Local-Cell-Group-InformationItem-AuditRsp-ExtIEs}} OPTIONAL,
  ...
}

Local-Cell-Group-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-CapacityConsumptionLaw CRITICALITY ignore EXTENSION E-DCHCapacityConsumptionLaw PRESENCE optional }|
  { ID id-E-DCH-TDD-CapacityConsumptionLaw CRITICALITY ignore EXTENSION E-DCH-TDD-CapacityConsumptionLaw PRESENCE optional },
  ...
}

Power-Local-Cell-Group-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Power-Local-Cell-Group-InformationItemIE-AuditRsp }}

Power-Local-Cell-Group-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-Power-Local-Cell-Group-InformationItem-AuditRsp CRITICALITY ignore TYPE Power-Local-Cell-Group-InformationItem-AuditRsp PRESENCE mandatory}
}

Power-Local-Cell-Group-InformationItem-AuditRsp ::= SEQUENCE {
  power-Local-Cell-Group-ID Local-Cell-ID,
  maximumDL-PowerCapability MaximumDL-PowerCapability,
  iE-Extensions ProtocolExtensionContainer {{ Power-Local-Cell-Group-InformationItem-AuditRsp-ExtIEs}}
  OPTIONAL,
  ...
}

Power-Local-Cell-Group-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

-- *****
--
-- AUDIT FAILURE
--
-- *****

AuditFailure ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{AuditFailure-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{AuditFailure-Extensions}}    OPTIONAL,
    ...
}

AuditFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause          CRITICALITY ignore      TYPE Cause          PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics CRITICALITY ignore      TYPE CriticalityDiagnostics PRESENCE optional   },
    ...
}

AuditFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- COMMON MEASUREMENT INITIATION REQUEST
--
-- *****

CommonMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{CommonMeasurementInitiationRequest-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CommonMeasurementInitiationRequest-Extensions}}    OPTIONAL,
    ...
}

CommonMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID          CRITICALITY reject      TYPE MeasurementID          PRESENCE mandatory }|
    { ID id-CommonMeasurementObjectType-CM-Rqst CRITICALITY reject      TYPE CommonMeasurementObjectType-CM-Rqst PRESENCE mandatory }|
    { ID id-CommonMeasurementType          CRITICALITY reject      TYPE CommonMeasurementType          PRESENCE mandatory }|
    { ID id-MeasurementFilterCoefficient    CRITICALITY reject      TYPE MeasurementFilterCoefficient    PRESENCE optional   }|
    { ID id-ReportCharacteristics          CRITICALITY reject      TYPE ReportCharacteristics          PRESENCE mandatory }|
    { ID id-SFNReportingIndicator          CRITICALITY reject      TYPE SFNReportingIndicator          PRESENCE mandatory }|
    { ID id-SFN                          CRITICALITY reject      TYPE SFN                          PRESENCE optional   },
    ...
}

CommonMeasurementInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-CommonMeasurementAccuracy          CRITICALITY reject      EXTENSION CommonMeasurementAccuracy          PRESENCE optional}|
    { ID id-MeasurementRecoveryBehavior        CRITICALITY ignore      EXTENSION MeasurementRecoveryBehavior        PRESENCE optional}|
    { ID id-RTWP-ReportingIndicator            CRITICALITY reject      EXTENSION RTWP-ReportingIndicator            PRESENCE optional}|
    { ID id-RTWP-CellPortion-ReportingIndicator CRITICALITY reject      EXTENSION RTWP-CellPortion-ReportingIndicator PRESENCE optional}|
}

```



```

    { ID id-Reference-ReceivedTotalWideBandPowerReporting CRITICALITY ignore EXTENSION Reference-ReceivedTotalWideBandPowerReporting
      PRESENCE optional},
    ...
  }

CommonMeasurementObjectType-CM-Rqst ::= CHOICE {
  cell Cell-CM-Rqst,
  rACH RACH-CM-Rqst,
  notUsed-cPCH NULL,
  ...,
  extension-CommonMeasurementObjectType-CM-Rqst Extension-CommonMeasurementObjectType-CM-Rqst
}

Extension-CommonMeasurementObjectType-CM-Rqst ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RqstIE }}

Extension-CommonMeasurementObjectType-CM-RqstIE NBAP-PROTOCOL-IES ::= {
  { ID id-Power-Local-Cell-Group-choice-CM-Rqst CRITICALITY reject TYPE PowerLocalCellGroup-CM-Rqst PRESENCE mandatory }
}

Cell-CM-Rqst ::= SEQUENCE {
  c-ID C-ID,
  timeSlot TimeSlot OPTIONAL, -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only
  iE-Extensions ProtocolExtensionContainer { { CellItem-CM-Rqst-ExtIEs } } OPTIONAL,
  ...
}

CellItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-TimeSlotLCR-CM-Rqst CRITICALITY reject EXTENSION TimeSlotLCR PRESENCE optional } |
  -- Applicable to 1.28Mcps TDD only
  { ID id-NeighbouringCellMeasurementInformation CRITICALITY ignore EXTENSION NeighbouringCellMeasurementInformation PRESENCE optional } |
  { ID id-UARFCNforNt CRITICALITY reject EXTENSION UARFCN PRESENCE optional } |
  { ID id-UPPCHPositionLCR CRITICALITY reject EXTENSION UPPCHPositionLCR PRESENCE optional } |
  -- Applicable to 1.28Mcps TDD only
  { ID id-AdditionalTimeSlotListLCR CRITICALITY ignore EXTENSION AdditionalTimeSlotListLCR PRESENCE optional },
  ...
}

RACH-CM-Rqst ::= SEQUENCE {
  c-ID C-ID,
  commonTransportChannelID CommonTransportChannelID,
  iE-Extensions ProtocolExtensionContainer { { RACHItem-CM-Rqst-ExtIEs } } OPTIONAL,
  ...
}

RACHItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PowerLocalCellGroup-CM-Rqst ::= SEQUENCE {
  powerLocalCellGroupID Local-Cell-ID,
  iE-Extensions ProtocolExtensionContainer { { PowerLocalCellGroup-CM-Rqst-ExtIEs } } OPTIONAL,
  ...
}

```

```

PowerLocalCellGroup-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- COMMON MEASUREMENT INITIATION RESPONSE
--
-- *****

CommonMeasurementInitiationResponse ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container      {{CommonMeasurementInitiationResponse-IEs}},
  protocolExtensions  ProtocolExtensionContainer {{CommonMeasurementInitiationResponse-Extensions}}  OPTIONAL,
  ...
}

CommonMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-MeasurementID          CRITICALITY ignore    TYPE MeasurementID          PRESENCE mandatory }|
  { ID id-CommonMeasurementObjectType-CM-Rsp  CRITICALITY ignore    TYPE CommonMeasurementObjectType-CM-Rsp  PRESENCE optional }|
  { ID id-SFN                    CRITICALITY ignore    TYPE SFN                    PRESENCE optional }|
  { ID id-CriticalityDiagnostics  CRITICALITY ignore    TYPE CriticalityDiagnostics  PRESENCE optional },
  ...
}

CommonMeasurementInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-CommonMeasurementAccuracy          CRITICALITY ignore    EXTENSION CommonMeasurementAccuracy          PRESENCE optional }|
  { ID id-MeasurementRecoverySupportIndicator  CRITICALITY ignore    EXTENSION MeasurementRecoverySupportIndicator  PRESENCE optional }|
  { ID id-Reference-ReceivedTotalWideBandPowerSupportIndicator  CRITICALITY ignore    EXTENSION Reference-ReceivedTotalWideBandPowerSupportIndicator  PRESENCE optional }|
  ReceivedTotalWideBandPowerSupportIndicator  PRESENCE optional }|
  { ID id-Reference-ReceivedTotalWideBandPower  CRITICALITY ignore    EXTENSION Reference-ReceivedTotalWideBandPower  PRESENCE optional },
  ...
}

CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
  cell          Cell-CM-Rsp,
  rACH          RACH-CM-Rsp,
  notUsed-cPCH NULL,
  ...,
  extension-CommonMeasurementObjectType-CM-Rsp  Extension-CommonMeasurementObjectType-CM-Rsp
}

Extension-CommonMeasurementObjectType-CM-Rsp ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RspIE }}

Extension-CommonMeasurementObjectType-CM-RspIE NBAP-PROTOCOL-IES ::= {
  { ID id-Power-Local-Cell-Group-choice-CM-Rsp  CRITICALITY ignore    TYPE PowerLocalCellGroup-CM-Rsp  PRESENCE mandatory }
}

Cell-CM-Rsp ::= SEQUENCE {
  commonMeasurementValue  CommonMeasurementValue,
  iE-Extensions          ProtocolExtensionContainer  { { CellItem-CM-Rsp-ExtIEs } }  OPTIONAL,
  ...
}

```

```

CellItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  {ID id-AdditionalMeasurementValueList      CRITICALITY ignore  EXTENSION AdditionalMeasurementValueList  PRESENCE optional }|
  -- Applicable to 1.28Mcps TDD only
  {ID id-TimeSlotMeasurementValueListLCR    CRITICALITY ignore  EXTENSION TimeSlotMeasurementValueListLCR  PRESENCE optional },
  -- Applicable to 1.28Mcps TDD, this IE is for the measurement value from the Primary frequency
  ...
}

RACH-CM-Rsp ::= SEQUENCE {
  commonMeasurementValue      CommonMeasurementValue,
  iE-Extensions               ProtocolExtensionContainer { { RACHItem-CM-Rsp-ExtIEs} }          OPTIONAL,
  ...
}

RACHItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PowerLocalCellGroup-CM-Rsp ::= SEQUENCE {
  commonMeasurementValue      CommonMeasurementValue,
  iE-Extensions               ProtocolExtensionContainer {{ PowerLocalCellGroup-CM-Rsp-ExtIEs}}          OPTIONAL,
  ...
}

PowerLocalCellGroup-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- COMMON MEASUREMENT INITIATION FAILURE
--
-- *****

CommonMeasurementInitiationFailure ::= SEQUENCE {
  protocolIEs                 ProtocolIE-Container      {{CommonMeasurementInitiationFailure-IEs}},
  protocolExtensions          ProtocolExtensionContainer  {{CommonMeasurementInitiationFailure-Extensions}}          OPTIONAL,
  ...
}

CommonMeasurementInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-MeasurementID      CRITICALITY ignore      TYPE MeasurementID      PRESENCE mandatory }|
  { ID id-Cause              CRITICALITY ignore      TYPE Cause              PRESENCE mandatory }|
  { ID id-CriticalityDiagnostics  CRITICALITY ignore      TYPE CriticalityDiagnostics  PRESENCE optional },
  ...
}

CommonMeasurementInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--

```

```

-- COMMON MEASUREMENT REPORT
--
-- *****
CommonMeasurementReport ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container          {{CommonMeasurementReport-IEs}},
  protocolExtensions   ProtocolExtensionContainer    {{CommonMeasurementReport-Extensions}}
  ...
}

CommonMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-MeasurementID          CRITICALITY ignore      TYPE MeasurementID          PRESENCE mandatory }|
  { ID id-CommonMeasurementObjectType-CM-Rprt CRITICALITY ignore      TYPE CommonMeasurementObjectType-CM-Rprt PRESENCE mandatory }|
  { ID id-SFN                    CRITICALITY ignore      TYPE SFN                    PRESENCE optional },
  ...
}

CommonMeasurementReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-MeasurementRecoveryReportingIndicator CRITICALITY ignore      EXTENSION MeasurementRecoveryReportingIndicator PRESENCE optional }|
  { ID id-Reference-ReceivedTotalWideBandPower CRITICALITY ignore      EXTENSION Reference-ReceivedTotalWideBandPower PRESENCE optional },
  ...
}

CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
  cell                Cell-CM-Rprt,
  rACH                RACH-CM-Rprt,
  notUsed-cPCH        NULL,
  ...,
  extension-CommonMeasurementObjectType-CM-Rprt Extension-CommonMeasurementObjectType-CM-Rprt
}

Extension-CommonMeasurementObjectType-CM-Rprt ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RprtIE }}

Extension-CommonMeasurementObjectType-CM-RprtIE NBAP-PROTOCOL-IES ::= {
  { ID id-Power-Local-Cell-Group-choice-CM-Rprt CRITICALITY ignore      TYPE PowerLocalCellGroup-CM-Rprt PRESENCE mandatory }
}

Cell-CM-Rprt ::= SEQUENCE {
  commonMeasurementValueInformation CommonMeasurementValueInformation,
  IE-Extensions                     ProtocolExtensionContainer {{ CellItem-CM-Rprt-ExtIEs }}
  ...
}

CellItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  {ID id-AdditionalMeasurementValueList CRITICALITY ignore      EXTENSION AdditionalMeasurementValueList PRESENCE optional }|
  -- Applicable to 1.28Mcps TDD only
  {ID id-TimeSlotMeasurementValueListLCR CRITICALITY ignore      EXTENSION TimeSlotMeasurementValueListLCR PRESENCE optional },
  -- Applicable to 1.28Mcps TDD, this IE is for the measurement value from the Primary frequency
  ...
}

RACH-CM-Rprt ::= SEQUENCE {
  commonMeasurementValueInformation CommonMeasurementValueInformation,

```

```

    iE-Extensions          ProtocolExtensionContainer {{ RACHItem-CM-Rprt-ExtIEs }}          OPTIONAL,
  }
  ...
}
RACHItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
PowerLocalCellGroup-CM-Rprt ::= SEQUENCE {
  commonMeasurementValueInformation  CommonMeasurementValueInformation,
  iE-Extensions                      ProtocolExtensionContainer {{ PowerLocalCellGroup-CM-Rprt-ExtIEs}}  OPTIONAL,
  ...
}
PowerLocalCellGroup-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
-- *****
--
-- COMMON MEASUREMENT TERMINATION REQUEST
--
-- *****

CommonMeasurementTerminationRequest ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container          {{CommonMeasurementTerminationRequest-IEs}},
  protocolExtensions  ProtocolExtensionContainer    {{CommonMeasurementTerminationRequest-Extensions}}  OPTIONAL,
  ...
}
CommonMeasurementTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-MeasurementID          CRITICALITY ignore          TYPE MeasurementID          PRESENCE mandatory },
  ...
}
CommonMeasurementTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
-- *****
--
-- COMMON MEASUREMENT FAILURE INDICATION
--
-- *****

CommonMeasurementFailureIndication ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container          {{CommonMeasurementFailureIndication-IEs}},
  protocolExtensions  ProtocolExtensionContainer    {{CommonMeasurementFailureIndication-Extensions}}  OPTIONAL,
  ...
}
CommonMeasurementFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-MeasurementID          CRITICALITY ignore          TYPE MeasurementID          PRESENCE mandatory }|
  { ID id-Cause                  CRITICALITY ignore          TYPE Cause                    PRESENCE mandatory },
}

```

```

}
...
}
CommonMeasurementFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
...
}
-- *****
--
-- CELL SETUP REQUEST FDD
--
-- *****

CellSetupRequestFDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{CellSetupRequestFDD-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{CellSetupRequestFDD-Extensions}}    OPTIONAL,
    ...
}

CellSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-ID                CRITICALITY reject TYPE Local-Cell-ID                PRESENCE mandatory }|
    { ID id-C-ID                          CRITICALITY reject TYPE C-ID                          PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID     CRITICALITY reject TYPE ConfigurationGenerationID     PRESENCE mandatory }|
    { ID id-T-Cell                         CRITICALITY reject TYPE T-Cell                         PRESENCE mandatory }|
    { ID id-UARFCNforNu                    CRITICALITY reject TYPE UARFCN                        PRESENCE mandatory }|
    { ID id-UARFCNforNd                    CRITICALITY reject TYPE UARFCN                        PRESENCE mandatory }|
    { ID id-MaximumTransmissionPower       CRITICALITY reject TYPE MaximumTransmissionPower     PRESENCE mandatory }|
    { ID id-Closed-Loop-Timing-Adjustment-Mode CRITICALITY reject TYPE Closedlooptimingadjustmentmode PRESENCE optional }|
    { ID id-PrimaryScramblingCode          CRITICALITY reject TYPE PrimaryScramblingCode          PRESENCE mandatory }|
    { ID id-Synchronisation-Configuration-Cell-SetupRqst mandatory }|
    { ID id-DL-TPC-Pattern01Count          CRITICALITY reject TYPE DL-TPC-Pattern01Count          PRESENCE mandatory }|
    { ID id-PrimarySCH-Information-Cell-SetupRqstFDD mandatory }|
    { ID id-SecondarySCH-Information-Cell-SetupRqstFDD mandatory }|
    { ID id-PrimaryCPICH-Information-Cell-SetupRqstFDD mandatory }|
    { ID id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD optional }|
    { ID id-PrimaryCCPCH-Information-Cell-SetupRqstFDD mandatory }|
    { ID id-Limited-power-increase-information-Cell-SetupRqstFDD PRESENCE mandatory },
    ...
}

```

```

}

CellSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-IPDLParameter-Information-Cell-SetupRqstFDD      CRITICALITY reject  EXTENSION IPDLParameter-Information-Cell-SetupRqstFDD
  PRESENCE optional }|
  { ID id-CellPortion-InformationList-Cell-SetupRqstFDD    CRITICALITY reject  EXTENSION CellPortion-InformationList-Cell-SetupRqstFDD
  PRESENCE optional }|
  { ID id-MIMO-PilotConfiguration                          CRITICALITY reject  EXTENSION MIMO-PilotConfiguration          PRESENCE optional }|
  { ID id-MIMO-PilotConfigurationExtension                CRITICALITY reject  EXTENSION MIMO-PilotConfigurationExtension  PRESENCE optional },
  ...
}

Synchronisation-Configuration-Cell-SetupRqst ::= SEQUENCE {
  n-INSYNC-IND          N-INSYNC-IND,
  n-OUTSYNC-IND         N-OUTSYNC-IND,
  t-RLFFAILURE          T-RLFFAILURE,
  iE-Extensions         ProtocolExtensionContainer { { Synchronisation-Configuration-Cell-SetupRqst-ExtIEs} }  OPTIONAL,
  ...
}

Synchronisation-Configuration-Cell-SetupRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PrimarySCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  primarySCH-Power              DL-Power,
  tSTD-Indicator                TSTD-Indicator,
  iE-Extensions                 ProtocolExtensionContainer { { PrimarySCH-Information-Cell-SetupRqstFDD-ExtIEs} }  OPTIONAL,
  ...
}

PrimarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

SecondarySCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  secondarySCH-Power           DL-Power,
  tSTD-Indicator                TSTD-Indicator,
  iE-Extensions                 ProtocolExtensionContainer { { SecondarySCH-Information-Cell-SetupRqstFDD-ExtIEs} }  OPTIONAL,
  ...
}

SecondarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PrimaryCPICH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  primaryCPICH-Power           PrimaryCPICH-Power,
  transmitDiversityIndicator    TransmitDiversityIndicator,
  iE-Extensions                 ProtocolExtensionContainer { { PrimaryCPICH-Information-Cell-SetupRqstFDD-ExtIEs} }  OPTIONAL,
  ...
}

```

```

}

PrimaryCPICH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondaryCPICH-InformationList-Cell-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container{{ SecondaryCPICH-
InformationItemIE-Cell-SetupRqstFDD }}

SecondaryCPICH-InformationItemIE-Cell-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD          CRITICALITY reject   TYPE SecondaryCPICH-InformationItem-Cell-SetupRqstFDD
    PRESENCE mandatory}
}

SecondaryCPICH-InformationItem-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    dl-ScramblingCode                DL-ScramblingCode,
    fdd-DL-ChannelisationCodeNumber  FDD-DL-ChannelisationCodeNumber,
    secondaryCPICH-Power              DL-Power,
    transmitDiversityIndicator        TransmitDiversityIndicator,
    iE-Extensions                     ProtocolExtensionContainer { { SecondaryCPICH-InformationItem-Cell-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

SecondaryCPICH-InformationItem-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    bch-information                  BCH-Information-Cell-SetupRqstFDD,
    sTTD-Indicator                   STTD-Indicator,
    iE-Extensions                     ProtocolExtensionContainer { { PrimaryCCPCH-Information-Cell-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

PrimaryCCPCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID         CommonTransportChannelID,
    bch-Power                         DL-Power,
    iE-Extensions                     ProtocolExtensionContainer { { BCH-Information-Cell-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

BCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Limited-power-increase-information-Cell-SetupRqstFDD ::= SEQUENCE {
    powerRaiseLimit                   PowerRaiseLimit,
    dlPowerAveragingWindowSize        DLPowerAveragingWindowSize,
}

```



```

    iE-Extensions          ProtocolExtensionContainer { { Limited-power-increase-information-Cell-SetupRqstFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Limited-power-increase-information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    iPDL-FDD-Parameters          IPDL-FDD-Parameters,
    iPDL-Indicator                IPDL-Indicator,
    iE-Extensions                ProtocolExtensionContainer { { IPDLParameter-Information-Cell-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

IPDLParameter-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellPortion-InformationList-Cell-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF ProtocolIE-Single-Container{{ CellPortion-
InformationItemIE-Cell-SetupRqstFDD }}

CellPortion-InformationItemIE-Cell-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CellPortion-InformationItem-Cell-SetupRqstFDD    CRITICALITY reject    TYPE CellPortion-InformationItem-Cell-SetupRqstFDD
    PRESENCE mandatory }
}

CellPortion-InformationItem-Cell-SetupRqstFDD ::= SEQUENCE {
    cellPortionID                CellPortionID,
    associatedSecondaryCPICH      CommonPhysicalChannelID,
    maximumTransmissionPowerforCellPortion MaximumTransmissionPower,
    iE-Extensions                ProtocolExtensionContainer { { CellPortion-InformationItem-Cell-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

CellPortion-InformationItem-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL SETUP REQUEST TDD
--
-- *****

CellSetupRequestTDD ::= SEQUENCE {
    protocolIEs                ProtocolIE-Container    {{CellSetupRequestTDD-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{CellSetupRequestTDD-Extensions}}    OPTIONAL,
    ...
}

CellSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-Local-Cell-ID                CRITICALITY reject  TYPE Local-Cell-ID                PRESENCE mandatory
  }|
  { ID id-C-ID                          CRITICALITY reject  TYPE C-ID                          PRESENCE mandatory
  }|
  { ID id-ConfigurationGenerationID      CRITICALITY reject  TYPE ConfigurationGenerationID      PRESENCE mandatory
  }|
  { ID id-UARFCNforNt                   CRITICALITY reject  TYPE UARFCN                          PRESENCE mandatory
  }| -- For 1.28Mcps TDD, if multiple frequencies exist within the cell indicated by C-ID, this IE indicates the frequency of Primary frequency
  { ID id-CellParameterID               CRITICALITY reject  TYPE CellParameterID                PRESENCE mandatory
  }|
  -- For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, this IE indicate the Preamble code used in the Speial Time Slot [19]
  { ID id-MaximumTransmissionPower       CRITICALITY reject  TYPE MaximumTransmissionPower        PRESENCE mandatory
  }|
  { ID id-TransmissionDiversityApplied   CRITICALITY reject  TYPE TransmissionDiversityApplied     PRESENCE mandatory
  }|
  { ID id-SyncCase                       CRITICALITY reject  TYPE SyncCase                         PRESENCE mandatory
  }|
  { ID id-Synchronisation-Configuration-Cell-SetupRqst CRITICALITY reject  TYPE Synchronisation-Configuration-Cell-SetupRqst PRESENCE
mandatory }|
  { ID id-DPCHConstant                   CRITICALITY reject  TYPE ConstantValue                   PRESENCE mandatory
  }| -- This IE shall be ignored by the Node B.
  { ID id-PUSCHConstant                   CRITICALITY reject  TYPE ConstantValue                   PRESENCE mandatory
  }| -- This IE shall be ignored by the Node B.
  { ID id-PRACHConstant                   CRITICALITY reject  TYPE ConstantValue                   PRESENCE mandatory
  }| -- This IE shall be ignored by the Node B.
  { ID id-TimingAdvanceApplied           CRITICALITY reject  TYPE TimingAdvanceApplied            PRESENCE mandatory
  }|
  { ID id-SCH-Information-Cell-SetupRqstTDD CRITICALITY reject  TYPE SCH-Information-Cell-SetupRqstTDD PRESENCE optional }|
  -- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, Not Applicable to 1.28Mcps TDD
  { ID id-PCCPCH-Information-Cell-SetupRqstTDD CRITICALITY reject  TYPE PCCPCH-Information-Cell-SetupRqstTDD PRESENCE optional }|
  -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD
  { ID id-TimeSlotConfigurationList-Cell-SetupRqstTDD CRITICALITY reject  TYPE TimeSlotConfigurationList-Cell-SetupRqstTDD PRESENCE optional
}, -- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, Not Applicable to 1.28Mcps TDD
  ...
}

CellSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD CRITICALITY reject  EXTENSION TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD
PRESENCE optional }| -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD. If multiple frequencies exist within the
cell indicated by C-ID, this IE indicates the Time Slot configuration of Primary frequency.
  { ID id-PCCPCH-LCR-Information-Cell-SetupRqstTDD CRITICALITY reject  EXTENSION PCCPCH-LCR-Information-Cell-SetupRqstTDD
PRESENCE optional }| -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD, For 1.28 Mcps TDD, if the cell is
operating in MBSFN only mode, PCCPCH is deployed on the MBSFN Special Time Slot [19].
  { ID id-DwPCH-LCR-Information-Cell-SetupRqstTDD CRITICALITY reject  EXTENSION DwPCH-LCR-Information-Cell-SetupRqstTDD
PRESENCE optional }| -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
  { ID id-ReferenceSFNoffset CRITICALITY ignore  EXTENSION ReferenceSFNoffset
PRESENCE optional }|
  { ID id-IPDLParameter-Information-Cell-SetupRqstTDD CRITICALITY reject  EXTENSION IPDLParameter-Information-Cell-SetupRqstTDD
PRESENCE optional }| -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only
  { ID id-IPDLParameter-Information-LCR-Cell-SetupRqstTDD CRITICALITY reject  EXTENSION IPDLParameter-Information-LCR-Cell-SetupRqstTDD
PRESENCE optional }| -- Applicable to 1.28Mcps TDD only
  { ID id-PCCPCH-768-Information-Cell-SetupRqstTDD CRITICALITY reject  EXTENSION PCCPCH-768-Information-Cell-SetupRqstTDD
PRESENCE optional }| -- Mandatory for 7.68Mcps TDD, Not Applicable to 3.84Mcps TDD or 1.28Mcps TDD
}

```

```

    { ID id-SCH-768-Information-Cell-SetupRqstTDD          CRITICALITY reject EXTENSION SCH-768-Information-Cell-SetupRqstTDD
    PRESENCE optional }| -- Mandatory for 7.68Mcps TDD, Not Applicable to 3.84Mcps TDD or 1.28Mcps TDD
    { ID id-MBSFN-Only-Mode-Indicator-Cell-SetupRqstTDD-LCR CRITICALITY reject EXTENSION MBSFN-Only-Mode-Indicator
    PRESENCE optional }|
    { ID id-Cell-Frequency-List-LCR-MulFreq-Cell-SetupRqstTDD CRITICALITY reject EXTENSION Cell-Frequency-List-LCR-MulFreq-Cell-SetupRqstTDD
    PRESENCE optional }, -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

SCH-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    syncCaseIndicator                SyncCaseIndicator-Cell-SetupRqstTDD-PSCH,
    sCH-Power                        DL-Power,
    tSTD-Indicator                   TSTD-Indicator,
    iE-Extensions                    ProtocolExtensionContainer { { SCH-Information-Cell-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

SCH-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncCaseIndicator-Cell-SetupRqstTDD-PSCH ::= ProtocolIE-Single-Container {{ SyncCaseIndicatorIE-Cell-SetupRqstTDD-PSCH }}

SyncCaseIndicatorIE-Cell-SetupRqstTDD-PSCH NBAP-PROTOCOL-IES ::= {
    { ID id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH CRITICALITY reject TYPE SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH PRESENCE
    mandatory }
}

SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH ::= CHOICE {
    case1                            Case1-Cell-SetupRqstTDD,
    case2                            Case2-Cell-SetupRqstTDD,
    ...
}

Case1-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlot                          TimeSlot,
    iE-Extensions                    ProtocolExtensionContainer { { Case1Item-Cell-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

Case1Item-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Case2-Cell-SetupRqstTDD ::= SEQUENCE {
    sCH-TimeSlot                      SCH-TimeSlot,
    iE-Extensions                    ProtocolExtensionContainer { { Case2Item-Cell-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

Case2Item-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

PCCPCH-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    tdd-PhysicalChannelOffset     TDD-PhysicalChannelOffset,
    repetitionPeriod              RepetitionPeriod,
    repetitionLength              RepetitionLength,
    pCCPCH-Power                  PCCPCH-Power,
    sCTD-Indicator                SCTD-Indicator,
    iE-Extensions                 ProtocolExtensionContainer { { PCCPCH-Information-Cell-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

PCCPCH-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TimeSlotConfigurationList-Cell-SetupRqstTDD ::= SEQUENCE (SIZE (1..15)) OF TimeSlotConfigurationItem-Cell-SetupRqstTDD

TimeSlotConfigurationItem-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlot                      TimeSlot,
    timeSlotStatus                TimeSlotStatus,
    timeSlotDirection             TimeSlotDirection,
    iE-Extensions                 ProtocolExtensionContainer { { TimeSlotConfigurationItem-Cell-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

TimeSlotConfigurationItem-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MBSFN-Cell-ParameterID-Cell-SetupRqstTDD CRITICALITY reject EXTENSION CellParameterID PRESENCE optional },--
    Applicable only to for MBSFN only mode
    ...
}

TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD ::= SEQUENCE (SIZE (1..7)) OF TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD

TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlotLCR                  TimeSlotLCR,
    timeSlotStatus                TimeSlotStatus,
    timeSlotDirection             TimeSlotDirection,
    iE-Extensions                 ProtocolExtensionContainer { { TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Time-Slot-Parameter-ID CRITICALITY reject EXTENSION CellParameterID PRESENCE optional },
    ...
}

PCCPCH-LCR-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    tdd-PhysicalChannelOffset     TDD-PhysicalChannelOffset,
    repetitionPeriod              RepetitionPeriod,
    repetitionLength              RepetitionLength,
    pCCPCH-Power                  PCCPCH-Power,
    sCTD-Indicator                SCTD-Indicator,

```

```

    tSTD-Indicator          TSTD-Indicator,
    iE-Extensions          ProtocolExtensionContainer { { PCCPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

PCCPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DwPCH-LCR-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelId    CommonPhysicalChannelID,
    tSTD-Indicator            TSTD-Indicator,
    dwPCH-Power              DwPCH-Power,
    iE-Extensions          ProtocolExtensionContainer { { DwPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

DwPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    iPDL-TDD-Parameters      IPDL-TDD-Parameters,
    iPDL-Indicator          IPDL-Indicator,
    iE-Extensions          ProtocolExtensionContainer { { IPDLParameter-Information-Cell-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

IPDLParameter-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLParameter-Information-LCR-Cell-SetupRqstTDD ::= SEQUENCE {
    iPDL-TDD-Parameters-LCR  IPDL-TDD-Parameters-LCR,
    iPDL-Indicator          IPDL-Indicator,
    iE-Extensions          ProtocolExtensionContainer { { IPDLParameter-Information-LCR-Cell-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

IPDLParameter-Information-LCR-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCCPCH-768-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768    CommonPhysicalChannelID768,
    tdd-PhysicalChannelOffset    TDD-PhysicalChannelOffset,
    repetitionPeriod            RepetitionPeriod,
    repetitionLength            RepetitionLength,
    pCCPCH-Power              PCCPCH-Power,
    sCTD-Indicator            SCTD-Indicator,
    iE-Extensions          ProtocolExtensionContainer { { PCCPCH-768-Information-Cell-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

```

```

PCCPCH-768-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SCH-768-Information-Cell-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768          CommonPhysicalChannelID768,
    syncCaseIndicator                   SyncCaseIndicator-Cell-SetupRqstTDD-PSCH,
    sCH-Power                           DL-Power,
    tSTD-Indicator                       TSTD-Indicator,
    iE-Extensions                       ProtocolExtensionContainer { { SCH-768-Information-Cell-SetupRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

SCH-768-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-Frequency-List-LCR-MulFreq-Cell-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF Cell-Frequency-Item-LCR-MulFreq-Cell-SetupRqstTDD

Cell-Frequency-Item-LCR-MulFreq-Cell-SetupRqstTDD ::= SEQUENCE {
    uARFCN                               UARFCN,
    -- This IE indicates the frequency of Secondary frequency
    timeSlotConfigurationList-LCR-Cell-SetupRqstTDD    TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD,
    -- This IE indicates the Time Slot configuration of Secondary frequency
    iE-Extensions                       ProtocolExtensionContainer { { Cell-Frequency-Item-LCR-MulFreq-Cell-SetupRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}

Cell-Frequency-Item-LCR-MulFreq-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL SETUP RESPONSE
--
-- *****

CellSetupResponse ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CellSetupResponse-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{CellSetupResponse-Extensions}}    OPTIONAL,
    ...
}

CellSetupResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics    CRITICALITY ignore          TYPE CriticalityDiagnostics          PRESENCE optional },
    ...
}

CellSetupResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

-- *****
--
-- CELL SETUP FAILURE
--
-- *****

CellSetupFailure ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{CellSetupFailure-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellSetupFailure-Extensions}}      OPTIONAL,
    ...
}

CellSetupFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause          CRITICALITY ignore          TYPE Cause          PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics CRITICALITY ignore          TYPE CriticalityDiagnostics PRESENCE optional },
    ...
}

CellSetupFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL RECONFIGURATION REQUEST FDD
--
-- *****

CellReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{CellReconfigurationRequestFDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellReconfigurationRequestFDD-Extensions}}      OPTIONAL,
    ...
}

CellReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID          CRITICALITY reject          TYPE C-ID          PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID CRITICALITY reject          TYPE ConfigurationGenerationID PRESENCE mandatory }|
    { ID id-MaximumTransmissionPower CRITICALITY reject          TYPE MaximumTransmissionPower PRESENCE optional }|
    { ID id-Synchronisation-Configuration-Cell-ReconfRqst CRITICALITY reject          TYPE Synchronisation-Configuration-Cell-ReconfRqst PRESENCE optional }|
    { ID id-PrimarySCH-Information-Cell-ReconfRqstFDD CRITICALITY reject          TYPE PrimarySCH-Information-Cell-ReconfRqstFDD PRESENCE optional }|
    { ID id-SecondarySCH-Information-Cell-ReconfRqstFDD CRITICALITY reject          TYPE SecondarySCH-Information-Cell-ReconfRqstFDD PRESENCE optional }|
    { ID id-PrimaryCPICH-Information-Cell-ReconfRqstFDD CRITICALITY reject          TYPE PrimaryCPICH-Information-Cell-ReconfRqstFDD PRESENCE optional }|
    { ID id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD CRITICALITY reject          TYPE SecondaryCPICH-InformationList-Cell-ReconfRqstFDD PRESENCE optional }|
    { ID id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD CRITICALITY reject          TYPE PrimaryCCPCH-Information-Cell-ReconfRqstFDD PRESENCE optional },
}

```

```

}
...
}
CellReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-IPDLParameter-Information-Cell-ReconfRqstFDD CRITICALITY reject EXTENSION IPDLParameter-Information-Cell-ReconfRqstFDD
  PRESENCE optional }|
  { ID id-CellPortion-InformationList-Cell-ReconfRqstFDD CRITICALITY reject EXTENSION CellPortion-InformationList-Cell-ReconfRqstFDD
  PRESENCE optional }|
  { ID id-MIMO-PilotConfiguration CRITICALITY reject EXTENSION MIMO-PilotConfiguration
  PRESENCE optional }|
  { ID id-MIMO-PilotConfigurationExtension CRITICALITY reject EXTENSION MIMO-PilotConfigurationExtension
  PRESENCE optional },
  ...
}
Synchronisation-Configuration-Cell-ReconfRqst ::= SEQUENCE {
  n-INSYNC-IND N-INSYNC-IND,
  n-OUTSYNC-IND N-OUTSYNC-IND,
  t-RLFFAILURE T-RLFFAILURE,
  iE-Extensions ProtocolExtensionContainer { { Synchronisation-Configuration-Cell-ReconfRqst-ExtIEs } } OPTIONAL,
  ...
}
Synchronisation-Configuration-Cell-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
PrimarySCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID CommonPhysicalChannelID,
  primarySCH-Power DL-Power,
  iE-Extensions ProtocolExtensionContainer { { PrimarySCH-Information-Cell-ReconfRqstFDD-ExtIEs } } OPTIONAL,
  ...
}
PrimarySCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
SecondarySCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID CommonPhysicalChannelID,
  secondarySCH-Power DL-Power,
  iE-Extensions ProtocolExtensionContainer { { SecondarySCH-Information-Cell-ReconfRqstFDD-ExtIEs } } OPTIONAL,
  ...
}
SecondarySCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
PrimaryCPICH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID CommonPhysicalChannelID,
  primaryCPICH-Power PrimaryCPICH-Power,
  iE-Extensions ProtocolExtensionContainer { { PrimaryCPICH-Information-Cell-ReconfRqstFDD-ExtIEs } } OPTIONAL,
  ...
}

```



```

}
PrimaryCPICH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
SecondaryCPICH-InformationList-Cell-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container{{ SecondaryCPICH-
InformationItemIE-Cell-ReconfRqstFDD }}
SecondaryCPICH-InformationItemIE-Cell-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD      CRITICALITY reject  TYPE      SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD
      PRESENCE mandatory }
}
SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    secondaryCPICH-Power              DL-Power,
    iE-Extensions                     ProtocolExtensionContainer { { SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD-ExtIEs } }
    OPTIONAL,
    ...
}
SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
PrimaryCCPCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    bCH-information                   BCH-information-Cell-ReconfRqstFDD,
    iE-Extensions                     ProtocolExtensionContainer { { PrimaryCCPCH-Information-Cell-ReconfRqstFDD-ExtIEs } }      OPTIONAL,
    ...
}
PrimaryCCPCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
BCH-information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID          CommonTransportChannelID,
    bCH-Power                          DL-Power,
    iE-Extensions                     ProtocolExtensionContainer { { BCH-information-Cell-ReconfRqstFDD-ExtIEs } }      OPTIONAL,
    ...
}
BCH-information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
IPDLParameter-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    iPDL-FDD-Parameters               IPDL-FDD-Parameters      OPTIONAL,
    iPDL-Indicator                     IPDL-Indicator,
    iE-Extensions                     ProtocolExtensionContainer { { IPDLParameter-Information-Cell-ReconfRqstFDD-ExtIEs } }      OPTIONAL,
    ...
}

```

```

IPDLParameter-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

CellPortion-InformationList-Cell-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF ProtocolIE-Single-Container{{ CellPortion-
InformationItemIE-Cell-ReconfRqstFDD }}

CellPortion-InformationItemIE-Cell-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
  { ID id-CellPortion-InformationItem-Cell-ReconfRqstFDD CRITICALITY reject TYPE CellPortion-InformationItem-Cell-ReconfRqstFDD
  PRESENCE mandatory}
}

CellPortion-InformationItem-Cell-ReconfRqstFDD ::= SEQUENCE {
  cellPortionID CellPortionID,
  maximumTransmissionPowerforCellPortion MaximumTransmissionPower,
  iE-Extensions ProtocolExtensionContainer { { CellPortion-InformationItem-Cell-ReconfRqstFDD-ExtIEs } } OPTIONAL,
  ...
}

CellPortion-InformationItem-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- CELL RECONFIGURATION REQUEST TDD
--
-- *****

CellReconfigurationRequestTDD ::= SEQUENCE {
  protocolIEs ProtocolIE-Container {{CellReconfigurationRequestTDD-IEs}},
  protocolExtensions ProtocolExtensionContainer {{CellReconfigurationRequestTDD-Extensions}} OPTIONAL,
  ...
}

CellReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-C-ID CRITICALITY reject TYPE C-ID PRESENCE mandatory }|
  { ID id-ConfigurationGenerationID CRITICALITY reject TYPE ConfigurationGenerationID PRESENCE mandatory }|
  { ID id-Synchronisation-Configuration-Cell-ReconfRqst CRITICALITY reject TYPE Synchronisation-Configuration-Cell-ReconfRqst PRESENCE
optional }|
  { ID id-TimingAdvanceApplied CRITICALITY reject TYPE TimingAdvanceApplied PRESENCE optional }|
  { ID id-SCH-Information-Cell-ReconfRqstTDD CRITICALITY reject TYPE SCH-Information-Cell-ReconfRqstTDD PRESENCE optional }|
  -- Applicable to 3.84Mcps TDD only
  { ID id-PCCPCH-Information-Cell-ReconfRqstTDD CRITICALITY reject TYPE PCCPCH-Information-Cell-ReconfRqstTDD PRESENCE optional }|
  -- Not applicable to 7.68Mcps TDD only. For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, PCCPCH is deployed on the MBSFN Special
Time Slot [19].
  { ID id-MaximumTransmissionPower CRITICALITY reject TYPE MaximumTransmissionPower PRESENCE optional }|
  { ID id-DPCHConstant CRITICALITY reject TYPE ConstantValue PRESENCE optional }|
  -- This IE shall be ignored by the Node B.
  { ID id-PUSCHConstant CRITICALITY reject TYPE ConstantValue PRESENCE optional }|
  -- This IE shall be ignored by the Node B.
  { ID id-PRACHConstant CRITICALITY reject TYPE ConstantValue PRESENCE optional }|
  -- This IE shall be ignored by the Node B.

```

```

    { ID id-TimeSlotConfigurationList-Cell-ReconfRqstTDD CRITICALITY reject TYPE TimeSlotConfigurationList-Cell-ReconfRqstTDD PRESENCE
optional },
    -- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD only. Not Applicable to 1.28Mcps TDD.
    ...
}

CellReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD CRITICALITY reject EXTENSION TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD
PRESENCE optional } | -- Applicable to 1.28Mcps TDD only, If multiple frequencies exist within the cell indicated by C-ID, this IE indicates
the Time Slot reconfiguration of Primary frequency
    { ID id-DwPCH-LCR-Information-Cell-ReconfRqstTDD CRITICALITY reject EXTENSION DwPCH-LCR-Information-Cell-ReconfRqstTDD
PRESENCE optional } | -- Applicable to 1.28Mcps TDD only
    { ID id-IPDLParameter-Information-Cell-ReconfRqstTDD CRITICALITY reject EXTENSION IPDLParameter-Information-Cell-ReconfRqstTDD
PRESENCE optional } | -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only
    { ID id-IPDLParameter-Information-LCR-Cell-ReconfRqstTDD CRITICALITY reject EXTENSION IPDLParameter-Information-LCR-Cell-ReconfRqstTDD
PRESENCE optional } | -- Applicable to 1.28Mcps TDD only
    { ID id-SCH-768-Information-Cell-ReconfRqstTDD CRITICALITY reject EXTENSION SCH-768-Information-Cell-ReconfRqstTDD
PRESENCE optional } | -- Applicable to 7.68Mcps TDD only
    { ID id-PCCPCH-768-Information-Cell-ReconfRqstTDD CRITICALITY reject EXTENSION PCCPCH-768-Information-Cell-ReconfRqstTDD
PRESENCE optional } | -- Applicable to 7.68Mcps TDD only
    { ID id-UARFCN-Adjustment CRITICALITY reject EXTENSION UARFCN-Adjustment
PRESENCE optional }, -- Applicable to 1.28Mcps TDD when using multiple frequencies
    ...
}

SCH-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID CommonPhysicalChannelID,
    sCH-Power DL-Power,
    iE-Extensions ProtocolExtensionContainer { { PSCH-Information-Cell-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

PSCH-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCCPCH-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID CommonPhysicalChannelID,
    pCCPCH-Power PCCPCH-Power,
    iE-Extensions ProtocolExtensionContainer { { PCCPCH-Information-Cell-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

PCCPCH-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TimeSlotConfigurationList-Cell-ReconfRqstTDD ::= SEQUENCE (SIZE (1..15)) OF TimeSlotConfigurationItem-Cell-ReconfRqstTDD

TimeSlotConfigurationItem-Cell-ReconfRqstTDD ::= SEQUENCE {
    timeSlot TimeSlot,
    timeSlotStatus TimeSlotStatus,
    timeSlotDirection TimeSlotDirection,
    iE-Extensions ProtocolExtensionContainer { { TimeSlotConfigurationItem-Cell-ReconfRqstTDD-ExtIEs } } OPTIONAL,
}

```

```

    ...
  }
TimeSlotConfigurationItem-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-MBSFN-Cell-ParameterID-Cell-ReconfRqstTDD          CRITICALITY reject  EXTENSION  CellParameterID          PRESENCE optional },
  ...
}
TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD ::= SEQUENCE (SIZE (1..7)) OF TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD
TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD ::= SEQUENCE {
  timeSlotLCR                TimeSlotLCR,
  timeSlotStatus              TimeSlotStatus,
  timeSlotDirection           TimeSlotDirection,
  iE-Extensions               ProtocolExtensionContainer { { TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD-ExtIEs} }  OPTIONAL,
  ...
}
TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
DwPCH-LCR-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
  commonPhysicalChannelId    CommonPhysicalChannelID,
  dwPCH-Power                 DwPCH-Power,
  iE-Extensions               ProtocolExtensionContainer { { DwPCH-LCR-Information-Cell-ReconfRqstTDD-ExtIEs} }  OPTIONAL,
  ...
}
DwPCH-LCR-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
IPDLParameter-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
  iPDL-TDD-Parameters         IPDL-TDD-Parameters  OPTIONAL,
  iPDL-Indicator               IPDL-Indicator,
  iE-Extensions               ProtocolExtensionContainer { { IPDLParameter-Information-Cell-ReconfRqstTDD-ExtIEs} }  OPTIONAL,
  ...
}
IPDLParameter-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
IPDLParameter-Information-LCR-Cell-ReconfRqstTDD ::= SEQUENCE {
  iPDL-TDD-Parameters-LCR     IPDL-TDD-Parameters-LCR  OPTIONAL,
  iPDL-Indicator               IPDL-Indicator,
  iE-Extensions               ProtocolExtensionContainer { { IPDLParameter-Information-LCR-Cell-ReconfRqstTDD-ExtIEs} }  OPTIONAL,
  ...
}
IPDLParameter-Information-LCR-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

SCH-768-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768      CommonPhysicalChannelID768,
    sCH-Power                       DL-Power,
    iE-Extensions                    ProtocolExtensionContainer { { PSCH-768-Information-Cell-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

PSCH-768-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCCPCH-768-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID768      CommonPhysicalChannelID768,
    pCCPCH-Power                    PCCPCH-Power,
    iE-Extensions                    ProtocolExtensionContainer { { PCCPCH-768-Information-Cell-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

PCCPCH-768-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UARFCN-Adjustment ::= CHOICE {
    cell-Frequency-Add-LCR-MulFreq-Cell-ReconfRqstTDD      Cell-Frequency-Add-LCR-MulFreq-Cell-ReconfRqstTDD,
    cell-Frequency-ModifyList-LCR-MulFreq-Cell-ReconfRqstTDD Cell-Frequency-ModifyList-LCR-MulFreq-Cell-ReconfRqstTDD,
    cell-Frequency-Delete-LCR-MulFreq-Cell-ReconfRqstTDD   Cell-Frequency-Delete-LCR-MulFreq-Cell-ReconfRqstTDD,
    ...
}

Cell-Frequency-Add-LCR-MulFreq-Cell-ReconfRqstTDD ::= SEQUENCE {
    uARFCN                UARFCN,
    -- This IE indicates the frequency of Secondary frequency to add
    timeSlotConfigurationList-LCR-Cell-ReconfRqstTDD      TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD,
    -- This IE indicates the Time Slot configuration of Secondary frequency to add
    iE-Extensions                    ProtocolExtensionContainer { { Cell-Frequency-Add-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

Cell-Frequency-Add-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-Frequency-ModifyList-LCR-MulFreq-Cell-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF Cell-Frequency-ModifyItem-LCR-MulFreq-Cell-ReconfRqstTDD

Cell-Frequency-ModifyItem-LCR-MulFreq-Cell-ReconfRqstTDD ::= SEQUENCE {
    uARFCN                UARFCN,
    -- This IE indicates the frequency of Secondary frequency to modify
    timeSlotConfigurationList-LCR-Cell-ReconfRqstTDD      TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD,
    -- This IE indicates the Time Slot reconfiguration of Secondary frequency
    iE-Extensions                    ProtocolExtensionContainer { { Cell-Frequency-ModifyItem-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

```

```

}
...
}
Cell-Frequency-ModifyItem-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
Cell-Frequency-Delete-LCR-MulFreq-Cell-ReconfRqstTDD ::= SEQUENCE {
  uARFCN UARFCN,
  -- This IE indicates the frequency of Secondary Frequency to delete
  iE-Extensions ProtocolExtensionContainer { { Cell-Frequency-Delete-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs} }
  OPTIONAL,
  ...
}
Cell-Frequency-Delete-LCR-MulFreq-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
-- *****
--
-- CELL RECONFIGURATION RESPONSE
--
-- *****

CellReconfigurationResponse ::= SEQUENCE {
  protocolIEs ProtocolIE-Container {{CellReconfigurationResponse-IEs}},
  protocolExtensions ProtocolExtensionContainer {{CellReconfigurationResponse-Extensions}}
  OPTIONAL,
  ...
}
CellReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },
  ...
}
CellReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
...
}
-- *****
--
-- CELL RECONFIGURATION FAILURE
--
-- *****

CellReconfigurationFailure ::= SEQUENCE {
  protocolIEs ProtocolIE-Container {{CellReconfigurationFailure-IEs}},
  protocolExtensions ProtocolExtensionContainer {{CellReconfigurationFailure-Extensions}}
  OPTIONAL,
  ...
}
CellReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory }|

```

```

    { ID id-CriticalityDiagnostics      CRITICALITY ignore      TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

CellReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL DELETION REQUEST
--
-- *****

CellDeletionRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{CellDeletionRequest-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellDeletionRequest-Extensions}}  OPTIONAL,
    ...
}

CellDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID          CRITICALITY reject      TYPE C-ID          PRESENCE mandatory },
    ...
}

CellDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL DELETION RESPONSE
--
-- *****

CellDeletionResponse ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{CellDeletionResponse-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellDeletionResponse-Extensions}}  OPTIONAL,
    ...
}

CellDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics      CRITICALITY ignore      TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

CellDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RESOURCE STATUS INDICATION
--

```

-- *****

```

ResourceStatusIndication ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{ResourceStatusIndication-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{ResourceStatusIndication-Extensions}}
    ...
}
OPTIONAL,

ResourceStatusIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-IndicationType-ResourceStatusInd CRITICALITY ignore TYPE IndicationType-ResourceStatusInd PRESENCE mandatory } |
    { ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE optional },
    ...
}

ResourceStatusIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IndicationType-ResourceStatusInd ::= CHOICE {
    no-Failure          No-Failure-ResourceStatusInd,
    serviceImpacting    ServiceImpacting-ResourceStatusInd,
    ...
}

No-Failure-ResourceStatusInd ::= SEQUENCE {
    local-Cell-InformationList Local-Cell-InformationList-ResourceStatusInd,
    local-Cell-Group-InformationList Local-Cell-Group-InformationList-ResourceStatusInd OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { No-FailureItem-ResourceStatusInd-ExtIEs} } OPTIONAL,
    ...
}

No-FailureItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Power-Local-Cell-Group-InformationList-ResourceStatusInd CRITICALITY ignore EXTENSION Power-Local-Cell-Group-InformationList-ResourceStatusInd PRESENCE optional },
    ...
}

Local-Cell-InformationList-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-InformationItemIE-ResourceStatusInd }}

Local-Cell-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-InformationItem-ResourceStatusInd CRITICALITY ignore TYPE Local-Cell-InformationItem-ResourceStatusInd PRESENCE mandatory }
}

Local-Cell-InformationItem-ResourceStatusInd ::= SEQUENCE {
    local-CellID          Local-Cell-ID,
    addorDeleteIndicator  AddorDeleteIndicator,
    dl-or-global-capacityCredit DL-or-Global-CapacityCredit OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to "add"
    ul-capacityCredit     UL-CapacityCredit OPTIONAL,
    commonChannelsCapacityConsumptionLaw CommonChannelsCapacityConsumptionLaw OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to "add"
    dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw OPTIONAL,
}

```



```

-- This IE shall be present if AddorDeleteIndicator IE is set to "add"
maximumDL-PowerCapability          MaximumDL-PowerCapability          OPTIONAL,
-- This IE shall be present if AddorDeleteIndicator IE is set to "add"
minSpreadingFactor                MinSpreadingFactor                OPTIONAL,
-- This IE shall be present if AddorDeleteIndicator IE is set to "add"
minimumDL-PowerCapability          MinimumDL-PowerCapability          OPTIONAL,
-- This IE shall be present if AddorDeleteIndicator IE is set to "add"
local-Cell-Group-ID               Local-Cell-ID                   OPTIONAL,
iE-Extensions                      ProtocolExtensionContainer { { Local-Cell-InformationItem-ResourceStatusInd-ExtIEs } } OPTIONAL,
...
}

Local-Cell-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-ReferenceClockAvailability CRITICALITY ignore EXTENSION ReferenceClockAvailability PRESENCE optional }|
  -- This IE shall be present if AddorDeleteIndicator IE is set to "add" and the Local Cell is related to a TDD cell
  { ID id-Power-Local-Cell-Group-ID CRITICALITY ignore EXTENSION Local-Cell-ID PRESENCE optional }|
  { ID id-HSDPA-Capability CRITICALITY ignore EXTENSION HSDPA-Capability PRESENCE optional }|
  { ID id-E-DCH-Capability CRITICALITY ignore EXTENSION E-DCH-Capability PRESENCE optional }|
  { ID id-E-DCH-TTI2ms-Capability CRITICALITY ignore EXTENSION E-DCH-TTI2ms-Capability PRESENCE conditional }|
  -- The IE shall be present if E-DCH Capability IE is set to "E-DCH Capable".
  { ID id-E-DCH-SF-Capability CRITICALITY ignore EXTENSION E-DCH-SF-Capability PRESENCE conditional }|
  -- The IE shall be present if E-DCH Capability IE is set to "E-DCH Capable".
  { ID id-E-DCH-HARQ-Combining-Capability CRITICALITY ignore EXTENSION E-DCH-HARQ-Combining-Capability PRESENCE
conditional }|
  -- The IE shall be present if E-DCH Capability IE is set to "E-DCH Capable".
  { ID id-E-DCH-CapacityConsumptionLaw CRITICALITY ignore EXTENSION E-DCHCapacityConsumptionLaw PRESENCE optional }|
  { ID id-F-DPCH-Capability CRITICALITY ignore EXTENSION F-DPCH-Capability PRESENCE optional }|
  { ID id-E-DCH-TDD-CapacityConsumptionLaw CRITICALITY ignore EXTENSION E-DCH-TDD-CapacityConsumptionLaw PRESENCE optional }|
  { ID id-ContinuousPacketConnectivityDTX-DRX-Capability CRITICALITY ignore EXTENSION
ContinuousPacketConnectivityDTX-DRX-Capability PRESENCE optional }|
  { ID id-Max-UE-DTX-Cycle CRITICALITY ignore EXTENSION Max-UE-DTX-Cycle PRESENCE conditional }|
  -- The IE shall be present if Continuous Packet Connectivity DTX-DRX Capability IE is present and set to "Continuous Packet Connectivity DTX-
DRX Capable".
  { ID id-ContinuousPacketConnectivityHS-SCCH-less-Capability CRITICALITY ignore EXTENSION
ContinuousPacketConnectivityHS-SCCH-less-Capability PRESENCE optional }|
  { ID id-MIMO-Capability CRITICALITY ignore EXTENSION MIMO-Capability PRESENCE optional }|
  { ID id-SixtyfourQAM-DL-Capability CRITICALITY ignore EXTENSION SixtyfourQAM-DL-Capability PRESENCE optional }|
  { ID id-MBMS-Capability CRITICALITY ignore EXTENSION MBMS-Capability PRESENCE optional }|
  { ID id-Enhanced-FACH-Capability CRITICALITY ignore EXTENSION Enhanced-FACH-Capability PRESENCE optional }|
  { ID id-Enhanced-PCH-Capability CRITICALITY ignore EXTENSION Enhanced-PCH-Capability PRESENCE conditional
}}|
  -- The IE shall be present if Enhanced FACH Capability IE is set to "Enhanced FACH Capable".
  { ID id-SixteenQAM-UL-Capability CRITICALITY ignore EXTENSION SixteenQAM-UL-Capability PRESENCE optional }|
  { ID id-HSDSCH-MACdPDU-SizeCapability CRITICALITY ignore EXTENSION HSDSCH-MACdPDU-SizeCapability PRESENCE optional }|
  { ID id-MBSFN-Only-Mode-Capability CRITICALITY ignore EXTENSION MBSFN-Only-Mode-Capability PRESENCE optional }|
  { ID id-F-DPCH-SlotFormatCapability CRITICALITY ignore EXTENSION F-DPCH-SlotFormatCapability PRESENCE optional }|
  { ID id-E-DPCH-Power-Boosting-Capability CRITICALITY ignore EXTENSION E-DPCH-Power-Boosting-Capability PRESENCE optional }|
  { ID id-MIMO-Power-Offset-For-S-CPICH-Capability CRITICALITY ignore EXTENSION MIMO-Power-Offset-For-S-CPICH-Capability PRESENCE
optional }|
  { ID id-TxDiversityOnDLControlChannelsByMIMOUECapability CRITICALITY ignore EXTENSION TxDiversityOnDLControlChannelsByMIMOUECapability
PRESENCE optional },
  ...
}

```

```

Local-Cell-Group-InformationList-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-
InformationItemIE-ResourceStatusInd }}

Local-Cell-Group-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-Local-Cell-Group-InformationItem-ResourceStatusInd   CRITICALITY ignore TYPE Local-Cell-Group-InformationItem-ResourceStatusInd
  PRESENCE mandatory }
}

Local-Cell-Group-InformationItem-ResourceStatusInd ::= SEQUENCE {
  local-Cell-Group-ID                Local-Cell-ID,
  dl-or-global-capacityCredit         DL-or-Global-CapacityCredit,
  ul-capacityCredit                   UL-CapacityCredit   OPTIONAL,
  commonChannelsCapacityConsumptionLaw CommonChannelsCapacityConsumptionLaw,
  dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw,
  iE-Extensions                       ProtocolExtensionContainer { { Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs } }
  OPTIONAL,
  ...
}

Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-CapacityConsumptionLaw   CRITICALITY ignore   EXTENSION E-DCHCapacityConsumptionLaw   PRESENCE optional }|
  { ID id-E-DCH-TDD-CapacityConsumptionLaw CRITICALITY ignore   EXTENSION E-DCH-TDD-CapacityConsumptionLaw   PRESENCE optional },
  ...
}

Power-Local-Cell-Group-InformationList-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Power-Local-
Cell-Group-InformationItemIE-ResourceStatusInd }}

Power-Local-Cell-Group-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd   CRITICALITY ignore   TYPE Power-Local-Cell-Group-InformationItem-
ResourceStatusInd   PRESENCE mandatory }
}

Power-Local-Cell-Group-InformationItem-ResourceStatusInd ::= SEQUENCE {
  power-Local-Cell-Group-ID                Local-Cell-ID,
  maximumDL-PowerCapability                 MaximumDL-PowerCapability,
  iE-Extensions                             ProtocolExtensionContainer { { Power-Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs } }
  OPTIONAL,
  ...
}

Power-Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

ServiceImpacting-ResourceStatusInd ::= SEQUENCE {
  local-Cell-InformationList                Local-Cell-InformationList2-ResourceStatusInd   OPTIONAL,
  local-Cell-Group-InformationList          Local-Cell-Group-InformationList2-ResourceStatusInd OPTIONAL,
  cCP-InformationList                       CCP-InformationList-ResourceStatusInd   OPTIONAL,
  cell-InformationList                      Cell-InformationList-ResourceStatusInd   OPTIONAL,
  iE-Extensions                             ProtocolExtensionContainer { { ServiceImpactingItem-ResourceStatusInd-ExtIEs } }   OPTIONAL,
  ...
}

```

```

ServiceImpactingItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-Power-Local-Cell-Group-InformationList2-ResourceStatusInd CRITICALITY ignore EXTENSION Power-Local-Cell-Group-InformationList2-ResourceStatusInd PRESENCE optional },
  ...
}

Local-Cell-InformationList2-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-InformationItemIE2-ResourceStatusInd }}

Local-Cell-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-Local-Cell-InformationItem2-ResourceStatusInd CRITICALITY ignore TYPE Local-Cell-InformationItem2-ResourceStatusInd PRESENCE mandatory }
}

Local-Cell-InformationItem2-ResourceStatusInd ::= SEQUENCE {
  local-Cell-ID Local-Cell-ID,
  dl-or-global-capacityCredit DL-or-Global-CapacityCredit OPTIONAL,
  ul-capacityCredit UL-CapacityCredit OPTIONAL,
  commonChannelsCapacityConsumptionLaw CommonChannelsCapacityConsumptionLaw OPTIONAL,
  dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw OPTIONAL,
  maximum-DL-PowerCapability MaximumDL-PowerCapability OPTIONAL,
  minSpreadingFactor MinSpreadingFactor OPTIONAL,
  minimumDL-PowerCapability MinimumDL-PowerCapability OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { Local-Cell-InformationItem2-ResourceStatusInd-ExtIEs } } OPTIONAL,
  ...
}

Local-Cell-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-ReferenceClockAvailability CRITICALITY ignore EXTENSION ReferenceClockAvailability PRESENCE optional }|
  { ID id-HSDPA-Capability CRITICALITY ignore EXTENSION HSDPA-Capability PRESENCE optional }|
  { ID id-E-DCH-Capability CRITICALITY ignore EXTENSION E-DCH-Capability PRESENCE optional }|
  { ID id-E-DCH-TTI2ms-Capability CRITICALITY ignore EXTENSION E-DCH-TTI2ms-Capability PRESENCE conditional }|
  -- The IE shall be present if E-DCH Capability IE is set to "E-DCH Capable".
  { ID id-E-DCH-SF-Capability CRITICALITY ignore EXTENSION E-DCH-SF-Capability PRESENCE conditional }|
  -- The IE shall be present if E-DCH Capability IE is set to "E-DCH Capable".
  { ID id-E-DCH-HARQ-Combining-Capability CRITICALITY ignore EXTENSION E-DCH-HARQ-Combining-Capability PRESENCE conditional }|
  -- The IE shall be present if E-DCH Capability IE is set to "E-DCH Capable".
  { ID id-E-DCH-CapacityConsumptionLaw CRITICALITY ignore EXTENSION E-DCHCapacityConsumptionLaw PRESENCE optional }|
  { ID id-F-DPCH-Capability CRITICALITY ignore EXTENSION F-DPCH-Capability PRESENCE optional }|
  { ID id-E-DCH-TDD-CapacityConsumptionLaw CRITICALITY ignore EXTENSION E-DCH-TDD-CapacityConsumptionLaw PRESENCE optional }|
  { ID id-ContinuousPacketConnectivityDTX-DRX-Capability CRITICALITY ignore EXTENSION
ContinuousPacketConnectivityDTX-DRX-Capability PRESENCE optional }|
  { ID id-Max-UE-DTX-Cycle CRITICALITY ignore EXTENSION Max-UE-DTX-Cycle PRESENCE conditional }|
  -- The IE shall be present if Continuous Packet Connectivity DTX-DRX Capability IE is present and set to "Continuous Packet Connectivity DTX-DRX Capable".
  { ID id-ContinuousPacketConnectivityHS-SCCH-less-Capability CRITICALITY ignore EXTENSION
ContinuousPacketConnectivityHS-SCCH-less-Capability PRESENCE optional }|
  { ID id-MIMO-Capability CRITICALITY ignore EXTENSION MIMO-Capability PRESENCE optional }|
  { ID id-SixtyfourQAM-DL-Capability CRITICALITY ignore EXTENSION SixtyfourQAM-DL-Capability PRESENCE optional }|
  { ID id-MBMS-Capability CRITICALITY ignore EXTENSION MBMS-Capability PRESENCE optional }|
}

```

```

    { ID id-Enhanced-FACH-Capability CRITICALITY ignore EXTENSION Enhanced-FACH-Capability PRESENCE optional
  }|
    { ID id-Enhanced-PCH-Capability CRITICALITY ignore EXTENSION Enhanced-PCH-Capability PRESENCE
conditional }|
  -- The IE shall be present if Enhanced FACH Capability IE is set to "Enhanced FACH Capable".
  { ID id-SixteenQAM-UL-Capability CRITICALITY ignore EXTENSION SixteenQAM-UL-Capability PRESENCE optional
  }|
    { ID id-HSDSCH-MACdPDU-SizeCapability CRITICALITY ignore EXTENSION HSDSCH-MACdPDU-SizeCapability PRESENCE optional
  }|
    { ID id-MBSFN-Only-Mode-Capability CRITICALITY ignore EXTENSION MBSFN-Only-Mode-Capability PRESENCE optional
  }|
    { ID id-F-DPCH-SlotFormatCapability CRITICALITY ignore EXTENSION F-DPCH-SlotFormatCapability PRESENCE optional
  }|
    { ID id-E-DPCCH-Power-Boosting-Capability CRITICALITY ignore EXTENSION E-DPCCH-Power-Boosting-Capability PRESENCE optional
  }|
    { ID id-MIMO-Power-Offset-For-S-CPICH-Capability CRITICALITY ignore EXTENSION MIMO-Power-Offset-For-S-CPICH-Capability PRESENCE
optional }|
    { ID id-TxDiversityOnDLControlChannelsByMIMOUECapability CRITICALITY ignore EXTENSION TxDiversityOnDLControlChannelsByMIMOUECapability
PRESENCE optional },
  ...
}

```

Local-Cell-Group-InformationList2-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-InformationItemIE2-ResourceStatusInd }}

```

Local-Cell-Group-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-Local-Cell-Group-InformationItem2-ResourceStatusInd CRITICALITY ignore TYPE Local-Cell-Group-InformationItem2-ResourceStatusInd
PRESENCE mandatory }
}

```

```

Local-Cell-Group-InformationItem2-ResourceStatusInd ::= SEQUENCE {
  local-Cell-Group-ID Local-Cell-ID,
  dl-or-global-capacityCredit DL-or-Global-CapacityCredit OPTIONAL,
  ul-capacityCredit UL-CapacityCredit OPTIONAL,
  commonChannelsCapacityConsumptionLaw CommonChannelsCapacityConsumptionLaw OPTIONAL,
  dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs } }
OPTIONAL,
  ...
}

```

```

Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-CapacityConsumptionLaw CRITICALITY ignore EXTENSION E-DCHCapacityConsumptionLaw PRESENCE optional }|
  { ID id-E-DCH-TDD-CapacityConsumptionLaw CRITICALITY ignore EXTENSION E-DCH-TDD-CapacityConsumptionLaw PRESENCE optional },
  ...
}

```

CCP-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCCPinNodeB)) OF ProtocolIE-Single-Container {{ CCP-InformationItemIE-ResourceStatusInd }}

```

CCP-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-CCP-InformationItem-ResourceStatusInd CRITICALITY ignore TYPE CCP-InformationItem-ResourceStatusInd PRESENCE mandatory }
}

```

```

CCP-InformationItem-ResourceStatusInd ::= SEQUENCE {
    communicationControlPortID      CommunicationControlPortID,
    resourceOperationalState        ResourceOperationalState,
    availabilityStatus               AvailabilityStatus,
    iE-Extensions                    ProtocolExtensionContainer { { CCP-InformationItem-ResourceStatusInd-ExtIEs} }    OPTIONAL,
    ...
}

CCP-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ Cell-InformationItemIE-ResourceStatusInd }}

Cell-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Cell-InformationItem-ResourceStatusInd    CRITICALITY ignore TYPE Cell-InformationItem-ResourceStatusInd    PRESENCE mandatory }
}

Cell-InformationItem-ResourceStatusInd ::= SEQUENCE {
    c-ID                                C-ID,
    resourceOperationalState            ResourceOperationalState                OPTIONAL,
    availabilityStatus                   AvailabilityStatus                        OPTIONAL,
    primary-SCH-Information              P-SCH-Information-ResourceStatusInd    OPTIONAL, -- FDD only
    secondary-SCH-Information            S-SCH-Information-ResourceStatusInd    OPTIONAL, -- FDD only
    primary-CPICH-Information            P-CPICH-Information-ResourceStatusInd  OPTIONAL, -- FDD only
    secondary-CPICH-Information          S-CPICH-InformationList-ResourceStatusInd  OPTIONAL, -- FDD only
    primary-CCPCH-Information            P-CCPCH-Information-ResourceStatusInd    OPTIONAL,
    bCH-Information                      BCH-Information-ResourceStatusInd        OPTIONAL,
    secondary-CCPCH-InformationList       S-CCPCH-InformationList-ResourceStatusInd  OPTIONAL,
    pCH-Information                      PCH-Information-ResourceStatusInd        OPTIONAL,
    pICH-Information                      PICH-Information-ResourceStatusInd        OPTIONAL,
    fACH-InformationList                 FACH-InformationList-ResourceStatusInd    OPTIONAL,
    pRACH-InformationList                 PRACH-InformationList-ResourceStatusInd    OPTIONAL,
    rACH-InformationList                 RACH-InformationList-ResourceStatusInd    OPTIONAL,
    aICH-InformationList                 AICH-InformationList-ResourceStatusInd    OPTIONAL, -- FDD only
    notUsed-1-pCPCH-InformationList       NULL                                      OPTIONAL,
    notUsed-2-cPCH-InformationList        NULL                                      OPTIONAL,
    notUsed-3-aP-AICH-InformationList      NULL                                      OPTIONAL,
    notUsed-4-cDCA-ICH-InformationList     NULL                                      OPTIONAL,
    sCH-Information                      SCH-Information-ResourceStatusInd        OPTIONAL, -- Applicable to 3.84Mcps TDD only
    iE-Extensions                        ProtocolExtensionContainer { { Cell-InformationItem-ResourceStatusInd-ExtIEs} }    OPTIONAL,
    ...
}

Cell-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-InformationList-ResourceStatusInd    CRITICALITY ignore    EXTENSION FPACH-LCR-InformationList-ResourceStatusInd
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-DwPCH-LCR-Information-ResourceStatusInd        CRITICALITY ignore    EXTENSION DwPCH-LCR-Information-ResourceStatusInd
    PRESENCE optional }|    -- Applicable to 1.28Mcps TDD only
    { ID id-HSDSCH-Resources-Information-ResourceStatusInd    CRITICALITY ignore    EXTENSION HS-DSCH-Resources-Information-ResourceStatusInd
    PRESENCE optional }|    -- For 1.28Mcps TDD, this HS-DSCH Resource Information is for the first Frequency repetition, HS-DSCH Resource
    Information for Frequency repetitions 2 and on, should be defined in MultipleFreq-HS-DSCH-Resources-InformationList-ResourceStatusInd.
}

```

```

{ ID id-MICH-Information-ResourceStatusInd          CRITICALITY ignore EXTENSION Common-PhysicalChannel-Status-Information
PRESENCE optional }|
{ ID id-S-CCPCH-InformationListExt-ResourceStatusInd  CRITICALITY ignore EXTENSION S-CCPCH-InformationListExt-ResourceStatusInd
PRESENCE optional }|
-- Applicable to 3.84Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the message.
{ ID id-S-CCPCH-LCR-InformationListExt-ResourceStatusInd  CRITICALITY ignore EXTENSION S-CCPCH-LCR-InformationListExt-ResourceStatusInd
PRESENCE optional }|
-- Applicable to 1.28Mcps TDD only, used when there are more than maxSCCPCHCell SCCPCHs in the message.
{ ID id-E-DCH-Resources-Information-ResourceStatusInd    CRITICALITY ignore EXTENSION E-DCH-Resources-Information-ResourceStatusInd
PRESENCE optional }|
-- For 1.28Mcps TDD, this E-DCH Resource Information is for the first Frequency repetition, E-DCH Resource Information for Frequency
repetitions 2 and on, should be defined in MultipleFreq-E-DCH-Resources-InformationList-ResourceStatusInd.
{ ID id-PLCCH-InformationList-ResourceStatusInd        CRITICALITY ignore EXTENSION PLCCH-InformationList-ResourceStatusInd
PRESENCE optional }|
{ ID id-P-CCPCH-768-Information-ResourceStatusInd      CRITICALITY ignore EXTENSION Common-PhysicalChannel-Status-Information768
PRESENCE optional }|
{ ID id-S-CCPCH-768-InformationList-ResourceStatusInd  CRITICALITY ignore EXTENSION S-CCPCH-768-InformationList-ResourceStatusInd
PRESENCE optional }|
{ ID id-PICH-768-Information-ResourceStatusInd        CRITICALITY ignore EXTENSION Common-PhysicalChannel-Status-Information768
PRESENCE optional }|
{ ID id-PRACH-768-InformationList-ResourceStatusInd    CRITICALITY ignore EXTENSION PRACH-768-InformationList-ResourceStatusInd
PRESENCE optional }|
{ ID id-SCH-768-Information-ResourceStatusInd         CRITICALITY ignore EXTENSION Common-PhysicalChannel-Status-Information768
PRESENCE optional }|
{ ID id-MICH-768-Information-ResourceStatusInd        CRITICALITY ignore EXTENSION Common-PhysicalChannel-Status-Information768
PRESENCE optional }|
{ ID id-E-RUCCH-InformationList-ResourceStatusInd     CRITICALITY ignore EXTENSION E-RUCCH-InformationList-ResourceStatusInd
PRESENCE optional }|
{ ID id-E-RUCCH-768-InformationList-ResourceStatusInd CRITICALITY ignore EXTENSION E-RUCCH-768-InformationList-ResourceStatusInd
PRESENCE optional }|
{ ID id-Cell-Frequency-List-Information-LCR-MulFreq-ResourceStatusInd CRITICALITY ignore EXTENSION Cell-Frequency-
List-Information-LCR-MulFreq-ResourceStatusInd PRESENCE optional }| -- Applicable to 1.28Mcps TDD when using multiple frequencies
{ ID id-UPPCH-LCR-InformationList-ResourceStatusInd    CRITICALITY ignore EXTENSION UPPCH-LCR-
InformationList-ResourceStatusInd PRESENCE optional }| -- Applicable to 1.28Mcps TDD only
{ ID id-multipleFreq-HS-DSCH-Resources-InformationList-ResourceStatusInd CRITICALITY ignore EXTENSION MultipleFreq-HS-
DSCH-Resources-InformationList-ResourceStatusInd PRESENCE optional }|
-- Applicable to 1.28Mcps TDD when using multiple frequencies, This HS-DSCH Resource Information is for the 2nd and beyond frequencies.
{ ID id-MultipleFreq-E-DCH-Resources-InformationList-ResourceStatusInd CRITICALITY ignore EXTENSION MultipleFreq-E-DCH-
Resources-InformationList-ResourceStatusInd PRESENCE optional },
-- Applicable to 1.28Mcps TDD when using multiple frequencies. This E-DCH Resource Information is for the 2nd and beyond frequencies.
...
}

P-SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-SCH-InformationIE-ResourceStatusInd }}

P-SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-P-SCH-Information CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information PRESENCE mandatory }
}

S-SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ S-SCH-InformationIE-ResourceStatusInd }}

S-SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-S-SCH-Information CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information PRESENCE mandatory }
}

```

```

P-CPICH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-CPICH-InformationIE-ResourceStatusInd }}

P-CPICH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-P-CPICH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information  PRESENCE mandatory }
}

S-CPICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container {{ S-CPICH-InformationItemIE-ResourceStatusInd }}

S-CPICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-S-CPICH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information  PRESENCE mandatory }
}

P-CCPCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-CCPCH-InformationIE-ResourceStatusInd }}

P-CCPCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-P-CCPCH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information  PRESENCE mandatory }
}

BCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ BCH-InformationIE-ResourceStatusInd }}

BCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-BCH-Information  CRITICALITY ignore  TYPE Common-TransportChannel-Status-Information  PRESENCE mandatory }
}

S-CCPCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCell)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-ResourceStatusInd }}

S-CCPCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-S-CCPCH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information  PRESENCE mandatory }
}

PCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ PCH-InformationIE-ResourceStatusInd }}

PCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-PCH-Information  CRITICALITY ignore  TYPE Common-TransportChannel-Status-Information  PRESENCE mandatory }
}

PICH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ PICH-InformationIE-ResourceStatusInd }}

PICH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-PICH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information  PRESENCE mandatory }
}

FACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFACHCell)) OF ProtocolIE-Single-Container {{ FACH-InformationItemIE-ResourceStatusInd }}

FACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-FACH-Information  CRITICALITY ignore  TYPE Common-TransportChannel-Status-Information  PRESENCE mandatory }
}

PRACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-InformationItemIE-ResourceStatusInd }}

```

```

PRACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-PRACH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

RACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ RACH-InformationItemIE-ResourceStatusInd }}

RACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-RACH-Information  CRITICALITY ignore  TYPE Common-TransportChannel-Status-Information          PRESENCE mandatory }
}

AICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ AICH-InformationItemIE-ResourceStatusInd }}

AICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-AICH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ SCH-InformationIE-ResourceStatusInd }}

SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-SCH-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

FPACH-LCR-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFPACHCell)) OF ProtocolIE-Single-Container {{ FPACH-LCR-InformationItemIE-ResourceStatusInd }}

FPACH-LCR-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-FPACH-LCR-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

DwPCH-LCR-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ DwPCH-LCR-InformationIE-ResourceStatusInd }}

DwPCH-LCR-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-DwPCH-LCR-Information  CRITICALITY ignore  TYPE Common-PhysicalChannel-Status-Information          PRESENCE mandatory }
}

HS-DSCH-Resources-Information-ResourceStatusInd ::= SEQUENCE {
  resourceOperationalState      ResourceOperationalState,
  availabilityStatus            AvailabilityStatus,
  iE-Extensions                 ProtocolExtensionContainer  {{ HS-DSCH-Resources-Information-ResourceStatusInd-ExtIEs }}    OPTIONAL,
  ...
}

HS-DSCH-Resources-Information-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  {ID id-UARFCNforNt  CRITICALITY ignore  EXTENSION UARFCN  PRESENCE optional},
  -- Applicable to 1.28Mcps TDD when using multiple frequencies.
  ...
}

S-CCPCH-InformationListExt-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExt)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-ResourceStatusInd }}

```



```
S-CCPCH-LCR-InformationListExt-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCellinExtLCR)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-ResourceStatusInd }}
```

```
E-DCH-Resources-Information-ResourceStatusInd ::= SEQUENCE {
  resourceOperationalState      ResourceOperationalState,
  availabilityStatus             AvailabilityStatus,
  iE-Extensions                  ProtocolExtensionContainer {{ E-DCH-Resources-Information-ResourceStatusInd-ExtIEs }} OPTIONAL,
  ...
}
```

```
E-DCH-Resources-Information-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  {ID id-UARFCNforNt      CRITICALITY ignore      EXTENSION UARFCN      PRESENCE optional},
  -- Applicable to 1.28Mcps TDD when using multiple frequencies.
  ...
}
```

```
PLCCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPLCCHCell)) OF ProtocolIE-Single-Container {{ PLCCH-InformationItemIE-ResourceStatusInd }}
```

```
PLCCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-PLCCH-Information-ResourceStatusInd CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information PRESENCE mandatory }
}
```

```
S-CCPCH-768-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCell768)) OF ProtocolIE-Single-Container {{ S-CCPCH-768-InformationItemIE-ResourceStatusInd }}
```

```
S-CCPCH-768-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-S-CCPCH-768-Information-ResourceStatusInd CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information768 PRESENCE mandatory }
}
```

```
PRACH-768-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-768-InformationItemIE-ResourceStatusInd }}
```

```
PRACH-768-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-PRACH-768-Information CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information768 PRESENCE mandatory }
}
```

```
E-RUCCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxE-RUCCHCell)) OF ProtocolIE-Single-Container {{ E-RUCCH-InformationItemIE-ResourceStatusInd }}
```

```
E-RUCCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-E-RUCCH-Information CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information PRESENCE mandatory }
}
```

```
E-RUCCH-768-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxE-RUCCHCell)) OF ProtocolIE-Single-Container {{ E-RUCCH-768-InformationItemIE-ResourceStatusInd }}
```

```
E-RUCCH-768-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-E-RUCCH-768-Information CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information768 PRESENCE mandatory }
}
```

```
Cell-Frequency-List-Information-LCR-MulFreq-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ Cell-Frequency-List-InformationIE-LCR-MulFreq-ResourceStatusInd }}
```

```

Cell-Frequency-List-InformationIE-LCR-MulFreq-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd    CRITICALITY ignore          TYPE Cell-Frequency-List-
InformationItem-LCR-MulFreq-ResourceStatusInd          PRESENCE mandatory }
}

Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd ::= SEQUENCE {
    uARFCN                UARFCN,
    resourceOperationalState    ResourceOperationalState,
    availabilityStatus        AvailabilityStatus,
    cause                  Cause                OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer {{ Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd-ExtIEs }}
    OPTIONAL,
    ...
}

Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UPPCH-LCR-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ UPPCH-LCR-InformationIE-
ResourceStatusInd }}

UPPCH-LCR-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-UPPCH-LCR-InformationItem-ResourceStatusInd    CRITICALITY ignore    TYPE UPPCH-LCR-InformationItem-ResourceStatusInd    PRESENCE
mandatory }
}

UPPCH-LCR-InformationItem-ResourceStatusInd ::= SEQUENCE {
    uARFCN                UARFCN                OPTIONAL,
    uPPCHPositionLCR      UPPCHPositionLCR,
    resourceOperationalState    ResourceOperationalState,
    availabilityStatus        AvailabilityStatus,
    iE-Extensions            ProtocolExtensionContainer {{ UPPCH-LCR-InformationItem-ResourceStatusInd-ExtIEs }}    OPTIONAL,
    ...
}

UPPCH-LCR-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleFreq-HS-DSCH-Resources-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-
Container{{ MultipleFreq-HS-DSCH-Resources-InformationItem-ResourceStatusInd }}
--Includes the 2nd through the max number of frequencies information repetitions.

MultipleFreq-HS-DSCH-Resources-InformationItem-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-HSDSCH-Resources-Information-ResourceStatusInd    CRITICALITY ignore    TYPE HS-DSCH-Resources-Information-ResourceStatusInd    PRESENCE
mandatory }
}

Power-Local-Cell-Group-InformationList2-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Power-
Local-Cell-Group-InformationItemIE2-ResourceStatusInd }}

Power-Local-Cell-Group-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd CRITICALITY ignore TYPE Power-Local-Cell-Group-InformationItem2-
ResourceStatusInd PRESENCE mandatory }
}

Power-Local-Cell-Group-InformationItem2-ResourceStatusInd ::= SEQUENCE {
    power-Local-Cell-Group-ID Local-Cell-ID,
    maximumDL-PowerCapability MaximumDL-PowerCapability,
    iE-Extensions ProtocolExtensionContainer { { Power-Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs } }
OPTIONAL,
    ...
}

Power-Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleFreq-E-DCH-Resources-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-
Container{{ MultipleFreq-E-DCH-Resources-InformationItem-ResourceStatusInd }}
--Includes the 2nd through the max number of frequencies information repetitions.

MultipleFreq-E-DCH-Resources-InformationItem-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-E-DCH-Resources-Information-ResourceStatusInd CRITICALITY ignore TYPE E-DCH-Resources-Information-ResourceStatusInd PRESENCE
mandatory }
}

-- *****
--
-- SYSTEM INFORMATION UPDATE REQUEST
--
-- *****

SystemInformationUpdateRequest ::= SEQUENCE {
    protocolIEs ProtocolIE-Container {{SystemInformationUpdateRequest-IEs}},
    protocolExtensions ProtocolExtensionContainer {{SystemInformationUpdateRequest-Extensions}} OPTIONAL,
    ...
}

SystemInformationUpdateRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID CRITICALITY reject TYPE C-ID PRESENCE mandatory } |
    { ID id-BCCH-ModificationTime CRITICALITY reject TYPE BCCH-ModificationTime PRESENCE optional } |
    { ID id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst CRITICALITY reject TYPE MIB-SB-SIB-InformationList-SystemInfoUpdateRqst
PRESENCE mandatory },
    ...
}

SystemInformationUpdateRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MIB-SB-SIB-InformationList-SystemInfoUpdateRqst ::= SEQUENCE (SIZE (1..maxIB)) OF MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst

MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst ::= SEQUENCE {
    iB-Type IB-Type,
    iB-OC-ID IB-OC-ID,
}

```

```

    deletionIndicator          DeletionIndicator-SystemInfoUpdate,
    iE-Extensions              ProtocolExtensionContainer { { MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst-ExtIEs } }    OPTIONAL,
    ...
}

MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DeletionIndicator-SystemInfoUpdate ::= CHOICE {
    no-Deletion                No-Deletion-SystemInfoUpdate,
    yes-Deletion                NULL
}

No-Deletion-SystemInfoUpdate ::= SEQUENCE {
    sIB-Originator              SIB-Originator                OPTIONAL,
    -- This IE shall be present if the IB-Type IE is set to "SIB"
    iB-SG-REP                    IB-SG-REP                OPTIONAL,
    segmentInformationList        SegmentInformationList-SystemInfoUpdate,
    iE-Extensions                ProtocolExtensionContainer { { No-DeletionItem-SystemInfoUpdate-ExtIEs } }    OPTIONAL,
    ...
}

No-DeletionItem-SystemInfoUpdate-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SegmentInformationList-SystemInfoUpdate ::= ProtocolIE-Single-Container {{ SegmentInformationListIEs-SystemInfoUpdate }}

SegmentInformationListIEs-SystemInfoUpdate NBAP-PROTOCOL-IES ::= {
    { ID id-SegmentInformationListIE-SystemInfoUpdate    CRITICALITY reject    TYPE SegmentInformationListIE-SystemInfoUpdate    PRESENCE mandatory }
}

SegmentInformationListIE-SystemInfoUpdate ::= SEQUENCE (SIZE (1..maxIBSEG)) OF SegmentInformationItem-SystemInfoUpdate

SegmentInformationItem-SystemInfoUpdate ::= SEQUENCE {
    iB-SG-POS                    IB-SG-POS                OPTIONAL,
    segment-Type                  Segment-Type                OPTIONAL,
    -- This IE shall be present if the SIB Originator IE is set to "CRNC" or the IB-Type IE is set to "MIB", "SB1" or "SB2"
    iB-SG-DATA                    IB-SG-DATA                OPTIONAL,
    -- This IE shall be present if the SIB Originator IE is set to "CRNC" or the IB-Type IE is set to "MIB", "SB1" or "SB2"
    iE-Extensions                ProtocolExtensionContainer { { SegmentInformationItem-SystemInfoUpdate-ExtIEs } } OPTIONAL,
    ...
}

SegmentInformationItem-SystemInfoUpdate-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- SYSTEM INFORMATION UPDATE RESPONSE
--

```

```

-- *****
SystemInformationUpdateResponse ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{SystemInformationUpdateResponse-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{SystemInformationUpdateResponse-Extensions}}
    ...
}
OPTIONAL,

SystemInformationUpdateResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics          CRITICALITY ignore          TYPE CriticalityDiagnostics          PRESENCE optional },
    ...
}

SystemInformationUpdateResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- SYSTEM INFORMATION UPDATE FAILURE
--
-- *****

SystemInformationUpdateFailure ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{SystemInformationUpdateFailure-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{SystemInformationUpdateFailure-Extensions}}
    ...
}
OPTIONAL,

SystemInformationUpdateFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause          CRITICALITY ignore          TYPE Cause          PRESENCE mandatory },
    { ID id-CriticalityDiagnostics          CRITICALITY ignore          TYPE CriticalityDiagnostics          PRESENCE optional },
    ...
}

SystemInformationUpdateFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK SETUP REQUEST FDD
--
-- *****

RadioLinkSetupRequestFDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{RadioLinkSetupRequestFDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{RadioLinkSetupRequestFDD-Extensions}}
    ...
}
OPTIONAL,

RadioLinkSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          CRITICALITY reject          TYPE CRNC-CommunicationContextID          PRESENCE mandatory }
}

```

```

    { ID id-UL-DPCH-Information-RL-SetupRqstFDD          CRITICALITY reject  TYPE UL-DPCH-Information-RL-SetupRqstFDD          PRESENCE mandatory
  }|
    { ID id-DL-DPCH-Information-RL-SetupRqstFDD          CRITICALITY reject  TYPE DL-DPCH-Information-RL-SetupRqstFDD          PRESENCE optional }|
    { ID id-DCH-FDD-Information                          CRITICALITY reject  TYPE DCH-FDD-Information                          PRESENCE mandatory
  }|
    { ID id-RL-InformationList-RL-SetupRqstFDD          CRITICALITY notify   TYPE RL-InformationList-RL-SetupRqstFDD          PRESENCE mandatory
  }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information  CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information
      PRESENCE optional }|
    { ID id-Active-Pattern-Sequence-Information          CRITICALITY reject  TYPE Active-Pattern-Sequence-Information          PRESENCE optional },
    ...
  }

```

```

RadioLinkSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-PowerBalancing-Information          CRITICALITY ignore  EXTENSION DL-PowerBalancing-Information          PRESENCE optional }|
  { ID id-HSDSCH-FDD-Information                CRITICALITY reject  EXTENSION HSDSCH-FDD-Information                PRESENCE optional }|
  { ID id-HSDSCH-RNTI                          CRITICALITY reject  EXTENSION HSDSCH-RNTI                          PRESENCE conditional }|
  -- The IE shall be present if HS-DSCH Information IE is present
  { ID id-HSPDSCH-RL-ID                        CRITICALITY reject  EXTENSION RL-ID                                PRESENCE conditional }|
  -- The IE shall be present if HS-DSCH Information IE is present
  { ID id-E-DPCH-Information-RL-SetupRqstFDD    CRITICALITY reject  EXTENSION E-DPCH-Information-RL-SetupRqstFDD    PRESENCE optional }|
  { ID id-E-DCH-FDD-Information                CRITICALITY reject  EXTENSION E-DCH-FDD-Information                PRESENCE conditional }|
  -- The IE shall be present if E-DPCH Information IE is present
  { ID id-Serving-E-DCH-RL-ID                  CRITICALITY reject  EXTENSION Serving-E-DCH-RL-ID                  PRESENCE optional }|
  { ID id-F-DPCH-Information-RL-SetupRqstFDD    CRITICALITY reject  EXTENSION F-DPCH-Information-RL-SetupRqstFDD    PRESENCE optional }|
  { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed  CRITICALITY ignore  EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed
    PRESENCE optional }|
  { ID id-DCH-Indicator-For-E-DCH-HSDPA-Operation  CRITICALITY reject  EXTENSION DCH-Indicator-For-E-DCH-HSDPA-Operation
    PRESENCE optional }|
  { ID id-Serving-Cell-Change-CFN              CRITICALITY reject  EXTENSION CFN                                  PRESENCE optional }|
  { ID id-ContinuousPacketConnectivityDTX-DRX-Information  PRESENCE optional }|
  { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information  CRITICALITY reject  EXTENSION ContinuousPacketConnectivityHS-SCCH-less-
    Information  PRESENCE optional },
  ...
}

```

```

UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
  ul-ScramblingCode          UL-ScramblingCode,
  minUL-ChannelisationCodeLength  MinUL-ChannelisationCodeLength,
  maxNrOfUL-DPDCHs          MaxNrOfUL-DPDCHs          OPTIONAL,
  -- This IE shall be present if Min UL Channelisation Code length IE is set to 4 --
  ul-PunctureLimit          PunctureLimit,
  tFCS                      TFCS,
  ul-DPCCH-SlotFormat        UL-DPCCH-SlotFormat,
  ul-SIR-Target              UL-SIR,
  diversityMode              DiversityMode,
  not-Used-sSDT-CellID-Length  NULL                      OPTIONAL,
  not-Used-s-FieldLength     NULL                      OPTIONAL,
  iE-Extensions              ProtocolExtensionContainer { { UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
  ...
}

```

```

UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

    { ID id-DPC-Mode                CRITICALITY reject EXTENSION DPC-Mode                PRESENCE optional }|
    { ID id-UL-DPDCH-Indicator-For-E-DCH-Operation CRITICALITY reject EXTENSION UL-DPDCH-Indicator-For-E-DCH-Operation PRESENCE optional },
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    tFCS                TFCS,
    dl-DPCH-SlotFormat DL-DPCH-SlotFormat,
    tFCI-SignallingMode TFCI-SignallingMode,
    tFCI-Presence        TFCI-Presence                OPTIONAL,
    -- this IE shall be present if the DL DPCH slot format IE is set to any of the values from 12 to 16 --
    multiplexingPosition MultiplexingPosition,
    not-Used-pDSCH-RL-ID NULL                OPTIONAL,
    not-Used-pDSCH-CodeMapping NULL                OPTIONAL,
    powerOffsetInformation PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-TPC-DownlinkStepSize FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease LimitedPowerIncrease,
    innerLoopDLPCStatus InnerLoopDLPCStatus,
    iE-Extensions        ProtocolExtensionContainer { { DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-RL-SetupRqstFDD ::= SEQUENCE {
    p01-ForTFCI-Bits    PowerOffset,
    p02-ForTPC-Bits     PowerOffset,
    p03-ForPilotBits    PowerOffset,
    iE-Extensions        ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF
    ProtocolIE-Single-Container{{ RL-InformationItemIE-RL-SetupRqstFDD }}

RL-InformationItemIE-RL-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-SetupRqstFDD                CRITICALITY notify                TYPE RL-InformationItem-RL-SetupRqstFDD                PRESENCE mandatory }
}

RL-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    rL-ID                RL-ID,
    c-ID                  C-ID,
    firstRLS-indicator   FirstRLS-Indicator,
    frameOffset           FrameOffset,
    chipOffset            ChipOffset,
    propagationDelay      PropagationDelay                OPTIONAL,
    diversityControlField DiversityControlField            OPTIONAL,
    -- This IE shall be present if the RL is not the first one in the RL Information IE
}

```

```

dl-CodeInformation          FDD-DL-CodeInformation,
initialDL-transmissionPower DL-Power,
maximumDL-power            DL-Power,
minimumDL-power            DL-Power,
not-Used-sSDT-Cell-Identity NULL
transmitDiversityIndicator TransmitDiversityIndicator OPTIONAL,
-- This IE shall be present if Diversity Mode IE in UL DPCH Information group is not set to "none"
iE-Extensions              ProtocolExtensionContainer { { RL-InformationItem-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
...
}

RL-InformationItem-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-RL-Specific-DCH-Info          CRITICALITY ignore EXTENSION RL-Specific-DCH-Info          PRESENCE optional }|
  { ID id-DelayedActivation              CRITICALITY reject EXTENSION DelayedActivation              PRESENCE optional }|
  { ID id-Primary-CPICH-Usage-for-Channel-Estimation CRITICALITY ignore EXTENSION Primary-CPICH-Usage-for-Channel-Estimation PRESENCE optional }|
  { ID id-Secondary-CPICH-Information    CRITICALITY ignore EXTENSION CommonPhysicalChannelID          PRESENCE optional }|
  { ID id-E-DCH-RL-Indication            CRITICALITY reject EXTENSION E-DCH-RL-Indication            PRESENCE optional }|
  { ID id-RL-Specific-E-DCH-Info        CRITICALITY ignore EXTENSION RL-Specific-E-DCH-Info        PRESENCE optional }|
  { ID id-SynchronisationIndicator       CRITICALITY ignore EXTENSION SynchronisationIndicator       PRESENCE optional }|
  { ID id-ExtendedPropagationDelay       CRITICALITY ignore EXTENSION ExtendedPropagationDelay       PRESENCE optional }|
  { ID id-F-DPCH-SlotFormat              CRITICALITY reject EXTENSION F-DPCH-SlotFormat              PRESENCE optional }|
  ...
}

E-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
  maxSet-E-DPDCHs          Max-Set-E-DPDCHs,
  ul-PunctureLimit         PunctureLimit,
  e-TFCS-Information       E-TFCS-Information,
  e-TTI                    E-TTI,
  e-DPCCH-PO              E-DPCCH-PO,
  e-RGCH-2-IndexStepThreshold E-RGCH-2-IndexStepThreshold,
  e-RGCH-3-IndexStepThreshold E-RGCH-3-IndexStepThreshold,
  hARQ-Info-for-E-DCH     HARQ-Info-for-E-DCH,
  hSDSCH-Configured-Indicator HSDSCH-Configured-Indicator,
  iE-Extensions           ProtocolExtensionContainer { { E-DPCH-Information-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
  ...
}

E-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

F-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
  powerOffsetInformation   PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD,
  fdd-TPC-DownlinkStepSize FDD-TPC-DownlinkStepSize,
  limitedPowerIncrease     LimitedPowerIncrease,
  innerLoopDLPCStatus      InnerLoopDLPCStatus,
  iE-Extensions           ProtocolExtensionContainer { { F-DPCH-Information-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
  ...
}

F-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```



```

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD ::= SEQUENCE {
    pO2-ForTPC-Bits          PowerOffset,
    --This IE shall be ignored by Node B
    iE-Extensions           ProtocolExtensionContainer { { PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK SETUP REQUEST TDD
--
-- *****

RadioLinkSetupRequestTDD ::= SEQUENCE {
    protocolIEs             ProtocolIE-Container    {{RadioLinkSetupRequestTDD-IEs}},
    protocolExtensions     ProtocolExtensionContainer {{RadioLinkSetupRequestTDD-Extensions}}          OPTIONAL,
    ...
}

RadioLinkSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
} |
{ ID id-CRNC-CommunicationContextID          CRITICALITY reject TYPE CRNC-CommunicationContextID          PRESENCE mandatory
} |
{ ID id-UL-CCTrCH-InformationList-RL-SetupRqstTDD CRITICALITY notify TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD PRESENCE optional } |
{ ID id-DL-CCTrCH-InformationList-RL-SetupRqstTDD CRITICALITY notify TYPE DL-CCTrCH-InformationList-RL-SetupRqstTDD PRESENCE optional } |
{ ID id-DCH-TDD-Information                   CRITICALITY reject TYPE DCH-TDD-Information                   PRESENCE optional } |
{ ID id-DSCH-TDD-Information                   CRITICALITY reject TYPE DSCH-TDD-Information                   PRESENCE optional } |
{ ID id-USCH-Information                       CRITICALITY reject TYPE USCH-Information                       PRESENCE optional } |
{ ID id-RL-Information-RL-SetupRqstTDD        CRITICALITY reject TYPE RL-Information-RL-SetupRqstTDD        PRESENCE mandatory
},
...
}

RadioLinkSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
{ ID id-HSDSCH-TDD-Information                 CRITICALITY reject EXTENSION HSDSCH-TDD-Information                 PRESENCE optional } |
{ ID id-HSDSCH-RNTI                           CRITICALITY reject EXTENSION HSDSCH-RNTI                           PRESENCE conditional } |
-- The IE shall be present if HS-DSCH Information IE is present
{ ID id-HSPDSCH-RL-ID                         CRITICALITY reject EXTENSION RL-ID                         PRESENCE conditional } |
-- The IE shall be present if HS-DSCH Information IE is present
{ ID id-PDSCH-RL-ID                           CRITICALITY ignore EXTENSION RL-ID                           PRESENCE optional } |
{ ID id-E-DCH-Information                     CRITICALITY reject EXTENSION E-DCH-Information                     PRESENCE optional } |
{ ID id-E-DCH-Serving-RL-ID                   CRITICALITY reject EXTENSION RL-ID                   PRESENCE optional } |
{ ID id-E-DCH-768-Information                 CRITICALITY reject EXTENSION E-DCH-768-Information                 PRESENCE optional } |
{ ID id-E-DCH-LCR-Information                 CRITICALITY reject EXTENSION E-DCH-LCR-Information                 PRESENCE optional } |
{ ID id-PowerControlGAP                       CRITICALITY ignore EXTENSION ControlGAP                       PRESENCE optional } |
-- Applicable to 1.28Mcps TDD only
{ ID id-UE-Selected-MBMS-Service-Information CRITICALITY ignore EXTENSION UE-Selected-MBMS-Service-Information
PRESENCE optional },
...
}

```

```

UL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE(1..maxNrOfCCTrCHs)) OF
  ProtocolIE-Single-Container{{ UL-CCTrCH-InformationItemIE-RL-SetupRqstTDD }}

UL-CCTrCH-InformationItemIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD      CRITICALITY notify      TYPE UL-CCTrCH-InformationItem-RL-SetupRqstTDD      PRESENCE
  mandatory }
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
  cCTrCH-ID          CCTrCH-ID,
  tFCS               TFCS,
  tFCI-Coding        TFCI-Coding,
  punctureLimit      PunctureLimit,
  uL-DPCH-Information UL-DPCH-Information-RL-SetupRqstTDD      OPTIONAL, -- Applicable to 3.84Mcps TDD only
  iE-Extensions      ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs } } OPTIONAL,
  ...
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UL-DPCH-LCR-Information-RL-SetupRqstTDD      CRITICALITY notify      EXTENSION UL-DPCH-LCR-Information-RL-SetupRqstTDD      PRESENCE optional }|
  -- Applicable to 1.28Mcps TDD only
  { ID id-UL-SIRTarget          CRITICALITY reject      EXTENSION UL-SIR          PRESENCE optional }|
  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
  { ID id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD CRITICALITY reject      EXTENSION TDD-TPC-UplinkStepSize-LCR          PRESENCE optional }|
  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
  { ID id-UL-DPCH-768-Information-RL-SetupRqstTDD      CRITICALITY notify      EXTENSION UL-DPCH-768-Information-RL-SetupRqstTDD      PRESENCE optional },
  -- Applicable to 7.68Mcps TDD only
  ...
}

UL-DPCH-Information-RL-SetupRqstTDD ::= ProtocolIE-Single-Container{{ UL-DPCH-InformationIE-RL-SetupRqstTDD }}

UL-DPCH-InformationIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-DPCH-InformationList-RL-SetupRqstTDD      CRITICALITY notify      TYPE UL-DPCH-InformationItem-RL-SetupRqstTDD      PRESENCE mandatory }
}

UL-DPCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
  repetitionPeriod      RepetitionPeriod,
  repetitionLength       RepetitionLength,
  tdd-DPCHOffset         TDD-DPCHOffset,
  uL-Timeslot-Information UL-Timeslot-Information,
  iE-Extensions          ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs } } OPTIONAL,
  ...
}

UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

UL-DPCH-LCR-Information-RL-SetupRqstTDD ::= SEQUENCE {
  repetitionPeriod      RepetitionPeriod,
  repetitionLength       RepetitionLength,
  tdd-DPCHOffset         TDD-DPCHOffset,
}

```

```

    uL-TimeslotLCR-Information      UL-TimeslotLCR-Information,
    iE-Extensions                  ProtocolExtensionContainer { { UL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-768-Information-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod              RepetitionPeriod,
    repetitionLength              RepetitionLength,
    tdd-DPCHOffset               TDD-DPCHOffset,
    uL-Timeslot768-Information    UL-Timeslot768-Information,
    iE-Extensions                ProtocolExtensionContainer { { UL-DPCH-768-InformationItem-RL-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-DPCH-768-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container{{ DL-CCTrCH-InformationItemIE-RL-SetupRqstTDD }}

DL-CCTrCH-InformationItemIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD    CRITICALITY notify    TYPE DL-CCTrCH-InformationItem-RL-SetupRqstTDD    PRESENCE mandatory}
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCtRch-ID                    cCtRch-ID,
    tFCS                         TFCS,
    tFCI-Coding                  TFCI-Coding,
    punctureLimit               PunctureLimit,
    tdd-TPC-DownlinkStepSize     TDD-TPC-DownlinkStepSize,
    cCtRch-TPCList               CCTrCH-TPCList-RL-SetupRqstTDD    OPTIONAL,
    dL-DPCH-Information          DL-DPCH-Information-RL-SetupRqstTDD    OPTIONAL,    -- Applicable to 3.84Mcps TDD only
    iE-Extensions                ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-Information-RL-SetupRqstTDD    CRITICALITY notify    EXTENSION DL-DPCH-LCR-Information-RL-SetupRqstTDD    PRESENCE optional }| -- Applicable to 1.28Mcps TDD only
    { ID id-CCTrCH-Initial-DL-Power-RL-SetupRqstTDD    CRITICALITY ignore    EXTENSION DL-Power    PRESENCE optional }|
    { ID id-CCTrCH-Maximum-DL-Power-RL-SetupRqstTDD    CRITICALITY ignore    EXTENSION DL-Power    PRESENCE optional }|
    { ID id-CCTrCH-Minimum-DL-Power-RL-SetupRqstTDD    CRITICALITY ignore    EXTENSION DL-Power    PRESENCE optional }|
    { ID id-DL-DPCH-768-Information-RL-SetupRqstTDD    CRITICALITY notify    EXTENSION DL-DPCH-768-Information-RL-SetupRqstTDD    PRESENCE optional }, -- Applicable to 7.68Mcps TDD only
    ...
}

CCTrCH-TPCList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD

```

```

CCTrCH-TPCItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCtRCH-ID          CCTrCH-ID,
    iE-Extensions     ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-Information-RL-SetupRqstTDD ::= ProtocolIE-Single-Container{ { DL-DPCH-InformationIE-RL-SetupRqstTDD } }

DL-DPCH-InformationIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationList-RL-SetupRqstTDD      CRITICALITY notify TYPE DL-DPCH-InformationItem-RL-SetupRqstTDD PRESENCE mandatory }
}

DL-DPCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod      RepetitionPeriod,
    repetitionLength      RepetitionLength,
    tdd-DPCHOffset        TDD-DPCHOffset,
    dL-Timeslot-Information DL-Timeslot-Information,
    iE-Extensions         ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-Information-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod      RepetitionPeriod,
    repetitionLength      RepetitionLength,
    tdd-DPCHOffset        TDD-DPCHOffset,
    dL-TimeslotLCR-Information DL-TimeslotLCR-Information,
    tstdIndicator         TSTD-Indicator,
    iE-Extensions         ProtocolExtensionContainer { { DL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-768-Information-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod      RepetitionPeriod,
    repetitionLength      RepetitionLength,
    tdd-DPCHOffset        TDD-DPCHOffset,
    dL-Timeslot768-Information DL-Timeslot768-Information,
    iE-Extensions         ProtocolExtensionContainer { { DL-DPCH-768-InformationItem-RL-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

DL-DPCH-768-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

RL-Information-RL-SetupRqstTDD ::= SEQUENCE {
    rL-ID                RL-ID,
    c-ID                 C-ID,
    frameOffset          FrameOffset,
    specialBurstScheduling SpecialBurstScheduling,
    initialDL-transmissionPower DL-Power,
    maximumDL-power      DL-Power,
    minimumDL-power      DL-Power,
    dL-TimeSlotISCPInfo  DL-TimeSlotISCPInfo OPTIONAL, -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only
    iE-Extensions        ProtocolExtensionContainer { { RL-Information-RL-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

RL-Information-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeslotISCP-InfoList-RL-SetupRqstTDD CRITICALITY reject EXTENSION DL-TimeSlotISCPInfoLCR PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info CRITICALITY ignore EXTENSION RL-Specific-DCH-Info PRESENCE optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR CRITICALITY reject EXTENSION UL-Synchronisation-Parameters-LCR PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-UARFCNforNt CRITICALITY reject EXTENSION UARFCN PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

-- *****
--
-- RADIO LINK SETUP RESPONSE FDD
--
-- *****

RadioLinkSetupResponseFDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{RadioLinkSetupResponseFDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{RadioLinkSetupResponseFDD-Extensions}}
    ...
}

RadioLinkSetupResponseFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID CRITICALITY ignore TYPE CRNC-CommunicationContextID PRESENCE mandatory }|
    { ID id-NodeB-CommunicationContextID CRITICALITY ignore TYPE NodeB-CommunicationContextID PRESENCE mandatory }|
    { ID id-CommunicationControlPortID CRITICALITY ignore TYPE CommunicationControlPortID PRESENCE mandatory }|
    { ID id-RL-InformationResponseList-RL-SetupRspFDD CRITICALITY ignore TYPE RL-InformationResponseList-RL-SetupRspFDD PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },
    ...
}

RadioLinkSetupResponseFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-FDD-Information-Response CRITICALITY ignore EXTENSION HSDSCH-FDD-Information-Response PRESENCE optional }|

```

```

    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response      CRITICALITY ignore      EXTENSION
      ContinuousPacketConnectivityHS-SCCH-less-Information-Response      PRESENCE optional },
    ...
  }

RL-InformationResponseList-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container({ RL-InformationResponseItemIE-RL-SetupRspFDD })

RL-InformationResponseItemIE-RL-SetupRspFDD NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationResponseItem-RL-SetupRspFDD      CRITICALITY ignore      TYPE RL-InformationResponseItem-RL-SetupRspFDD      PRESENCE mandatory }
}

RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
  rL-ID                    RL-ID,
  rL-Set-ID                RL-Set-ID,
  received-total-wide-band-power      Received-total-wide-band-power-Value,
  diversityIndication      DiversityIndication-RL-SetupRspFDD,
  not-Used-dSCH-InformationResponseList  NULL                                OPTIONAL,
  sSDT-SupportIndicator      SSDT-SupportIndicator,
  iE-Extensions              ProtocolExtensionContainer { { RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs } }
  OPTIONAL,
  ...
}

RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-PowerBalancing-ActivationIndicator      CRITICALITY ignore      EXTENSION DL-PowerBalancing-ActivationIndicator      PRESENCE optional
  } |
  { ID id-E-DCH-RL-Set-ID                    CRITICALITY ignore      EXTENSION RL-Set-ID                    PRESENCE optional
  } |
  { ID id-E-DCH-FDD-DL-Control-Channel-Information      CRITICALITY ignore      EXTENSION E-DCH-FDD-DL-Control-Channel-Information      PRESENCE optional
  } |
  { ID id-Initial-DL-DPCH-TimingAdjustment      CRITICALITY ignore      EXTENSION DL-DPCH-TimingAdjustment      PRESENCE optional
  },
  ...
}

DiversityIndication-RL-SetupRspFDD ::= CHOICE {
  combining                    Combining-RL-SetupRspFDD,
  nonCombiningOrFirstRL      NonCombiningOrFirstRL-RL-SetupRspFDD
}

Combining-RL-SetupRspFDD ::= SEQUENCE {
  rL-ID                    RL-ID,
  iE-Extensions              ProtocolExtensionContainer { { Combining-RL-SetupRspFDD-ExtIEs } }      OPTIONAL,
  ...
}

Combining-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

NonCombiningOrFirstRL-RL-SetupRspFDD ::= SEQUENCE {
  dCH-InformationResponse      DCH-InformationResponse,
  iE-Extensions              ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs } }      OPTIONAL,

```

```

}
...
}
NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-FDD-Information-Response      CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response      PRESENCE optional },
  ...
}
-- *****
--
-- RADIO LINK SETUP RESPONSE TDD
--
-- *****

RadioLinkSetupResponseTDD ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container      {{RadioLinkSetupResponseTDD-IEs}},
  protocolExtensions   ProtocolExtensionContainer {{RadioLinkSetupResponseTDD-Extensions}}      OPTIONAL,
  ...
}

RadioLinkSetupResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID          CRITICALITY ignore  TYPE CRNC-CommunicationContextID          PRESENCE mandatory } |
  { ID id-NodeB-CommunicationContextID         CRITICALITY ignore  TYPE NodeB-CommunicationContextID         PRESENCE mandatory } |
  { ID id-CommunicationControlPortID          CRITICALITY ignore  TYPE CommunicationControlPortID          PRESENCE mandatory } |
  { ID id-RL-InformationResponse-RL-SetupRspTDD CRITICALITY ignore  TYPE RL-InformationResponse-RL-SetupRspTDD PRESENCE optional } |
  -- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, Not Applicable to 1.28Mcps TDD
  { ID id-CriticalityDiagnostics              CRITICALITY ignore  TYPE CriticalityDiagnostics              PRESENCE optional },
  ...
}

RadioLinkSetupResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-RL-InformationResponse-LCR-RL-SetupRspTDD CRITICALITY ignore  EXTENSION RL-InformationResponse-LCR-RL-SetupRspTDD PRESENCE optional } | -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
  { ID id-HSDSCH-TDD-Information-Response          CRITICALITY ignore  EXTENSION HSDSCH-TDD-Information-Response          PRESENCE optional } |
  { ID id-E-DCH-Information-Response              CRITICALITY ignore  EXTENSION E-DCH-Information-Response              PRESENCE optional },
  ...
}

RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
  rL-ID          RL-ID,
  uL-TimeSlot-ISCP-Info  UL-TimeSlot-ISCP-Info,
  ul-PhysCH-SF-Variation  UL-PhysCH-SF-Variation,
  dCH-InformationResponseList  DCH-InformationResponseList-RL-SetupRspTDD      OPTIONAL,
  dSCH-InformationResponseList  DSCH-InformationResponseList-RL-SetupRspTDD  OPTIONAL,
  uSCH-InformationResponseList  USCH-InformationResponseList-RL-SetupRspTDD  OPTIONAL,
  iE-Extensions              ProtocolExtensionContainer { { RL-InformationResponseList-RL-SetupRspTDD-ExtIEs } }
  OPTIONAL,
  ...
}

RL-InformationResponseList-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container{{ DCH-InformationResponseListIEs-RL-SetupRspTDD }}

DCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
  { ID id-DCH-InformationResponse CRITICALITY ignore TYPE DCH-InformationResponse PRESENCE mandatory }
}

DSCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-SetupRspTDD }}

DSCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
  { ID id-DSCH-InformationResponse CRITICALITY ignore TYPE DSCH-InformationResponse PRESENCE mandatory }
}

USCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-SetupRspTDD }}

USCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
  { ID id-USCH-InformationResponse CRITICALITY ignore TYPE USCH-InformationResponse PRESENCE mandatory }
}

RL-InformationResponse-LCR-RL-SetupRspTDD ::= SEQUENCE {
  rL-ID RL-ID,
  uL-TimeSlot-ISCP-LCR-Info UL-TimeSlot-ISCP-LCR-Info,
  ul-PhysCH-SF-Variation UL-PhysCH-SF-Variation,
  dCH-InformationResponseList DCH-InformationResponseList-RL-SetupRspTDD OPTIONAL,
  dSCH-InformationResponseList DSCH-InformationResponseList-RL-SetupRspTDD OPTIONAL,
  uSCH-InformationResponseList USCH-InformationResponseList-RL-SetupRspTDD OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { RL-InformationResponseList-LCR-RL-SetupRspTDD-ExtIEs } }
  OPTIONAL,
  ...
}

RL-InformationResponseList-LCR-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- RADIO LINK SETUP FAILURE FDD
--
-- *****

RadioLinkSetupFailureFDD ::= SEQUENCE {
  protocolIEs ProtocolIE-Container {{RadioLinkSetupFailureFDD-IEs}},
  protocolExtensions ProtocolExtensionContainer {{RadioLinkSetupFailureFDD-Extensions}}
  OPTIONAL,
  ...
}

RadioLinkSetupFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID CRITICALITY ignore TYPE CRNC-CommunicationContextID PRESENCE mandatory }|
  { ID id-NodeB-CommunicationContextID CRITICALITY ignore TYPE NodeB-CommunicationContextID PRESENCE conditional }|
  -- This IE shall be present if at least one of the radio links has been successfully set up
  { ID id-CommunicationControlPortID CRITICALITY ignore TYPE CommunicationControlPortID PRESENCE optional }|
  { ID id-CauseLevel-RL-SetupFailureFDD CRITICALITY ignore TYPE CauseLevel-RL-SetupFailureFDD PRESENCE mandatory }|
  { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },
  ...
}

```



```

}
RadioLinkSetupFailureFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
CauseLevel-RL-SetupFailureFDD ::= CHOICE {
  generalCause      GeneralCauseList-RL-SetupFailureFDD,
  rLSpecificCause   RLSpecificCauseList-RL-SetupFailureFDD,
  ...
}
GeneralCauseList-RL-SetupFailureFDD ::= SEQUENCE {
  cause              Cause,
  iE-Extensions     ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs } } OPTIONAL,
  ...
}
GeneralCauseItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
RLSpecificCauseList-RL-SetupFailureFDD ::= SEQUENCE {
  unsuccessful-RL-InformationRespList-RL-SetupFailureFDD      Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD,
  successful-RL-InformationRespList-RL-SetupFailureFDD         Successful-RL-InformationRespList-RL-SetupFailureFDD OPTIONAL,
  iE-Extensions                                                ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs } } OPTIONAL,
  ...
}
RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-HSDSCH-FDD-Information-Response      CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response      PRESENCE optional } |
  { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response      CRITICALITY ignore      EXTENSION
  ContinuousPacketConnectivityHS-SCCH-less-Information-Response      PRESENCE optional },
  ...
}
Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}
Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
  { ID id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD      CRITICALITY ignore      TYPE Unsuccessful-RL-InformationRespItem-RL-
SetupFailureFDD PRESENCE mandatory }
}
Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
  rL-ID              RL-ID,
  cause              Cause,
  iE-Extensions     ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs } }
  OPTIONAL,
  ...
}
Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

}

Successful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1.. maxNrOfRLs)) OF ProtocolIE-Single-Container {{ Successful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}

Successful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
  { ID id-Successful-RL-InformationRespItem-RL-SetupFailureFDD          CRITICALITY ignore          TYPE Successful-RL-InformationRespItem-RL-
SetupFailureFDD PRESENCE mandatory }
}

Successful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
  rL-ID                               RL-ID,
  rL-Set-ID                           RL-Set-ID,
  received-total-wide-band-power      Received-total-wide-band-power-Value,
  diversityIndication                 DiversityIndication-RL-SetupFailureFDD,
  not-Used-dSCH-InformationResponseList NULL                               OPTIONAL,
  not-Used-tFCI2-BearerInformationResponse NULL                             OPTIONAL,
  sSDT-SupportIndicator               SSdT-SupportIndicator,
  iE-Extensions                       ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs } }
  OPTIONAL,
  ...
}

Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-PowerBalancing-ActivationIndicator          CRITICALITY ignore          EXTENSION DL-PowerBalancing-ActivationIndicator          PRESENCE optional
}|
  { ID id-E-DCH-RL-Set-ID                             CRITICALITY ignore          EXTENSION RL-Set-ID                             PRESENCE optional
}|
  { ID id-E-DCH-FDD-DL-Control-Channel-Information     CRITICALITY ignore          EXTENSION E-DCH-FDD-DL-Control-Channel-Information     PRESENCE optional
}|
  { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore          EXTENSION DL-DPCH-TimingAdjustment                    PRESENCE optional
},
  ...
}

DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
  combining                               Combining-RL-SetupFailureFDD,
  nonCombiningOrFirstRL                  NonCombiningOrFirstRL-RL-SetupFailureFDD
}

Combining-RL-SetupFailureFDD ::= SEQUENCE {
  rL-ID                               RL-ID,
  iE-Extensions                       ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs } }
  OPTIONAL,
  ...
}

CombiningItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

NonCombiningOrFirstRL-RL-SetupFailureFDD ::= SEQUENCE {
  dCH-InformationResponse                DCH-InformationResponse,
  iE-Extensions                       ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs } }
  OPTIONAL,
}

```

```

    ...
}
NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-FDD-Information-Response      CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response      PRESENCE optional },
    ...
}
-- *****
--
-- RADIO LINK SETUP FAILURE TDD
--
-- *****

RadioLinkSetupFailureTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{RadioLinkSetupFailureTDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{RadioLinkSetupFailureTDD-Extensions}}
    ...
}
RadioLinkSetupFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID      CRITICALITY ignore  TYPE CRNC-CommunicationContextID      PRESENCE mandatory } |
    { ID id-CauseLevel-RL-SetupFailureTDD    CRITICALITY ignore  TYPE CauseLevel-RL-SetupFailureTDD    PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics           CRITICALITY ignore  TYPE CriticalityDiagnostics           PRESENCE optional },
    ...
}
RadioLinkSetupFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
CauseLevel-RL-SetupFailureTDD ::= CHOICE {
    generalCause          GeneralCauseList-RL-SetupFailureTDD,
    rLSpecificCause      RLSpecificCauseList-RL-SetupFailureTDD,
    ...
}
GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    cause                Cause,
    iE-Extensions        ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} }
    ...
}
GeneralCauseItem-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
RLSpecificCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD  Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD,
    iE-Extensions        ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

```

```

RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD}
}

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD NBAP-PROTOCOL-IES ::= {
  { ID id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD CRITICALITY ignore TYPE Unsuccessful-RL-InformationResp-RL-SetupFailureTDD
  PRESENCE mandatory }
}

Unsuccessful-RL-InformationResp-RL-SetupFailureTDD ::= SEQUENCE {
  rL-ID RL-ID,
  cause Cause,
  iE-Extensions ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs } } OPTIONAL,
  ...
}

Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- RADIO LINK ADDITION REQUEST FDD
--
-- *****

RadioLinkAdditionRequestFDD ::= SEQUENCE {
  protocolIEs ProtocolIE-Container {{RadioLinkAdditionRequestFDD-IEs}},
  protocolExtensions ProtocolExtensionContainer {{RadioLinkAdditionRequestFDD-Extensions}} OPTIONAL,
  ...
}

RadioLinkAdditionRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-NodeB-CommunicationContextID CRITICALITY reject TYPE NodeB-CommunicationContextID PRESENCE mandatory } |
  { ID id-Compressed-Mode-Deactivation-Flag CRITICALITY reject TYPE Compressed-Mode-Deactivation-Flag PRESENCE optional } |
  { ID id-RL-InformationList-RL-AdditionReqstFDD CRITICALITY notify TYPE RL-InformationList-RL-AdditionReqstFDD PRESENCE mandatory },
  ...
}

RadioLinkAdditionRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed CRITICALITY ignore EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed
  PRESENCE optional } |
  { ID id-Serving-E-DCH-RL-ID CRITICALITY reject EXTENSION Serving-E-DCH-RL-ID PRESENCE optional } |
  { ID id-Serving-Cell-Change-CFN CRITICALITY reject EXTENSION CFN PRESENCE optional } |
  { ID id-HS-DSCH-Serving-Cell-Change-Info CRITICALITY reject EXTENSION HS-DSCH-Serving-Cell-Change-Info PRESENCE optional } |
  { ID id-E-DPCH-Information-RL-AdditionReqFDD CRITICALITY reject EXTENSION E-DPCH-Information-RL-AdditionReqFDD PRESENCE optional } |
  { ID id-E-DCH-FDD-Information CRITICALITY reject EXTENSION E-DCH-FDD-Information PRESENCE conditional },
  -- This IE shall be present if E-DPCH Information is present
  ...
}

```

```

RL-InformationList-RL-AdditionRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { { RL-InformationItemIE-RL-AdditionRqstFDD} }

RL-InformationItemIE-RL-AdditionRqstFDD NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationItem-RL-AdditionRqstFDD CRITICALITY notify TYPE RL-InformationItem-RL-AdditionRqstFDD PRESENCE mandatory}
}

RL-InformationItem-RL-AdditionRqstFDD ::= SEQUENCE {
  rL-ID RL-ID,
  c-ID C-ID,
  frameOffset FrameOffset,
  chipOffset ChipOffset,
  diversityControlField DiversityControlField,
  dl-CodeInformation FDD-DL-CodeInformation,
  initialDL-TransmissionPower DL-Power OPTIONAL,
  maximumDL-Power DL-Power OPTIONAL,
  minimumDL-Power DL-Power OPTIONAL,
  not-Used-sSDT-CellIdentity NULL OPTIONAL,
  transmitDiversityIndicator TransmitDiversityIndicator OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { RL-InformationItem-RL-AdditionRqstFDD-ExtIEs} } OPTIONAL,
  ...
}

RL-InformationItem-RL-AdditionRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DLReferencePower CRITICALITY ignore EXTENSION DL-Power PRESENCE optional } |
  { ID id-RL-Specific-DCH-Info CRITICALITY ignore EXTENSION RL-Specific-DCH-Info PRESENCE optional } |
  { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional } |
  { ID id-E-DCH-RL-Indication CRITICALITY reject EXTENSION E-DCH-RL-Indication PRESENCE optional } |
  { ID id-RL-Specific-E-DCH-Info CRITICALITY ignore EXTENSION RL-Specific-E-DCH-Info PRESENCE optional } |
  { ID id-SynchronisationIndicator CRITICALITY ignore EXTENSION SynchronisationIndicator PRESENCE optional } |
  { ID id-F-DPCH-SlotFormat CRITICALITY reject EXTENSION F-DPCH-SlotFormat PRESENCE optional } ,
  ...
}

E-DPCH-Information-RL-AdditionReqFDD ::= SEQUENCE {
  maxSet-E-DPDCHs Max-Set-E-DPDCHs,
  ul-PunctureLimit PunctureLimit,
  e-TFCS-Information E-TFCS-Information,
  e-TTI E-TTI,
  e-DPCCH-PO E-DPCCH-PO,
  e-RGCH-2-IndexStepThreshold E-RGCH-2-IndexStepThreshold,
  e-RGCH-3-IndexStepThreshold E-RGCH-3-IndexStepThreshold,
  hARQ-Info-for-E-DCH HARQ-Info-for-E-DCH,
  iE-Extensions ProtocolExtensionContainer { { E-DPCH-Information-RL-AdditionReqFDD-ExtIEs} } OPTIONAL,
  ...
}

```

```

E-DPCH-Information-RL-AdditionReqFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-HSDSCH-Configured-Indicator CRITICALITY reject EXTENSION HSDSCH-Configured-Indicator PRESENCE mandatory },
  -- This shall be present for EDPCH configuration with HSDCH
  ...
}

-- *****
--
-- RADIO LINK ADDITION REQUEST TDD
--
-- *****

RadioLinkAdditionRequestTDD ::= SEQUENCE {
  protocolIEs ProtocolIE-Container {{RadioLinkAdditionRequestTDD-IEs}},
  protocolExtensions ProtocolExtensionContainer {{RadioLinkAdditionRequestTDD-Extensions}} OPTIONAL,
  ...
}

RadioLinkAdditionRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-NodeB-CommunicationContextID CRITICALITY reject TYPE NodeB-CommunicationContextID PRESENCE mandatory }|
  { ID id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD CRITICALITY reject TYPE UL-CCTrCH-InformationList-RL-AdditionRqstTDD PRESENCE optional }|
  { ID id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD CRITICALITY reject TYPE DL-CCTrCH-InformationList-RL-AdditionRqstTDD PRESENCE optional }|
  { ID id-RL-Information-RL-AdditionRqstTDD CRITICALITY reject TYPE RL-Information-RL-AdditionRqstTDD PRESENCE mandatory },
  ...
}

RadioLinkAdditionRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-HSDSCH-TDD-Information CRITICALITY reject EXTENSION HSDSCH-TDD-Information PRESENCE optional }|
  { ID id-HSDSCH-RNTI CRITICALITY reject EXTENSION HSDSCH-RNTI PRESENCE conditional }|
  -- The IE shall be present if HS-PDSCH RL ID IE is present.
  { ID id-HSPDSCH-RL-ID CRITICALITY reject EXTENSION RL-ID PRESENCE optional }|
  { ID id-E-DCH-Information CRITICALITY reject EXTENSION E-DCH-Information PRESENCE optional }|
  { ID id-E-DCH-Serving-RL-ID CRITICALITY reject EXTENSION RL-ID PRESENCE optional }|
  { ID id-E-DCH-768-Information CRITICALITY reject EXTENSION E-DCH-768-Information PRESENCE optional }|
  { ID id-E-DCH-LCR-Information CRITICALITY reject EXTENSION E-DCH-LCR-Information PRESENCE optional }|
  { ID id-PowerControlGAP CRITICALITY ignore EXTENSION ControlGAP PRESENCE optional }|
  -- Applicable to 1.28Mcps TDD only
  { ID id-UE-Selected-MBMS-Service-Information CRITICALITY ignore EXTENSION UE-Selected-MBMS-Service-Information PRESENCE optional },
  ...
}

UL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-AdditionRqstTDD

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
  cCTrCH-ID CCTrCH-ID,
  uL-DPCH-Information UL-DPCH-InformationList-RL-AdditionRqstTDD OPTIONAL, -- Applicable to 3.84cps TDD only
  iE-Extensions ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs } OPTIONAL,
  ...
}

```

```

}
UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD CRITICALITY notify EXTENSION UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD
  PRESENCE optional }|-- Applicable to 1.28cps TDD only
  { ID id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD CRITICALITY reject EXTENSION TDD-TPC-UplinkStepSize-LCR PRESENCE optional }|--
  Applicable to 1.28cps TDD only
  { ID id-UL-DPCH-InformationItem-768-RL-AdditionRqstTDD CRITICALITY notify EXTENSION UL-DPCH-InformationItem-768-RL-AdditionRqstTDD
  PRESENCE optional }, -- Applicable to 7.68Mcps TDD only
  ...
}
UL-DPCH-InformationList-RL-AdditionRqstTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationItemIE-RL-AdditionRqstTDD }}
UL-DPCH-InformationItemIE-RL-AdditionRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-DPCH-InformationItem-RL-AdditionRqstTDD CRITICALITY notify TYPE UL-DPCH-InformationItem-RL-AdditionRqstTDD PRESENCE optional }
  -- For 3.84Mcps TDD only
}
UL-DPCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
  repetitionPeriod RepetitionPeriod,
  repetitionLength RepetitionLength,
  tdd-DPCHOffset TDD-DPCHOffset,
  uL-Timeslot-Information UL-Timeslot-Information,
  iE-Extensions ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
  ...
}
UL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD ::= SEQUENCE {
  repetitionPeriod RepetitionPeriod,
  repetitionLength RepetitionLength,
  tdd-DPCHOffset TDD-DPCHOffset,
  uL-TimeslotLCR-Information UL-TimeslotLCR-Information,
  iE-Extensions ProtocolExtensionContainer { { UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
  ...
}
UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
UL-DPCH-InformationItem-768-RL-AdditionRqstTDD ::= SEQUENCE {
  repetitionPeriod RepetitionPeriod,
  repetitionLength RepetitionLength,
  tdd-DPCHOffset TDD-DPCHOffset,
  uL-Timeslot768-Information UL-Timeslot768-Information,
  iE-Extensions ProtocolExtensionContainer { { UL-DPCH-InformationItem-768-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
  ...
}

```

```

UL-DPCH-InformationItem-768-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-AdditionRqstTDD

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
  cCTrCH-ID                CCTrCH-ID,
  dL-DPCH-Information      DL-DPCH-InformationList-RL-AdditionRqstTDD    OPTIONAL, -- Applicable to 3.84Mcps TDD only
  iE-Extensions            ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs } }    OPTIONAL,
  ...
}

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD    CRITICALITY notify    EXTENSION DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD
    PRESENCE optional } | -- Applicable to 1.28Mcps TDD only
  { ID id-CCTrCH-Initial-DL-Power-RL-AdditionRqstTDD        CRITICALITY ignore    EXTENSION DL-Power                PRESENCE optional } |
  { ID id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD       CRITICALITY reject    EXTENSION TDD-TPC-DownlinkStepSize PRESENCE optional } |
  { ID id-CCTrCH-Maximum-DL-Power-RL-AdditionRqstTDD        CRITICALITY ignore    EXTENSION DL-Power                PRESENCE optional } |
  { ID id-CCTrCH-Minimum-DL-Power-RL-AdditionRqstTDD        CRITICALITY ignore    EXTENSION DL-Power                PRESENCE optional } |
  { ID id-DL-DPCH-InformationItem-768-RL-AdditionRqstTDD   CRITICALITY notify    EXTENSION DL-DPCH-InformationItem-768-RL-AdditionRqstTDD
    PRESENCE optional }, -- Applicable to 7.68Mcps TDD only
  ...
}

DL-DPCH-InformationList-RL-AdditionRqstTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationItemIE-RL-AdditionRqstTDD }}

DL-DPCH-InformationItemIE-RL-AdditionRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-DL-DPCH-InformationItem-RL-AdditionRqstTDD    CRITICALITY notify    TYPE DL-DPCH-InformationItem-RL-AdditionRqstTDD    PRESENCE mandatory }
}

DL-DPCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
  repetitionPeriod      RepetitionPeriod,
  repetitionLength      RepetitionLength,
  tdd-DPCHOffset        TDD-DPCHOffset,
  dL-Timeslot-Information DL-Timeslot-Information,
  iE-Extensions         ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs } }    OPTIONAL,
  ...
}

DL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD ::= SEQUENCE {
  repetitionPeriod      RepetitionPeriod,
  repetitionLength      RepetitionLength,
  tdd-DPCHOffset        TDD-DPCHOffset,
  dL-TimeslotLCR-Information DL-TimeslotLCR-Information,
  iE-Extensions         ProtocolExtensionContainer { { DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs } }    OPTIONAL,
  ...
}

DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```



```

}
...
DL-DPCH-InformationItem-768-RL-AdditionRqstTDD ::= SEQUENCE {
    repetitionPeriod          RepetitionPeriod,
    repetitionLength          RepetitionLength,
    tdd-DPCHOffset            TDD-DPCHOffset,
    dL-Timeslot768-Information DL-Timeslot768-Information,
    iE-Extensions              ProtocolExtensionContainer { { DL-DPCH-InformationItem-768-RL-AdditionRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-768-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-AdditionRqstTDD ::= SEQUENCE {
    rL-ID                      RL-ID,
    c-ID                        C-ID,
    frameOffset                 FrameOffset,
    diversityControlField       DiversityControlField,
    initial-DL-Transmission-Power DL-Power OPTIONAL,
    maximumDL-Power             DL-Power OPTIONAL,
    minimumDL-Power             DL-Power OPTIONAL,
    dL-TimeSlotISCPInfo         DL-TimeSlotISCPInfo OPTIONAL, -- Applicable to 3.84Mcps TDD and 7.68Mcps TDD only
    iE-Extensions              ProtocolExtensionContainer { { RL-information-RL-AdditionRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

RL-information-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD CRITICALITY reject EXTENSION DL-TimeSlotISCPInfoLCR PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info CRITICALITY ignore EXTENSION RL-Specific-DCH-Info PRESENCE optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR CRITICALITY reject EXTENSION UL-Synchronisation-Parameters-LCR PRESENCE optional }| -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-UARFCNforNt CRITICALITY reject EXTENSION UARFCN PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

-- *****
--
-- RADIO LINK ADDITION RESPONSE FDD
--
-- *****

RadioLinkAdditionResponseFDD ::= SEQUENCE {
    protocolIEs                ProtocolIE-Container {{RadioLinkAdditionResponseFDD-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{RadioLinkAdditionResponseFDD-Extensions}} OPTIONAL,
    ...
}

RadioLinkAdditionResponseFDD-IEs NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-CRNC-CommunicationContextID          CRITICALITY ignore TYPE CRNC-CommunicationContextID          PRESENCE
mandatory }|
    { ID id-RL-InformationResponseList-RL-AdditionRspFDD  CRITICALITY ignore TYPE RL-InformationResponseList-RL-AdditionRspFDD PRESENCE
mandatory }|
    { ID id-CriticalityDiagnostics                CRITICALITY ignore TYPE CriticalityDiagnostics                PRESENCE optional
},
    ...
}

RadioLinkAdditionResponseFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
{ ID id-HS-DSCH-Serving-Cell-Change-Info-Response          CRITICALITY ignore EXTENSION HS-DSCH-Serving-Cell-Change-Info-Response
  PRESENCE optional }|
{ ID id-E-DCH-Serving-Cell-Change-Info-Response          CRITICALITY ignore EXTENSION E-DCH-Serving-Cell-Change-Info-Response
  PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-AdditionRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {{ RL-InformationResponseItemIE-
RL-AdditionRspFDD }}

RL-InformationResponseItemIE-RL-AdditionRspFDD NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationResponseItem-RL-AdditionRspFDD  CRITICALITY ignore TYPE RL-InformationResponseItem-RL-AdditionRspFDD PRESENCE
mandatory }
}

RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
  rL-ID                RL-ID,
  rL-Set-ID            RL-Set-ID,
  received-total-wide-band-power    Received-total-wide-band-power-Value,
  diversityIndication  DiversityIndication-RL-AdditionRspFDD,
  sSDT-SupportIndicator    SSDT-SupportIndicator,
  iE-Extensions        ProtocolExtensionContainer { { RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} }    OPTIONAL,
  ...
}

RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-PowerBalancing-ActivationIndicator          CRITICALITY ignore EXTENSION DL-PowerBalancing-ActivationIndicator          PRESENCE optional }|
  { ID id-E-DCH-RL-Set-ID                              CRITICALITY ignore EXTENSION RL-Set-ID                              PRESENCE optional }|
  { ID id-E-DCH-FDD-DL-Control-Channel-Information      CRITICALITY ignore EXTENSION E-DCH-FDD-DL-Control-Channel-Information      PRESENCE optional }|
  { ID id-Initial-DL-DPCH-TimingAdjustment              CRITICALITY ignore EXTENSION DL-DPCH-TimingAdjustment              PRESENCE optional },
  ...
}

DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
  combining                Combining-RL-AdditionRspFDD,
  non-combining            Non-Combining-RL-AdditionRspFDD
}

Combining-RL-AdditionRspFDD ::= SEQUENCE {
  rL-ID                RL-ID,
  iE-Extensions        ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} }    OPTIONAL,
  ...
}

```

```

CombiningItem-RL-AdditionRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-FDD-Information-Response          CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response          PRESENCE optional },
  ...
}

Non-Combining-RL-AdditionRspFDD ::= SEQUENCE {
  dCH-InformationResponse          DCH-InformationResponse,
  iE-Extensions                    ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspFDD-ExtIEs } }  OPTIONAL,
  ...
}

Non-CombiningItem-RL-AdditionRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-FDD-Information-Response          CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response          PRESENCE optional },
  ...
}

-- *****
--
-- RADIO LINK ADDITION RESPONSE TDD
--
-- *****

RadioLinkAdditionResponseTDD ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container          {{RadioLinkAdditionResponseTDD-IEs}},
  protocolExtensions  ProtocolExtensionContainer  {{RadioLinkAdditionResponseTDD-Extensions}}          OPTIONAL,
  ...
}

RadioLinkAdditionResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID          CRITICALITY ignore  TYPE CRNC-CommunicationContextID          PRESENCE mandatory  }|
  { ID id-RL-InformationResponse-RL-AdditionRspTDD          CRITICALITY ignore  TYPE RL-InformationResponse-RL-AdditionRspTDD          PRESENCE optional  }|
  -- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, Not Applicable to 1.28Mcps TDD
  { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics          PRESENCE optional  },
  ...
}

RadioLinkAdditionResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-RL-InformationResponse-LCR-RL-AdditionRspTDD          CRITICALITY ignore          EXTENSION RL-InformationResponse-LCR-RL-AdditionRspTDD          PRESENCE optional }|
  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
  { ID id-HSDSCH-TDD-Information-Response          CRITICALITY ignore          EXTENSION HSDSCH-TDD-Information-Response          PRESENCE optional }|
  { ID id-E-DCH-Information-Response          CRITICALITY ignore          EXTENSION E-DCH-Information-Response          PRESENCE optional  },
  ...
}

RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
  rL-ID          RL-ID,
  uL-TimeSlot-ISCP-Info          UL-TimeSlot-ISCP-Info,
  ul-PhysCH-SF-Variation          UL-PhysCH-SF-Variation,
  dCH-Information          DCH-Information-RL-AdditionRspTDD          OPTIONAL,
  dSCH-InformationResponseList          DSCH-InformationResponseList-RL-AdditionRspTDD          OPTIONAL,
  uSCH-InformationResponseList          USCH-InformationResponseList-RL-AdditionRspTDD          OPTIONAL,
  iE-Extensions          ProtocolExtensionContainer { { RL-InformationResponse-RL-AdditionRspTDD-ExtIEs } }  OPTIONAL,
}

```

```

}
...
}
RL-InformationResponse-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
diversityIndication DiversityIndication-RL-AdditionRspTDD,
iE-Extensions ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs } } OPTIONAL,
...
}
DCH-Information-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
combining Combining-RL-AdditionRspTDD, -- Indicates whether the old Transport Bearer shall be reused or
not
non-Combining Non-Combining-RL-AdditionRspTDD
}
Combining-RL-AdditionRspTDD ::= SEQUENCE {
rL-ID RL-ID, -- Reference RL
iE-Extensions ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs } } OPTIONAL,
...
}
CombiningItem-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
Non-Combining-RL-AdditionRspTDD ::= SEQUENCE {
dCH-InformationResponse DCH-InformationResponse,
iE-Extensions ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspTDD-ExtIEs } } OPTIONAL,
...
}
Non-CombiningItem-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
DSCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-AdditionRspTDD }}
DSCH-InformationResponseListIEs-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
{ ID id-DSCH-InformationResponse CRITICALITY ignore TYPE DSCH-InformationResponse PRESENCE mandatory }
}
USCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-AdditionRspTDD }}
USCH-InformationResponseListIEs-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
{ ID id-USCH-InformationResponse CRITICALITY ignore TYPE USCH-InformationResponse PRESENCE mandatory }
}

```

```

RL-InformationResponse-LCR-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    uL-TimeSlot-ISCP-InfoLCR            UL-TimeSlot-ISCP-LCR-Info,
    uL-PhysCH-SF-Variation              UL-PhysCH-SF-Variation,
    dCH-Information                     DCH-Information-RL-AdditionRspTDD           OPTIONAL,
    dSCH-InformationResponseList        DSCH-InformationResponseList-RL-AdditionRspTDD  OPTIONAL,
    uSCH-InformationResponseList        USCH-InformationResponseList-RL-AdditionRspTDD  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationResponse-LCR-RL-AdditionRspTDD-ExtIEs} }  OPTIONAL,
    ...
}

RL-InformationResponse-LCR-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK ADDITION FAILURE FDD
--
-- *****

RadioLinkAdditionFailureFDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container          {{RadioLinkAdditionFailureFDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer    {{RadioLinkAdditionFailureFDD-Extensions}}           OPTIONAL,
    ...
}

RadioLinkAdditionFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
}| { ID id-CRNC-CommunicationContextID          CRITICALITY ignore          TYPE CRNC-CommunicationContextID          PRESENCE mandatory
}| { ID id-CauseLevel-RL-AdditionFailureFDD     CRITICALITY ignore          TYPE CauseLevel-RL-AdditionFailureFDD    PRESENCE mandatory
}| { ID id-CriticalityDiagnostics              CRITICALITY ignore          TYPE CriticalityDiagnostics              PRESENCE optional },
    ...
}

RadioLinkAdditionFailureFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
{ ID id-HS-DSCH-Serving-Cell-Change-Info-Response  CRITICALITY ignore  EXTENSION HS-DSCH-Serving-Cell-Change-Info-Response  PRESENCE optional }|
{ ID id-E-DCH-Serving-Cell-Change-Info-Response   CRITICALITY ignore  EXTENSION E-DCH-Serving-Cell-Change-Info-Response   PRESENCE optional }|
{ ID id-MACHs-ResetIndicator                       CRITICALITY ignore  EXTENSION MACHs-ResetIndicator                   PRESENCE optional },
    ...
}

CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
    generalCause          GeneralCauseList-RL-AdditionFailureFDD,
    rLSpecificCause      RLSpecificCauseList-RL-AdditionFailureFDD,
    ...
}

GeneralCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    cause                Cause,
    iE-Extensions        ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }  OPTIONAL,
    ...
}

```

```

}

GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
  unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD      Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD,
  successful-RL-InformationRespList-RL-AdditionFailureFDD        Successful-RL-InformationRespList-RL-AdditionFailureFDD          OPTIONAL,
  iE-Extensions                                                  ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs } }  OPTIONAL,
  ...
}

RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
  { ID id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD  CRITICALITY ignore  TYPE Unsuccessful-RL-InformationRespItem-RL-
AdditionFailureFDD  PRESENCE mandatory }
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
  rL-ID                RL-ID,
  cause                Cause,
  iE-Extensions        ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs } }      OPTIONAL,
  ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Successful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-2)) OF ProtocolIE-Single-Container {{ Successful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}

Successful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
  { ID id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD  CRITICALITY ignore  TYPE Successful-RL-InformationRespItem-RL-
AdditionFailureFDD  PRESENCE mandatory }
}

Successful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
  rL-ID                RL-ID,
  rL-Set-ID            RL-Set-ID,
  received-total-wide-band-power      Received-total-wide-band-power-Value,
  diversityIndication  DiversityIndication-RL-AdditionFailureFDD,
  sSDT-SupportIndicator  SSDT-SupportIndicator,
  iE-Extensions        ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs } }
  OPTIONAL,
  ...
}

```

```

Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-PowerBalancing-ActivationIndicator      CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator      PRESENCE optional
  }|
  { ID id-E-DCH-RL-Set-ID                          CRITICALITY ignore  EXTENSION RL-Set-ID                          PRESENCE optional
  }|
  { ID id-E-DCH-FDD-DL-Control-Channel-Information  CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information  PRESENCE optional
  }|
  { ID id-Initial-DL-DPCH-TimingAdjustment         CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment             PRESENCE optional
  },
  ...
}

DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
  combining                Combining-RL-AdditionFailureFDD,
  non-Combining            Non-Combining-RL-AdditionFailureFDD
}

Combining-RL-AdditionFailureFDD ::= SEQUENCE {
  rL-ID                    RL-ID,
  iE-Extensions            ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs } }      OPTIONAL,
  ...
}

CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-FDD-Information-Response            CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response            PRESENCE optional },
  ...
}

Non-Combining-RL-AdditionFailureFDD ::= SEQUENCE {
  dCH-InformationResponse DCH-InformationResponse,
  iE-Extensions            ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs } }      OPTIONAL,
  ...
}

Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-FDD-Information-Response            CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response            PRESENCE optional },
  ...
}

-- *****
--
-- RADIO LINK ADDITION FAILURE TDD
--
-- *****

RadioLinkAdditionFailureTDD ::= SEQUENCE {
  protocolIEs              ProtocolIE-Container      {{RadioLinkAdditionFailureTDD-IEs}},
  protocolExtensions       ProtocolExtensionContainer  {{RadioLinkAdditionFailureTDD-Extensions}}      OPTIONAL,
  ...
}

RadioLinkAdditionFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID                CRITICALITY ignore      TYPE CRNC-CommunicationContextID                PRESENCE mandatory }}|

```

```

    { ID id-CauseLevel-RL-AdditionFailureTDD          CRITICALITY ignore   TYPE CauseLevel-RL-AdditionFailureTDD   PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics                    CRITICALITY ignore   TYPE CriticalityDiagnostics            PRESENCE optional },
    ...
}

RadioLinkAdditionFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
    generalCause          GeneralCauseList-RL-AdditionFailureTDD,
    rLSpecificCause      RLSpecificCauseList-RL-AdditionFailureTDD,
    ...
}

GeneralCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    cause                Cause,
    iE-Extensions        ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs } }   OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD  Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
    iE-Extensions        ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs } }   OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD} }

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD  CRITICALITY ignore   TYPE Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD
    PRESENCE mandatory }
}

Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD ::= SEQUENCE {
    rL-ID                RL-ID,
    cause                Cause,
    iE-Extensions        ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-ExtIEs } }   OPTIONAL,
    ...
}

Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```



```

-- *****
--
-- RADIO LINK RECONFIGURATION PREPARE FDD
--
-- *****

RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{RadioLinkReconfigurationPrepareFDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareFDD-Extensions}}    OPTIONAL,
    ...
}

RadioLinkReconfigurationPrepareFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID          CRITICALITY reject TYPE NodeB-CommunicationContextID          PRESENCE
mandatory }|
    { ID id-UL-DPCH-Information-RL-ReconfPrepFDD  CRITICALITY reject TYPE UL-DPCH-Information-RL-ReconfPrepFDD          PRESENCE
optional }|
    { ID id-DL-DPCH-Information-RL-ReconfPrepFDD  CRITICALITY reject TYPE DL-DPCH-Information-RL-ReconfPrepFDD          PRESENCE
optional }|
    { ID id-FDD-DCHs-to-Modify                    CRITICALITY reject TYPE FDD-DCHs-to-Modify                    PRESENCE
optional }|
    { ID id-DCHs-to-Add-FDD                       CRITICALITY reject TYPE DCH-FDD-Information                    PRESENCE
optional }|
    { ID id-DCH-DeleteList-RL-ReconfPrepFDD       CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepFDD          PRESENCE
optional }|
    { ID id-RL-InformationList-RL-ReconfPrepFDD   CRITICALITY reject TYPE RL-InformationList-RL-ReconfPrepFDD          PRESENCE
optional }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE
optional },
    ...
}

RadioLinkReconfigurationPrepareFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SignallingBearerRequestIndicator       CRITICALITY reject EXTENSION SignallingBearerRequestIndicator       PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information                 CRITICALITY reject EXTENSION HSDSCH-FDD-Information                 PRESENCE optional }|
    { ID id-HSDSCH-Information-to-Modify           CRITICALITY reject EXTENSION HSDSCH-Information-to-Modify           PRESENCE optional }|
    { ID id-HSDSCH-MACdFlows-to-Add                CRITICALITY reject EXTENSION HSDSCH-MACdFlows-Information           PRESENCE optional }|
    { ID id-HSDSCH-MACdFlows-to-Delete            CRITICALITY reject EXTENSION HSDSCH-MACdFlows-to-Delete            PRESENCE optional }|
    { ID id-HSDSCH-RNTI                           CRITICALITY reject EXTENSION HSDSCH-RNTI                           PRESENCE conditional }|
    -- The IE shall be present if HS-PDSCH RL ID IE is present.
    { ID id-HSPDSCH-RL-ID                          CRITICALITY reject EXTENSION RL-ID                          PRESENCE optional }|
    { ID id-E-DPCH-Information-RL-ReconfPrepFDD   CRITICALITY reject EXTENSION E-DPCH-Information-RL-ReconfPrepFDD   PRESENCE optional }|
    { ID id-E-DCH-FDD-Information                 CRITICALITY reject EXTENSION E-DCH-FDD-Information                 PRESENCE optional }|
    { ID id-E-DCH-FDD-Information-to-Modify        CRITICALITY reject EXTENSION E-DCH-FDD-Information-to-Modify        PRESENCE optional }|
    { ID id-E-DCH-MACdFlows-to-Add                CRITICALITY reject EXTENSION E-DCH-MACdFlows-Information           PRESENCE optional }|
    { ID id-E-DCH-MACdFlows-to-Delete            CRITICALITY reject EXTENSION E-DCH-MACdFlows-to-Delete            PRESENCE optional }|
    { ID id-Serving-E-DCH-RL-ID                  CRITICALITY reject EXTENSION Serving-E-DCH-RL-ID                  PRESENCE optional }|
    { ID id-F-DPCH-Information-RL-ReconfPrepFDD   CRITICALITY reject EXTENSION F-DPCH-Information-RL-ReconfPrepFDD   PRESENCE optional }|
    { ID id-Fast-Reconfiguration-Mode             CRITICALITY ignore EXTENSION Fast-Reconfiguration-Mode             PRESENCE optional }|
    { ID id-CPC-Information                       CRITICALITY reject EXTENSION CPC-Information                       PRESENCE optional },
    ...
}

```

```

UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    ul-ScramblingCode                UL-ScramblingCode                OPTIONAL,
    ul-SIR-Target                    UL-SIR                            OPTIONAL,
    minUL-ChannelisationCodeLength   MinUL-ChannelisationCodeLength   OPTIONAL,
    maxNrOfUL-DPDCHs                MaxNrOfUL-DPDCHs                OPTIONAL,
    -- This IE shall be present if minUL-ChannelisationCodeLength IE is set to 4
    ul-PunctureLimit                PunctureLimit                    OPTIONAL,
    tFCS                             TFCS                             OPTIONAL,
    ul-DPCCH-SlotFormat              UL-DPCCH-SlotFormat              OPTIONAL,
    diversityMode                    DiversityMode                      OPTIONAL,
    not-Used-sSDT-CellIDLength       NULL                              OPTIONAL,
    not-Used-s-FieldLength           NULL                              OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs } } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-Indicator-For-E-DCH-Operation CRITICALITY reject EXTENSION UL-DPCH-Indicator-For-E-DCH-Operation PRESENCE optional },
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    tFCS                             TFCS                             OPTIONAL,
    dl-DPCH-SlotFormat              DL-DPCH-SlotFormat              OPTIONAL,
    tFCI-SignallingMode             TFCI-SignallingMode             OPTIONAL,
    tFCI-Presence                   TFCI-Presence                   OPTIONAL,
    -- This IE shall be present if the DL DPCH Slot Format IE is set to any of the values from 12 to 16
    multiplexingPosition            MultiplexingPosition             OPTIONAL,
    not-Used-pDSCH-CodeMapping      NULL                              OPTIONAL,
    not-Used-pDSCH-RL-ID            NULL                              OPTIONAL,
    limitedPowerIncrease            LimitedPowerIncrease             OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs } } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-Power-Information-RL-ReconfPrepFDD CRITICALITY reject EXTENSION DL-DPCH-Power-Information-RL-ReconfPrepFDD PRESENCE optional },
    ...
}

DL-DPCH-Power-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    powerOffsetInformation          PowerOffsetInformation-RL-ReconfPrepFDD,
    fdd-TPC-DownlinkStepSize       FDD-TPC-DownlinkStepSize,
    innerLoopDLPCStatus            InnerLoopDLPCStatus,
    iE-Extensions                    ProtocolExtensionContainer { { DL-DPCH-Power-Information-RL-ReconfPrepFDD-ExtIEs } } OPTIONAL,
    ...
}

DL-DPCH-Power-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-RL-ReconfPrepFDD ::= SEQUENCE {

```

```

    p01-ForTFCI-Bits      PowerOffset,
    p02-ForTPC-Bits      PowerOffset,
    p03-ForPilotBits     PowerOffset,
    iE-Extensions        ProtocolExtensionContainer { { PowerOffsetInformation-RL-ReconfPrepFDD-ExtIEs } }    OPTIONAL,
    ...
}

PowerOffsetInformation-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD

DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dCH-ID                DCH-ID,
    iE-Extensions        ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs } }    OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { { RL-InformationItemIE-RL-ReconfPrepFDD } }

RL-InformationItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-ReconfPrepFDD          CRITICALITY reject          TYPE          RL-InformationItem-RL-
ReconfPrepFDD          PRESENCE mandatory }
}

RL-InformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
    rL-ID                RL-ID,
    dl-CodeInformation   FDD-DL-CodeInformation          OPTIONAL,
    maxDL-Power          DL-Power          OPTIONAL,
    minDL-Power          DL-Power          OPTIONAL,
    not-Used-sSDT-Indication NULL          OPTIONAL,
    not-Used-sSDT-Cell-Identity NULL          OPTIONAL,
    transmitDiversityIndicator TransmitDiversityIndicator          OPTIONAL,
    -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and it is not set to "none"
    iE-Extensions        ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfPrepFDD-ExtIEs } }    OPTIONAL,
    ...
}

RL-InformationItem-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower          CRITICALITY ignore EXTENSION DL-Power          PRESENCE optional } |
    { ID id-RL-Specific-DCH-Info      CRITICALITY ignore EXTENSION RL-Specific-DCH-Info      PRESENCE optional } |
    { ID id-DL-DPCH-TimingAdjustment  CRITICALITY reject  EXTENSION DL-DPCH-TimingAdjustment  PRESENCE optional } |
    { ID id-Primary-CPICH-Usage-for-Channel-Estimation CRITICALITY ignore EXTENSION Primary-CPICH-Usage-for-Channel-Estimation
PRESENCE optional } |
    { ID id-Secondary-CPICH-Information-Change CRITICALITY ignore EXTENSION Secondary-CPICH-Information-Change PRESENCE optional } |
    { ID id-E-DCH-RL-Indication        CRITICALITY reject  EXTENSION E-DCH-RL-Indication        PRESENCE optional } |
    { ID id-RL-Specific-E-DCH-Info     CRITICALITY ignore EXTENSION RL-Specific-E-DCH-Info     PRESENCE optional } |
    { ID id-F-DPCH-SlotFormat          CRITICALITY reject  EXTENSION F-DPCH-SlotFormat          PRESENCE optional } ,
    ...
}

```

```

}
E-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    maxSet-E-DPDCHs                Max-Set-E-DPDCHs                OPTIONAL,
    ul-PunctureLimit                PunctureLimit                OPTIONAL,
    e-TFCS-Information              E-TFCS-Information          OPTIONAL,
    e-TTI                            E-TTI                        OPTIONAL,
    e-DPCCH-PO                       E-DPCCH-PO                  OPTIONAL,
    e-RGCH-2-IndexStepThreshold      E-RGCH-2-IndexStepThreshold  OPTIONAL,
    e-RGCH-3-IndexStepThreshold      E-RGCH-3-IndexStepThreshold  OPTIONAL,
    hARQ-Info-for-E-DCH              HARQ-Info-for-E-DCH          OPTIONAL,
    hSDSCH-Configured-Indicator      HSDSCH-Configured-Indicator  OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { E-DPCH-Information-RL-ReconfPrepFDD-ExtIEs } } OPTIONAL,
    ...
}
E-DPCH-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
F-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    powerOffsetInformation           PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD,
    fdd-TPC-DownlinkStepSize        FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease             LimitedPowerIncrease,
    innerLoopDLPCStatus             InnerLoopDLPCStatus,
    iE-Extensions                    ProtocolExtensionContainer { { F-DPCH-Information-RL-ReconfPrepFDD-ExtIEs } } OPTIONAL,
    ...
}
F-DPCH-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD ::= SEQUENCE {
    pO2-ForTPC-Bits                 PowerOffset,
    -- This IE shall be ignored by Node B
    iE-Extensions                    ProtocolExtensionContainer { { PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD-ExtIEs } } OPTIONAL,
    ...
}
PowerOffsetInformation-F-DPCH-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
-- *****
--
-- RADIO LINK RECONFIGURATION PREPARE TDD
--
-- *****

RadioLinkReconfigurationPrepareTDD ::= SEQUENCE {
    protocolIEs                      ProtocolIE-Container          {{RadioLinkReconfigurationPrepareTDD-IEs}},
    protocolExtensions                ProtocolExtensionContainer  {{RadioLinkReconfigurationPrepareTDD-Extensions}}
    ...
}

```

```

}
RadioLinkReconfigurationPrepareTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-NodeB-CommunicationContextID CRITICALITY reject TYPE NodeB-CommunicationContextID PRESENCE mandatory
} |
  { ID id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD CRITICALITY reject TYPE UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
  PRESENCE optional } |
  { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD CRITICALITY reject TYPE UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
  PRESENCE optional } |
  { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD CRITICALITY reject TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
  PRESENCE optional } |
  { ID id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD CRITICALITY reject TYPE DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
  PRESENCE optional } |
  { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD CRITICALITY reject TYPE DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
  PRESENCE optional } |
  { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD CRITICALITY reject TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
  PRESENCE optional } |
  { ID id-TDD-DCHs-to-Modify CRITICALITY reject TYPE TDD-DCHs-to-Modify PRESENCE optional } |
  { ID id-DCHs-to-Add-TDD CRITICALITY reject TYPE DCH-TDD-Information PRESENCE optional } |
  { ID id-DCH-DeleteList-RL-ReconfPrepTDD CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepTDD PRESENCE optional } |
  { ID id-DSCH-Information-ModifyList-RL-ReconfPrepTDD CRITICALITY reject TYPE DSCH-Information-ModifyList-RL-ReconfPrepTDD
  PRESENCE optional } |
  { ID id-DSCHs-to-Add-TDD CRITICALITY reject TYPE DSCH-TDD-Information PRESENCE optional } |
  { ID id-DSCH-Information-DeleteList-RL-ReconfPrepTDD CRITICALITY reject TYPE DSCH-Information-DeleteList-RL-ReconfPrepTDD
  PRESENCE optional } |
  { ID id-USCH-Information-ModifyList-RL-ReconfPrepTDD CRITICALITY reject TYPE USCH-Information-ModifyList-RL-ReconfPrepTDD
  PRESENCE optional } |
  { ID id-USCH-Information-Add CRITICALITY reject TYPE USCH-Information PRESENCE optional } |
  { ID id-USCH-Information-DeleteList-RL-ReconfPrepTDD CRITICALITY reject TYPE USCH-Information-DeleteList-RL-ReconfPrepTDD
  PRESENCE optional } |
  { ID id-RL-Information-RL-ReconfPrepTDD CRITICALITY reject TYPE RL-Information-RL-ReconfPrepTDD PRESENCE optional },
-- This RL Information is the for the 1st RL IE repetition
  ...
}

RadioLinkReconfigurationPrepareTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-SignallingBearerRequestIndicator CRITICALITY reject EXTENSION SignallingBearerRequestIndicator PRESENCE optional } |
  { ID id-HSDSCH-TDD-Information CRITICALITY reject EXTENSION HSDSCH-TDD-Information PRESENCE optional } |
  { ID id-HSDSCH-Information-to-Modify CRITICALITY reject EXTENSION HSDSCH-Information-to-Modify PRESENCE optional } |
  { ID id-HSDSCH-MACdFlows-to-Add CRITICALITY reject EXTENSION HSDSCH-MACdFlows-Information PRESENCE optional } |
  { ID id-HSDSCH-MACdFlows-to-Delete CRITICALITY reject EXTENSION HSDSCH-MACdFlows-to-Delete PRESENCE optional } |
  { ID id-HSDSCH-RNTI CRITICALITY reject EXTENSION HSDSCH-RNTI PRESENCE conditional } |
  -- The IE shall be present if HS-PDSCH RL ID IE is present.
  { ID id-HSPDSCH-RL-ID CRITICALITY reject EXTENSION RL-ID PRESENCE optional } |
  { ID id-PDSCH-RL-ID CRITICALITY ignore EXTENSION RL-ID PRESENCE optional } |
  { ID id-multiple-RL-Information-RL-ReconfPrepTDD CRITICALITY reject EXTENSION MultipleRL-Information-RL-ReconfPrepTDD PRESENCE
optional
} |
-- This RL Information is the for the 2nd and beyond repetition of RL information,
  { ID id-E-DCH-Information-Reconfig CRITICALITY reject EXTENSION E-DCH-Information-Reconfig PRESENCE optional } |
  { ID id-E-DCH-Serving-RL-ID CRITICALITY reject EXTENSION RL-ID PRESENCE optional } |
  { ID id-E-DCH-768-Information-Reconfig CRITICALITY reject EXTENSION E-DCH-768-Information-Reconfig PRESENCE optional } |
  { ID id-E-DCH-LCR-Information-Reconfig CRITICALITY reject EXTENSION E-DCH-LCR-Information-Reconfig PRESENCE optional } |
  { ID id-PowerControlGAP CRITICALITY ignore EXTENSION ControlGAP PRESENCE optional } |
  -- Applicable to 1.28Mcps TDD only

```

```

    { ID id-UE-Selected-MBMS-Service-Information          CRITICALITY ignore      EXTENSION UE-Selected-MBMS-Service-Information
      PRESENCE optional },
    ...
  }

UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  cCTrCH-ID          CCTrCH-ID,
  tFCS              TFCS,
  tFCI-Coding       TFCI-Coding,
  punctureLimit     PunctureLimit,
  ul-DPCH-InformationList  UL-DPCH-InformationAddList-RL-ReconfPrepTDD OPTIONAL,
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
  InformationAddList-RL-ReconfPrepTDD
  iE-Extensions     ProtocolExtensionContainer { { UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}

UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD  CRITICALITY reject  EXTENSION UL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional }| -- Applicable to 1.28Mcps TDD only
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
  InformationAddList-RL-ReconfPrepTDD
  { ID id-UL-SIRTarget          CRITICALITY reject  EXTENSION UL-SIR          PRESENCE optional }|
  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
  -- This Information is the for the first RL repetition, SIR Target information for RL repetitions 2 and on, should be defined in MultipleRL-UL-
  DPCH-InformationAddList-RL-ReconfPrepTDD
  { ID id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD  CRITICALITY reject  EXTENSION TDD-TPC-UplinkStepSize-LCR  PRESENCE optional
  }|
  -- This Information is the for the first RL repetition, TPC information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
  InformationAddList-RL-ReconfPrepTDD
  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
  { ID id-RL-ID          CRITICALITY ignore  EXTENSION RL-ID          PRESENCE optional }|
  -- This is the RL ID for the first RL repetition
  { ID id-multipleRL-ul-DPCH-InformationList          CRITICALITY reject  EXTENSION MultipleRL-UL-DPCH-InformationAddList-RL-
  ReconfPrepTDD  PRESENCE optional }|
  -- This Information is the for the 2nd and beyond RL repetition,
  { ID id-UL-DPCH-768-InformationAddItemIE-RL-ReconfPrepTDD  CRITICALITY reject  EXTENSION UL-DPCH-768-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional }, -- Applicable to 7.68Mcps TDD only, first radio link
  ...
}

UL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container { { UL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD } }

UL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD  CRITICALITY reject      TYPE UL-DPCH-InformationAddItem-RL-ReconfPrepTDD      PRESENCE
  mandatory }
}

UL-DPCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  repetitionPeriod      RepetitionPeriod,
  repetitionLength      RepetitionLength,
}

```

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    tdd-DPCHOffset          TDD-DPCHOffset,
    uL-Timeslot-Information UL-Timeslot-Information,
    iE-Extensions           ProtocolExtensionContainer { { UL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
    ...
}

UL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod      RepetitionPeriod,
    repetitionLength      RepetitionLength,
    tdd-DPCHOffset        TDD-DPCHOffset,
    uL-Timeslot-InformationLCR UL-TimeslotLCR-Information,
    iE-Extensions         ProtocolExtensionContainer { { UL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleRL-UL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-UL-DPCH-InformationAddListIE-RL-
ReconfPrepTDD
--Includes the 2nd through the max number of radio link repetitions.

MultipleRL-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD ::= SEQUENCE {
    ul-DPCH-InformationList      UL-DPCH-InformationAddList-RL-ReconfPrepTDD      OPTIONAL,
    ul-DPCH-InformationListLCR   UL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD OPTIONAL,
    ul-sir-target                UL-SIR                                          OPTIONAL,
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
    tDD-TPC-UplinkStepSize-LCR   TDD-TPC-UplinkStepSize-LCR                  OPTIONAL,
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
    rL-ID                        RL-ID                                          OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { MultipleRL-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs } }
    OPTIONAL,
    ...
}

MultipleRL-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-768-InformationAddListIE-RL-ReconfPrepTDD  CRITICALITY reject  EXTENSION  UL-DPCH-768-InformationAddList-RL-ReconfPrepTDD
    PRESENCE optional },
    ...
}

UL-DPCH-768-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod      RepetitionPeriod,
    repetitionLength      RepetitionLength,
    tdd-DPCHOffset        TDD-DPCHOffset,
    uL-Timeslot-Information768 UL-Timeslot768-Information,
    iE-Extensions         ProtocolExtensionContainer { { UL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
    ...
}

```

```

UL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  cCTrCH-ID          CCTrCH-ID,
  tFCS              TFCS                                OPTIONAL,
  tFCI-Coding       TFCI-Coding                        OPTIONAL,
  punctureLimit     PunctureLimit                      OPTIONAL,
  ul-DPCH-InformationAddList  UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD  OPTIONAL,
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
  InformationModifyList-RL-ReconfPrepTDD
  ul-DPCH-InformationModifyList      UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD      OPTIONAL,
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
  InformationModifyList-RL-ReconfPrepTDD
  ul-DPCH-InformationDeleteList      UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD      OPTIONAL,
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
  InformationModifyList-RL-ReconfPrepTDD
  iE-Extensions                      ProtocolExtensionContainer { { UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}

UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UL-DPCH-LCR-InformationModify-AddList  CRITICALITY reject      EXTENSION      UL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD
  PRESENCE optional }|  -- Applicable to 1.28Mcps TDD only
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
  InformationModifyList-RL-ReconfPrepTDD
  { ID id-UL-SIRTarget      CRITICALITY reject      EXTENSION      UL-SIR      PRESENCE optional      }|
  -- Applicable to 1.28Mcps TDD only.
  -- This Information is the for the first RL repetition, SIR Target information for RL repetitions 2 and on, should be defined in MultipleRL-UL-
  DPCH-InformationModifyList-RL-ReconfPrepTDD
  { ID id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD      CRITICALITY reject      EXTENSION      TDD-TPC-UplinkStepSize-LCR
  PRESENCE optional }|
  -- Applicable to 1.28Mcps TDD only
  -- This Information is the for the first RL repetition, Step Size information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
  InformationModifyList-RL-ReconfPrepTDD
  { ID id-RL-ID      CRITICALITY ignore      EXTENSION      RL-ID      PRESENCE optional }|
  -- This is the RL ID for the first RL repetition
  { ID id-multipleRL-ul-DPCH-InformationModifyList      CRITICALITY reject      EXTENSION      MultipleRL-UL-DPCH-InformationModifyList-RL-
  ReconfPrepTDD      PRESENCE optional }|
  -- This DPCH Information is the for the 2nd and beyond RL repetition,
  { ID id-UL-DPCH-768-InformationModify-AddItem      CRITICALITY reject      EXTENSION      UL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD
  PRESENCE optional },  -- Applicable to 7.68Mcps TDD only
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-UL-DPCH-
  InformationModifyList-RL-ReconfPrepTDD
  ...
}

UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD }}

```



```

UL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD    CRITICALITY reject          TYPE UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD
    PRESENCE mandatory }
}

UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  repetitionPeriod          RepetitionPeriod,
  repetitionLength          RepetitionLength,
  tdd-DPCHOffset            TDD-DPCHOffset,
  uL-Timeslot-Information   UL-Timeslot-Information,
  iE-Extensions             ProtocolExtensionContainer { { UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}

UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container { { UL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD } }

UL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD    CRITICALITY reject          TYPE UL-DPCH-InformationModify-ModifyItem-RL-
  ReconfPrepTDD          PRESENCE mandatory }
}

UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  repetitionPeriod          RepetitionPeriod    OPTIONAL,
  repetitionLength          RepetitionLength    OPTIONAL,
  tdd-DPCHOffset            TDD-DPCHOffset      OPTIONAL,
  uL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD          UL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD
  OPTIONAL,
  iE-Extensions             ProtocolExtensionContainer { { UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}

UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD    CRITICALITY reject          EXTENSION    UL-TimeslotLCR-InformationModify-ModifyList-RL-
  ReconfPrepTDD          PRESENCE optional } | -- Applicable to 1.28Mcps TDD only
  { ID id-UL-Timeslot768-Information-RL-ReconfPrepTDD    CRITICALITY reject          EXTENSION    UL-Timeslot768-InformationModify-ModifyList-RL-
  ReconfPrepTDD          PRESENCE optional }, -- Applicable to 7.68Mcps TDD only
  ...
}

UL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationModify-ModifyItem-RL-
ReconfPrepTDD -- Applicable to 3.84Mcps TDD only

UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  timeSlot                  TimeSlot,
  midambleShiftAndBurstType MidambleShiftAndBurstType    OPTIONAL,
  tFCI-Presence             TFCI-Presence                OPTIONAL,
  uL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD          UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD    OPTIONAL,
}

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    iE-Extensions
    OPTIONAL,
    ...
}

UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDD

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID
    tdd-ChannelisationCode
    iE-Extensions
    OPTIONAL,
    ...
    DPCH-ID,
    TDD-ChannelisationCode
    OPTIONAL,
    ProtocolExtensionContainer { { UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
}

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeslotLCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-Timeslot-LCR-InformationModify-
ModifyItem-RL-ReconfPrepTDD -- Applicable to 1.28Mcps TDD only

UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlotLCR
    midambleShiftLCR
    tFCI-Presence
    uL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCLCR
    iE-Extensions
    OPTIONAL,
    ...
    TimeSlotLCR,
    MidambleShiftLCR
    OPTIONAL,
    TFCI-Presence
    OPTIONAL,
    UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCLCR
    OPTIONAL,
    ProtocolExtensionContainer { { UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
}

UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PLCCH-Information-RL-ReconfPrepTDDLCLCR
    CRITICALITY reject
    EXTENSION PLCCHinformation
    PRESENCE optional },
    ...
}

UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCLCR ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF UL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDDLCLCR

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCLCR ::= SEQUENCE {
    dPCH-ID
    tdd-ChannelisationCodeLCR
    iE-Extensions
    OPTIONAL,
    ...
    DPCH-ID,
    TDD-ChannelisationCodeLCR
    OPTIONAL,
    ProtocolExtensionContainer { { UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCLCR-ExtIEs} }
}

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

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    { ID id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR PRESENCE
optional},
    ...
}

UL-Timeslot768-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-768-InformationModify-ModifyItem-
RL-ReconfPrepTDD -- Applicable to 7.68Mcps TDD only

UL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlot TimeSlot,
    midambleShiftAndBurstType768 MidambleShiftAndBurstType768 OPTIONAL,
    tFCI-Presence TFCI-Presence OPTIONAL,
    uL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD768 UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD768 OPTIONAL,
    iE-Extensions ProtocolExtensionContainer { { UL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs } }
    OPTIONAL,
    ...
}

UL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD768 ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDD768

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD768 ::= SEQUENCE {
    dPCH-ID DPCH-ID,
    tdd-ChannelisationCode768 TDD-ChannelisationCode768 OPTIONAL,
    iE-Extensions ProtocolExtensionContainer { { UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD768-ExtIEs } }
    OPTIONAL,
    ...
}

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container { { UL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD
}}

UL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD CRITICALITY reject TYPE UL-DPCH-InformationModify-DeleteListIE-RL-
ReconfPrepTDD PRESENCE mandatory }
}

UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationModify-DeleteItem-RL-
ReconfPrepTDD

UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID DPCH-ID,
    iE-Extensions ProtocolExtensionContainer { { UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs } }
    OPTIONAL,
    ...
}

```

```

}
UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
UL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
  repetitionPeriod          RepetitionPeriod,
  repetitionLength          RepetitionLength,
  tdd-DPCHOffset           TDD-DPCHOffset,
  uL-Timeslot-InformationLCR UL-Timeslot-Information,
  iE-Extensions            ProtocolExtensionContainer { { UL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}
UL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
MultipleRL-UL-DPCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-UL-DPCH-InformationModifyListIE-RL-
ReconfPrepTDD
--Includes the 2nd through the max number of radio link information repetitions.
MultipleRL-UL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD ::= SEQUENCE {
  ul-DPCH-InformationAddList          UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD          OPTIONAL,
  ul-DPCH-InformationModifyList       UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD       OPTIONAL,
  ul-DPCH-InformationDeleteList       UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD       OPTIONAL,
  ul-DPCH-InformationAddListLCR       UL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD       OPTIONAL,
  ul-sir-target                       UL-SIR                                              OPTIONAL,
  tdd-TPC-UplinkStepSize-LCR          TDD-TPC-UplinkStepSize-LCR                        OPTIONAL,
  rL-ID                               RL-ID                                              OPTIONAL,
  -- This DPCH Information is the for the 2nd and beyond RL repetitions,
  iE-Extensions                       ProtocolExtensionContainer { { MultipleRL-UL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}
MultipleRL-UL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UL-DPCH-768-InformationModify-AddList  CRITICALITY reject  EXTENSION UL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD
  PRESENCE optional },    -- Applicable to 7.68Mcps TDD only
  ...
}
UL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
  repetitionPeriod          RepetitionPeriod,
  repetitionLength          RepetitionLength,
  tdd-DPCHOffset           TDD-DPCHOffset,
  uL-Timeslot-Information768 UL-Timeslot768-Information,
  iE-Extensions            ProtocolExtensionContainer { { UL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}

```

```

UL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
  cCTrCH-ID          CCTrCH-ID,
  iE-Extensions     ProtocolExtensionContainer { { UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} }
  OPTIONAL,
  ...
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  cCTrCH-ID          CCTrCH-ID,
  tFCS              TFCS,
  tFCI-Coding       TFCI-Coding,
  punctureLimit     PunctureLimit,
  cCTrCH-TPCList    CCTrCH-TPCAddList-RL-ReconfPrepTDD          OPTIONAL,
  dl-DPCH-InformationList  DL-DPCH-InformationAddList-RL-ReconfPrepTDD  OPTIONAL,
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
  InformationAddList-RL-ReconfPrepTDD
  iE-Extensions     ProtocolExtensionContainer { { DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
  OPTIONAL,
  ...
}

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-DPCH-InformationAddList-RL-ReconfPrepTDD  CRITICALITY reject  EXTENSION DL-DPCH-InformationAddList-RL-
  ReconfPrepTDD  PRESENCE optional }|  -- Applicable to 1.28Mcps TDD only
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
  InformationAddList-RL-ReconfPrepTDD
  { ID id-CCTrCH-Initial-DL-Power-RL-ReconfPrepTDD  CRITICALITY ignore  EXTENSION DL-Power  PRESENCE optional }|
  -- This DL Power information is the for the first RL repetition, DL power information for RL repetitions 2 and on, should be defined in MultipleRL-
  DL-DPCH-InformationAddList-RL-ReconfPrepTDD
  { ID id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD  CRITICALITY reject  EXTENSION TDD-TPC-DownlinkStepSize  PRESENCE optional }|
  -- This DL step size is the for the first RL repetition, DL step size information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
  DPCH-InformationAddList-RL-ReconfPrepTDD
  { ID id-CCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD  CRITICALITY ignore  EXTENSION DL-Power  PRESENCE optional }|
  -- This DL Power information is the for the first RL repetition, DL power information for RL repetitions 2 and on, should be defined in MultipleRL-
  DL-DPCH-InformationAddList-RL-ReconfPrepTDD
  { ID id-CCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD  CRITICALITY ignore  EXTENSION DL-Power  PRESENCE optional }|
  -- This DL Power information is the for the first RL repetition, DL power information for RL repetitions 2 and on, should be defined in MultipleRL-
  DL-DPCH-InformationAddList-RL-ReconfPrepTDD
  { ID id-RL-ID  CRITICALITY ignore  EXTENSION RL-ID  PRESENCE optional }|
  -- This is the RL ID for the first RL repetition
  { ID id-multipleRL-dl-DPCH-InformationList  CRITICALITY reject  EXTENSION MultipleRL-DL-DPCH-InformationAddList-RL-
  ReconfPrepTDD  PRESENCE optional }|
}

```

```

-- This DPCH Information is the for the 2nd and beyond RL repetition,
{ ID id-DL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD      CRITICALITY reject  EXTENSION DL-DPCH-768-InformationAddList-RL-
ReconfPrepTDD      PRESENCE optional }, -- Applicable to 7.68Mcps TDD only
...
}

CCTrCH-TPCAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCAddItem-RL-ReconfPrepTDD -- Applicable to 3.84Mcps TDD
and 7.68Mcps TDD only

CCTrCH-TPCAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  cCtRCH-ID          CCTrCH-ID,
  iE-Extensions      ProtocolExtensionContainer { { CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs } }  OPTIONAL,
  ...
}

CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container { { DL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD } }

DL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
  { ID id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD  CRITICALITY reject      TYPE DL-DPCH-InformationAddItem-RL-ReconfPrepTDD  PRESENCE
mandatory }
}

DL-DPCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  repetitionPeriod      RepetitionPeriod,
  repetitionLength      RepetitionLength,
  tdd-DPCHOffset        TDD-DPCHOffset,
  dL-Timeslot-Information DL-Timeslot-Information,
  iE-Extensions         ProtocolExtensionContainer { { DL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs } }  OPTIONAL,
  ...
}

DL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
  repetitionPeriod      RepetitionPeriod,
  repetitionLength      RepetitionLength,
  tdd-DPCHOffset        TDD-DPCHOffset,
  dL-Timeslot-InformationLCR DL-TimeslotLCR-Information,
  iE-Extensions         ProtocolExtensionContainer { { DL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs } }  OPTIONAL,
  ...
}

DL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

MultipleRL-DL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-DL-DPCH-InformationAddListIE-RL-
ReconfPrepTDD

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--Includes the 2nd through the max number of radio link information repetitions.

MultipleRL-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD ::= SEQUENCE {
  dl-DPCH-InformationList                DL-DPCH-InformationAddList-RL-ReconfPrepTDD    OPTIONAL,
  dl-DPCH-InformationListLCR              DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD    OPTIONAL,
  cCTrCH-Initial-DL-Power                 DL-Power                                           OPTIONAL,
  tDD-TPC-DownlinkStepSize                TDD-TPC-DownlinkStepSize                            OPTIONAL,
  cCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD DL-Power                                           OPTIONAL,
  cCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD DL-Power                                           OPTIONAL,
  rL-ID                                    RL-ID                                               OPTIONAL,
  iE-Extensions                           ProtocolExtensionContainer { { MultipleRL-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
  ...
}

MultipleRL-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-DPCH-768-InformationAddList-RL-ReconfPrepTDD    CRITICALITY reject EXTENSION DL-DPCH-768-InformationAddList-RL-ReconfPrepTDD
  PRESENCE optional }, -- Applicable to 7.68Mcps TDD only
  ...
}

DL-DPCH-768-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
  repetitionPeriod                RepetitionPeriod,
  repetitionLength                 RepetitionLength,
  tdd-DPCHOffset                   TDD-DPCHOffset,
  dl-Timeslot-Information768        DL-Timeslot768-Information,
  iE-Extensions                     ProtocolExtensionContainer { { DL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
  ...
}

DL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  cCTrCH-ID                        CCTrCH-ID,
  tFCS                              TFCS                                           OPTIONAL,
  tFCI-Coding                       TFCI-Coding                                  OPTIONAL,
  punctureLimit                     PunctureLimit                                OPTIONAL,
  cCTrCH-TPCList                     CCTrCH-TPCModifyList-RL-ReconfPrepTDD        OPTIONAL,
  dl-DPCH-InformationAddList          DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD    OPTIONAL,
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
  InformationModifyList-RL-ReconfPrepTDD
  dl-DPCH-InformationModifyList        DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD    OPTIONAL,
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
  InformationModifyList-RL-ReconfPrepTDD
  dl-DPCH-InformationDeleteList        DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD    OPTIONAL,
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
  InformationModifyList-RL-ReconfPrepTDD
  iE-Extensions                       ProtocolExtensionContainer { { DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}

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```

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD CRITICALITY reject EXTENSION DL-DPCH-LCR-InformationModify-
  AddList-RL-ReconfPrepTDD PRESENCE optional }| -- Applicable to 1.28Mcps TDD only
  -- This DPCH Information is the for the first RL repetition, DPCH information for RL repetitions 2 and on, should be defined in MultipleRL-DL-DPCH-
  InformationModifyList-RL-ReconfPrepTDD
  { ID id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-DownlinkStepSize PRESENCE optional }|
  -- This Step Size Information is the for the first RL repetition, step size information for RL repetitions 2 and on, should be defined in
  MultipleRL-DL-DPCH-InformationModifyList-RL-ReconfPrepTDD
  { ID id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD CRITICALITY ignore EXTENSION DL-Power PRESENCE optional }|
  -- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
  DPCH-InformationModifyList-RL-ReconfPrepTDD
  { ID id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD CRITICALITY ignore EXTENSION DL-Power PRESENCE optional }|
  -- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
  DPCH-InformationModifyList-RL-ReconfPrepTDD
  { ID id-RL-ID CRITICALITY ignore EXTENSION RL-ID PRESENCE optional }|
  -- This is the RL ID for the first RL repetition
  { ID id-multipleRL-dl-DPCH-InformationModifyList CRITICALITY reject EXTENSION MultipleRL-DL-DPCH-InformationModifyList-RL-
  ReconfPrepTDD PRESENCE optional }|
  -- This DPCH Information is the for the 2nd and beyond RL repetitions,
  { ID id-DL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD CRITICALITY reject EXTENSION DL-DPCH-768-InformationModify-
  AddList-RL-ReconfPrepTDD PRESENCE optional }, -- Applicable to 7.68Mcps TDD only first radio link
  ...
}

CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD

CCTrCH-TPCModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  cCCTrCH-ID CCTrCH-ID,
  iE-Extensions ProtocolExtensionContainer { { CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
  ...
}

CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD }}
-- Applicable to 3.84Mcps TDD only

DL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
  { ID id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD CRITICALITY reject TYPE DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD
  PRESENCE mandatory }
}

DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  repetitionPeriod RepetitionPeriod,
  repetitionLength RepetitionLength,
  tdd-DPCHOffset TDD-DPCHOffset,
  dl-Timeslot-Information DL-Timeslot-Information,
  iE-Extensions ProtocolExtensionContainer { { DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
  OPTIONAL,
  ...
}

```



```

DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD
}}

DL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
  { ID id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD  CRITICALITY reject          TYPE DL-DPCH-InformationModify-ModifyItem-RL-
ReconfPrepTDD          PRESENCE mandatory }
}

DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  repetitionPeriod          RepetitionPeriod          OPTIONAL,
  repetitionLength          RepetitionLength          OPTIONAL,
  tdd-DPCHOffset            TDD-DPCHOffset            OPTIONAL,
  dL-Timeslot-InformationAddModify-ModifyList-RL-ReconfPrepTDD  DL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD  OPTIONAL,
  iE-Extensions            ProtocolExtensionContainer { { DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
  OPTIONAL,
  ...
}

DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD  CRITICALITY reject          EXTENSION          DL-Timeslot-
LCR-InformationModify-ModifyList-RL-ReconfPrepTDD          PRESENCE optional } |
  { ID id-DL-Timeslot-768-InformationModify-ModifyList-RL-ReconfPrepTDD  CRITICALITY reject          EXTENSION          DL-Timeslot-
768-InformationModify-ModifyList-RL-ReconfPrepTDD          PRESENCE optional },
  ...
}

DL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSS)) OF DL-Timeslot-InformationModify-ModifyItem-RL-
ReconfPrepTDD

DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  timeSlot          TimeSlot,
  midambleShiftAndBurstType  MidambleShiftAndBurstType          OPTIONAL,
  tFCI-Presence      TFCI-Presence          OPTIONAL,
  dL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD  DL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD  OPTIONAL,
  iE-Extensions      ProtocolExtensionContainer { { DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
  OPTIONAL,
  ...
}

DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDD

DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dPCH-ID          DPCH-ID,
  tdd-ChannelisationCode  TDD-ChannelisationCode          OPTIONAL,

```

```

    iE-Extensions          ProtocolExtensionContainer { { DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs } }
    OPTIONAL,
    ...
}

DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-Timeslot-LCR-InformationModify-
ModifyItem-RL-ReconfPrepTDD

DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlotLCR          TimeSlotLCR,
    midambleShiftLCR    MidambleShiftLCR          OPTIONAL,
    tFCI-Presence        TFCI-Presence              OPTIONAL,
    dL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD DL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD
    OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs } }
    OPTIONAL,
    ...
}

DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Maximum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD CRITICALITY ignore EXTENSION DL-Power PRESENCE optional } |
    -- Applicable to 1.28Mcps TDD only
    { ID id-Minimum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD CRITICALITY ignore EXTENSION DL-Power PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

DL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF DL-Code-LCR-InformationModify-ModifyItem-RL-
ReconfPrepTDD

DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID              DPCH-ID,
    tdd-ChannelisationCodeLCR TDD-ChannelisationCodeLCR          OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { { DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs } }
    OPTIONAL,
    ...
}

DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR PRESENCE
optional },
    ...
}

DL-Timeslot-768-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSSs)) OF DL-Timeslot-768-InformationModify-
ModifyItem-RL-ReconfPrepTDD

DL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlot              TimeSlot,
    midambleShiftAndBurstType MidambleShiftAndBurstType          OPTIONAL,

```

```

tFCI-Presence                TFCI-Presence                OPTIONAL,
dL-Code-768-InformationModify-ModifyList-RL-ReconfPrepTDD  DL-Code-768-InformationModify-ModifyList-RL-ReconfPrepTDD
OPTIONAL,
iE-Extensions                ProtocolExtensionContainer { { DL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs } }
    OPTIONAL,
    ...
}

DL-Timeslot-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-768-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs768)) OF DL-Code-768-InformationModify-ModifyItem-RL-
ReconfPrepTDD

DL-Code-768-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID768                DPCH-ID768,
    tdd-ChannelisationCode768 TDD-ChannelisationCode768    OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { { DL-Code-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs } }
    OPTIONAL,
    ...
}

DL-Code-768-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container { { DL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD
}}

DL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD    CRITICALITY reject        TYPE DL-DPCH-InformationModify-DeleteListIE-RL-
ReconfPrepTDD        PRESENCE mandatory }
}

DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-DPCH-InformationModify-DeleteItem-RL-
ReconfPrepTDD

DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID                DPCH-ID,
    iE-Extensions            ProtocolExtensionContainer { { DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs } }
    OPTIONAL,
    ...
}

DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod        RepetitionPeriod,
    repetitionLength        RepetitionLength,
    tdd-DPCHOffset          TDD-DPCHOffset,
    dL-Timeslot-InformationLCR DL-TimeslotLCR-Information,

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```

    iE-Extensions
    OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleRL-DL-DPCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-DL-DPCH-InformationModifyListIE-RL-
ReconfPrepTDD
    --Includes the 2nd through the max number of radio link information repetitions.

MultipleRL-DL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD ::= SEQUENCE {
    dl-DPCH-InformationAddList                DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD        OPTIONAL,
    dl-DPCH-InformationModifyList              DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD      OPTIONAL,
    dl-DPCH-InformationDeleteList              DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD      OPTIONAL,
    dl-DPCH-InformationAddListLCR              DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD      OPTIONAL,
    tDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD TDD-TPC-DownlinkStepSize                                OPTIONAL,
    cCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD DL-Power                                                    OPTIONAL,
    cCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD DL-Power                                                    OPTIONAL,
    rL-ID                                      RL-ID                                                        OPTIONAL,
    iE-Extensions                             ProtocolExtensionContainer { { MultipleRL-DL-DPCH-InformationModifyListIE-RL-
ReconfPrepTDD-ExtIEs} }  OPTIONAL,
    ...
}

MultipleRL-DL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD CRITICALITY reject          EXTENSION          DL-DPCH-768-InformationModify-
AddList-RL-ReconfPrepTDD          PRESENCE optional }, -- Applicable to 7.68Mcps TDD only
    ...
}

DL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                 RepetitionLength,
    tdd-DPCHOffset                   TDD-DPCHOffset,
    dl-Timeslot-Information768        DL-Timeslot768-Information,
    iE-Extensions                     ProtocolExtensionContainer { { DL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                        CCTrCH-ID,
    iE-Extensions                     ProtocolExtensionContainer { { DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

```

```

}
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
DCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD
DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dCH-ID
  iE-Extensions          ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs } }    OPTIONAL,
  ...
}
DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
DSCH-Information-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-ModifyItem-RL-ReconfPrepTDD
DSCH-Information-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dSCH-ID                DSCH-ID,
  cCTrCH-ID              CCTrCH-ID          OPTIONAL,
  -- DL CCTrCH in which the DSCH is mapped
  transportFormatSet     TransportFormatSet  OPTIONAL,
  allocationRetentionPriority AllocationRetentionPriority  OPTIONAL,
  frameHandlingPriority  FrameHandlingPriority  OPTIONAL,
  toAWS                  ToAWS              OPTIONAL,
  toAWE                  ToAWE              OPTIONAL,
  transportBearerRequestIndicator TransportBearerRequestIndicator,
  iE-Extensions          ProtocolExtensionContainer { { DSCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs } }    OPTIONAL,
  ...
}
DSCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-bindingID      CRITICALITY ignore  EXTENSION BindingID      PRESENCE optional  }|
  -- Shall be ignored if bearer establishment with ALCAP.
  { ID id-transportlayeraddress CRITICALITY ignore  EXTENSION TransportLayerAddress  PRESENCE optional  }|
  -- Shall be ignored if bearer establishment with ALCAP.
  { ID id-TnlQos         CRITICALITY ignore  EXTENSION TnlQos          PRESENCE optional  },
  ...
}
DSCH-Information-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-DeleteItem-RL-ReconfPrepTDD
DSCH-Information-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dSCH-ID                DSCH-ID,
  iE-Extensions          ProtocolExtensionContainer { { DSCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs } }    OPTIONAL,
  ...
}
DSCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

USCH-Information-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-ModifyItem-RL-ReconfPrepTDD

USCH-Information-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID                USCH-ID,
    transportFormatSet     TransportFormatSet          OPTIONAL,
    allocationRetentionPriority AllocationRetentionPriority OPTIONAL,
    cCTrCH-ID              CCTrCH-ID                  OPTIONAL, -- UL CCTrCH in which the USCH is mapped
    transportBearerRequestIndicator TransportBearerRequestIndicator,
    iE-Extensions          ProtocolExtensionContainer { { USCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID          CRITICALITY ignore      EXTENSION BindingID          PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress CRITICALITY ignore      EXTENSION TransportLayerAddress PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnIQos             CRITICALITY ignore      EXTENSION TnIQos             PRESENCE optional },
    ...
}

USCH-Information-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-DeleteItem-RL-ReconfPrepTDD

USCH-Information-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID                USCH-ID,
    iE-Extensions          ProtocolExtensionContainer { { USCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MultipleRL-Information-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-Information-RL-ReconfPrepTDD
--Includes the 2nd through the max number of radio link information repetitions.

RL-Information-RL-ReconfPrepTDD ::= SEQUENCE {
    rL-ID                RL-ID,
    maxDL-Power          DL-Power          OPTIONAL,
    minDL-Power          DL-Power          OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { RL-Information-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-InitDL-Power          CRITICALITY ignore      EXTENSION DL-Power          PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info   CRITICALITY ignore      EXTENSION RL-Specific-DCH-Info PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR CRITICALITY ignore      EXTENSION UL-Synchronisation-Parameters-LCR PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-TimeslotISCP-LCR-InfoList-RL-ReconfPrepTDD CRITICALITY ignore      EXTENSION DL-TimeslotISCPInfoLCR PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-UARFCNforNt           CRITICALITY reject      EXTENSION UARFCN           PRESENCE optional },
}

```

```

-- Applicable to 1.28Mcps TDD when using multiple frequencies
...
}

-- *****
--
-- RADIO LINK RECONFIGURATION READY
--
-- *****

RadioLinkReconfigurationReady ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{RadioLinkReconfigurationReady-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{RadioLinkReconfigurationReady-Extensions}} OPTIONAL,
    ...
}

RadioLinkReconfigurationReady-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          CRITICALITY ignore TYPE CRNC-CommunicationContextID          PRESENCE mandatory }|
    { ID id-RL-InformationResponseList-RL-ReconfReady CRITICALITY ignore TYPE RL-InformationResponseList-RL-ReconfReady PRESENCE optional }|
    { ID id-CriticalityDiagnostics              CRITICALITY ignore TYPE CriticalityDiagnostics              PRESENCE optional },
    ...
}

RadioLinkReconfigurationReady-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TargetCommunicationControlPortID      CRITICALITY ignore EXTENSION CommunicationControlPortID      PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response        CRITICALITY ignore EXTENSION HSDSCH-FDD-Information-Response        PRESENCE optional }|
    -- FDD only
    { ID id-HSDSCH-TDD-Information-Response        CRITICALITY ignore EXTENSION HSDSCH-TDD-Information-Response        PRESENCE optional }|
    -- TDD only
    { ID id-E-DCH-Information-Response            CRITICALITY ignore EXTENSION E-DCH-Information-Response            PRESENCE optional }|
    { ID id-MACHs-ResetIndicator                  CRITICALITY ignore EXTENSION MACHs-ResetIndicator                  PRESENCE optional }|
    { ID id-Fast-Reconfiguration-Permission        CRITICALITY ignore EXTENSION Fast-Reconfiguration-Permission        PRESENCE optional }|
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response CRITICALITY ignore EXTENSION
    ContinuousPacketConnectivityHS-SCCH-less-Information-Response PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-ReconfReady ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationResponseItemIE-RL-ReconfReady}}

RL-InformationResponseItemIE-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-ReconfReady CRITICALITY ignore TYPE RL-InformationResponseItem-RL-ReconfReady PRESENCE mandatory }
}

RL-InformationResponseItem-RL-ReconfReady ::= SEQUENCE {
    rL-ID          RL-ID,
    dCH-InformationResponseList-RL-ReconfReady          DCH-InformationResponseList-RL-ReconfReady OPTIONAL,
    dSCH-InformationResponseList-RL-ReconfReady          DSCH-InformationResponseList-RL-ReconfReady OPTIONAL, -- TDD only
    uSCH-InformationResponseList-RL-ReconfReady          USCH-InformationResponseList-RL-ReconfReady OPTIONAL, -- TDD only
    not-Used-tFCI2-BearerInformationResponse            NULL OPTIONAL,
    IE-Extensions   ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfReady-ExtIEs } }
    OPTIONAL,
    ...
}

```

```

}
RL-InformationResponseItem-RL-ReconfReady-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-PowerBalancing-UpdatedIndicator      CRITICALITY ignore  EXTENSION DL-PowerBalancing-UpdatedIndicator      PRESENCE optional
} |
  { ID id-E-DCH-RL-Set-ID                        CRITICALITY ignore  EXTENSION RL-Set-ID                        PRESENCE optional
} |
  { ID id-E-DCH-FDD-DL-Control-Channel-Information  CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information  PRESENCE optional
} |
  { ID id-E-DCH-FDD-Information-Response          CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response          PRESENCE optional
},
  ...
}

DCH-InformationResponseList-RL-ReconfReady ::= ProtocolIE-Single-Container {{ DCH-InformationResponseListIEs-RL-ReconfReady }}

DCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
  { ID id-DCH-InformationResponse  CRITICALITY ignore  TYPE DCH-InformationResponse  PRESENCE mandatory }
}

DSCH-InformationResponseList-RL-ReconfReady ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-ReconfReady }}

DSCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
  { ID id-DSCH-InformationResponse  CRITICALITY ignore  TYPE DSCH-InformationResponse  PRESENCE mandatory }
}

USCH-InformationResponseList-RL-ReconfReady ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-ReconfReady }}

USCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
  { ID id-USCH-InformationResponse  CRITICALITY ignore  TYPE USCH-InformationResponse  PRESENCE mandatory }
}

-- *****
--
-- RADIO LINK RECONFIGURATION FAILURE
--
-- *****

RadioLinkReconfigurationFailure ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container      {{RadioLinkReconfigurationFailure-IEs}},
  protocolExtensions  ProtocolExtensionContainer {{RadioLinkReconfigurationFailure-Extensions}}
  OPTIONAL,
  ...
}

RadioLinkReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID  CRITICALITY ignore  TYPE CRNC-CommunicationContextID  PRESENCE mandatory } |
  { ID id-CauseLevel-RL-ReconfFailure  CRITICALITY ignore  TYPE CauseLevel-RL-ReconfFailure  PRESENCE mandatory } |
  { ID id-CriticalityDiagnostics        CRITICALITY ignore  TYPE CriticalityDiagnostics        PRESENCE optional },
  ...
}

RadioLinkReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```



```

CauseLevel-RL-ReconfFailure ::= CHOICE {
    generalCause      GeneralCauseList-RL-ReconfFailure,
    rLSpecificCause   RLSpecificCauseList-RL-ReconfFailure,
    ...
}

GeneralCauseList-RL-ReconfFailure ::= SEQUENCE {
    cause              Cause,
    iE-Extensions      ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs } } OPTIONAL,
    ...
}

GeneralCauseItem-RL-ReconfFailure-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-ReconfFailure ::= SEQUENCE {
    rL-ReconfigurationFailureList-RL-ReconfFailure      OPTIONAL,
    iE-Extensions      ProtocolExtensionContainer { { RLSpecificCauseItem-RL-ReconfFailure-ExtIEs } }
    OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-ReconfFailure-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-ReconfigurationFailureList-RL-ReconfFailure ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-
ReconfigurationFailureItemIE-RL-ReconfFailure}}

RL-ReconfigurationFailureItemIE-RL-ReconfFailure NBAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationFailureItem-RL-ReconfFailure  CRITICALITY ignore  TYPE RL-ReconfigurationFailureItem-RL-ReconfFailure  PRESENCE
mandatory}
}

RL-ReconfigurationFailureItem-RL-ReconfFailure ::= SEQUENCE {
    rL-ID              RL-ID,
    cause              Cause,
    iE-Extensions      ProtocolExtensionContainer { { RL-ReconfigurationFailureItem-RL-ReconfFailure-ExtIEs } }
    OPTIONAL,
    ...
}

RL-ReconfigurationFailureItem-RL-ReconfFailure-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK RECONFIGURATION COMMIT
--
-- *****

```

```

RadioLinkReconfigurationCommit ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{RadioLinkReconfigurationCommit-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{RadioLinkReconfigurationCommit-Extensions}}
    ...
}

RadioLinkReconfigurationCommit-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID          CRITICALITY ignore TYPE NodeB-CommunicationContextID PRESENCE mandatory } |
    { ID id-CFN                                   CRITICALITY ignore TYPE CFN PRESENCE mandatory } |
    { ID id-Active-Pattern-Sequence-Information   CRITICALITY ignore TYPE Active-Pattern-Sequence-Information PRESENCE optional },
    -- FDD only
    ...
}

RadioLinkReconfigurationCommit-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Fast-Reconfiguration-Mode CRITICALITY reject EXTENSION Fast-Reconfiguration-Mode PRESENCE optional },--FDD only
    ...
}

-- *****
--
-- RADIO LINK RECONFIGURATION CANCEL
--
-- *****

RadioLinkReconfigurationCancel ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{RadioLinkReconfigurationCancel-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{RadioLinkReconfigurationCancel-Extensions}}
    ...
}

RadioLinkReconfigurationCancel-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID          CRITICALITY ignore TYPE NodeB-CommunicationContextID PRESENCE mandatory },
    ...
}

RadioLinkReconfigurationCancel-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK RECONFIGURATION REQUEST FDD
--
-- *****

RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{RadioLinkReconfigurationRequestFDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{RadioLinkReconfigurationRequestFDD-Extensions}}
    ...
}

RadioLinkReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-NodeB-CommunicationContextID          CRITICALITY reject  TYPE NodeB-CommunicationContextID          PRESENCE mandatory
  }|
  { ID id-UL-DPCH-Information-RL-ReconfRqstFDD    CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfRqstFDD    PRESENCE optional }|
  { ID id-DL-DPCH-Information-RL-ReconfRqstFDD    CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfRqstFDD    PRESENCE optional }|
  { ID id-FDD-DCHs-to-Modify                      CRITICALITY reject  TYPE FDD-DCHs-to-Modify                      PRESENCE optional }|
  { ID id-DCHs-to-Add-FDD                         CRITICALITY reject  TYPE DCH-FDD-Information                    PRESENCE optional }|
  { ID id-DCH-DeleteList-RL-ReconfRqstFDD         CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstFDD         PRESENCE optional }|
  { ID id-RL-InformationList-RL-ReconfRqstFDD     CRITICALITY reject  TYPE RL-InformationList-RL-ReconfRqstFDD     PRESENCE optional }|
  { ID id-Transmission-Gap-Pattern-Sequence-Information CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE
optional },
  ...
}

RadioLinkReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-SignallingBearerRequestIndicator          CRITICALITY reject  EXTENSION SignallingBearerRequestIndicator          PRESENCE optional }|
  { ID id-HSDSCH-FDD-Information                    CRITICALITY reject  EXTENSION HSDSCH-FDD-Information                    PRESENCE optional }|
  { ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject  EXTENSION HSDSCH-Information-to-Modify-Unsynchronised PRESENCE
optional }|
  { ID id-HSDSCH-MACdFlows-to-Add                  CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-Information              PRESENCE optional }|
  { ID id-HSDSCH-MACdFlows-to-Delete               CRITICALITY reject  EXTENSION HSDSCH-MACdFlows-to-Delete                PRESENCE optional }|
  { ID id-HSDSCH-RNTI                              CRITICALITY reject  EXTENSION HSDSCH-RNTI                              PRESENCE conditional }|
  -- The IE shall be present if HS-PDSCH RL ID IE is present.
  { ID id-HSPDSCH-RL-ID                            CRITICALITY reject  EXTENSION RL-ID                                    PRESENCE optional }|
  { ID id-E-DPCH-Information-RL-ReconfRqstFDD     CRITICALITY reject  EXTENSION E-DPCH-Information-RL-ReconfRqstFDD     PRESENCE optional }|
  { ID id-E-DCH-FDD-Information                    CRITICALITY reject  EXTENSION E-DCH-FDD-Information                    PRESENCE optional }|
  { ID id-E-DCH-FDD-Information-to-Modify          CRITICALITY reject  EXTENSION E-DCH-FDD-Information-to-Modify          PRESENCE optional }|
  { ID id-E-DCH-MACdFlows-to-Add                  CRITICALITY reject  EXTENSION E-DCH-MACdFlows-Information              PRESENCE optional }|
  { ID id-E-DCH-MACdFlows-to-Delete               CRITICALITY reject  EXTENSION E-DCH-MACdFlows-to-Delete                PRESENCE optional }|
  { ID id-Serving-E-DCH-RL-ID                     CRITICALITY reject  EXTENSION Serving-E-DCH-RL-ID                     PRESENCE optional }|
  { ID id-CPC-Information                          CRITICALITY reject  EXTENSION CPC-Information                          PRESENCE optional },
  ...
}

UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
  ul-TFCS          TFCS          OPTIONAL,
  iE-Extensions    ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs } } OPTIONAL,
  ...
}

UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UL-DPCH-Indicator-For-E-DCH-Operation CRITICALITY reject  EXTENSION UL-DPCH-Indicator-For-E-DCH-Operation  PRESENCE optional },
  ...
}

DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
  dl-TFCS          TFCS          OPTIONAL,
  tFCI-SignallingMode TFCI-SignallingMode  OPTIONAL,
  limitedPowerIncrease LimitedPowerIncrease  OPTIONAL,
  iE-Extensions    ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs } } OPTIONAL,
  ...
}

DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

}
DCH-DeleteList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD
DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID                DCH-ID,
    iE-Extensions         ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs } }    OPTIONAL,
    ...
}
DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
RL-InformationList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-ReconfRqstFDD}}
RL-InformationItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-ReconfRqstFDD          CRITICALITY reject          TYPE RL-InformationItem-RL-ReconfRqstFDD          PRESENCE mandatory }
}
RL-InformationItem-RL-ReconfRqstFDD ::= SEQUENCE {
    rL-ID                RL-ID,
    maxDL-Power          DL-Power                                OPTIONAL,
    minDL-Power          DL-Power                                OPTIONAL,
    dl-CodeInformation   FDD-DL-CodeInformation                OPTIONAL,
    -- The IE shall be present if the Transmission Gap Pattern Sequence Information IE is included and the indicated Downlink Compressed Mode
    method for at least one of the included Transmission Gap Pattern Sequence is set to "SF/2".
    iE-Extensions         ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstFDD-ExtIEs } }    OPTIONAL,
    ...
}
RL-InformationItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower          CRITICALITY ignore          EXTENSION DL-Power          PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info      CRITICALITY ignore          EXTENSION RL-Specific-DCH-Info PRESENCE optional }|
    { ID id-E-DCH-RL-Indication       CRITICALITY reject          EXTENSION E-DCH-RL-Indication PRESENCE optional }|
    { ID id-RL-Specific-E-DCH-Info    CRITICALITY ignore          EXTENSION RL-Specific-E-DCH-Info PRESENCE optional }|
    { ID id-F-DPCH-SlotFormat         CRITICALITY reject          EXTENSION F-DPCH-SlotFormat  PRESENCE optional },
    ...
}
E-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    maxSet-E-DPDCHs          Max-Set-E-DPDCHs          OPTIONAL,
    ul-PunctureLimit         PunctureLimit             OPTIONAL,
    e-TFCS-Information       E-TFCS-Information       OPTIONAL,
    e-TTI                    E-TTI                     OPTIONAL,
    e-DPCCH-PO              E-DPCCH-PO               OPTIONAL,
    e-RGCH-2-IndexStepThreshold E-RGCH-2-IndexStepThreshold OPTIONAL,
    e-RGCH-3-IndexStepThreshold E-RGCH-3-IndexStepThreshold OPTIONAL,
    hARQ-Info-for-E-DCH     HARQ-Info-for-E-DCH      OPTIONAL,
    hSDSCH-Configured-Indicator HSDSCH-Configured-Indicator OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { E-DPCH-Information-RL-ReconfRqstFDD-ExtIEs } }    OPTIONAL,
    ...
}

```

```

E-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- RADIO LINK RECONFIGURATION REQUEST TDD
--
-- *****

RadioLinkReconfigurationRequestTDD ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container      {{RadioLinkReconfigurationRequestTDD-IEs}},
  protocolExtensions   ProtocolExtensionContainer {{RadioLinkReconfigurationRequestTDD-Extensions}} OPTIONAL,
  ...
}

RadioLinkReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-NodeB-CommunicationContextID          CRITICALITY reject   TYPE NodeB-CommunicationContextID          PRESENCE mandatory }|
  { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD CRITICALITY notify   TYPE UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD PRESENCE optional }|
  { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD CRITICALITY notify   TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD PRESENCE optional }|
  { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD CRITICALITY notify   TYPE DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD PRESENCE optional }|
  { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD CRITICALITY notify   TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD PRESENCE optional }|
  { ID id-TDD-DCHs-to-Modify                      CRITICALITY reject   TYPE TDD-DCHs-to-Modify                      PRESENCE optional }|
  { ID id-DCHs-to-Add-TDD                          CRITICALITY reject   TYPE DCH-TDD-Information                      PRESENCE optional }|
  { ID id-DCH-DeleteList-RL-ReconfRqstTDD         CRITICALITY reject   TYPE DCH-DeleteList-RL-ReconfRqstTDD         PRESENCE optional }|
  { ID id-RL-Information-RL-ReconfRqstTDD         CRITICALITY reject   TYPE RL-Information-RL-ReconfRqstTDD         PRESENCE optional }|
  -- This RL-Information-RL-ReconfRqstTDD is the first RL information repetition in the RL-Information List. Repetition 2 and on, should be defined
  in Multiple-RL-Information-RL-ReconfRqstTDD,
  ...
}

RadioLinkReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-SignallingBearerRequestIndicator          CRITICALITY reject   EXTENSION SignallingBearerRequestIndicator PRESENCE optional }|
  { ID id-multiple-RL-Information-RL-ReconfRqstTDD CRITICALITY reject   EXTENSION Multiple-RL-Information-RL-ReconfRqstTDD PRESENCE optional }|
  --Includes the 2nd through the max number of radio link information repetitions.
  { ID id-HSDSCH-TDD-Information                    CRITICALITY reject   EXTENSION HSDSCH-TDD-Information            PRESENCE optional }|
  { ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject   EXTENSION HSDSCH-Information-to-Modify-Unsynchronised PRESENCE optional }|
  optional }|
  { ID id-HSDSCH-MACdFlows-to-Add                    CRITICALITY reject   EXTENSION HSDSCH-MACdFlows-Information      PRESENCE optional }|
  { ID id-HSDSCH-MACdFlows-to-Delete                  CRITICALITY reject   EXTENSION HSDSCH-MACdFlows-to-Delete        PRESENCE optional }|
  { ID id-HSDSCH-RNTI                                CRITICALITY reject   EXTENSION HSDSCH-RNTI                       PRESENCE conditional }|
  -- The IE shall be present if HS-PDSCH RL ID IE is present.
  { ID id-HSPDSCH-RL-ID                              CRITICALITY reject   EXTENSION RL-ID                             PRESENCE optional }|
  { ID id-E-DCH-Information-Reconfig                  CRITICALITY reject   EXTENSION E-DCH-Information-Reconfig        PRESENCE optional }|
  { ID id-E-DCH-Serving-RL-ID                        CRITICALITY reject   EXTENSION RL-ID                             PRESENCE optional }|
  { ID id-E-DCH-768-Information-Reconfig              CRITICALITY reject   EXTENSION E-DCH-768-Information-Reconfig    PRESENCE optional }|
  { ID id-E-DCH-LCR-Information-Reconfig              CRITICALITY reject   EXTENSION E-DCH-LCR-Information-Reconfig    PRESENCE optional }|
}

```

```

    { ID id-PowerControlGAP                               CRITICALITY ignore  EXTENSION ControlGAP                               PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-UE-Selected-MBMS-Service-Information          CRITICALITY ignore      EXTENSION UE-Selected-MBMS-Service-Information
    PRESENCE optional },
    ...
}

UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ UL-CCTrCH-
InformationModifyItemIE-RL-ReconfRqstTDD}}

UL-CCTrCH-InformationModifyItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD  CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD
  PRESENCE mandatory}
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
  cCTrCH-ID                CCTrCH-ID,
  tFCS                      TFCS          OPTIONAL,
  punctureLimit            PunctureLimit  OPTIONAL,
  iE-Extensions            ProtocolExtensionContainer { { UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs } }
  OPTIONAL,
  ...
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-UL-SIRTarget      CRITICALITY reject      EXTENSION UL-SIR          PRESENCE optional },
  -- Applicable to 1.28Mcps TDD only
  ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ UL-CCTrCH-
InformationDeleteItemIE-RL-ReconfRqstTDD}}

UL-CCTrCH-InformationDeleteItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD  CRITICALITY notify  TYPE UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD
  PRESENCE mandatory }
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
  cCTrCH-ID                CCTrCH-ID,
  iE-Extensions            ProtocolExtensionContainer { { UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs } }
  OPTIONAL,
  ...
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ DL-CCTrCH-
InformationModifyItemIE-RL-ReconfRqstTDD}}

DL-CCTrCH-InformationModifyItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD
      PRESENCE mandatory }
  }

DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
  cCTrCH-ID          CCTrCH-ID,
  tFCS              TFCS          OPTIONAL,
  punctureLimit     PunctureLimit OPTIONAL,
  iE-Extensions     ProtocolExtensionContainer { { DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs } }
  OPTIONAL,
  ...
}

DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD CRITICALITY ignore EXTENSION DL-DPCH-LCR-InformationModify-ModifyList-RL-
  ReconfRqstTDD PRESENCE optional }| -- Applicable to 1.28Mcps TDD only
  -- This DPCH LCR Information is the for the first RL repetition, DPCH LCR information for RL repetitions 2 and on, should be defined in MultipleRL-
  DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD.
  { ID id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD CRITICALITY ignore EXTENSION DL-Power PRESENCE optional }|
  -- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
  CCTrCH-InformationModifyList-RL-ReconfRqstTDD.
  { ID id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD CRITICALITY ignore EXTENSION DL-Power PRESENCE optional }|
  -- This power Information is the for the first RL repetition, power information for RL repetitions 2 and on, should be defined in MultipleRL-DL-
  CCTrCH-InformationModifyList-RL-ReconfRqstTDD.
  { ID id-RL-ID CRITICALITY ignore EXTENSION RL-ID PRESENCE optional }|
  -- This is the RL ID for the first RL repetition.
  { ID id-multipleRL-dl-CCTrCH-InformationModifyList-RL-ReconfRqstTDD CRITICALITY reject EXTENSION MultipleRL-DL-CCTrCH-
  InformationModifyList-RL-ReconfRqstTDD PRESENCE optional },
  -- This CCTrCH Information is the for the 2nd and beyond RL repetitions.
  ...
}

MultipleRL-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF MultipleRL-DL-CCTrCH-InformationModifyListIE-
RL-ReconfRqstTDD
--Includes the 2nd through the max number of radio link information repetitions.

MultipleRL-DL-CCTrCH-InformationModifyListIE-RL-ReconfRqstTDD ::= SEQUENCE {
  dl-DPCH-LCR-InformationModifyList DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD OPTIONAL,
  cCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD DL-Power OPTIONAL,
  cCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD DL-Power OPTIONAL,
  rL-ID RL-ID OPTIONAL,
  ...
}

DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE {
  dL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD-ExtIEs } }
  OPTIONAL,
  ...
}

DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfRqstTDD

```
DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR           TimeSlotLCR,
    maxPowerLCR           DL-Power   OPTIONAL,
    minPowerLCR           DL-Power   OPTIONAL,
    iE-Extensions         ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}
```

DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ DL-CCTrCH-InformationDeleteItemIE-RL-ReconfRqstTDD}}

```
DL-CCTrCH-InformationDeleteItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD          CRITICALITY notify   TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD
    PRESENCE mandatory }
}
```

```
DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID           CCTrCH-ID,
    iE-Extensions         ProtocolExtensionContainer { { DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}
```

DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

DCH-DeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstTDD

```
DCH-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dCH-ID           DCH-ID,
    iE-Extensions         ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}
```

DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

Multiple-RL-Information-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-Information-RL-ReconfRqstTDD
--Includes the 2nd through the max number of radio link information repetitions.

```
RL-Information-RL-ReconfRqstTDD ::= SEQUENCE {
    rL-ID           RL-ID,
    maxDL-Power         DL-Power   OPTIONAL,
```



```

minDL-Power          DL-Power          OPTIONAL,
iE-Extensions        ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstTDD-ExtIEs} }  OPTIONAL,
...
}

RL-InformationItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-RL-Specific-DCH-Info          CRITICALITY ignore      EXTENSION  RL-Specific-DCH-Info          PRESENCE optional }|
  { ID id-UL-Synchronisation-Parameters-LCR  CRITICALITY ignore      EXTENSION  UL-Synchronisation-Parameters-LCR  PRESENCE optional }|
  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
  ...
}

-- *****
--
-- RADIO LINK RECONFIGURATION RESPONSE
--
-- *****

RadioLinkReconfigurationResponse ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container      {{RadioLinkReconfigurationResponse-IEs}},
  protocolExtensions  ProtocolExtensionContainer  {{RadioLinkReconfigurationResponse-Extensions}}  OPTIONAL,
  ...
}

RadioLinkReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID  CRITICALITY ignore      TYPE      CRNC-CommunicationContextID      PRESENCE
  mandatory }|
  { ID id-RL-InformationResponseList-RL-ReconfRsp  CRITICALITY ignore      TYPE      RL-InformationResponseList-RL-ReconfRsp  PRESENCE
  optional }|
  { ID id-CriticalityDiagnostics        CRITICALITY ignore      TYPE      CriticalityDiagnostics              PRESENCE
  optional },
  ...
}

RadioLinkReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-TargetCommunicationControlPortID  CRITICALITY ignore      EXTENSION  CommunicationControlPortID      PRESENCE optional }|
  { ID id-HSDSCH-FDD-Information-Response  CRITICALITY ignore      EXTENSION  HSDSCH-FDD-Information-Response  PRESENCE optional }|
  -- FDD only
  { ID id-HSDSCH-TDD-Information-Response  CRITICALITY ignore      EXTENSION  HSDSCH-TDD-Information-Response  PRESENCE optional }|
  -- TDD only
  { ID id-E-DCH-Information-Response      CRITICALITY ignore      EXTENSION  E-DCH-Information-Response      PRESENCE optional }|
  { ID id-MACHs-ResetIndicator            CRITICALITY ignore      EXTENSION  MACHs-ResetIndicator            PRESENCE optional }|
  { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response  CRITICALITY ignore      EXTENSION
  ContinuousPacketConnectivityHS-SCCH-less-Information-Response  PRESENCE optional },
  ...
}

RL-InformationResponseList-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-InformationResponseItemIE-RL-ReconfRsp}}

RL-InformationResponseItemIE-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationResponseItem-RL-ReconfRsp  CRITICALITY ignore      TYPE      RL-InformationResponseItem-RL-ReconfRsp  PRESENCE mandatory }
}

```

```

RL-InformationResponseItem-RL-ReconfRsp ::= SEQUENCE {
    rL-ID                RL-ID,
    dCH-InformationResponseList-RL-ReconfRsp  DCH-InformationResponseList-RL-ReconfRsp      OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfRsp-ExtIEs} }  OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator      CRITICALITY ignore  EXTENSION DL-PowerBalancing-UpdatedIndicator      PRESENCE optional
    }|
    -- FDD only
    { ID id-E-DCH-RL-Set-ID                        CRITICALITY ignore  EXTENSION RL-Set-ID                        PRESENCE optional
    }|
    { ID id-E-DCH-FDD-DL-Control-Channel-Information  CRITICALITY ignore  EXTENSION E-DCH-FDD-DL-Control-Channel-Information  PRESENCE optional
    }|
    { ID id-E-DCH-FDD-Information-Response          CRITICALITY ignore  EXTENSION E-DCH-FDD-Information-Response          PRESENCE optional
    },
    ...
}

DCH-InformationResponseList-RL-ReconfRsp ::= ProtocolIE-Single-Container { { DCH-InformationResponseListIEs-RL-ReconfRsp } }

DCH-InformationResponseListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse  CRITICALITY ignore  TYPE DCH-InformationResponse  PRESENCE mandatory }
}

-- *****
--
-- RADIO LINK DELETION REQUEST
--
-- *****

RadioLinkDeletionRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{RadioLinkDeletionRequest-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{RadioLinkDeletionRequest-Extensions}}  OPTIONAL,
    ...
}

RadioLinkDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID  CRITICALITY reject  TYPE NodeB-CommunicationContextID  PRESENCE mandatory }|
    { ID id-CRNC-CommunicationContextID   CRITICALITY reject  TYPE CRNC-CommunicationContextID   PRESENCE mandatory }|
    { ID id-RL-informationList-RL-DeletionRqst  CRITICALITY notify  TYPE RL-informationList-RL-DeletionRqst  PRESENCE mandatory },
    ...
}

RadioLinkDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-informationList-RL-DeletionRqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-informationItemIE-RL-DeletionRqst}}

RL-informationItemIE-RL-DeletionRqst NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-RL-informationItem-RL-DeletionRqst      CRITICALITY notify      TYPE RL-informationItem-RL-DeletionRqst  PRESENCE mandatory }
  }

RL-informationItem-RL-DeletionRqst ::= SEQUENCE {
  rL-ID          RL-ID,
  iE-Extensions ProtocolExtensionContainer { { RL-informationItem-RL-DeletionRqst-ExtIEs} }  OPTIONAL,
  ...
}

RL-informationItem-RL-DeletionRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- RADIO LINK DELETION RESPONSE
--
-- *****

RadioLinkDeletionResponse ::= SEQUENCE {
  protocolIEs      ProtocolIE-Container      {{RadioLinkDeletionResponse-IEs}},
  protocolExtensions ProtocolExtensionContainer {{RadioLinkDeletionResponse-Extensions}}  OPTIONAL,
  ...
}

RadioLinkDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID      CRITICALITY ignore  TYPE CRNC-CommunicationContextID      PRESENCE mandatory } |
  { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics          PRESENCE optional } ,
  ...
}

RadioLinkDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- DL POWER CONTROL REQUEST FDD
--
-- *****

DL-PowerControlRequest ::= SEQUENCE {
  protocolIEs      ProtocolIE-Container      {{DL-PowerControlRequest-IEs}},
  protocolExtensions ProtocolExtensionContainer {{DL-PowerControlRequest-Extensions}}  OPTIONAL,
  ...
}

DL-PowerControlRequest-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-NodeB-CommunicationContextID      CRITICALITY ignore  TYPE NodeB-CommunicationContextID      PRESENCE mandatory } |
  { ID id-PowerAdjustmentType              CRITICALITY ignore  TYPE PowerAdjustmentType              PRESENCE mandatory } |
  { ID id-DLReferencePower                 CRITICALITY ignore  TYPE DL-Power                         PRESENCE conditional } |
  -- This IE shall be present if the Adjustment Type IE is set to 'Common'
  { ID id-InnerLoopDLPCStatus              CRITICALITY ignore  TYPE InnerLoopDLPCStatus              PRESENCE optional } |
  { ID id-DLReferencePowerList-DL-PC-Rqst   CRITICALITY ignore  TYPE DL-ReferencePowerInformationList-DL-PC-Rqst  PRESENCE conditional } |
}

```

```

-- This IE shall be present if the Adjustment Type IE is set to 'Individual'
{ ID id-MaxAdjustmentStep          CRITICALITY ignore TYPE MaxAdjustmentStep          PRESENCE conditional }|
-- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
{ ID id-AdjustmentPeriod          CRITICALITY ignore TYPE AdjustmentPeriod          PRESENCE conditional }|
-- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
{ ID id-AdjustmentRatio          CRITICALITY ignore TYPE ScaledAdjustmentRatio          PRESENCE conditional },
-- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
...
}

DL-PowerControlRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
...
}

DL-ReferencePowerInformationList-DL-PC-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{DL-ReferencePowerInformationItemIE-DL-PC-Rqst }}

DL-ReferencePowerInformationItemIE-DL-PC-Rqst NBAP-PROTOCOL-IES ::= {
{ ID id-DL-ReferencePowerInformationItem-DL-PC-Rqst          CRITICALITY ignore          TYPE DL-ReferencePowerInformationItem-DL-PC-Rqst
PRESENCE mandatory }
}

DL-ReferencePowerInformationItem-DL-PC-Rqst ::= SEQUENCE {
rL-ID          RL-ID,
dl-ReferencePower          DL-Power,
iE-Extensions          ProtocolExtensionContainer { { DL-ReferencePowerInformationItem-DL-PC-Rqst-ExtIEs } }          OPTIONAL,
...
}

DL-ReferencePowerInformationItem-DL-PC-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

-- *****
--
-- DL POWER TIMESLOT CONTROL REQUEST TDD
--
-- *****

DL-PowerTimeslotControlRequest ::= SEQUENCE {
protocolIEs          ProtocolIE-Container          {{DL-PowerTimeslotControlRequest-IEs}},
protocolExtensions          ProtocolExtensionContainer {{DL-PowerTimeslotControlRequest-Extensions}}          OPTIONAL,
...
}

DL-PowerTimeslotControlRequest-IEs NBAP-PROTOCOL-IES ::= {
{ ID id-NodeB-CommunicationContextID          CRITICALITY ignore          TYPE NodeB-CommunicationContextID          PRESENCE mandatory } |
{ ID id-TimeslotISCPInfo          CRITICALITY ignore          TYPE DL-TimeslotISCPInfo          PRESENCE optional },
-- Mandatory for 3.84Mcps TDD and 7.68Mcps TDD, Not Applicable to 1.28Mcps TDD
...
}

DL-PowerTimeslotControlRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
{ ID id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD          CRITICALITY ignore          EXTENSION          DL-TimeslotISCPInfoLCR          PRESENCE optional }|

```

```

-- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
{ ID id-PrimCCPCH-RSCP-DL-PC-RqstTDD          CRITICALITY ignore      EXTENSION PrimaryCCPCH-RSCP          PRESENCE optional }|
{ ID id-PrimaryCCPCH-RSCP-Delta              CRITICALITY ignore          EXTENSION PrimaryCCPCH-RSCP-Delta    PRESENCE optional },
...
}

-- *****
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
-- *****

DedicatedMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{DedicatedMeasurementInitiationRequest-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{DedicatedMeasurementInitiationRequest-Extensions}}
    ...
}

DedicatedMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID          CRITICALITY reject  TYPE NodeB-CommunicationContextID          PRESENCE mandatory } |
    { ID id-MeasurementID                         CRITICALITY reject  TYPE MeasurementID                         PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rqst CRITICALITY reject  TYPE DedicatedMeasurementObjectType-DM-Rqst PRESENCE mandatory } |
    { ID id-DedicatedMeasurementType             CRITICALITY reject  TYPE DedicatedMeasurementType             PRESENCE mandatory } |
    { ID id-MeasurementFilterCoefficient          CRITICALITY reject  TYPE MeasurementFilterCoefficient          PRESENCE optional } |
    { ID id-ReportCharacteristics                 CRITICALITY reject  TYPE ReportCharacteristics                 PRESENCE mandatory } |
    { ID id-CFNReportingIndicator                 CRITICALITY reject  TYPE FNReportingIndicator                 PRESENCE mandatory } |
    { ID id-CFN                                   CRITICALITY reject  TYPE CFN                                   PRESENCE optional } ,
    ...
}

DedicatedMeasurementInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-NumberOfReportedCellPortions          CRITICALITY reject  EXTENSION NumberOfReportedCellPortions    PRESENCE conditional }|
    -- The IE shall be present if the Dedicated Measurement Type IE is set to "Best Cell Portions", FDD only.
    { ID id-MeasurementRecoveryBehavior           CRITICALITY ignore  EXTENSION MeasurementRecoveryBehavior     PRESENCE optional }|
    { ID id-AlternativeFormatReportingIndicator    CRITICALITY ignore  EXTENSION AlternativeFormatReportingIndicator PRESENCE optional },
    ...
}

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
    rL          RL-DM-Rqst,
    rLS         RL-Set-DM-Rqst,          -- for FDD only
    all-RL      AllRL-DM-Rqst,
    all-RLS     AllRL-Set-DM-Rqst,      -- for FDD only
    ...
}

RL-DM-Rqst ::= SEQUENCE {
    rL-InformationList          RL-InformationList-DM-Rqst,
    iE-Extensions               ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs } }
    ...
}

RLItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

RL-InformationList-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rqst }}

RL-InformationItemIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationItem-DM-Rqst   CRITICALITY reject TYPE RL-InformationItem-DM-Rqst   PRESENCE mandatory }
}

RL-InformationItem-DM-Rqst ::= SEQUENCE {
  rL-ID          RL-ID,
  dPCH-ID        DPCH-ID          OPTIONAL, -- for TDD only
  iE-Extensions  ProtocolExtensionContainer { { RL-InformationItem-DM-Rqst-ExtIEs } } OPTIONAL,
  ...
}

RL-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-PUSCH-Info-DM-Rqst   CRITICALITY reject          EXTENSION  PUSCH-Info-DM-Rqst          PRESENCE optional}|
  -- TDD only
  { ID id-HSSICH-Info-DM-Rqst  CRITICALITY reject          EXTENSION  HSSICH-Info-DM-Rqst          PRESENCE optional}|
  -- TDD only
  { ID id-DPCH-ID768-DM-Rqst   CRITICALITY reject          EXTENSION  DPCH-ID768                  PRESENCE optional}|
  -- 7.68Mcps TDD only
  { ID id-HSSICH-InfoExt-DM-Rqst CRITICALITY reject          EXTENSION  HSSICH-InfoExt-DM-Rqst      PRESENCE optional},
  -- 1.28Mcps TDD only, used if the HS-SICH identity has a value larger than 31
  ...
}

PUSCH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-ID

HSSICH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID

HSSICH-InfoExt-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF Extended-HS-SICH-ID
-- 1.28Mcps TDD only, used if the HS-SICH identity has a value larger than 31

RL-Set-DM-Rqst ::= SEQUENCE {
  rL-Set-InformationList-DM-Rqst  RL-Set-InformationList-DM-Rqst,
  iE-Extensions                   ProtocolExtensionContainer { { RL-SetItem-DM-Rqst-ExtIEs } } OPTIONAL,
  ...
}

RL-SetItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-Set-InformationList-DM-Rqst ::= SEQUENCE (SIZE(1..maxNrOfRLSets)) OF RL-Set-InformationItem-DM-Rqst

RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
  rL-Set-ID          RL-Set-ID,
  iE-Extensions      ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rqst-ExtIEs } } OPTIONAL,
  ...
}

RL-Set-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

}

AllRL-DM-Rqst ::= NULL

AllRL-Set-DM-Rqst ::= NULL

-- *****
--
-- DEDICATED MEASUREMENT INITIATION RESPONSE
--
-- *****

DedicatedMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{DedicatedMeasurementInitiationResponse-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{DedicatedMeasurementInitiationResponse-Extensions}}    OPTIONAL,
    ...
}

DedicatedMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          CRITICALITY ignore TYPE CRNC-CommunicationContextID          PRESENCE mandatory } |
    { ID id-MeasurementID                       CRITICALITY ignore TYPE MeasurementID                       PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rsp CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rsp PRESENCE optional } |
    { ID id-CriticalityDiagnostics              CRITICALITY ignore TYPE CriticalityDiagnostics              PRESENCE optional },
    ...
}

DedicatedMeasurementInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MeasurementRecoverySupportIndicator CRITICALITY ignore EXTENSION MeasurementRecoverySupportIndicator PRESENCE optional},
    ...
}

DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
    rL                RL-DM-Rsp,
    rLS               RL-Set-DM-Rsp, -- for FDD only
    all-RL            RL-DM-Rsp,
    all-RLS           RL-Set-DM-Rsp, -- for FDD only
    ...
}

RL-DM-Rsp ::= SEQUENCE {
    rL-InformationList-DM-Rsp    RL-InformationList-DM-Rsp,
    IE-Extensions                ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs } }    OPTIONAL,
    ...
}

RLItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rsp }}

RL-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp CRITICALITY ignore TYPE RL-InformationItem-DM-Rsp PRESENCE mandatory }
}

```

```

RL-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-ID                               RL-ID,
    dPCH-ID                             DPCH-ID           OPTIONAL, -- for TDD only
    dedicatedMeasurementValue           DedicatedMeasurementValue,
    cFN                                  CFN               OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationItem-DM-Rsp-ExtIEs } } OPTIONAL,
    ...
}

RL-InformationItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PUSCH-Info-DM-Rsp           CRITICALITY reject           EXTENSION   PUSCH-Info-DM-Rsp           PRESENCE optional} |
    -- TDD only
    -- This PUSCH information is the for the first PUSCH repetition, PUSCH information for PUSCH repetitions 2 and on, should be defined in
Multiple-PUSCH-InfoList-DM-Rsp.
    { ID id-HSSICH-Info-DM-Rsp         CRITICALITY reject           EXTENSION   HS-SICH-ID           PRESENCE optional} |
    -- TDD only
    { ID id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp CRITICALITY ignore EXTENSION Multiple-DedicatedMeasurementValueList-TDD-DM-Rsp PRESENCE optional } |
    -- Applicable to 3.84Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp CRITICALITY ignore EXTENSION Multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp PRESENCE optional } |
    -- Applicable to 1.28Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID id-multiple-PUSCH-InfoList-DM-Rsp CRITICALITY ignore EXTENSION Multiple-PUSCH-InfoList-DM-Rsp PRESENCE optional } |
    -- TDD only, This PUSCH information is the for the 2nd and beyond PUSCH repetitions.
    { ID id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp CRITICALITY ignore EXTENSION Multiple-HSSICHMeasurementValueList-TDD-DM-Rsp PRESENCE optional } |
    -- TDD only. This list of HS-SICH measurement values is used for the 2nd and beyond measurements of a RL when multiple HS-SICH measurement
values need to be reported.
    { ID id-DPCH-ID768-DM-Rsp          CRITICALITY reject           EXTENSION   DPCH-ID768           PRESENCE optional} | -- 7.68Mcps TDD only
    { ID id-multiple-DedicatedMeasurementValueList-768-TDD-DM-Rsp CRITICALITY ignore EXTENSION Multiple-DedicatedMeasurementValueList-768-TDD-DM-Rsp PRESENCE optional } |
    -- Applicable to 7.68Mcps TDD only. This list of dedicated measurement values is used for the 2nd and beyond measurements of a RL when multiple
dedicated measurement values need to be reported.
    { ID id-Extended-HS-SICH-ID        CRITICALITY reject           EXTENSION   Extended-HS-SICH-ID           PRESENCE optional},
    -- 1.28Mcps TDD only, used if the HS-SICH identity has a value larger than 31
    ...
}

PUSCH-Info-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-ID

Multiple-PUSCH-InfoList-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfPUSCHs-1)) OF Multiple-PUSCH-InfoListIE-DM-Rsp
-- Includes the 2nd through the max number of PUSCH information repetitions.

Multiple-PUSCH-InfoListIE-DM-Rsp ::= SEQUENCE {
    pUSCH-ID                             PUSCH-ID           OPTIONAL,
    dedicatedMeasurementValue           DedicatedMeasurementValue           OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Multiple-PUSCH-InfoListIE-DM-Rsp-ExtIEs } } OPTIONAL,
    ...
}

Multiple-PUSCH-InfoListIE-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```



```

}
...
}
Multiple-DedicatedMeasurementValueList-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHsPerRL-1)) OF Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp

Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID                DPCH-ID,
    dedicatedMeasurementValue    DedicatedMeasurementValue,
    iE-Extensions            ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp-ExtIEs} }    OPTIONAL,
    ...
}

Multiple-DedicatedMeasurementValueItem-TDD-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHsLCRPerRL-1)) OF Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp

Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID                DPCH-ID,
    dedicatedMeasurementValue    DedicatedMeasurementValue,
    iE-Extensions            ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp-ExtIEs} }    OPTIONAL,
    ...
}

Multiple-DedicatedMeasurementValueItem-LCR-TDD-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Multiple-HSSICHMeasurementValueList-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfHSSICHs-1)) OF Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp

Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp ::= SEQUENCE {
    hsSICH-ID                HS-SICH-ID,
    dedicatedMeasurementValue    DedicatedMeasurementValue,
    iE-Extensions            ProtocolExtensionContainer { { Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp-ExtIEs} }    OPTIONAL,
    ...
}

Multiple-HSSICHMeasurementValueItem-TDD-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-HS-SICH-ID                CRITICALITY ignore EXTENSION Extended-HS-SICH-ID                PRESENCE optional},
    -- 1.28Mcps TDD only, used if the HS-SICH identity has a value larger than 31
    ...
}

Multiple-DedicatedMeasurementValueList-768-TDD-DM-Rsp ::= SEQUENCE (SIZE (1.. maxNrOfDPCHs768PerRL-1)) OF Multiple-DedicatedMeasurementValueItem-768-TDD-DM-Rsp

Multiple-DedicatedMeasurementValueItem-768-TDD-DM-Rsp ::= SEQUENCE {
    dPCH-ID768                DPCH-ID768,
    dedicatedMeasurementValue    DedicatedMeasurementValue,

```

```

    iE-Extensions          ProtocolExtensionContainer { { Multiple-DedicatedMeasurementValueItem-768-TDD-DM-Rsp-ExtIEs } }
    OPTIONAL,
    ...
}

Multiple-DedicatedMeasurementValueItem-768-TDD-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rsp ::= SEQUENCE {
    rL-Set-InformationList-DM-Rsp          RL-Set-InformationList-DM-Rsp,
    iE-Extensions                          ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs } }          OPTIONAL,
    ...
}

RL-SetItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-DM-Rsp }}

RL-Set-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rsp          CRITICALITY ignore          TYPE          RL-Set-InformationItem-DM-Rsp          PRESENCE mandatory}
}

RL-Set-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-Set-ID          RL-Set-ID,
    dedicatedMeasurementValue          DedicatedMeasurementValue,
    cFN          CFN          OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rsp-ExtIEs } } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- DEDICATED MEASUREMENT INITIATION FAILURE
--
-- *****

DedicatedMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container          {{DedicatedMeasurementInitiationFailure-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{DedicatedMeasurementInitiationFailure-Extensions}}          OPTIONAL,
    ...
}

DedicatedMeasurementInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID          id-CRNC-CommunicationContextID          CRITICALITY          ignore          TYPE          CRNC-CommunicationContextID          PRESENCE mandatory }
    |
    { ID          id-MeasurementID          CRITICALITY          ignore          TYPE          MeasurementID          PRESENCE mandatory }
    |
}

```

```

    { ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory }
  |
  { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },
  ...
}

DedicatedMeasurementInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- DEDICATED MEASUREMENT REPORT
--
-- *****

DedicatedMeasurementReport ::= SEQUENCE {
  protocolIEs ProtocolIE-Container {{DedicatedMeasurementReport-IEs}},
  protocolExtensions ProtocolExtensionContainer {{DedicatedMeasurementReport-Extensions}} OPTIONAL,
  ...
}

DedicatedMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID CRITICALITY ignore TYPE CRNC-CommunicationContextID PRESENCE mandatory } |
  { ID id-MeasurementID CRITICALITY ignore TYPE MeasurementID PRESENCE mandatory } |
  { ID id-DedicatedMeasurementObjectType-DM-Rprt CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rprt PRESENCE mandatory } ,
  ...
}

DedicatedMeasurementReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-MeasurementRecoveryReportingIndicator CRITICALITY ignore EXTENSION MeasurementRecoveryReportingIndicator PRESENCE optional },
  ...
}

DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
  rL RL-DM-Rprt,
  rLS RL-Set-DM-Rprt, -- for FDD only
  all-RL RL-DM-Rprt,
  all-RLS RL-Set-DM-Rprt, -- for FDD only
  ...
}

RL-DM-Rprt ::= SEQUENCE {
  rL-InformationList-DM-Rprt RL-InformationList-DM-Rprt,
  IE-Extensions ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs } } OPTIONAL,
  ...
}

RLItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rprt }}

```

```

RL-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationItem-DM-Rprt    CRITICALITY ignore TYPE RL-InformationItem-DM-Rprt    PRESENCE mandatory }
}

RL-InformationItem-DM-Rprt ::= SEQUENCE {
  rL-ID                RL-ID,
  dPCH-ID              DPCH-ID    OPTIONAL,      -- for TDD only
  dedicatedMeasurementValueInformation  DedicatedMeasurementValueInformation,
  iE-Extensions        ProtocolExtensionContainer { { RL-InformationItem-DM-Rprt-ExtIEs } }    OPTIONAL,
  ...
}

RL-InformationItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  {ID id-PUSCH-Info-DM-Rprt    CRITICALITY reject      EXTENSION  PUSCH-Info-DM-Rprt    PRESENCE optional}|
  -- TDD only
  -- This PUSCH Information is the for the first PUSCH repetition, PUSCH information for PUSCH repetitions 2 and on, should be defined in
Multiple-PUSCH-InfoList-DM-Rprt.
  {ID id-HSSICH-Info-DM-Rprt    CRITICALITY reject      EXTENSION  HS-SICH-ID    PRESENCE optional}|
  -- TDD only
  { ID id-multiple-PUSCH-InfoList-DM-Rprt CRITICALITY ignore      EXTENSION Multiple-PUSCH-InfoList-DM-Rprt    PRESENCE optional }|
  -- TDD only, This PUSCH information is the for the 2nd and beyond PUSCH repetitions.
  { ID id-DPCH-ID768-DM-Rprt    CRITICALITY reject      EXTENSION  DPCH-ID768    PRESENCE optional}|
  -- 7.68Mcps TDD only
  { ID id-Extended-HS-SICH-ID    CRITICALITY ignore      EXTENSION Extended-HS-SICH-ID    PRESENCE optional},
  -- 1.28Mcps TDD only, used if the HS-SICH identity has a value larger than 31
  ...
}

PUSCH-Info-DM-Rprt ::= SEQUENCE (SIZE (0..maxNrOfPUSCHs)) OF PUSCH-ID

Multiple-PUSCH-InfoList-DM-Rprt ::= SEQUENCE (SIZE (1.. maxNrOfPUSCHs-1)) OF Multiple-PUSCH-InfoListIE-DM-Rprt
-- Includes the 2nd through the max number of PUSCH information repetitions.

Multiple-PUSCH-InfoListIE-DM-Rprt ::= SEQUENCE {
  pUSCH-ID                PUSCH-ID                OPTIONAL,
  dedicatedMeasurementValue  DedicatedMeasurementValue    OPTIONAL,
  iE-Extensions            ProtocolExtensionContainer { { Multiple-PUSCH-InfoListIE-DM-Rprt-ExtIEs } }    OPTIONAL,
  ...
}

Multiple-PUSCH-InfoListIE-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-Set-DM-Rprt ::= SEQUENCE {
  rL-Set-InformationList-DM-Rprt    RL-Set-InformationList-DM-Rprt,
  iE-Extensions                    ProtocolExtensionContainer { { RL-SetItem-DM-Rprt-ExtIEs } }    OPTIONAL,
  ...
}

RL-SetItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

RL-Set-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-DM-Rprt }}

RL-Set-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
  { ID id-RL-Set-InformationItem-DM-Rprt CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rprt PRESENCE mandatory }
}

RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
  rL-Set-ID RL-Set-ID,
  dedicatedMeasurementValueInformation DedicatedMeasurementValueInformation,
  iE-Extensions ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rprt-ExtIEs } } OPTIONAL,
  ...
}

RL-Set-InformationItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- DEDICATED MEASUREMENT TERMINATION REQUEST
--
-- *****

DedicatedMeasurementTerminationRequest ::= SEQUENCE {
  protocolIEs ProtocolIE-Container {{DedicatedMeasurementTerminationRequest-IEs}},
  protocolExtensions ProtocolExtensionContainer {{DedicatedMeasurementTerminationRequest-Extensions}} OPTIONAL,
  ...
}

DedicatedMeasurementTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-NodeB-CommunicationContextID CRITICALITY ignore TYPE NodeB-CommunicationContextID PRESENCE mandatory }
  |
  { ID id-MeasurementID CRITICALITY ignore TYPE MeasurementID PRESENCE mandatory },
  ...
}

DedicatedMeasurementTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- DEDICATED MEASUREMENT FAILURE INDICATION
--
-- *****

DedicatedMeasurementFailureIndication ::= SEQUENCE {
  protocolIEs ProtocolIE-Container {{DedicatedMeasurementFailureIndication-IEs}},
  protocolExtensions ProtocolExtensionContainer {{DedicatedMeasurementFailureIndication-Extensions}} OPTIONAL,
  ...
}

DedicatedMeasurementFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID CRITICALITY ignore TYPE CRNC-CommunicationContextID PRESENCE mandatory } |

```

```

    { ID      id-MeasurementID          CRITICALITY ignore      TYPE      MeasurementID          PRESENCE mandatory } |
    { ID      id-Cause                  CRITICALITY ignore      TYPE      Cause                    PRESENCE mandatory },
    ...
}

DedicatedMeasurementFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK FAILURE INDICATION
--
-- *****

RadioLinkFailureIndication ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{RadioLinkFailureIndication-IEs}},
    protocolExtensions   ProtocolExtensionContainer  {{RadioLinkFailureIndication-Extensions}}          OPTIONAL,
    ...
}

RadioLinkFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-CRNC-CommunicationContextID          CRITICALITY ignore      TYPE      CRNC-CommunicationContextID          PRESENCE mandatory }
    |
    { ID      id-Reporting-Object-RL-FailureInd       CRITICALITY ignore      TYPE      Reporting-Object-RL-FailureInd          PRESENCE mandatory }
    ,
    ...
}

RadioLinkFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Reporting-Object-RL-FailureInd ::= CHOICE {
    rL              RL-RL-FailureInd,
    rL-Set          RL-Set-RL-FailureInd, --FDD only
    ...,
    cCTrCH          CCTrCH-RL-FailureInd --TDD only
}

RL-RL-FailureInd ::= SEQUENCE {
    rL-InformationList-RL-FailureInd          RL-InformationList-RL-FailureInd,
    iE-Extensions                             ProtocolExtensionContainer { { RLItem-RL-FailureInd-ExtIEs } }          OPTIONAL,
    ...
}

RLItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-FailureInd}}

RL-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
    { ID      id-RL-InformationItem-RL-FailureInd          CRITICALITY ignore      TYPE      RL-InformationItem-RL-FailureInd          PRESENCE mandatory }

```

```

}

RL-InformationItem-RL-FailureInd ::= SEQUENCE {
    rL-ID                               RL-ID,
    cause                               Cause,
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationItem-RL-FailureInd-ExtIEs } }    OPTIONAL,
    ...
}

RL-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-RL-FailureInd ::= SEQUENCE {
    rL-Set-InformationList-RL-FailureInd  RL-Set-InformationList-RL-FailureInd,
    iE-Extensions                       ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs } }    OPTIONAL,
    ...
}

RL-SetItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-RL-FailureInd }}

RL-Set-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-RL-FailureInd    CRITICALITY ignore          TYPE RL-Set-InformationItem-RL-FailureInd    PRESENCE mandatory }
}

RL-Set-InformationItem-RL-FailureInd ::= SEQUENCE {
    rL-Set-ID                           RL-Set-ID,
    cause                               Cause,
    iE-Extensions                       ProtocolExtensionContainer { { RL-Set-InformationItem-RL-FailureInd-ExtIEs } }    OPTIONAL,
    ...
}

RL-Set-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-RL-FailureInd ::= SEQUENCE {
    rL-ID                               RL-ID,
    cCTrCH-InformationList-RL-FailureInd  CCTrCH-InformationList-RL-FailureInd,
    iE-Extensions                       ProtocolExtensionContainer { { CCTrCHItem-RL-FailureInd-ExtIEs } }    OPTIONAL,
    ...
}

CCTrCHItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-FailureInd}}

```

```

CCTrCH-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
  { ID id-CCTrCH-InformationItem-RL-FailureInd          CRITICALITY ignore          TYPE CCTrCH-InformationItem-RL-FailureInd          PRESENCE mandatory }
}

CCTrCH-InformationItem-RL-FailureInd ::= SEQUENCE {
  cCTrCH-ID                CCTrCH-ID,
  cause                    Cause,
  iE-Extensions            ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-FailureInd-ExtIEs } } OPTIONAL,
  ...
}

CCTrCH-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- RADIO LINK PREEMPTION REQUIRED INDICATION
--
-- *****

RadioLinkPreemptionRequiredIndication ::= SEQUENCE {
  protocolIEs                ProtocolIE-Container    {{RadioLinkPreemptionRequiredIndication-IEs}},
  protocolExtensions        ProtocolExtensionContainer {{RadioLinkPreemptionRequiredIndication-Extensions}} OPTIONAL,
  ...
}

RadioLinkPreemptionRequiredIndication-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID          CRITICALITY ignore          TYPE CRNC-CommunicationContextID          PRESENCE mandatory } |
  { ID id-RL-InformationList-RL-PreemptRequiredInd          CRITICALITY ignore          TYPE RL-InformationList-RL-PreemptRequiredInd          PRESENCE optional },
  ...
}

RadioLinkPreemptionRequiredIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-InformationList-RL-PreemptRequiredInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIE-RL-PreemptRequiredInd}}

RL-InformationItemIE-RL-PreemptRequiredInd NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationItem-RL-PreemptRequiredInd          CRITICALITY ignore          TYPE RL-InformationItem-RL-PreemptRequiredInd          PRESENCE mandatory },
  ...
}

RL-InformationItem-RL-PreemptRequiredInd ::= SEQUENCE {
  rL-ID                RL-ID,
  iE-Extensions        ProtocolExtensionContainer { {RL-InformationItem-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
  ...
}

RL-InformationItem-RL-PreemptRequiredInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```



```

}
-- *****
--
-- RADIO LINK RESTORE INDICATION
--
-- *****

RadioLinkRestoreIndication ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{RadioLinkRestoreIndication-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{RadioLinkRestoreIndication-Extensions}}
    ...
}

RadioLinkRestoreIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-CRNC-CommunicationContextID      CRITICALITY ignore  TYPE CRNC-CommunicationContextID      PRESENCE mandatory } |
    { ID      id-Reporting-Object-RL-RestoreInd    CRITICALITY ignore  TYPE Reporting-Object-RL-RestoreInd    PRESENCE mandatory },
    ...
}

RadioLinkRestoreIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Reporting-Object-RL-RestoreInd ::= CHOICE {
    rL              RL-RL-RestoreInd, --TDD only
    rL-Set          RL-Set-RL-RestoreInd, --FDD only
    ...,
    cCTrCH         CCTrCH-RL-RestoreInd --TDD only
}

RL-RL-RestoreInd ::= SEQUENCE {
    rL-InformationList-RL-RestoreInd    RL-InformationList-RL-RestoreInd,
    iE-Extensions                       ProtocolExtensionContainer { { RLItem-RL-RestoreInd-ExtIEs } }
    ...
}

RLItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-InformationItemIE-RL-RestoreInd}}

RL-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
    { ID      id-RL-InformationItem-RL-RestoreInd    CRITICALITY ignore      TYPE      RL-InformationItem-RL-RestoreInd      PRESENCE mandatory }
}

RL-InformationItem-RL-RestoreInd ::= SEQUENCE {
    rL-ID              RL-ID,
    iE-Extensions      ProtocolExtensionContainer { { RL-InformationItem-RL-RestoreInd-ExtIEs } }
    ...
}

RL-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
}
RL-Set-RL-RestoreInd ::= SEQUENCE {
    rL-Set-InformationList-RL-RestoreInd    RL-Set-InformationList-RL-RestoreInd,
    iE-Extensions                          ProtocolExtensionContainer { { RL-SetItem-RL-RestoreInd-ExtIEs } }    OPTIONAL,
    ...
}

RL-SetItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-RL-RestoreInd }}

RL-Set-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-RL-RestoreInd    CRITICALITY ignore    TYPE RL-Set-InformationItem-RL-RestoreInd PRESENCE mandatory }
}

RL-Set-InformationItem-RL-RestoreInd ::= SEQUENCE {
    rL-Set-ID                RL-Set-ID,
    iE-Extensions            ProtocolExtensionContainer { { RL-Set-InformationItem-RL-RestoreInd-ExtIEs } }    OPTIONAL,
    ...
}

RL-Set-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-RL-RestoreInd ::= SEQUENCE {
    rL-ID                    RL-ID,
    cCTrCH-InformationList-RL-RestoreInd    CCTrCH-InformationList-RL-RestoreInd,
    iE-Extensions            ProtocolExtensionContainer { { CCTrCHItem-RL-RestoreInd-ExtIEs } }    OPTIONAL,
    ...
}

CCTrCHItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCTrCH-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-RestoreInd }}

CCTrCH-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
    { ID id-CCTrCH-InformationItem-RL-RestoreInd    CRITICALITY ignore    TYPE CCTrCH-InformationItem-RL-RestoreInd    PRESENCE mandatory }
}

CCTrCH-InformationItem-RL-RestoreInd ::= SEQUENCE {
    cCTrCH-ID                CCTrCH-ID,
    iE-Extensions            ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-RestoreInd-ExtIEs } }    OPTIONAL,
    ...
}

```

```

CCTrCH-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- COMPRESSED MODE COMMAND FDD
--
-- *****

CompressedModeCommand ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container      {{CompressedModeCommand-IEs}},
  protocolExtensions  ProtocolExtensionContainer {{CompressedModeCommand-Extensions}}      OPTIONAL,
  ...
}

CompressedModeCommand-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-NodeB-CommunicationContextID          CRITICALITY ignore          TYPE NodeB-CommunicationContextID          PRESENCE mandatory } |
  { ID id-Active-Pattern-Sequence-Information    CRITICALITY ignore          TYPE Active-Pattern-Sequence-Information    PRESENCE mandatory } ,
  ...
}

CompressedModeCommand-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- ERROR INDICATION
--
-- *****

ErrorIndication ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container      {{ErrorIndication-IEs}},
  protocolExtensions  ProtocolExtensionContainer {{ErrorIndication-Extensions}}      OPTIONAL,
  ...
}

ErrorIndication-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID          CRITICALITY ignore          TYPE CRNC-CommunicationContextID          PRESENCE optional } |
  { ID id-NodeB-CommunicationContextID          CRITICALITY ignore          TYPE NodeB-CommunicationContextID          PRESENCE optional } |
  { ID id-Cause                                  CRITICALITY ignore          TYPE Cause                                  PRESENCE optional } |
  { ID id-CriticalityDiagnostics                CRITICALITY ignore          TYPE CriticalityDiagnostics                PRESENCE optional } ,
  ...
}

ErrorIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
}
-- *****
--
-- PRIVATE MESSAGE
--
-- *****

PrivateMessage ::= SEQUENCE {
    privateIEs      PrivateIE-Container {{PrivateMessage-IEs}},
    ...
}

PrivateMessage-IEs NBAP-PRIVATE-IES ::= {
    ...
}

-- *****
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST FDD
--
-- *****

PhysicalSharedChannelReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs      ProtocolIE-Container      {{PhysicalSharedChannelReconfigurationRequestFDD-IEs}},
    protocolExtensions ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationRequestFDD-Extensions}} OPTIONAL,
    ...
}

PhysicalSharedChannelReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                CRITICALITY reject TYPE C-ID                PRESENCE mandatory }|
    { ID id-ConfigurationGenerationID          CRITICALITY reject TYPE ConfigurationGenerationID          PRESENCE mandatory }|
    { ID id-SFN                CRITICALITY reject TYPE SFN                PRESENCE optional }|
    { ID id-HS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst          CRITICALITY reject          TYPE MaximumTransmissionPower          PRESENCE optional }|
    { ID id-HS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst          CRITICALITY reject          TYPE DL-ScramblingCode          PRESENCE optional }|
    { ID id-HS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst          CRITICALITY reject          TYPE HS-PDSCH-FDD-Code-Information          PRESENCE optional }|
    { ID id-HS-SCCH-FDD-Code-Information-PSCH-ReconfRqst          CRITICALITY reject          TYPE HS-SCCH-FDD-Code-Information          PRESENCE optional }|
    ...
}

PhysicalSharedChannelReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code          CRITICALITY reject          EXTENSION DL-ScramblingCode          PRESENCE optional }|
    { ID id-E-AGCH-FDD-Code-Information          CRITICALITY reject          EXTENSION E-AGCH-FDD-Code-Information          PRESENCE optional }|
    { ID id-E-RGCH-E-HICH-FDD-Code-Information          CRITICALITY reject          EXTENSION E-RGCH-E-HICH-FDD-Code-Information          PRESENCE optional }|
    { ID id-HSDPA-And-EDCH-CellPortion-Information-PSCH-ReconfRqst          CRITICALITY reject          EXTENSION HSDPA-And-EDCH-CellPortion-InformationList-PSCH-ReconfRqst          PRESENCE optional }|
}

```

```

{ ID id-Maximum-Target-ReceivedTotalWideBandPower          CRITICALITY reject  EXTENSION Maximum-Target-ReceivedTotalWideBandPower
  PRESENCE optional }|
{ ID id-Reference-ReceivedTotalWideBandPower              CRITICALITY ignore  EXTENSION Reference-ReceivedTotalWideBandPower
  PRESENCE optional }|
{ ID id-Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio  CRITICALITY reject  EXTENSION Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio
  PRESENCE optional }|
{ ID id-HSDSCH-Common-System-InformationFDD              CRITICALITY reject  EXTENSION HSDSCH-Common-System-InformationFDD
  PRESENCE optional }|
{ ID id-Common-MACFlows-to-DeleteFDD                    CRITICALITY reject  EXTENSION Common-MACFlows-to-DeleteFDD
  PRESENCE optional }|
{ ID id-HSDSCH-Paging-System-InformationFDD              CRITICALITY reject  EXTENSION HSDSCH-Paging-System-InformationFDD
  PRESENCE optional }|
{ ID id-Paging-MACFlows-to-DeleteFDD                    CRITICALITY reject  EXTENSION Paging-MACFlows-to-DeleteFDD
  PRESENCE optional },
...
}

```

HSDPA-And-EDCH-CellPortion-InformationList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF HSDPA-And-EDCH-CellPortion-InformationItem-PSCH-ReconfRqst

```

HSDPA-And-EDCH-CellPortion-InformationItem-PSCH-ReconfRqst ::= SEQUENCE {
  cellPortionID          CellPortionID,
  hS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst          DL-ScramblingCode          OPTIONAL,
  hS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst            HS-PDSCH-FDD-Code-Information          OPTIONAL,
  hS-SCCH-FDD-Code-Information-PSCH-ReconfRqst            HS-SCCH-FDD-Code-Information          OPTIONAL,
  hS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst          MaximumTransmissionPower          OPTIONAL,
  e-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code          DL-ScramblingCode          OPTIONAL,
  e-AGCH-FDD-Code-Information          E-AGCH-FDD-Code-Information          OPTIONAL,
  e-RGCH-E-HICH-FDD-Code-Information          E-RGCH-E-HICH-FDD-Code-Information          OPTIONAL,
  iE-Extensions          ProtocolExtensionContainer { { HSDPA-And-EDCH-CellPortion-InformationItem-
  PSCH-ReconfRqst-ExtIEs} }  OPTIONAL,
  ...
}

```

HSDPA-And-EDCH-CellPortion-InformationItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

```

-- *****
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST TDD
--
-- *****

```

```

PhysicalSharedChannelReconfigurationRequestTDD ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container          {{PhysicalSharedChannelReconfigurationRequestTDD-IEs}},
  protocolExtensions  ProtocolExtensionContainer  {{PhysicalSharedChannelReconfigurationRequestTDD-Extensions}}  OPTIONAL,
  ...
}

```

```

PhysicalSharedChannelReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-C-ID          CRITICALITY reject  TYPE C-ID          PRESENCE mandatory }|
  { ID id-SFN          CRITICALITY reject  TYPE SFN          PRESENCE optional }|
  { ID id-PDSCHSets-AddList-PSCH-ReconfRqst          CRITICALITY reject  TYPE PDSCHSets-AddList-PSCH-ReconfRqst          PRESENCE optional }|
}

```

```

    { ID id-PDSCHSets-ModifyList-PSCH-ReconfRqst CRITICALITY reject TYPE PDSCHSets-ModifyList-PSCH-ReconfRqst PRESENCE optional } |
    { ID id-PDSCHSets-DeleteList-PSCH-ReconfRqst CRITICALITY reject TYPE PDSCHSets-DeleteList-PSCH-ReconfRqst PRESENCE optional } |
    { ID id-PUSCHSets-AddList-PSCH-ReconfRqst CRITICALITY reject TYPE PUSCHSets-AddList-PSCH-ReconfRqst PRESENCE optional } |
    { ID id-PUSCHSets-ModifyList-PSCH-ReconfRqst CRITICALITY reject TYPE PUSCHSets-ModifyList-PSCH-ReconfRqst PRESENCE optional } |
    { ID id-PUSCHSets-DeleteList-PSCH-ReconfRqst CRITICALITY reject TYPE PUSCHSets-DeleteList-PSCH-ReconfRqst PRESENCE optional } |
    ...
}

PhysicalSharedChannelReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-PDSCH-TDD-Information-PSCH-ReconfRqst CRITICALITY reject EXTENSION HS-PDSCH-TDD-Information-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst CRITICALITY reject EXTENSION Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst CRITICALITY reject EXTENSION Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst CRITICALITY reject EXTENSION Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-ConfigurationGenerationID CRITICALITY reject EXTENSION ConfigurationGenerationID PRESENCE optional } |
    { ID id-E-PUCH-Information-PSCH-ReconfRqst CRITICALITY reject EXTENSION E-PUCH-Information-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst CRITICALITY reject EXTENSION Add-To-E-AGCH-Resource-Pool-PSCH-
    ReconfRqst PRESENCE optional } |
    { ID id-Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst CRITICALITY reject EXTENSION Modify-E-AGCH-Resource-Pool-PSCH-
    ReconfRqst PRESENCE optional } |
    { ID id-Delete-From-E-AGCH-Resource-Pool-PSCH-ReconfRqst CRITICALITY reject EXTENSION Delete-From-E-AGCH-Resource-Pool-PSCH-
    ReconfRqst PRESENCE optional } |
    { ID id-E-HICH-Information-PSCH-ReconfRqst CRITICALITY reject EXTENSION E-HICH-Information-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Maximum-Generated-ReceivedTotalWideBandPowerInOtherCells CRITICALITY reject EXTENSION Maximum-Generated-
    ReceivedTotalWideBandPowerInOtherCells PRESENCE optional }|-- Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
    { ID id-E-PUCH-Information-768-PSCH-ReconfRqst CRITICALITY reject EXTENSION E-PUCH-Information-768-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst CRITICALITY reject EXTENSION Add-To-E-AGCH-Resource-Pool-768-PSCH-
    ReconfRqst PRESENCE optional } |
    { ID id-Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst CRITICALITY reject EXTENSION Modify-E-AGCH-
    Resource-Pool-768-PSCH-ReconfRqst PRESENCE optional } |
    { ID id-E-HICH-Information-768-PSCH-ReconfRqst CRITICALITY reject EXTENSION E-HICH-Information-768-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-E-PUCH-Information-LCR-PSCH-ReconfRqst CRITICALITY reject EXTENSION E-PUCH-Information-LCR-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst CRITICALITY reject EXTENSION Add-To-E-AGCH-Resource-Pool-LCR-PSCH-
    ReconfRqst PRESENCE optional } |
    { ID id-Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst CRITICALITY reject EXTENSION Modify-E-AGCH-Resource-Pool-LCR-PSCH-
    ReconfRqst PRESENCE optional } |
    { ID id-Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst CRITICALITY reject EXTENSION Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst CRITICALITY reject EXTENSION Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-Delete-From-E-HICH-Resource-Pool-PSCH-ReconfRqst CRITICALITY reject EXTENSION Delete-From-E-HICH-Resource-Pool-PSCH-ReconfRqst
    PRESENCE optional } |
    { ID id-SYNC-UL-Partition-LCR CRITICALITY reject EXTENSION SYNC-UL-Partition-LCR
    PRESENCE optional } |
    -- Applicable to 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
}

```

```

    { ID id-Maximum-Target-ReceivedTotalWideBandPower-LCR
      ReceivedTotalWideBandPower-LCR
      -- Applicable to 1.28Mcps TDD only.
      PRESENCE optional }|
    { ID id-Delete-From-HS-SCCH-Resource-PoolExt-PSCH-ReconfRqst
      ReconfRqst
      PRESENCE optional },
      -- Applicable to 1.28Mcps TDD only, used when there are more than maxNrOfHSSCCHs HS-SCCHs in the message.
      ...
  }

PDSCHSets-AddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-AddItem-PSCH-ReconfRqst

PDSCHSets-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
  pDSCHSet-ID
  pDSCH-InformationList
  iE-Extensions
  ...
  PDSCHSet-ID,
  PDSCH-Information-AddList-PSCH-ReconfRqst OPTIONAL,
  ProtocolExtensionContainer { {PDSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
}

PDSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  {ID id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst
  PRESENCE optional}| -- Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD.
  {ID id-PDSCH-AddInformation-768-PSCH-ReconfRqst
  PRESENCE optional}, -- Mandatory for 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
  ...
}

PDSCH-Information-AddList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PDSCH-Information-AddListIEs-PSCH-ReconfRqst }}
-- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD

PDSCH-Information-AddListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
  {ID id-PDSCH-Information-AddListIE-PSCH-ReconfRqst
  mandatory}
  CRITICALITY reject
  TYPE PDSCH-Information-AddItem-PSCH-ReconfRqst
  PRESENCE
}

PDSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
  repetitionPeriod
  repetitionLength
  tdd-PhysicalChannelOffset
  dl-Timeslot-InformationAddList-PSCH-ReconfRqst
  iE-Extensions
  ...
  RepetitionPeriod,
  RepetitionLength,
  TDD-PhysicalChannelOffset,
  DL-Timeslot-InformationAddList-PSCH-ReconfRqst,
  ProtocolExtensionContainer { {PDSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
}

PDSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-Timeslot-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationAddItem-PSCH-ReconfRqst

DL-Timeslot-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
  timeSlot
  midambleShiftAndBurstType
  tFCI-Presence
  TimeSlot,
  MidambleShiftAndBurstType,
  TFCI-Presence,
}

```

```

    DL-Code-InformationAddList-PSCH-ReconfRqst          DL-Code-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                                     ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
    ...
}

DL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationAddItem-PSCH-ReconfRqst

DL-Code-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                PDSCH-ID,
    tdd-ChannelisationCode  TDD-ChannelisationCode,
    iE-Extensions          ProtocolExtensionContainer { { DL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
    ...
}

DL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod          RepetitionPeriod,
    repetitionLength         RepetitionLength,
    tdd-PhysicalChannelOffset TDD-PhysicalChannelOffset,
    DL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst          DL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions          ProtocolExtensionContainer { { PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
    ...
}

PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
{ID id-Tstd-indicator          CRITICALITY reject          EXTENSION          TSTD-Indicator          PRESENCE          optional },
  -- Applicable to 1.28Mcps TDD only
  ...
}

DL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst

DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR                TimeSlotLCR,
    midambleShiftLCR          MidambleShiftLCR,
    tFCI-Presence              TFCI-Presence,
    DL-Code-InformationAddList-LCR-PSCH-ReconfRqst          DL-Code-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions          ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
    ...
}

DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```



```

DL-Code-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHS)) OF DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst

DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                PDSCH-ID,
    tdd-ChannelisationCodeLCR  TDD-ChannelisationCodeLCR,
    iE-Extensions            ProtocolExtensionContainer { { DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs } }    OPTIONAL,
    ...
}

DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR    CRITICALITY reject    EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR    PRESENCE optional},
    ...
}

PDSCH-AddInformation-768-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod          RepetitionPeriod,
    repetitionLength          RepetitionLength,
    tdd-PhysicalChannelOffset TDD-PhysicalChannelOffset,
    dL-Timeslot-InformationAddList-768-PSCH-ReconfRqst    DL-Timeslot-InformationAddList-768-PSCH-ReconfRqst,
    iE-Extensions            ProtocolExtensionContainer { {PDSCH-AddInformation-768-AddItem-PSCH-ReconfRqst-ExtIEs } }    OPTIONAL,
    ...
}

PDSCH-AddInformation-768-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationAddList-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSS)) OF DL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst

DL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                TimeSlot,
    midambleShiftAndBurstType768    MidambleShiftAndBurstType768,
    tFCI-Presence            TFCI-Presence,
    dL-Code-InformationAddList-768-PSCH-ReconfRqst    DL-Code-InformationAddList-768-PSCH-ReconfRqst,
    iE-Extensions            ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs } }    OPTIONAL,
    ...
}

DL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationAddList-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHS)) OF DL-Code-InformationAddItem-768-PSCH-ReconfRqst

DL-Code-InformationAddItem-768-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID768                PDSCH-ID768,
    tdd-ChannelisationCode768    TDD-ChannelisationCode768,
    iE-Extensions            ProtocolExtensionContainer { { DL-Code-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs } }    OPTIONAL,
    ...
}

DL-Code-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

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```

}
...
PDSCHSets-ModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-ModifyItem-PSCH-ReconfRqst

PDSCHSets-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCHSet-ID                PDSCHSet-ID,
    pDSCH-InformationList      PDSCH-Information-ModifyList-PSCH-ReconfRqst,
    iE-Extensions              ProtocolExtensionContainer { {PDSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PDSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PDSCH-ModifyInformation-768-PSCH-ReconfRqst CRITICALITY reject EXTENSION PDSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst
    PRESENCE optional}, -- For 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    ...
}

PDSCH-Information-ModifyList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container { { PDSCH-Information-ModifyListIEs-PSCH-ReconfRqst } }

PDSCH-Information-ModifyListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    {ID id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst CRITICALITY reject TYPE PDSCH-Information-ModifyItem-PSCH-ReconfRqst PRESENCE
    optional}|
    {ID id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst CRITICALITY reject TYPE PDSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst
    PRESENCE optional}
}

PDSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod                OPTIONAL,
    repetitionLength                RepetitionLength                OPTIONAL,
    tdd-PhysicalChannelOffset        TDD-PhysicalChannelOffset    OPTIONAL,
    dL-Timeslot-InformationModifyList-PSCH-ReconfRqst DL-Timeslot-InformationModifyList-PSCH-ReconfRqst OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { {PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTs)) OF DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst

DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType        MidambleShiftAndBurstType                OPTIONAL,
    tFCI-Presence                    TFCI-Presence                            OPTIONAL,
    dL-Code-InformationModifyList-PSCH-ReconfRqst DL-Code-InformationModifyList-PSCH-ReconfRqst OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

DL-Code-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationModifyItem-PSCH-ReconfRqst

DL-Code-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                PDSCH-ID,
    tdd-ChannelisationCode  TDD-ChannelisationCode,
    iE-Extensions          ProtocolExtensionContainer { { DL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

DL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod          RepetitionPeriod                OPTIONAL,
    repetitionLength          RepetitionLength                OPTIONAL,
    tdd-PhysicalChannelOffset TDD-PhysicalChannelOffset      OPTIONAL,
    dL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst DL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { {PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst

DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR              TimeSlotLCR,
    midambleShiftLCR        MidambleShiftLCR                OPTIONAL,
    tFCI-Presence            TFCI-Presence                    OPTIONAL,
    dL-Code-LCR-InformationModifyList-PSCH-ReconfRqst DL-Code-LCR-InformationModifyList-PSCH-ReconfRqst OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst

DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                PDSCH-ID,
    tdd-ChannelisationCodeLCR TDD-ChannelisationCodeLCR,
    iE-Extensions          ProtocolExtensionContainer { { DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

```

```

}

DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  {ID id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR    CRITICALITY reject    EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR    PRESENCE optional},
  ...
}

PDSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  repetitionPeriod                RepetitionPeriod                OPTIONAL,
  repetitionLength                RepetitionLength                OPTIONAL,
  tdd-PhysicalChannelOffset       TDD-PhysicalChannelOffset       OPTIONAL,
  dL-Timeslot-768-InformationModifyList-PSCH-ReconfRqst  DL-Timeslot-768-InformationModifyList-PSCH-ReconfRqst  OPTIONAL,
  iE-Extensions                  ProtocolExtensionContainer { {PDSCH-ModifyInformation-768-ModifyListIE-PSCH-ReconfRqst-ExtIEs} }
  OPTIONAL,
  ...
}

PDSCH-ModifyInformation-768-ModifyListIE-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-Timeslot-768-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF DL-Timeslot-768-InformationModifyItem-PSCH-
ReconfRqst

DL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  timeSlot                        TimeSlot,
  midambleShiftAndBurstType768   MidambleShiftAndBurstType768                                OPTIONAL,
  tFCI-Presence                  TFCI-Presence                                                OPTIONAL,
  dL-Code-768-InformationModifyList-PSCH-ReconfRqst  DL-Code-768-InformationModifyList-PSCH-ReconfRqst            OPTIONAL,
  iE-Extensions                  ProtocolExtensionContainer { { DL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
  OPTIONAL,
  ...
}

DL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-Code-768-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-768-InformationModifyItem-PSCH-ReconfRqst

DL-Code-768-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  pDSCH-ID768                    PDSCH-ID768,
  tdd-ChannelisationCode768      TDD-ChannelisationCode768,
  iE-Extensions                  ProtocolExtensionContainer { { DL-Code-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
  OPTIONAL,
  ...
}

DL-Code-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PDSCHSets-DeleteList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-DeleteItem-PSCH-ReconfRqst

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```

PDSCHSets-DeleteItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCHSet-ID          PDSCHSet-ID,
    iE-Extensions        ProtocolExtensionContainer { {PDSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PDSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PUSCHSets-AddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-AddItem-PSCH-ReconfRqst

PUSCHSets-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCHSet-ID          PUSCHSet-ID,
    pUSCH-InformationList PUSCH-Information-AddList-PSCH-ReconfRqst OPTIONAL,
    -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD or 7.68Mcps TDD
    iE-Extensions        ProtocolExtensionContainer { {PUSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PUSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst CRITICALITY reject EXTENSION PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst
    PRESENCE optional} | -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD or 7.68Mcps TDD
    { ID id-PUSCH-AddInformation-768-PSCH-ReconfRqst CRITICALITY reject EXTENSION PUSCH-AddInformation-768-AddItem-PSCH-ReconfRqst
    PRESENCE optional}, -- Mandatory for 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    ...
}

PUSCH-Information-AddList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PUSCH-Information-AddListIEs-PSCH-ReconfRqst }}

PUSCH-Information-AddListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    { ID id-PUSCH-Information-AddListIE-PSCH-ReconfRqst CRITICALITY reject TYPE PUSCH-Information-AddItem-PSCH-ReconfRqst PRESENCE mandatory }
}

PUSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod      RepetitionPeriod,
    repetitionLength      RepetitionLength,
    tdd-PhysicalChannelOffset TDD-PhysicalChannelOffset,
    uL-Timeslot-InformationAddList-PSCH-ReconfRqst UL-Timeslot-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions        ProtocolExtensionContainer { {PUSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PUSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationAddItem-PSCH-ReconfRqst

UL-Timeslot-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot              TimeSlot,
    midambleShiftAndBurstType MidambleShiftAndBurstType,
    tFCI-Presence         TFCI-Presence,
}

```

```

    uL-Code-InformationAddList-PSCH-ReconfRqst  UL-Code-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                               ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs } }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationAddItem-PSCH-ReconfRqst

UL-Code-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                PUSCH-ID,
    tdd-ChannelisationCode  TDD-ChannelisationCode,
    iE-Extensions           ProtocolExtensionContainer { { UL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs } }    OPTIONAL,
    ...
}

UL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tdd-PhysicalChannelOffset        TDD-PhysicalChannelOffset,
    uL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst  UL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions                   ProtocolExtensionContainer { { PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs } }
    OPTIONAL,
    ...
}

PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfULTSLCRs)) OF UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst

UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR                TimeSlotLCR,
    midambleShiftLCR           MidambleShiftLCR,
    tFCI-Presence               TFCI-Presence,
    uL-Code-InformationAddList-LCR-PSCH-ReconfRqst  UL-Code-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions              ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs } }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst

```

```

UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                PUSCH-ID,
    tdd-ChannelisationCodeLCR TDD-ChannelisationCodeLCR,
    iE-Extensions          ProtocolExtensionContainer { { UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
    ...
}

UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR CRITICALITY reject EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR PRESENCE optional},
    ...
}

PUSCH-AddInformation-768-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod          RepetitionPeriod,
    repetitionLength          RepetitionLength,
    tdd-PhysicalChannelOffset TDD-PhysicalChannelOffset,
    uL-Timeslot-InformationAddList-768-PSCH-ReconfRqst UL-Timeslot-InformationAddList-768-PSCH-ReconfRqst,
    iE-Extensions          ProtocolExtensionContainer { {PUSCH-AddInformation-768-AddItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PUSCH-AddInformation-768-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationAddList-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfULTSs)) OF UL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst

UL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                TimeSlot,
    midambleShiftAndBurstType768 MidambleShiftAndBurstType768,
    tFCI-Presence          TFCI-Presence,
    uL-Code-InformationAddList-768-PSCH-ReconfRqst UL-Code-InformationAddList-768-PSCH-ReconfRqst,
    iE-Extensions          ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
    ...
}

UL-Timeslot-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationAddList-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationAddItem-768-PSCH-ReconfRqst

UL-Code-InformationAddItem-768-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                PUSCH-ID,
    tdd-ChannelisationCode768 TDD-ChannelisationCode768,
    iE-Extensions          ProtocolExtensionContainer { { UL-Code-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
    ...
}

UL-Code-InformationAddItem-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

PUSCHSets-ModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-ModifyItem-PSCH-ReconfRqst

PUSCHSets-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    PUSCHSet-ID,
    PUSCH-InformationList,
    iE-Extensions,
    ProtocolExtensionContainer { {PUSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PUSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-ModifyInformation-768-PSCH-ReconfRqst CRITICALITY reject EXTENSION PUSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst
    PRESENCE optional}, -- For 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    ...
}

PUSCH-Information-ModifyList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PUSCH-Information-ModifyListIEs-PSCH-ReconfRqst }}

PUSCH-Information-ModifyListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    {ID id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst CRITICALITY reject TYPE PUSCH-Information-ModifyItem-PSCH-ReconfRqst PRESENCE
    optional}|
    {ID id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst CRITICALITY reject TYPE PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst
    PRESENCE optional}
}

PUSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod,
    repetitionLength,
    tdd-PhysicalChannelOffset,
    uL-Timeslot-InformationModifyList-PSCH-ReconfRqst,
    iE-Extensions,
    ProtocolExtensionContainer { {PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst

UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot,
    midambleShiftAndBurstType,
    tFCI-Presence,
    uL-Code-InformationModifyList-PSCH-ReconfRqst,
    iE-Extensions,
    ProtocolExtensionContainer { { UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```


UL-Code-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationModifyItem-PSCH-ReconfRqst

```
UL-Code-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  pUSCH-ID                PUSCH-ID,
  tdd-ChannelisationCode  TDD-ChannelisationCode,
  iE-Extensions           ProtocolExtensionContainer { { UL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
  ...
}
```

```
UL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  repetitionPeriod                RepetitionPeriod                OPTIONAL,
  repetitionLength                RepetitionLength                OPTIONAL,
  tdd-PhysicalChannelOffset       TDD-PhysicalChannelOffset   OPTIONAL,
  uL-TimeSlot-InformationModifyList-LCR-PSCH-ReconfRqst  UL-TimeSlot-LCR-InformationModifyList-PSCH-ReconfRqst  OPTIONAL,
  iE-Extensions                   ProtocolExtensionContainer { { PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
  ...
}
```

```
PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

UL-TimeSlot-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-TimeSlot-LCR-InformationModifyItem-PSCH-ReconfRqst

```
UL-TimeSlot-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  timeSlotLCR                TimeSlotLCR,
  midambleShiftLCR           MidambleShiftLCR                OPTIONAL,
  tFCI-Presence               TFCI-Presence                OPTIONAL,
  uL-Code-LCR-InformationModifyList-PSCH-ReconfRqst  UL-Code-LCR-InformationModifyList-PSCH-ReconfRqst  OPTIONAL,
  iE-Extensions               ProtocolExtensionContainer { { UL-TimeSlot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
  ...
}
```

```
UL-TimeSlot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

UL-Code-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst

```
UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  pUSCH-ID                PUSCH-ID,
  tdd-ChannelisationCodeLCR  TDD-ChannelisationCodeLCR,
  iE-Extensions           ProtocolExtensionContainer { { UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
  ...
}
```

```

UL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR    CRITICALITY reject    EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR    PRESENCE optional},
  ...
}

PUSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  repetitionPeriod          RepetitionPeriod          OPTIONAL,
  repetitionLength          RepetitionLength          OPTIONAL,
  tdd-PhysicalChannelOffset TDD-PhysicalChannelOffset OPTIONAL,
  uL-Timeslot-InformationModifyList-768-PSCH-ReconfRqst UL-Timeslot-768-InformationModifyList-PSCH-ReconfRqst OPTIONAL,
  iE-Extensions            ProtocolExtensionContainer { {PUSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst-ExtIEs} }
  OPTIONAL,
  ...
}

PUSCH-ModifyInformation-768-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

UL-Timeslot-768-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-768-InformationModifyItem-PSCH-
ReconfRqst

UL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  timeSlot          TimeSlot,
  midambleShiftAndBurstType768 MidambleShiftAndBurstType768          OPTIONAL,
  tFCI-Presence    TFCI-Presence
  OPTIONAL,
  uL-Code-768-InformationModifyList-PSCH-ReconfRqst UL-Code-768-InformationModifyList-PSCH-ReconfRqst          OPTIONAL,
  iE-Extensions    ProtocolExtensionContainer { { UL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
  OPTIONAL,
  ...
}

UL-Timeslot-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

UL-Code-768-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-768-InformationModifyItem-PSCH-ReconfRqst

UL-Code-768-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  pUSCH-ID          PUSCH-ID,
  tdd-ChannelisationCode768 TDD-ChannelisationCode768,
  iE-Extensions    ProtocolExtensionContainer { { UL-Code-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
  OPTIONAL,
  ...
}

UL-Code-768-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PUSCHSets-DeleteList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-DeleteItem-PSCH-ReconfRqst

```

```

PUSCHSets-DeleteItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCHSet-ID                PUSCHSet-ID,
    iE-Extensions              ProtocolExtensionContainer { {PUSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PUSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-PDSCH-TDD-Information-PSCH-ReconfRqst ::= SEQUENCE {
    dL-HS-PDSCH-Timeslot-Information-PSCH-ReconfRqst                DL-HS-PDSCH-Timeslot-Information-PSCH-ReconfRqst                OPTIONAL,
    dL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst            DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst            OPTIONAL,
    -- This HS-PDSCH Timeslot Information is for the first Frequency repetition, HS-PDSCH Timeslot information for Frequency repetitions 2 and on,
    should be defined in MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst
    iE-Extensions              ProtocolExtensionContainer { { HS-PDSCH-TDD-Information-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

HS-PDSCH-TDD-Information-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-dL-HS-PDSCH-Timeslot-Information-768-PSCH-ReconfRqst                CRITICALITY reject                EXTENSION DL-HS-PDSCH-
Timeslot-Information-768-PSCH-ReconfRqst                PRESENCE optional }| -- For 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    { ID id-UARFCNforNt                CRITICALITY ignore                EXTENSION UARFCN
                PRESENCE optional }|
    -- This is the UARFCN for the first Frequency repetition. Mandatory for 1.28Mcps TDD when using multiple frequencies.
    { ID id-multipleFreq-dL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst                CRITICALITY reject                EXTENSION MultipleFreq-DL-HS-
PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst                PRESENCE optional },
    -- Applicable to 1.28Mcps TDD when using multiple frequencies, This Information is for the 2nd and beyond Frequency repetition
    ...
}

DL-HS-PDSCH-Timeslot-Information-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst

DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                TimeSlot,
    midambleShiftAndBurstType                MidambleShiftAndBurstType,
    dL-HS-PDSCH-Codelist-PSCH-ReconfRqst                DL-HS-PDSCH-Codelist-PSCH-ReconfRqst,
    maxHSDSCH-HSSCCH-Power                MaximumTransmissionPower                OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst-ExtIEs} }
OPTIONAL,
    ...
}

DL-HS-PDSCH-Timeslot-InformationItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-HS-PDSCH-Codelist-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSPDSCHs)) OF TDD-ChannelisationCode

DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-
ReconfRqst

DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {

```

```

    timeSlot                TimeSlotLCR,
    midambleShiftAndBurstType MidambleShiftLCR,
    dl-HS-PDSCH-Codelist-LCR-PSCH-ReconfRqst DL-HS-PDSCH-Codelist-LCR-PSCH-ReconfRqst,
    maxHSDSCH-HSSCCH-Power      MaximumTransmissionPower OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs } }
    OPTIONAL,
    ...
}

DL-HS-PDSCH-Timeslot-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-HS-PDSCH-Codelist-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSPDSCHs)) OF TDD-ChannelisationCode

DL-HS-PDSCH-Timeslot-Information-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfDLTSS)) OF DL-HS-PDSCH-Timeslot-InformationItem-768-PSCH-
ReconfRqst

DL-HS-PDSCH-Timeslot-InformationItem-768-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                TimeSlot,
    midambleShiftAndBurstType768 MidambleShiftAndBurstType768,
    dl-HS-PDSCH-Codelist-768-PSCH-ReconfRqst DL-HS-PDSCH-Codelist-768-PSCH-ReconfRqst,
    maxHSDSCH-HSSCCH-Power      MaximumTransmissionPower OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { DL-HS-PDSCH-Timeslot-InformationItem-768-PSCH-ReconfRqst-ExtIEs } }
    OPTIONAL,
    ...
}

DL-HS-PDSCH-Timeslot-InformationItem-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-HS-PDSCH-Codelist-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSPDSCHs768)) OF TDD-ChannelisationCode768

MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-Container{{
MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItemIE-PSCH-ReconfRqst}}
-- Includes the 2nd through the max number of frequency repetitions.

MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItemIE-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    { ID id-MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst CRITICALITY reject TYPE MultipleFreq-DL-HS-PDSCH-
Timeslot-Information-LCRItem-PSCH-ReconfRqst PRESENCE optional }
}

MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst ::= SEQUENCE {
    dl-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst DL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst OPTIONAL,
    uARFCN UARFCN,
    iE-Extensions ProtocolExtensionContainer { { MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-
PSCH-ReconfRqst-ExtIEs } } OPTIONAL,
    ...
}

MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst ::= SEQUENCE {
    hs-SCCH-Information-PSCH-ReconfRqst    HS-SCCH-Information-PSCH-ReconfRqst    OPTIONAL,
    hs-SCCH-Information-LCR-PSCH-ReconfRqst HS-SCCH-Information-LCR-PSCH-ReconfRqst    OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs } }    OPTIONAL,
    ...
}

Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-hS-SCCH-Information-768-PSCH-ReconfRqst CRITICALITY reject    EXTENSION HS-SCCH-Information-768-PSCH-ReconfRqst    PRESENCE
optional } |
    -- 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
    { ID id-HS-SCCH-InformationExt-LCR-PSCH-ReconfRqst CRITICALITY ignore EXTENSION HS-SCCH-InformationExt-LCR-PSCH-ReconfRqst    PRESENCE
optional },
    -- Applicable to 1.28Mcps TDD only, used when there are more than maxNrOfHSSCCHs HS-SCCHs in the message.
    ...
}

HS-SCCH-Information-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationItem-PSCH-ReconfRqst

HS-SCCH-InformationItem-PSCH-ReconfRqst ::= SEQUENCE {
    hs-SCCH-ID                HS-SCCH-ID,
    timeSlot                  TimeSlot,
    midambleShiftAndBurstType MidambleShiftAndBurstType,
    tdd-ChannelisationCode    TDD-ChannelisationCode,
    hs-SCCH-MaxPower          DL-Power,
    hs-SICH-Information       HS-SICH-Information-PSCH-ReconfRqst,
    iE-Extensions            ProtocolExtensionContainer { { HS-SCCH-InformationItem-PSCH-ReconfRqst-ExtIEs } }    OPTIONAL,
    ...
}

HS-SCCH-InformationItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SICH-Information-PSCH-ReconfRqst ::= SEQUENCE {
    hsSICH-ID                HS-SICH-ID,
    timeSlot                  TimeSlot,
    midambleShiftAndBurstType MidambleShiftAndBurstType,
    tdd-ChannelisationCode    TDD-ChannelisationCode,
    iE-Extensions            ProtocolExtensionContainer { { HS-SICH-Information-PSCH-ReconfRqst-ExtIEs } }    OPTIONAL,
    ...
}

HS-SICH-Information-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-SCCH-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst

HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    hs-SCCH-ID                HS-SCCH-ID,
    timeSlotLCR               TimeSlotLCR,
    midambleShiftLCR          MidambleShiftLCR,
}

```

```

    first-TDD-ChannelisationCode      TDD-ChannelisationCode,
    second-TDD-ChannelisationCode     TDD-ChannelisationCode,
    hS-SCCH-MaxPower                  DL-Power,
    hS-SICH-Information-LCR            HS-SICH-Information-LCR-PSCH-ReconfRqst,
    iE-Extensions                      ProtocolExtensionContainer { { HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-Extended-HS-SCCH-ID          CRITICALITY ignore     EXTENSION Extended-HS-SCCH-ID          PRESENCE optional}|
  -- used if the HS-SCCH identity has a value larger than 31
  { ID id-UARFCNforNt                  CRITICALITY ignore     EXTENSION UARFCN                      PRESENCE optional},
  -- Mandatory for 1.28Mcps TDD when using multiple frequencies
  ...
}

HS-SICH-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE {
  hsSICH-ID                            HS-SICH-ID,
  timeSlotLCR                          TimeSlotLCR,
  midambleShiftLCR                     MidambleShiftLCR,
  tdd-ChannelisationCode                TDD-ChannelisationCode,
  iE-Extensions                          ProtocolExtensionContainer { { HS-SICH-Information-LCR-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
  ...
}

HS-SICH-Information-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-Extended-HS-SICH-ID          CRITICALITY ignore     EXTENSION Extended-HS-SICH-ID          PRESENCE optional},
  -- used if the HS-SICH identity has a value larger than 31
  ...
}

HS-SCCH-Information-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationItem-768-PSCH-ReconfRqst

HS-SCCH-InformationItem-768-PSCH-ReconfRqst ::= SEQUENCE {
  hS-SCCH-ID                            HS-SCCH-ID,
  timeSlot                               TimeSlot,
  midambleShiftAndBurstType768          MidambleShiftAndBurstType768,
  tdd-ChannelisationCode768             TDD-ChannelisationCode768,
  hS-SCCH-MaxPower                      DL-Power,
  hS-SICH-Information-768                HS-SICH-Information-768-PSCH-ReconfRqst,
  iE-Extensions                          ProtocolExtensionContainer { { HS-SCCH-InformationItem-768-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
  ...
}

HS-SCCH-InformationItem-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

HS-SICH-Information-768-PSCH-ReconfRqst ::= SEQUENCE {
  hsSICH-ID                            HS-SICH-ID,
  timeSlot                               TimeSlot,
  midambleShiftAndBurstType768          MidambleShiftAndBurstType768,
  tdd-ChannelisationCode768             TDD-ChannelisationCode768,
  iE-Extensions                          ProtocolExtensionContainer { { HS-SICH-Information-768-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
  ...
}

```

```

}
...
}
HS-SICH-Information-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}
HS-SCCH-InformationExt-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfHSSCCHsinExt)) OF HS-SCCH-InformationItem-LCR-PSCH-ReconfRqst
Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst ::= SEQUENCE {
  hs-SCCH-InformationModify-PSCH-ReconfRqst      HS-SCCH-InformationModify-PSCH-ReconfRqst      OPTIONAL,
  hs-SCCH-InformationModify-LCR-PSCH-ReconfRqst HS-SCCH-InformationModify-LCR-PSCH-ReconfRqst      OPTIONAL,
  iE-Extensions                                ProtocolExtensionContainer { { Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs} }
  OPTIONAL,
  ...
}
Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-hS-SCCH-InformationModify-768-PSCH-ReconfRqst      CRITICALITY reject  EXTENSION HS-SCCH-InformationModify-768-PSCH-ReconfRqst
  PRESENCE optional }|
  -- 7.68 Mcps TDD. Not Applicable to 3.84Mcps TDD or 1.28 Mcps TDD.
  { ID id-HS-SCCH-InformationModifyExt-LCR-PSCH-ReconfRqst    CRITICALITY ignore  EXTENSION HS-SCCH-InformationModifyExt-LCR-PSCH-ReconfRqst
  PRESENCE optional },
  -- Applicable to 1.28Mcps TDD only, used when there are more than maxNrOfHSSCCHs HS-SCCHs in the message.
  ...
}
HS-SCCH-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  hs-SCCH-ID                HS-SCCH-ID,
  timeSlot                  TimeSlot                                OPTIONAL,
  midambleShiftAndBurstType MidambleShiftAndBurstType    OPTIONAL,
  tdd-ChannelisationCode    TDD-ChannelisationCode        OPTIONAL,
  hs-SCCH-MaxPower          DL-Power                                OPTIONAL,
  hs-SICH-Information       HS-SICH-InformationModify-PSCH-ReconfRqst  OPTIONAL,
  iE-Extensions            ProtocolExtensionContainer { { HS-SCCH-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }  OPTIONAL,
  ...
}
HS-SCCH-InformationModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}
HS-SICH-InformationModify-PSCH-ReconfRqst ::= SEQUENCE {
  hsSICH-ID                HS-SICH-ID,
  timeSlot                  TimeSlot                                OPTIONAL,
  midambleShiftAndBurstType MidambleShiftAndBurstType    OPTIONAL,
  tdd-ChannelisationCode    TDD-ChannelisationCode        OPTIONAL,
  iE-Extensions            ProtocolExtensionContainer { { HS-SICH-InformationModify-PSCH-ReconfRqst-ExtIEs} }  OPTIONAL,
  ...
}
HS-SICH-InformationModify-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

```

HS-SCCH-InformationModify-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst

```

HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
  hS-SCCH-ID                HS-SCCH-ID,
  timeSlotLCR                TimeSlotLCR                OPTIONAL,
  midambleShiftLCR          MidambleShiftLCR          OPTIONAL,
  first-TDD-ChannelisationCode TDD-ChannelisationCode  OPTIONAL,
  second-TDD-ChannelisationCode TDD-ChannelisationCode  OPTIONAL,
  hS-SCCH-MaxPower          DL-Power                OPTIONAL,
  hS-SICH-Information-LCR    HS-SICH-InformationModify-LCR-PSCH-ReconfRqst  OPTIONAL,
  iE-Extensions              ProtocolExtensionContainer { { HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs } }
  OPTIONAL,
  ...
}

```

```

HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-Extended-HS-SCCH-ID                CRITICALITY ignore EXTENSION Extended-HS-SCCH-ID                PRESENCE optional } |
  -- used if the HS-SCCH identity has a value larger than 31
  { ID id-UARFCNforNt                CRITICALITY ignore EXTENSION UARFCN                PRESENCE optional },
  -- Applicable to 1.28Mcps TDD when using multiple frequencies
  ...
}

```

HS-SCCH-InformationModifyExt-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfHSSCCHsinExt)) OF HS-SCCH-InformationModifyItem-LCR-PSCH-ReconfRqst

```

HS-SICH-InformationModify-LCR-PSCH-ReconfRqst ::= SEQUENCE {
  hS-SICH-ID                HS-SICH-ID,
  timeSlotLCR                TimeSlotLCR                OPTIONAL,
  midambleShiftLCR          MidambleShiftLCR          OPTIONAL,
  tdd-ChannelisationCode    TDD-ChannelisationCode  OPTIONAL,
  iE-Extensions              ProtocolExtensionContainer { { HS-SICH-InformationModify-LCR-PSCH-ReconfRqst-ExtIEs } }  OPTIONAL,
  ...
}

```

```

HS-SICH-InformationModify-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-Extended-HS-SICH-ID                CRITICALITY ignore EXTENSION Extended-HS-SICH-ID                PRESENCE optional },
  -- used if the HS-SICH identity has a value larger than 31
  ...
}

```

HS-SCCH-InformationModify-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationModifyItem-768-PSCH-ReconfRqst

```

HS-SCCH-InformationModifyItem-768-PSCH-ReconfRqst ::= SEQUENCE {
  hS-SCCH-ID                HS-SCCH-ID,
  timeSlot                  TimeSlot                OPTIONAL,
  midambleShiftAndBurstType768 MidambleShiftAndBurstType768,
  tdd-ChannelisationCode768 TDD-ChannelisationCode768,
  hS-SCCH-MaxPower          DL-Power                OPTIONAL,
  hS-SICH-Information-768    HS-SICH-InformationModify-768-PSCH-ReconfRqst  OPTIONAL,
  iE-Extensions              ProtocolExtensionContainer { { HS-SCCH-InformationModifyItem-768-PSCH-ReconfRqst-ExtIEs } }
  OPTIONAL,
  ...
}

```



```

HS-SCCH-InformationModifyItem-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

HS-SICH-InformationModify-768-PSCH-ReconfRqst ::= SEQUENCE {
  hsSICH-ID                HS-SICH-ID,
  timeSlot                  TimeSlot                                OPTIONAL,
  midambleShiftAndBurstType768 MidambleShiftAndBurstType768,
  tdd-ChannelisationCode768 TDD-ChannelisationCode768,
  iE-Extensions            ProtocolExtensionContainer { { HS-SICH-InformationModify-768-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
  ...
}

HS-SICH-InformationModify-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

HS-SCCH-InformationModify-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-InformationModifyItem-PSCH-ReconfRqst

Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst

Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst ::= SEQUENCE {
  hS-SCCH-ID                HS-SCCH-ID,
  iE-Extensions            ProtocolExtensionContainer { { Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
  ...
}

Delete-From-HS-SCCH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-Extended-HS-SCCH-ID                CRITICALITY ignore EXTENSION Extended-HS-SCCH-ID                PRESENCE optional },
  -- used if the HS-SCCH identity has a value larger than 31
  ...
}

E-PUCH-Information-PSCH-ReconfRqst ::= SEQUENCE {
  LTGI-Presence            LTGI-Presence,
  sNPL-Reporting-Type      SNPL-Reporting-Type,
  midambleShiftAndBurstType MidambleShiftAndBurstType,
  e-PUCH-Timeslot-Info     E-PUCH-Timeslot-Info,
  iE-Extensions            ProtocolExtensionContainer { { E-PUCH-Information-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
  ...
}

E-PUCH-Information-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

E-PUCH-Timeslot-Info ::= SEQUENCE (SIZE (1..maxNrOfE-PUCHSlots)) OF TimeSlot

Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst ::= SEQUENCE {
  e-AGCH-Information-PSCH-ReconfRqst      E-AGCH-Information-PSCH-ReconfRqst      OPTIONAL,
  iE-Extensions                            ProtocolExtensionContainer { { Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
  ...
}

```

```

Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

E-AGCH-Information-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationItem-PSCH-ReconfRqst

E-AGCH-InformationItem-PSCH-ReconfRqst ::= SEQUENCE {
  e-AGCH-ID                E-AGCH-Id,
  timeSlot                 TimeSlot,
  midambleShiftAndBurstType MidambleShiftAndBurstType,
  tdd-ChannelisationCode   TDD-ChannelisationCode,
  e-AGCH-MaxPower          DL-Power,
  iE-Extensions            ProtocolExtensionContainer { { E-AGCH-InformationItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
  ...
}

E-AGCH-InformationItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst ::= SEQUENCE {
  e-AGCH-InformationModify-PSCH-ReconfRqst E-AGCH-InformationModify-PSCH-ReconfRqst OPTIONAL,
  iE-Extensions                            ProtocolExtensionContainer { { Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs} }
  OPTIONAL,
  ...
}

Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

E-AGCH-InformationModify-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationModifyItem-PSCH-ReconfRqst

E-AGCH-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  e-AGCH-ID                E-AGCH-Id,
  timeSlot                 TimeSlot OPTIONAL,
  midambleShiftAndBurstType MidambleShiftAndBurstType OPTIONAL,
  tdd-ChannelisationCode   TDD-ChannelisationCode OPTIONAL,
  e-AGCH-MaxPower          DL-Power OPTIONAL,
  iE-Extensions            ProtocolExtensionContainer { { E-AGCH-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
  ...
}

E-AGCH-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Delete-From-E-AGCH-Resource-Pool-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF Delete-From-E-AGCH-Resource-PoolItem-PSCH-ReconfRqst

Delete-From-E-AGCH-Resource-PoolItem-PSCH-ReconfRqst ::= SEQUENCE {
  e-AGCH-ID                E-AGCH-Id,
  iE-Extensions            ProtocolExtensionContainer { { Delete-From-E-AGCH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
  ...
}

```

```

}

Delete-From-E-AGCH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

E-HICH-Information-PSCH-ReconfRqst  ::= SEQUENCE {
  midambleShiftAndBurstType          MidambleShiftAndBurstType,
  tdd-ChannelisationCode              TDD-ChannelisationCode,
  e-HICH-MaxPower                      DL-Power,
  iE-Extensions                        ProtocolExtensionContainer { { E-HICH-Information-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
  ...
}

E-HICH-Information-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

E-PUCH-Information-768-PSCH-ReconfRqst ::= SEQUENCE {
  LTGI-Presence                        LTGI-Presence,
  sNPL-Reporting-Type                  SNPL-Reporting-Type,
  midambleShiftAndBurstType768         MidambleShiftAndBurstType768,
  e-PUCH-Timeslot-Info                 E-PUCH-Timeslot-Info,
  iE-Extensions                        ProtocolExtensionContainer { { E-PUCH-Information-768-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
  ...
}

E-PUCH-Information-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst ::= SEQUENCE {
  e-AGCH-Information-768-PSCH-ReconfRqst  E-AGCH-Information-768-PSCH-ReconfRqst    OPTIONAL,
  iE-Extensions                            ProtocolExtensionContainer { { Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
  ...
}

Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

E-AGCH-Information-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationItem-768-PSCH-ReconfRqst

E-AGCH-InformationItem-768-PSCH-ReconfRqst  ::= SEQUENCE {
  e-AGCH-ID                             E-AGCH-Id,
  timeSlot                                TimeSlot,
  midambleShiftAndBurstType768           MidambleShiftAndBurstType768,
  tdd-ChannelisationCode768              TDD-ChannelisationCode768,
  e-AGCH-MaxPower                         DL-Power,
  iE-Extensions                            ProtocolExtensionContainer { { E-AGCH-InformationItem-768-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
  ...
}

E-AGCH-InformationItem-768-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

}
Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst ::= SEQUENCE {
    e-AGCH-InformationModify-768-PSCH-ReconfRqst      E-AGCH-InformationModify-768-PSCH-ReconfRqst      OPTIONAL,
    iE-Extensions                                     ProtocolExtensionContainer { { Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-InformationModify-768-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationModifyItem-768-PSCH-ReconfRqst

E-AGCH-InformationModifyItem-768-PSCH-ReconfRqst ::= SEQUENCE {
    e-AGCH-ID                                         E-AGCH-Id,
    timeslot                                          Timeslot                                          OPTIONAL,
    midambleShiftAndBurstType768                    MidambleShiftAndBurstType768                    OPTIONAL,
    tdd-ChannelisationCode768                       TDD-ChannelisationCode768                       OPTIONAL,
    e-AGCH-MaxPower                                  DL-Power                                          OPTIONAL,
    iE-Extensions                                     ProtocolExtensionContainer { { E-AGCH-InformationModifyItem-768-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

E-AGCH-InformationModifyItem-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-Information-768-PSCH-ReconfRqst ::= SEQUENCE {
    midambleShiftAndBurstType768                    MidambleShiftAndBurstType768,
    tdd-ChannelisationCode768                       TDD-ChannelisationCode768,
    e-HICH-MaxPower                                  DL-Power,
    iE-Extensions                                     ProtocolExtensionContainer { { E-HICH-Information-768-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

E-HICH-Information-768-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-PUCH-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    LTGI-Presence                                    LTGI-Presence,
    sNPL-Reporting-Type                              sNPL-Reporting-Type,
    e-PUCH-Timeslot-InfoLCR                          E-PUCH-Timeslot-InfoLCR      OPTIONAL,
    -- This E-PUCH Timeslot Information is for the first Frequency repetition, E-PUCH timeslot information for Frequency repetitions 2 and on,
    should be defined in MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst.
    iE-Extensions                                     ProtocolExtensionContainer { { E-PUCH-Information-LCR-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

E-PUCH-Information-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UARFCNforNt                               CRITICALITY ignore
    EXTENSION UARFCN                                  PRESENCE optional} |
    -- This is the UARFCN for the first Frequency repetition. Mandatory for 1.28Mcps TDD when using multiple frequencies.
}

```

```

    { ID id-MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst    CRITICALITY reject
      EXTENSION MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst PRESENCE optional },
    -- Applicable to 1.28Mcps TDD when using multiple frequencies.This E-PUCH Information is for the 2nd and beyond frequencies.
    ...
}

E-PUCH-Timeslot-InfoLCR ::= SEQUENCE (SIZE (1..maxNrOfE-PUCHSlotsLCR)) OF E-PUCH-Timeslot-Item-InfoLCR

E-PUCH-Timeslot-Item-InfoLCR ::= SEQUENCE {
    timeSlot                TimeSlotLCR,
    midambleShiftAndBurstType MidambleShiftLCR,
    e-PUCH-Codelist-LCR     E-PUCH-Codelist-LCR,
    iE-Extensions           ProtocolExtensionContainer { { E-PUCH-Timeslot-Item-InfoLCR-ExtIEs } }    OPTIONAL,
    ...
}

E-PUCH-Timeslot-Item-InfoLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-PUCH-Codelist-LCR ::= SEQUENCE (SIZE (1..maxNrOfEPUCHcodes)) OF TDD-ChannelisationCode

Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-AGCH-Information-LCR-PSCH-ReconfRqst E-AGCH-Information-LCR-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { { Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs } }    OPTIONAL,
    ...
}

Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationItem-LCR-PSCH-ReconfRqst

E-AGCH-InformationItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-AGCH-ID                E-AGCH-Id,
    timeSlotLCR              TimeSlotLCR,
    midambleShiftLCR         MidambleShiftLCR,
    first-TDD-ChannelisationCode TDD-ChannelisationCode,
    second-TDD-ChannelisationCode TDD-ChannelisationCode,
    e-AGCH-MaxPower          DL-Power,
    iE-Extensions           ProtocolExtensionContainer { { E-AGCH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs } }    OPTIONAL,
    ...
}

E-AGCH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UARFCNforNt        CRITICALITY ignore    EXTENSION UARFCN        PRESENCE optional},
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-AGCH-InformationModify-LCR-PSCH-ReconfRqst E-AGCH-InformationModify-LCR-PSCH-ReconfRqst,

```

```

    iE-Extensions                ProtocolExtensionContainer { { Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs } }
    OPTIONAL,
    ...
}

Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-InformationModify-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEAGCHs)) OF E-AGCH-InformationModifyItem-LCR-PSCH-ReconfRqst

E-AGCH-InformationModifyItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-AGCH-ID                    E-AGCH-Id,
    timeSlotLCR                  TimeSlotLCR                OPTIONAL,
    midambleShiftLCR             MidambleShiftLCR          OPTIONAL,
    first-TDD-ChannelisationCode TDD-ChannelisationCode  OPTIONAL,
    second-TDD-ChannelisationCode TDD-ChannelisationCode  OPTIONAL,
    e-AGCH-MaxPower              DL-Power                  OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { E-AGCH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs } }  OPTIONAL,
    ...
}

E-AGCH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UARFCNforNt          CRITICALITY ignore     EXTENSION UARFCN          PRESENCE optional},
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-HICH-Information-LCR-PSCH-ReconfRqst E-HICH-Information-LCR-PSCH-ReconfRqst,
    iE-Extensions                          ProtocolExtensionContainer { { Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs } }  OPTIONAL,
    ...
}

Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-Information-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEHICHs)) OF E-HICH-InformationItem-LCR-PSCH-ReconfRqst

E-HICH-InformationItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-HICH-ID-TDD                E-HICH-ID-TDD,
    e-HICH-Type                  E-HICH-Type,
    tdd-ChannelisationCode       TDD-ChannelisationCode,
    timeSlotLCR                  TimeSlotLCR,
    midambleShiftLCR             MidambleShiftLCR,
    e-HICH-MaxPower              DL-Power,
    iE-Extensions                ProtocolExtensionContainer { { E-HICH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs } }  OPTIONAL,
    ...
}

E-HICH-InformationItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-HICH-ID-TDD CRITICALITY ignore EXTENSION Extended-E-HICH-ID-TDD PRESENCE optional}|
    -- Applicable to 1.28Mcps TDD only when the E-HICH identity has a value larger than 31.
}

```

```

    { ID id-UARFCNforNt          CRITICALITY ignore     EXTENSION UARFCN          PRESENCE optional},
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-HICH-InformationModify-LCR-PSCH-ReconfRqst  E-HICH-InformationModify-LCR-PSCH-ReconfRqst,
    iE-Extensions                                ProtocolExtensionContainer { { Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-InformationModify-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfEHICHs)) OF E-HICH-InformationModifyItem-LCR-PSCH-ReconfRqst

E-HICH-InformationModifyItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    e-HICH-ID-TDD                E-HICH-ID-TDD,
    e-HICH-Type                  E-HICH-Type                OPTIONAL,
    tdd-ChannelisationCode      TDD-ChannelisationCode    OPTIONAL,
    timeSlotLCR                 TimeSlotLCR                OPTIONAL,
    midambleShiftLCR           MidambleShiftLCR          OPTIONAL,
    e-HICH-MaxPower             DL-Power                   OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { E-HICH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

E-HICH-InformationModifyItem-LCR-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-HICH-ID-TDD          CRITICALITY ignore EXTENSION Extended-E-HICH-ID-TDD PRESENCE optional}|
    --Applicable to 1.28Mcps TDD only when the E-HICH identity has a value larger than 31.
    { ID id-UARFCNforNt          CRITICALITY ignore     EXTENSION UARFCN          PRESENCE optional},
    -- Mandatory for 1.28Mcps TDD when using multiple frequencies
    ...
}

Delete-From-E-HICH-Resource-Pool-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfEHICHs)) OF Delete-From-E-HICH-Resource-PoolItem-PSCH-ReconfRqst

Delete-From-E-HICH-Resource-PoolItem-PSCH-ReconfRqst ::= SEQUENCE {
    e-HICH-ID-TDD                E-HICH-ID-TDD,
    iE-Extensions               ProtocolExtensionContainer { { Delete-From-E-HICH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    ...
}

Delete-From-E-HICH-Resource-PoolItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-HICH-ID-TDD          CRITICALITY ignore EXTENSION Extended-E-HICH-ID-TDD PRESENCE optional},
    -- Applicable to 1.28Mcps TDD only when the E-HICH identity has a value larger than 31.
    ...
}

SYNC-UL-Partition-LCR ::= SEQUENCE {
    eRUCCH-SYNC-UL-codes-bitmap          BIT STRING (SIZE (8)),

```

```

    iE-Extensions          ProtocolExtensionContainer { { SYNC-UL-Partition-LCR-ExtIEs } }          OPTIONAL,
  }
  ...
}

SYNC-UL-Partition-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Delete-From-HS-SCCH-Resource-PoolExt-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfHSSCCHsinExt)) OF Delete-From-HS-SCCH-Resource-PoolItem-PSCH-
ReconfRqst

MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-Container
{{ MultipleFreq-E-PUCH-Timeslot-InformationItemIE-LCR-PSCH-ReconfRqst}}
--Includes the 2nd through the max number of frequencies information repetitions.

MultipleFreq-E-PUCH-Timeslot-InformationItemIE-LCR-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
  { ID id-MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst          CRITICALITY ignore          TYPE MultipleFreq-E-PUCH-
Timeslot-Information-LCRItem-PSCH-ReconfRqst          PRESENCE optional }
}

MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst ::= SEQUENCE {
  e-PUCH-Timeslot-InfoLCR          E-PUCH-Timeslot-InfoLCR          OPTIONAL,
  uARFCN          UARFCN,
  iE-Extensions          ProtocolExtensionContainer { { MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-
ReconfRqst-ExtIEs} }          OPTIONAL,
  ...
}

MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE
--
-- *****

PhysicalSharedChannelReconfigurationResponse ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container          {{PhysicalSharedChannelReconfigurationResponse-IEs}},
  protocolExtensions          ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationResponse-Extensions}}          OPTIONAL,
  ...
}

PhysicalSharedChannelReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CriticalityDiagnostics          CRITICALITY          ignore          TYPE          CriticalityDiagnostics          PRESENCE optional },
  ...
}

PhysicalSharedChannelReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-HICH-TimeOffset          CRITICALITY reject          EXTENSION E-HICH-TimeOffset
PRESENCE optional }|
  { ID id-E-HICH-TimeOffsetLCR          CRITICALITY reject          EXTENSION E-HICH-TimeOffsetLCR
PRESENCE optional }|
}

```



```

    { ID id-HSDSCH-Common-System-Information-ResponseFDD    CRITICALITY ignore  EXTENSION HSDSCH-Common-System-Information-ResponseFDD
    PRESENCE optional }|
    { ID id-HSDSCH-Paging-System-Information-ResponseFDD    CRITICALITY ignore  EXTENSION HSDSCH-Paging-System-Information-ResponseFDD
    PRESENCE optional }|
    { ID id-UARFCNforNt                                     CRITICALITY reject  EXTENSION UARFCN PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD when using multiple frequencies. This is the UARFCN for the first Frequency repetition.
    { ID id-E-HICH-TimeOffset-Extension                     CRITICALITY reject  EXTENSION E-HICH-TimeOffset-ExtensionLCR
    PRESENCE optional },
    -- Applicable to 1.28Mcps TDD when using multiple frequencies. This E-HICH-TimeOffset-ExtensionLCR is the E-HICH Time Offset LCR for the 2nd
    and beyond frequencies.
    ...
}

E-HICH-TimeOffset-ExtensionLCR ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF ProtocolIE-Single-Container{{ Multiple-E-HICH-TimeOffsetLCR }}

Multiple-E-HICH-TimeOffsetLCR NBAP-PROTOCOL-IES ::= {
  { ID id-MultipleFreq-E-HICH-TimeOffsetLCR    CRITICALITY reject  TYPE      MultipleFreq-E-HICH-TimeOffsetLCR PRESENCE optional }
}
MultipleFreq-E-HICH-TimeOffsetLCR ::= SEQUENCE {
  e-HICH-TimeOffsetLCR          E-HICH-TimeOffsetLCR,
  uARFCN                        UARFCN,
  iE-Extensions                 ProtocolExtensionContainer { { MultipleFreq-E-HICH-TimeOffsetLCR-ExtIEs } }  OPTIONAL,
  ...
}
MultipleFreq-E-HICH-TimeOffsetLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE
--
-- *****

PhysicalSharedChannelReconfigurationFailure ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container      {{PhysicalSharedChannelReconfigurationFailure-IEs}},
  protocolExtensions  ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationFailure-Extensions}}  OPTIONAL,
  ...
}

PhysicalSharedChannelReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CauseLevel-PSCH-ReconfFailure    CRITICALITY ignore  TYPE CauseLevel-PSCH-ReconfFailure    PRESENCE mandatory }|
  { ID id-CriticalityDiagnostics           CRITICALITY ignore  TYPE CriticalityDiagnostics           PRESENCE optional },
  ...
}

PhysicalSharedChannelReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

CauseLevel-PSCH-ReconfFailure ::= CHOICE {
  generalCause          GeneralCauseList-PSCH-ReconfFailure,
  setSpecificCause      SetSpecificCauseList-PSCH-ReconfFailureTDD,
  ...
}

```

```

    extension-CauseLevel-PSCH-ReconfFailure      Extension-CauseLevel-PSCH-ReconfFailure
}

GeneralCauseList-PSCH-ReconfFailure ::= SEQUENCE {
    cause                Cause,
    iE-Extensions        ProtocolExtensionContainer { { GeneralCauseItem-PSCH-ReconfFailure-ExtIEs} }    OPTIONAL,
    ...
}

GeneralCauseItem-PSCH-ReconfFailure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SetSpecificCauseList-PSCH-ReconfFailureTDD ::= SEQUENCE {
    unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD Unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD    OPTIONAL,
    unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD Unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD    OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { { SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (0.. maxNrOfPDSCHSets)) OF ProtocolIE-Single-Container {{ Unsuccessful-
PDSCHSetItemIE-PSCH-ReconfFailureTDD }}

Unsuccessful-PDSCHSetItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD    CRITICALITY ignore    TYPE Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDDPRESENCE
mandatory}
}

Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
    pDSCHSet-ID          PDSCHSet-ID,
    cause                Cause,
    iE-Extensions        ProtocolExtensionContainer { {Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs} }    OPTIONAL,
    ...
}

Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (0.. maxNrOfPUSCHSets)) OF ProtocolIE-Single-Container {{ Unsuccessful-
PUSCHSetItemIE-PSCH-ReconfFailureTDD }}

Unsuccessful-PUSCHSetItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD    CRITICALITY ignore    TYPE Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDDPRESENCE
mandatory}
}

Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD ::= SEQUENCE {

```

```

    pUSCHSet-ID          PUSCHSet-ID,
    cause                Cause,
    iE-Extensions        ProtocolExtensionContainer { {Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs} } OPTIONAL,
    ...
}

Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Extension-CauseLevel-PSCH-ReconfFailure ::= ProtocolIE-Single-Container {{ Extension-CauseLevel-PSCH-ReconfFailureIE }}

Extension-CauseLevel-PSCH-ReconfFailureIE NBAP-PROTOCOL-IES ::= {
    { ID id-UARFCNSpecificCauseList CRITICALITY ignore TYPE UARFCNSpecificCauseList-PSCH-ReconfFailureTDD PRESENCE mandatory }
}

UARFCNSpecificCauseList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (0.. maxFrequencyinCell)) OF ProtocolIE-Single-Container {{ Unsuccessful-
UARFCNItemIE-PSCH-ReconfFailureTDD }}

Unsuccessful-UARFCNItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD CRITICALITY ignore TYPE Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD PRESENCE
mandatory }
}

Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
    uARFCN          UARFCN,
    -- Used for 1.28 Mcps TDD to indicate the carrier on which HSDPA or HSUPA resources configuration failure occurs.
    cause          Cause,
    iE-Extensions  ProtocolExtensionContainer { {Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD-ExtIEs} } OPTIONAL,
    ...
}

Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HS-Cause CRITICALITY ignore EXTENSION Cause PRESENCE optional}|
    -- Used to indicate the cause of HSDPA related configuration failure.
    { ID id-E-Cause CRITICALITY ignore EXTENSION Cause PRESENCE optional},
    -- Used to indicate the cause of E-DCH related configuration failure.
    ...
}

-- *****
--
-- RESET REQUEST
--
-- *****

ResetRequest ::= SEQUENCE {
    protocolIEs      ProtocolIE-Container      {{ResetRequest-IEs}},
    protocolExtensions ProtocolExtensionContainer {{ResetRequest-Extensions}} OPTIONAL,
    ...
}

```

```

ResetRequest-IEs NBAP-PROTOCOL-IES ::= {
  {ID id-ResetIndicator      CRITICALITY ignore      TYPE      ResetIndicator      PRESENCE      mandatory},
  ...
}

ResetRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

ResetIndicator ::= CHOICE {
  communicationContext      CommunicationContextList-Reset,
  communicationControlPort  CommunicationControlPortList-Reset,
  nodeB                      NULL,
  ...
}

CommunicationContextList-Reset ::= SEQUENCE {
  communicationContextInfoList-Reset      CommunicationContextInfoList-Reset,
  iE-Extensions                          ProtocolExtensionContainer { {CommunicationContextItem-Reset-ExtIEs} } OPTIONAL,
  ...
}

CommunicationContextItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

CommunicationContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxCommunicationContext)) OF ProtocolIE-Single-Container {{
  CommunicationContextInfoItemIE-Reset }}

CommunicationContextInfoItemIE-Reset NBAP-PROTOCOL-IES ::= {
  {ID id-CommunicationContextInfoItem-Reset      CRITICALITY reject      TYPE      CommunicationContextInfoItem-Reset      PRESENCE      mandatory}
}

CommunicationContextInfoItem-Reset ::= SEQUENCE {
  communicationContextType-Reset      CommunicationContextType-Reset,
  iE-Extensions                          ProtocolExtensionContainer { { CommunicationContextInfoItem-Reset-ExtIEs} } OPTIONAL,
  ...
}

CommunicationContextInfoItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

    ...
}

CommunicationContextType-Reset ::= CHOICE {
    cRNC-CommunicationContextID      CRNC-CommunicationContextID,
    nodeB-CommunicationContextID     NodeB-CommunicationContextID,
    ...
}

CommunicationControlPortList-Reset ::= SEQUENCE {
    communicationControlPortInfoList-Reset      CommunicationControlPortInfoList-Reset,
    iE-Extensions                               ProtocolExtensionContainer { {CommunicationControlPortItem-Reset-ExtIEs} } OPTIONAL,
    ...
}

CommunicationControlPortItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommunicationControlPortInfoList-Reset ::= SEQUENCE (SIZE (1.. maxCCPinNodeB)) OF ProtocolIE-Single-Container
{{CommunicationControlPortInfoItemIE-Reset }}

CommunicationControlPortInfoItemIE-Reset NBAP-PROTOCOL-IES ::= {
    {ID id-CommunicationControlPortInfoItem-Reset      CRITICALITY reject      TYPE CommunicationControlPortInfoItem-Reset      PRESENCE mandatory}
}

CommunicationControlPortInfoItem-Reset ::= SEQUENCE {
    communicationControlPortID      CommunicationControlPortID,
    iE-Extensions                   ProtocolExtensionContainer { {CommunicationControlPortInfoItem-Reset-ExtIEs} } OPTIONAL,
    ...
}

CommunicationControlPortInfoItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RESET RESPONSE
--
-- *****

```

```

ResetResponse ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{ResetResponse-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{ResetResponse-Extensions}}      OPTIONAL,
    ...
}

ResetResponse-IEs NBAP-PROTOCOL-IES ::= {
    {ID id-CriticalityDiagnostics      CRITICALITY   ignore      TYPE      CriticalityDiagnostics      PRESENCE optional},
    ...
}

ResetResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- INFORMATION EXCHANGE INITIATION REQUEST
--
-- *****

InformationExchangeInitiationRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{InformationExchangeInitiationRequest-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{InformationExchangeInitiationRequest-Extensions}}      OPTIONAL,
    ...
}

InformationExchangeInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-InformationExchangeID      CRITICALITY reject      TYPE InformationExchangeID      PRESENCE mandatory
    }|
    { ID id-InformationExchangeObjectType-InfEx-Rqst      CRITICALITY reject      TYPE InformationExchangeObjectType-InfEx-Rqst      PRESENCE mandatory
    }|
    { ID id-InformationType      CRITICALITY reject      TYPE InformationType      PRESENCE mandatory
    }|
    { ID id-InformationReportCharacteristics      CRITICALITY reject      TYPE InformationReportCharacteristics      PRESENCE mandatory
    },
    ...
}

InformationExchangeInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rqst ::= CHOICE {
    cell          Cell-InfEx-Rqst,
    ...
}

Cell-InfEx-Rqst ::= SEQUENCE {
    c-ID          C-ID,
    iE-Extensions ProtocolExtensionContainer { { CellItem-InfEx-Rqst-ExtIEs} }      OPTIONAL,
    ...
}

```

```

CellItem-InfEx-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- INFORMATION EXCHANGE INITIATION RESPONSE
--
-- *****

InformationExchangeInitiationResponse ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container      {{InformationExchangeInitiationResponse-IEs}},
  protocolExtensions  ProtocolExtensionContainer {{InformationExchangeInitiationResponse-Extensions}}  OPTIONAL,
  ...
}

InformationExchangeInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-InformationExchangeID          CRITICALITY ignore  TYPE InformationExchangeID          PRESENCE mandatory }|
  { ID id-InformationExchangeObjectType-InfEx-Rsp CRITICALITY ignore  TYPE InformationExchangeObjectType-InfEx-Rsp PRESENCE optional }|
  { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics          PRESENCE optional },
  ...
}

InformationExchangeInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
  cell                Cell-InfEx-Rsp,
  ...
}

Cell-InfEx-Rsp ::= SEQUENCE {
  requestedDataValue  RequestedDataValue,
  iE-Extensions       ProtocolExtensionContainer { { CellItem-InfEx-Rsp-ExtIEs } }  OPTIONAL,
  ...
}

CellItem-InfEx-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- INFORMATION EXCHANGE INITIATION FAILURE
--
-- *****

InformationExchangeInitiationFailure ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container      {{InformationExchangeInitiationFailure-IEs}},
  protocolExtensions  ProtocolExtensionContainer {{InformationExchangeInitiationFailure-Extensions}}  OPTIONAL,
  ...
}

```

```

InformationExchangeInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-InformationExchangeID      CRITICALITY ignore      TYPE InformationExchangeID      PRESENCE mandatory }|
  { ID id-Cause                       CRITICALITY ignore      TYPE Cause                       PRESENCE mandatory }|
  { ID id-CriticalityDiagnostics       CRITICALITY ignore      TYPE CriticalityDiagnostics      PRESENCE optional },
  ...
}

InformationExchangeInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- INFORMATION REPORT
--
-- *****

InformationReport ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{InformationReport-IEs}},
  protocolExtensions   ProtocolExtensionContainer  {{InformationReport-Extensions}}    OPTIONAL,
  ...
}

InformationReport-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-InformationExchangeID      CRITICALITY ignore      TYPE InformationExchangeID      PRESENCE mandatory }|
  { ID id-InformationExchangeObjectType-InfEx-Rprt  CRITICALITY ignore      TYPE InformationExchangeObjectType-InfEx-Rprt  PRESENCE mandatory },
  ...
}

InformationReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

InformationExchangeObjectType-InfEx-Rprt ::= CHOICE {
  cell                  Cell-Inf-Rprt,
  ...
}

Cell-Inf-Rprt ::= SEQUENCE {
  requestedDataValueInformation  RequestedDataValueInformation,
  iE-Extensions                 ProtocolExtensionContainer  {{ CellItem-Inf-Rprt-ExtIEs }}    OPTIONAL,
  ...
}

CellItem-Inf-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- INFORMATION EXCHANGE TERMINATION REQUEST
--

```



```

-- *****
InformationExchangeTerminationRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{InformationExchangeTerminationRequest-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{InformationExchangeTerminationRequest-Extensions}}
    ...
}
OPTIONAL,

InformationExchangeTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-InformationExchangeID          CRITICALITY ignore          TYPE InformationExchangeID          PRESENCE mandatory },
    ...
}

InformationExchangeTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- INFORMATION EXCHANGE FAILURE INDICATION
--
-- *****

InformationExchangeFailureIndication ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{InformationExchangeFailureIndication-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{InformationExchangeFailureIndication-Extensions}}
    ...
}
OPTIONAL,

InformationExchangeFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-InformationExchangeID          CRITICALITY ignore          TYPE InformationExchangeID          PRESENCE mandatory }|
    { ID id-Cause                          CRITICALITY ignore          TYPE Cause                          PRESENCE mandatory },
    ...
}

InformationExchangeFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL SYNCHRONISATION INITIATION REQUEST TDD
--
-- *****

CellSynchronisationInitiationRequestTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container      {{CellSynchronisationInitiationRequestTDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellSynchronisationInitiationRequestTDD-Extensions}}
    ...
}
OPTIONAL,

CellSynchronisationInitiationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID                          CRITICALITY reject          TYPE C-ID                          PRESENCE mandatory }|
    { ID id-cellSyncBurstRepetitionPeriod CRITICALITY reject          TYPE CellSyncBurstRepetitionPeriod PRESENCE mandatory }|
}

```

```

    { ID id-timeslotInfo-CellSyncInitiationRqstTDD CRITICALITY reject TYPE TimeslotInfo-CellSyncInitiationRqstTDD PRESENCE
      optional }| -- Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.
    { ID id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD CRITICALITY reject TYPE CellSyncBurstTransInit-
CellSyncInitiationRqstTDD PRESENCE optional }| -- Applicable to 3.84Mcps TDD only
    { ID id-CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD CRITICALITY reject TYPE CellSyncBurstMeasureInit-
CellSyncInitiationRqstTDD PRESENCE optional }, -- Applicable to 3.84Mcps TDD only
    ...
  }

CellSynchronisationInitiationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-SYNCD1CodeId-TransInitLCR-CellSyncInitiationRqstTDD CRITICALITY reject EXTENSION SYNCD1CodeId-TransInitLCR-
CellSyncInitiationRqstTDD PRESENCE optional }| -- Applicable to 1.28Mcps TDD only
  { ID id-SYNCD1CodeId-MeasureInitLCR-CellSyncInitiationRqstTDD CRITICALITY reject EXTENSION SYNCD1CodeId-MeasureInitLCR-
CellSyncInitiationRqstTDD PRESENCE optional }, -- Applicable to 1.28Mcps TDD only
  ...
}

TimeslotInfo-CellSyncInitiationRqstTDD ::= SEQUENCE (SIZE (1..15)) OF TimeSlot

CellSyncBurstTransInit-CellSyncInitiationRqstTDD ::= SEQUENCE {
  cSBTransmissionID CSBTransmissionID,
  sfn SFN,
  cellSyncBurstCode CellSyncBurstCode,
  cellSyncBurstCodeShift CellSyncBurstCodeShift,
  initialDLTransPower DL-Power,
  iE-Extensions ProtocolExtensionContainer { { CellSyncBurstTransInit-CellSyncInitiationRqstTDD-ExtIEs} } OPTIONAL,
  ...
}

CellSyncBurstTransInit-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD ::= SEQUENCE {
  cSBMeasurementID CSBMeasurementID,
  cellSyncBurstCode CellSyncBurstCode,
  cellSyncBurstCodeShift CellSyncBurstCodeShift,
  synchronisationReportType SynchronisationReportType,
  sfn SFN OPTIONAL,
  synchronisationReportCharacteristics SynchronisationReportCharacteristics,
  iE-Extensions ProtocolExtensionContainer { { CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD-ExtIEs} }
  OPTIONAL,
  ...
}

CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

SYNCD1CodeId-TransInitLCR-CellSyncInitiationRqstTDD ::= SEQUENCE {
  cSBTransmissionID CSBTransmissionID,
  sfn SFN,
  uARFCN UARFCN,
  sYNCD1CodeId SYNCD1CodeId,

```

```

    dwPCH-Power          DwPCH-Power,
    iE-Extensions        ProtocolExtensionContainer { { SYNCd1CodeId-TransInitLCR-CellSyncInitiationRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}

SYNCd1CodeId-TransInitLCR-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCd1CodeId-MeasureInitLCR-CellSyncInitiationRqstTDD ::= SEQUENCE {
    cSBMeasurementID      CSBMeasurementID,
    sfn                   SFN                               OPTIONAL,
    uARFCN                UARFCN,
    SYNCd1CodeId         SYNCd1CodeId,
    synchronisationReportType SynchronisationReportType,
    synchronisationReportCharacteristics SynchronisationReportCharacteristics,
    iE-Extensions        ProtocolExtensionContainer { { SYNCd1CodeId-MeasureInitLCR-CellSyncInitiationRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}

SYNCd1CodeId-MeasureInitLCR-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL SYNCHRONISATION INITIATION RESPONSE TDD
--
-- *****

CellSynchronisationInitiationResponseTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CellSynchronisationInitiationResponseTDD-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{CellSynchronisationInitiationResponseTDD-Extensions}}  OPTIONAL,
    ...
}

CellSynchronisationInitiationResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationInitiationResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics          CRITICALITY ignore          TYPE CriticalityDiagnostics          PRESENCE optional },
    ...
}

-- *****
--
-- CELL SYNCHRONISATION INITIATION FAILURE TDD
--
-- *****

CellSynchronisationInitiationFailureTDD ::= SEQUENCE {

```

```

    protocolIEs          ProtocolIE-Container    {{CellSynchronisationInitiationFailureTDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellSynchronisationInitiationFailureTDD-Extensions}} OPTIONAL,
    ...
}

CellSynchronisationInitiationFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationInitiationFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause          CRITICALITY ignore      TYPE Cause          PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics CRITICALITY ignore      TYPE CriticalityDiagnostics PRESENCE optional },
    ...
}

-- *****
--
-- CELL SYNCHRONISATION RECONFIGURATION REQUEST TDD
--
-- *****

CellSynchronisationReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CellSynchronisationReconfigurationRequestTDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellSynchronisationReconfigurationRequestTDD-Extensions}} OPTIONAL,
    ...
}

CellSynchronisationReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-C-ID          CRITICALITY reject      TYPE C-ID          PRESENCE mandatory }|
    { ID id-TimeSlot      CRITICALITY reject      TYPE TimeSlot      PRESENCE mandatory }|
    -- Applicable to 3.84Mcps TDD only. For 1.28Mcps TDD, the CRNC should set this to 0 and the Node B shall ignore it.
    { ID id-NCyclesPerSFNperiod CRITICALITY reject      TYPE NCyclesPerSFNperiod PRESENCE mandatory }|
    { ID id-NRepetitionsPerCyclePeriod CRITICALITY reject      TYPE NRepetitionsPerCyclePeriod PRESENCE mandatory }|
    { ID id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD CRITICALITY reject      TYPE CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD PRESENCE optional }| -- Applicable to 3.84Mcps TDD only
    { ID id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD CRITICALITY reject      TYPE CellSyncBurstMeasInfo-CellSyncReconfRqstTDD PRESENCE optional }, -- Applicable to 3.84Mcps TDD only
    ...
}

CellSynchronisationReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-NSubCyclesPerCyclePeriod-CellSyncReconfRqstTDD CRITICALITY reject EXTENSION NSubCyclesPerCyclePeriod PRESENCE optional }| -- Applicable to 1.28Mcps TDD only
    { ID id-SYNCD1CodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD CRITICALITY reject EXTENSION SYNCD1CodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD PRESENCE optional }| -- Applicable to 1.28Mcps TDD only
    { ID id-SYNCD1CodeIdMeasReconfigurationLCR-CellSyncReconfRqstTDD CRITICALITY reject EXTENSION SYNCD1CodeIdMeasInfoLCR-CellSyncReconfRqstTDD PRESENCE optional }, -- Applicable to 1.28Mcps TDD only
    ...
}

CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1.. maxNrOfCellSyncBursts)) OF CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD

```

```

CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
  cSBTransmissionID          CSBTransmissionID,
  syncFrameNumberToTransmit  SyncFrameNumber,
  cellSyncBurstCode          CellSyncBurstCode          OPTIONAL,
  cellSyncBurstCodeShift    CellSyncBurstCodeShift    OPTIONAL,
  dlTransPower              DL-Power                  OPTIONAL,
  iE-Extensions             ProtocolExtensionContainer { { CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD-ExtIEs} }
  OPTIONAL,
  ...
}

CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

CellSyncBurstMeasInfo-CellSyncReconfRqstTDD ::= SEQUENCE {
  cellSyncBurstMeasInfoList-CellSyncReconfRqstTDD CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD,
  synchronisationReportType                      SynchronisationReportTypeIE          OPTIONAL,
  synchronisationReportCharacteristics           SynchronisationReportCharacteristicsIE  OPTIONAL,
  iE-Extensions                                 ProtocolExtensionContainer { { CellSyncBurstMeasInfo-CellSyncReconfRqstTDD-ExtIEs} }
  OPTIONAL,
  ...
}

CellSyncBurstMeasInfo-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD ::= ProtocolIE-Single-Container {{ CellSyncBurstMeasInfoListIEs-CellSyncReconfRqstTDD }}

CellSyncBurstMeasInfoListIEs-CellSyncReconfRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD  CRITICALITY reject  TYPE CellSyncBurstMeasInfoListIE-CellSyncReconfRqstTDD
  PRESENCE mandatory }
}

SynchronisationReportTypeIE ::= ProtocolIE-Single-Container {{ SynchronisationReportTypeIEs }}

SynchronisationReportTypeIEs NBAP-PROTOCOL-IES ::= {
  { ID id-SynchronisationReportType  CRITICALITY reject  TYPE SynchronisationReportType  PRESENCE
  mandatory }
}

SynchronisationReportCharacteristicsIE ::= ProtocolIE-Single-Container {{ SynchronisationReportCharacteristicsIEs }}

SynchronisationReportCharacteristicsIEs NBAP-PROTOCOL-IES ::= {
  { ID id-SynchronisationReportCharacteristics  CRITICALITY reject  TYPE SynchronisationReportCharacteristics  PRESENCE mandatory }
}

CellSyncBurstMeasInfoListIE-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1.. maxNrOfCellSyncBursts)) OF CellSyncBurstMeasInfoItem-
CellSyncReconfRqstTDD

CellSyncBurstMeasInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {

```

```

    syncFrameNrToReceive          SyncFrameNumber,
    syncBurstInfo                CellSyncBurstInfoList-CellSyncReconfRqstTDD,
    iE-Extensions                 ProtocolExtensionContainer { { CellSyncBurstMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

CellSyncBurstMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSyncBurstInfoList-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfReceptsPerSyncFrame)) OF CellSyncBurstInfoItem-CellSyncReconfRqstTDD

CellSyncBurstInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBMeasurementID             CSBMeasurementID,
    cellSyncBurstCode            CellSyncBurstCode,
    cellSyncBurstCodeShift       CellSyncBurstCodeShift,
    iE-Extensions                 ProtocolExtensionContainer { { CellSyncBurstInfoItem-CellSyncReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

CellSyncBurstInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCD1CodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSyncFramesLCR)) OF SYNCD1CodeIdTransReconfItemLCR-CellSyncReconfRqstTDD

SYNCD1CodeIdTransReconfItemLCR-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBTransmissionID           CSBTransmissionID,
    syncFrameNumberforTransmit   SyncFrameNumber,
    uARFCN                       UARFCN,
    sYNCD1CodeId                 SYNCD1CodeId    OPTIONAL,
    dwPCH-Power                  DwPCH-Power    OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { SYNCD1CodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    ...
}

SYNCD1CodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCD1CodeIdMeasInfoLCR-CellSyncReconfRqstTDD ::= SEQUENCE {
    sYNCD1CodeIdMeasInfoList     SYNCD1CodeIdMeasInfoList-CellSyncReconfRqstTDD,
    synchronisationReportType     SynchronisationReportType    OPTIONAL,
    synchronisationReportCharacteristics SynchronisationReportCharacteristics    OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { SYNCD1CodeIdMeasInfoLCR-CellSyncReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

SYNCD1CodeIdMeasInfoLCR-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

SYNCD1CodeIdMeasInfoList-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1.. maxNrOfSyncDLCodesLCR)) OF SYNCD1CodeIdMeasInfoItem-CellSyncReconfRqstTDD

SYNCD1CodeIdMeasInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    syncFrameNrToReceive          SyncFrameNumber,
    sYNCD1CodeIdInfoLCR          SYNCD1CodeIdInfoListLCR-CellSyncReconfRqstTDD,
    iE-Extensions                 ProtocolExtensionContainer { { SYNCD1CodeIdMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

SYNCD1CodeIdMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SYNCD1CodeIdInfoListLCR-CellSyncReconfRqstTDD ::= SEQUENCE (SIZE (1.. maxNrOfReceptionsperSyncFrameLCR)) OF SYNCD1CodeIdInfoItemLCR-CellSyncReconfRqstTDD

SYNCD1CodeIdInfoItemLCR-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBMeasurementID              CSBMeasurementID,
    sYNCD1CodeId                  SYNCD1CodeId,
    uARFCN                        UARFCN,
    propagationDelayCompensation  TimingAdjustmentValueLCR OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { SYNCD1CodeIdInfoItemLCR-CellSyncReconfRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

SYNCD1CodeIdInfoItemLCR-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL SYNCHRONISATION RECONFIGURATION RESPONSE TDD
--
-- *****

CellSynchronisationReconfigurationResponseTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container          {{CellSynchronisationReconfigurationResponseTDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer    {{CellSynchronisationReconfigurationResponseTDD-Extensions}} OPTIONAL,
    ...
}

CellSynchronisationReconfigurationResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationReconfigurationResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-CriticalityDiagnostics          CRITICALITY      ignore      TYPE      CriticalityDiagnostics          PRESENCE optional },
    ...
}

-- *****

```

```

--
-- CELL SYNCHRONISATION RECONFIGURATION FAILURE TDD
--
-- *****

CellSynchronisationReconfigurationFailureTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CellSynchronisationReconfigurationFailureTDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellSynchronisationReconfigurationFailureTDD-Extensions}}    OPTIONAL,
    ...
}

CellSynchronisationReconfigurationFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationReconfigurationFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-Cause          CRITICALITY ignore    TYPE Cause          PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics CRITICALITY ignore    TYPE CriticalityDiagnostics PRESENCE optional },
    ...
}

-- *****
--
-- CELL SYNCHRONISATION ADJUSTMENT REQUEST TDD
--
-- *****

CellSynchronisationAdjustmentRequestTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CellSynchronisationAdjustmentRequestTDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellSynchronisationAdjustmentRequestTDD-Extensions}}    OPTIONAL,
    ...
}

CellSynchronisationAdjustmentRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationAdjustmentRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CellAdjustmentInfo-SyncAdjustmntRqstTDD CRITICALITY ignore TYPE CellAdjustmentInfo-SyncAdjustmentRqstTDD PRESENCE mandatory },
    ...
}

CellAdjustmentInfo-SyncAdjustmentRqstTDD ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ CellAdjustmentInfoItemIE-SyncAdjustmntRqstTDD }}

CellAdjustmentInfoItemIE-SyncAdjustmntRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD CRITICALITY ignore TYPE CellAdjustmentInfoItem-SyncAdjustmentRqstTDD PRESENCE mandatory }
}

CellAdjustmentInfoItem-SyncAdjustmentRqstTDD ::= SEQUENCE {
    c-ID,
    frameAdjustmentValue          FrameAdjustmentValue          OPTIONAL,
    timingAdjustmentValue         TimingAdjustmentValue         OPTIONAL,
}

```



```

    dLTransPower          DL-Power          OPTIONAL, -- Applicable to 3.84Mcps TDD only
    sfn                   SFN               OPTIONAL,
    iE-Extensions         ProtocolExtensionContainer { { CellAdjustmentInfoItem-SyncAdjustmntRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

CellAdjustmentInfoItem-SyncAdjustmntRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-DwPCH-Power          CRITICALITY ignore EXTENSION DwPCH-Power          PRESENCE optional }|
  -- Applicable to 1.28Mcps TDD only
  { ID id-TimingAdjustmentValueLCR CRITICALITY ignore EXTENSION TimingAdjustmentValueLCR PRESENCE optional },
  -- Applicable to 1.28Mcps TDD only
  ...
}

-- *****
--
-- CELL SYNCHRONISATION ADJUSTMENT RESPONSE TDD
--
-- *****

CellSynchronisationAdjustmentResponseTDD ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{CellSynchronisationAdjustmentResponseTDD-IEs}},
  protocolExtensions   ProtocolExtensionContainer {{CellSynchronisationAdjustmentResponseTDD-Extensions}} OPTIONAL,
  ...
}

CellSynchronisationAdjustmentResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

CellSynchronisationAdjustmentResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },
  ...
}

-- *****
--
-- CELL SYNCHRONISATION ADJUSTMENT FAILURE TDD
--
-- *****

CellSynchronisationAdjustmentFailureTDD ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{CellSynchronisationAdjustmentFailureTDD-IEs}},
  protocolExtensions   ProtocolExtensionContainer {{CellSynchronisationAdjustmentFailureTDD-Extensions}} OPTIONAL,
  ...
}

CellSynchronisationAdjustmentFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

CellSynchronisationAdjustmentFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CauseLevel-SyncAdjustmntFailureTDD CRITICALITY ignore TYPE CauseLevel-SyncAdjustmntFailureTDD PRESENCE mandatory }|
  { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

```

```

}
...
}
CauseLevel-SyncAdjustmntFailureTDD ::= CHOICE {
    generalCause          GeneralCauseList-SyncAdjustmntFailureTDD,
    cellSpecificCause     CellSpecificCauseList-SyncAdjustmntFailureTDD,
    ...
}

GeneralCauseList-SyncAdjustmntFailureTDD ::= SEQUENCE {
    cause                  Cause,
    iE-Extensions         ProtocolExtensionContainer { { GeneralCauseList-SyncAdjustmntFailureTDD-ExtIEs } } OPTIONAL,
    ...
}

GeneralCauseList-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSpecificCauseList-SyncAdjustmntFailureTDD ::= SEQUENCE {
    unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD      Unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD,
    iE-Extensions              ProtocolExtensionContainer { { CellSpecificCauseList-SyncAdjustmntFailureTDD-ExtIEs } }
    OPTIONAL,
    ...
}

CellSpecificCauseList-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container
{{ Unsuccessful-cell-InformationRespItemIE-SyncAdjustmntFailureTDD }}

Unsuccessful-cell-InformationRespItemIE-SyncAdjustmntFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID      id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD      CRITICALITY      ignore      TYPE      Unsuccessful-
cell-InformationRespItem-SyncAdjustmntFailureTDD      PRESENCE      mandatory},
    ...
}

Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD ::= SEQUENCE {
    c-ID                  C-ID,
    cause                 Cause,
    iE-Extensions         ProtocolExtensionContainer { { Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD-
ExtIEs } } OPTIONAL,
    ...
}

Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL SYNCHRONISATION TERMINATION REQUEST TDD

```

```

--
-- *****
CellSynchronisationTerminationRequestTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CellSynchronisationTerminationRequestTDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellSynchronisationTerminationRequestTDD-Extensions}} OPTIONAL,
    ...
}

CellSynchronisationTerminationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationTerminationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-C-ID          CRITICALITY  ignore      TYPE      C-ID          PRESENCE mandatory }|
    { ID      id-CSBTransmissionID CRITICALITY  ignore      TYPE      CSBTransmissionID PRESENCE optional  }|
    { ID      id-CSBMeasurementID CRITICALITY  ignore      TYPE      CSBMeasurementID  PRESENCE optional  },
    ...
}

-- *****
--
-- CELL SYNCHRONISATION FAILURE INDICATION TDD
--
-- *****

CellSynchronisationFailureIndicationTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CellSynchronisationFailureIndicationTDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellSynchronisationFailureIndicationTDD-Extensions}} OPTIONAL,
    ...
}

CellSynchronisationFailureIndicationTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSynchronisationFailureIndicationTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-C-ID          CRITICALITY  ignore      TYPE      C-ID          PRESENCE mandatory }|
    { ID      id-CSBTransmissionID CRITICALITY  ignore      TYPE      CSBTransmissionID PRESENCE optional  }|
    { ID      id-CSBMeasurementID CRITICALITY  ignore      TYPE      CSBMeasurementID  PRESENCE optional  }|
    { ID      id-Cause          CRITICALITY  ignore      TYPE      Cause          PRESENCE mandatory },
    ...
}

-- *****
--
-- CELL SYNCHRONISATION REPORT TDD
--
-- *****

CellSynchronisationReportTDD ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CellSynchronisationReportTDD-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{CellSynchronisationReportTDD-Extensions}} OPTIONAL,
    ...
}

```

```

}
CellSynchronisationReportTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
CellSynchronisationReportTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CellSyncInfo-CellSyncReprtTDD      CRITICALITY ignore      TYPE CellSyncInfo-CellSyncReprtTDD      PRESENCE mandatory },
  ...
}
CellSyncInfo-CellSyncReprtTDD ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF CellSyncInfoItemIE-CellSyncReprtTDD
CellSyncInfoItemIE-CellSyncReprtTDD ::= SEQUENCE {
  c-ID-CellSyncReprtTDD      C-ID-IE-CellSyncReprtTDD,
  syncReportType-CellSyncReprtTDD      SyncReportTypeIE-CellSyncReprtTDD      OPTIONAL,
  ...
}
C-ID-IE-CellSyncReprtTDD ::= ProtocolIE-Single-Container {{ C-ID-IEs-CellSyncReprtTDD }}
C-ID-IEs-CellSyncReprtTDD NBAP-PROTOCOL-IES ::= {
  { ID id-C-ID      CRITICALITY ignore      TYPE C-ID      PRESENCE mandatory }
}
SyncReportTypeIE-CellSyncReprtTDD ::= ProtocolIE-Single-Container {{ SyncReportTypeIEs-CellSyncReprtTDD }}
SyncReportTypeIEs-CellSyncReprtTDD NBAP-PROTOCOL-IES ::= {
  { ID      id-SyncReportType-CellSyncReprtTDD      CRITICALITY ignore      TYPE SyncReportType-CellSyncReprtTDD      PRESENCE mandatory}
}
SyncReportType-CellSyncReprtTDD ::= CHOICE {
  intStdPhSyncInfo-CellSyncReprtTDD      IntStdPhCellSyncInfo-CellSyncReprtTDD,
  lateEntrantCell      NULL,
  frequencyAcquisition      NULL,
  ...
}
IntStdPhCellSyncInfo-CellSyncReprtTDD ::= SEQUENCE {
  cellSyncBurstMeasuredInfo      CellSyncBurstMeasInfoList-CellSyncReprtTDD,
  iE-Extensions      ProtocolExtensionContainer { { IntStdPhCellSyncInfoList-CellSyncReprtTDD-ExtIEs} }      OPTIONAL,
  ...
}
IntStdPhCellSyncInfoList-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-AccumulatedClockupdate-CellSyncReprtTDD      CRITICALITY ignore      EXTENSION      TimingAdjustmentValue      PRESENCE optional }|
  { ID id-SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD      CRITICALITY ignore      EXTENSION      SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD      PRESENCE optional
}, -- Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.
  ...
}
CellSyncBurstMeasInfoList-CellSyncReprtTDD ::= SEQUENCE (SIZE (0.. maxNrOfCellSyncBursts)) OF CellSyncBurstMeasInfoItem-CellSyncReprtTDD --
Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.

```

```

CellSyncBurstMeasInfoItem-CellSyncReprtTDD ::= SEQUENCE {
    sFN                               SFN,
    cellSyncBurstInfo-CellSyncReprtTDD SEQUENCE (SIZE (1..maxNrOfReceptsPerSyncFrame)) OF CellSyncBurstInfo-CellSyncReprtTDD,
    iE-Extensions                     ProtocolExtensionContainer { { CellSyncBurstMeasInfoItem-CellSyncReprtTDD-ExtIEs} } OPTIONAL,
    ...
}

CellSyncBurstMeasInfoItem-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CellSyncBurstInfo-CellSyncReprtTDD ::= CHOICE {
    cellSyncBurstAvailable      CellSyncBurstAvailable-CellSyncReprtTDD,
    cellSyncBurstNotAvailable   NULL,
    ...
}

CellSyncBurstAvailable-CellSyncReprtTDD ::= SEQUENCE {
    cellSyncBurstTiming        CellSyncBurstTiming,
    cellSyncBurstSIR           CellSyncBurstSIR,
    iE-Extensions              ProtocolExtensionContainer { { CellSyncBurstAvailable-CellSyncReprtTDD-ExtIEs} } OPTIONAL,
    ...
}

CellSyncBurstAvailable-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD ::= SEQUENCE (SIZE (0..maxNrOfSyncFramesLCR)) OF SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD
-- Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.

SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD ::= SEQUENCE {
    sFN                               SFN,
    syncDLCodeIdInfo-CellSyncReprtTDD SyncDLCodeIdInfo-CellSyncReprtTDD,
    iE-Extensions                     ProtocolExtensionContainer { { SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD-ExtIEs } } OPTIONAL,
    ...
}

SyncDLCodeIdsMeasInfoItem-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeIdInfo-CellSyncReprtTDD ::= SEQUENCE (SIZE (1..maxNrOfReceptionsperSyncFrameLCR)) OF SyncDLCodeIdItem-CellSyncReprtTDD

SyncDLCodeIdItem-CellSyncReprtTDD ::= CHOICE {
    syncDLCodeIdAvailable      SyncDLCodeIdAvailable-CellSyncReprtTDD,
    syncDLCodeIDNotAvailable   NULL,
    ...
}

SyncDLCodeIdAvailable-CellSyncReprtTDD ::= SEQUENCE {
    syncDLCodeIdTiming        CellSyncBurstTimingLCR,
    syncDLCodeIdSIR           CellSyncBurstSIR,

```

```

    iE-Extensions          ProtocolExtensionContainer { { SyncDLCodeIdAvailable-CellSyncReprtTDD-ExtIEs } }    OPTIONAL,
  }
}

SyncDLCodeIdAvailable-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- BEARER REARRANGEMENT INDICATION
--
-- *****

BearerRearrangementIndication ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{BearerRearrangementIndication-IEs}},
  protocolExtensions   ProtocolExtensionContainer {{BearerRearrangementIndication-Extensions}}    OPTIONAL,
  ...
}

BearerRearrangementIndication-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID          CRITICALITY ignore TYPE CRNC-CommunicationContextID          PRESENCE mandatory } |
  { ID id-SignallingBearerRequestIndicator      CRITICALITY ignore TYPE SignallingBearerRequestIndicator      PRESENCE optional } |
  { ID id-DCH-RearrangeList-Bearer-RearrangeInd CRITICALITY ignore TYPE DCH-RearrangeList-Bearer-RearrangeInd  PRESENCE optional } |
  { ID id-DSCH-RearrangeList-Bearer-RearrangeInd CRITICALITY ignore TYPE DSCH-RearrangeList-Bearer-RearrangeInd  PRESENCE optional } |
  -- TDD only.
  { ID id-USCH-RearrangeList-Bearer-RearrangeInd CRITICALITY ignore TYPE USCH-RearrangeList-Bearer-RearrangeInd  PRESENCE optional } |
  -- TDD only.
  { ID id-HSDSCH-RearrangeList-Bearer-RearrangeInd CRITICALITY ignore TYPE HSDSCH-RearrangeList-Bearer-RearrangeInd  PRESENCE optional },
  ...
}

BearerRearrangementIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-RearrangeList-Bearer-RearrangeInd CRITICALITY ignore EXTENSION E-DCH-RearrangeList-Bearer-RearrangeInd PRESENCE optional },
  ...
}

DCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-RearrangeItem-Bearer-RearrangeInd

DCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
  dCH-ID          DCH-ID,
  iE-Extensions   ProtocolExtensionContainer { { DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs } }    OPTIONAL,
  ...
}

DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DSCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-RearrangeItem-Bearer-RearrangeInd

DSCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
  dSCH-ID          DSCH-ID,
  iE-Extensions   ProtocolExtensionContainer { { DSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs } }    OPTIONAL,

```

```

    ...
}
DSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
USCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-RearrangeItem-Bearer-RearrangeInd
USCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    uSCH-ID                USCH-ID,
    iE-Extensions          ProtocolExtensionContainer { { USCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs } }    OPTIONAL,
    ...
}
USCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
HSDSCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-RearrangeItem-Bearer-RearrangeInd
HSDSCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    hsDSCH-MACdFlow-ID    HSDSCH-MACdFlow-ID,
    iE-Extensions          ProtocolExtensionContainer { { HSDSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs } }    OPTIONAL,
    ...
}
HSDSCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
E-DCH-RearrangeList-Bearer-RearrangeInd ::= SEQUENCE (SIZE (1.. maxNrOfEDCHMACdFlows)) OF E-DCH-RearrangeItem-Bearer-RearrangeInd
E-DCH-RearrangeItem-Bearer-RearrangeInd ::= SEQUENCE {
    e-DCH-MACdFlow-ID     E-DCH-MACdFlow-ID,
    iE-Extensions          ProtocolExtensionContainer { { E-DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs } }    OPTIONAL,
    ...
}
E-DCH-RearrangeItem-Bearer-RearrangeInd-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
-- *****
--
-- RADIO LINK ACTIVATION COMMAND FDD
--
-- *****

RadioLinkActivationCommandFDD ::= SEQUENCE {
    protocolIEs            ProtocolIE-Container    {{RadioLinkActivationCommandFDD-IEs}},
    protocolExtensions     ProtocolExtensionContainer {{RadioLinkActivationCommandFDD-Extensions}}    OPTIONAL,
    ...
}

```

```

RadioLinkActivationCommandFDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-NodeB-CommunicationContextID          CRITICALITY ignore TYPE NodeB-CommunicationContextID
  PRESENCE mandatory }|
  { ID id-DelayedActivationList-RL-ActivationCmdFDD CRITICALITY ignore TYPE DelayedActivationInformationList-RL-ActivationCmdFDD
  PRESENCE mandatory },
  ...
}

RadioLinkActivationCommandFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DelayedActivationInformationList-RL-ActivationCmdFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
  { DelayedActivationInformation-RL-ActivationCmdFDD-IEs } }

DelayedActivationInformation-RL-ActivationCmdFDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-DelayedActivationInformation-RL-ActivationCmdFDD CRITICALITY ignore TYPE DelayedActivationInformation-RL-ActivationCmdFDD PRESENCE
  optional }
}

DelayedActivationInformation-RL-ActivationCmdFDD ::= SEQUENCE {
  rL-ID RL-ID,
  delayed-activation-update DelayedActivationUpdate,
  iE-Extensions ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs } } OPTIONAL,
  ...
}

DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- RADIO LINK ACTIVATION COMMAND TDD
--
-- *****

RadioLinkActivationCommandTDD ::= SEQUENCE {
  protocolIEs ProtocolIE-Container {{RadioLinkActivationCommandTDD-IEs}},
  protocolExtensions ProtocolExtensionContainer {{RadioLinkActivationCommandTDD-Extensions}} OPTIONAL,
  ...
}

RadioLinkActivationCommandTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-NodeB-CommunicationContextID          CRITICALITY ignore TYPE NodeB-CommunicationContextID
  PRESENCE mandatory }|
  { ID id-DelayedActivationList-RL-ActivationCmdTDD CRITICALITY ignore TYPE DelayedActivationInformationList-RL-ActivationCmdTDD
  PRESENCE mandatory },
  ...
}

RadioLinkActivationCommandTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```



```

}

DelayedActivationInformationList-RL-ActivationCmdTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
  { DelayedActivationInformation-RL-ActivationCmdTDD-IEs } }

DelayedActivationInformation-RL-ActivationCmdTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-DelayedActivationInformation-RL-ActivationCmdTDD    CRITICALITY ignore  TYPE DelayedActivationInformation-RL-ActivationCmdTDD  PRESENCE
optional    }
}

DelayedActivationInformation-RL-ActivationCmdTDD ::= SEQUENCE {
  rL-ID                RL-ID,
  delayed-activation-update  DelayedActivationUpdate,
  iE-Extensions        ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs } } OPTIONAL,
  ...
}

DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- RADIO LINK PARAMETER UPDATE INDICATION FDD
--
-- *****

RadioLinkParameterUpdateIndicationFDD ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{RadioLinkParameterUpdateIndicationFDD-IEs}},
  protocolExtensions   ProtocolExtensionContainer {{RadioLinkParameterUpdateIndicationFDD-Extensions}}    OPTIONAL,
  ...
}

RadioLinkParameterUpdateIndicationFDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID    CRITICALITY ignore    TYPE    CRNC-CommunicationContextID    PRESENCE mandatory } |
  { ID id-HSDSCH-FDD-Update-Information    CRITICALITY ignore    TYPE    HSDSCH-FDD-Update-Information    PRESENCE optional },
  ...
}

RadioLinkParameterUpdateIndicationFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-FDD-Update-Information    CRITICALITY ignore    EXTENSION    E-DCH-FDD-Update-Information    PRESENCE optional },
  ...
}

-- *****
--
-- RADIO LINK PARAMETER UPDATE INDICATION TDD
--
-- *****

RadioLinkParameterUpdateIndicationTDD ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{RadioLinkParameterUpdateIndicationTDD-IEs}},
  protocolExtensions   ProtocolExtensionContainer {{RadioLinkParameterUpdateIndicationTDD-Extensions}}    OPTIONAL,
  ...
}

```

```

}

RadioLinkParameterUpdateIndicationTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID          CRITICALITY ignore   TYPE CRNC-CommunicationContextID          PRESENCE mandatory } |
  { ID id-HSDSCH-TDD-Update-Information        CRITICALITY ignore   TYPE HSDSCH-TDD-Update-Information        PRESENCE optional },
  ...
}

RadioLinkParameterUpdateIndicationTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- MBMS NOTIFICATION UPDATE COMMAND
--
-- *****

MBMSNotificationUpdateCommand ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container   {{ MBMSNotificationUpdateCommand-IEs}},
  protocolExtensions   ProtocolExtensionContainer {{ MBMSNotificationUpdateCommand-Extensions}}
  ...
}

MBMSNotificationUpdateCommand-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-C-ID          CRITICALITY ignore   TYPE C-ID          PRESENCE mandatory } |
  { ID id-CommonPhysicalChannelID CRITICALITY ignore   TYPE CommonPhysicalChannelID PRESENCE mandatory } |
  { ID id-Modification-Period CRITICALITY ignore   TYPE Modification-Period PRESENCE optional } |
  { ID id-MICH-CFN      CRITICALITY ignore   TYPE MICH-CFN      PRESENCE mandatory } |
  { ID id-NI-Information-NotifUpdateCmd CRITICALITY ignore   TYPE NI-Information PRESENCE mandatory },
  ...
}

MBMSNotificationUpdateCommand-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

END

```

9.3.4 Information Elements Definitions

```

--*****
--
-- Information Element Definitions
--
--*****

NBAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=
BEGIN

```

IMPORTS

maxNrOfRLs,
maxNrOfTFCs,
maxNrOfErrors,
maxCTFC,
maxNrOfTFs,
maxTTI-count,
maxRateMatching,
maxHS-PDSCHCodeNrComp-1,
maxHS-SCCHCodeNrComp-1,
maxNrOfCellSyncBursts,
maxNrOfCombEDPDCH,
maxNrOfEDCH-HARQ-PO-QUANTSTEPS,
maxNrOfEDCHHARQProcesses2msEDCH,
maxNrOfBits-MACe-PDU-non-scheduled,
maxNrOfEDPCCH-PO-QUANTSTEPS,
maxNrOfRefETFCCI-PO-QUANTSTEPS,
maxNrOfRefETFCCIs,
maxNrOfMeasNCell,
maxNrOfMeasNCell-1,
maxNrOfReceptsPerSyncFrame,
maxNrOfSF,
maxTGPS,
maxNrOfUSCHs,
maxNrOfULTSs,
maxNrOfULTSLCRs,
maxNrOfDPCHs,
maxNrOfDPCHLCRs,
maxNrOfDPCHs768,
maxNrOfCodes,
maxNrOfDSCHs,
maxNrOfDLTSs,
maxNrOfDLTSLCRs,
maxNrOfDCHs,
maxNrOfLevels,
maxNoGPSItems,
maxNoSat,
maxNrOfCellPortionsPerCell,
maxNrOfCellPortionsPerCell-1,
maxNrOfHSSCCHs,
maxNrOfHSSCCHCodes,
maxNrOfMACdFlows,
maxNrOfMACdFlows-1,
maxNrOfMACdPDUIndexes,
maxNrOfMACdPDUIndexes-1,
maxNrOfMACdPDUSize,
maxNrOfNIs,
maxNrOfPriorityQueues,
maxNrOfPriorityQueues-1,
maxNrOfHARQProcesses,
maxNrOfSyncDLCodesLCR,
maxNrOfSyncFramesLCR,
maxNrOfContextsOnUeList,

maxNrOfPriorityClasses,
maxNrOfSatAlmanac-maxNoSat,
maxNrOfE-AGCHs,
maxNrOfEDCHMACdFlows,
maxNrOfEDCHMACdFlows-1,
maxNrOfE-RGCHs-E-HICHs,
maxNrOfSigSeqRGHI-1,
maxNoOfLogicalChannels,
maxNrOfEAGCHs,
maxNrOfRefBetas,
maxNrOfEAGCHCodes,
maxNrOfHS-DSCH-TBSs,
maxNrOfHS-DSCH-TBSs-HS-SCCHless,
maxNrOfEHICHCodes,
maxNrOfCommonMACFlows,
maxNrOfCommonMACFlows-1,
maxNrOfPagingMACFlow,
maxNrOfPagingMACFlow-1,
maxNrOfcommonMACQueues,
maxNrOfpagingMACQueues,
maxNrOfHS-DSCHTBSsE-PCH,
maxGANSSSat,
maxNoGANSs,
maxSgnType,
maxHSDPAFrequency,
maxHSDPAFrequency-1,
maxGANSSSatAlmanac,
maxGANSsClockMod,
maxFrequencyinCell-1,

maxNrOfEDCHRLs,
maxMBMSServiceSelect,

id-BroadcastCommonTransportBearerIndication,
id-MessageStructure,
id-ReportCharacteristicsType-OnModification,
id-Rx-Timing-Deviation-Value-LCR,
id-SFNsFNMeasurementValueInformation,
id-SFNsFNMeasurementThresholdInformation,
id-TUTRANGPSMeasurementValueInformation,
id-TUTRANGPSMeasurementThresholdInformation,
id-TypeOfError,
id-transportlayeraddress,
id-bindingID,
id-Angle-Of-Arrival-Value-LCR,
id-SyncDLCodeIdThreInfoLCR,
id-neighbouringTDDCellMeasurementInformationLCR,
id-HS-SICH-Reception-Quality,
id-HS-SICH-Reception-Quality-Measurement-Value,
id-Initial-DL-Power-TimeslotLCR-InformationItem,
id-Maximum-DL-Power-TimeslotLCR-InformationItem,
id-Minimum-DL-Power-TimeslotLCR-InformationItem,
id-Received-total-wide-band-power-For-CellPortion,

id-Received-total-wide-band-power-For-CellPortion-Value,
id-Transmitted-Carrier-Power-For-CellPortion,
id-Transmitted-Carrier-Power-For-CellPortion-Value,
id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission,
id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion,
id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue,
id-HS-DSCHRequiredPowerValueInformation,
id-HS-DSCHProvidedBitRateValueInformation,
id-HS-DSCHRequiredPowerValue,
id-HS-DSCHRequiredPowerValue-For-Cell-Portion,
id-HS-DSCHRequiredPowerValueInformation-For-CellPortion,
id-HS-DSCHProvidedBitRateValueInformation-For-CellPortion,
id-HSDSCH-MACdPDUSizeFormat,
id-HS-PDSCH-Code-Change-Grant,
id-HS-PDSCH-Code-Change-Indicator,
id-Best-Cell-Portions-Value,
id-Unidirectional-DCH-Indicator,
id-SAT-Info-Almanac-ExtItem,
id-TnlQos,
id-UpPTSInterferenceValue,
id-HARQ-Preamble-Mode,
id-HARQ-Preamble-Mode-Activation-Indicator,
id-DLTransmissionBranchLoadValue,
id-E-DCHProvidedBitRateValueInformation,
id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue,
id-HSSICH-SIRTarget,
id-PLCCH-Information-UL-TimeslotLCR-Info,
id-neighbouringTDDCellMeasurementInformation768,
id-Rx-Timing-Deviation-Value-768,
id-hsSCCH-Specific-Information-ResponseTDD768,
id-Rx-Timing-Deviation-Value-384-ext,
id-E-DCH-PowerOffset-for-SchedulingInfo,
id-Extended-Round-Trip-Time-Value,
id-ExtendedPropagationDelay,
id-HSSICH-TPC-StepSize,
id-RTWP-CellPortion-ReportingIndicator,
id-Received-Scheduled-EDCH-Power-Share-Value,
id-Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value,
id-Received-Scheduled-EDCH-Power-Share,
id-Received-Scheduled-EDCH-Power-Share-For-CellPortion,
id-ueCapability-Info,
id-ContinuousPacketConnectivityHS-SCCH-less-Information,
id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response,
id-MIMO-ActivationIndicator,
id-MIMO-Mode-Indicator,
id-MIMO-N-M-Ratio,
id-Additional-failed-HS-SICH,
id-Additional-missed-HS-SICH,
id-Additional-total-HS-SICH,
id-Additional-HS-SICH-Reception-Quality-Measurement-Value,
id-LCRTDD-uplink-Physical-Channel-Capability,
id-SixteenQAM-UL-Operation-Indicator,
id-E-AGCH-Table-Choice,
id-E-TFCI-Boost-Information,
id-E-DPDCH-PowerInterpolation,

```

id-MaximumMACdPDU-SizeExtended,
id-GANSS-Common-Data,
id-GANSS-Information,
id-GANSS-Generic-Data,
id-TUTRANGANSSMeasurementThresholdInformation,
id-TUTRANGANSSMeasurementValueInformation,
id-Extended-RNC-ID,
id-HARQ-MemoryPartitioningInfoExtForMIMO,
id-Ext-Reference-E-TFCI-PO,
id-Ext-Max-Bits-MACe-PDU-non-scheduled,
id-TransportBearerNotSetupIndicator,
id-TransportBearerNotRequestedIndicator,
id-UARFCNforNt,
id-number-Of-Supported-Carriers,
id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLCR,
id-tSN-Length,
id-multicarrier-number,
id-Extended-HS-SICH-ID,
id-Default-Serving-Grant-in-DTX-Cycle2,
id-SixtyfourQAM-UsageAllowedIndicator,
id-SixtyfourQAM-DL-UsageIndicator,
id-IPMulticastDataBearerIndication,
id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory,
id-ContinuousPacketConnectivityHS-SCCH-less-Deactivate-Indicator,
id-Extended-E-HICH-ID-TDD,
id-MaximumNumber-Of-Retransmission-for-Scheduling-Info-LCRTDD,
id-E-DCH-RetransmissionTimer-for-SchedulingInfo-LCRTDD,
id-E-PUCH-PowerControlGAP,
id-HSDSCH-TBSizeTableIndicator,
id-E-DCH-DL-Control-Channel-Change-Information,
id-E-DCH-DL-Control-Channel-Grant-Information,
id-DGANSS-Corrections-Req,
id-TransportBearerRequestIndicator,
id-MACes-Maximum-Bitrate-LCR,
id-MultiCarrier-HSDSCH-Physical-Layer-Category

```

FROM NBAP-Constants

```

Criticality,
ProcedureID,
ProtocolIE-ID,
TransactionID,
TriggeringMessage

```

FROM NBAP-CommonDataTypes

```

NBAP-PROTOCOL-IES,
ProtocolExtensionContainer{},
ProtocolIE-Single-Container{},
NBAP-PROTOCOL-EXTENSION

```

FROM NBAP-Containers;

```

-- =====
-- A

```

```

-- =====
AckNack-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1

Ack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [9] subclause 4.2.1

Acknowledged-PRACH-preambles-Value ::= INTEGER(0..240,...)
-- According to mapping in [22].

AdditionalMeasurementValueList ::= SEQUENCE (SIZE (1..maxFrequencyinCell-1)) OF AdditionalMeasurementValue

AdditionalMeasurementValue ::= SEQUENCE {
    uARFCN                UARFCN,
    timeSlotMeasurementValueListLCR    TimeSlotMeasurementValueListLCR,
    iE-Extensions        ProtocolExtensionContainer { {AdditionalMeasurementValueList-ExtIEs} } OPTIONAL,
    ...
}

AdditionalMeasurementValueList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AdditionalTimeSlotListLCR ::= SEQUENCE (SIZE (0..maxFrequencyinCell-1)) OF AdditionalTimeSlotLCR

AdditionalTimeSlotLCR ::= SEQUENCE {
    uARFCN                UARFCN,
    timeslot-InitiatedListLCR    TimeSlot-InitiatedListLCR    OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { {AdditionalTimeSlotLCR-ExtIEs} } OPTIONAL,
    ...
}

AdditionalTimeSlotLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AddorDeleteIndicator ::= ENUMERATED {
    add,
    delete
}

Active-Pattern-Sequence-Information ::= SEQUENCE {
    cmConfigurationChangeCFN                CFN,
    transmission-Gap-Pattern-Sequence-Status    Transmission-Gap-Pattern-Sequence-Status-List    OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    ...
}

Active-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
  SEQUENCE {
    tGPSID          TGPSID,
    tGPRC           TGPRC,
    tGCFN           CFN,
    iE-Extensions  ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
    ...
  }

Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

AICH-Power ::= INTEGER(-22..5)
-- Offset in dB.

AICH-TransmissionTiming ::= ENUMERATED {
  v0,
  v1
}

AllocationRetentionPriority ::= SEQUENCE {
  priorityLevel      PriorityLevel,
  pre-emptionCapability  Pre-emptionCapability,
  pre-emptionVulnerability  Pre-emptionVulnerability,
  iE-Extensions     ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
  ...
}

AllocationRetentionPriority-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

AlternativeFormatReportingIndicator ::= ENUMERATED {
  alternativeFormatAllowed,...
}

Angle-Of-Arrival-Value-LCR ::= SEQUENCE {
  aOA-LCR           AOA-LCR,
  aOA-LCR-Accuracy-Class  AOA-LCR-Accuracy-Class,
  iE-Extensions     ProtocolExtensionContainer { {Angle-Of-Arrival-Value-LCR-ExtIEs} } OPTIONAL,
  ...
}

Angle-Of-Arrival-Value-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```



```

AOA-LCR ::= INTEGER (0..719)
-- Angle Of Arrival for 1.28Mcps TDD

AOA-LCR-Accuracy-Class ::= ENUMERATED {a,b,c,d,e,f,g,h,...}

AvailabilityStatus ::= ENUMERATED {
    empty,
    in-test,
    failed,
    power-off,
    off-line,
    off-duty,
    dependency,
    degraded,
    not-installed,
    log-full,
    ...
}

-- =====
-- B
-- =====

BCCH-Specific-HSDSCH-RNTI-Information ::= SEQUENCE {
    bCCH-Specific-HSDSCH-RNTI          HSDSCH-RNTI,
    hSSCCH-Power                       DL-Power,
    hSPDSCH-Power                      DL-Power,
    iE-Extensions                      ProtocolExtensionContainer { { BCCH-Specific-HSDSCH-RNTI-Information-ExtIEs } } OPTIONAL,
    ...
}

BCCH-Specific-HSDSCH-RNTI-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BCCH-ModificationTime ::= INTEGER (0..511)
-- Time = BCCH-ModificationTime * 8
-- Range 0 to 4088, step 8
-- All SFN values in which MIB may be mapped are allowed

Best-Cell-Portions-Value ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Best-Cell-Portions-Item

Best-Cell-Portions-Item ::= SEQUENCE {
    cellPortionID          CellPortionID,
    sIRValue              SIR-Value,
    iE-Extensions         ProtocolExtensionContainer { { Best-Cell-Portions-Item-ExtIEs } } OPTIONAL,
    ...
}

Best-Cell-Portions-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

BindingID ::= OCTET STRING (SIZE (1..4, ...))
-- If the Binding ID includes a UDP port, the UDP port is included in octet 1 and 2. The first octet of
-- the UDP port field is included in the first octet of the Binding ID.

BetaCD ::= INTEGER (0..15)

BlockingPriorityIndicator ::= ENUMERATED {
    high,
    normal,
    low,
    ...
}
-- High priority: Block resource immediately.
-- Normal priority: Block resource when idle or upon timer expiry.
-- Low priority: Block resource when idle.

SCTD-Indicator ::= ENUMERATED {
    active,
    inactive
}

BundlingModeIndicator ::= ENUMERATED {
    bundling,
    no-bundling
}

BroadcastCommonTransportBearerIndication ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    cid                          C-ID,
    iE-Extensions                 ProtocolExtensionContainer { { BroadcastCommonTransportBearerIndication-ExtIEs } } OPTIONAL,
    ...
}

BroadcastCommonTransportBearerIndication-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BroadcastReference ::= BIT STRING (SIZE (24))

-- =====
-- C
-- =====

Cause ::= CHOICE {
    radioNetwork      CauseRadioNetwork,
    transport         CauseTransport,
    protocol          CauseProtocol,
    misc              CauseMisc,
    ...
}

CauseMisc ::= ENUMERATED {
    control-processing-overload,

```

```
hardware-failure,  
oam-intervention,  
not-enough-user-plane-processing-resources,  
unspecified,  
...  
}  
  
CauseProtocol ::= ENUMERATED {  
transfer-syntax-error,  
abstract-syntax-error-reject,  
abstract-syntax-error-ignore-and-notify,  
message-not-compatible-with-receiver-state,  
semantic-error,  
unspecified,  
abstract-syntax-error-falsely-constructed-message,  
...  
}  
  
CauseRadioNetwork ::= ENUMERATED {  
unknown-C-ID,  
cell-not-available,  
power-level-not-supported,  
dl-radio-resources-not-available,  
ul-radio-resources-not-available,  
rl-already-ActivatedOrAllocated,  
nodeB-Resources-unavailable,  
measurement-not-supported-for-the-object,  
combining-resources-not-available,  
requested-configuration-not-supported,  
synchronisation-failure,  
priority-transport-channel-established,  
sIB-Origination-in-Node-B-not-Supported,  
requested-tx-diversity-mode-not-supported,  
unspecified,  
bCCH-scheduling-error,  
measurement-temporarily-not-available,  
invalid-CM-settings,  
reconfiguration-CFN-not-elapsed,  
number-of-DL-codes-not-supported,  
s-cpich-not-supported,  
combining-not-supported,  
ul-sf-not-supported,  
dl-SF-not-supported,  
common-transport-channel-type-not-supported,  
dedicated-transport-channel-type-not-supported,  
downlink-shared-channel-type-not-supported,  
uplink-shared-channel-type-not-supported,  
cm-not-supported,  
tx-diversity-no-longer-supported,  
unknown-Local-Cell-ID,  
...,  
number-of-UL-codes-not-supported,  
information-temporarily-not-available,  
information-provision-not-supported-for-the-object,
```

```

cell-synchronisation-not-supported,
cell-synchronisation-adjustment-not-supported,
dpc-mode-change-not-supported,
iPDL-already-activated,
iPDL-not-supported,
iPDL-parameters-not-available,
frequency-acquisition-not-supported,
power-balancing-status-not-compatible,
requested-typeofbearer-re-arrangement-not-supported,
signalling-Bearer-Re-arrangement-not-supported,
bearer-Re-arrangement-needed,
delayed-activation-not-supported,
rl-timing-adjustment-not-supported,
mich-not-supported,
f-DPCH-not-supported,
modification-period-not-available,
pLCCCH-not-supported,
continuous-packet-connectivity-DTX-DRX-operation-not-available,
continuous-packet-connectivity-UE-DTX-Cycle-not-available,
mIMO-not-available,
dummy-e-DCH-MACdPDU-SizeFormat-not-available,
dummy-multi-Cell-operation-not-available,
dummy-semi-Persistent-scheduling-not-supported,
dummy-continuous-Packet-Connectivity-DRX-not-supported,
dummy-continuous-Packet-Connectivity-DRX-not-available,
dummy-sixtyfourQAM-DL-and-MIMO-Combined-not-available,
s-cpich-power-offset-not-available,
tx-diversity-for-mimo-on-DL-control-channels-not-available
}

CauseTransport ::= ENUMERATED {
    transport-resource-unavailable,
    unspecified,
    ...
}

CCTrCH-ID ::= INTEGER (0..15)

CellParameterID ::= INTEGER (0..127,...)

CellPortionID ::= INTEGER (0..maxNrOfCellPortionsPerCell-1,...)

CellSyncBurstCode ::= INTEGER(0..7, ...)

CellSyncBurstCodeShift ::= INTEGER(0..7)

CellSyncBurstRepetitionPeriod ::= INTEGER (0..4095)

CellSyncBurstSIR ::= INTEGER (0..31)

CellSyncBurstTiming ::= CHOICE {
    initialPhase          INTEGER (0..1048575,...),
    steadyStatePhase      INTEGER (0..255,...)
}

```

```

}

CellSyncBurstTimingLCR ::= CHOICE {
    initialPhase      INTEGER (0..524287,...),
    steadyStatePhase  INTEGER (0..127,...)
}

CellSyncBurstTimingThreshold ::= INTEGER(0..254)

CFN ::= INTEGER (0..255)

ChipOffset ::= INTEGER (0..38399)
-- Unit Chip

C-ID ::= INTEGER (0..65535)

Closedlooptimingadjustmentmode ::= ENUMERATED {
    adj-1-slot,
    adj-2-slot,
    ...
}

CodeRate ::= INTEGER (0..63)

CodeRate-short ::= INTEGER (0..10)

CommonChannelsCapacityConsumptionLaw ::= SEQUENCE (SIZE(1..maxNrOfSF)) OF
    SEQUENCE {
        dl-Cost      INTEGER (0..65535),
        ul-Cost      INTEGER (0..65535),
        iE-Extensions ProtocolExtensionContainer { { CommonChannelsCapacityConsumptionLaw-ExtIEs } } OPTIONAL,
        ...
    }

CommonChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Common-MACFlows-to-DeleteFDD ::= SEQUENCE (SIZE (1.. maxNrOfCommonMACFlows)) OF Common-MACFlows-to-DeleteFDD-Item

Common-MACFlows-to-DeleteFDD-Item ::= SEQUENCE {
    common-MACFlow-ID          Common-MACFlow-ID,
    iE-Extensions              ProtocolExtensionContainer { { Common-MACFlows-to-DeleteFDD-Item-ExtIEs } }
    OPTIONAL,
    ...
}

Common-MACFlows-to-DeleteFDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Common-MACFlow-ID ::= INTEGER (0..maxNrOfCommonMACFlows-1)

```

```

CommonMACFlow-Specific-InfoList ::= SEQUENCE (SIZE (1.. maxNrOfCommonMACFlows)) OF CommonMACFlow-Specific-InfoItem

CommonMACFlow-Specific-InfoItem ::= SEQUENCE {
    common-MACFlow-Id          Common-MACFlow-ID,
    bindingID                  BindingID                               OPTIONAL,
    transportLayerAddress      TransportLayerAddress                 OPTIONAL,
    tnl-qos                    TnlQos                                OPTIONAL,
    common-MACFlow-PriorityQueue-Information Common-MACFlow-PriorityQueue-Information OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { CommonMACFlow-Specific-InfoItem-ExtIEs } } OPTIONAL,
    ...
}

CommonMACFlow-Specific-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerRequestIndicator CRITICALITY ignore EXTENSION TransportBearerRequestIndicator PRESENCE optional},
    -- This IE should not be contained if the MAC flow is setup in procedure, and it should be contained if the MAC flow is modified in procedure.
    ...
}

CommonMACFlow-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfCommonMACFlows)) OF CommonMACFlow-Specific-InfoItem-Response

CommonMACFlow-Specific-InfoItem-Response ::= SEQUENCE {
    commonMACFlow-ID          Common-MACFlow-ID,
    bindingID                  BindingID                               OPTIONAL,
    transportLayerAddress      TransportLayerAddress                 OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation HSDSCH-Initial-Capacity-Allocation OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { CommonMACFlow-Specific-InfoItem-Response-ExtIEs} }
    OPTIONAL,
    ...
}

CommonMACFlow-Specific-InfoItem-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Common-MACFlow-PriorityQueue-Information ::= SEQUENCE (SIZE (1..maxNrOfcommonMACQueues)) OF Common-MACFlow-PriorityQueue-Item

Common-MACFlow-PriorityQueue-Item ::= SEQUENCE {
    priority-Queue-Information-for-Enhanced-FACH Priority-Queue-Information-for-Enhanced-FACH-PCH,
    iE-Extensions              ProtocolExtensionContainer { { Common-MACFlow-PriorityQueue-Item-ExtIEs } } OPTIONAL,
    ...
}

Common-MACFlow-PriorityQueue-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass TUTRANGPSAccuracyClass,
    ...,
    tUTRANGANSSMeasurementAccuracyClass TUTRANGANSSAccuracyClass
}

```

```

}

CommonMeasurementType ::= ENUMERATED {
    received-total-wide-band-power,
    transmitted-carrier-power,
    acknowledged-prach-preambles,
    ul-timeslot-iscp,
    notUsed-1-acknowledged-PCPCH-access-preambles,
    notUsed-2-detected-PCPCH-access-preambles,
    ...,
    uTRAN-GPS-Timing-of-Cell-Frames-for-UE-Positioning,
    sFN-SFN-Observed-Time-Difference,
    transmittedCarrierPowerOfAllCodesNotUsedForHSTransmission,
    hS-DSCH-Required-Power,
    hS-DSCH-Provided-Bit-Rate,
    received-total-wide-band-power-for-cellPortion,
    transmitted-carrier-power-for-cellPortion,
    transmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmission-for-cellPortion,
    upPTS-Interference,
    dLTransmissionBranchLoad,
    hS-DSCH-Required-Power-for-cell-portion,
    hS-DSCH-Provided-Bit-Rate-for-cell-portion,
    e-DCH-Provided-Bit-Rate,
    e-DCH-Non-serving-Relative-Grant-Down-Commands,
    received-Scheduled-EDCH-Power-Share,
    received-Scheduled-EDCH-Power-Share-for-cellPortion,
    uTRAN-GANSS-timing-of-cell-frames-for-UE-Positioning
}

CommonMeasurementValue ::= CHOICE {
    transmitted-carrier-power                Transmitted-Carrier-Power-Value,
    received-total-wide-band-power          Received-total-wide-band-power-Value,
    acknowledged-prach-preambles           Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                         UL-TimeslotISCP-Value,
    notUsed-1-acknowledged-PCPCH-access-preambles  NULL,
    notUsed-2-detected-PCPCH-access-preambles  NULL,
    ...,
    extension-CommonMeasurementValue        Extension-CommonMeasurementValue
}

Extension-CommonMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementValueIE }}

Extension-CommonMeasurementValueIE NBAP-PROTOCOL-IES ::= {
    { ID id-TUTRANGPSMeasurementValueInformation  CRITICALITY ignore TYPE TUTRANGPSMeasurementValueInformation  PRESENCE mandatory } |
    { ID id-SFNsFNMeasurementValueInformation     CRITICALITY ignore TYPE SFNsFNMeasurementValueInformation  PRESENCE mandatory } |
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission  CRITICALITY ignore TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue  PRESENCE mandatory } |
    { ID id-HS-DSCHRequiredPowerValueInformation  CRITICALITY ignore TYPE HS-DSCHRequiredPower  PRESENCE mandatory } |
    { ID id-HS-DSCHProvidedBitRateValueInformation  CRITICALITY ignore TYPE HS-DSCHProvidedBitRate  PRESENCE mandatory } |
    { ID id-Transmitted-Carrier-Power-For-CellPortion-Value  CRITICALITY ignore TYPE Transmitted-Carrier-Power-For-CellPortion-Value  PRESENCE
mandatory } |
    { ID id-Received-total-wide-band-power-For-CellPortion-Value  CRITICALITY ignore TYPE Received-total-wide-band-power-For-CellPortion-Value  PRESENCE mandatory } |
}

```

```

    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue CRITICALITY ignore TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue PRESENCE mandatory }|
    { ID id-UpPTSInterferenceValue CRITICALITY ignore TYPE UpPTSInterferenceValue PRESENCE
mandatory }|
    { ID id-DLTransmissionBranchLoadValue CRITICALITY ignore TYPE DLTransmissionBranchLoadValue
PRESENCE mandatory }|
    { ID id-HS-DSCHRequiredPowerValueInformation-For-CellPortion CRITICALITY ignore TYPE HS-DSCHRequiredPowerValueInformation-For-CellPortion
PRESENCE mandatory }|
    { ID id-HS-DSCHProvidedBitRateValueInformation-For-CellPortion CRITICALITY ignore TYPE HS-DSCHProvidedBitRateValueInformation-For-CellPortion
PRESENCE mandatory }|
    { ID id-E-DCHProvidedBitRateValueInformation CRITICALITY ignore TYPE E-DCHProvidedBitRate
PRESENCE mandatory }|
    { ID id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue CRITICALITY ignore TYPE E-DCH-Non-serving-Relative-Grant-Down-Commands
PRESENCE mandatory }|
    { ID id-Received-Scheduled-EDCH-Power-Share-Value CRITICALITY ignore TYPE Received-Scheduled-EDCH-Power-Share-Value PRESENCE mandatory }|
    { ID id-Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value CRITICALITY ignore TYPE Received-Scheduled-EDCH-Power-Share-For-
CellPortion-Value PRESENCE mandatory }|
    { ID id-TUTRANGANSSMeasurementValueInformation CRITICALITY ignore TYPE TUTRANGANSSMeasurementValueInformation PRESENCE mandatory }
}

CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable CommonMeasurementAvailable,
    measurementnotAvailable CommonMeasurementnotAvailable
}

CommonMeasurementAvailable ::= SEQUENCE {
    commonmeasurementValue CommonMeasurementValue,
    ie-Extensions ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} } OPTIONAL,
    ...
}

CommonMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonMeasurementnotAvailable ::= NULL

CommonPhysicalChannelID ::= INTEGER (0..255)

CommonPhysicalChannelID768 ::= INTEGER (0..511)

Common-PhysicalChannel-Status-Information ::= SEQUENCE {
    commonPhysicalChannelID CommonPhysicalChannelID,
    resourceOperationalState ResourceOperationalState,
    availabilityStatus AvailabilityStatus,
    ie-Extensions ProtocolExtensionContainer { { Common-PhysicalChannel-Status-Information-ExtIEs} } OPTIONAL,
    ...
}

Common-PhysicalChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```



```

}

Common-PhysicalChannel-Status-Information768 ::= SEQUENCE {
    commonPhysicalChannelID768      CommonPhysicalChannelID768,
    resourceOperationalState        ResourceOperationalState,
    availabilityStatus               AvailabilityStatus,
    iE-Extensions                    ProtocolExtensionContainer { { Common-PhysicalChannel-Status-Information768-ExtIEs } } OPTIONAL,
    ...
}

Common-PhysicalChannel-Status-Information768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonTransportChannelID ::= INTEGER (0..255)

CommonTransportChannel-InformationResponse ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    bindingID                        BindingID OPTIONAL,
    transportLayerAddress            TransportLayerAddress OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { CommonTransportChannel-InformationResponse-ExtIEs } } OPTIONAL,
    ...
}

CommonTransportChannel-InformationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-BroadcastCommonTransportBearerIndication CRITICALITY ignore EXTENSION BroadcastCommonTransportBearerIndication PRESENCE optional
    } |
    { ID id-IPMulticastDataBearerIndication CRITICALITY ignore EXTENSION IPMulticastDataBearerIndication PRESENCE
    optional },
    ...
}

Common-TransportChannel-Status-Information ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    resourceOperationalState        ResourceOperationalState,
    availabilityStatus               AvailabilityStatus,
    iE-Extensions                    ProtocolExtensionContainer { { Common-TransportChannel-Status-Information-ExtIEs } } OPTIONAL,
    ...
}

Common-TransportChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommunicationControlPortID ::= INTEGER (0..65535)

Compressed-Mode-Deactivation-Flag ::= ENUMERATED {
    deactivate,
    maintain-Active
}

ConfigurationGenerationID ::= INTEGER (0..255)

```

```

-- Value '0' means "No configuration"

ConstantValue ::= INTEGER (-10..10,...)
-- -10 dB - +10 dB
-- unit dB
-- step 1 dB

ContinuousPacketConnectivityDTX-DRX-Capability ::= ENUMERATED {
    continuous-Packet-Connectivity-DTX-DRX-capable,
    continuous-Packet-Connectivity-DTX-DRX-non-capable
}

ContinuousPacketConnectivityDTX-DRX-Information ::= SEQUENCE {
    uE-DTX-DRX-Offset          UE-DTX-DRX-Offset,
    enabling-Delay             Enabling-Delay,
    dTX-Information            DTX-Information,
    dRX-Information            DRX-Information OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { ContinuousPacketConnectivityDTX-DRX-Information-ExtIEs } }
    OPTIONAL,
    ...
}

ContinuousPacketConnectivityDTX-DRX-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContinuousPacketConnectivityDTX-DRX-Information-to-Modify ::= SEQUENCE {
    uE-DTX-DRX-Offset          UE-DTX-DRX-Offset          OPTIONAL,
    enabling-Delay             Enabling-Delay             OPTIONAL,
    dTX-Information-to-Modify  DTX-Information-to-Modify  OPTIONAL,
    dRX-Information-to-Modify  DRX-Information-to-Modify  OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { ContinuousPacketConnectivityDTX-DRX-Information-to-Modify-ExtIEs } }
    OPTIONAL,
    ...
}

ContinuousPacketConnectivityDTX-DRX-Information-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContinuousPacketConnectivityHS-SCCH-less-Capability ::= ENUMERATED {
    continuous-Packet-Connectivity-HS-SCCH-less-capable,
    continuous-Packet-Connectivity-HS-SCCH-less-capable-non-capable
}

ContinuousPacketConnectivityHS-SCCH-less-Information ::= SEQUENCE (SIZE (1..maxNrOfHS-DSCH-TBSs-HS-SCCHless)) OF ContinuousPacketConnectivityHS-
SCCH-less-InformationItem

ContinuousPacketConnectivityHS-SCCH-less-InformationItem ::= SEQUENCE {
    transport-Block-Size-Index      Transport-Block-Size-Index,
    hSPDSCH-Second-Code-Support     HSPDSCH-Second-Code-Support,

```

```

    iE-Extensions          ProtocolExtensionContainer { { ContinuousPacketConnectivityHS-SCCH-less-Information-ExtIEs } }
    OPTIONAL,
    ...
}

ContinuousPacketConnectivityHS-SCCH-less-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ContinuousPacketConnectivityHS-SCCH-less-Information-Response ::= SEQUENCE {
    hSPDSCH-First-Code-Index          HSPDSCH-First-Code-Index,
    hSPDSCH-Second-Code-Index        HSPDSCH-Second-Code-Index          OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { ContinuousPacketConnectivityHS-SCCH-less-Information-Response-ExtIEs } }
    OPTIONAL,
    ...
}

ContinuousPacketConnectivityHS-SCCH-less-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ControlGAP ::= INTEGER (1..255)

CPC-Information ::= SEQUENCE {
    continuousPacketConnectivityDTX-DRX-Information          ContinuousPacketConnectivityDTX-DRX-Information          OPTIONAL,
    continuousPacketConnectivityDTX-DRX-Information-to-Modify ContinuousPacketConnectivityDTX-DRX-Information-to-Modify OPTIONAL,
    continuousPacketConnectivityHS-SCCH-less-Information    ContinuousPacketConnectivityHS-SCCH-less-Information    OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { CPC-Information-ExtIEs} }          OPTIONAL,
    ...
}

CPC-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Deactivate-Indicator    CRITICALITY reject    EXTENSION ContinuousPacketConnectivityHS-SCCH-
less-Deactivate-Indicator    PRESENCE optional},
    ...
}

ContinuousPacketConnectivityHS-SCCH-less-Deactivate-Indicator ::= NULL

CQI-DTX-Timer ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256, v512, infinity}
-- Unit subframe

CQI-Feedback-Cycle ::= ENUMERATED {v0, v2, v4, v8, v10, v20, v40, v80, v160,..., v16, v32, v64}

CQI-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [9] subclause 4.2.1

CQI-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1

CriticalityDiagnostics ::= SEQUENCE {
    procedureID          ProcedureID          OPTIONAL,

```

```

triggeringMessage      TriggeringMessage      OPTIONAL,
procedureCriticality   Criticality      OPTIONAL,
transactionID          TransactionID    OPTIONAL,
iEsCriticalityDiagnostics CriticalityDiagnostics-IE-List OPTIONAL,
iE-Extensions         ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
...
}

CriticalityDiagnostics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
SEQUENCE {
    iECriticality      Criticality,
    iE-ID              ProtocolIE-ID,
    repetitionNumber   RepetitionNumber0      OPTIONAL,
    iE-Extensions     ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,
    ...
}

CriticalityDiagnostics-IE-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
{ ID id-MessageStructure      CRITICALITY ignore      EXTENSION MessageStructure      PRESENCE optional      }|
{ ID id-typeofError           CRITICALITY ignore      EXTENSION typeofError           PRESENCE mandatory    }|
...
}

CRNC-CommunicationContextID ::= INTEGER (0..1048575)

CSBMeasurementID ::= INTEGER (0..65535)

CSBTransmissionID ::= INTEGER (0..65535)

-- =====
-- D
-- =====

DATA-ID ::= INTEGER (0..3)

DCH-ID ::= INTEGER (0..255)

DCH-FDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem

DCH-FDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator PayloadCRC-PresenceIndicator,
    ul-FP-Mode                    UL-FP-Mode,
    toAWS                          ToAWS,
    toAWE                          ToAWE,
    dCH-SpecificInformationList    DCH-Specific-FDD-InformationList,
    iE-Extensions                 ProtocolExtensionContainer { { DCH-FDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

```

```

DCH-FDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-TnlQos          CRITICALITY ignore      EXTENSION TnlQos          PRESENCE optional      },
  ...
}

DCH-Specific-FDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item

DCH-Specific-FDD-Item ::= SEQUENCE {
  dCH-ID                DCH-ID,
  ul-TransportFormatSet TransportFormatSet,
  dl-TransportFormatSet TransportFormatSet,
  allocationRetentionPriority AllocationRetentionPriority,
  frameHandlingPriority  FrameHandlingPriority,
  qE-Selector            QE-Selector,
  iE-Extensions          ProtocolExtensionContainer { { DCH-Specific-FDD-Item-ExtIEs } }      OPTIONAL,
  ...
}

DCH-Specific-FDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-Unidirectional-DCH-Indicator  CRITICALITY reject  EXTENSION Unidirectional-DCH-Indicator  PRESENCE optional },
  ...
}

DCH-Indicator-For-E-DCH-HSDPA-Operation ::= ENUMERATED {
  dch-not-present
}

DCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem

DCH-InformationResponseItem ::= SEQUENCE {
  dCH-ID                DCH-ID,
  bindingID              BindingID          OPTIONAL,
  transportLayerAddress TransportLayerAddress  OPTIONAL,
  iE-Extensions          ProtocolExtensionContainer { { DCH-InformationResponseItem-ExtIEs } }      OPTIONAL,
  ...
}

DCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-TransportBearerNotSetupIndicator  CRITICALITY ignore  EXTENSION TransportBearerNotSetupIndicator  PRESENCE optional }, -- FDD
  only
  ...
}

DCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-TDD-InformationItem

DCH-TDD-InformationItem ::= SEQUENCE {
  payloadCRC-PresenceIndicator PayloadCRC-PresenceIndicator,
  ul-FP-Mode                  UL-FP-Mode,
  toAWS                       ToAWS,
  toAWE                       ToAWE,
  dCH-SpecificInformationList DCH-Specific-TDD-InformationList,
  iE-Extensions                ProtocolExtensionContainer { { DCH-TDD-InformationItem-ExtIEs } }      OPTIONAL,
  ...
}

```

```

}

DCH-TDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  {ID id-TnlQos                CRITICALITY ignore     EXTENSION TnlQos          PRESENCE optional},
  ...
}

DCH-Specific-TDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-TDD-Item

DCH-Specific-TDD-Item ::= SEQUENCE {
  dCH-ID                        DCH-ID,
  ul-CCTrCH-ID                 CCTrCH-ID,
  dl-CCTrCH-ID                 CCTrCH-ID,
  ul-TransportFormatSet        TransportFormatSet,
  dl-TransportFormatSet        TransportFormatSet,
  allocationRetentionPriority   AllocationRetentionPriority,
  frameHandlingPriority         FrameHandlingPriority,
  qE-Selector                   QE-Selector          OPTIONAL,
  -- This IE shall be present if DCH is part of set of Coordinated DCHs
  iE-Extensions                 ProtocolExtensionContainer { { DCH-Specific-TDD-Item-ExtIEs} }    OPTIONAL,
  ...
}

DCH-Specific-TDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-Unidirectional-DCH-Indicator  CRITICALITY reject  EXTENSION Unidirectional-DCH-Indicator          PRESENCE optional },
  ...
}

FDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifyItem

FDD-DCHs-to-ModifyItem ::= SEQUENCE {
  ul-FP-Mode                    UL-FP-Mode          OPTIONAL,
  toAWS                          ToAWS              OPTIONAL,
  toAWE                          ToAWE              OPTIONAL,
  transportBearerRequestIndicator TransportBearerRequestIndicator,
  dCH-SpecificInformationList    DCH-ModifySpecificInformation-FDD,
  iE-Extensions                 ProtocolExtensionContainer { { FDD-DCHs-to-ModifyItem-ExtIEs} }    OPTIONAL,
  ...
}

FDD-DCHs-to-ModifyItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  {ID id-TnlQos                CRITICALITY ignore     EXTENSION TnlQos          PRESENCE optional},
  ...
}

DCH-ModifySpecificInformation-FDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-FDD

DCH-ModifySpecificItem-FDD ::= SEQUENCE {
  dCH-ID                        DCH-ID,
  ul-TransportFormatSet        TransportFormatSet    OPTIONAL,
  dl-TransportFormatSet        TransportFormatSet    OPTIONAL,
  allocationRetentionPriority   AllocationRetentionPriority OPTIONAL,
  frameHandlingPriority         FrameHandlingPriority  OPTIONAL,
  iE-Extensions                 ProtocolExtensionContainer { { DCH-ModifySpecificItem-FDD-ExtIEs} }    OPTIONAL,

```

```

}
...
DCH-ModifySpecificItem-FDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  {ID id-Unidirectional-DCH-Indicator          CRITICALITY reject          EXTENSION Unidirectional-DCH-Indicator          PRESENCE optional},
  ...
}

TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-TDD

DCH-ModifyItem-TDD ::= SEQUENCE {
  ul-FP-Mode          UL-FP-Mode          OPTIONAL,
  toAWS               ToAWS               OPTIONAL,
  toAWE               ToAWE               OPTIONAL,
  transportBearerRequestIndicator TransportBearerRequestIndicator,
  dCH-SpecificInformationList DCH-ModifySpecificInformation-TDD,
  iE-Extensions      ProtocolExtensionContainer { { TDD-DCHs-to-ModifyItem-ExtIEs} }          OPTIONAL,
  ...
}

TDD-DCHs-to-ModifyItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  {ID id-TnlQos          CRITICALITY ignore          EXTENSION TnlQos          PRESENCE optional},
  ...
}

DCH-ModifySpecificInformation-TDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-TDD

DCH-ModifySpecificItem-TDD ::= SEQUENCE {
  dCH-ID          DCH-ID,
  ul-CCTrCH-ID   CCTrCH-ID          OPTIONAL,
  dl-CCTrCH-ID   CCTrCH-ID          OPTIONAL,
  ul-TransportFormatSet TransportFormatSet          OPTIONAL,
  dl-TransportFormatSet TransportFormatSet          OPTIONAL,
  allocationRetentionPriority AllocationRetentionPriority          OPTIONAL,
  frameHandlingPriority FrameHandlingPriority          OPTIONAL,
  iE-Extensions  ProtocolExtensionContainer { { DCH-ModifySpecificItem-TDD-ExtIEs} }          OPTIONAL,
  ...
}

DCH-ModifySpecificItem-TDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DedicatedChannelsCapacityConsumptionLaw ::= SEQUENCE ( SIZE(1..maxNrOfSF) ) OF
SEQUENCE {
  dl-Cost-1      INTEGER (0..65535),
  dl-Cost-2      INTEGER (0..65535),
  ul-Cost-1      INTEGER (0..65535),
  ul-Cost-2      INTEGER (0..65535),
  iE-Extensions  ProtocolExtensionContainer { { DedicatedChannelsCapacityConsumptionLaw-ExtIEs } }          OPTIONAL,
  ...
}

```

```

DedicatedChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DedicatedMeasurementType ::= ENUMERATED {
  sir,
  sir-error,
  transmitted-code-power,
  rscp,
  rx-timing-deviation,
  round-trip-time,
  ...,
  rx-timing-deviation-LCR,
  angle-Of-Arrival-LCR,
  hs-sich-quality,
  best-Cell-Portions,
  rx-timing-deviation-768,
  rx-timing-deviation-384-extended
}

DedicatedMeasurementValue ::= CHOICE {
  sIR-Value                SIR-Value,
  sIR-ErrorValue           SIR-Error-Value,
  transmittedCodePowerValue Transmitted-Code-Power-Value,
  rSCP                     RSCP-Value,
  rxTimingDeviationValue   Rx-Timing-Deviation-Value,
  roundTripTime            Round-Trip-Time-Value,
  ...,
  extension-DedicatedMeasurementValue Extension-DedicatedMeasurementValue
}

Extension-DedicatedMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-DedicatedMeasurementValueIE }}

Extension-DedicatedMeasurementValueIE NBAP-PROTOCOL-IES ::= {
  { ID id-Rx-Timing-Deviation-Value-LCR    CRITICALITY reject TYPE Rx-Timing-Deviation-Value-LCR          PRESENCE mandatory } |
  { ID id-Angle-Of-Arrival-Value-LCR      CRITICALITY reject TYPE Angle-Of-Arrival-Value-LCR          PRESENCE mandatory } |
  { ID id-HS-SICH-Reception-Quality        CRITICALITY reject TYPE HS-SICH-Reception-Quality-Value    PRESENCE mandatory } |
  { ID id-Best-Cell-Portions-Value         CRITICALITY reject TYPE Best-Cell-Portions-Value          PRESENCE mandatory } |
  { ID id-Rx-Timing-Deviation-Value-768    CRITICALITY reject TYPE Rx-Timing-Deviation-Value-768      PRESENCE mandatory } |
  { ID id-Rx-Timing-Deviation-Value-384-ext CRITICALITY reject TYPE Rx-Timing-Deviation-Value-384-ext    PRESENCE mandatory } |
  { ID id-Extended-Round-Trip-Time-Value   CRITICALITY reject TYPE Extended-Round-Trip-Time-Value    PRESENCE mandatory },
  ...
}

DedicatedMeasurementValueInformation ::= CHOICE {
  measurementAvailable      DedicatedMeasurementAvailable,
  measurementnotAvailable   DedicatedMeasurementnotAvailable
}

DedicatedMeasurementAvailable ::= SEQUENCE {

```



```

    dedicatedmeasurementValue    DedicatedMeasurementValue,
    cFN                           CFN                               OPTIONAL,
    ie-Extensions                 ProtocolExtensionContainer { { DedicatedMeasurementAvailableItem-ExtIEs} }    OPTIONAL,
    ...
}

DedicatedMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementnotAvailable ::= NULL

DelayedActivation ::= CHOICE {
    cfn                CFN,
    separate-indication    NULL
}

DelayedActivationUpdate ::= CHOICE {
    activate        Activate-Info,
    deactivate      Deactivate-Info
}

Activate-Info ::= SEQUENCE {
    activation-type        Execution-Type,
    initial-dl-tx-power    DL-Power,
    firstRLS-Indicator     FirstRLS-Indicator                    OPTIONAL, --FDD Only
    propagation-delay      PropagationDelay                    OPTIONAL, --FDD Only
    iE-Extensions          ProtocolExtensionContainer { { Activate-Info-ExtIEs} }    OPTIONAL,
    ...
}

Activate-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-ExtendedPropagationDelay    CRITICALITY reject    EXTENSION ExtendedPropagationDelay    PRESENCE mandatory }, --FDD Only
    ...
}

Deactivate-Info ::= SEQUENCE {
    deactivation-type        Execution-Type,
    iE-Extensions           ProtocolExtensionContainer { { Deactivate-Info-ExtIEs} }    OPTIONAL,
    ...
}

Deactivate-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Execution-Type ::= CHOICE {
    synchronised    CFN,
    unsynchronised    NULL
}

```

```

}

DeltaSIR ::= INTEGER (0..30)
-- Unit dB, Step 0.1 dB, Range 0..3 dB.

DGANSSCorrections ::= SEQUENCE {
    dGANSS-ReferenceTime      INTEGER(0..119),
    dGANSS-Information        DGANSS-Information,
    ie-Extensions             ProtocolExtensionContainer { { DGANSSCorrections-ExtIEs } } OPTIONAL,
    ...
}

DGANSSCorrections-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGANSS-Corrections-Req ::= SEQUENCE {
    dGANSS-Signal-ID          BIT STRING (SIZE (8)),
    ie-Extensions             ProtocolExtensionContainer { { DGANSS-Corrections-Req-ExtIEs } } OPTIONAL,
    ...
}

DGANSS-Corrections-Req-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGANSS-Information ::= SEQUENCE (SIZE (1..maxSgnType)) OF DGANSS-InformationItem

DGANSS-InformationItem ::= SEQUENCE {
    gANSS-SignalId            GANSS-Signal-ID                                OPTIONAL,
    gANSS-StatusHealth        GANSS-StatusHealth,
    -- The following IE shall be present if the Status Health IE value is not equal to "no data" or "invalid data"
    dGANSS-SignalInformation  DGANSS-SignalInformation                    OPTIONAL,
    ie-Extensions             ProtocolExtensionContainer { { DGANSS-InformationItem-ExtIEs } } OPTIONAL,
    ...
}

DGANSS-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGANSS-SignalInformation ::= SEQUENCE (SIZE (1..maxGANSSSat)) OF DGANSS-SignalInformationItem

DGANSS-SignalInformationItem ::= SEQUENCE {
    satId                     INTEGER(0..63),
    gANSS-iod                  BIT STRING (SIZE (10)),

```

```

    udre                UDRE,
    ganss-prc           INTEGER(-2047..2047),
    ganss-rrc           INTEGER(-127..127),
    ie-Extensions       ProtocolExtensionContainer { { DGANSS-SignalInformationItem-ExtIEs } }    OPTIONAL,
    ...
}

DGANSS-SignalInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGANSSThreshold ::= SEQUENCE {
    prcDeviation        PRCDeviation,
    ie-Extensions       ProtocolExtensionContainer { { DGANSSThreshold-ExtIEs } }    OPTIONAL,
    ...
}

DGANSSThreshold-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGPSCorrections ::= SEQUENCE {
    gpstow              GPSTOW,
    status-health       GPS-Status-Health,
    satelliteinfo       SAT-Info-DGPSCorrections,
    ie-Extensions       ProtocolExtensionContainer { { DGPSCorrections-ExtIEs } }    OPTIONAL,
    ...
}

DGPSCorrections-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGPSThresholds ::= SEQUENCE {
    prcdeviation        PRCDeviation,
    ie-Extensions       ProtocolExtensionContainer { { DGPSThresholds-ExtIEs } }    OPTIONAL,
    ...
}

DGPSThresholds-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiscardTimer ::= ENUMERATED
{v20,v40,v60,v80,v100,v120,v140,v160,v180,v200,v250,v300,v400,v500,v750,v1000,v1250,v1500,v1750,v2000,v2500,v3000,v3500,v4000,v4500,v5000,v7500,
    ...
}

```

```

DiversityControlField ::= ENUMERATED {
    may,
    must,
    must-not,
    ...
}

DiversityMode ::= ENUMERATED {
    none,
    sTTD,
    closed-loop-mode1,
    not-used-closed-loop-mode2,
    ...
}

DL-DPCH-SlotFormat ::= INTEGER (0..16,...)

DL-DPCH-TimingAdjustment ::= ENUMERATED {
    timing-advance,
    timing-delay
}

DL-Timeslot-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTs)) OF DL-Timeslot-InformationItem

DL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot                TimeSlot,
    midambleShiftAndBurstType MidambleShiftAndBurstType,
    tFCI-Presence           TFCI-Presence,
    dL-Code-Information     TDD-DL-Code-Information,
    iE-Extensions           ProtocolExtensionContainer { { DL-Timeslot-InformationItem-ExtIEs } } OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-TimeslotLCR-InformationItem

DL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR            TimeSlotLCR,
    midambleShiftLCR       MidambleShiftLCR,
    tFCI-Presence           TFCI-Presence,
    dL-Code-LCR-Information TDD-DL-Code-LCR-Information,
    iE-Extensions           ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs } } OPTIONAL,
    ...
}

DL-TimeslotLCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Initial-DL-Power-TimeslotLCR-InformationItem CRITICALITY ignore EXTENSION DL-Power PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Maximum-DL-Power-TimeslotLCR-InformationItem CRITICALITY ignore EXTENSION DL-Power PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Minimum-DL-Power-TimeslotLCR-InformationItem CRITICALITY ignore EXTENSION DL-Power PRESENCE optional },

```

```

    -- Applicable to 1.28Mcps TDD only
    ...
}

DL-Timeslot768-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTs)) OF DL-Timeslot768-InformationItem

DL-Timeslot768-InformationItem ::= SEQUENCE {
    timeSlot                TimeSlot,
    midambleShiftAndBurstType768    MidambleShiftAndBurstType768,
    tFCI-Presence            TFCI-Presence,
    dL-Code-768-Information  TDD-DL-Code-768-Information,
    iE-Extensions            ProtocolExtensionContainer { { DL-Timeslot768-InformationItem-ExtIEs } } OPTIONAL,
    ...
}

DL-Timeslot768-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    ...
}

DL-or-Global-CapacityCredit ::= INTEGER (0..65535)

DL-Power ::= INTEGER (-350..150)
-- Value = DL-Power/10
-- Unit dB, Range -35dB .. +15dB, Step +0.1dB

DLPowerAveragingWindowSize ::= INTEGER (1..60)

DL-PowerBalancing-Information ::= SEQUENCE {
    powerAdjustmentType      PowerAdjustmentType,
    dLReferencePower          DL-Power OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    dLReferencePowerList-DL-PC-Rqst    DL-ReferencePowerInformationList OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
    maxAdjustmentStep         MaxAdjustmentStep OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentPeriod         AdjustmentPeriod OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentRatio          ScaledAdjustmentRatio OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    iE-Extensions            ProtocolExtensionContainer { { DL-PowerBalancing-Information-ExtIEs } } OPTIONAL,
    ...
}

DL-PowerBalancing-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-ReferencePowerInformationList ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF DL-ReferencePowerInformationItem

```

```

DL-ReferencePowerInformationItem ::= SEQUENCE {
    rL-ID                RL-ID,
    dl-Reference-Power   DL-Power,
    iE-Extensions        ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
    ...
}

DL-ReferencePowerInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-PowerBalancing-ActivationIndicator ::= ENUMERATED {
    dL-PowerBalancing-Activated
}

DL-PowerBalancing-UpdatedIndicator ::= ENUMERATED {
    dL-PowerBalancing-Updated
}

DL-ScramblingCode ::= INTEGER (0..15)
-- 0= Primary scrambling code of the cell, 1..15= Secondary scrambling code --

DL-TimeslotISCP ::= INTEGER (0..91)

DL-TimeslotISCPInfo ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-TimeslotISCPInfoItem

DL-TimeslotISCPInfoItem ::= SEQUENCE {
    timeSlot                TimeSlot,
    dl-TimeslotISCP         DL-TimeslotISCP,
    iE-Extensions           ProtocolExtensionContainer { {DL-TimeslotISCPInfoItem-ExtIEs} } OPTIONAL,
    ...
}

DL-TimeslotISCPInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotISCPInfoLCR ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-TimeslotISCPInfoItemLCR

DL-TimeslotISCPInfoItemLCR ::= SEQUENCE {
    timeSlotLCR            TimeSlotLCR,
    dl-TimeslotISCP        DL-TimeslotISCP,
    iE-Extensions           ProtocolExtensionContainer { {DL-TimeslotISCPInfoItemLCR-ExtIEs} } OPTIONAL,
    ...
}

DL-TimeslotISCPInfoItemLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TPC-Pattern01Count ::= INTEGER (0..30,...)

DLTransmissionBranchLoadValue ::= INTEGER (0..101,...)

```

```

Downlink-Compressed-Mode-Method ::= ENUMERATED {
    not-Used-puncturing,
    sFdiv2,
    higher-layer-scheduling,
    ...
}

DPC-Mode ::= ENUMERATED {
    mode0,
    model,
    ...
}

DPCH-ID ::= INTEGER (0..239)

DPCH-ID768 ::= INTEGER (0..479)

DRX-Information ::= SEQUENCE {
    uE-DRX-Cycle                UE-DRX-Cycle,
    inactivity-Threshold-for-UE-DRX-Cycle    Inactivity-Threshold-for-UE-DRX-Cycle,
    inactivity-Threshold-for-UE-Grant-Monitoring    Inactivity-Threshold-for-UE-Grant-Monitoring,
    uE-DRX-Grant-Monitoring    UE-DRX-Grant-Monitoring,
    iE-Extensions                ProtocolExtensionContainer { {DRX-Information-ExtIEs} } OPTIONAL,
    ...
}

DRX-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DRX-Information-to-Modify ::= CHOICE {
    modify            DRX-Information-to-Modify-Items,
    deactivate        NULL,
    ...
}

DRX-Information-to-Modify-Items ::= SEQUENCE {
    uE-DRX-Cycle                UE-DRX-Cycle                OPTIONAL,
    inactivity-Threshold-for-UE-DRX-Cycle    Inactivity-Threshold-for-UE-DRX-Cycle    OPTIONAL,
    inactivity-Threshold-for-UE-Grant-Monitoring    Inactivity-Threshold-for-UE-Grant-Monitoring    OPTIONAL,
    uE-DRX-Grant-Monitoring    UE-DRX-Grant-Monitoring    OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { {DRX-Information-to-Modify-Items-ExtIEs} } OPTIONAL,
    ...
}

DRX-Information-to-Modify-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-ID ::= INTEGER (0..255)

DSCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem

```

```

DSCH-InformationResponseItem ::= SEQUENCE {
    dSCH-ID                               DSCH-ID,
    bindingID                             BindingID                               OPTIONAL,
    transportLayerAddress                 TransportLayerAddress                 OPTIONAL,
    iE-Extensions                         ProtocolExtensionContainer { { DSCH-InformationResponseItem-ExtIEs } }   OPTIONAL,
    ...
}

```

```

DSCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

DSCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-TDD-InformationItem

```

```

DSCH-TDD-InformationItem ::= SEQUENCE {
    dSCH-ID                               DSCH-ID,
    cCTrCH-ID                             CCTrCH-ID,
    transportFormatSet                    TransportFormatSet,
    allocationRetentionPriority            AllocationRetentionPriority,
    frameHandlingPriority                  FrameHandlingPriority,
    toAWS                                  ToAWS,
    toAWE                                  ToAWE,
    iE-Extensions                         ProtocolExtensionContainer { { DSCH-TDD-InformationItem-ExtIEs } }   OPTIONAL,
    ...
}

```

```

DSCH-TDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                     CRITICALITY ignore      EXTENSION BindingID           PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress         CRITICALITY ignore      EXTENSION TransportLayerAddress PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos                         CRITICALITY ignore      EXTENSION TnlQos              PRESENCE optional},
    ...
}

```

```

DsField ::= BIT STRING (SIZE (8))

```

```

DTX-Cycle-2ms-Items ::= SEQUENCE {
    uE-DTX-Cycle1-2ms                     UE-DTX-Cycle1-2ms,
    uE-DTX-Cycle2-2ms                     UE-DTX-Cycle2-2ms,
    mAC-DTX-Cycle-2ms                     MAC-DTX-Cycle-2ms,
    iE-Extensions                         ProtocolExtensionContainer { { DTX-Cycle-2ms-Items-ExtIEs } }   OPTIONAL,
    ...
}

```

```

DTX-Cycle-2ms-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

DTX-Cycle-2ms-to-Modify-Items ::= SEQUENCE {
    uE-DTX-Cycle1-2ms                     UE-DTX-Cycle1-2ms,
    uE-DTX-Cycle2-2ms                     UE-DTX-Cycle2-2ms,
    mAC-DTX-Cycle-2ms                     MAC-DTX-Cycle-2ms,
}

```



```

    iE-Extensions          ProtocolExtensionContainer { { DTX-Cycle-2ms-to-Modify-Items-ExtIEs } }      OPTIONAL,
    ...
}

DTX-Cycle-2ms-to-Modify-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Cycle-10ms-Items ::= SEQUENCE {
    uE-DTX-Cycle1-10ms      UE-DTX-Cycle1-10ms,
    uE-DTX-Cycle2-10ms      UE-DTX-Cycle2-10ms,
    mAC-DTX-Cycle-10ms      MAC-DTX-Cycle-10ms,
    iE-Extensions          ProtocolExtensionContainer { { DTX-Cycle-10ms-Items-ExtIEs } }      OPTIONAL,
    ...
}

DTX-Cycle-10ms-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Cycle-10ms-to-Modify-Items ::= SEQUENCE {
    uE-DTX-Cycle1-10ms      UE-DTX-Cycle1-10ms,
    uE-DTX-Cycle2-10ms      UE-DTX-Cycle2-10ms,
    mAC-DTX-Cycle-10ms      MAC-DTX-Cycle-10ms,
    iE-Extensions          ProtocolExtensionContainer { { DTX-Cycle-10ms-to-Modify-Items-ExtIEs } }      OPTIONAL,
    ...
}

DTX-Cycle-10ms-to-Modify-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Information ::= SEQUENCE {
    e-DCH-TTI-Length        E-DCH-TTI-Length,
    inactivity-Threshold-for-UE-DTX-Cycle2  Inactivity-Threshold-for-UE-DTX-Cycle2,
    uE-DTX-Long-Preamble    UE-DTX-Long-Preamble,
    mAC-Inactivity-Threshold  MAC-Inactivity-Threshold ,
    cQI-DTX-Timer           CQI-DTX-Timer,
    uE-DPCCH-burst1        UE-DPCCH-burst1,
    uE-DPCCH-burst2        UE-DPCCH-burst2,
    iE-Extensions          ProtocolExtensionContainer { {DTX-Information-ExtIEs} } OPTIONAL,
    ...
}

DTX-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DTX-Information-to-Modify ::= CHOICE {
    modify          DTX-Information-to-Modify-Items,
    deactivate     NULL,
    ...
}

```

```

DTX-Information-to-Modify-Items ::= SEQUENCE {
    e-DCH-TTI-Length-to-Modify      E-DCH-TTI-Length-to-Modify      OPTIONAL,
    inactivity-Threshold-for-UE-DTX-Cycle2  Inactivity-Threshold-for-UE-DTX-Cycle2  OPTIONAL,
    uE-DTX-Long-Preamble            UE-DTX-Long-Preamble            OPTIONAL,
    mAC-Inactivity-Threshold        MAC-Inactivity-Threshold        OPTIONAL,
    cQI-DTX-Timer                  CQI-DTX-Timer                  OPTIONAL,
    uE-DPCCH-burst1                UE-DPCCH-burst1                OPTIONAL,
    uE-DPCCH-burst2                UE-DPCCH-burst2                OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {DTX-Information-to-Modify-Items-ExtIEs} } OPTIONAL,
    ...
}

DTX-Information-to-Modify-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DwPCH-Power ::= INTEGER (-150..400,...)
-- DwPCH-power = power * 10
-- If power <= -15 DwPCH shall be set to -150
-- If power >= 40 DwPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB

-- =====
-- E
-- =====

E-AGCH-Table-Choice ::= ENUMERATED{table16B, table16B-12, ...}

E-AGCH-FDD-Code-Information ::= CHOICE {
    replace      E-AGCH-FDD-Code-List,
    remove      NULL,
    ...
}

E-AGCH-FDD-Code-List ::= SEQUENCE (SIZE (1..maxNrOfE-AGCHs)) OF FDD-DL-ChannelisationCodeNumber

E-DCH-Capability ::= ENUMERATED {
    e-DCH-capable,
    e-DCH-non-capable
}

E-DCHCapacityConsumptionLaw ::= SEQUENCE {
    e-DCH-SF-allocation      E-DCH-SF-allocation,
    dl-Cost-1                INTEGER (0..65535)
                                OPTIONAL,
    dl-Cost-2                INTEGER (0..65535)
                                OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { { E-DCHCapacityConsumptionLaw-ExtIEs } }
                                OPTIONAL,
    ...
}

E-DCHCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
E-DCH-TDD-CapacityConsumptionLaw ::= SEQUENCE {
    ul-Cost          INTEGER (0..65535),
    dl-Cost          INTEGER (0..65535)
    iE-Extensions    ProtocolExtensionContainer { { E-DCH-TDD-CapacityConsumptionLaw-ExtIEs } }
}
...
E-DCH-TDD-CapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
E-DCH-SF-allocation ::= SEQUENCE ( SIZE(1..maxNrOfCombEDPDCH) ) OF
    SEQUENCE {
        ul-Cost-1    INTEGER (0..65535),
        ul-Cost-2    INTEGER (0..65535),
        iE-Extensions    ProtocolExtensionContainer { { E-DCH-SF-allocation-ExtIEs } }
    }
    ...
}
E-DCH-SF-allocation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
E-DCH-TTI2ms-Capability ::= BOOLEAN
-- True = TTI 10ms and 2ms supported for E-DCH False = only TTI 10ms supported for E-DCH
E-DCH-SF-Capability ::= ENUMERATED {
    sf64,
    sf32,
    sf16,
    sf8,
    sf4,
    sf4x2,
    sf2x2,
    sf4x2-and-sf2x2,
    ...
}
E-DCH-HARQ-Combining-Capability ::= ENUMERATED {
    iR-Combining-capable,
    chase-Combining-capable,
    iR-and-Chase-Combining-capable
}
E-DCH-DDI-Value ::= INTEGER (0..62)
E-DCH-FDD-DL-Control-Channel-Information ::= SEQUENCE {
    e-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code    DL-ScramblingCode                OPTIONAL,
    e-AGCH-Channelisation-Code                      FDD-DL-ChannelisationCodeNumber          OPTIONAL,
    primary-e-RNTI                                  E-RNTI                                    OPTIONAL,
    secondary-e-RNTI                                E-RNTI                                    OPTIONAL,
}

```

```

    e-RGCH-E-HICH-Channelisation-Code          FDD-DL-ChannelisationCodeNumber          OPTIONAL,
    e-RGCH-Signature-Sequence                  E-RGCH-Signature-Sequence                OPTIONAL,
    e-HICH-Signature-Sequence                  E-HICH-Signature-Sequence                OPTIONAL,
    serving-Grant-Value                        E-Serving-Grant-Value                    OPTIONAL,
    primary-Secondary-Grant-Selector           E-Primary-Secondary-Grant-Selector       OPTIONAL,
    e-RGCH-Release-Indicator                   E-RGCH-Release-Indicator
    OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer { { E-DCH-FDD-DL-Control-Channel-Information-ExtIEs} }  OPTIONAL,
    ...
}

E-DCH-FDD-DL-Control-Channel-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Default-Serving-Grant-in-DTX-Cycle2    CRITICALITY ignore      EXTENSION E-Serving-Grant-Value          PRESENCE optional },
    ...
}

E-DCH-FDD-Information ::= SEQUENCE {
    e-DCH-MACdFlows-Information                  E-DCH-MACdFlows-Information,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH  HARQ-Process-Allocation-2ms-EDCH          OPTIONAL,
    e-DCH-Maximum-Bitrate                       E-DCH-Maximum-Bitrate                     OPTIONAL,
    e-DCH-Processing-Overload-Level             E-DCH-Processing-Overload-Level           OPTIONAL,
    e-DCH-Reference-Power-Offset                E-DCH-Reference-Power-Offset              OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer { { E-DCH-FDD-Information-ExtIEs} }  OPTIONAL,
    ...
}

E-DCH-FDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-DCH-PowerOffset-for-SchedulingInfo  CRITICALITY ignore      EXTENSION E-DCH-PowerOffset-for-SchedulingInfo  PRESENCE optional } |
    { ID id-SixteenQAM-UL-Operation-Indicator    CRITICALITY reject      EXTENSION SixteenQAM-UL-Operation-Indicator  PRESENCE optional } |
    { ID id-E-AGCH-Table-Choice                  CRITICALITY ignore      EXTENSION E-AGCH-Table-Choice                PRESENCE conditional },
    -- The IE shall be present if the SixteenQAM UL Operation Indicator IE is set to "Activate"--
    ...
}

E-DCH-FDD-Information-Response ::= SEQUENCE {
    e-DCH-MACdFlow-Specific-InformationResp     E-DCH-MACdFlow-Specific-InformationResp   OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH HARQ-Process-Allocation-2ms-EDCH          OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer { { E-DCH-FDD-Information-Response-ExtIEs} }  OPTIONAL,
    ...
}

E-DCH-FDD-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-FDD-Information-to-Modify ::= SEQUENCE {
    e-DCH-MACdFlow-Specific-Info-to-Modify      E-DCH-MACdFlow-Specific-InfoList-to-Modify  OPTIONAL,
    hARQ-Process-Allocation-Scheduled-2ms-EDCH HARQ-Process-Allocation-2ms-EDCH          OPTIONAL,
    e-DCH-Maximum-Bitrate                       E-DCH-Maximum-Bitrate                     OPTIONAL,
    e-DCH-Processing-Overload-Level             E-DCH-Processing-Overload-Level           OPTIONAL,
    e-DCH-Reference-Power-Offset                E-DCH-Reference-Power-Offset              OPTIONAL,
    mACeReset-Indicator                         MACeReset-Indicator                       OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer { { E-DCH-FDD-Information-to-Modify-ExtIEs} }  OPTIONAL,
    ...
}

```

```

}

E-DCH-FDD-Information-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-PowerOffset-for-SchedulingInfo          CRITICALITY ignore  EXTENSION  E-DCH-PowerOffset-for-SchedulingInfo
    PRESENCE optional}|
  { ID id-SixteenQAM-UL-Operation-Indicator            CRITICALITY reject  EXTENSION  SixteenQAM-UL-Operation-Indicator
    PRESENCE optional}|
  { ID id-E-DCH-DL-Control-Channel-Grant-Information   CRITICALITY ignore  EXTENSION  E-DCH-DL-Control-Channel-Grant-Information
    PRESENCE optional}|
  { ID id-E-AGCH-Table-Choice                          CRITICALITY ignore  EXTENSION  E-AGCH-Table-Choice
    PRESENCE conditional},
  -- The IE shall be present if the SixteenQAM UL Operation Indicator IE is set to "Activate"--
  ...
}

E-DCH-FDD-Update-Information ::= SEQUENCE {
  e-DCH-MACdFlow-Specific-UpdateInformation           E-DCH-MACdFlow-Specific-UpdateInformation           OPTIONAL,
  hARQ-Process-Allocation-Scheduled-2ms-EDCH        HARQ-Process-Allocation-2ms-EDCH                    OPTIONAL,
  iE-Extensions                                       ProtocolExtensionContainer { { E-DCH-FDD-Update-Information-ExtIEs } } OPTIONAL,
  ...
}

E-DCH-FDD-Update-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-E-DCH-DL-Control-Channel-Change-Information CRITICALITY ignore  EXTENSION  E-DCH-DL-Control-Channel-Change-Information
    PRESENCE optional},
  ...
}

E-DCH-MACdFlow-Specific-UpdateInformation ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-UpdateInformation-Item

E-DCH-MACdFlow-Specific-UpdateInformation-Item ::= SEQUENCE {
  e-DCH-MACdFlow-ID                                  E-DCH-MACdFlow-ID,
  hARQ-Process-Allocation-NonSched-2ms-EDCH         HARQ-Process-Allocation-2ms-EDCH                    OPTIONAL,
  iE-Extensions                                       ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-UpdateInformation-Item-ExtIEs } } OPTIONAL,
  OPTIONAL,
  ...
}

E-DCH-MACdFlow-Specific-UpdateInformation-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

E-DCH-DL-Control-Channel-Change-Information ::= SEQUENCE (SIZE (1..maxNrOfEDCHRLs)) OF E-DCH-DL-Control-Channel-Change-Information-Item

E-DCH-DL-Control-Channel-Change-Information-Item ::= SEQUENCE {
  e-DCH-RL-ID                                         RL-ID,
  iE-Extensions                                       ProtocolExtensionContainer { { E-DCH-DL-Control-Channel-Change-Information-Item-ExtIEs } } OPTIONAL,
  ...
}

E-DCH-DL-Control-Channel-Change-Information-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

E-DCH-DL-Control-Channel-Grant-Information ::= SEQUENCE (SIZE (1..maxNrOfEDCHRLs)) OF E-DCH-DL-Control-Channel-Grant-Information-Item

```
E-DCH-DL-Control-Channel-Grant-Information-Item ::= SEQUENCE {
  e-DCH-RL-ID          RL-ID,
  iE-Extensions        ProtocolExtensionContainer { { E-DCH-DL-Control-Channel-Grant-Information-Item-ExtIEs } } OPTIONAL,
  ...
}
```

```
E-DCH-DL-Control-Channel-Grant-Information-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
E-DCH-Grant-Type-Information ::= CHOICE {
  e-DCH-Non-Scheduled-Transmission-Grant      E-DCH-Non-Scheduled-Transmission-Grant-Items,
  e-DCH-Scheduled-Transmission-Grant          NULL,
  ...
}
```

E-DCH-LogicalChannelInformation ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelInformationItem

```
E-DCH-LogicalChannelInformationItem ::= SEQUENCE {
  logicalChannelId          LogicalChannelID,
  schedulingPriorityIndicator SchedulingPriorityIndicator,
  schedulingInformation      SchedulingInformation,
  mACesGuaranteedBitRate     MACesGuaranteedBitRate      OPTIONAL,
  e-DCH-DDI-Value            E-DCH-DDI-Value,
  mACd-PDU-Size-List         E-DCH-MACdPDU-SizeList,
  iE-Extensions              ProtocolExtensionContainer { { E-DCH-LogicalChannelInformationItem-ExtIEs } }      OPTIONAL,
  ...
}
```

```
E-DCH-LogicalChannelInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-MACes-Maximum-Bitrate-LCR          CRITICALITY ignore      EXTENSION      MACes-Maximum-Bitrate-LCR      PRESENCE optional}, --1.28Mcps TDD
  only
  ...
}
```

E-DCH-Maximum-Bitrate ::= INTEGER (0..5742,...,5743..11498)

E-DCH-PowerOffset-for-SchedulingInfo ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPS)

E-DCH-Processing-Overload-Level ::= INTEGER (0..10,...)

E-DCH-Reference-Power-Offset ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPS)

E-DCH-MACdPDU-SizeList ::= SEQUENCE (SIZE (1.. maxNrOfMACdPDUSize)) OF E-DCH-MACdPDU-SizeListItem

```
E-DCH-MACdPDU-SizeListItem ::= SEQUENCE {
  mACdPDU-Size          MACdPDU-Size,
  iE-Extensions        ProtocolExtensionContainer { { E-DCH-MACdPDU-SizeListItem-ExtIEs } }      OPTIONAL,
  ...
}
```

```
E-DCH-MACdPDU-SizeListItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
E-DCH-LogicalChannelToModify ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelToModifyItem
```

```
E-DCH-LogicalChannelToModifyItem ::= SEQUENCE {
  logicalChannelId          LogicalChannelID,
  schedulingPriorityIndicator SchedulingPriorityIndicator OPTIONAL,
  schedulingInformation      SchedulingInformation      OPTIONAL,
  mACesGuaranteedBitRate    MACesGuaranteedBitRate    OPTIONAL,
  e-DCH-DDI-Value           E-DCH-DDI-Value           OPTIONAL,
  mACd-PDU-Size-List        E-DCH-MACdPDU-SizeToModifyList,
  iE-Extensions             ProtocolExtensionContainer { { E-DCH-LogicalChannelToModifyItem-ExtIEs } } OPTIONAL,
  ...
}
```

```
E-DCH-LogicalChannelToModifyItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-MACes-Maximum-Bitrate-LCR          CRITICALITY ignore          EXTENSION    MACes-Maximum-Bitrate-LCR          PRESENCE optional}, --1.28Mcps TDD only
  ...
}
```

```
E-DCH-MACdPDU-SizeToModifyList ::= SEQUENCE (SIZE (0.. maxNrOfMACdPDUSize)) OF E-DCH-MACdPDU-SizeListItem
```

```
E-DCH-LogicalChannelToDelete ::= SEQUENCE (SIZE (1..maxNoOfLogicalChannels)) OF E-DCH-LogicalChannelToDeleteItem
```

```
E-DCH-LogicalChannelToDeleteItem ::= SEQUENCE {
  logicalChannelId          LogicalChannelID,
  iE-Extensions             ProtocolExtensionContainer { { E-DCH-LogicalChannelToDeleteItem-ExtIEs } } OPTIONAL,
  ...
}
```

```
E-DCH-LogicalChannelToDeleteItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
LogicalChannelID ::= INTEGER (1..15)
```

```
E-DCH-HARQ-PO-FDD ::= INTEGER (0.. maxNrOfEDCH-HARQ-PO-QUANTSTEPS)
```

```
E-DCH-MACdFlow-ID ::= INTEGER (0..maxNrOfEDCHMACdFlows-1)
```

```
E-DCH-MACdFlows-Information ::= SEQUENCE {
  e-DCH-MACdFlow-Specific-Info          E-DCH-MACdFlow-Specific-InfoList,
  iE-Extensions                         ProtocolExtensionContainer { { E-DCH-MACdFlows-Information-ExtIEs } } OPTIONAL,
  ...
}
```

```
E-DCH-MACdFlows-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```

}

E-DCH-MACdFlow-Multiplexing-List ::= BIT STRING ( SIZE(maxNrOfEDCHMACdFlows) )

E-DCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-InfoItem

E-DCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    e-DCH-MACdFlow-ID                E-DCH-MACdFlow-ID,
    allocationRetentionPriority        AllocationRetentionPriority,
    tnlQos                             TnlQos                                OPTIONAL,
    payloadCRC-PresenceIndicator       PayloadCRC-PresenceIndicator,
    maximum-Number-of-Retransmissions-For-E-DCH Maximum-Number-of-Retransmissions-For-E-DCH,
    eDCH-HARQ-PO-FDD                  E-DCH-HARQ-PO-FDD,
    eDCH-MACdFlow-Multiplexing-List    E-DCH-MACdFlow-Multiplexing-List                OPTIONAL,
    eDCH-Grant-Type-Information         E-DCH-Grant-Type-Information,
    bundlingModeIndicator              BundlingModeIndicator                            OPTIONAL,
    eDCHLogicalChannelInformation       E-DCH-LogicalChannelInformation,
    iE-Extensions                      ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-InfoItem-ExtIEs} }  OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotRequestedIndicator    CRITICALITY ignore    EXTENSION TransportBearerNotRequestedIndicator    PRESENCE optional },
    ...
}

E-DCH-MACdFlow-Specific-InformationResp ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-InformationResp-Item

E-DCH-MACdFlow-Specific-InformationResp-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID                E-DCH-MACdFlow-ID,
    bindingID                         BindingID                                OPTIONAL,
    transportLayerAddress              TransportLayerAddress                    OPTIONAL,
    hARQ-Process-Allocation-NonSched-2ms-EDCH HARQ-Process-Allocation-2ms-EDCH        OPTIONAL,
    iE-Extensions                      ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-InformationResp-Item-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-InformationResp-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotSetupIndicator        CRITICALITY ignore    EXTENSION TransportBearerNotSetupIndicator        PRESENCE optional }, -- FDD only
    ...
}

E-DCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-Specific-InfoItem-to-Modify

E-DCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
    e-DCH-MACdFlow-ID                E-DCH-MACdFlow-ID,
    allocationRetentionPriority        AllocationRetentionPriority                OPTIONAL,
    transportBearerRequestIndicator    TransportBearerRequestIndicator,
    tnlQos                             TnlQos                                OPTIONAL,
    maximum-Number-of-Retransmissions-For-E-DCH Maximum-Number-of-Retransmissions-For-E-DCH OPTIONAL,
    eDCH-HARQ-PO-FDD                  E-DCH-HARQ-PO-FDD                        OPTIONAL,
    eDCH-MACdFlow-Multiplexing-List    E-DCH-MACdFlow-Multiplexing-List        OPTIONAL,
    eDCH-Grant-Type-Information         E-DCH-Grant-Type-Information            OPTIONAL,
}

```



```

    bundlingModeIndicator                BundlingModeIndicator                OPTIONAL,
    eDCH-LogicalChannelToAdd              E-DCH-LogicalChannelInformation          OPTIONAL,
    eDCH-LogicalChannelToModify           E-DCH-LogicalChannelToModify            OPTIONAL,
    eDCH-LogicalChannelToDelete           E-DCH-LogicalChannelToDelete            OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { E-DCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs} }
    OPTIONAL,
    ...
}

E-DCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-MACdFlows-to-Delete ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-to-Delete-Item

E-DCH-MACdFlow-to-Delete-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID                      E-DCH-MACdFlow-ID,
    iE-Extensions                          ProtocolExtensionContainer { { E-DCH-MACdFlow-to-Delete-Item-ExtIEs} }          OPTIONAL,
    ...
}

E-DCH-MACdFlow-to-Delete-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-Non-Scheduled-Transmission-Grant-Items ::= SEQUENCE {
    -- The following IE shall be ignored if id-Ext-Max-Bits-MACe-PDU-non-scheduled is present in E-DCH-Non-Scheduled-Transmission-Grant-Items-ExtIEs
    maxBits-MACe-PDU-non-scheduled          Max-Bits-MACe-PDU-non-scheduled,
    hARQ-Process-Allocation-NonSched-2ms    HARQ-Process-Allocation-2ms-EDCH          OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Transmission-Grant-Items-ExtIEs} }  OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Transmission-Grant-Items-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    -- The following IE shall be present if the maximum number of bits to be signalled exceeds maxNrOfBits-MACe-PDU-non-scheduled
    { ID id-Ext-Max-Bits-MACe-PDU-non-scheduled    CRITICALITY reject    EXTENSION    Ext-Max-Bits-MACe-PDU-non-scheduled    PRESENCE optional},
    ...
}

E-DCH-Non-serving-Relative-Grant-Down-Commands ::= INTEGER (0..100,...)

E-DCHProvidedBitRateValue ::= INTEGER(0..16777215,...,16777216..256000000)
-- Unit bit/s, Range 0..2^24-1..2^24..256,000,000, Step 1 bit

Maximum-Target-ReceivedTotalWideBandPower ::= INTEGER (0..621)
-- mapping as for RTWP measurement value, as specified in [22]

Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio ::= INTEGER (0..100)
-- Unit %, Range 0..100%, Step 1%

E-DCH-RL-Indication ::= ENUMERATED {
    e-DCH,
    non-e-DCH
}

```

```

}

E-DCH-Serving-Cell-Change-Info-Response ::= SEQUENCE {
    e-DCH-serving-cell-choice      E-DCH-serving-cell-choice,
    iE-Extensions                  ProtocolExtensionContainer { { E-DCH-serving-cell-informationResponse-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-informationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-serving-cell-choice ::= CHOICE {
    e-DCH-serving-cell-change-successful      E-DCH-serving-cell-change-successful,
    e-DCH-serving-cell-change-unsuccessful    E-DCH-serving-cell-change-unsuccessful,
    ...
}

E-DCH-serving-cell-change-successful ::= SEQUENCE {
    e-DCH-RL-InformationList-Rsp      E-DCH-RL-InformationList-Rsp,
    iE-Extensions                    ProtocolExtensionContainer { { E-DCH-serving-cell-change-successful-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-RL-InformationList-Rsp ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF E-DCH-RL-InformationList-Rsp-Item

E-DCH-RL-InformationList-Rsp-Item ::= SEQUENCE {
    rl-ID                            RL-ID,
    e-DCH-FDD-DL-Control-Channel-Info E-DCH-FDD-DL-Control-Channel-Information,
    iE-Extensions                    ProtocolExtensionContainer { { E-DCH-RL-InformationList-Rsp-Item-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-change-successful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-RL-InformationList-Rsp-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-serving-cell-change-unsuccessful ::= SEQUENCE {
    cause                            Cause,
    iE-Extensions                    ProtocolExtensionContainer { { E-DCH-serving-cell-change-unsuccessful-ExtIEs} } OPTIONAL,
    ...
}

E-DCH-serving-cell-change-unsuccessful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TFCI-Table-Index ::= INTEGER (0..1,...,2..7)

```

```
E-DCH-TTI-Length ::= CHOICE {
    two-ms      DTX-Cycle-2ms-Items,
    ten-ms      DTX-Cycle-10ms-Items,
    ...
}

E-DCH-TTI-Length-to-Modify ::= CHOICE {
    two-ms      DTX-Cycle-2ms-to-Modify-Items,
    ten-ms      DTX-Cycle-10ms-to-Modify-Items,
    ...
}

E-DPCCH-PO ::= INTEGER (0..maxNrOfEDPCCH-PO-QUANTSTEPS)

E-DPDCH-PowerInterpolation ::= BOOLEAN

E-Primary-Secondary-Grant-Selector ::= ENUMERATED {
    primary,
    secondary
}

E-HICH-Signature-Sequence ::= INTEGER (0..maxNrofSigSeqRGHI-1)

End-Of-Audit-Sequence-Indicator ::= ENUMERATED {
    end-of-audit-sequence,
    not-end-of-audit-sequence
}

E-Serving-Grant-Value ::= INTEGER (0..38)

E-RGCH-2-IndexStepThreshold ::= INTEGER (0..37)

E-RGCH-3-IndexStepThreshold ::= INTEGER (0..37)

E-RGCH-E-HICH-FDD-Code-Information ::= CHOICE {
    replace      E-RGCH-E-HICH-FDD-Code-List,
    remove      NULL,
    ...
}

E-RGCH-E-HICH-FDD-Code-List ::= SEQUENCE (SIZE (1..maxNrOfE-RGCHs-E-HICHs)) OF FDD-DL-ChannelisationCodeNumber

E-RGCH-Release-Indicator ::= ENUMERATED {e-RGCHreleased}

E-RGCH-Signature-Sequence ::= INTEGER (0..maxNrofSigSeqRGHI-1)

E-RNTI ::= INTEGER (0..65535)

E-TFCI ::= INTEGER (0..127)

E-TFCI-BetaEC-Boost ::= INTEGER (0..127,...)
```

```

E-TFCI-Boost-Information ::= SEQUENCE {
    e-TFCI-BetaEC-Boost          E-TFCI-BetaEC-Boost,
    uL-Delta-T2TP                UL-Delta-T2TP          OPTIONAL,
    -- This IE shall be present if the E-TFCI BetaEC Boost IE value is not set to 127.
    iE-Extensions                ProtocolExtensionContainer { { E-TFCI-Boost-Information-ExtIEs } }    OPTIONAL,
    ...
}

E-TFCI-Boost-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-TFCS-Information ::= SEQUENCE {
    e-DCH-TFCS-Table-Index      E-DCH-TFCS-Table-Index,
    e-DCH-Min-Set-E-TFCS        E-TFCS                OPTIONAL,
    reference-E-TFCS-Information Reference-E-TFCS-Information,
    iE-Extensions                ProtocolExtensionContainer { {E-TFCS-Information-ExtIEs} }    OPTIONAL,
    ...
}

E-TFCS-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-TFCS-Boost-Information      CRITICALITY reject      EXTENSION   E-TFCS-Boost-Information      PRESENCE optional}|
    { ID id-E-DPDCH-PowerInterpolation    CRITICALITY reject      EXTENSION   E-DPDCH-PowerInterpolation    PRESENCE optional},
    ...
}

E-TTI ::= ENUMERATED {
    e-TTI-2ms,
    e-TTI-10ms
}

E-DCHProvidedBitRate ::= SEQUENCE (SIZE (1..maxNrOfPriorityClasses)) OF E-DCHProvidedBitRate-Item

E-DCHProvidedBitRate-Item ::= SEQUENCE {
    schedulingPriorityIndicator      SchedulingPriorityIndicator,
    e-DCHProvidedBitRateValue        E-DCHProvidedBitRateValue,
    iE-Extensions                    ProtocolExtensionContainer { { E-DCHProvidedBitRate-Item-ExtIEs } }    OPTIONAL,
    ...
}

E-DCHProvidedBitRate-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

E-RGCH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

```

```
E-HICH-PowerOffset ::= INTEGER (0..255,...)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB
```

```
E-HICH-TimeOffset ::= INTEGER (4..44)
```

```
E-HICH-TimeOffsetLCR ::= INTEGER (4..15)
```

```
E-DCH-Information ::= SEQUENCE {
    e-PUCH-Information                E-PUCH-Information,
    e-TFCS-Information-TDD            E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD  E-DCH-MACdFlows-Information-TDD,
    e-DCH-Non-Scheduled-Grant-Info  E-DCH-Non-Scheduled-Grant-Info OPTIONAL,
    e-DCH-TDD-Information            E-DCH-TDD-Information,
    iE-Extensions                    ProtocolExtensionContainer { { E-DCH-Information-ExtIEs } } OPTIONAL,
    ...
}
```

```
E-DCH-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
E-PUCH-Information ::= SEQUENCE {
    minCR                CodeRate,
    maxCR                CodeRate,
    harqInfo             HARQ-Info-for-E-DCH,
    n-E-UCCH             N-E-UCCH,
    iE-Extensions        ProtocolExtensionContainer { { E-PUCH-Information-ExtIEs } } OPTIONAL,
    ...
}
```

```
E-PUCH-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
E-TFCS-Information-TDD ::= SEQUENCE {
    e-DCH-QPSK-RefBetaInfo  E-DCH-QPSK-RefBetaInfo,
    e-DCH-sixteenQAM-RefBetaInfo  E-DCH-sixteenQAM-RefBetaInfo,
    iE-Extensions          ProtocolExtensionContainer { { E-TFCS-Information-TDD-ExtIEs } } OPTIONAL,
    ...
}
```

```
E-TFCS-Information-TDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
E-DCH-QPSK-RefBetaInfo ::= SEQUENCE (SIZE (1..maxNrOfRefBetas)) OF E-DCH-RefBeta-Item
```

```
E-DCH-sixteenQAM-RefBetaInfo ::= SEQUENCE (SIZE (1..maxNrOfRefBetas)) OF E-DCH-RefBeta-Item
```

```
E-DCH-RefBeta-Item ::= SEQUENCE {
    refCodeRate          CodeRate-short,
```

```

    refBeta          RefBeta
}

E-DCH-MACdFlows-Information-TDD ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-InfoTDDItem

E-DCH-MACdFlow-InfoTDDItem ::= SEQUENCE {
    e-DCH-MACdFlow-ID          E-DCH-MACdFlow-ID,
    allocationRetentionPriority AllocationRetentionPriority,
    tnlQos                      TnlQos                      OPTIONAL,
    bindingID                   BindingID                   OPTIONAL,
    transportLayerAddress       TransportLayerAddress       OPTIONAL,
    payloadCRC-PresenceIndicator PayloadCRC-PresenceIndicator,
    maximum-Number-of-Retransmissions-For-E-DCH Maximum-Number-of-Retransmissions-For-E-DCH,
    eDCH-HARQ-PO-TDD           E-DCH-HARQ-PO-TDD,
    eDCH-MACdFlow-Multiplexing-List E-DCH-MACdFlow-Multiplexing-List OPTIONAL,
    eDCH-Grant-TypeTDD         E-DCH-Grant-TypeTDD,
    eDCHLogicalChannelInformation E-DCH-LogicalChannelInformation,
    eDCH-MACdFlow-Retransmission-Timer E-DCH-MACdFlow-Retransmission-Timer OPTIONAL,
    -- Mandatory for LCR TDD, Not applicable for 3.84Mcps TDD and 7.68Mcps TDD
    iE-Extensions              ProtocolExtensionContainer { { E-DCH-MACdFlow-InfoTDDItem-ExtIEs } } OPTIONAL,
    ...
}

E-DCH-MACdFlow-InfoTDDItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-MACdFlow-Retransmission-Timer ::= ENUMERATED {
    ms10, ms15, ms20, ms25, ms30, ms35, ms40, ms45, ms50, ms55, ms60, ms65,
    ms70, ms75, ms80, ms85, ms90, ms95, ms100, ms110, ms120, ms140, ms160,
    ms200, ms240, ms280, ms320, ms400, ms480, ms560, ...
}

E-DCH-HARQ-PO-TDD ::= INTEGER (0..6)

E-DCH-Grant-TypeTDD ::= ENUMERATED {
    scheduled,
    non-scheduled
}

E-DCH-Non-Scheduled-Grant-Info ::= SEQUENCE {
    timeslotResource      E-DCH-TimeslotResource,
    powerResource         E-DCH-PowerResource,
    repetitionPeriod      RepetitionPeriod,
    repetitionLength      RepetitionLength,
    tddE-PUCH-Offset      TddE-PUCH-Offset,
    tdd-ChannelisationCode TDD-ChannelisationCode,
    iE-Extensions         ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-Info-ExtIEs } } OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Grant-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

E-DCH-TimeslotResource ::= BIT STRING (SIZE (13))

E-DCH-TimeslotResourceLCR ::= BIT STRING (SIZE (5))

E-DCH-PowerResource ::= INTEGER(1..32)

TddeE-PUCH-Offset ::= INTEGER(0..255)

E-DCH-TDD-Information ::= SEQUENCE {
    e-DCH-TDD-Maximum-Bitrate           E-DCH-TDD-Maximum-Bitrate           OPTIONAL,
    e-DCH-Processing-Overload-Level     E-DCH-Processing-Overload-Level     OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo E-DCH-PowerOffset-for-SchedulingInfo OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { E-DCH-TDD-Information-ExtIEs } } OPTIONAL,
    ...
}

E-DCH-TDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Maximum-Bitrate ::= INTEGER (0..9201,...)

E-DCH-Information-Response ::= SEQUENCE {
    e-DCH-TDD-MACdFlow-Specific-InformationResp E-DCH-TDD-MACdFlow-Specific-InformationResp OPTIONAL,
    e-AGCH-Specific-Information-ResponseTDD     E-AGCH-Specific-InformationRespListTDD  OPTIONAL,
    e-RNTI                                       E-RNTI,
    scheduled-E-HICH-Specific-InformationResp   Scheduled-E-HICH-Specific-Information-ResponseLCRTDD  OPTIONAL, -- 1.28Mcps TDD only
    iE-Extensions                               ProtocolExtensionContainer { { E-DCH-Information-Response-ExtIEs } }  OPTIONAL,
    ...
}

E-DCH-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Scheduled-E-HICH-Specific-Information-ResponseLCRTDD ::= SEQUENCE (SIZE (1.. maxNrOfEHICHCodes)) OF Scheduled-E-HICH-Specific-InformationItem-ResponseLCRTDD

Scheduled-E-HICH-Specific-InformationItem-ResponseLCRTDD ::= SEQUENCE {
    eI                                       EI,
    e-HICH-ID-TDD                          E-HICH-ID-TDD,
    iE-Extensions                           ProtocolExtensionContainer {{ Scheduled-E-HICH-Specific-InformationItem-ResponseLCRTDD-ExtIEs}}
    OPTIONAL,
    ...
}

Scheduled-E-HICH-Specific-InformationItem-ResponseLCRTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-HICH-ID-TDD  CRITICALITY ignore EXTENSION Extended-E-HICH-ID-TDD PRESENCE optional},
    -- Applicable to 1.28Mcps TDD only when the E-HICH identity has a value larger than 31.
    ...
}

EI ::= INTEGER (0..3)

```

```

E-HICH-ID-TDD ::= INTEGER (0..31)

E-HICH-Type ::= ENUMERATED {scheduled,non-scheduled}

E-DCH-TDD-MACdFlow-Specific-InformationResp ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-TDD-MACdFlow-Specific-InformationResp-Item

E-DCH-TDD-MACdFlow-Specific-InformationResp-Item ::= SEQUENCE {
    e-DCH-MacdFlow-Id          E-DCH-MACdFlow-ID,
    bindingID                  BindingID OPTIONAL,
    transportLayerAddress      TransportLayerAddress OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { E-DCH-TDD-MACdFlow-Specific-InformationRespItem-ExtIEs } }
    OPTIONAL,
    ...
}

E-DCH-TDD-MACdFlow-Specific-InformationRespItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Specific-InformationRespListTDD ::= SEQUENCE (SIZE (1..maxNrOfEAGCHCodes)) OF E-AGCH-Specific-InformationResp-ItemTDD

E-AGCH-Specific-InformationResp-ItemTDD ::= SEQUENCE {
    e-AGCH-Id                  E-AGCH-Id,
    iE-Extensions              ProtocolExtensionContainer { { E-AGCH-Specific-InformationResp-ItemTDD-ExtIEs } } OPTIONAL,
    ...
}

E-AGCH-Specific-InformationResp-ItemTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-AGCH-Id ::= INTEGER (0..31,...,32..255)

E-DCH-Information-Reconfig ::= SEQUENCE {
    e-PUCH-Information          E-PUCH-Information OPTIONAL,
    e-TFCS-Information-TDD      E-TFCS-Information-TDD OPTIONAL,
    e-DCH-MACdFlows-to-Add      E-DCH-MACdFlows-Information-TDD OPTIONAL,
    e-DCH-MACdFlows-to-Delete   E-DCH-MACdFlows-to-Delete OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info E-DCH-Non-Scheduled-Grant-Info OPTIONAL,
    e-DCH-TDD-Information        E-DCH-TDD-Information OPTIONAL,
    e-DCH-TDD-Information-to-Modify E-DCH-TDD-Information-to-Modify OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { E-DCH-Information-Reconfig-ExtIEs } } OPTIONAL,
    ...
}

E-DCH-Information-Reconfig-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Information-to-Modify ::= SEQUENCE {
    e-DCH-TDD-Information-to-Modify-List E-DCH-TDD-Information-to-Modify-List OPTIONAL,
    mACeReset-Indicator                 MACeReset-Indicator OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { E-DCH-TDD-Information-to-Modify-ExtIEs } } OPTIONAL,
}

```



```

}
...
E-DCH-TDD-Information-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
}
...
E-DCH-TDD-Information-to-Modify-List ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF E-DCH-MACdFlow-ModifyTDDItem

E-DCH-MACdFlow-ModifyTDDItem ::= SEQUENCE {
    e-DCH-MACdFlow-ID                E-DCH-MACdFlow-ID,
    allocationRetentionPriority        AllocationRetentionPriority    OPTIONAL,
    transportBearerRequestIndicator    TransportBearerRequestIndicator,
    bindingID                          BindingID                      OPTIONAL,
    transportLayerAddress               TransportLayerAddress          OPTIONAL,
    tnlQos                              TnlQos                       OPTIONAL,
    maximum-Number-of-Retransmissions-For-E-DCH Maximum-Number-of-Retransmissions-For-E-DCH    OPTIONAL,
    eDCH-HARQ-PO-TDD                   E-DCH-HARQ-PO-TDD            OPTIONAL,
    eDCH-MACdFlows-Multiplexing-List    E-DCH-MACdFlows-Multiplexing-List    OPTIONAL,
    eDCH-Grant-TypeTDD                 E-DCH-Grant-TypeTDD          OPTIONAL,
    e-DCH-LogicalChannelToAdd           E-DCH-LogicalChannelInformation    OPTIONAL,
    e-DCH-LogicalChannelToModify        E-DCH-LogicalChannelToModify      OPTIONAL,
    e-DCH-LogicalChannelToDelete        E-DCH-LogicalChannelToDelete      OPTIONAL,
    eDCH-MACdFlow-Retransmission-Timer  E-DCH-MACdFlow-Retransmission-Timer    OPTIONAL,
    -- LCR TDD only
    iE-Extensions                      ProtocolExtensionContainer { {E-DCH-MACdFlow-ModifyTDDItem-ExtIEs } } OPTIONAL,
    ...
}

E-DCH-MACdFlow-ModifyTDDItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
}
...

Maximum-Generated-ReceivedTotalWideBandPowerInOtherCells ::= INTEGER (0..621)
-- mapping as for RTWP measurement value, as specified in [23]

E-DCH-768-Information ::= SEQUENCE {
    e-PUCH-Information                E-PUCH-Information,
    e-TFCS-Information-TDD             E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD    E-DCH-MACdFlows-Information-TDD,
    e-DCH-Non-Scheduled-Grant-Info768 E-DCH-Non-Scheduled-Grant-Info768    OPTIONAL,
    e-DCH-TDD-Information768           E-DCH-TDD-Information768,
    iE-Extensions                    ProtocolExtensionContainer { { E-DCH-768-Information-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-768-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
}
...

E-DCH-Non-Scheduled-Grant-Info768 ::= SEQUENCE {
    timeslotResource                  E-DCH-TimeslotResource,
    powerResource                     E-DCH-PowerResource,
    repetitionPeriod                  RepetitionPeriod,

```

```

    repetitionLength                RepetitionLength,
    tddE-PUCH-Offset                TddE-PUCH-Offset,
    tdd-ChannelisationCode768       TDD-ChannelisationCode768,
    iE-Extensions                    ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-Info768-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Grant-Info768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Information768 ::= SEQUENCE {
    e-DCH-TDD-Maximum-Bitrate768    E-DCH-TDD-Maximum-Bitrate768                OPTIONAL,
    e-DCH-Processing-Overload-Level  E-DCH-Processing-Overload-Level              OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo E-DCH-PowerOffset-for-SchedulingInfo        OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { E-DCH-TDD-Information768-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-TDD-Information768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-TDD-Maximum-Bitrate768 ::= INTEGER (0..17713,...)

E-DCH-768-Information-Reconfig ::= SEQUENCE {
    e-PUCH-Information                E-PUCH-Information                OPTIONAL,
    e-TFCS-Information-TDD            E-TFCS-Information-TDD            OPTIONAL,
    e-DCH-MACdFlows-to-Add            E-DCH-MACdFlows-Information-TDD   OPTIONAL,
    e-DCH-MACdFlows-to-Delete        E-DCH-MACdFlows-to-Delete        OPTIONAL,
    e-DCH-Non-Scheduled-Grant-Info768 E-DCH-Non-Scheduled-Grant-Info768 OPTIONAL,
    e-DCH-TDD-Information768         E-DCH-TDD-Information768         OPTIONAL,
    e-DCH-TDD-Information-to-Modify   E-DCH-TDD-Information-to-Modify   OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { E-DCH-768-Information-Reconfig-ExtIEs } } OPTIONAL,
    ...
}

E-DCH-768-Information-Reconfig-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-DCH-LCR-Information ::= SEQUENCE {
    e-PUCH-LCR-Information            E-PUCH-LCR-Information,
    e-TFCS-Information-TDD            E-TFCS-Information-TDD,
    e-DCH-MACdFlows-Information-TDD   E-DCH-MACdFlows-Information-TDD,
    e-DCH-Non-Scheduled-Grant-LCR-Info E-DCH-Non-Scheduled-Grant-LCR-Info OPTIONAL,
    e-DCH-LCR-TDD-Information         E-DCH-LCR-TDD-Information,
    iE-Extensions                    ProtocolExtensionContainer { { E-DCH-LCR-Information-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-LCR-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

E-PUCH-LCR-Information ::= SEQUENCE {
    minCR                               CodeRate,
    maxCR                               CodeRate,
    harqInfo                            HARQ-Info-for-E-DCH,
    pRXdes-base                         PRXdes-base,
    e-PUCH-TPC-StepSize                 TDD-TPC-UplinkStepSize-LCR,
    e-AGCH-TPC-StepSize                 TDD-TPC-DownlinkStepSize,
    iE-Extensions                       ProtocolExtensionContainer { { E-PUCH-LCR-Information-ExtIEs } }    OPTIONAL,
    ...
}

E-PUCH-LCR-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-E-PUCH-PowerControlGAP      CRITICALITY ignore      EXTENSION ControlGAP      PRESENCE optional      },
    ...
}

E-DCH-Non-Scheduled-Grant-LCR-Info ::= SEQUENCE {
    timeslotResourceLCR                 E-DCH-TimeslotResourceLCR,
    powerResource                       E-DCH-PowerResource,
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    subframeNumber                      ENUMERATED {v0, v1},
    tddE-PUCH-Offset                    TddE-PUCH-Offset,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    n-E-UCCHLCR                         N-E-UCCHLCR,
    e-HICH-LCR-Information               E-HICH-LCR-Information,
    iE-Extensions                       ProtocolExtensionContainer { { E-DCH-Non-Scheduled-Grant-LCR-Info-ExtIEs } }    OPTIONAL,
    ...
}

E-DCH-Non-Scheduled-Grant-LCR-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-HICH-LCR-Information ::= SEQUENCE {
    e-HICH-ID-TDD                       E-HICH-ID-TDD,
    signatureSequenceGroupIndex         SignatureSequenceGroupIndex,
    iE-Extensions                       ProtocolExtensionContainer { { E-HICH-LCR-Information-ExtIEs } }    OPTIONAL,
    ...
}

E-HICH-LCR-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-E-HICH-ID-TDD      CRITICALITY ignore      EXTENSION Extended-E-HICH-ID-TDD      PRESENCE optional},
    -- Applicable to 1.28Mcps TDD only when the E-HICH identity has a value larger than 31.
    ...
}

E-DCH-LCRTDD-Information ::= SEQUENCE {
    e-DCH-LCRTDD-PhysicalLayerCategory  E-DCH-LCRTDD-PhysicalLayerCategory    OPTIONAL,
    e-DCH-Processing-Overload-Level     E-DCH-Processing-Overload-Level       OPTIONAL,
    e-DCH-PowerOffset-for-SchedulingInfo E-DCH-PowerOffset-for-SchedulingInfo  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { E-DCH-LCRTDD-Information-ExtIEs } }    OPTIONAL,
    ...
}

```

```

}

E-DCH-LCRTDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory      CRITICALITY reject           EXTENSION Extended-E-DCH-LCRTDD-
PhysicalLayerCategory      PRESENCE optional }|
  -- This IE shall be used if the E-DCH Physical Layer Category has a value larger than 5.
  { ID id-MaximumNumber-Of-Retransmission-for-Scheduling-Info-LCRTDD      CRITICALITY ignore           EXTENSION Maximum-Number-of-
Retransmissions-For-E-DCH      PRESENCE optional }|
  { ID id-E-DCH-RetransmissionTimer-for-SchedulingInfo-LCRTDD      CRITICALITY ignore           EXTENSION E-DCH-MACdFlow-
Retransmission-Timer      PRESENCE optional },
  ...
}

E-DCH-LCRTDD-PhysicalLayerCategory ::= INTEGER(1..5)

E-DCH-LCR-Information-Reconfig ::= SEQUENCE {
  e-PUCH-LCR-Information          E-PUCH-LCR-Information          OPTIONAL,
  e-TFCS-Information-TDD          E-TFCS-Information-TDD          OPTIONAL,
  e-DCH-MACdFlows-to-Add          E-DCH-MACdFlows-Information-TDD  OPTIONAL,
  e-DCH-MACdFlows-to-Delete       E-DCH-MACdFlows-to-Delete       OPTIONAL,
  e-DCH-Non-Scheduled-Grant-LCR-Info E-DCH-Non-Scheduled-Grant-LCR-Info  OPTIONAL,
  e-DCH-LCRTDD-Information        E-DCH-LCRTDD-Information        OPTIONAL,
  e-DCH-TDD-Information-to-Modify  E-DCH-TDD-Information-to-Modify  OPTIONAL,
  iE-Extensions                  ProtocolExtensionContainer { { E-DCH-LCR-Information-Reconfig-ExtIEs} } OPTIONAL,
  ...
}

E-DCH-LCR-Information-Reconfig-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Enabling-Delay ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128}
-- Unit of radio frames

Enhanced-FACH-Capability ::= ENUMERATED {
  enhanced-FACH-capable,
  enhanced-FACH-non-capable
}

Enhanced-PCH-Capability ::= ENUMERATED {
  enhanced-PCH-capable,
  enhanced-PCH-non-capable
}

Extended-E-DCH-LCRTDD-PhysicalLayerCategory ::= INTEGER(6,...)

Ext-Max-Bits-MACe-PDU-non-scheduled ::= INTEGER(19983..22978,...)

Ext-Reference-E-TFCI-PO ::= INTEGER(30..31,...)

ExtendedPropagationDelay ::= INTEGER(255..1023)

```

```

Extended-RNC-ID ::= INTEGER (4096..65535)

Extended-Round-Trip-Time-Value ::= INTEGER(32767..103041)
-- See also mapping in [22]

Extended-HS-SCCH-ID ::= INTEGER (32..255)

Extended-HS-SICH-ID ::= INTEGER (32..255)

Extended-E-HICH-ID-TDD ::= INTEGER (32..255)

-- =====
-- F
-- =====

FACH-Measurement-Occasion-Cycle-Length-Coefficient ::= INTEGER(1..12)

Fast-Reconfiguration-Mode ::= ENUMERATED {fast,...}
Fast-Reconfiguration-Permission ::= ENUMERATED {allowed,...}

FDD-DL-ChannelisationCodeNumber ::= INTEGER(0.. 511)
-- According to the mapping in [9]. The maximum value is equal to the DL spreading factor -1--

FDD-DL-CodeInformation ::= SEQUENCE (SIZE (1..maxNrOfCodes)) OF FDD-DL-CodeInformationItem

FDD-DL-CodeInformationItem ::= SEQUENCE {
    dl-ScramblingCode DL-ScramblingCode,
    fdd-DL-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
    transmissionGapPatternSequenceCodeInformation TransmissionGapPatternSequenceCodeInformation OPTIONAL,
    iE-Extensions ProtocolExtensionContainer { { FDD-DL-CodeInformationItem-ExtIEs} } OPTIONAL,
    ...
}

FDD-DL-CodeInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FDD-S-CCPCH-FrameOffset ::= ENUMERATED {
    v1, v2, v4, ...
}

FDD-S-CCPCH-Offset ::= INTEGER (0..149)
-- 0: 0 chip, 1: 256 chip, 2: 512 chip, .. ,149: 38144 chip [7] --

FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-size1,
    step-size1-5,
    step-size2,
    ...
}

F-DPCH-Capability ::= ENUMERATED {
    f-DPCH-capable,

```

```

    f-DPCH-non-capable
}
F-DPCH-SlotFormat ::= INTEGER (0..9)

F-DPCH-SlotFormatCapability ::= ENUMERATED {
    f-DPCH-slot-format-capable,
    f-DPCH-slot-format-non-capable
}

FirstRLS-Indicator ::= ENUMERATED {
    first-RLS,
    not-first-RLS,
    ...
}

FNReportingIndicator ::= ENUMERATED {
    fN-reporting-required,
    fN-reporting-not-required
}

FrameHandlingPriority ::= INTEGER (0..15)
-- 0=lowest priority, 15=highest priority --

FrameAdjustmentValue ::= INTEGER(0..4095)

FrameOffset ::= INTEGER (0..255)

FPACH-Power ::= INTEGER (-150..400,...) -- FPACH-power = power * 10
-- If power <= -15 FPACH shall be set to -150
-- If power >= 40 FPACH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB

-- =====
-- G
-- =====
GANSS-Almanac ::= SEQUENCE{
    ganss-wk-number                INTEGER(0..255),
    gANSS-AlmanacModel             GANSS-AlmanacModel,
    ie-Extensions                  ProtocolExtensionContainer { { GANSS-Almanac-ExtIEs } }
    ...
}

GANSS-Almanac-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-AlmanacModel ::= CHOICE {
    gANSS-keplerianParameters      GANSS-KeplerianParametersAlm,

```

```

...
}

GANSS-Clock-Model ::= SEQUENCE (SIZE (1..maxGANSSClockMod)) OF GANSS-SatelliteClockModelItem

GANSS-Common-Data ::= SEQUENCE {
    ganss-Ionospheric-Model          GANSS-Ionospheric-Model          OPTIONAL,
    ganss-Rx-Pos                     GANSS-RX-Pos                     OPTIONAL,
    ie-Extensions                     ProtocolExtensionContainer { { GANSS-Common-Data-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Common-Data-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-CommonDataInfoReq ::= SEQUENCE {
    ionospheric-Model                BOOLEAN                        OPTIONAL,
    ie-Extensions                     ProtocolExtensionContainer { { GANSS-CommonDataInfoReq-ExtIEs } } OPTIONAL,
    ...
}

GANSS-CommonDataInfoReq-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Data-Bit-Assistance ::= SEQUENCE {
    ganssTod                          INTEGER (0..59,...),
    dataBitAssistanceList              GANSS-DataBitAssistanceList,
    ie-Extensions                      ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Data-Bit-Assistance-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-DataBitAssistanceList ::= SEQUENCE (SIZE (1..maxGANSSSat)) OF GANSS-DataBitAssistanceItem

GANSS-DataBitAssistanceItem ::= SEQUENCE {
    satId                              INTEGER(0..63),
    dataBitAssistanceSgnList            GANSS-DataBitAssistanceSgnList,
    ie-Extensions                      ProtocolExtensionContainer { { GANSS-DataBitAssistanceItem-ExtIEs } } OPTIONAL,
    ...
}

GANSS-DataBitAssistanceItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

GANSS-DataBitAssistanceSgnList ::= SEQUENCE (SIZE (1..maxSgnType)) OF GANSS-DataBitAssistanceSgnItem

```

GANSS-DataBitAssistanceSgnItem ::= SEQUENCE {
  ganss-SignalId      GANSS-Signal-ID,
  ganssDataBits       BIT STRING (SIZE (1..1024)),
  ie-Extensions       ProtocolExtensionContainer { { GANSS-DataBitAssistanceSgnItem-ExtIEs } } OPTIONAL,
  ...
}

```

```

GANSS-DataBitAssistanceSgnItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

GANSS-Data-Bit-Assistance-ReqItem ::= SEQUENCE {
  ganssTod              INTEGER (0..86399),
  ganss-Data-Bit-Assistance-ReqList GANSS-Data-Bit-Assistance-ReqList,
  iE-Extensions        ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ReqItem-ExtIEs } } OPTIONAL,
  ...
}

```

```

GANSS-Data-Bit-Assistance-ReqItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

GANSS-Data-Bit-Assistance-ReqList ::= SEQUENCE {
  dGANSS-Signal-ID      BIT STRING (SIZE (8)),
  ganss-DataBitInterval INTEGER(0..15),
  ganss-SatelliteInfo   SEQUENCE (SIZE (1..maxGANSSSat)) OF INTEGER(0..63) OPTIONAL,
  iE-Extensions        ProtocolExtensionContainer { { GANSS-Data-Bit-Assistance-ReqList-ExtIEs } } OPTIONAL,
  ...
}

```

```

GANSS-Data-Bit-Assistance-ReqList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

GANSS-GenericDataInfoReqList ::= SEQUENCE (SIZE(1..maxNoGANSS)) OF GANSS-GenericDataInfoReqItem

```

GANSS-GenericDataInfoReqItem ::= SEQUENCE {
  ganss-Id              GANSS-ID OPTIONAL,
  ganss-Navigation-Model-And-Time-Recovery BOOLEAN OPTIONAL,
  ganss-Time-Model-GNSS-GNSS BIT STRING (SIZE (9)) OPTIONAL,
  ganss-UTC-Model       BOOLEAN OPTIONAL,
  ganss-Almanac         BOOLEAN OPTIONAL,
  ganss-Real-Time-Integrity BOOLEAN OPTIONAL,
  ganss-Data-Bit-Assistance-Req GANSS-Data-Bit-Assistance-ReqItem OPTIONAL,
  ie-Extensions        ProtocolExtensionContainer { { GANSS-GenericDataInfoReqItem-ExtIEs } } OPTIONAL,
  ...
}

```



```

GANSS-GenericDataInfoReqItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Generic-Data ::= SEQUENCE (SIZE(1..maxNoGANSS)) OF GANSS-Generic-DataItem

GANSS-Generic-DataItem ::= SEQUENCE {
    ganss-Id                GANSS-ID                OPTIONAL,
    dganss-Correction       DGANSSCorrections       OPTIONAL,
    ganss-Navigation-Model-And-Time-Recovery GANSS-Navigation-Model-And-Time-Recovery OPTIONAL,
    ganss-Time-Model        GANSS-Time-Model        OPTIONAL,
    ganss-UTC-TIME          GANSS-UTC-Model         OPTIONAL,
    ganss-Almanac           GANSS-Almanac           OPTIONAL,
    ganss-Real-Time-Integrity GANSS-Real-Time-Integrity OPTIONAL,
    ganss-Data-Bit-Assistance GANSS-Data-Bit-Assistance OPTIONAL,
    ie-Extensions          ProtocolExtensionContainer { { GANSS-Generic-DataItem-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Generic-DataItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-ID ::= INTEGER(0..7,...)

GANSS-Information ::= SEQUENCE {
    gANSS-CommonDataInfoReq GANSS-CommonDataInfoReq OPTIONAL,
    gANSS-GenericDataInfoReqList GANSS-GenericDataInfoReqList OPTIONAL,
    ie-Extensions          ProtocolExtensionContainer { { GANSS-Information-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Ionospheric-Model ::= SEQUENCE {
    alpha-zero-ionos        BIT STRING (SIZE (12)),
    alpha-one-ionos         BIT STRING (SIZE (12)),
    alpha-two-ionos         BIT STRING (SIZE (12)),
    gANSS-IonosphereRegionalStormFlags GANSS-IonosphereRegionalStormFlags OPTIONAL,
    ie-Extensions          ProtocolExtensionContainer { { GANSS-Ionospheric-Model-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Ionospheric-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

GANSS-IonosphereRegionalStormFlags ::= SEQUENCE {
    storm-flag-one          BOOLEAN,
    storm-flag-two         BOOLEAN,
    storm-flag-three       BOOLEAN,
    storm-flag-four        BOOLEAN,
    storm-flag-five        BOOLEAN,
    ie-Extensions          ProtocolExtensionContainer { { GANSS-IonosphereRegionalStormFlags-ExtIEs } } OPTIONAL,
    ...
}

```

```

GANSS-IonosphereRegionalStormFlags-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

GANSS-KeplerianParametersAlm ::= SEQUENCE {
    t-oa                    INTEGER(0..255),
    iod-a                   INTEGER(0..3),
    gANSS-SatelliteInformationKP GANSS-SatelliteInformationKP,
    ie-Extensions          ProtocolExtensionContainer { { GANSS-KeplerianParametersAlm-ExtIEs } } OPTIONAL,
    ...
}

```

```

GANSS-KeplerianParametersAlm-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

GANSS-KeplerianParametersOrb ::= SEQUENCE {
    toe-nav                 BIT STRING (SIZE (14)),
    ganss-omega-nav        BIT STRING (SIZE (32)),
    delta-n-nav            BIT STRING (SIZE (16)),
    m-zero-nav             BIT STRING (SIZE (32)),
    omegadot-nav          BIT STRING (SIZE (24)),
    ganss-e-nav            BIT STRING (SIZE (32)),
    idot-nav               BIT STRING (SIZE (14)),
    a-sqrt-nav             BIT STRING (SIZE (32)),
    i-zero-nav             BIT STRING (SIZE (32)),
    omega-zero-nav         BIT STRING (SIZE (32)),
    c-rs-nav               BIT STRING (SIZE (16)),
    c-is-nav               BIT STRING (SIZE (16)),
    c-us-nav               BIT STRING (SIZE (16)),
    c-rc-nav               BIT STRING (SIZE (16)),
    c-ic-nav               BIT STRING (SIZE (16)),
    c-uc-nav               BIT STRING (SIZE (16)),
    ie-Extensions          ProtocolExtensionContainer { { GANSS-KeplerianParametersOrb-ExtIEs } } OPTIONAL,
    ...
}

```

```

GANSS-KeplerianParametersOrb-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

GANSS-Navigation-Model-And-Time-Recovery ::= SEQUENCE {
    ganss-Transmission-Time      GANSS-Transmission-Time,
    non-broadcastIndication      ENUMERATED{true} OPTIONAL,
    ganssSatInfoNav              GANSS-Sat-Info-Nav,
    ie-Extensions                 ProtocolExtensionContainer { { GANSS-Navigation-Model-And-Time-Recovery-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Navigation-Model-And-Time-Recovery-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Orbit-Model ::= CHOICE {
    gANSs-keplerianParameters      GANSS-KeplerianParametersOrb,
    ...
}

GANSS-Real-Time-Integrity ::= SEQUENCE (SIZE (1..maxGANSSSat)) OF GANSS-RealTimeInformationItem

GANSS-RealTimeInformationItem ::= SEQUENCE {
    bad-ganss-satId                INTEGER(0..63),
    bad-ganss-signalId             BIT STRING(SIZE(8)) OPTIONAL,
    ie-Extensions                  ProtocolExtensionContainer { { GANSS-RealTimeInformationItem-ExtIEs } } OPTIONAL,
    ...
}

GANSS-RealTimeInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-RX-Pos ::= SEQUENCE {
    latitudeSign                   ENUMERATED{north,south},
    degreesOfLatitude              INTEGER(0..2147483647),
    degreesOfLongitude             INTEGER(-2147483648..2147483647),
    directionOfAltitude            ENUMERATED{height,depth},
    altitude                       INTEGER(0..32767),
    ie-Extensions                  ProtocolExtensionContainer { { GANSS-RX-Pos-ExtIEs } } OPTIONAL,
    ...
}

GANSS-RX-Pos-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

GANSS-SatelliteClockModelItem ::= SEQUENCE {
    t-oc                BIT STRING (SIZE (14)),
    a-i2                BIT STRING (SIZE (12)),
    a-i1                BIT STRING (SIZE (18)),
    a-i0                BIT STRING (SIZE (28)),
    t-gd                BIT STRING (SIZE (10))                OPTIONAL,
    model-id            INTEGER(0..1,...)                    OPTIONAL,
    ie-Extensions       ProtocolExtensionContainer { { GANSS-SatelliteClockModelItem-ExtIEs } } OPTIONAL,
    ...
}

```

```

GANSS-SatelliteClockModelItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

GANSS-SatelliteInformationKP ::= SEQUENCE (SIZE (1..maxGANSSSatAlmanac)) OF GANSS-SatelliteInformationKPItem

```

```

GANSS-SatelliteInformationKPItem ::= SEQUENCE {
    satId                INTEGER(0..63),
    ganss-e-alm           BIT STRING (SIZE (11)),
    ganss-delta-I-alm     BIT STRING (SIZE (11)),
    ganss-omegadot-alm    BIT STRING (SIZE (11)),
    ganss-svhealth-alm    BIT STRING (SIZE (4)),
    ganss-delta-a-sqrt-alm BIT STRING (SIZE (17)),
    ganss-omegazero-alm   BIT STRING (SIZE (16)),
    ganss-m-zero-alm      BIT STRING (SIZE (16)),
    ganss-omega-alm       BIT STRING (SIZE (16)),
    ganss-af-zero-alm     BIT STRING (SIZE (14)),
    ganss-af-one-alm      BIT STRING (SIZE (11)),
    ie-Extensions        ProtocolExtensionContainer { { GANSS-SatelliteInformationKPItem-ExtIEs } } OPTIONAL,
    ...
}

```

```

GANSS-SatelliteInformationKPItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

GANSS-Sat-Info-Nav ::= SEQUENCE (SIZE(1..maxGANSSSat)) OF SEQUENCE {
    satId                INTEGER(0..63),
    svHealth              BIT STRING (SIZE(5)),
    iod                   BIT STRING (SIZE(10)),
    ganssClockModel       GANSS-Clock-Model,
    ganssOrbitModel        GANSS-Orbit-Model,
    ie-Extensions         ProtocolExtensionContainer { { GANSS-Sat-Info-Nav-ExtIEs } } OPTIONAL,
    ...
}

```

```

GANSS-Sat-Info-Nav-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

...
}

GANSS-Signal-ID ::= INTEGER(0..7,...)

GANSS-StatusHealth ::= ENUMERATED {
    udre-scale-1dot0,
    udre-scale-0dot75,
    udre-scale-0dot5,
    udre-scale-0dot3,
    udre-scale-0dot2,
    udre-scale-0dot1,
    no-data,
    invalid-data
}

GANSS-Time-Model ::= SEQUENCE {
    ganss-time-model-Ref-Time          INTEGER(0..37799),
    ganss-t-a0                        INTEGER(-2147483648.. 2147483647),
    ganss-t-a1                        INTEGER(-8388608.. 8388607)                OPTIONAL,
    ganss-t-a2                        INTEGER(-64..63)                        OPTIONAL,
    ganss-to-id                       ENUMERATED{gps,...},
    ganss-wk-number                   INTEGER(0..8191)                        OPTIONAL,
    ie-Extensions                     ProtocolExtensionContainer { { GANSS-Time-Model-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Time-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-Transmission-Time ::= SEQUENCE {
    ganssDay                          INTEGER(0..8191)                        OPTIONAL,
    ganssTod                          INTEGER(0..86399),
    ie-Extensions                     ProtocolExtensionContainer { { GANSS-Transmission-Time-ExtIEs } } OPTIONAL,
    ...
}

GANSS-Transmission-Time-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GANSS-UTC-Model ::= SEQUENCE {
    a-one-utc                         BIT STRING (SIZE (24)),
    a-zero-utc                        BIT STRING (SIZE (32)),
    t-ot-utc                          BIT STRING (SIZE (8)),
    w-n-t-utc                         BIT STRING (SIZE (8)),
    delta-t-ls-utc                   BIT STRING (SIZE (8)),
    w-n-lsf-utc                       BIT STRING (SIZE (8)),

```

```

    dn-utc                BIT STRING (SIZE (8)),
    delta-t-lsf-utc       BIT STRING (SIZE (8)),
    ie-Extensions         ProtocolExtensionContainer { { GANSS-UTC-Model-ExtIEs } }           OPTIONAL,
    ...
}

GANSS-UTC-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GapLength                ::= INTEGER (1..14)
-- Unit slot

GapDuration              ::= INTEGER (1..144,...)
-- Unit frame

GenericTrafficCategory  ::= BIT STRING (SIZE (8))

GPS-Almanac ::= SEQUENCE {
    wna-alm                BIT STRING (SIZE (8)),
    sat-info-almanac        SAT-Info-Almanac,
    sVGlobalHealth-alm     BIT STRING (SIZE (364)) OPTIONAL,
    ie-Extensions          ProtocolExtensionContainer { { GPS-Almanac-ExtIEs} }           OPTIONAL,
    ...
}

GPS-Almanac-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SAT-Info-Almanac-ExtItem    CRITICALITY ignore      EXTENSION    SAT-Info-Almanac-ExtList    PRESENCE optional},
    ...
}

GPS-Ionospheric-Model ::= SEQUENCE {
    alpha-zero-ionos        BIT STRING (SIZE (8)),
    alpha-one-ionos         BIT STRING (SIZE (8)),
    alpha-two-ionos         BIT STRING (SIZE (8)),
    alpha-three-ionos       BIT STRING (SIZE (8)),
    beta-zero-ionos         BIT STRING (SIZE (8)),
    beta-one-ionos          BIT STRING (SIZE (8)),
    beta-two-ionos          BIT STRING (SIZE (8)),
    beta-three-ionos        BIT STRING (SIZE (8)),
    ie-Extensions          ProtocolExtensionContainer { { GPS-Ionospheric-Model-ExtIEs} }   OPTIONAL,
    ...
}

GPS-Ionospheric-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

GPS-Information ::= SEQUENCE (SIZE (0..maxNoGPSItems)) OF GPS-Information-Item
-- This IE shall be present if the Information Type Item IE indicates 'GPS Information'

GPS-Information-Item ::= ENUMERATED {
    gps-navigation-model-and-time-recovery,
    gps-ionospheric-model,
    gps-utc-model,
    gps-almanac,
    gps-rt-integrity,
    ...
}

GPS-RealTime-Integrity ::= CHOICE {
    bad-satellites          GPSBadSat-Info-RealTime-Integrity,
    no-bad-satellites      NULL
}

GPSBadSat-Info-RealTime-Integrity ::= SEQUENCE {
    sat-info                SATInfo-RealTime-Integrity,
    ie-Extensions          ProtocolExtensionContainer { { GPSBadSat-Info-RealTime-Integrity-ExtIEs } } OPTIONAL,
    ...
}

GPSBadSat-Info-RealTime-Integrity-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-NavandRecovery-Item ::= SEQUENCE (SIZE (1..maxNoSat)) OF GPS-NavandRecovery-Item

GPS-NavandRecovery-Item ::= SEQUENCE {
    tx-tow-nav              INTEGER (0..1048575),
    sat-id-nav              SAT-ID,
    tlm-message-nav         BIT STRING (SIZE (14)),
    tlm-revd-c-nav          BIT STRING (SIZE (2)),
    ho-word-nav             BIT STRING (SIZE (22)),
    w-n-nav                 BIT STRING (SIZE (10)),
    ca-or-p-on-l2-nav       BIT STRING (SIZE (2)),
    user-range-accuracy-index-nav BIT STRING (SIZE (4)),
    sv-health-nav           BIT STRING (SIZE (6)),
    iodc-nav                BIT STRING (SIZE (10)),
    l2-p-dataflag-nav       BIT STRING (SIZE (1)),
    sf1-reserved-nav        BIT STRING (SIZE (87)),
    t-gd-nav                BIT STRING (SIZE (8)),
    t-oc-nav                BIT STRING (SIZE (16)),
    a-f-2-nav               BIT STRING (SIZE (8)),
    a-f-1-nav               BIT STRING (SIZE (16)),
    a-f-zero-nav            BIT STRING (SIZE (22)),
    c-rs-nav                BIT STRING (SIZE (16)),
    delta-n-nav             BIT STRING (SIZE (16)),

```

```

m-zero-nav          BIT STRING (SIZE (32)),
c-uc-nav            BIT STRING (SIZE (16)),
gps-e-nav           BIT STRING (SIZE (32)),
c-us-nav            BIT STRING (SIZE (16)),
a-sqrt-nav          BIT STRING (SIZE (32)),
t-oe-nav            BIT STRING (SIZE (16)),
fit-interval-flag-nav BIT STRING (SIZE (1)),
aodo-nav            BIT STRING (SIZE (5)),
c-ic-nav            BIT STRING (SIZE (16)),
omega-zero-nav      BIT STRING (SIZE (32)),
c-is-nav            BIT STRING (SIZE (16)),
i-zero-nav          BIT STRING (SIZE (32)),
c-rc-nav            BIT STRING (SIZE (16)),
gps-omega-nav       BIT STRING (SIZE (32)),
omegadot-nav        BIT STRING (SIZE (24)),
idot-nav            BIT STRING (SIZE (14)),
spare-zero-fill     BIT STRING (SIZE (20)),
ie-Extensions       ProtocolExtensionContainer { { GPS-NavandRecovery-Item-ExtIEs } } OPTIONAL,
...
}

GPS-NavandRecovery-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

GPS-RX-POS ::= SEQUENCE {
    latitudeSign      ENUMERATED {north, south},
    latitude           INTEGER (0..8388607),
    longitude          INTEGER (-8388608..8388607),
    directionOfAltitude ENUMERATED {height, depth},
    altitude           INTEGER (0..32767),
    iE-Extensions     ProtocolExtensionContainer { { GPS-RX-POS-ExtIEs } } OPTIONAL,
    ...
}

GPS-RX-POS-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

GPS-Status-Health ::= ENUMERATED {
    udre-scale-1dot0,
    udre-scale-0dot75,
    udre-scale-0dot5,
    udre-scale-0dot3,
    udre-scale-0dot1,
    no-data,
    invalid-data
}

GPSTOW ::= INTEGER (0..604799)

```



```

GPS-UTC-Model ::= SEQUENCE {
    a-one-utc          BIT STRING (SIZE (24)),
    a-zero-utc         BIT STRING (SIZE (32)),
    t-ot-utc           BIT STRING (SIZE (8)),
    delta-t-ls-utc     BIT STRING (SIZE (8)),
    w-n-t-utc          BIT STRING (SIZE (8)),
    w-n-lsf-utc        BIT STRING (SIZE (8)),
    dn-utc              BIT STRING (SIZE (8)),
    delta-t-lsf-utc    BIT STRING (SIZE (8)),
    ie-Extensions      ProtocolExtensionContainer { { GPS-UTC-Model-ExtIEs } }    OPTIONAL,
    ...
}

GPS-UTC-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- =====
-- H
-- =====

HARQ-Info-for-E-DCH ::= ENUMERATED {
    rv0,
    rvtable
}

HARQ-MemoryPartitioning ::= CHOICE {
    implicit          HARQ-MemoryPartitioning-Implicit,
    explicit          HARQ-MemoryPartitioning-Explicit,
    ...
}

HARQ-MemoryPartitioning-Implicit ::= SEQUENCE {
    number-of-Processes    INTEGER (1..8,...,12|14|16),
    ie-Extensions          ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Implicit-ExtIEs } }    OPTIONAL,
    ...
}

HARQ-MemoryPartitioning-Implicit-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HARQ-MemoryPartitioning-Explicit ::= SEQUENCE {
    harQ-MemoryPartitioningList    HARQ-MemoryPartitioningList,
    ie-Extensions                  ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Explicit-ExtIEs } }    OPTIONAL,
    ...
}

HARQ-MemoryPartitioning-Explicit-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- The following IE may only be used in FDD, in MIMO dual stream transmission mode
    {ID id-HARQ-MemoryPartitioningInfoExtForMIMO    CRITICALITY ignore    EXTENSION HARQ-MemoryPartitioningInfoExtForMIMO    PRESENCE optional},
    ...
}

```

```

}

HARQ-MemoryPartitioningList ::= SEQUENCE (SIZE (1..maxNrOfHARQProcesses)) OF HARQ-MemoryPartitioningItem

HARQ-MemoryPartitioningInfoExtForMIMO ::= SEQUENCE (SIZE (4|6|8)) OF HARQ-MemoryPartitioningItem

HARQ-MemoryPartitioningItem ::= SEQUENCE {
    process-Memory-Size          ENUMERATED {
        hms800, hms1600, hms2400, hms3200, hms4000,
        hms4800, hms5600, hms6400, hms7200, hms8000,
        hms8800, hms9600, hms10400, hms11200, hms12000,
        hms12800, hms13600, hms14400, hms15200, hms16000,
        hms17600, hms19200, hms20800, hms22400, hms24000,
        hms25600, hms27200, hms28800, hms30400, hms32000,
        hms36000, hms40000, hms44000, hms48000, hms52000,
        hms56000, hms60000, hms64000, hms68000, hms72000,
        hms76000, hms80000, hms88000, hms96000, hms104000,
        hms112000, hms120000, hms128000, hms136000, hms144000,
        hms152000, hms160000, hms176000, hms192000, hms208000,
        hms224000, hms240000, hms256000, hms272000, hms288000,
        hms304000, ...},
    iE-Extensions                ProtocolExtensionContainer { { HARQ-MemoryPartitioningItem-ExtIEs } } OPTIONAL,
    ...
}

HARQ-MemoryPartitioningItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HARQ-Preamble-Mode ::= ENUMERATED {
    mode0,
    mode1
}

HARQ-Process-Allocation-2ms-EDCH ::= BIT STRING ( SIZE(maxNrOfEDCHHARQProcesses2msEDCH) )

HARQ-Preamble-Mode-Activation-Indicator ::=ENUMERATED {
    harqPreambleModeActivated
}

HSDPA-Capability ::= ENUMERATED {hsdpa-capable, hsdpa-non-capable}

HS-DSCHProvidedBitRate ::= SEQUENCE (SIZE (1..maxNrOfPriorityClasses)) OF HS-DSCHProvidedBitRate-Item

HS-DSCHProvidedBitRate-Item ::= SEQUENCE {
    schedulingPriorityIndicator    SchedulingPriorityIndicator,
    hS-DSCHProvidedBitRateValue   HS-DSCHProvidedBitRateValue,
    iE-Extensions                 ProtocolExtensionContainer { { HS-DSCHProvidedBitRate-Item-ExtIEs } } OPTIONAL,
    ...
}

HS-DSCHProvidedBitRate-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

HS-DSCHProvidedBitRateValue ::= INTEGER(0..16777215,...,16777216..256000000)
-- except for 7.68Mcps TDD Unit bit/s, Range 0..2^24-1..2^24..256,000,000, Step 1 bit
-- 7.68Mcps TDD Unit 2bit/s, Range 0..2^24-1..2^24..256,000,000, Step 1

HS-DSCHProvidedBitRateValueInformation-For-CellPortion ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF HS-
DSCHProvidedBitRateValueInformation-For-CellPortion-Item

HS-DSCHProvidedBitRateValueInformation-For-CellPortion-Item ::= SEQUENCE{
    cellPortionID           CellPortionID,
    hS-DSCHProvidedBitRateValue  HS-DSCHProvidedBitRate,
    iE-Extensions           ProtocolExtensionContainer { {HS-DSCHProvidedBitRateValueInformation-For-CellPortion-Item-ExtIEs} } OPTIONAL,
    ...
}

HS-DSCHProvidedBitRateValueInformation-For-CellPortion-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCHRequiredPower ::= SEQUENCE (SIZE (1..maxNrOfPriorityClasses)) OF HS-DSCHRequiredPower-Item

HS-DSCHRequiredPower-Item ::= SEQUENCE {
    schedulingPriorityIndicator  SchedulingPriorityIndicator,
    hS-DSCHRequiredPowerValue  HS-DSCHRequiredPowerValue,
    hS-DSCHRequiredPowerPerUEInformation  HS-DSCHRequiredPowerPerUEInformation OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { HS-DSCHRequiredPower-Item-ExtIEs} } OPTIONAL,
    ...
}

HS-DSCHRequiredPower-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCHRequiredPowerValue ::= INTEGER(0..1000)
-- Unit %, Range 0 ..1000, Step 0.1%

HS-DSCHRequiredPowerPerUEInformation ::= SEQUENCE (SIZE (1.. maxNrOfContextsOnUeList)) OF HS-DSCHRequiredPowerPerUEInformation-Item

HS-DSCHRequiredPowerPerUEInformation-Item ::= SEQUENCE {
    cRNC-CommunicationContextID  CRNC-CommunicationContextID,
    hS-DSCHRequiredPowerPerUEWeight  HS-DSCHRequiredPowerPerUEWeight OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { HS-DSCHRequiredPowerPerUEInformation-Item-ExtIEs} } OPTIONAL,
    ...
}

HS-DSCHRequiredPowerPerUEInformation-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCHRequiredPowerPerUEWeight ::= INTEGER(0..100)
-- Unit %, Range 0 ..100, Step 1%

```

HS-DSCHRequiredPowerValueInformation-For-CellPortion ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF HS-DSCHRequiredPowerValueInformation-For-CellPortion-Item

```
HS-DSCHRequiredPowerValueInformation-For-CellPortion-Item ::= SEQUENCE{
    cellPortionID           CellPortionID,
    hs-DSCHRequiredPowerValue  HS-DSCHRequiredPower,
    iE-Extensions           ProtocolExtensionContainer { { HS-DSCHRequiredPowerValueInformation-For-CellPortion-Item-ExtIEs } }    OPTIONAL,
    ...
}
```

```
HS-DSCHRequiredPowerValueInformation-For-CellPortion-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
HSDPA-Associated-PICH-Information ::= CHOICE {
    hsdpa-PICH-Shared-with-PCH           HSDPA-PICH-Shared-with-PCH,
    hsdpa-PICH-notShared-with-PCH       HSDPA-PICH-notShared-with-PCH,
    ...
}
```

```
HSDPA-PICH-Shared-with-PCH ::= SEQUENCE {
    hsdpa-PICH-SharedPCH-ID           CommonPhysicalChannelID,
    ...
}
```

```
HSDPA-PICH-notShared-with-PCH ::= SEQUENCE {
    hSDPA-PICH-notShared-ID           CommonPhysicalChannelID,
    fdd-DL-Channelisation-CodeNumber  FDD-DL-ChannelisationCodeNumber,
    pich-Power                         PICH-Power,
    pich-Mode                           PICH-Mode,
    sttd-Indicator                       STTD-Indicator,
    ...
}
```

```
HSDSCH-Common-System-InformationFDD ::= SEQUENCE {
    hsdSCH-Common-Information           HSDSCH-Common-Information           OPTIONAL,
    commonMACFlow-Specific-Information  CommonMACFlow-Specific-InfoList    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { HSDSCH-Common-System-InformationFDD-ExtIEs } }    OPTIONAL,
    ...
}
```

```
HSDSCH-Common-System-InformationFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
HSDSCH-Common-System-Information-ResponseFDD ::= SEQUENCE {
    hsSCCH-Specific-Information-ResponseFDD  HSSCCH-Specific-InformationRespListFDD    OPTIONAL,
    hARQ-MemoryPartitioning                  HARQ-MemoryPartitioning                   OPTIONAL,
    commonMACFlow-Specific-Info-Response    CommonMACFlow-Specific-InfoList-Response  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { HSDSCH-Common-System-Information-ResponseFDD-ExtIEs } }
    OPTIONAL,
    ...
}
```

```

}
HSDSCH-Common-System-Information-ResponseFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
HSDSCH-Common-Information ::= SEQUENCE {
  cCCH-PriorityQueue-Id                PriorityQueue-Id,
  sRB1-PriorityQueue-Id                PriorityQueue-Id,
  associatedCommon-MACFlow              Common-MACFlow-ID,
  fACH-Measurement-Occasion-Cycle-Length-Coefficient  FACH-Measurement-Occasion-Cycle-Length-Coefficient OPTIONAL,
  rACH-Measurement-Result                RACH-Measurement-Result,
  bCCH-Specific-HSDSCH-RNTI-Information  BCCH-Specific-HSDSCH-RNTI-Information,
  iE-Extensions                          ProtocolExtensionContainer { { HSDSCH-Common-Information-ExtIEs } } OPTIONAL,
  ...
}
HSDSCH-Common-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
HSDSCH-FDD-Information ::= SEQUENCE {
  hSDSCH-MACdFlows-Information          HSDSCH-MACdFlows-Information,
  ueCapability-Info                     UE-Capability-Information,
  mACHs-Reordering-Buffer-Size-for-RLC-UM  MACHsReorderingBufferSize-for-RLC-UM,
  cqiFeedback-CycleK                    CQI-Feedback-Cycle,
  cqiRepetitionFactor                    CQI-RepetitionFactor OPTIONAL,
  -- This IE shall be present if the CQI Feedback Cycle k is greater than 0
  ackNackRepetitionFactor                AckNack-RepetitionFactor,
  cqiPowerOffset                          CQI-Power-Offset,
  ackPowerOffset                          Ack-Power-Offset,
  nackPowerOffset                          Nack-Power-Offset,
  hsscch-PowerOffset                      HSSCCH-PowerOffset OPTIONAL,
  measurement-Power-Offset                Measurement-Power-Offset OPTIONAL,
  iE-Extensions                          ProtocolExtensionContainer { { HSDSCH-FDD-Information-ExtIEs } } OPTIONAL,
  ...
}
HSDSCH-FDD-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-HARQ-Preamble-Mode              CRITICALITY ignore EXTENSION HARQ-Preamble-Mode PRESENCE optional } |
  { ID id-MIMO-ActivationIndicator         CRITICALITY reject EXTENSION MIMO-ActivationIndicator PRESENCE optional } |
  { ID id-HSDSCH-MACdPDUSizeFormat        CRITICALITY reject EXTENSION HSDSCH-MACdPDUSizeFormat PRESENCE optional } |
  { ID id-SixtyfourQAM-UsageAllowedIndicator  CRITICALITY ignore EXTENSION SixtyfourQAM-UsageAllowedIndicator PRESENCE optional } |
  ...
}
HSDSCH-TDD-Information ::= SEQUENCE {
  hSDSCH-MACdFlows-Information          HSDSCH-MACdFlows-Information,
  ueCapability-Info                     UE-Capability-Information,
  mACHs-Reordering-Buffer-Size-for-RLC-UM  MACHsReorderingBufferSize-for-RLC-UM,
  tDD-AckNack-Power-Offset                TDD-AckNack-Power-Offset,
  iE-Extensions                          ProtocolExtensionContainer { { HSDSCH-TDD-Information-ExtIEs } } OPTIONAL,
  ...
}

```

```

HSDSCH-TDD-Information-ExtIes NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-HSSICH-SIRTarget          CRITICALITY ignore          EXTENSION  UL-SIR          PRESENCE  optional}|
  -- Applicable to 1.28Mcps TDD only
  { ID id-HSSICH-TPC-StepSize       CRITICALITY ignore          EXTENSION  TDD-TPC-UplinkStepSize-LCR PRESENCE  optional}|
  -- Applicable to 1.28Mcps TDD only
  { ID id-HSDSCH-MACdPDUSizeFormat  CRITICALITY reject       EXTENSION  HSDSCH-MACdPDUSizeFormat  PRESENCE  optional}|
  { ID id-tSN-Length                CRITICALITY reject       EXTENSION  TSN-Length                PRESENCE  optional } ,
  -- Applicable for 1.28Mcps TDD when using multiple frequencies
  ...
}

HSDSCH-Information-to-Modify ::= SEQUENCE {
  hsDSCH-MACdFlow-Specific-Info-to-Modify          HSDSCH-MACdFlow-Specific-InfoList-to-Modify          OPTIONAL,
  priorityQueueInfoToModify                        PriorityQueue-InfoList-to-Modify                        OPTIONAL,
  mACHs-Reordering-Buffer-Size-for-RLC-UM          MACHsReorderingBufferSize-for-RLC-UM                  OPTIONAL,
  cqiFeedback-CycleK                               CQI-Feedback-Cycle                                    OPTIONAL, -- For FDD only
  cqiRepetitionFactor                              CQI-RepetitionFactor                                  OPTIONAL, -- For FDD only
  ackNackRepetitionFactor                          AckNack-RepetitionFactor                              OPTIONAL, -- For FDD only
  cqiPowerOffset                                  CQI-Power-Offset                                     OPTIONAL, -- For FDD only
  ackPowerOffset                                  Ack-Power-Offset                                     OPTIONAL, -- For FDD only
  nackPowerOffset                                  Nack-Power-Offset                                     OPTIONAL, -- For FDD only
  hsscch-PowerOffset                               HSSCCH-PowerOffset                                   OPTIONAL, -- For FDD only
  measurement-Power-Offset                         Measurement-Power-Offset                              OPTIONAL, -- For FDD only
  hSSCCHCodeChangeGrant                           HSSCCH-Code-Change-Grant                             OPTIONAL,
  tDDAckNackPowerOffset                            TDD-AckNack-Power-Offset                             OPTIONAL, -- For TDD only
  iE-Extensions                                    ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-ExtIes } } OPTIONAL,
  ...
}

HSDSCH-Information-to-Modify-ExtIes NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-HARQ-Preamble-Mode          CRITICALITY ignore          EXTENSION  HARQ-Preamble-Mode          PRESENCE  optional}|
  { ID id-HSSICH-SIRTarget            CRITICALITY ignore          EXTENSION  UL-SIR                       PRESENCE  optional}|
  -- Applicable to 1.28Mcps TDD only
  { ID id-ueCapability-Info           CRITICALITY ignore          EXTENSION  UE-Capability-Information    PRESENCE  optional}|
  { ID id-HSSICH-TPC-StepSize         CRITICALITY ignore          EXTENSION  TDD-TPC-UplinkStepSize-LCR  PRESENCE  optional}|
  -- Applicable to 1.28Mcps TDD only
  { ID id-HS-PDSCH-Code-Change-Grant  CRITICALITY ignore          EXTENSION  HS-PDSCH-Code-Change-Grant  PRESENCE  optional}|
  -- Applicable to FDD only
  { ID id-MIMO-Mode-Indicator          CRITICALITY reject          EXTENSION  MIMO-Mode-Indicator          PRESENCE  optional } |
  { ID id-HSDSCH-MACdPDUSizeFormat    CRITICALITY reject          EXTENSION  HSDSCH-MACdPDUSizeFormat    PRESENCE  optional}|
  { ID id-SixtyfourQAM-UsageAllowedIndicator CRITICALITY ignore          EXTENSION  SixtyfourQAM-UsageAllowedIndicator PRESENCE  optional},
  ...
}

HSDSCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-to-Modify

HSDSCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
  hsDSCH-MACdFlow-ID                    HSDSCH-MACdFlow-ID,
  allocationRetentionPriority             AllocationRetentionPriority                               OPTIONAL,
  transportBearerRequestIndicator        TransportBearerRequestIndicator,
  bindingID                               BindingID                                                 OPTIONAL,
  transportLayerAddress                  TransportLayerAddress                                   OPTIONAL,
}

```

```

    iE-Extensions          ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs } } OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos          CRITICALITY ignore      EXTENSION TnlQos      PRESENCE optional},
    ...
}

HSDSCH-MACdPDUSizeFormat ::= ENUMERATED {
    indexedMACdPDU-Size,
    flexibleMACdPDU-Size
}

HSDSCH-MACdPDU-SizeCapability ::= ENUMERATED {
    indexedSizeCapable,
    flexibleSizeCapable
}

HSDSCH-Information-to-Modify-Unsynchronised ::= SEQUENCE {
    hsDSCH-MACdFlow-Specific-Info-to-Modify          HSDSCH-MACdFlow-Specific-InfoList-to-Modify          OPTIONAL,
    priorityQueueInfoToModifyUnsynchronised          PriorityQueue-InfoList-to-Modify-Unsynchronised          OPTIONAL,
    cqiPowerOffset                                  CQI-Power-Offset                                  OPTIONAL, -- For FDD only
    ackPowerOffset                                  Ack-Power-Offset                                  OPTIONAL, -- For FDD only
    nackPowerOffset                                  Nack-Power-Offset                                  OPTIONAL, -- For FDD only
    hsscch-PowerOffset                              HSSCCH-PowerOffset                              OPTIONAL, -- For FDD only
    tDDAckNackPowerOffset                          TDD-AckNack-Power-Offset                          OPTIONAL, -- For TDD only
    iE-Extensions                                  ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs } }
    OPTIONAL,
    ...
}

HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-HARQ-Preamble-Mode          CRITICALITY ignore      EXTENSION HARQ-Preamble-Mode          PRESENCE optional}|
    { ID id-HSSICH-SIRTarget           CRITICALITY ignore      EXTENSION UL-SIR                       PRESENCE optional}|
    -- Applicable to 1.28Mcps TDD only
    { ID id-ueCapability-Info          CRITICALITY ignore      EXTENSION UE-Capability-Information    PRESENCE optional}|
    { ID id-HSSICH-TPC-StepSize        CRITICALITY ignore      EXTENSION TDD-TPC-UplinkStepSize-LCR    PRESENCE optional}|
    -- Applicable to 1.28Mcps TDD only
    { ID id-MIMO-Mode-Indicator         CRITICALITY reject      EXTENSION MIMO-Mode-Indicator          PRESENCE optional }|
    { ID id-SixtyfourQAM-UsageAllowedIndicator CRITICALITY ignore      EXTENSION SixtyfourQAM-UsageAllowedIndicator PRESENCE optional},
    ...
}

HSDSCH-FDD-Information-Response ::= SEQUENCE {
    hsDSCH-MACdFlow-Specific-InformationResp          HSDSCH-MACdFlow-Specific-InformationResp          OPTIONAL,
    hsSCCH-Specific-Information-ResponseFDD          HSSCCH-Specific-InformationRespListFDD            OPTIONAL,
    harQ-MemoryPartitioning                      HARQ-MemoryPartitioning                          OPTIONAL,
    iE-Extensions                                  ProtocolExtensionContainer { { HSDSCH-FDD-Information-Response-ExtIEs } }          OPTIONAL,
    ...
}

HSDSCH-FDD-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

{
  ID id-HARQ-Preamble-Mode-Activation-Indicator      CRITICALITY ignore EXTENSION HARQ-Preamble-Mode-Activation-Indicator
  PRESENCE optional}|
  { ID id-MIMO-N-M-Ratio                            CRITICALITY ignore EXTENSION MIMO-N-M-Ratio                                PRESENCE
optional}|
  { ID id-SixtyfourQAM-DL-UsageIndicator            CRITICALITY ignore EXTENSION SixtyfourQAM-DL-UsageIndicator          PRESENCE optional }|
  { ID id-HSDSCH-TBSizeTableIndicator              CRITICALITY ignore EXTENSION HSDSCH-TBSizeTableIndicator              PRESENCE optional },
  ...
}

HSDSCH-Paging-System-InformationFDD ::= SEQUENCE {
  paging-MACFlow-Specific-Information              Paging-MACFlow-Specific-Information,
  hSSCCH-Power                                     DL-Power,
  hSPDSCH-Power                                    DL-Power,
  number-of-PCCH-transmission                      Number-of-PCCH-transmission,
  transport-Block-Size-List                        Transport-Block-Size-List,
  iE-Extensions                                    ProtocolExtensionContainer { { HSDSCH-Paging-System-InformationFDD-ExtIEs } } OPTIONAL,
  ...
}

HSDSCH-Paging-System-InformationFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

HSDSCH-Paging-System-Information-ResponseFDD ::= SEQUENCE (SIZE (1..maxNrOfPagingMACFlow)) OF HSDSCH-Paging-System-Information-ResponseList

HSDSCH-Paging-System-Information-ResponseList ::= SEQUENCE {
  pagingMACFlow-ID                                Paging-MACFlow-ID,
  bindingID                                        BindingID                                          OPTIONAL,
  transportLayerAddress                            TransportLayerAddress                             OPTIONAL,
  hSPDSCH-Code-Index                              HSPDSCH-Code-Index,
  iE-Extensions                                    ProtocolExtensionContainer { { HSDSCH-Paging-System-Information-ResponseList-ExtIEs } }
OPTIONAL,
  ...
}

HSDSCH-Paging-System-Information-ResponseList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

HSDSCH-TDD-Information-Response ::= SEQUENCE {
  hsDSCH-MACdFlow-Specific-InformationResp        HSDSCH-MACdFlow-Specific-InformationResp        OPTIONAL,
  hsSCCH-Specific-Information-ResponseTDD         HSSCCH-Specific-InformationRespListTDD          OPTIONAL, -- Not Applicable to 1.28Mcps TDD or
7.68Mcps TDD
  hsSCCH-Specific-Information-ResponseTDDLRCR     HSSCCH-Specific-InformationRespListTDDLRCR     OPTIONAL, -- Not Applicable to 3.84Mcps TDD or
7.68Mcps TDD, This HSSCCH Specific Information is for the first Frequency repetition, HSSCCH Specific Information for Frequency repetitions 2 and
on, should be defined in MultipleFreq-HSPDSCH-InformationList-ResponseTDDLRCR
  HARQ-MemoryPartitioning                         HARQ-MemoryPartitioning                         OPTIONAL, -- This HARQ Memory Partitioning
Information is for the first Frequency repetition, HARQ Memory Partitioning Information for Frequency repetitions 2 and on, should be defined in
MultipleFreq-HSPDSCH-InformationList-ResponseTDDLRCR
  iE-Extensions                                    ProtocolExtensionContainer { { HSDSCH-TDD-Information-Response-ExtIEs } }      OPTIONAL,
  ...
}

HSDSCH-TDD-Information-Response-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```



```

    {ID id-hsSCCH-Specific-Information-ResponseTDD768
    PRESENCE optional}|
{ ID id-UARFCNforNt
    PRESENCE optional}|
    -- Applicable to 1.28Mcps TDD when using multiple frequencies ,This is the UARFCN for the first Frequency repetition
{ ID id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLRCR
ResponseTDDLRCR PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD when using multiple frequencies ,This MultipleFreq-HSPDSCH-InformationList-ResponseTDDLRCR is the HS-SCCH and HARQ
Memory Partitioning information for the 2nd and beyond HS-PDSCH frequencies.
{ ID id-multicarrier-number
    PRESENCE optional },
    -- Applicable for 1.28Mcps TDD when using multiple frequencies
    ...
}

HSDSCH-MACdFlow-Specific-InformationResp ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InformationResp-Item

HSDSCH-MACdFlow-Specific-InformationResp-Item ::= SEQUENCE {
    hsDSCHMacdFlow-Id          HSDSCH-MACdFlow-ID,
    bindingID                  BindingID OPTIONAL,
    transportLayerAddress      TransportLayerAddress OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation HSDSCH-Initial-Capacity-Allocation OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InformationRespItem-ExtIEs } }
    OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InformationRespItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-MACdFlows-Information ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-Info          HSDSCH-MACdFlow-Specific-InfoList,
    priorityQueue-Info                    PriorityQueue-InfoList,
    iE-Extensions                          ProtocolExtensionContainer { { HSDSCH-MACdFlows-Information-ExtIEs } }
    OPTIONAL,
    ...
}

HSDSCH-MACdFlows-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem

HSDSCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    hsDSCH-MACdFlow-ID          HSDSCH-MACdFlow-ID,
    allocationRetentionPriority AllocationRetentionPriority,
    bindingID                    BindingID OPTIONAL,
    transportLayerAddress        TransportLayerAddress OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs } }
    OPTIONAL,
    ...
}

HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

    {ID id-TnlQos          CRITICALITY ignore      EXTENSION TnlQos  PRESENCE optional },
    ...
}

HSDSCH-MACdFlows-to-Delete ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlows-to-Delete-Item

HSDSCH-MACdFlows-to-Delete-Item ::= SEQUENCE {
    hsDSCH-MACdFlow-ID          HSDSCH-MACdFlow-ID,
    iE-Extensions              ProtocolExtensionContainer { { HSDSCH-MACdFlows-to-Delete-Item-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-MACdFlows-to-Delete-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-TBSizeTableIndicator ::= ENUMERATED {
    octet-aligned
}

HSSCCH-PowerOffset ::= INTEGER (0..255)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB

HSDSCH-Initial-Capacity-Allocation ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF HSDSCH-Initial-Capacity-AllocationItem

HSDSCH-Initial-Capacity-AllocationItem ::= SEQUENCE {
    schedulingPriorityIndicator    SchedulingPriorityIndicator,
    maximum-MACdPDU-Size          MACdPDU-Size,
    hSDSCH-InitialWindowSize      HSDSCH-InitialWindowSize,
    iE-Extensions                ProtocolExtensionContainer { { HSDSCH-Initial-Capacity-AllocationItem-ExtIEs } }    OPTIONAL,
    ...
}

HSDSCH-Initial-Capacity-AllocationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MaximumMACdPDU-SizeExtended    CRITICALITY ignore      EXTENSION    MAC-PDU-SizeExtended PRESENCE optional},
    ...
}

HSDSCH-InitialWindowSize ::= INTEGER (1..255)
-- Number of MAC-d PDUs.

HSSCCH-Specific-InformationRespListFDD ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-Codes

HSSCCH-Codes ::= SEQUENCE {
    codeNumber                    INTEGER (0..127),
    iE-Extensions                ProtocolExtensionContainer { { HSSCCH-Specific-InformationRespItemFDD-ExtIEs } }    OPTIONAL,
    ...
}

HSSCCH-Specific-InformationRespItemFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

HSSCCH-Specific-InformationRespListTDD ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-Specific-InformationRespItemTDD

HSSCCH-Specific-InformationRespItemTDD ::= SEQUENCE {
    timeslot                               TimeSlot,
    midambleShiftAndBurstType              MidambleShiftAndBurstType,
    tDD-ChannelisationCode                 TDD-ChannelisationCode,
    hSSICH-Info                             HSSICH-Info,
    iE-Extensions                           ProtocolExtensionContainer { { HSSCCH-Specific-InformationRespItemTDD-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-Specific-InformationRespItemTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSCCH-Specific-InformationRespListTDDLRCR ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-Specific-InformationRespItemTDDLRCR

HSSCCH-Specific-InformationRespItemTDDLRCR ::= SEQUENCE {
    timeslotLCR                             TimeSlotLCR,
    midambleShiftLCR                         MidambleShiftLCR,
    first-TDD-ChannelisationCode             TDD-ChannelisationCode,
    second-TDD-ChannelisationCode            TDD-ChannelisationCode,
    hSSICH-InfoLCR                           HSSICH-InfoLCR,
    iE-Extensions                             ProtocolExtensionContainer { { HSSCCH-Specific-InformationRespItemTDDLRCR-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-Specific-InformationRespItemTDDLRCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-UARFCNforNt      CRITICALITY reject      EXTENSION UARFCN      PRESENCE optional},
    -- Applicable for 1.28Mcps TDD when using multiple frequencies. this IE indicates the frequency which is actually used by the HS-SCCH
    ...
}

HSSCCH-Specific-InformationRespListTDD768 ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-Specific-InformationRespItemTDD768

HSSCCH-Specific-InformationRespItemTDD768 ::= SEQUENCE {
    timeslot                               TimeSlot,
    midambleShiftAndBurstType768           MidambleShiftAndBurstType768,
    tDD-ChannelisationCode768              TDD-ChannelisationCode768,
    hSSICH-Info768                          HSSICH-Info768,
    iE-Extensions                           ProtocolExtensionContainer { { HSSCCH-Specific-InformationRespItemTDD768-ExtIEs } }
    OPTIONAL,
    ...
}

HSSCCH-Specific-InformationRespItemTDD768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSSICH-Info ::= SEQUENCE {
    hsSICH-ID                               HS-SICH-ID,
    timeslot                                 TimeSlot,

```

```

midambleShiftAndBurstType      MidambleShiftAndBurstType,
tDD-ChannelisationCode          TDD-ChannelisationCode,
iE-Extensions                   ProtocolExtensionContainer { { HSSICH-Info-ExtIEs } }    OPTIONAL,
...
}

HSSICH-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

HSSICH-InfoLCR ::= SEQUENCE {
    hsSICH-ID                    HS-SICH-ID,
    timeslotLCR                  TimeSlotLCR,
    midambleShiftLCR             MidambleShiftLCR,
    tDD-ChannelisationCode       TDD-ChannelisationCode,
    iE-Extensions                ProtocolExtensionContainer { { HSSICH-Info-LCR-ExtIEs } }    OPTIONAL,
    ...
}

HSSICH-Info-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-HS-SICH-ID          CRITICALITY ignore  EXTENSION Extended-HS-SICH-ID PRESENCE optional},
    -- used if the HS-SICH identity has a value larger than 31
    ...
}

HSSICH-Info768 ::= SEQUENCE {
    hsSICH-ID                    HS-SICH-ID,
    timeslot                      TimeSlot,
    midambleShiftAndBurstType768  MidambleShiftAndBurstType768,
    tDD-ChannelisationCode768     TDD-ChannelisationCode768,
    iE-Extensions                ProtocolExtensionContainer { { HSSICH-Info-768-ExtIEs } }    OPTIONAL,
    ...
}

HSSICH-Info-768-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

HS-SICH-Reception-Quality-Value ::= SEQUENCE {
    failed-HS-SICH                HS-SICH-failed,
    missed-HS-SICH                HS-SICH-missed,
    total-HS-SICH                 HS-SICH-total,
    iE-Extensions                ProtocolExtensionContainer { { HS-SICH-Reception-Quality-Value-ExtIEs } } OPTIONAL,
    ...
}

HS-SICH-Reception-Quality-Value-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Additional-failed-HS-SICH    CRITICALITY reject  EXTENSION HS-SICH-failed    PRESENCE optional }|
    -- Mandatory for 1.28Mcps TDD only, used when there are more than 20 failed HS-SICH
    {ID id-Additional-missed-HS-SICH    CRITICALITY reject  EXTENSION HS-SICH-missed    PRESENCE optional}|
    -- Mandatory for 1.28Mcps TDD only, used when there are more than 20 missed HS-SICH
    {ID id-Additional-total-HS-SICH     CRITICALITY reject  EXTENSION HS-SICH-total    PRESENCE optional},
    -- Mandatory for 1.28Mcps TDD only, used when there are more than 20 total HS-SICH

```

```

    ...
}
HS-SICH-failed ::= INTEGER (0..20)
HS-SICH-missed ::= INTEGER (0..20)
HS-SICH-total ::= INTEGER (0..20)
HS-SICH-Reception-Quality-Measurement-Value ::= INTEGER (0..20)
-- According to mapping in [23]
HSDSCH-MACdFlow-ID ::= INTEGER (0..maxNrOfMACdFlows-1)
HSDSCH-RNTI ::= INTEGER (0..65535)
HS-PDSCH-FDD-Code-Information ::= SEQUENCE {
    number-of-HS-PDSCH-codes          INTEGER (0..maxHS-PDSCHCodeNrComp-1),
    hS-PDSCH-Start-code-number      HS-PDSCH-Start-code-number      OPTIONAL,
-- Only included when number of HS-DSCH codes > 0
    iE-Extensions                    ProtocolExtensionContainer { { HS-PDSCH-FDD-Code-Information-ExtIEs } } OPTIONAL,
    ...
}
HS-PDSCH-FDD-Code-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
HS-PDSCH-Start-code-number ::= INTEGER (1..maxHS-PDSCHCodeNrComp-1)
HS-SCCH-ID ::= INTEGER (0..31)
HS-SICH-ID ::= INTEGER (0..31)
HS-SCCH-FDD-Code-Information ::= CHOICE {
    replace          HS-SCCH-FDD-Code-List,
    remove          NULL,
    ...
}
HS-SCCH-FDD-Code-List ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHs)) OF HS-SCCH-FDD-Code-Information-Item
HS-SCCH-FDD-Code-Information-Item ::= INTEGER (0..maxHS-SCCHCodeNrComp-1)
HSSCCH-CodeChangeIndicator ::= ENUMERATED {
    hsSCCHCodeChangeNeeded
}
HSSCCH-Code-Change-Grant ::= ENUMERATED {
    changeGranted
}
HS-PDSCH-Code-Change-Indicator ::= ENUMERATED {
    hsPDSCHCodeChangeNeeded
}

```

```

HS-PDSCH-Code-Change-Grant ::= ENUMERATED {
    changeGranted
}

HSDSCH-Configured-Indicator ::= ENUMERATED {
    configured-HS-DSCH,
    no-configured-HS-DSCH
}

HS-DSCH-Serving-Cell-Change-Info ::= SEQUENCE {
    hspdsch-RL-ID          RL-ID,
    hSDSCH-FDD-Information HSDSCH-FDD-Information OPTIONAL,
    hsdSCH-RNTI           HSDSCH-RNTI,
    iE-Extensions        ProtocolExtensionContainer { { HS-DSCH-Serving-Cell-Change-Info-ExtIEs } } OPTIONAL,
    ...
}

HS-DSCH-Serving-Cell-Change-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information CRITICALITY reject EXTENSION ContinuousPacketConnectivityHS-SCCH-less-Information PRESENCE optional },
    ...
}

HS-DSCH-Serving-Cell-Change-Info-Response ::= SEQUENCE {
    hS-DSCH-serving-cell-choice HS-DSCH-serving-cell-choice,
    iE-Extensions              ProtocolExtensionContainer { { HS-DSCH-serving-cell-informationResponse-ExtIEs } } OPTIONAL,
    ...
}

HS-DSCH-serving-cell-informationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HS-DSCH-serving-cell-choice ::= CHOICE {
    hS-serving-cell-change-successful HS-serving-cell-change-successful,
    hS-serving-cell-change-unsuccessful HS-serving-cell-change-unsuccessful,
    ...
}

HS-serving-cell-change-successful ::= SEQUENCE {
    hSDSCH-FDD-Information-Response HSDSCH-FDD-Information-Response,
    iE-Extensions                  ProtocolExtensionContainer { { HS-serving-cell-change-successful-ExtIEs } } OPTIONAL,
    ...
}

HS-serving-cell-change-successful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response CRITICALITY ignore EXTENSION ContinuousPacketConnectivityHS-SCCH-less-Information-Response PRESENCE optional },
    ...
}

HS-serving-cell-change-unsuccessful ::= SEQUENCE {

```

```

    cause                Cause,
    iE-Extensions        ProtocolExtensionContainer { { HS-serving-cell-change-unsuccessful-ExtIEs } } OPTIONAL,
    ...
}

HS-serving-cell-change-unsuccessful-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSDSCH-FDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator          HSSCCH-CodeChangeIndicator          OPTIONAL,
    cqiFeedback-CycleK                 CQI-Feedback-Cycle                 OPTIONAL,
    cqiRepetitionFactor                CQI-RepetitionFactor              OPTIONAL,
    ackNackRepetitionFactor            AckNack-RepetitionFactor          OPTIONAL,
    cqiPowerOffset                     CQI-Power-Offset                  OPTIONAL,
    ackPowerOffset                     Ack-Power-Offset                  OPTIONAL,
    nackPowerOffset                    Nack-Power-Offset                  OPTIONAL,
    iE-Extensions                      ProtocolExtensionContainer { { HSDSCH-FDD-Update-Information-ExtIEs } } OPTIONAL,
    ...
}

HSDSCH-FDD-Update-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-HS-PDSCH-Code-Change-Indicator          CRITICALITY ignore          EXTENSION          HS-PDSCH-Code-Change-Indicator          PRESENCE optional },
    ...
}

HSDSCH-TDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator          HSSCCH-CodeChangeIndicator          OPTIONAL,
    tDDAckNackPowerOffset              TDD-AckNack-Power-Offset            OPTIONAL,
    iE-Extensions                      ProtocolExtensionContainer { { HSDSCH-TDD-Update-Information-ExtIEs } } OPTIONAL,
    ...
}

HSDSCH-TDD-Update-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

HSPDSCH-Code-Index ::= INTEGER (1..maxHS-PDSCHCodeNrComp-1)
-- index of first HS-PDSCH code

HSPDSCH-First-Code-Index ::= INTEGER (1..maxHS-PDSCHCodeNrComp-1)
-- index of first HS-PDSCH code

HSPDSCH-Second-Code-Index ::= INTEGER (1..maxHS-PDSCHCodeNrComp-1)
-- index of second HS-PDSCH code

HSPDSCH-Second-Code-Support ::= BOOLEAN
-- true: applied, false: not applied

-- =====
-- I
-- =====

IB-OC-ID ::= INTEGER (1..16)

```

```
IB-SG-DATA ::= BIT STRING
-- Contains SIB data fixed" or "SIB data variable" in segment as encoded in ref.[18].

IB-SG-POS ::= INTEGER (0..4094)
-- Only even positions allowed

IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048, rep4096}

IB-Type ::= ENUMERATED {
    mIB,
    sB1,
    sB2,
    sIB1,
    sIB2,
    sIB3,
    sIB4,
    sIB5,
    sIB6,
    sIB7,
    not-Used-sIB8,
    not-Used-sIB9,
    not-Used-sIB10,
    sIB11,
    sIB12,
    sIB13,
    sIB13dot1,
    sIB13dot2,
    sIB13dot3,
    sIB13dot4,
    sIB14,
    sIB15,
    sIB15dot1,
    sIB15dot2,
    sIB15dot3,
    sIB16,
    ...,
    sIB17,
    sIB15dot4,
    sIB18,
    sIB15dot5,
    sIB5bis,
    sIB11bis,
    sIB15bis,
    sIB15dot1bis,
    sIB15dot2bis,
    sIB15dot3bis,
    sIB15dot6,
    sIB15dot7,
    sIB15dot8
}

Inactivity-Threshold-for-UE-DRX-Cycle ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256, v512}
```



```

-- Unit subframe

Inactivity-Threshold-for-UE-DTX-Cycle2 ::= ENUMERATED {v1, v4, v8, v16, v32, v64, v128, v256}
-- Unit E-DCH TTI

Inactivity-Threshold-for-UE-Grant-Monitoring ::= ENUMERATED {v0, v1, v2, v4, v8, v16, v32, v64, v128, v256}
-- Unit E-DCH TTI

InformationReportCharacteristics ::= CHOICE {
    onDemand          NULL,
    periodic          InformationReportCharacteristicsType-ReportPeriodicity,
    onModification   InformationReportCharacteristicsType-OnModification,
    ...
}

InformationReportCharacteristicsType-ReportPeriodicity ::= CHOICE {
    min              ReportPeriodicity-Scaledmin,
    hours           ReportPeriodicity-Scaledhour,
    ...
}

InformationReportCharacteristicsType-OnModification ::= SEQUENCE {
    information-thresholds InformationThresholds OPTIONAL,
    ie-Extensions         ProtocolExtensionContainer { { InformationReportCharacteristicsType-OnModification-ExtIEs } } OPTIONAL,
    ...
}

InformationReportCharacteristicsType-OnModification-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationThresholds ::= CHOICE {
    dgps             DGPSThresholds,
    ...,
    dGANSSThreshold DGANSSThreshold
}

InformationExchangeID ::= INTEGER (0..1048575)

InformationType ::= SEQUENCE {
    information-Type-Item Information-Type-Item,
    gpsInformation        GPS-Information OPTIONAL,
    -- The IE shall be present if the Information Type Item IE indicates "GPS Information".
    ie-Extensions        ProtocolExtensionContainer { { Information-Type-ExtIEs } } OPTIONAL,
    ...
}

Information-Type-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    -- The following IE shall be present if the Information Type Item IE indicates 'GANSS Information'

```

```

    { ID id-GANSS-Information          CRITICALITY ignore EXTENSION GANSS-Information          PRESENCE conditional } |
-- The following IE shall be present if the Information Type Item IE indicates 'dGANSS Corrections'
    { ID id-DGANSS-Corrections-Req    CRITICALITY ignore EXTENSION DGANSS-Corrections-Req    PRESENCE conditional },
    ...
}

Information-Type-Item ::= ENUMERATED {
    gpsinformation,
    dgpsc corrections,
    gpsrxpos,
    ...,
    gANSSInformation,
    dGANSSCorrections,
    gANSS-RX-Pos
}

Initial-DL-DPCH-TimingAdjustment-Allowed ::= ENUMERATED {
    initial-DL-DPCH-TimingAdjustment-Allowed
}

InnerLoopDLPCStatus ::= ENUMERATED {
    active,
    inactive
}

IPDL-Indicator ::= ENUMERATED {
    active,
    inactive
}

IPDL-FDD-Parameters ::= SEQUENCE {
    iP-SpacingFDD          ENUMERATED{sp5, sp7, sp10, sp15, sp20, sp30, sp40, sp50, ...},
    iP-Length              ENUMERATED{len5, len10},
    seed                   INTEGER(0..63),
    burstModeParams        BurstModeParams    OPTIONAL,
    iP-Offset              INTEGER(0..9),
    iE-Extensions          ProtocolExtensionContainer { { IPDLFDDParameter-ExtIEs } }    OPTIONAL,
    ...
}

IPDLFDDParameter-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDL-TDD-Parameters ::= SEQUENCE {
    iP-SpacingTDD          ENUMERATED{sp30, sp40, sp50, sp70, sp100, ...},
    iP-Start               INTEGER(0..4095),
    iP-Slot                INTEGER(0..14),
    iP-PCCPCH              ENUMERATED{switchOff-1-Frame, switchOff-2-Frames},
    burstModeParams        BurstModeParams    OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { IPDLTDDParameter-ExtIEs } }    OPTIONAL,
}

```

```

    ...
}

IPDL-TDD-Parameters-LCR ::= SEQUENCE {
    iP-SpacingTDD          ENUMERATED{sp30,sp40,sp50,sp70,sp100,...},
    iP-Start               INTEGER(0..4095),
    iP-Sub                 ENUMERATED{first,second,both},
    burstModeParams       BurstModeParams OPTIONAL,
    iE-Extensions         ProtocolExtensionContainer { { IPDLTDDParameterLCR-ExtIEs} } OPTIONAL,
    ...
}

IPMulticastIndication ::= SEQUENCE {
    transportLayerAddress TransportLayerAddress,
    bindingID              BindingID,
    cFNOffset              INTEGER(0..255),
    iE-Extensions         ProtocolExtensionContainer { { IPMulticastIndication-ExtIEs} } OPTIONAL,
    ...
}

IPMulticastIndication-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPMulticastDataBearerIndication ::= BOOLEAN
-- true: IP Multicast used, false: IP Multicast not used

BurstModeParams ::= SEQUENCE {
    burstStart              INTEGER(0..15),
    burstLength            INTEGER(10..25),
    burstFreq              INTEGER(1..16),
    ...
}

IPDLTDDParameter-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

IPDLTDDParameterLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- =====
-- J
-- =====

-- =====
-- K
-- =====

-- =====
-- L
-- =====

```

```

LimitedPowerIncrease ::= ENUMERATED {
    used,
    not-used
}

Local-Cell-ID ::= INTEGER (0..268435455)

LTGI-Presence ::= BOOLEAN
-- True = the Long Term Grant Indicator shall be used within E-DCH grants

LCRTDD-Uplink-Physical-Channel-Capability ::= SEQUENCE {
    maxTimeslotsPerSubFrame      INTEGER(1..6),
    maxPhysChPerTimeslot        ENUMERATED {one,two,...,three,four},
    iE-Extensions                ProtocolExtensionContainer { { LCRTDD-Uplink-Physical-Channel-Capability-ExtIEs} } OPTIONAL,
    ...
}

LCRTDD-Uplink-Physical-Channel-Capability-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- =====
-- M
-- =====

MAC-DTX-Cycle-2ms ::= ENUMERATED {v1, v4, v5, v8, v10, v16, v20}

MAC-DTX-Cycle-10ms ::= ENUMERATED {v5, v10, v20}

MAC-ehs-Reset-Timer ::= ENUMERATED {v1, v2, v3, v4,...}

MACdPDU-Size ::= INTEGER (1..5000,...)
-- In case of E-DCH value 8 and values not multiple of 8 shall not be used

MAC-PDU-SizeExtended ::= INTEGER (1..1504,...,1505)

MAC-Inactivity-Threshold ::= ENUMERATED {v1, v2, v4, v8, v16, v32, v64, v128, v256, v512, infinity}
-- Unit subframe

MACdPDU-Size-Indexlist ::= SEQUENCE (SIZE (1..maxNrOfMACdPDUIndexes)) OF MACdPDU-Size-IndexItem

MACdPDU-Size-IndexItem ::= SEQUENCE {
    sID                SID,
    macdPDU-Size       MACdPDU-Size,
    iE-Extensions      ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-ExtIEs} } OPTIONAL,
    ...
}

MACdPDU-Size-IndexItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MACdPDU-Size-Indexlist-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdPDUIndexes)) OF MACdPDU-Size-IndexItem-to-Modify

```

```

MACdPDU-Size-IndexItem-to-Modify ::= SEQUENCE {
    sID                SID,
    macdPDU-Size      MACdPDU-Size,
    iE-Extensions     ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-to-Modify-ExtIEs} } OPTIONAL,
    ...
}

MACdPDU-Size-IndexItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MACesGuaranteedBitRate ::= INTEGER (0..16777215,...,16777216..256000000)

MACes-Maximum-Bitrate-LCR ::= INTEGER (0..256000000,...)

MACeReset-Indicator ::= ENUMERATED {mACeReset}

MACHsGuaranteedBitRate ::= INTEGER (0..16777215,...,16777216..256000000)

MACHsReorderingBufferSize-for-RLC-UM ::= INTEGER (0..300,...)
-- Unit kBytes

MAC-hsWindowSize ::= ENUMERATED {v4, v6, v8, v12, v16, v24, v32,...}
-- For 1.28Mcps TDD when TSN length is configured to 9bits, ENUMERATED (32, 64, 96, 128, 160, 192, 256,...)

MaximumDL-PowerCapability ::= INTEGER(0..500)
-- Unit dBm, Range 0dBm .. 50dBm, Step +0.1dB

Max-Bits-MACe-PDU-non-scheduled ::= INTEGER(1..maxNrOfBits-MACe-PDU-non-scheduled)

Maximum-Number-of-Retransmissions-For-E-DCH ::= INTEGER (0..15)

Maximum-Target-ReceivedTotalWideBandPower-LCR ::= INTEGER (0..621)
-- mapping as for RTWP measurement value, as specified in [23]

MaximumTransmissionPower ::= INTEGER(0..500)
-- Unit dBm, Range 0dBm .. 50dBm, Step +0.1dB

MaxNrOfUL-DPDCHs ::= INTEGER (1..6)

MaxPRACH-MidambleShifts ::= ENUMERATED {
    shift4,
    shift8,
    ...,
    shift16
}

Max-Set-E-DPDCHs ::= ENUMERATED {
    vN256, vN128, vN64, vN32, vN16, vN8, vN4, v2xN4, v2xN2, v2xN2plus2xN4,
    ...,
    v2xM2plus2xM4
}
-- Values related to [8]

```

```
Max-UE-DTX-Cycle ::= ENUMERATED {
    v5, v10, v20, v40, v64, v80, v128, v160,
    ...
}

MBMS-Capability ::= ENUMERATED{
    mbms-capable,
    mbms-non-capable
}

MeasurementFilterCoefficient ::= ENUMERATED {k0, k1, k2, k3, k4, k5, k6, k7, k8, k9, k11, k13, k15, k17, k19,...}
-- Measurement Filter Coefficient to be used for measurement

MeasurementID ::= INTEGER (0..1048575)

Measurement-Power-Offset ::= INTEGER(-12 .. 26)
-- Actual value = IE value * 0.5

MeasurementRecoveryBehavior ::= NULL

MeasurementRecoveryReportingIndicator ::= NULL

MeasurementRecoverySupportIndicator ::= NULL

MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
    SEQUENCE {
        iE-ID                ProtocolIE-ID,
        repetitionNumber     RepetitionNumber1     OPTIONAL,
        iE-Extensions        ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
        ...
    }

MessageStructure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MICH-CFN ::= INTEGER (0..4095)

MICH-Mode ::= ENUMERATED {
    v18,
    v36,
    v72,
    v144,
    ...
}

MidambleConfigurationLCR ::= ENUMERATED {v2, v4, v6, v8, v10, v12, v14, v16, ...}

MidambleConfigurationBurstType1And3 ::= ENUMERATED {v4, v8, v16}

MidambleConfigurationBurstType2 ::= ENUMERATED {v3, v6}
```

```

MidambleShiftAndBurstType ::= CHOICE {
  type1 SEQUENCE {
    midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
    midambleAllocationMode CHOICE {
      defaultMidamble NULL,
      commonMidamble NULL,
      ueSpecificMidamble MidambleShiftLong,
      ...
    },
    ...
  },
  type2 SEQUENCE {
    midambleConfigurationBurstType2 MidambleConfigurationBurstType2,
    midambleAllocationMode CHOICE {
      defaultMidamble NULL,
      commonMidamble NULL,
      ueSpecificMidamble MidambleShiftShort,
      ...
    },
    ...
  },
  type3 SEQUENCE {
    midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
    midambleAllocationMode CHOICE {
      defaultMidamble NULL,
      ueSpecificMidamble MidambleShiftLong,
      ...
    },
    ...
  },
  ...
}

MidambleShiftLong ::= INTEGER (0..15)

MidambleShiftShort ::= INTEGER (0..5)

MidambleShiftLCR ::= SEQUENCE {
  midambleAllocationMode MidambleAllocationMode,
  midambleShift MidambleShiftLong OPTIONAL,
  -- The IE shall be present if the Midamble Allocation Mode IE is set to "UE specific midamble".
  midambleConfigurationLCR MidambleConfigurationLCR,
  iE-Extensions ProtocolExtensionContainer { {MidambleShiftLCR-ExtIEs} } OPTIONAL,
  ...
}

MidambleAllocationMode ::= ENUMERATED {
  defaultMidamble,
  commonMidamble,
  ueSpecificMidamble,
  ...
}

```

```

MidambleShiftLCR-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MidambleShiftAndBurstType768 ::=          CHOICE {
    type1                                SEQUENCE {
        midambleConfigurationBurstType1And3  MidambleConfigurationBurstType1And3,
        midambleAllocationMode                CHOICE {
            defaultMidamble                    NULL,
            commonMidamble                     NULL,
            ueSpecificMidamble                 MidambleShiftLong,
            ...
        },
        ...
    },
    type2                                SEQUENCE {
        midambleConfigurationBurstType2-768  MidambleConfigurationBurstType2-768,
        midambleAllocationMode                CHOICE {
            defaultMidamble                    NULL,
            commonMidamble                     NULL,
            ueSpecificMidamble                 MidambleShiftShort768,
            ...
        },
        ...
    },
    type3                                SEQUENCE {
        midambleConfigurationBurstType1And3  MidambleConfigurationBurstType1And3,
        midambleAllocationMode                CHOICE {
            defaultMidamble                    NULL,
            ueSpecificMidamble                 MidambleShiftLong,
            ...
        },
        ...
    },
    ...
}

MidambleConfigurationBurstType2-768 ::=  ENUMERATED {v4, v8}

MidambleShiftShort768 ::=                INTEGER (0..7)

MIMO-ActivationIndicator ::= NULL

MIMO-Capability ::= ENUMERATED {
    mimo-capable,
    mimo-non-capable
}

MIMO-Mode-Indicator ::= ENUMERATED {
    activate,
    deactivate
}

```



```
MIMO-N-M-Ratio ::= ENUMERATED {v1-2, v2-3, v3-4, v4-5, v5-6, v6-7, v7-8, v8-9, v9-10, v1-1,...}
```

```
MIMO-PilotConfiguration ::= CHOICE {  
    primary-and-secondary-CPICH          CommonPhysicalChannelID,  
    normal-and-diversity-primary-CPICH    NULL,  
    ...  
}
```

```
MIMO-PilotConfigurationExtension ::= CHOICE {  
    primary-and-secondary-CPICH          PrimaryAndSecondaryCPICHContainer,  
    normal-and-diversity-primary-CPICH    NormalAndDiversityPrimaryCPICHContainer,  
    ...  
}
```

```
MIMO-PowerOffsetForS-CPICHCapability ::= ENUMERATED {  
    s-CPICH-Power-Offset-Capable,  
    s-CPICH-Power-Offset-Not-Capable  
}
```

```
MinimumDL-PowerCapability ::= INTEGER(0..800)  
-- Unit dBm, Range -30dBm .. 50dBm, Step +0.1dB
```

```
MinSpreadingFactor ::= ENUMERATED {  
    v4,  
    v8,  
    v16,  
    v32,  
    v64,  
    v128,  
    v256,  
    v512  
}
```

```
-- TDD Mapping scheme for the minimum spreading factor 1 and 2: "256" means 1, "512" means 2
```

```
Modification-Period ::= ENUMERATED { v1280, v2560, v5120, v10240,...}
```

```
ModifyPriorityQueue ::= CHOICE {  
    addPriorityQueue          PriorityQueue-InfoItem-to-Add,  
    modifyPriorityQueue       PriorityQueue-InfoItem-to-Modify,  
    deletePriorityQueue       PriorityQueue-Id,  
    ...  
}
```

```
Modulation ::= ENUMERATED {  
    qPSK,  
    eightPSK,  
    -- 8PSK denotes 16QAM for S-CCPCH  
    ...  
}
```

```
MinUL-ChannelisationCodeLength ::= ENUMERATED {  
    v4,  
    v8,  
    ...  
}
```

```

    v16,
    v32,
    v64,
    v128,
    v256,
    ...
}

MultiplexingPosition ::= ENUMERATED {
    fixed,
    flexible
}

MACHs-ResetIndicator ::= ENUMERATED{
    mACHs-NotReset
}

ModulationMBSFN ::= ENUMERATED {
    qPSK,
    sixteenQAM,
    ...
}

MBSFN-CPICH-secondary-CCPCH-power-offset ::= INTEGER(-11..4,...)
-- Unit dB, Step 1 dB, Range -11..4 dB.

ModulationPO-MBSFN ::= CHOICE {
    qPSK                NULL,
    sixteenQAM          MBSFN-CPICH-secondary-CCPCH-power-offset,
    ...
}

MBSFN-Only-Mode-Indicator ::= ENUMERATED {
    mBSFN-Only-Mode
}

MBSFN-Only-Mode-Capability ::= ENUMERATED {
    mBSFN-Only-Mode-capable,
    mBSFN-Only-Mode-non-capable
}

Multicarrier-Number ::= INTEGER (1..maxHSDPAFrequency)

MultipleFreq-HSPDSCH-InformationList-ResponseTDDLCR ::= SEQUENCE (SIZE (1.. maxHSDPAFrequency-1)) OF MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR
--Includes the 2nd through the max number of frequency repetitions.

MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR ::= SEQUENCE{
    hsSCCH-Specific-Information-ResponseTDDLCR    HSSCCH-Specific-InformationRespListTDDLCR    OPTIONAL,
    hARQ-MemoryPartitioning                       HARQ-MemoryPartitioning                OPTIONAL,
    uARFCN                                         UARFCN, -- This is the UARFCN for the second and beyond Frequency repetition.
    iE-Extensions                                 ProtocolExtensionContainer { { MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLCR-ExtIEs } }
    OPTIONAL,
    ...
}

```

```

MultipleFreq-HSPDSCH-InformationItem-ResponseTDDLRCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
-- =====
-- N
-- =====

Nack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [9] subclause 4.2.1

NCyclesPerSFNperiod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    ...,
    v16,
    v32,
    v64
}

NRepetitionsPerCyclePeriod ::= INTEGER (2..10)

N-INSYNC-IND ::= INTEGER (1..256)

N-OUTSYNC-IND ::= INTEGER (1..256)

NeighbouringCellMeasurementInformation ::= SEQUENCE (SIZE (1..maxNrOfMeasNCell)) OF
    CHOICE {
        neighbouringFDDCellMeasurementInformation      NeighbouringFDDCellMeasurementInformation, -- FDD only
        neighbouringTDDCellMeasurementInformation      NeighbouringTDDCellMeasurementInformation,
        -- Applicable to 3.84Mcps TDD only
        ...,
        extension-neighbouringCellMeasurementInformation      Extension-neighbouringCellMeasurementInformation
    }

Extension-neighbouringCellMeasurementInformation ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformationIE }}

Extension-neighbouringCellMeasurementInformationIE NBAP-PROTOCOL-IES ::= {
    { ID id-neighbouringTDDCellMeasurementInformationLCR      CRITICALITY reject TYPE NeighbouringTDDCellMeasurementInformationLCR PRESENCE
    mandatory }| -- Applicable to 1.28Mcps TDD only
    { ID id-neighbouringTDDCellMeasurementInformation768      CRITICALITY reject TYPE NeighbouringTDDCellMeasurementInformation768 PRESENCE
    mandatory }, -- Applicable to 7.68Mcps TDD only
    ...
}

NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
    uC-Id                UC-Id,
    uARFCN                UARFCN,
    primaryScramblingCode PrimaryScramblingCode,
    iE-Extensions        ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs } } OPTIONAL,
    ...
}

```

```

NeighbouringFDDCellMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformation ::= SEQUENCE {
    uC-Id                UC-Id,
    uARFCN               UARFCN,
    cellParameterID     CellParameterID,
    timeSlot             TimeSlot                OPTIONAL,
    midambleShiftAndBurstType MidambleShiftAndBurstType  OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs } } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformationLCR ::= SEQUENCE {
    uC-Id                UC-Id,
    uARFCN               UARFCN,
    cellParameterID     CellParameterID,
    timeSlotLCR          TimeSlotLCR            OPTIONAL,
    midambleShiftLCR    MidambleShiftLCR      OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs } } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformation768 ::= SEQUENCE {
    uC-Id                UC-Id,
    uARFCN               UARFCN,
    cellParameterID     CellParameterID,
    timeSlot             TimeSlot                OPTIONAL,
    midambleShiftAndBurstType768 MidambleShiftAndBurstType768  OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformation768Item-ExtIEs } } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformation768Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NI-Information ::= SEQUENCE (SIZE (1..maxNrOfNIs)) OF Notification-Indicator

Notification-Indicator ::= INTEGER (0..65535)

```

```
NodeB-CommunicationContextID ::= INTEGER (0..1048575)
```

```
NormalAndDiversityPrimaryCPICHContainer ::= SEQUENCE {  
    iE-Extensions ProtocolExtensionContainer { { NormalAndDiversityPrimaryCPICHContainer-ExtIEs} } OPTIONAL,  
    ...  
}
```

```
NormalAndDiversityPrimaryCPICHContainer-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {  
    ...  
}
```

```
NotificationIndicatorLength ::= ENUMERATED {  
    v2,  
    v4,  
    v8,  
    ...  
}
```

```
NumberOfReportedCellPortions ::= INTEGER (1..maxNrOfCellPortionsPerCell,...)
```

```
Number-of-PCCH-transmission ::= INTEGER (1..5)
```

```
NSubCyclesPerCyclePeriod ::= INTEGER (1..16,...)
```

```
N-E-UCCH ::= INTEGER (1..12)
```

```
N-E-UCCHLCR ::= INTEGER (1..8)
```

```
Number-Of-Supported-Carriers ::= ENUMERATED {  
    one-one-carrier,  
    one-three-carrier,  
    three-three-carrier,  
    one-six-carrier,  
    three-six-carrier,  
    six-six-carrier,  
    ...  
}
```

```
-- =====  
-- O  
-- =====
```

```
-- =====  
-- P  
-- =====
```

```
PagingIndicatorLength ::= ENUMERATED {  
    v2,  
    v4,  
    v8,
```

```

    ...
}

Paging-MACFlow-ID ::= INTEGER (0..maxNrOfPagingMACFlow-1)

PayloadCRC-PresenceIndicator ::= ENUMERATED {
    cRC-Included,
    cRC-NotIncluded,
    ...
}

PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB

PDSCH-ID ::= INTEGER (0..255)

PDSCH-ID768 ::= INTEGER (0..511)

PDSCHSet-ID ::= INTEGER (0..255)

PICH-Mode ::= ENUMERATED {
    v18,
    v36,
    v72,
    v144,
    ...
}

PICH-Power ::= INTEGER (-10..5)
-- Unit dB, Range -10dB .. +5dB, Step +1dB

Paging-MACFlows-to-DeleteFDD ::= SEQUENCE (SIZE (1.. maxNrOfPagingMACFlow)) OF Paging-MACFlows-to-DeleteFDD-Item

Paging-MACFlows-to-DeleteFDD-Item ::= SEQUENCE {
    paging-MACFlow-ID          Paging-MACFlow-ID,
    iE-Extensions              ProtocolExtensionContainer { { Paging-MACFlows-to-DeleteFDD-Item-ExtIEs } }
    OPTIONAL,
    ...
}

Paging-MACFlows-to-DeleteFDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Paging-MACFlow-Specific-Information ::= SEQUENCE (SIZE (1.. maxNrOfPagingMACFlow)) OF Paging-MAC-Flow-Specific-Information-Item

Paging-MAC-Flow-Specific-Information-Item ::= SEQUENCE {
    paging-MACFlow-Id          Paging-MACFlow-ID,
    hSDPA-associated-PICH-Info HSDPA-Associated-PICH-Information,

```

```

bindingID                               BindingID                               OPTIONAL,
transportLayerAddress                   TransportLayerAddress                   OPTIONAL,
tnl-qos                                  TnlQos                                  OPTIONAL,
toAWS                                     ToAWS,
toAWE                                     ToAWE,
paging-MACFlow-PriorityQueue-Information  Paging-MACFlow-PriorityQueue-Information  OPTIONAL,
iE-Extensions                             ProtocolExtensionContainer { { Paging-MAC-Flow-Specific-Information-Item-ExtIEs } }
OPTIONAL,
...
}

Paging-MAC-Flow-Specific-Information-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-TransportBearerRequestIndicator  CRITICALITY ignore  EXTENSION TransportBearerRequestIndicator  PRESENCE optional},
  -- This IE should not be contained if the MAC flow is setup in procedure, and it should be contained if the MAC flow is modified in procedure.
  ...
}

Paging-MACFlow-PriorityQueue-Information ::= SEQUENCE (SIZE (1..maxNrOfpagingMACQueues)) OF Paging-MACFlow-PriorityQueue-Item

Paging-MACFlow-PriorityQueue-Item ::= SEQUENCE {
  priority-Queue-Information-for-Enhanced-PCH  Priority-Queue-Information-for-Enhanced-FACH-PCH,
  iE-Extensions                                ProtocolExtensionContainer { { Paging-MACFlow-PriorityQueue-Item-ExtIEs } }  OPTIONAL,
  ...
}

Paging-MACFlow-PriorityQueue-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PLCCHsequenceNumber ::= INTEGER (0..14)

PLCCHinformation ::= SEQUENCE {
  commonPhysicalChannelID  CommonPhysicalChannelID,
  sequenceNumber           PLCCHsequenceNumber,
  iE-Extensions            ProtocolExtensionContainer { { PLCCHinformation-ExtIEs } }  OPTIONAL,
  ...
}

PLCCHinformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PowerAdjustmentType ::= ENUMERATED {
  none,
  common,
  individual
}

PowerOffset ::= INTEGER (0..24)
-- PowerOffset = offset * 0.25
-- Unit dB, Range 0dB .. +6dB, Step +0.25dB

```

```
PowerOffsetForSecondaryCPICHforMIMO ::= INTEGER (-6..0)
-- Unit dB, Range -6dB .. 0dB, Step +1dB
```

```
PowerRaiseLimit ::= INTEGER (0..10)
```

```
PRACH-Midamble ::= ENUMERATED {
    inverted,
    direct,
    ...
}
```

```
PRC ::= INTEGER (-2047..2047)
--pseudo range correction; scaling factor 0.32 meters
```

```
PRCDeviation ::= ENUMERATED {
    one,
    two,
    five,
    ten,
    ...
}
```

```
PreambleSignatures ::= BIT STRING {
    signature15(0),
    signature14(1),
    signature13(2),
    signature12(3),
    signature11(4),
    signature10(5),
    signature9(6),
    signature8(7),
    signature7(8),
    signature6(9),
    signature5(10),
    signature4(11),
    signature3(12),
    signature2(13),
    signature1(14),
    signature0(15)
} (SIZE (16))
```

```
PreambleThreshold ::= INTEGER (0..72)
-- 0= -36.0dB, 1= -35.5dB, ... , 72= 0.0dB
```

```
PredictedSFNSFNDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
```

```
PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
```

```
Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
    may-trigger-pre-emption
}
```



```

}

Pre-emptionVulnerability ::= ENUMERATED {
    not-pre-emptable,
    pre-emptable
}

PrimaryAndSecondaryCPICHContainer ::= SEQUENCE {
    power-Offset-For-Secondary-CPICH-for-MIMO          PowerOffsetForSecondaryCPICHforMIMO,
    iE-Extensions                                     ProtocolExtensionContainer { { PrimaryAndSecondaryCPICHContainer-ExtIEs } } OPTIONAL,
    ...
}

PrimaryAndSecondaryCPICHContainer-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCPICH-Power ::= INTEGER(-100..500)
-- step 0.1 (Range -10.0..50.0) Unit is dBm

Primary-CPICH-Usage-for-Channel-Estimation ::= ENUMERATED {
    primary-CPICH-may-be-used,
    primary-CPICH-shall-not-be-used
}

PrimaryScramblingCode ::= INTEGER (0..511)

PriorityLevel                ::= INTEGER (0..15)
-- 0 = spare, 1 = highest priority, ...14 = lowest priority and 15 = no priority

Priority-Queue-Information-for-Enhanced-FACH-PCH ::= SEQUENCE {
    priorityQueue-Id          PriorityQueue-Id,
    schedulingPriorityIndicator SchedulingPriorityIndicator,
    t1                        T1,
    mAC-ehs-Reset-Timer      MAC-ehs-Reset-Timer,
    -- shall be ignored in case of Enhanced PCH
    discardTimer              DiscardTimer                                OPTIONAL,
    mAC-hsWindowSize          MAC-hsWindowSize,
    maximum-MACcPDU-Size     MAC-PDU-SizeExtended,
    iE-Extensions            ProtocolExtensionContainer { { Priority-Queue-Information-for-Enhanced-FACH-PCH-ExtIEs } } OPTIONAL,
    ...
}

Priority-Queue-Information-for-Enhanced-FACH-PCH-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityQueue-Id ::= INTEGER (0..maxNrOfPriorityQueues-1)

PriorityQueue-InfoList ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF PriorityQueue-InfoItem

PriorityQueue-InfoItem ::= SEQUENCE {
    priorityQueueId          PriorityQueue-Id,

```

```

associatedHSDSCH-MACdFlow      HSDSCH-MACdFlow-ID,
schedulingPriorityIndicator    SchedulingPriorityIndicator,
t1                             T1,
discardTimer                   DiscardTimer                OPTIONAL,
mAC-hsWindowSize              MAC-hsWindowSize,
mAChsGuaranteedBitRate        MACHsGuaranteedBitRate
macdPDU-Size-Index            MACdPDU-Size-Indexlist,
rLC-Mode                      RLC-Mode,
iE-Extensions                 ProtocolExtensionContainer { { PriorityQueue-InfoItem-ExtIEs } }
...
}

PriorityQueue-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-MaximumMACdPDU-SizeExtended    CRITICALITY reject    EXTENSION    MAC-PDU-SizeExtended    PRESENCE optional},
  ...
}

PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF ModifyPriorityQueue

PriorityQueue-InfoItem-to-Add ::= SEQUENCE {
  priorityQueueId              PriorityQueue-Id,
  associatedHSDSCH-MACdFlow    HSDSCH-MACdFlow-ID,
  schedulingPriorityIndicator   SchedulingPriorityIndicator,
  t1                           T1,
  discardTimer                 DiscardTimer                OPTIONAL,
  mAC-hsWindowSize            MAC-hsWindowSize,
  mAChsGuaranteedBitRate      MACHsGuaranteedBitRate    OPTIONAL,
  macdPDU-Size-Index          MACdPDU-Size-Indexlist,
  rLC-Mode                    RLC-Mode,
  iE-Extensions               ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Add-ExtIEs } }
  ...
}

PriorityQueue-InfoItem-to-Add-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-MaximumMACdPDU-SizeExtended    CRITICALITY reject    EXTENSION    MAC-PDU-SizeExtended    PRESENCE optional},
  ...
}

PriorityQueue-InfoItem-to-Modify ::= SEQUENCE {
  priorityQueueId              PriorityQueue-Id,
  schedulingPriorityIndicator   SchedulingPriorityIndicator    OPTIONAL,
  t1                           T1                            OPTIONAL,
  discardTimer                 DiscardTimer                OPTIONAL,
  mAC-hsWindowSize            MAC-hsWindowSize                OPTIONAL,
  mAChsGuaranteedBitRate      MACHsGuaranteedBitRate    OPTIONAL,
  macdPDU-Size-Index-to-Modify MACdPDU-Size-Indexlist-to-Modify    OPTIONAL,
  iE-Extensions               ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs } }
  ...
}

PriorityQueue-InfoItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-MaximumMACdPDU-SizeExtended    CRITICALITY reject    EXTENSION    MAC-PDU-SizeExtended    PRESENCE optional},
  ...
}

```

```

PriorityQueue-InfoList-to-Modify-Unsynchronised ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF PriorityQueue-InfoItem-to-Modify-Unsynchronised

PriorityQueue-InfoItem-to-Modify-Unsynchronised ::= SEQUENCE {
    priorityQueueId          PriorityQueue-Id,
    schedulingPriorityIndicator SchedulingPriorityIndicator
                                OPTIONAL,
    discardTimer             DiscardTimer
                                OPTIONAL,
    mACHsGuaranteedBitRate   MACHsGuaranteedBitRate
                                OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs } }
                                OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-RSCP ::= INTEGER (0..91)
-- Mapping of non-negative values according to [23]

PrimaryCCPCH-RSCP-Delta ::= INTEGER (-5..-1,...)
-- Mapping of negative values according to [23]

PropagationDelay ::= INTEGER (0..255)
-- Unit: chips, step size 3 chips
-- example: 0 = 0chip, 1 = 3chips

PRXdes-base ::= INTEGER (-112..-50)
-- Unit: dBm, step size 1

SCH-TimeSlot ::= INTEGER (0..6)

PunctureLimit ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100%
-- 0 is not applicable for E-DPCH

PUSCH-ID ::= INTEGER (0..255)

UE-Selected-MBMS-Service-Information ::= CHOICE {
    none          NULL,
    selected-MBMS-Service Selected-MBMS-Service,
    ...
}

Selected-MBMS-Service ::= SEQUENCE {
    selected-MBMS-Service-List Selected-MBMS-Service-List,
    iE-Extensions            ProtocolExtensionContainer { { Selected-MBMS-Service-ExtIEs } }
                                OPTIONAL,
    ...
}

Selected-MBMS-Service-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

Selected-MBMS-Service-List ::= SEQUENCE (SIZE (1.. maxMBMSServiceSelect)) OF Selected-MBMS-Service-Item

```
Selected-MBMS-Service-Item ::= SEQUENCE {
    selected-MBMS-Service-TimeSlot-Information-LCR          Selected-MBMS-Service-TimeSlot-Information-LCR          OPTIONAL,
    mBMS-Service-TDM-Information                          MBMS-Service-TDM-Information                          OPTIONAL,
    iE-Extensions                                          ProtocolExtensionContainer { { Selected-MBMS-Service-Item-ExtIEs } } OPTIONAL,
    ...
}
```

```
Selected-MBMS-Service-Item-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

Selected-MBMS-Service-TimeSlot-Information-LCR ::= SEQUENCE (SIZE (1..7)) OF TimeSlotLCR

```
MBMS-Service-TDM-Information ::= SEQUENCE {
    transmission-Time-Interval          ENUMERATED {v10, v20, v40, v80,...},
    tDM-Rep                             INTEGER (2..9),
    tDM-Offset                           INTEGER (0..8),
    tDM-Length                           INTEGER (1..8),
    iE-Extensions                       ProtocolExtensionContainer { { MBMS-Service-TDM-Information-ExtIEs } } OPTIONAL,
    ...
}
```

```
MBMS-Service-TDM-Information-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

PUSCHSet-ID ::= INTEGER (0..255)

```
-- =====
-- Q
-- =====
```

```
QE-Selector ::= ENUMERATED {
    selected,
    non-selected
}
```

```
-- =====
-- R
-- =====
```

```
RACH-Measurement-Result ::= ENUMERATED {
    cpich-EcNo,
    cpich-RSCP,
    pathloss,
    ...
}
```

```
RACH-SlotFormat ::= ENUMERATED {
    v0,
    v1,
```

```

    v2,
    v3,
    ...
}

RACH-SubChannelNumbers ::= BIT STRING {
    subCh11(0),
    subCh10(1),
    subCh9(2),
    subCh8(3),
    subCh7(4),
    subCh6(5),
    subCh5(6),
    subCh4(7),
    subCh3(8),
    subCh2(9),
    subCh1(10),
    subCh0(11)
} (SIZE (12))

RL-Specific-DCH-Info ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF RL-Specific-DCH-Info-Item

RL-Specific-DCH-Info-Item ::= SEQUENCE {
    dCH-id                DCH-ID,
    bindingID             BindingID                                OPTIONAL,
    transportlayeraddress TransportLayerAddress                 OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { { RL-Specific-DCH-Info-Item-ExtIEs } } OPTIONAL,
    ...
}

RL-Specific-DCH-Info-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TransportBearerNotRequestedIndicator    CRITICALITY ignore    EXTENSION TransportBearerNotRequestedIndicator    PRESENCE optional }, --
    FDD only
    ...
}

RL-Specific-E-DCH-Info ::= SEQUENCE {
    rL-Specific-E-DCH-Information    RL-Specific-E-DCH-Information,
    e-AGCH-PowerOffset               E-AGCH-PowerOffset                OPTIONAL,
    e-RGCH-PowerOffset               E-RGCH-PowerOffset                OPTIONAL,
    e-HICH-PowerOffset               E-HICH-PowerOffset                OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { RL-Specific-E-DCH-Info-Item-ExtIEs } } OPTIONAL,
    ...
}

RL-Specific-E-DCH-Info-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Specific-E-DCH-Information ::= SEQUENCE (SIZE (1..maxNrOfEDCHMACdFlows)) OF RL-Specific-E-DCH-Information-Item

RL-Specific-E-DCH-Information-Item ::= SEQUENCE {
    e-DCH-MACdFlow-ID               E-DCH-MACdFlow-ID,

```

```

bindingID                BindingID                OPTIONAL,
transportlayeraddress    TransportLayerAddress    OPTIONAL,
iE-Extensions            ProtocolExtensionContainer { { RL-Specific-E-DCH-Information-Item-ExtIEs} } OPTIONAL,
...
}

RL-Specific-E-DCH-Information-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

Range-Correction-Rate ::= INTEGER (-127..127)
-- scaling factor 0.032 m/s

Reference-ReceivedTotalWideBandPower ::= INTEGER (0..621)
-- mapping as for RTWP measurement value, as specified in [22]

Reference-ReceivedTotalWideBandPowerReporting ::= ENUMERATED {
    reference-ReceivedTotalWideBandPower-Requested
}

Reference-ReceivedTotalWideBandPowerSupportIndicator ::= ENUMERATED {
    indication-of-Reference-ReceivedTotalWideBandPower-supported
}

ReferenceClockAvailability ::= ENUMERATED {
    available,
    notAvailable
}

ReferenceSFNoffset ::= INTEGER (0..255)

Reference-E-TFCI-Information ::= SEQUENCE (SIZE (1..maxNrOfRefETFCIs)) OF Reference-E-TFCI-Information-Item

Reference-E-TFCI-Information-Item ::= SEQUENCE {
    reference-E-TFCI                E-TFCI,
    -- The following IE shall be ignored if id-Ext-Reference-E-TFCI-PO is present in Reference-E-TFCI-Information-Item-ExtIEs
    reference-E-TFCI-PO              Reference-E-TFCI-PO,
    iE-Extensions                    ProtocolExtensionContainer { { Reference-E-TFCI-Information-Item-ExtIEs} }    OPTIONAL,
    ...
}

Reference-E-TFCI-Information-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    -- The following IE shall be present if the ref E-TFCI power offset to be signalled exceeds maxNrOfRefETFCI-PO-QUANTSTEPS
    { ID id-Ext-Reference-E-TFCI-PO    CRITICALITY reject    EXTENSION    Ext-Reference-E-TFCI-PO    PRESENCE optional},
    ...
}

Reference-E-TFCI-PO ::= INTEGER (0.. maxNrOfRefETFCI-PO-QUANTSTEPS)

RepetitionLength ::= INTEGER (1..63)

RepetitionPeriod ::= ENUMERATED {
    v1,

```

```

    v2,
    v4,
    v8,
    v16,
    v32,
    v64,
    ...
}

RepetitionNumber0 ::= INTEGER (0..255)

RepetitionNumber1 ::= INTEGER (1..256)

RefTFCNumber ::= INTEGER (0..3)

ReportCharacteristics ::= CHOICE {
    onDemand          NULL,
    periodic          ReportCharacteristicsType-ReportPeriodicity,
    event-a           ReportCharacteristicsType-EventA,
    event-b           ReportCharacteristicsType-EventB,
    event-c           ReportCharacteristicsType-EventC,
    event-d           ReportCharacteristicsType-EventD,
    event-e           ReportCharacteristicsType-EventE,
    event-f           ReportCharacteristicsType-EventF,
    ...,
    extension-ReportCharacteristics  Extension-ReportCharacteristics
}

Extension-ReportCharacteristics ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsIE }}

Extension-ReportCharacteristicsIE NBAP-PROTOCOL-IES ::= {
    { ID id-ReportCharacteristicsType-OnModification  CRITICALITY reject  TYPE ReportCharacteristicsType-OnModification  PRESENCE mandatory }
}

ReportCharacteristicsType-EventA ::= SEQUENCE {
    measurementThreshold      ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime ReportCharacteristicsType-ScaledMeasurementHysteresisTime          OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer { { ReportCharacteristicsType-EventA-ExtIEs } }  OPTIONAL,
    ...
}

ReportCharacteristicsType-EventA-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventB ::= SEQUENCE {
    measurementThreshold      ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime ReportCharacteristicsType-ScaledMeasurementHysteresisTime          OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer { { ReportCharacteristicsType-EventB-ExtIEs } }  OPTIONAL,
    ...
}

ReportCharacteristicsType-EventB-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

ReportCharacteristicsType-EventC ::= SEQUENCE {
    measurementIncreaseThreshold    ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime          ReportCharacteristicsType-ScaledMeasurementChangeTime,
    iE-Extensions                  ProtocolExtensionContainer { { ReportCharacteristicsType-EventC-ExtIEs} }    OPTIONAL,
    ...
}

ReportCharacteristicsType-EventC-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventD ::= SEQUENCE {
    measurementDecreaseThreshold    ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime          ReportCharacteristicsType-ScaledMeasurementChangeTime,
    iE-Extensions                  ProtocolExtensionContainer { { ReportCharacteristicsType-EventD-ExtIEs} }    OPTIONAL,
    ...
}

ReportCharacteristicsType-EventD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventE ::= SEQUENCE {
    measurementThreshold1          ReportCharacteristicsType-MeasurementThreshold,
    measurementThreshold2          ReportCharacteristicsType-MeasurementThreshold    OPTIONAL,
    measurementHysteresisTime      ReportCharacteristicsType-ScaledMeasurementHysteresisTime    OPTIONAL,
    reportPeriodicity              ReportCharacteristicsType-ReportPeriodicity    OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { { ReportCharacteristicsType-EventE-ExtIEs} }    OPTIONAL,
    ...
}

ReportCharacteristicsType-EventE-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventF ::= SEQUENCE {
    measurementThreshold1          ReportCharacteristicsType-MeasurementThreshold,
    measurementThreshold2          ReportCharacteristicsType-MeasurementThreshold    OPTIONAL,
    measurementHysteresisTime      ReportCharacteristicsType-ScaledMeasurementHysteresisTime    OPTIONAL,
    reportPeriodicity              ReportCharacteristicsType-ReportPeriodicity    OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { { ReportCharacteristicsType-EventF-ExtIEs} }    OPTIONAL,
    ...
}

ReportCharacteristicsType-EventF-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-OnModification ::= SEQUENCE {
    measurementThreshold          ReportCharacteristicsType-MeasurementThreshold,
    iE-Extensions                  ProtocolExtensionContainer { { ReportCharacteristicsType-OnModification-ExtIEs} }    OPTIONAL,
    ...
}

```



```

}

ReportCharacteristicsType-OnModification-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold ::= CHOICE {
  received-total-wide-band-power          Received-total-wide-band-power-Value-IncrDecrThres,
  transmitted-carrier-power               Transmitted-Carrier-Power-Value,
  acknowledged-prach-preambles           Acknowledged-PRACH-preambles-Value,
  uL-TimeslotISCP                         UL-TimeslotISCP-Value-IncrDecrThres,
  sir                                     SIR-Value-IncrDecrThres,
  sir-error                               SIR-Error-Value-IncrDecrThres,
  transmitted-code-power                 Transmitted-Code-Power-Value-IncrDecrThres,
  rscp                                    RSCP-Value-IncrDecrThres,
  round-trip-time                        Round-Trip-Time-IncrDecrThres,
  notUsed-1-acknowledged-PCPCH-access-preambles  NULL,
  notUsed-2-detected-PCPCH-access-preambles  NULL,
  ...,
  extension-ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold  Extension-ReportCharacteristicsType-
MeasurementIncreaseDecreaseThreshold
}

Extension-ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsType-
MeasurementIncreaseDecreaseThresholdIE }}

Extension-ReportCharacteristicsType-MeasurementIncreaseDecreaseThresholdIE NBAP-PROTOCOL-IES ::= {
  { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission          CRITICALITY reject  TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue PRESENCE mandatory }|
  { ID id-Transmitted-Carrier-Power-For-CellPortion          CRITICALITY reject  TYPE Transmitted-Carrier-Power-Value  PRESENCE mandatory }|
  { ID id-Received-total-wide-band-power-For-CellPortion  CRITICALITY reject  TYPE Received-total-wide-band-power-Value-IncrDecrThres  PRESENCE
mandatory }|
  { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion  CRITICALITY reject  TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue  PRESENCE mandatory }|
  { ID id-UpPTSInterferenceValue          CRITICALITY reject  TYPE UpPTSInterferenceValue  PRESENCE mandatory }|
  { ID id-Received-Scheduled-EDCH-Power-Share  CRITICALITY reject  TYPE RSEPS-Value-IncrDecrThres  PRESENCE mandatory }|
  { ID id-Received-Scheduled-EDCH-Power-Share-For-CellPortion  CRITICALITY reject  TYPE RSEPS-Value-IncrDecrThres  PRESENCE mandatory }
}

ReportCharacteristicsType-MeasurementThreshold ::= CHOICE {
  received-total-wide-band-power          Received-total-wide-band-power-Value,
  transmitted-carrier-power               Transmitted-Carrier-Power-Value,
  acknowledged-prach-preambles           Acknowledged-PRACH-preambles-Value,
  uL-TimeslotISCP                         UL-TimeslotISCP-Value,
  sir                                     SIR-Value,
  sir-error                               SIR-Error-Value,
  transmitted-code-power                 Transmitted-Code-Power-Value,
  rscp                                    RSCP-Value,
  rx-timing-deviation                   Rx-Timing-Deviation-Value,
  round-trip-time                        Round-Trip-Time-Value,
  notUsed-1-acknowledged-PCPCH-access-preambles  NULL,
  notUsed-2-detected-PCPCH-access-preambles  NULL,
  ...,
  extension-ReportCharacteristicsType-MeasurementThreshold  Extension-ReportCharacteristicsType-MeasurementThreshold
}

```

```

}

Extension-ReportCharacteristicsType-MeasurementThreshold ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsType-
MeasurementThresholdIE }}

Extension-ReportCharacteristicsType-MeasurementThresholdIE NBAP-PROTOCOL-IES ::= {
  { ID id-TUTRANGPSMeasurementThresholdInformation CRITICALITY reject TYPE TUTRANGPSMeasurementThresholdInformation PRESENCE mandatory } |
  { ID id-SFNFSNMeasurementThresholdInformation CRITICALITY reject TYPE SFNFSNMeasurementThresholdInformation PRESENCE mandatory } |
  { ID id-Rx-Timing-Deviation-Value-LCR CRITICALITY reject TYPE Rx-Timing-Deviation-Value-LCR PRESENCE mandatory } |
  { ID id-HS-SICH-Reception-Quality-Measurement-Value CRITICALITY reject TYPE HS-SICH-Reception-Quality-Measurement-Value PRESENCE mandatory } |
  -- For 1.28Mcps TDD, used when the Measurement Threshold Value for HS-SICH Reception Quality are less than or equal to 20
  { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue PRESENCE mandatory } |
  { ID id-HS-DSCHRequiredPowerValue CRITICALITY reject TYPE HS-DSCHRequiredPowerValue PRESENCE mandatory } |
  { ID id-Transmitted-Carrier-Power-For-CellPortion CRITICALITY reject TYPE Transmitted-Carrier-Power-Value PRESENCE mandatory } |
  { ID id-Received-total-wide-band-power-For-CellPortion CRITICALITY reject TYPE Received-total-wide-band-power-Value PRESENCE mandatory } |
  { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion CRITICALITY reject TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue PRESENCE mandatory } |
  { ID id-UpPTSInterferenceValue CRITICALITY reject TYPE UpPTSInterferenceValue PRESENCE mandatory } |
  { ID id-DLTransmissionBranchLoadValue CRITICALITY reject TYPE DLTransmissionBranchLoadValue PRESENCE mandatory } |
  { ID id-HS-DSCHRequiredPowerValue-For-Cell-Portion CRITICALITY reject TYPE HS-DSCHRequiredPowerValue PRESENCE mandatory } |
  { ID id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue CRITICALITY reject TYPE E-DCH-Non-serving-Relative-Grant-Down-Commands
PRESENCE mandatory } |
  { ID id-Rx-Timing-Deviation-Value-768 CRITICALITY reject TYPE Rx-Timing-Deviation-Value-768 PRESENCE mandatory } |
  { ID id-Rx-Timing-Deviation-Value-384-ext CRITICALITY reject TYPE Rx-Timing-Deviation-Value-384-ext PRESENCE mandatory } |
  { ID id-Extended-Round-Trip-Time-Value CRITICALITY reject TYPE Extended-Round-Trip-Time-Value PRESENCE mandatory } |
  { ID id-Received-Scheduled-EDCH-Power-Share CRITICALITY reject TYPE RSEPS-Value-IncrDecrThres PRESENCE mandatory } |
  { ID id-Received-Scheduled-EDCH-Power-Share-For-CellPortion CRITICALITY reject TYPE RSEPS-Value-IncrDecrThres PRESENCE mandatory } |
  { ID id-Additional-HS-SICH-Reception-Quality-Measurement-Value CRITICALITY reject TYPE HS-SICH-Reception-Quality-Measurement-Value
PRESENCE mandatory } |
  -- Applicable to 1.28Mcps TDD only, used when the Measurement Threshold Value for HS-SICH Reception Quality are more than 20, Measurement
Threshold Value = 20 + IE Value
  { ID id-TUTRANGANSSMeasurementThresholdInformation CRITICALITY reject TYPE TUTRANGANSSMeasurementThresholdInformation PRESENCE mandatory }
}

ReportCharacteristicsType-ScaledMeasurementChangeTime ::= CHOICE {
  msec MeasurementChangeTime-Scaledmsec,
  ...
}

MeasurementChangeTime-Scaledmsec ::= INTEGER (1..6000,...)
-- MeasurementChangeTime-Scaledmsec = Time * 10
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms

ReportCharacteristicsType-ScaledMeasurementHysteresisTime ::= CHOICE {
  msec MeasurementHysteresisTime-Scaledmsec,
  ...
}

MeasurementHysteresisTime-Scaledmsec ::= INTEGER (1..6000,...)
-- MeasurementHysteresisTime-Scaledmsec = Time * 10
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms

ReportCharacteristicsType-ReportPeriodicity ::= CHOICE {

```

```

    msec                ReportPeriodicity-Scaledmsec,
    min                ReportPeriodicity-Scaledmin,
    ...
}

ReportPeriodicity-Scaledmsec ::= INTEGER (1..6000,...)
-- ReportPeriodicity-msec = ReportPeriodicity * 10
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms

ReportPeriodicity-Scaledmin ::= INTEGER (1..60,...)
-- Unit min, Range 1min .. 60min(hour), Step 1min

ReportPeriodicity-Scaledhour ::= INTEGER (1..24,...)
-- Unit hour, Range 1hour .. 24hours(day), Step 1hour

ResourceOperationalState ::= ENUMERATED {
    enabled,
    disabled
}

RL-ID ::= INTEGER (0..31)

RL-Set-ID ::= INTEGER (0..31)

RLC-Mode ::= ENUMERATED {
    rLC-AM,
    rLC-UM,
    ...
}

Round-Trip-Time-IncrDecrThres ::= INTEGER(0..32766)

RNC-ID ::= INTEGER (0..4095)

Round-Trip-Time-Value ::= INTEGER(0..32767)
-- According to mapping in [22]

RSCP-Value ::= INTEGER (0..127)
-- According to mapping in [23]

RSCP-Value-IncrDecrThres ::= INTEGER (0..126)

Received-total-wide-band-power-For-CellPortion-Value ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Received-total-wide-band-power-For-CellPortion-Value-Item

Received-total-wide-band-power-For-CellPortion-Value-Item ::= SEQUENCE{
    cellPortionID                CellPortionID,
    received-total-wide-band-power-value    Received-total-wide-band-power-Value,
    iE-Extensions                ProtocolExtensionContainer { { Received-total-wide-band-power-For-CellPortion-Value-Item-ExtIEs} }
    OPTIONAL,
    ...
}

Received-total-wide-band-power-For-CellPortion-Value-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
Received-total-wide-band-power-Value ::= INTEGER(0..621)
-- According to mapping in [22]/[23]

Received-total-wide-band-power-Value-IncrDecrThres ::= INTEGER (0..620)

Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value-Item

Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value-Item ::= SEQUENCE{
    cellPortionID                CellPortionID,
    received-scheduled-power-share-value    RSEPS-Value,
    received-total-wide-band-power-value    Received-total-wide-band-power-Value    OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value-Item-ExtIEs} }
    OPTIONAL,
    ...
}

Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Received-Scheduled-EDCH-Power-Share-Value ::= SEQUENCE{
    received-scheduled-power-share-value    RSEPS-Value,
    received-total-wide-band-power-value    Received-total-wide-band-power-Value    OPTIONAL,
    ...
}

RSEPS-Value-IncrDecrThres ::= INTEGER (0..151)

RSEPS-Value ::= INTEGER (0..151)
-- According to mapping in [22]

RequestedDataValueInformation ::= CHOICE {
    informationAvailable        InformationAvailable,
    informationnotAvailable     InformationnotAvailable
}

InformationAvailable ::= SEQUENCE {
    requesteddataValue          RequestedDataValue,
    ie-Extensions              ProtocolExtensionContainer { { InformationAvailableItem-ExtIEs} }
    OPTIONAL,
    ...
}

InformationAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

InformationnotAvailable ::= NULL

RequestedDataValue ::= SEQUENCE {
    dgps-corrections          DGPSCorrections          OPTIONAL,
    gps-navandrecovery        GPS-NavigationModel-and-TimeRecovery  OPTIONAL,
    gps-ionos-model           GPS-Ionospheric-Model      OPTIONAL,
    gps-utc-model             GPS-UTC-Model            OPTIONAL,
    gps-almanac               GPS-Almanac          OPTIONAL,
    gps-rt-integrity          GPS-RealTime-Integrity  OPTIONAL,
    gpsrxpos                  GPS-RX-POS          OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer { { RequestedDataValue-ExtIEs } } OPTIONAL,
    ...
}

RequestedDataValue-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-GANSS-Common-Data          CRITICALITY ignore      EXTENSION GANSS-Common-Data          PRESENCE optional }|
    { ID id-GANSS-Generic-Data         CRITICALITY ignore      EXTENSION GANSS-Generic-Data         PRESENCE optional },
    ...
}

Rx-Timing-Deviation-Value ::= INTEGER (0..8191)
-- According to mapping in [23]

Rx-Timing-Deviation-Value-LCR ::= INTEGER (0..511)
-- According to mapping in [23]

Rx-Timing-Deviation-Value-768 ::= INTEGER (0..65535)
-- According to mapping in [23]

Rx-Timing-Deviation-Value-384-ext ::= INTEGER (0..32767)
-- According to mapping in [23]

RefBeta ::= INTEGER (-15..16)

RTWP-ReportingIndicator ::= ENUMERATED {
    rTWP-reporting-required}

RTWP-CellPortion-ReportingIndicator ::= ENUMERATED {
    rTWP-CellPortion-reporting-required}

-- =====
-- S
-- =====

AdjustmentPeriod ::= INTEGER(1..256)
-- Unit Frame

E-DPCCH-Power-Boosting-Capability ::= ENUMERATED {
    e-DPCCH-Power-Boosting-capable,
    e-DPCCH-Power-Boosting-non-capable
}

```

SAT-ID ::= INTEGER (0..63)

SAT-Info-Almanac ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-Almanac-Item

```
SAT-Info-Almanac-Item ::= SEQUENCE {
    data-id          DATA-ID,
    sat-id           SAT-ID,
    gps-e-alm        BIT STRING (SIZE (16)),
    gps-toa-alm      BIT STRING (SIZE (8)),
    gps-delta-I-alm  BIT STRING (SIZE (16)),
    omegadot-alm     BIT STRING (SIZE (16)),
    svhealth-alm     BIT STRING (SIZE (8)),
    gps-a-sqrt-alm   BIT STRING (SIZE (24)),
    omegazero-alm    BIT STRING (SIZE (24)),
    m-zero-alm       BIT STRING (SIZE (24)),
    gps-omega-alm    BIT STRING (SIZE (24)),
    gps-af-zero-alm  BIT STRING (SIZE (11)),
    gps-af-one-alm   BIT STRING (SIZE (11)),
    ie-Extensions    ProtocolExtensionContainer { { SAT-Info-Almanac-Item-ExtIEs } } OPTIONAL,
    ...
} -- This GPS-Almanac-Information is for the 1st 16 satellites
```

```
SAT-Info-Almanac-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

SAT-Info-Almanac-ExtList ::= SEQUENCE (SIZE (1..maxNrOfSatAlmanac-maxNoSat)) OF SAT-Info-Almanac-ExtItem

```
SAT-Info-Almanac-ExtItem ::= SEQUENCE {
    data-id          DATA-ID,
    sat-id           SAT-ID,
    gps-e-alm        BIT STRING (SIZE (16)),
    gps-toa-alm      BIT STRING (SIZE (8)),
    gps-delta-I-alm  BIT STRING (SIZE (16)),
    omegadot-alm     BIT STRING (SIZE (16)),
    svhealth-alm     BIT STRING (SIZE (8)),
    gps-a-sqrt-alm   BIT STRING (SIZE (24)),
    omegazero-alm    BIT STRING (SIZE (24)),
    m-zero-alm       BIT STRING (SIZE (24)),
    gps-omega-alm    BIT STRING (SIZE (24)),
    gps-af-zero-alm  BIT STRING (SIZE (11)),
    gps-af-one-alm   BIT STRING (SIZE (11)),
    ie-Extensions    ProtocolExtensionContainer { { SAT-Info-Almanac-ExtItemIEs } } OPTIONAL,
    ...
} -- Includes the GPS-Almanac-Information for 17th through 32nd satellites.
```

```
SAT-Info-Almanac-ExtItemIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

SAT-Info-DGPSCorrections ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-DGPSCorrections-Item

```

SAT-Info-DGPSCorrections-Item ::= SEQUENCE {
    sat-id                SAT-ID,
    iode-dgps             BIT STRING (SIZE (8)),
    udre                 UDRE,
    prc                 PRC,
    range-correction-rate Range-Correction-Rate,
    ie-Extensions        ProtocolExtensionContainer { { SAT-Info-DGPSCorrections-Item-ExtIEs} } OPTIONAL,
    ...
}

SAT-Info-DGPSCorrections-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SATInfo-RealTime-Integrity ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-RealTime-Integrity-Item

SAT-Info-RealTime-Integrity-Item ::= SEQUENCE {
    bad-sat-id          SAT-ID,
    ie-Extensions       ProtocolExtensionContainer { { SAT-Info-RealTime-Integrity-Item-ExtIEs} } OPTIONAL,
    ...
}

SAT-Info-RealTime-Integrity-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ScaledAdjustmentRatio      ::= INTEGER(0..100)
-- AdjustmentRatio = ScaledAdjustmentRatio / 100

MaxAdjustmentStep          ::= INTEGER(1..10)
-- Unit Slot

SchedulingInformation      ::= ENUMERATED {
    included,
    not-included
}

SchedulingPriorityIndicator ::= INTEGER (0..15)    -- lowest (0), highest (15)

SID ::= INTEGER (0..maxNrOfMACdPDUIndexes-1)

ScramblingCodeNumber ::= INTEGER (0..15)

Secondary-CPICH-Information-Change ::= CHOICE {
    new-secondary-CPICH      CommonPhysicalChannelID,
    secondary-CPICH-shall-not-be-used NULL,
    ...
}

SecondaryCCPCH-SlotFormat ::= INTEGER(0..17,...)

Secondary-CCPCH-SlotFormat-Extended ::= INTEGER(18..23,...)

```

```

Segment-Type ::= ENUMERATED {
    first-segment,
    first-segment-short,
    subsequent-segment,
    last-segment,
    last-segment-short,
    complete-SIB,
    complete-SIB-short,
    ...
}

Serving-E-DCH-RL-ID ::= CHOICE {
    serving-E-DCH-RL-in-this-NodeB      Serving-E-DCH-RL-in-this-NodeB,
    serving-E-DCH-RL-not-in-this-NodeB  NULL,
    ...
}

Serving-E-DCH-RL-in-this-NodeB ::= SEQUENCE {
    rL-ID                                RL-ID,
    iE-Extensions                        ProtocolExtensionContainer { { Serving-E-DCH-RL-in-this-NodeB-ExtIEs} }    OPTIONAL,
    ...
}

Serving-E-DCH-RL-in-this-NodeB-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFN ::= INTEGER (0..4095)

SFNSFN-FDD ::= INTEGER (0..614399)

SFNSFN-TDD ::= INTEGER (0..40961)

SFNSFN-TDD768 ::= INTEGER (0..81923)

SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s

SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s

SFNSFNMeasurementThresholdInformation ::= SEQUENCE {
    sFNSFNChangeLimit                SFNSFNChangeLimit                OPTIONAL,
    predictedSFNSFNDeviationLimit     PredictedSFNSFNDeviationLimit     OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} }    OPTIONAL,
    ...
}

SFNSFNMeasurementThresholdInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```



```

}

SFNSFNMeasurementValueInformation ::= SEQUENCE {
    successfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
        SEQUENCE {
            uC-Id UC-Id,
            sFNSFNValue SFNSFNValue,
            sFNSFNQuality SFNSFNQuality OPTIONAL,
            sFNSFNDriftRate SFNSFNDriftRate,
            sFNSFNDriftRateQuality SFNSFNDriftRateQuality OPTIONAL,
            sFNSFNTimeStampInformation SFNSFNTimeStampInformation,
            iE-Extensions ProtocolExtensionContainer { { SuccessfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} } OPTIONAL,
            ...
        },
    unsuccessfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
        SEQUENCE {
            uC-Id UC-Id,
            iE-Extensions ProtocolExtensionContainer { { UnsuccessfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} } OPTIONAL,
            ...
        },
    iE-Extensions ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs} } OPTIONAL,
    ...
}

SFNSFNMeasurementValueInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SuccessfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UnsuccessfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip

ShutdownTimer ::= INTEGER (1..3600)
-- Unit sec

SIB-Originator ::= ENUMERATED {
    nodeB,
    cRNC,
    ...
}

```

```

SIR-Error-Value ::= INTEGER (0..125)
-- According to mapping in [22]

SFNSFNTimeStampInformation ::= CHOICE {
    sFNSFNTimeStamp-FDD      SFN,
    sFNSFNTimeStamp-TDD      SFNSFNTimeStamp-TDD,
    ...}

SFNSFNTimeStamp-TDD ::= SEQUENCE {
    sFN                      SFN,
    timeSlot                 TimeSlot,
    iE-Extensions            ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs} } OPTIONAL,
    ...
}

SFNSFNTimeStamp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNValue ::= CHOICE {
    sFNSFN-FDD              SFNSFN-FDD,
    sFNSFN-TDD              SFNSFN-TDD,          --- 1.28Mcps and 3.84Mcps TDD only
    ...,
    sFNSFN-TDD768          SFNSFN-TDD768
}

SIR-Error-Value-IncrDecrThres ::= INTEGER (0..124)

SIR-Value ::= INTEGER (0..63)
-- According to mapping in [22]/[23]

SIR-Value-IncrDecrThres ::= INTEGER (0..62)

SignallingBearerRequestIndicator ::= ENUMERATED {bearerRequested}

SixtyfourQAM-UsageAllowedIndicator ::= ENUMERATED {
    allowed,
    not-allowed
}

SixtyfourQAM-DL-UsageIndicator ::= ENUMERATED {
    sixtyfourQAM-DL-used,
    sixtyfourQAM-DL-not-used
}

SixtyfourQAM-DL-Capability ::= ENUMERATED {
    sixtyfourQAM-DL-supported,
    sixtyfourQAM-DL-not-supported
}

```

SignatureSequenceGroupIndex ::= INTEGER (0..19)

SixteenQAM-UL-Capability ::= ENUMERATED {
 sixteenQAM-UL-capable,
 sixteenQAM-UL-non-capable
}

SixteenQAM-UL-Operation-Indicator ::= ENUMERATED {
 activate,
 deactivate
}

SNPL-Reporting-Type ::= ENUMERATED {
 type1,
 type2
}

SpecialBurstScheduling ::= INTEGER (1..256) -- Number of frames between special burst transmission during DTX

Start-Of-Audit-Sequence-Indicator ::= ENUMERATED {
 start-of-audit-sequence,
 not-start-of-audit-sequence
}

STTD-Indicator ::= ENUMERATED {
 active,
 inactive,
 ...
}

Ssdt-SupportIndicator ::= ENUMERATED {
 not-Used-sSDT-Supported,
 sSDT-not-supported
}

SyncCase ::= INTEGER (1..2,...)

SYNCD1CodeId ::= INTEGER (1..32,...)

SyncFrameNumber ::= INTEGER (1..10)

SynchronisationReportCharacteristics ::= SEQUENCE {
 synchronisationReportCharacteristicsType SynchronisationReportCharacteristicsType,
 synchronisationReportCharactThreExc SynchronisationReportCharactThreExc OPTIONAL,
 -- This IE shall be included if the synchronisationReportCharacteristicsType IE is set to "thresholdExceeding".
 iE-Extensions ProtocolExtensionContainer { { SynchronisationReportCharacteristics-ExtIEs } } OPTIONAL,
 ...
}

```

SynchronisationReportCharacteristics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-SyncDLCodeIdThreInfoLCR CRITICALITY ignore EXTENSION SyncDLCodeIdThreInfoLCR PRESENCE optional },
  ...
}

SynchronisationReportCharactThreExc ::= SEQUENCE (SIZE (1..maxNrOfCellSyncBursts)) OF SynchronisationReportCharactThreInfoItem -- Mandatory
for 3.84Mcps TDD only. Not Applicable to 1.28Mcps TDD.

SynchronisationReportCharactThreInfoItem ::= SEQUENCE {
  syncFrameNumber SyncFrameNumber,
  cellSyncBurstInformation SEQUENCE (SIZE (1.. maxNrOfReceptsPerSyncFrame)) OF SynchronisationReportCharactCellSyncBurstInfoItem,
  iE-Extensions ProtocolExtensionContainer { { SynchronisationReportCharactThreInfoItem-ExtIEs } } OPTIONAL,
  ...
}

SynchronisationReportCharactThreInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

SynchronisationReportCharactCellSyncBurstInfoItem ::= SEQUENCE {
  cellSyncBurstCode CellSyncBurstCode,
  cellSyncBurstCodeShift CellSyncBurstCodeShift,
  cellSyncBurstTiming CellSyncBurstTiming OPTIONAL,
  cellSyncBurstTimingThreshold CellSyncBurstTimingThreshold OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { SynchronisationReportCharactCellSyncBurstInfoItem-ExtIEs } } OPTIONAL,
  ...
}

SynchronisationReportCharactCellSyncBurstInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

SyncDLCodeIdThreInfoLCR ::= SEQUENCE (SIZE (0..maxNrOfSyncFramesLCR)) OF SyncDLCodeIdThreInfoList --Mandatory for 1.28Mcps TDD only. Not
Applicable to 3.84Mcps TDD.

SyncDLCodeIdThreInfoList ::= SEQUENCE {
  syncFrameNoToReceive SyncFrameNumber,
  syncDLCodeIdInfoLCR SyncDLCodeInfoListLCR,
  iE-Extensions ProtocolExtensionContainer { { SyncDLCodeIdThreInfoList-ExtIEs } } OPTIONAL,
  ...
}

SyncDLCodeIdThreInfoList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

SyncDLCodeInfoListLCR ::= SEQUENCE (SIZE (1..maxNrOfSyncDLCodesLCR)) OF SyncDLCodeInfoItemLCR

SyncDLCodeInfoItemLCR ::= SEQUENCE {
  syncDLCodeId SYNCDLCodeId,
  syncDLCodeIdArrivTime CellSyncBurstTimingLCR OPTIONAL,
  syncDLCodeIdTimingThre CellSyncBurstTimingThreshold OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { SyncDLCodeInfoItem-LCR-ExtIEs } } OPTIONAL,
}

```

```
    ...
}

SyncDLCodeInfoItem-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SynchronisationReportCharacteristicsType ::= ENUMERATED {
    frameRelated,
    sFNperiodRelated,
    cycleLengthRelated,
    thresholdExceeding,
    frequencyAcquisitionCompleted,
    ...
}

SynchronisationReportType ::= ENUMERATED {
    initialPhase,
    steadyStatePhase,
    lateEntrantCell,
    frequencyAcquisition,
    ...
}

-- =====
-- T
-- =====

T1 ::= ENUMERATED {v10,v20,v30,v40,v50,v60,v70,v80,v90,v100,v120,v140,v160,v200,v300,v400,...}

T-Cell ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    v4,
    v5,
    v6,
    v7,
    v8,
    v9
}

T-RLFFAILURE ::= INTEGER (0..255)
-- Unit seconds, Range 0s .. 25.5s, Step 0.1s

TDD-AckNack-Power-Offset ::= INTEGER (-7..8,...)
-- Unit dB, Range -7dB .. +8dB, Step 1dB

TDD-ChannelisationCode ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
```

```

    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
    ...
}

TDD-ChannelisationCodeLCR ::= SEQUENCE {
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    modulation                       Modulation, -- Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD or 7.68Mcps TDD
    iE-Extensions                    ProtocolExtensionContainer { { TDD-ChannelisationCodeLCR-ExtIEs} } OPTIONAL,
    ...
}

TDD-ChannelisationCodeLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-ChannelisationCode768          ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,

```

```
chCode8div5,  
chCode8div6,  
chCode8div7,  
chCode8div8,  
chCode16div1,  
chCode16div2,  
chCode16div3,  
chCode16div4,  
chCode16div5,  
chCode16div6,  
chCode16div7,  
chCode16div8,  
chCode16div9,  
chCode16div10,  
chCode16div11,  
chCode16div12,  
chCode16div13,  
chCode16div14,  
chCode16div15,  
chCode16div16,  
chCode32div1,  
chCode32div2,  
chCode32div3,  
chCode32div4,  
chCode32div5,  
chCode32div6,  
chCode32div7,  
chCode32div8,  
chCode32div9,  
chCode32div10,  
chCode32div11,  
chCode32div12,  
chCode32div13,  
chCode32div14,  
chCode32div15,  
chCode32div16,  
chCode32div17,  
chCode32div18,  
chCode32div19,  
chCode32div20,  
chCode32div21,  
chCode32div22,  
chCode32div23,  
chCode32div24,  
chCode32div25,  
chCode32div26,  
chCode32div27,  
chCode32div28,  
chCode32div29,  
chCode32div30,  
chCode32div31,  
chCode32div32,  
...  
}
```

```

TDD-DL-Code-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationItem

TDD-DL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID                DPCH-ID,
    tdd-ChannelisationCode TDD-ChannelisationCode,
    iE-Extensions          ProtocolExtensionContainer { { TDD-DL-Code-InformationItem-ExtIEs} }    OPTIONAL,
    ...
}

TDD-DL-Code-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF TDD-DL-Code-LCR-InformationItem

TDD-DL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID                DPCH-ID,
    tdd-ChannelisationCodeLCR TDD-ChannelisationCodeLCR,
    tdd-DL-DPCH-TimeSlotFormat-LCR TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions          ProtocolExtensionContainer { { TDD-DL-Code-LCR-InformationItem-ExtIEs} }    OPTIONAL,
    ...
}

TDD-DL-Code-LCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-Code-768-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHs768)) OF TDD-DL-Code-768-InformationItem

TDD-DL-Code-768-InformationItem ::= SEQUENCE {
    dPCH-ID                DPCH-ID,
    tdd-ChannelisationCode768 TDD-ChannelisationCode768,
    iE-Extensions          ProtocolExtensionContainer { { TDD-DL-Code-768-InformationItem-ExtIEs} }    OPTIONAL,
    ...
}

TDD-DL-Code-768-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-DL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
    qPSK                QPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK            EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    -- For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, this IE denotes MBSFN S-CCPCH time slot format
    ...
}

QPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

-- For 1.28 Mcps TDD, if the cell is operating in MBSFN only mode, this IE denotes MBSFN S-CCPCH time slot format , INTEGER(0..11,...)

TDD-DPCHOffset ::= CHOICE {

```



```

    initialOffset      INTEGER (0..255),
    noinitialOffset    INTEGER (0..63)
}

TDD-PhysicalChannelOffset ::= INTEGER (0..63)

TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}

TDD-TPC-UplinkStepSize-LCR ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}

TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors      SEQUENCE {
        gainFactor            CHOICE {
            fdd                SEQUENCE {
                betaC          BetaCD,
                betaD          BetaCD,
                iE-Extensions  ProtocolExtensionContainer { { GainFactorFDD-ExtIEs } } OPTIONAL,
                ...
            },
            tdd                BetaCD,
            ...
        },
        refTFCNumber          RefTFCNumber OPTIONAL,
        iE-Extensions        ProtocolExtensionContainer { { SignalledGainFactors-ExtIEs } } OPTIONAL,
        ...
    },
    computedGainFactors      RefTFCNumber,
    ...
}

GainFactorFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SignalledGainFactors-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationItem

TDD-UL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID                  DPCH-ID,
    tdd-ChannelisationCode   TDD-ChannelisationCode,
    iE-Extensions            ProtocolExtensionContainer { { TDD-UL-Code-InformationItem-ExtIEs } } OPTIONAL,
}

```

```

    ...
}

TDD-UL-Code-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF TDD-UL-Code-LCR-InformationItem

TDD-UL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID                DPCH-ID,
    tdd-ChannelisationCodeLCR    TDD-ChannelisationCodeLCR,
    tdd-UL-DPCH-TimeSlotFormat-LCR    TDD-UL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions            ProtocolExtensionContainer { { TDD-UL-Code-LCR-InformationItem-ExtIEs } }    OPTIONAL,
    ...
}

TDD-UL-Code-LCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-Code-768-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-768-InformationItem

TDD-UL-Code-768-InformationItem ::= SEQUENCE {
    dPCH-ID                DPCH-ID,
    tdd-ChannelisationCode768    TDD-ChannelisationCode768,
    iE-Extensions            ProtocolExtensionContainer { { TDD-UL-Code-768-InformationItem-ExtIEs } }    OPTIONAL,
    ...
}

TDD-UL-Code-768-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TDD-UL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
    qPSK                QPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK            EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    ...
}

QPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..69,...)

EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)

TFCI-Coding ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    ...
}

TFCI-Presence ::= ENUMERATED {
    present,
    not-present
}

```

```

}

TFCI-SignallingMode ::= SEQUENCE {
    tFCI-SignallingOption      TFCI-SignallingMode-TFCI-SignallingOption,
    not-Used-splitType        NULL                                OPTIONAL,
    not-Used-lengthOfTFCI2    NULL                                OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { TFCI-SignallingMode-ExtIEs } }
    ...
}

TFCI-SignallingMode-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCI-SignallingMode-TFCI-SignallingOption ::= ENUMERATED {
    normal,
    not-Used-split
}

TGD ::= INTEGER (0|15..269)
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence

TGPRC ::= INTEGER (0..511)
-- 0 = infinity

TGPSID ::= INTEGER (1.. maxTGPS)

TGSN ::= INTEGER (0..14)

TimeSlot ::= INTEGER (0..14)

TimeSlotDirection ::= ENUMERATED {
    ul,
    dl,
    ...
}

TimeSlot-InitiatedListLCR ::= SEQUENCE (SIZE (0..6)) OF TimeSlotLCR

TimeSlotLCR ::= INTEGER (0..6)

TimeSlotLCR-Extension ::= ENUMERATED {
    ts7,
    ...
}
-- ts7 indicates the MBSFN Special Timeslot for 1.28Mcps TDD MBSFN Dedicated Carrier.

TimeSlotMeasurementValueListLCR ::= SEQUENCE (SIZE (1..6)) OF TimeSlotMeasurementValueLCR

TimeSlotMeasurementValueLCR ::= SEQUENCE {
    timeSlotLCR                TimeSlotLCR,
    commonMeasurementValue     CommonMeasurementValue,

```

```

    iE-Extensions          ProtocolExtensionContainer { {TimeSlotMeasurementValueListLCR-ExtIEs} } OPTIONAL,
  }
  ...
}

TimeSlotMeasurementValueListLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

TimeSlotStatus ::= ENUMERATED {
  active,
  not-active,
  ...
}

TimingAdjustmentValue ::= CHOICE {
  initialPhase          INTEGER (0..1048575,...),
  steadyStatePhase      INTEGER (0..255,...)
}

TimingAdjustmentValueLCR ::= CHOICE {
  initialPhase          INTEGER (0..524287,...),
  steadyStatePhase      INTEGER (0..127,...)
}

TimingAdvanceApplied ::= ENUMERATED {
  yes,
  no
}

SynchronisationIndicator ::= ENUMERATED {
  timingMaintainedSynchronisation,
  ...
}

TnlQos ::= CHOICE {
  dsField              DsField,
  genericTrafficCategory GenericTrafficCategory,
  ...
}

ToAWE ::= INTEGER (0..2559)
-- Unit ms

ToAWS ::= INTEGER (0..1279)
-- Unit ms

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF
  SEQUENCE {
    tGPSID              TGPSID,
    tGSN                TGSN,
    tGL1                GapLength,
  }

```

```

tGL2          GapLength  OPTIONAL,
tGD           TGD,
tGPL1        GapDuration,
not-to-be-used-1      GapDuration OPTIONAL,
  -- This IE shall never be included in the SEQUENCE. If received it shall be ignored
uL-DL-mode    UL-DL-mode,
downlink-Compressed-Mode-Method  Downlink-Compressed-Mode-Method  OPTIONAL,
  -- This IE shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL"
uplink-Compressed-Mode-Method    Uplink-Compressed-Mode-Method    OPTIONAL,
  -- This IE shall be present if the UL/DL mode IE is set to "UL only" or "UL/DL"
dL-FrameType  DL-FrameType,
delta-SIR1    DeltaSIR,
delta-SIR-after1  DeltaSIR,
delta-SIR2    DeltaSIR  OPTIONAL,
delta-SIR-after2  DeltaSIR  OPTIONAL,
iE-Extensions  ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
  ...
}

Transmission-Gap-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

TransmissionGapPatternSequenceCodeInformation ::= ENUMERATED{
  code-change,
  nocode-change
}

TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue ::= SEQUENCE (SIZE
(1..maxNrOfCellPortionsPerCell)) OF TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue-
Item

TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue-Item ::= SEQUENCE{
  cellPortionID          CellPortionID,
  transmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue  TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue,
  iE-Extensions          ProtocolExtensionContainer { { TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-
RGCHOrE-HICHTransmissionCellPortionValue-Item-ExtIEs} }  OPTIONAL,
  ...
}

TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue-Item-ExtIEs NBAP-PROTOCOL-EXTENSION
::= {
  ...
}

TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmissionValue ::= INTEGER(0..100)

```

```

-- According to mapping in [22] and [23]

Transmitted-Carrier-Power-For-CellPortion-Value ::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Transmitted-Carrier-Power-For-CellPortion-Value-Item

Transmitted-Carrier-Power-For-CellPortion-Value-Item ::= SEQUENCE{
    cellPortionID                CellPortionID,
    transmitted-Carrier-Power-Value    Transmitted-Carrier-Power-Value,
    iE-Extensions                ProtocolExtensionContainer { { Transmitted-Carrier-Power-For-CellPortion-Value-Item-ExtIEs} }
    OPTIONAL,
    ...
}

Transmitted-Carrier-Power-For-CellPortion-Value-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- According to mapping in [22]/[23]

Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in [22]/[23]. Values 0 to 9 and 123 to 127 shall not be used.

Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)

TransmissionDiversityApplied ::= BOOLEAN
-- true: applied, false: not applied

TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive
}

TFCS ::= SEQUENCE {
    tFCSvalues                CHOICE {
        no-Split-in-TFCI            TFCS-TFCSList,
        not-Used-split-in-TFCI        NULL,
        -- This choice shall never be made by the CRNC and the Node B shall consider the procedure as failed if it is received.
        ...
    },
    iE-Extensions            ProtocolExtensionContainer { { TFCS-ExtIEs} }            OPTIONAL,
    ...
}

TFCS-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCS)) OF
    SEQUENCE {
        cTFC                TFCS-CTFC,
        tFC-Beta            TransportFormatCombination-Beta            OPTIONAL,
        -- The IE shall be present if the TFCS concerns a UL DPCH or PRACH channel [FDD - or PCPCH channel].
        iE-Extensions            ProtocolExtensionContainer { { TFCS-TFCSList-ExtIEs} }            OPTIONAL,
    }

```

```

    ...
}

TFCS-TFCSList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-CTFC ::= CHOICE {
    ctfc2bit          INTEGER (0..3),
    ctfc4bit          INTEGER (0..15),
    ctfc6bit          INTEGER (0..63),
    ctfc8bit          INTEGER (0..255),
    ctfc12bit         INTEGER (0..4095),
    ctfc16bit         INTEGER (0..65535),
    ctfcmaxbit        INTEGER (0..maxCTFC)
}

Transport-Block-Size-Index ::= INTEGER(1..maxNrOfHS-DSCH-TBSs)

Transport-Block-Size-Index-for-Enhanced-PCH ::= INTEGER(1..32)
-- Index of the value range 1 to 32 of the MAC-eHS transport block size as specified in appendix A of [32]

Transport-Block-Size-List ::= SEQUENCE (SIZE (1..maxNrOfHS-DSCH-TBSsE-PCH)) OF
    SEQUENCE {
        transport-Block-Size-Index-for-Enhanced-PCH      Transport-Block-Size-Index-for-Enhanced-PCH,
        iE-Extensions          ProtocolExtensionContainer { { Transport-Block-Size-List-ExtIEs } } OPTIONAL,
        ...
    }

Transport-Block-Size-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportBearerRequestIndicator ::= ENUMERATED {
    bearerRequested,
    bearerNotRequested,
    ...
}

TransportBearerNotRequestedIndicator ::= ENUMERATED {
    transport-bearer-shall-not-be-established,
    transport-bearer-may-not-be-established
}

TransportBearerNotSetupIndicator ::= ENUMERATED {
    transport-bearer-not-setup
}

TransportFormatSet ::= SEQUENCE {
    dynamicParts          TransportFormatSet-DynamicPartList,
    semi-staticPart       TransportFormatSet-Semi-staticPart,
    iE-Extensions         ProtocolExtensionContainer { { TransportFormatSet-ExtIEs } } OPTIONAL,
    ...
}

```

```

TransportFormatSet-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
  SEQUENCE {
    nrOfTransportBlocks      TransportFormatSet-NrOfTransportBlocks,
    transportBlockSize      TransportFormatSet-TransportBlockSize      OPTIONAL,
    -- This IE shall be present if the Number of Transport Blocks IE is set to a value greater than 0
    mode                    TransportFormatSet-ModeDP,
    iE-Extensions          ProtocolExtensionContainer { { TransportFormatSet-DynamicPartList-ExtIEs } }      OPTIONAL,
    ...
  }

TransportFormatSet-DynamicPartList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

TDD-TransportFormatSet-ModeDP ::= SEQUENCE {
  transmissionTimeIntervalInformation      TransmissionTimeIntervalInformation      OPTIONAL,
  -- This IE shall be present if the Transmission Time Interval IE in the Semi-static Transport Format Information IE is set to "dynamic"
  iE-Extensions          ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
  ...
}

TDD-TransportFormatSet-ModeDP-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

TransmissionTimeIntervalInformation ::= SEQUENCE (SIZE (1..maxTTI-count)) OF
  SEQUENCE {
    transmissionTimeInterval      TransportFormatSet-TransmissionTimeIntervalDynamic,
    iE-Extensions          ProtocolExtensionContainer { { TransmissionTimeIntervalInformation-ExtIEs } }      OPTIONAL,
    ...
  }

TransmissionTimeIntervalInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

TransportFormatSet-Semi-staticPart ::= SEQUENCE {
  transmissionTimeInterval      TransportFormatSet-TransmissionTimeIntervalSemiStatic,
  channelCoding                TransportFormatSet-ChannelCodingType,
  codingRate                    TransportFormatSet-CodingRate      OPTIONAL,
  -- This IE shall be present if the Type of channel coding IE is set to 'convolutional' or 'turbo'
  rateMatchingAttribute        TransportFormatSet-RateMatchingAttribute,
  crc-Size                     TransportFormatSet-CRC-Size,
  mode                         TransportFormatSet-ModeSSP,
  iE-Extensions          ProtocolExtensionContainer { { TransportFormatSet-Semi-staticPart-ExtIEs } }      OPTIONAL,
  ...
}

TransportFormatSet-Semi-staticPart-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```



```
    ...
}

TransportFormatSet-ChannelCodingType ::= ENUMERATED {
    no-codingTDD,
    convolutional-coding,
    turbo-coding,
    ...
}

TransportFormatSet-CodingRate ::= ENUMERATED {
    half,
    third,
    ...
}

TransportFormatSet-CRC-Size ::= ENUMERATED {
    v0,
    v8,
    v12,
    v16,
    v24,
    ...
}

TransportFormatSet-ModeDP ::= CHOICE {
    tdd                TDD-TransportFormatSet-ModeDP,
    notApplicable      NULL,
    ...
}

TransportFormatSet-ModeSSP ::= CHOICE {
    tdd                TransportFormatSet-SecondInterleavingMode,
    notApplicable      NULL,
    ...
}

TransportFormatSet-NrOfTransportBlocks ::= INTEGER (0..512)

TransportFormatSet-RateMatchingAttribute ::= INTEGER (1..maxRateMatching)

TransportFormatSet-SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeSlot-related,
    ...
}

TransportFormatSet-TransmissionTimeIntervalDynamic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    ...
}
```

```

TransportFormatSet-TransmissionTimeIntervalSemiStatic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    dynamic,
    ...,
    msec-5
}

TransportFormatSet-TransportBlockSize ::= INTEGER (0..5000)

TransportLayerAddress ::= BIT STRING (SIZE (1..160, ...))

TSTD-Indicator ::= ENUMERATED {
    active,
    inactive
}

TSN-Length ::= ENUMERATED {
    tsn-6bits,
    tsn-9bits
}

TUTRANGANSS ::= SEQUENCE {
    mS          INTEGER(0..16383),
    lS          INTEGER(0..4294967295)
}

TUTRANGANSSAccuracyClass ::= ENUMERATED {
    ganssAccuracy-class-A,
    ganssAccuracy-class-B,
    ganssAccuracy-class-C,
    ...
}

TUTRANGANSSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGANSSChangeLimit          INTEGER(1..256)           OPTIONAL,
    predictedTUTRANGANSSDeviationLimit  INTEGER(1..256)       OPTIONAL,
    ie-Extensions                    ProtocolExtensionContainer { { TUTRANGANSSMeasurementThresholdInformation-ExtIEs } } OPTIONAL,
    ...
}

TUTRANGANSSMeasurementThresholdInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGANSSMeasurementValueInformation ::= SEQUENCE {
    tUTRANGANSS          TUTRANGANSS,
    tUTRANGANSSQuality   INTEGER(0..255)           OPTIONAL,
    tUTRANGANSSDriftRate INTEGER(-50..50),

```

```

    tUTRANGANSSDriftRateQuality    INTEGER(0..50)
    ie-Extensions                  ProtocolExtensionContainer { { TUTRANGANSSMeasurementValueInformation-ExtIEs } }
    ...
}

TUTRANGANSSMeasurementValueInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGPS ::= SEQUENCE {
    ms-part    INTEGER (0..16383),
    ls-part    INTEGER (0..4294967295)
}

TUTRANGPSChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

TUTRANGPSDriftRate ::= INTEGER (-50..50)
-- Unit chip/s, Step 1/256 chip/s, Range -50/256..+50/256 chip/s

TUTRANGPSDriftRateQuality ::= INTEGER (0..50)
-- Unit chip/s, Step 1/256 chip/s, Range 0..50/256 chip/s

TUTRANGPSAccuracyClass ::= ENUMERATED {
    accuracy-class-A,
    accuracy-class-B,
    accuracy-class-C,
    ...
}

TUTRANGPSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGPSChangeLimit          TUTRANGPSChangeLimit          OPTIONAL,
    predictedTUTRANGPSDeviationLimit    PredictedTUTRANGPSDeviationLimit    OPTIONAL,
    ie-Extensions                  ProtocolExtensionContainer { { TUTRANGPSMeasurementThresholdInformation-ExtIEs } }    OPTIONAL,
    ...
}

TUTRANGPSMeasurementThresholdInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TUTRANGPSMeasurementValueInformation ::= SEQUENCE {
    tUTRANGPS                    TUTRANGPS,
    tUTRANGPSQuality              TUTRANGPSQuality              OPTIONAL,
    tUTRANGPSDriftRate            TUTRANGPSDriftRate,
    tUTRANGPSDriftRateQuality     TUTRANGPSDriftRateQuality    OPTIONAL,
    ie-Extensions                  ProtocolExtensionContainer { { TUTRANGPSMeasurementValueInformationItem-ExtIEs } }    OPTIONAL,
    ...
}

TUTRANGPSMeasurementValueInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

    ...
}

TUTRANGPSQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip

TxDiversityOnDLControlChannelsByMIMOUECapability ::= ENUMERATED {
    dL-Control-Channel-Tx-Diversity-for-MIMO-UE-with-non-diverse-P-CPICH-Capable,
    dL-Control-Channel-Tx-Diversity-for-MIMO-UE-with-non-diverse-P-CPICH-Not-Capable
}

TypeOfError ::= ENUMERATED {
    not-understood,
    missing,
    ...
}

-- =====
-- U
-- =====

UARFCN ::= INTEGER (0..16383, ...)
-- corresponds to 0MHz .. 3276.6MHz

UC-Id ::= SEQUENCE {
    rnc-ID          RNC-ID,
    c-ID            C-ID,
    iE-Extensions  ProtocolExtensionContainer { {UC-Id-ExtIEs} } OPTIONAL,
    ...
}
UC-Id-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Extended-RNC-ID      CRITICALITY reject      EXTENSION  Extended-RNC-ID PRESENCE  optional},
    ...
}

UDRE ::= ENUMERATED {
    udre-minusequal-one-m,
    udre-betweenoneandfour-m,
    udre-betweenfourandeight-m,
    udre-greaterequaleight-m
}

UE-Capability-Information ::= SEQUENCE {
    hSDSCH-Physical-Layer-Category  INTEGER (1..64,...),
    iE-Extensions                  ProtocolExtensionContainer { { UE-Capability-Information-ExtIEs } } OPTIONAL,
    ...
}

UE-Capability-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-LCRTDD-uplink-Physical-Channel-Capability      CRITICALITY ignore      EXTENSION  LCRTDD-Uplink-Physical-Channel-Capability
    PRESENCE optional}|
    {ID id-number-Of-Supported-Carriers                  CRITICALITY reject      EXTENSION  Number-Of-Supported-Carriers
    PRESENCE optional}|

```

```
{ID id-MultiCarrier-HSDSCH-Physical-Layer-Category
optional},
    ...
}
LCRTDD-HSDSCH-Physical-Layer-Category ::= INTEGER (1..64)

UE-DPCCH-burst1 ::= ENUMERATED {v1, v2, v5}
-- Unit subframe

UE-DPCCH-burst2 ::= ENUMERATED {v1, v2, v5}
-- Unit subframe

UE-DRX-Cycle ::= ENUMERATED {v4, v5, v8, v10, v16, v20}
-- Unit subframe

UE-DRX-Grant-Monitoring ::= BOOLEAN
-- true: applied, false: not applied

UE-DTX-Cycle1-2ms ::= ENUMERATED {v1, v4, v5, v8, v10, v16, v20}
-- Unit subframe

UE-DTX-Cycle1-10ms ::= ENUMERATED {v1, v5, v10, v20}
-- Unit subframe

UE-DTX-Cycle2-2ms ::= ENUMERATED {v4, v5, v8, v10, v16, v20, v32, v40, v64, v80, v128, v160}
-- Unit subframe

UE-DTX-Cycle2-10ms ::= ENUMERATED {v5, v10, v20, v40, v80, v160}
-- Unit subframe

UE-DTX-DRX-Offset ::= INTEGER (0..159)
-- Unit subframe

UE-DTX-Long-Preamble ::= ENUMERATED {v2, v4, v15}
-- Units of slots

UL-CapacityCredit ::= INTEGER (0..65535)

UL-Delta-T2TP ::= INTEGER (0..6,...)

UL-DL-mode ::= ENUMERATED {
    ul-only,
    dl-only,
    both-ul-and-dl
}

UL-DPDCH-Indicator-For-E-DCH-Operation ::= ENUMERATED {
    ul-DPDCH-present,
```

```

    ul-DPDCH-not-present
  }

Uplink-Compressed-Mode-Method ::= ENUMERATED {
    sFdiv2,
    higher-layer-scheduling,
    ...
}

UL-Timeslot-Information ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationItem

UL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot                TimeSlot,
    midambleShiftAndBurstType MidambleShiftAndBurstType,
    tFCI-Presence           TFCI-Presence,
    uL-Code-InformationList TDD-UL-Code-Information,
    iE-Extensions           ProtocolExtensionContainer { { UL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-TimeslotLCR-InformationItem

UL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR            TimeSlotLCR,
    midambleShiftLCR      MidambleShiftLCR,
    tFCI-Presence          TFCI-Presence,
    uL-Code-InformationList TDD-UL-Code-LCR-Information,
    iE-Extensions          ProtocolExtensionContainer { { UL-TimeslotLCR-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

UL-TimeslotLCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PLCCH-Information-UL-TimeslotLCR-Info CRITICALITY reject EXTENSION PLCCHinformation PRESENCE optional },
    ...
}

UL-Timeslot768-Information ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot768-InformationItem

UL-Timeslot768-InformationItem ::= SEQUENCE {
    timeSlot                TimeSlot,
    midambleShiftAndBurstType768 MidambleShiftAndBurstType768,
    tFCI-Presence           TFCI-Presence,
    uL-Code-InformationList TDD-UL-Code-768-Information,
    iE-Extensions           ProtocolExtensionContainer { { UL-Timeslot768-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

UL-Timeslot768-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}
UL-DPCCH-SlotFormat ::= INTEGER (0..5,...)

UL-SIR ::= INTEGER (-82..173)
-- According to mapping in [16]

UL-FP-Mode ::= ENUMERATED {
    normal,
    silent,
    ...
}

UL-PhysCH-SF-Variation ::= ENUMERATED {
    sf-variation-supported,
    sf-variation-not-supported
}

UL-ScramblingCode ::= SEQUENCE {
    uL-ScramblingCodeNumber          UL-ScramblingCodeNumber,
    uL-ScramblingCodeLength          UL-ScramblingCodeLength,
    iE-Extensions                    ProtocolExtensionContainer { { UL-ScramblingCode-ExtIEs } }
    ...
}
OPTIONAL,

UL-ScramblingCode-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-ScramblingCodeNumber ::= INTEGER (0..16777215)

UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long
}

UL-Synchronisation-Parameters-LCR ::= SEQUENCE {
    uL-Synchronisation-StepSize      UL-Synchronisation-StepSize,
    uL-Synchronisation-Frequency     UL-Synchronisation-Frequency,
    iE-Extensions                    ProtocolExtensionContainer { { UL-Synchronisation-Parameters-LCR-ExtIEs } }
    ...
}
OPTIONAL,

UL-Synchronisation-Parameters-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Synchronisation-StepSize ::= INTEGER (1..8)

UL-Synchronisation-Frequency ::= INTEGER (1..8)

UPPCHPositionLCR ::= INTEGER (0..127)

UL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-TimeSlot-ISCP-InfoItem

```

```

UL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot                TimeSlot,
    iSCP                    UL-TimeSlotISCP-Value,
    iE-Extensions           ProtocolExtensionContainer { { UL-TimeSlot-ISCP-InfoItem-ExtIEs} }
    ...
}

UL-TimeSlot-ISCP-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeSlot-ISCP-LCR-Info ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-TimeSlot-ISCP-LCR-InfoItem

UL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR            TimeSlotLCR,
    iSCP                    UL-TimeSlotISCP-Value,
    iE-Extensions           ProtocolExtensionContainer { { UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} }
    ...
}

UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UpPTSInterferenceValue ::= INTEGER (0..127,...)

Unidirectional-DCH-Indicator ::= ENUMERATED {
    downlink-DCH-only,
    uplink-DCH-only
}

USCH-Information ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationItem

USCH-InformationItem ::= SEQUENCE {
    uSCH-ID                USCH-ID,
    cCTrCH-ID              CCTrCH-ID,          -- UL CCTrCH in which the USCH is mapped
    transportFormatSet     TransportFormatSet, -- For USCH
    allocationRetentionPriority AllocationRetentionPriority,
    iE-Extensions           ProtocolExtensionContainer { { USCH-InformationItem-ExtIEs} }
    ...
}

USCH-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID          CRITICALITY ignore      EXTENSION BindingID          PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-transportlayeraddress CRITICALITY ignore  EXTENSION TransportLayerAddress PRESENCE optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnIQos             CRITICALITY ignore      EXTENSION TnIQos PRESENCE optional }|
    ...
}

USCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationResponseItem

```



```

USCH-InformationResponseItem ::= SEQUENCE {
    uSCH-ID
    bindingID
    transportLayerAddress
    iE-Extensions
    ...
}

USCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeslotISCP-Value ::= INTEGER (0..127)
-- According to mapping in [23]

UL-TimeslotISCP-Value-IncrDecrThres ::= INTEGER (0..126)

USCH-ID ::= INTEGER (0..255)

-- =====
-- V
-- =====

-- =====
-- W
-- =====

-- =====
-- X
-- =====

-- =====
-- Y
-- =====

-- =====
-- Z
-- =====

END

```

9.3.5 Common Definitions

```

-- *****
--
-- Common definitions
--
-- *****

NBAP-CommonDataTypes {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-CommonDataTypes (3) }

```

```

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- *****
--
-- Extension constants
--
-- *****

maxPrivateIEs          INTEGER ::= 65535
maxProtocolExtensions  INTEGER ::= 65535
maxProtocolIEs         INTEGER ::= 65535

-- *****
--
-- Common Data Types
--
-- *****

Criticality             ::= ENUMERATED { reject, ignore, notify }

MessageDiscriminator   ::= ENUMERATED { common, dedicated }

Presence               ::= ENUMERATED { optional, conditional, mandatory }

PrivateIE-ID           ::= CHOICE {
    local               INTEGER (0..maxPrivateIEs),
    global              OBJECT IDENTIFIER
}

ProcedureCode          ::= INTEGER (0..255)

ProcedureID            ::= SEQUENCE {
    procedureCode       ProcedureCode,
    ddMode              ENUMERATED { tdd, fdd, common, ... }
}

ProtocolIE-ID         ::= INTEGER (0..maxProtocolIEs)

TransactionID         ::= CHOICE {
    shortTransActionId  INTEGER (0..127),
    longTransActionId   INTEGER (0..32767)
}

TriggeringMessage     ::= ENUMERATED { initiating-message, successful-outcome, unsuccessful-outcome, outcome }

END

```

9.3.6 Constant Definitions

```

-- *****
--

```

```

-- Constant definitions
--
-- *****

NBAP-Constants {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-Constants (4)}

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    ProcedureCode,
    ProtocolIE-ID
FROM NBAP-CommonDataTypes;

-- *****
--
-- Elementary Procedures
--
-- *****

id-audit                               ProcedureCode ::= 0
id-auditRequired                       ProcedureCode ::= 1
id-blockResource                       ProcedureCode ::= 2
id-cellDeletion                        ProcedureCode ::= 3
id-cellReconfiguration                 ProcedureCode ::= 4
id-cellSetup                           ProcedureCode ::= 5
id-cellSynchronisationInitiation       ProcedureCode ::= 45
id-cellSynchronisationReconfiguration   ProcedureCode ::= 46
id-cellSynchronisationReporting         ProcedureCode ::= 47
id-cellSynchronisationTermination       ProcedureCode ::= 48
id-cellSynchronisationFailure           ProcedureCode ::= 49
id-commonMeasurementFailure             ProcedureCode ::= 6
id-commonMeasurementInitiation          ProcedureCode ::= 7
id-commonMeasurementReport              ProcedureCode ::= 8
id-commonMeasurementTermination         ProcedureCode ::= 9
id-commonTransportChannelDelete         ProcedureCode ::= 10
id-commonTransportChannelReconfigure    ProcedureCode ::= 11
id-commonTransportChannelSetup          ProcedureCode ::= 12
id-compressedModeCommand                ProcedureCode ::= 14
id-dedicatedMeasurementFailure          ProcedureCode ::= 16
id-dedicatedMeasurementInitiation       ProcedureCode ::= 17
id-dedicatedMeasurementReport           ProcedureCode ::= 18
id-dedicatedMeasurementTermination      ProcedureCode ::= 19
id-downlinkPowerControl                 ProcedureCode ::= 20
id-downlinkPowerTimeslotControl         ProcedureCode ::= 38
id-errorIndicationForCommon             ProcedureCode ::= 35
id-errorIndicationForDedicated          ProcedureCode ::= 21
id-informationExchangeFailure            ProcedureCode ::= 40
id-informationExchangeInitiation         ProcedureCode ::= 41
id-informationExchangeTermination        ProcedureCode ::= 42
id-informationReporting                  ProcedureCode ::= 43

```

id-BearerRearrangement	ProcedureCode ::= 50
id-mBMSNotificationUpdate	ProcedureCode ::= 53
id-physicalSharedChannelReconfiguration	ProcedureCode ::= 37
id-privateMessageForCommon	ProcedureCode ::= 36
id-privateMessageForDedicated	ProcedureCode ::= 22
id-radioLinkAddition	ProcedureCode ::= 23
id-radioLinkDeletion	ProcedureCode ::= 24
id-radioLinkFailure	ProcedureCode ::= 25
id-radioLinkPreemption	ProcedureCode ::= 39
id-radioLinkRestoration	ProcedureCode ::= 26
id-radioLinkSetup	ProcedureCode ::= 27
id-reset	ProcedureCode ::= 13
id-resourceStatusIndication	ProcedureCode ::= 28
id-cellSynchronisationAdjustment	ProcedureCode ::= 44
id-synchronisedRadioLinkReconfigurationCancellation	ProcedureCode ::= 29
id-synchronisedRadioLinkReconfigurationCommit	ProcedureCode ::= 30
id-synchronisedRadioLinkReconfigurationPreparation	ProcedureCode ::= 31
id-systemInformationUpdate	ProcedureCode ::= 32
id-unblockResource	ProcedureCode ::= 33
id-unSynchronisedRadioLinkReconfiguration	ProcedureCode ::= 34
id-radioLinkActivation	ProcedureCode ::= 51
id-radioLinkParameterUpdate	ProcedureCode ::= 52

```
-- *****
--
-- Lists
--
-- *****
```

maxNrOfCodes	INTEGER ::= 10
maxNrOfDLTSs	INTEGER ::= 15
maxNrOfDLTSLCRs	INTEGER ::= 6
maxNrOfErrors	INTEGER ::= 256
maxNrOfTFs	INTEGER ::= 32
maxNrOfTFCs	INTEGER ::= 1024
maxNrOfRLs	INTEGER ::= 16
maxNrOfRLs-1	INTEGER ::= 15 -- maxNrOfRLs - 1
maxNrOfRLs-2	INTEGER ::= 14 -- maxNrOfRLs - 2
maxNrOfRLSets	INTEGER ::= maxNrOfRLs
maxNrOfDPCHs	INTEGER ::= 240
maxNrOfDPCHsPerRL-1	INTEGER ::= 239 -- maxNrOfCCTrCH*maxNrOfULTSs-1
maxNrOfDPCHLCRs	INTEGER ::= 240
maxNrOfDPCHsLCRPerRL-1	INTEGER ::= 95 -- maxNrOfCCTrCH*maxNrOfULTSLCRs-1
maxNrOfDPCHs768	INTEGER ::= 480
maxNrOfDPCHs768PerRL-1	INTEGER ::= 479
maxNrOfSCCPCHs	INTEGER ::= 8
maxNrOfSCCPCHsInExt	INTEGER ::= 232
maxNrOfSCCPCHs768	INTEGER ::= 480
maxNrOfDCHs	INTEGER ::= 128
maxNrOfDSCHs	INTEGER ::= 32
maxNrOfFACHs	INTEGER ::= 8
maxNrOfCCTrCHs	INTEGER ::= 16
maxNrOfPDSCHs	INTEGER ::= 256
maxNrOfHSPDSCHs	INTEGER ::= 16

```

maxNrOfHSPDSCHs768          INTEGER ::= 32
maxNrOfPUSCHs               INTEGER ::= 256
maxNrOfPUSCHs-1            INTEGER ::= 255
maxNrOfPDSCHSets           INTEGER ::= 256
maxNrOfPRACHLCRs           INTEGER ::= 8
maxNrOfPUSCHSets           INTEGER ::= 256
maxNrOfSCCPCHLCRs          INTEGER ::= 8
maxNrOfSCCPCHsLCRinExt     INTEGER ::= 88
maxNrOfULTSs                INTEGER ::= 15
maxNrOfULTSLCRs            INTEGER ::= 6
maxNrOfUSCHs                INTEGER ::= 32
maxNrOfSlotFormatsPRACH    INTEGER ::= 8
maxCellinNodeB              INTEGER ::= 256
maxCCPinNodeB              INTEGER ::= 256
maxCTFC                     INTEGER ::= 16777215
maxLocalCellinNodeB        INTEGER ::= maxCellinNodeB
maxFPACHCell                INTEGER ::= 8
maxRACHCell                 INTEGER ::= maxPRACHCell
maxPLCCHCell                INTEGER ::= 16
maxPRACHCell                INTEGER ::= 16
maxSCCPCHCell              INTEGER ::= 32
maxSCCPCHCellinExt         INTEGER ::= 208 -- maxNrOfSCCPCHs + maxNrOfSCCPCHsinExt - maxSCCPCHCell
maxSCCPCHCellinExtLCR      INTEGER ::= 64 -- maxNrOfSCCPCHLCRs + maxNrOfSCCPCHsLCRinExt - maxSCCPCHCell
maxSCCPCHCell768           INTEGER ::= 480
maxSCPICHCell              INTEGER ::= 32
maxTTI-count               INTEGER ::= 4
maxIBSEG                    INTEGER ::= 16
maxIB                       INTEGER ::= 64
maxFACHCell                 INTEGER ::= 256 -- maxNrOfFACHs * maxSCCPCHCell
maxRateMatching            INTEGER ::= 256
maxHS-PDSCHCodeNrComp-1    INTEGER ::= 15
maxHS-SCCHCodeNrComp-1     INTEGER ::= 127
maxNrOfCellSyncBursts      INTEGER ::= 10
maxNrOfReceptsPerSyncFrame INTEGER ::= 16
maxNrOfMeasNCell           INTEGER ::= 96
maxNrOfMeasNCell-1         INTEGER ::= 95 -- maxNrOfMeasNCell - 1
maxNrOfSF                   INTEGER ::= 8
maxTGPS                     INTEGER ::= 6
maxCommunicationContext     INTEGER ::= 1048575
maxNrOfLevels               INTEGER ::= 256
maxNoSat                    INTEGER ::= 16
maxNoGPSItems               INTEGER ::= 8
maxNrOfHSSCCHs              INTEGER ::= 32
maxNrOfHSSICHs              INTEGER ::= 4
maxNrOfHSSICHs-1           INTEGER ::= 3
maxNrOfSyncFramesLCR        INTEGER ::= 512
maxNrOfReceptionsperSyncFrameLCR  INTEGER ::= 8
maxNrOfSyncDLCodesLCR      INTEGER ::= 32
maxNrOfHSSCCHCodes          INTEGER ::= 4
maxNrOfMACdFlows            INTEGER ::= 8
maxNrOfMACdFlows-1         INTEGER ::= 7 -- maxNrOfMACdFlows - 1
maxNrOfMACdPDUIndexes       INTEGER ::= 8
maxNrOfMACdPDUIndexes-1    INTEGER ::= 7 -- maxNoOfMACdPDUIndexes - 1
maxNrOfMACdPDUSize          INTEGER ::= 32

```

```

maxNrOfNIs                INTEGER ::= 256
maxNrOfPriorityQueues      INTEGER ::= 8
maxNrOfPriorityQueues-1   INTEGER ::= 7   -- maxNoOfPriorityQueues - 1
maxNrOfHARQProcesses      INTEGER ::= 8
maxNrOfContextsOnUeList  INTEGER ::= 16
maxNrOfCellPortionsPerCell  INTEGER ::= 64
maxNrOfCellPortionsPerCell-1  INTEGER ::= 63
maxNrOfPriorityClasses    INTEGER ::= 16
maxNrOfSatAlmanac-maxNoSat  INTEGER ::= 16   -- maxNrofSatAlmanac - maxNoSat
maxNrOfE-AGCHs           INTEGER ::= 32
maxNrOfEDCHMACdFlows     INTEGER ::= 8
maxNrOfEDCHMACdFlows-1   INTEGER ::= 7
maxNrOfE-RGCHs-E-HICHs   INTEGER ::= 32
maxNrOfEDCH-HARQ-PO-QUANTSTEPS  INTEGER ::= 6
maxNrOfEDCHHARQProcesses2msEDCH  INTEGER ::= 8
maxNrOfEDPCCH-PO-QUANTSTEPS  INTEGER ::= 8
maxNrOfBits-MACe-PDU-non-scheduled  INTEGER ::= 19982
maxNrOfRefETFCIs        INTEGER ::= 8
maxNrOfRefETFCI-PO-QUANTSTEPS  INTEGER ::= 29
maxNrofSigSeqRGHI-1     INTEGER ::= 39
maxNoOfLogicalChannels  INTEGER ::= 16   -- only maximum 15 can be used
maxNrOfCombEDPDCH       INTEGER ::= 12
maxE-RUCCHCell          INTEGER ::= 16
maxNrOfEAGCHCodes       INTEGER ::= 4
maxNrOfRefBetas         INTEGER ::= 8
maxNrOfE-PUCHSlots      INTEGER ::= 13
maxNrOfEAGCHs           INTEGER ::= 32
maxNrOfHS-DSCH-TBSs-HS-SCCHless  INTEGER ::= 4
maxNrOfHS-DSCH-TBSs     INTEGER ::= 90
maxNrOfEHICHCodes       INTEGER ::= 4
maxNrOfE-PUCHSlotsLCR   INTEGER ::= 5
maxNrOfEPUCHcodes       INTEGER ::= 16
maxNrOfEHICHs           INTEGER ::= 32
maxNrOfCommonMACFlows   INTEGER ::= 8
maxNrOfCommonMACFlows-1  INTEGER ::= 7
maxNrOfPagingMACFlow    INTEGER ::= 4
maxNrOfPagingMACFlow-1  INTEGER ::= 3
maxNrOfcommonMACQueues  INTEGER ::= 8
maxNrOfpagingMACQueues  INTEGER ::= 8
maxNrOfHS-DSCHTBSsE-PCH  INTEGER ::= 2
maxGANSSSat             INTEGER ::= 64
maxNoGANSs              INTEGER ::= 8
maxSgnType              INTEGER ::= 8
maxFrequencyinCell      INTEGER ::= 12
maxFrequencyinCell-1    INTEGER ::= 11
maxHSDPAFrequency       INTEGER ::= 8
maxHSDPAFrequency-1     INTEGER ::= 7
maxNrOfHSSCCHsInExt     INTEGER ::= 224
maxGANSSSatAlmanac      INTEGER ::= 36
maxGANSsClockMod        INTEGER ::= 4
maxNrOfEDCHRLs         INTEGER ::= 4
maxMBMSServiceSelect    INTEGER ::= 256

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-- *****
--
-- IEs
--
-- *****

id-AICH-Information                ProtocolIE-ID ::= 0
id-AICH-InformationItem-ResourceStatusInd ProtocolIE-ID ::= 1
id-BCH-Information                ProtocolIE-ID ::= 7
id-BCH-InformationItem-ResourceStatusInd ProtocolIE-ID ::= 8
id-BCCH-ModificationTime          ProtocolIE-ID ::= 9
id-BlockingPriorityIndicator       ProtocolIE-ID ::= 10
id-Cause                          ProtocolIE-ID ::= 13
id-CCP-InformationItem-AuditRsp    ProtocolIE-ID ::= 14
id-CCP-InformationList-AuditRsp   ProtocolIE-ID ::= 15
id-CCP-InformationItem-ResourceStatusInd ProtocolIE-ID ::= 16
id-Cell-InformationItem-AuditRsp   ProtocolIE-ID ::= 17
id-Cell-InformationItem-ResourceStatusInd ProtocolIE-ID ::= 18
id-Cell-InformationList-AuditRsp   ProtocolIE-ID ::= 19
id-CellParameterID                ProtocolIE-ID ::= 23
id-CFN                            ProtocolIE-ID ::= 24
id-C-ID                            ProtocolIE-ID ::= 25
id-CommonMeasurementAccuracy       ProtocolIE-ID ::= 39
id-CommonMeasurementObjectType-CM-Rpmt ProtocolIE-ID ::= 31
id-CommonMeasurementObjectType-CM-Rqst ProtocolIE-ID ::= 32
id-CommonMeasurementObjectType-CM-Rsp ProtocolIE-ID ::= 33
id-CommonMeasurementType          ProtocolIE-ID ::= 34
id-CommonPhysicalChannelID        ProtocolIE-ID ::= 35
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD ProtocolIE-ID ::= 36
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD ProtocolIE-ID ::= 37
id-CommunicationControlPortID     ProtocolIE-ID ::= 40
id-ConfigurationGenerationID      ProtocolIE-ID ::= 43
id-CRNC-CommunicationContextID    ProtocolIE-ID ::= 44
id-CriticalityDiagnostics         ProtocolIE-ID ::= 45
id-DCHs-to-Add-FDD               ProtocolIE-ID ::= 48
id-DCH-AddList-RL-ReconfPrepTDD   ProtocolIE-ID ::= 49
id-DCHs-to-Add-TDD               ProtocolIE-ID ::= 50
id-DCH-DeleteList-RL-ReconfPrepFDD ProtocolIE-ID ::= 52
id-DCH-DeleteList-RL-ReconfPrepTDD ProtocolIE-ID ::= 53
id-DCH-DeleteList-RL-ReconfRqstFDD ProtocolIE-ID ::= 54
id-DCH-DeleteList-RL-ReconfRqstTDD ProtocolIE-ID ::= 55
id-DCH-FDD-Information            ProtocolIE-ID ::= 56
id-DCH-TDD-Information            ProtocolIE-ID ::= 57
id-DCH-InformationResponse        ProtocolIE-ID ::= 59
id-FDD-DCHs-to-Modify             ProtocolIE-ID ::= 62
id-TDD-DCHs-to-Modify             ProtocolIE-ID ::= 63
id-DCH-ModifyList-RL-ReconfRqstTDD ProtocolIE-ID ::= 65
id-DCH-RearrangeList-Bearer-RearrangeInd ProtocolIE-ID ::= 135
id-DedicatedMeasurementObjectType-DM-Rpmt ProtocolIE-ID ::= 67
id-DedicatedMeasurementObjectType-DM-Rqst ProtocolIE-ID ::= 68
id-DedicatedMeasurementObjectType-DM-Rsp ProtocolIE-ID ::= 69
id-DedicatedMeasurementType       ProtocolIE-ID ::= 70
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD ProtocolIE-ID ::= 72
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD ProtocolIE-ID ::= 73

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id-DL-CCTrCH-InformationList-RL-SetupRqstTDD	ProtocolIE-ID ::= 76
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD	ProtocolIE-ID ::= 77
id-DL-DPCH-InformationList-RL-SetupRqstTDD	ProtocolIE-ID ::= 79
id-DL-DPCH-Information-RL-ReconfPrepFDD	ProtocolIE-ID ::= 81
id-DL-DPCH-Information-RL-ReconfRqstFDD	ProtocolIE-ID ::= 82
id-DL-DPCH-Information-RL-SetupRqstFDD	ProtocolIE-ID ::= 83
id-DL-DPCH-TimingAdjustment	ProtocolIE-ID ::= 21
id-DL-ReferencePowerInformationItem-DL-PC-Rqst	ProtocolIE-ID ::= 84
id-DLReferencePower	ProtocolIE-ID ::= 85
id-DLReferencePowerList-DL-PC-Rqst	ProtocolIE-ID ::= 86
id-Unused-ProtocolIE-ID-87	ProtocolIE-ID ::= 87
id-Unused-ProtocolIE-ID-89	ProtocolIE-ID ::= 89
id-Unused-ProtocolIE-ID-91	ProtocolIE-ID ::= 91
id-Unused-ProtocolIE-ID-93	ProtocolIE-ID ::= 93
id-DSCHs-to-Add-TDD	ProtocolIE-ID ::= 96
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 98
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 100
id-DSCH-InformationResponse	ProtocolIE-ID ::= 105
id-Unused-ProtocolIE-ID-106	ProtocolIE-ID ::= 106
id-DSCH-TDD-Information	ProtocolIE-ID ::= 107
id-Unused-ProtocolIE-ID-108	ProtocolIE-ID ::= 108
id-Unused-ProtocolIE-ID-112	ProtocolIE-ID ::= 112
id-DSCH-RearrangeList-Bearer-RearrangeInd	ProtocolIE-ID ::= 136
id-End-Of-Audit-Sequence-Indicator	ProtocolIE-ID ::= 113
id-FACH-Information	ProtocolIE-ID ::= 116
id-FACH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 117
id-FACH-ParametersList-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 120
id-FACH-ParametersListIE-CTCH-SetupRqstFDD	ProtocolIE-ID ::= 121
id-FACH-ParametersListIE-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 122
id-IndicationType-ResourceStatusInd	ProtocolIE-ID ::= 123
id-Local-Cell-ID	ProtocolIE-ID ::= 124
id-Local-Cell-Group-InformationItem-AuditRsp	ProtocolIE-ID ::= 2
id-Local-Cell-Group-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 3
id-Local-Cell-Group-InformationItem2-ResourceStatusInd	ProtocolIE-ID ::= 4
id-Local-Cell-Group-InformationList-AuditRsp	ProtocolIE-ID ::= 5
id-Local-Cell-InformationItem-AuditRsp	ProtocolIE-ID ::= 125
id-Local-Cell-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 126
id-Local-Cell-InformationItem2-ResourceStatusInd	ProtocolIE-ID ::= 127
id-Local-Cell-InformationList-AuditRsp	ProtocolIE-ID ::= 128
id-AdjustmentPeriod	ProtocolIE-ID ::= 129
id-MaxAdjustmentStep	ProtocolIE-ID ::= 130
id-MaximumTransmissionPower	ProtocolIE-ID ::= 131
id-MeasurementFilterCoefficient	ProtocolIE-ID ::= 132
id-MeasurementID	ProtocolIE-ID ::= 133
id-MessageStructure	ProtocolIE-ID ::= 115
id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst	ProtocolIE-ID ::= 134
id-NodeB-CommunicationContextID	ProtocolIE-ID ::= 143
id-NeighbouringCellMeasurementInformation	ProtocolIE-ID ::= 455
id-P-CCPCH-Information	ProtocolIE-ID ::= 144
id-P-CCPCH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 145
id-P-CPICH-Information	ProtocolIE-ID ::= 146
id-P-CPICH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 147
id-P-SCH-Information	ProtocolIE-ID ::= 148
id-PCCPCH-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 150

id-PCCPCH-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 151
id-PCH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 155
id-PCH-ParametersItem-CTCH-SetupRqstFDD	ProtocolIE-ID ::= 156
id-PCH-ParametersItem-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 157
id-PCH-Information	ProtocolIE-ID ::= 158
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 161
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 162
id-PDSCHSets-AddList-PSCH-ReconfRqst	ProtocolIE-ID ::= 163
id-PDSCHSets-DeleteList-PSCH-ReconfRqst	ProtocolIE-ID ::= 164
id-PDSCHSets-ModifyList-PSCH-ReconfRqst	ProtocolIE-ID ::= 165
id-PICH-Information	ProtocolIE-ID ::= 166
id-PICH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 168
id-PowerAdjustmentType	ProtocolIE-ID ::= 169
id-PRACH-Information	ProtocolIE-ID ::= 170
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 175
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 176
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 177
id-PrimaryCPICH-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 178
id-PrimarySCH-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 179
id-PrimarySCH-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 180
id-PrimaryScramblingCode	ProtocolIE-ID ::= 181
id-SCH-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 183
id-SCH-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 184
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 185
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 186
id-PUSCHSets-AddList-PSCH-ReconfRqst	ProtocolIE-ID ::= 187
id-PUSCHSets-DeleteList-PSCH-ReconfRqst	ProtocolIE-ID ::= 188
id-PUSCHSets-ModifyList-PSCH-ReconfRqst	ProtocolIE-ID ::= 189
id-RACH-Information	ProtocolIE-ID ::= 190
id-RACH-ParametersItem-CTCH-SetupRqstFDD	ProtocolIE-ID ::= 196
id-RACH-ParameterItem-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 197
id-ReportCharacteristics	ProtocolIE-ID ::= 198
id-Reporting-Object-RL-FailureInd	ProtocolIE-ID ::= 199
id-Reporting-Object-RL-RestoreInd	ProtocolIE-ID ::= 200
id-RL-InformationItem-DM-Rprt	ProtocolIE-ID ::= 202
id-RL-InformationItem-DM-Rqst	ProtocolIE-ID ::= 203
id-RL-InformationItem-DM-Rsp	ProtocolIE-ID ::= 204
id-RL-InformationItem-RL-AdditionRqstFDD	ProtocolIE-ID ::= 205
id-RL-informationItem-RL-DeletionRqst	ProtocolIE-ID ::= 206
id-RL-InformationItem-RL-FailureInd	ProtocolIE-ID ::= 207
id-RL-InformationItem-RL-PreemptRequiredInd	ProtocolIE-ID ::= 286
id-RL-InformationItem-RL-ReconfPrepFDD	ProtocolIE-ID ::= 208
id-RL-InformationItem-RL-ReconfRqstFDD	ProtocolIE-ID ::= 209
id-RL-InformationItem-RL-RestoreInd	ProtocolIE-ID ::= 210
id-RL-InformationItem-RL-SetupRqstFDD	ProtocolIE-ID ::= 211
id-RL-InformationList-RL-AdditionRqstFDD	ProtocolIE-ID ::= 212
id-RL-informationList-RL-DeletionRqst	ProtocolIE-ID ::= 213
id-RL-InformationList-RL-PreemptRequiredInd	ProtocolIE-ID ::= 237
id-RL-InformationList-RL-ReconfPrepFDD	ProtocolIE-ID ::= 214
id-RL-InformationList-RL-ReconfRqstFDD	ProtocolIE-ID ::= 215
id-RL-InformationList-RL-SetupRqstFDD	ProtocolIE-ID ::= 216
id-RL-InformationResponseItem-RL-AdditionRspFDD	ProtocolIE-ID ::= 217
id-RL-InformationResponseItem-RL-ReconfReady	ProtocolIE-ID ::= 218
id-RL-InformationResponseItem-RL-ReconfRsp	ProtocolIE-ID ::= 219

id-RL-InformationResponseItem-RL-SetupRspFDD	ProtocolIE-ID ::= 220
id-RL-InformationResponseList-RL-AdditionRspFDD	ProtocolIE-ID ::= 221
id-RL-InformationResponseList-RL-ReconfReady	ProtocolIE-ID ::= 222
id-RL-InformationResponseList-RL-ReconfRsp	ProtocolIE-ID ::= 223
id-RL-InformationResponseList-RL-SetupRspFDD	ProtocolIE-ID ::= 224
id-RL-InformationResponse-RL-AdditionRspTDD	ProtocolIE-ID ::= 225
id-RL-InformationResponse-RL-SetupRspTDD	ProtocolIE-ID ::= 226
id-RL-Information-RL-AdditionRqstTDD	ProtocolIE-ID ::= 227
id-RL-Information-RL-ReconfRqstTDD	ProtocolIE-ID ::= 228
id-RL-Information-RL-ReconfPrepTDD	ProtocolIE-ID ::= 229
id-RL-Information-RL-SetupRqstTDD	ProtocolIE-ID ::= 230
id-RL-ReconfigurationFailureItem-RL-ReconfFailure	ProtocolIE-ID ::= 236
id-RL-Set-InformationItem-DM-Rprt	ProtocolIE-ID ::= 238
id-RL-Set-InformationItem-DM-Rsp	ProtocolIE-ID ::= 240
id-RL-Set-InformationItem-RL-FailureInd	ProtocolIE-ID ::= 241
id-RL-Set-InformationItem-RL-RestoreInd	ProtocolIE-ID ::= 242
id-S-CCPCH-Information	ProtocolIE-ID ::= 247
id-S-CPICH-Information	ProtocolIE-ID ::= 249
id-SCH-Information	ProtocolIE-ID ::= 251
id-S-SCH-Information	ProtocolIE-ID ::= 253
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 257
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 258
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 259
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 260
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD	ProtocolIE-ID ::= 261
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 262
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD	ProtocolIE-ID ::= 263
id-SecondarySCH-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 264
id-SecondarySCH-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 265
id-SegmentInformationListIE-SystemInfoUpdate	ProtocolIE-ID ::= 266
id-SFN	ProtocolIE-ID ::= 268
id-SignallingBearerRequestIndicator	ProtocolIE-ID ::= 138
id-ShutdownTimer	ProtocolIE-ID ::= 269
id-Start-Of-Audit-Sequence-Indicator	ProtocolIE-ID ::= 114
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD	ProtocolIE-ID ::= 270
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD	ProtocolIE-ID ::= 271
id-SyncCase	ProtocolIE-ID ::= 274
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH	ProtocolIE-ID ::= 275
id-T-Cell	ProtocolIE-ID ::= 276
id-TargetCommunicationControlPortID	ProtocolIE-ID ::= 139
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 277
id-TimeSlotConfigurationList-Cell-SetupRqstTDD	ProtocolIE-ID ::= 278
id-TransmissionDiversityApplied	ProtocolIE-ID ::= 279
id-TypeOfError	ProtocolIE-ID ::= 508
id-UARFCNforNt	ProtocolIE-ID ::= 280
id-UARFCNforNd	ProtocolIE-ID ::= 281
id-UARFCNforNu	ProtocolIE-ID ::= 282
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD	ProtocolIE-ID ::= 284
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD	ProtocolIE-ID ::= 285
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD	ProtocolIE-ID ::= 288
id-UL-DPCH-InformationItem-RL-AdditionRqstTDD	ProtocolIE-ID ::= 289
id-UL-DPCH-InformationList-RL-SetupRqstTDD	ProtocolIE-ID ::= 291
id-UL-DPCH-Information-RL-ReconfPrepFDD	ProtocolIE-ID ::= 293
id-UL-DPCH-Information-RL-ReconfRqstFDD	ProtocolIE-ID ::= 294

id-UL-DPCH-Information-RL-SetupRqstFDD	ProtocolIE-ID ::= 295
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD	ProtocolIE-ID ::= 296
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD	ProtocolIE-ID ::= 297
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD	ProtocolIE-ID ::= 300
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD	ProtocolIE-ID ::= 301
id-USCH-Information-Add	ProtocolIE-ID ::= 302
id-USCH-Information-DeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 304
id-USCH-Information-ModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 306
id-USCH-InformationResponse	ProtocolIE-ID ::= 309
id-USCH-Information	ProtocolIE-ID ::= 310
id-USCH-RearrangeList-Bearer-RearrangeInd	ProtocolIE-ID ::= 141
id-Active-Pattern-Sequence-Information	ProtocolIE-ID ::= 315
id-AICH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 316
id-AdjustmentRatio	ProtocolIE-ID ::= 317
id-Not-Used-320	ProtocolIE-ID ::= 320
id-Not-Used-322	ProtocolIE-ID ::= 322
id-FACH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 323
id-CauseLevel-PSCH-ReconfFailure	ProtocolIE-ID ::= 324
id-CauseLevel-RL-AdditionFailureFDD	ProtocolIE-ID ::= 325
id-CauseLevel-RL-AdditionFailureTDD	ProtocolIE-ID ::= 326
id-CauseLevel-RL-ReconfFailure	ProtocolIE-ID ::= 327
id-CauseLevel-RL-SetupFailureFDD	ProtocolIE-ID ::= 328
id-CauseLevel-RL-SetupFailureTDD	ProtocolIE-ID ::= 329
id-Not-Used-330	ProtocolIE-ID ::= 330
id-Not-Used-332	ProtocolIE-ID ::= 332
id-Closed-Loop-Timing-Adjustment-Mode	ProtocolIE-ID ::= 333
id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 334
id-Compressed-Mode-Deactivation-Flag	ProtocolIE-ID ::= 335
id-Not-Used-336	ProtocolIE-ID ::= 336
id-Not-Used-342	ProtocolIE-ID ::= 342
id-Not-Used-343	ProtocolIE-ID ::= 343
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 346
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 347
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 348
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 349
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 350
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 351
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 352
id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 353
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 355
id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 356
id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 357
id-DL-TPC-Pattern01Count	ProtocolIE-ID ::= 358
id-DPC-Mode	ProtocolIE-ID ::= 450
id-DPCHConstant	ProtocolIE-ID ::= 359
id-Unused-ProtocolIE-ID-94	ProtocolIE-ID ::= 94
id-Unused-ProtocolIE-ID-110	ProtocolIE-ID ::= 110
id-Unused-ProtocolIE-ID-111	ProtocolIE-ID ::= 111
id-FACH-ParametersList-CTCH-SetupRsp	ProtocolIE-ID ::= 362
id-Limited-power-increase-information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 369
id-PCH-Parameters-CTCH-SetupRsp	ProtocolIE-ID ::= 374
id-PCH-ParametersItem-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 375
id-Not-Used-376	ProtocolIE-ID ::= 376
id-PICH-ParametersItem-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 380

id-PRACHConstant	ProtocolIE-ID ::= 381
id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 383
id-PUSCHConstant	ProtocolIE-ID ::= 384
id-RACH-Parameters-CTCH-SetupRsp	ProtocolIE-ID ::= 385
id-Unused-ProtocolIE-ID-443	ProtocolIE-ID ::= 443
id-Synchronisation-Configuration-Cell-ReconfRqst	ProtocolIE-ID ::= 393
id-Synchronisation-Configuration-Cell-SetupRqst	ProtocolIE-ID ::= 394
id-Transmission-Gap-Pattern-Sequence-Information	ProtocolIE-ID ::= 395
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 396
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 397
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 398
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 399
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 400
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 401
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 402
id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 403
id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 405
id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 406
id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 407
id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD	ProtocolIE-ID ::= 408
id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD	ProtocolIE-ID ::= 409
id-CommunicationContextInfoItem-Reset	ProtocolIE-ID ::= 412
id-CommunicationControlPortInfoItem-Reset	ProtocolIE-ID ::= 414
id-ResetIndicator	ProtocolIE-ID ::= 416
id-Unused-ProtocolIE-ID-417	ProtocolIE-ID ::= 417
id-Unused-ProtocolIE-ID-418	ProtocolIE-ID ::= 418
id-Unused-ProtocolIE-ID-419	ProtocolIE-ID ::= 419
id-Unused-ProtocolIE-ID-142	ProtocolIE-ID ::= 142
id-TimingAdvanceApplied	ProtocolIE-ID ::= 287
id-CFNReportingIndicator	ProtocolIE-ID ::= 6
id-SFNReportingIndicator	ProtocolIE-ID ::= 11
id-InnerLoopDLPCStatus	ProtocolIE-ID ::= 12
id-TimeslotISCPInfo	ProtocolIE-ID ::= 283
id-PICH-ParametersItem-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 167
id-PRACH-ParametersItem-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 20
id-CCTrCH-InformationItem-RL-FailureInd	ProtocolIE-ID ::= 46
id-CCTrCH-InformationItem-RL-RestoreInd	ProtocolIE-ID ::= 47
id-CauseLevel-SyncAdjustmntFailureTDD	ProtocolIE-ID ::= 420
id-CellAdjustmentInfo-SyncAdjustmntRqstTDD	ProtocolIE-ID ::= 421
id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD	ProtocolIE-ID ::= 494
id-CellSyncBurstInfoList-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 482
id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD	ProtocolIE-ID ::= 422
id-CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD	ProtocolIE-ID ::= 423
id-CellSyncBurstTransReconfiguration-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 424
id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 425
id-CellSyncBurstTransInfoList-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 426
id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 427
id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 428
id-CellSyncInfo-CellSyncReprtTDD	ProtocolIE-ID ::= 429
id-CSBTransmissionID	ProtocolIE-ID ::= 430
id-CSBMeasurementID	ProtocolIE-ID ::= 431
id-IntStdPhCellSyncInfoItem-CellSyncReprtTDD	ProtocolIE-ID ::= 432
id-NCyclesPerSFNperiod	ProtocolIE-ID ::= 433
id-NRepetitionsPerCyclePeriod	ProtocolIE-ID ::= 434

id-SyncFrameNumber	ProtocolIE-ID ::= 437
id-SynchronisationReportType	ProtocolIE-ID ::= 438
id-SynchronisationReportCharacteristics	ProtocolIE-ID ::= 439
id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD	ProtocolIE-ID ::= 440
id-LateEntranceCellSyncInfoItem-CellSyncReprtTDD	ProtocolIE-ID ::= 119
id-ReferenceClockAvailability	ProtocolIE-ID ::= 435
id-ReferenceSFNoffset	ProtocolIE-ID ::= 436
id-InformationExchangeID	ProtocolIE-ID ::= 444
id-InformationExchangeObjectType-InfEx-Rqst	ProtocolIE-ID ::= 445
id-InformationType	ProtocolIE-ID ::= 446
id-InformationReportCharacteristics	ProtocolIE-ID ::= 447
id-InformationExchangeObjectType-InfEx-Rsp	ProtocolIE-ID ::= 448
id-InformationExchangeObjectType-InfEx-Rprt	ProtocolIE-ID ::= 449
id-IPDLParameter-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 451
id-IPDLParameter-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 452
id-IPDLParameter-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 453
id-IPDLParameter-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 454
id-DL-DPCH-LCR-Information-RL-SetupRqstTDD	ProtocolIE-ID ::= 74
id-DwPCH-LCR-Information	ProtocolIE-ID ::= 78
id-DwPCH-LCR-InformationList-AuditRsp	ProtocolIE-ID ::= 90
id-DwPCH-LCR-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 97
id-DwPCH-LCR-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 99
id-DwPCH-LCR-Information-ResourceStatusInd	ProtocolIE-ID ::= 101
id-maxFACH-Power-LCR-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 154
id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 174
id-FPACH-LCR-Information	ProtocolIE-ID ::= 290
id-FPACH-LCR-Information-AuditRsp	ProtocolIE-ID ::= 292
id-FPACH-LCR-InformationList-AuditRsp	ProtocolIE-ID ::= 22
id-FPACH-LCR-InformationList-ResourceStatusInd	ProtocolIE-ID ::= 311
id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 312
id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 314
id-PCCPCH-LCR-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 456
id-PCH-Power-LCR-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 457
id-PCH-Power-LCR-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 458
id-PICH-LCR-Parameters-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 459
id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 461
id-RL-InformationResponse-LCR-RL-SetupRspTDD	ProtocolIE-ID ::= 463
id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 465
id-TimeSlot	ProtocolIE-ID ::= 495
id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 466
id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD	ProtocolIE-ID ::= 467
id-TimeslotISCP-LCR-InfoList-RL-SetupRqstTDD	ProtocolIE-ID ::= 468
id-TimeSlotLCR-CM-Rqst	ProtocolIE-ID ::= 469
id-UL-DPCH-LCR-Information-RL-SetupRqstTDD	ProtocolIE-ID ::= 470
id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD	ProtocolIE-ID ::= 472
id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD	ProtocolIE-ID ::= 473
id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD	ProtocolIE-ID ::= 474
id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 475
id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 477
id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 479
id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD	ProtocolIE-ID ::= 480
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 481
id-UL-DPCH-LCR-InformationModify-AddList	ProtocolIE-ID ::= 483
id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD	ProtocolIE-ID ::= 485

id-UL-SIRTarget	ProtocolIE-ID ::= 510
id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 486
id-PDSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 487
id-Unused-ProtocolIE-ID-26	ProtocolIE-ID ::= 26
id-Unused-ProtocolIE-ID-27	ProtocolIE-ID ::= 27
id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 488
id-PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 489
id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 490
id-PUSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 491
id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 492
id-PUSCH-Local-Cell-Group-ModifyListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 493
id-timeslotInfo-CellSyncInitiationRqstTDD	ProtocolIE-ID ::= 496
id-SyncReportType-CellSyncReprtTDD	ProtocolIE-ID ::= 497
id-Power-Local-Cell-Group-InformationItem-AuditRsp	ProtocolIE-ID ::= 498
id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 499
id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd	ProtocolIE-ID ::= 500
id-Power-Local-Cell-Group-InformationList-AuditRsp	ProtocolIE-ID ::= 501
id-Power-Local-Cell-Group-InformationList-ResourceStatusInd	ProtocolIE-ID ::= 502
id-Power-Local-Cell-Group-InformationList2-ResourceStatusInd	ProtocolIE-ID ::= 503
id-Power-Local-Cell-Group-ID	ProtocolIE-ID ::= 504
id-PUSCH-Info-DM-Rqst	ProtocolIE-ID ::= 505
id-PUSCH-Info-DM-Rsp	ProtocolIE-ID ::= 506
id-PUSCH-Info-DM-Rprt	ProtocolIE-ID ::= 507
id-InitDL-Power	ProtocolIE-ID ::= 509
id-cellSyncBurstRepetitionPeriod	ProtocolIE-ID ::= 511
id-ReportCharacteristicsType-OnModification	ProtocolIE-ID ::= 512
id-SFNFSNMeasurementValueInformation	ProtocolIE-ID ::= 513
id-SFNFSNMeasurementThresholdInformation	ProtocolIE-ID ::= 514
id-TUTRANGPSMeasurementValueInformation	ProtocolIE-ID ::= 515
id-TUTRANGPSMeasurementThresholdInformation	ProtocolIE-ID ::= 516
id-Rx-Timing-Deviation-Value-LCR	ProtocolIE-ID ::= 520
id-RL-InformationResponse-LCR-RL-AdditionRspTDD	ProtocolIE-ID ::= 51
id-DL-PowerBalancing-Information	ProtocolIE-ID ::= 28
id-DL-PowerBalancing-ActivationIndicator	ProtocolIE-ID ::= 29
id-DL-PowerBalancing-UpdatedIndicator	ProtocolIE-ID ::= 30
id-CCTrCH-Initial-DL-Power-RL-SetupRqstTDD	ProtocolIE-ID ::= 517
id-CCTrCH-Initial-DL-Power-RL-AdditionRqstTDD	ProtocolIE-ID ::= 518
id-CCTrCH-Initial-DL-Power-RL-ReconfPrepTDD	ProtocolIE-ID ::= 519
id-IPDLParameter-Information-LCR-Cell-SetupRqstTDD	ProtocolIE-ID ::= 41
id-IPDLParameter-Information-LCR-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 42
id-HS-PDSCH-HS-SCCH-E-AGCH-E-RGCH-E-HICH-MaxPower-PSCH-ReconfRqst	ProtocolIE-ID ::= 522
id-HS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst	ProtocolIE-ID ::= 523
id-HS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst	ProtocolIE-ID ::= 524
id-HS-SCCH-FDD-Code-Information-PSCH-ReconfRqst	ProtocolIE-ID ::= 525
id-HS-PDSCH-TDD-Information-PSCH-ReconfRqst	ProtocolIE-ID ::= 526
id-Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst	ProtocolIE-ID ::= 527
id-Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst	ProtocolIE-ID ::= 528
id-Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst	ProtocolIE-ID ::= 529
id-bindingID	ProtocolIE-ID ::= 102
id-RL-Specific-DCH-Info	ProtocolIE-ID ::= 103
id-transportlayeraddress	ProtocolIE-ID ::= 104
id-DelayedActivation	ProtocolIE-ID ::= 231
id-DelayedActivationList-RL-ActivationCmdFDD	ProtocolIE-ID ::= 232
id-DelayedActivationInformation-RL-ActivationCmdFDD	ProtocolIE-ID ::= 233

id-DelayedActivationList-RL-ActivationCmdTDD	ProtocolIE-ID ::= 234
id-DelayedActivationInformation-RL-ActivationCmdTDD	ProtocolIE-ID ::= 235
id-neighbouringTDDCellMeasurementInformationLCR	ProtocolIE-ID ::= 58
id-SYNCDLCodeId-TransInitLCR-CellSyncInitiationRqstTDD	ProtocolIE-ID ::= 543
id-SYNCDLCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD	ProtocolIE-ID ::= 544
id-SYNCDLCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 545
id-SYNCDLCodeIdMeasReconfigurationLCR-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 546
id-SYNCDLCodeIdMeasInfoList-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 547
id-SyncDLCodeIdsMeasInfoList-CellSyncReprTDD	ProtocolIE-ID ::= 548
id-SyncDLCodeIdThreInfoLCR	ProtocolIE-ID ::= 549
id-NSubCyclesPerCyclePeriod-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 550
id-DwPCH-Power	ProtocolIE-ID ::= 551
id-AccumulatedClockupdate-CellSyncReprTDD	ProtocolIE-ID ::= 552
id-Angle-Of-Arrival-Value-LCR	ProtocolIE-ID ::= 521
id-HSDSCH-FDD-Information	ProtocolIE-ID ::= 530
id-HSDSCH-FDD-Information-Response	ProtocolIE-ID ::= 531
id-HSDSCH-Information-to-Modify	ProtocolIE-ID ::= 534
id-HSDSCH-RNTI	ProtocolIE-ID ::= 535
id-HSDSCH-TDD-Information	ProtocolIE-ID ::= 536
id-HSDSCH-TDD-Information-Response	ProtocolIE-ID ::= 537
id-HSPDSCH-RL-ID	ProtocolIE-ID ::= 541
id-PrimCCPCH-RSCP-DL-PC-RqstTDD	ProtocolIE-ID ::= 542
id-Unused-ProtocolIE-ID-64	ProtocolIE-ID ::= 64
id-PDSCH-RL-ID	ProtocolIE-ID ::= 66
id-HSDSCH-RearrangeList-Bearer-RearrangeInd	ProtocolIE-ID ::= 553
id-UL-Synchronisation-Parameters-LCR	ProtocolIE-ID ::= 554
id-HSDSCH-FDD-Update-Information	ProtocolIE-ID ::= 555
id-HSDSCH-TDD-Update-Information	ProtocolIE-ID ::= 556
id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD	ProtocolIE-ID ::= 558
id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD	ProtocolIE-ID ::= 559
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD	ProtocolIE-ID ::= 560
id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD	ProtocolIE-ID ::= 561
id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD	ProtocolIE-ID ::= 562
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD	ProtocolIE-ID ::= 563
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD	ProtocolIE-ID ::= 564
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD	ProtocolIE-ID ::= 565
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD	ProtocolIE-ID ::= 566
id-CCTrCH-Maximum-DL-Power-RL-SetupRqstTDD	ProtocolIE-ID ::= 567
id-CCTrCH-Minimum-DL-Power-RL-SetupRqstTDD	ProtocolIE-ID ::= 568
id-CCTrCH-Maximum-DL-Power-RL-AdditionRqstTDD	ProtocolIE-ID ::= 569
id-CCTrCH-Minimum-DL-Power-RL-AdditionRqstTDD	ProtocolIE-ID ::= 570
id-CCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD	ProtocolIE-ID ::= 571
id-CCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD	ProtocolIE-ID ::= 572
id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD	ProtocolIE-ID ::= 573
id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD	ProtocolIE-ID ::= 574
id-Maximum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD	ProtocolIE-ID ::= 575
id-Minimum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD	ProtocolIE-ID ::= 576
id-DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 577
id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD	ProtocolIE-ID ::= 578
id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD	ProtocolIE-ID ::= 579
id-Initial-DL-Power-TimeslotLCR-InformationItem	ProtocolIE-ID ::= 580
id-Maximum-DL-Power-TimeslotLCR-InformationItem	ProtocolIE-ID ::= 581
id-Minimum-DL-Power-TimeslotLCR-InformationItem	ProtocolIE-ID ::= 582
id-HS-DSCHProvidedBitRateValueInformation	ProtocolIE-ID ::= 583

id-HS-DSCHRequiredPowerValueInformation	ProtocolIE-ID ::= 585	
id-HS-DSCHRequiredPowerValue	ProtocolIE-ID ::= 586	
id-TransmittedCarrierPowerOfAllCodesNotUsedForHSTransmission	ProtocolIE-ID ::= 587	
id-HS-SICH-Reception-Quality	ProtocolIE-ID ::= 588	
id-HS-SICH-Reception-Quality-Measurement-Value	ProtocolIE-ID ::= 589	
id-HSSICH-Info-DM-Rprt	ProtocolIE-ID ::= 590	
id-HSSICH-Info-DM-Rqst	ProtocolIE-ID ::= 591	
id-HSSICH-Info-DM-Rsp	ProtocolIE-ID ::= 592	
id-Best-Cell-Portions-Value	ProtocolIE-ID ::= 593	
id-Primary-CPICH-Usage-for-Channel-Estimation	ProtocolIE-ID ::= 594	
id-Secondary-CPICH-Information-Change	ProtocolIE-ID ::= 595	
id-NumberOfReportedCellPortions	ProtocolIE-ID ::= 596	
id-CellPortion-InformationItem-Cell-SetupRqstFDD	ProtocolIE-ID ::= 597	
id-CellPortion-InformationList-Cell-SetupRqstFDD	ProtocolIE-ID ::= 598	
id-TimeslotISCP-LCR-InfoList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 599	
id-Secondary-CPICH-Information	ProtocolIE-ID ::= 600	
id-Received-total-wide-band-power-For-CellPortion	ProtocolIE-ID ::= 601	
id-Unidirectional-DCH-Indicator	ProtocolIE-ID ::= 602	
id-TimingAdjustmentValueLCR	ProtocolIE-ID ::= 603	
id-multipleRL-dl-DPCH-InformationList	ProtocolIE-ID ::= 604	
id-multipleRL-dl-DPCH-InformationModifyList	ProtocolIE-ID ::= 605	
id-multipleRL-ul-DPCH-InformationList	ProtocolIE-ID ::= 606	
id-multipleRL-ul-DPCH-InformationModifyList	ProtocolIE-ID ::= 607	
id-RL-ID	ProtocolIE-ID ::= 608	
id-SAT-Info-Almanac-ExtItem	ProtocolIE-ID ::= 609	
id-HSDPA-Capability	ProtocolIE-ID ::= 610	
id-HSDSCH-Resources-Information-AuditRsp	ProtocolIE-ID ::= 611	
id-HSDSCH-Resources-Information-ResourceStatusInd	ProtocolIE-ID ::= 612	
id-HSDSCH-MACdFlows-to-Add	ProtocolIE-ID ::= 613	
id-HSDSCH-MACdFlows-to-Delete	ProtocolIE-ID ::= 614	
id-HSDSCH-Information-to-Modify-Unsynchronised	ProtocolIE-ID ::= 615	
id-TnlQos	ProtocolIE-ID ::= 616	
id-Received-total-wide-band-power-For-CellPortion-Value	ProtocolIE-ID ::= 617	
id-Transmitted-Carrier-Power-For-CellPortion	ProtocolIE-ID ::= 618	
id-Transmitted-Carrier-Power-For-CellPortion-Value	ProtocolIE-ID ::= 619	
id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortion	ProtocolIE-ID ::= 620	
id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCH-HS-SCCH-E-AGCH-E-RGCHOrE-HICHTransmissionCellPortionValue	ProtocolIE-ID ::= 621	
id-UpPTSInterferenceValue	ProtocolIE-ID ::= 622	
id-PrimaryCCPCH-RSCP-Delta	ProtocolIE-ID ::= 623	
id-MeasurementRecoveryBehavior	ProtocolIE-ID ::= 624	
id-MeasurementRecoveryReportingIndicator	ProtocolIE-ID ::= 625	
id-MeasurementRecoverySupportIndicator	ProtocolIE-ID ::= 626	
id-Tstd-indicator	ProtocolIE-ID ::= 627	
id-multiple-RL-Information-RL-ReconfPrepTDD	ProtocolIE-ID ::= 628	
id-multiple-RL-Information-RL-ReconfRqstTDD	ProtocolIE-ID ::= 629	
id-DL-DPCH-Power-Information-RL-ReconfPrepFDD	ProtocolIE-ID ::= 630	
id-F-DPCH-Information-RL-ReconfPrepFDD	ProtocolIE-ID ::= 631	
id-F-DPCH-Information-RL-SetupRqstFDD	ProtocolIE-ID ::= 632	
id-Additional-S-CCPCH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 633	
id-Additional-S-CCPCH-Parameters-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 634	
id-Additional-S-CCPCH-LCR-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 635	
id-Additional-S-CCPCH-LCR-Parameters-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 636	
id-MICH-CFN	ProtocolIE-ID ::= 637	
id-MICH-Information-AuditRsp	ProtocolIE-ID ::= 638	

id-MICH-Information-ResourceStatusInd	ProtocolIE-ID ::= 639
id-MICH-Parameters-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 640
id-MICH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 641
id-MICH-Parameters-CTCH-SetupRqstFDD	ProtocolIE-ID ::= 642
id-MICH-Parameters-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 643
id-Modification-Period	ProtocolIE-ID ::= 644
id-NI-Information-NotifUpdateCmd	ProtocolIE-ID ::= 645
id-S-CCPCH-InformationListExt-AuditRsp	ProtocolIE-ID ::= 646
id-S-CCPCH-InformationListExt-ResourceStatusInd	ProtocolIE-ID ::= 647
id-S-CCPCH-LCR-InformationListExt-AuditRsp	ProtocolIE-ID ::= 648
id-S-CCPCH-LCR-InformationListExt-ResourceStatusInd	ProtocolIE-ID ::= 649
id-HARQ-Preamble-Mode	ProtocolIE-ID ::= 650
id-Initial-DL-DPCH-TimingAdjustment	ProtocolIE-ID ::= 651
id-Initial-DL-DPCH-TimingAdjustment-Allowed	ProtocolIE-ID ::= 652
id-DLTransmissionBranchLoadValue	ProtocolIE-ID ::= 653
id-Power-Local-Cell-Group-choice-CM-Rqst	ProtocolIE-ID ::= 654
id-Power-Local-Cell-Group-choice-CM-Rsp	ProtocolIE-ID ::= 655
id-Power-Local-Cell-Group-choice-CM-Rprt	ProtocolIE-ID ::= 656
id-SynchronisationIndicator	ProtocolIE-ID ::= 657
id-HSDPA-And-EDCH-CellPortion-Information-PSCH-ReconfRqst	ProtocolIE-ID ::= 658
id-Unused-ProtocolIE-ID-659	ProtocolIE-ID ::= 659
id-HS-DSCHRequiredPowerValue-For-Cell-Portion	ProtocolIE-ID ::= 660
id-HS-DSCHRequiredPowerValueInformation-For-CellPortion	ProtocolIE-ID ::= 661
id-HS-DSCHProvidedBitRateValueInformation-For-CellPortion	ProtocolIE-ID ::= 662
id-E-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code	ProtocolIE-ID ::= 663
id-E-AGCH-FDD-Code-Information	ProtocolIE-ID ::= 664
id-E-DCH-Capability	ProtocolIE-ID ::= 665
id-E-DCH-FDD-DL-Control-Information	ProtocolIE-ID ::= 666
id-E-DCH-FDD-Information	ProtocolIE-ID ::= 667
id-E-DCH-FDD-Information-Response	ProtocolIE-ID ::= 668
id-E-DCH-FDD-Information-to-Modify	ProtocolIE-ID ::= 669
id-E-DCH-MACdFlows-to-Add	ProtocolIE-ID ::= 670
id-E-DCH-MACdFlows-to-Delete	ProtocolIE-ID ::= 671
id-E-DCH-Resources-Information-AuditRsp	ProtocolIE-ID ::= 672
id-E-DCH-Resources-Information-ResourceStatusInd	ProtocolIE-ID ::= 673
id-E-DCH-RL-Indication	ProtocolIE-ID ::= 674
id-E-DCH-RL-Set-ID	ProtocolIE-ID ::= 675
id-E-DPCH-Information-RL-ReconfPrepFDD	ProtocolIE-ID ::= 676
id-E-DPCH-Information-RL-SetupRqstFDD	ProtocolIE-ID ::= 677
id-E-RGCH-E-HICH-FDD-Code-Information	ProtocolIE-ID ::= 678
id-Serving-E-DCH-RL-ID	ProtocolIE-ID ::= 679
id-UL-DPDCH-Indicator-For-E-DCH-Operation	ProtocolIE-ID ::= 680
id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD	ProtocolIE-ID ::= 681
id-E-DPCH-Information-RL-ReconfRqstFDD	ProtocolIE-ID ::= 682
id-Maximum-Target-ReceivedTotalWideBandPower	ProtocolIE-ID ::= 683
id-E-DCHProvidedBitRateValueInformation	ProtocolIE-ID ::= 684
id-HARQ-Preamble-Mode-Activation-Indicator	ProtocolIE-ID ::= 685
id-RL-Specific-E-DCH-Info	ProtocolIE-ID ::= 686
id-E-DCH-CapacityConsumptionLaw	ProtocolIE-ID ::= 687
id-multiple-DedicatedMeasurementValueList-TDD-DM-Rsp	ProtocolIE-ID ::= 688
id-multiple-DedicatedMeasurementValueList-LCR-TDD-DM-Rsp	ProtocolIE-ID ::= 689
id-E-DCH-RearrangeList-Bearer-RearrangeInd	ProtocolIE-ID ::= 690
id-Unused-ProtocolIE-ID-691	ProtocolIE-ID ::= 691
id-multipleRL-dl-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 692

id-Target-NonServing-EDCH-To-Total-EDCH-Power-Ratio	ProtocolIE-ID ::= 693
id-CellPortion-InformationItem-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 694
id-CellPortion-InformationList-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 695
id-multiple-PUSCH-InfoList-DM-Rsp	ProtocolIE-ID ::= 696
id-multiple-PUSCH-InfoList-DM-Rprt	ProtocolIE-ID ::= 697
id-Reference-ReceivedTotalWideBandPower	ProtocolIE-ID ::= 698
id-E-DCH-Serving-Cell-Change-Info-Response	ProtocolIE-ID ::= 699
id-HS-DSCH-Serving-Cell-Change-Info	ProtocolIE-ID ::= 700
id-HS-DSCH-Serving-Cell-Change-Info-Response	ProtocolIE-ID ::= 701
id-Serving-Cell-Change-CFN	ProtocolIE-ID ::= 702
id-E-DCH-HARQ-Combining-Capability	ProtocolIE-ID ::= 703
id-E-DCH-TTI2ms-Capability	ProtocolIE-ID ::= 704
id-E-DCH-SF-Capability	ProtocolIE-ID ::= 705
id-E-DCH-FDD-Update-Information	ProtocolIE-ID ::= 706
id-F-DPCH-Capability	ProtocolIE-ID ::= 707
id-E-DCH-Non-serving-Relative-Grant-Down-CommandsValue	ProtocolIE-ID ::= 708
id-HSSICH-SIRTarget	ProtocolIE-ID ::= 709
id-multiple-HSSICHMeasurementValueList-TDD-DM-Rsp	ProtocolIE-ID ::= 710
id-PLCCH-Information-AuditRsp	ProtocolIE-ID ::= 711
id-PLCCH-Information-ResourceStatusInd	ProtocolIE-ID ::= 712
id-PLCCH-Information-RL-ReconfPrepTDDLcr	ProtocolIE-ID ::= 713
id-PLCCH-Information-UL-TimeslotLCR-Info	ProtocolIE-ID ::= 714
id-PLCCH-InformationList-AuditRsp	ProtocolIE-ID ::= 715
id-PLCCH-InformationList-ResourceStatusInd	ProtocolIE-ID ::= 716
id-PLCCH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 717
id-S-CCPCH-768-Parameters-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 718
id-PICH-768-Parameters-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 719
id-PRACH-768-Parameters-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 720
id-S-CCPCH-768-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 721
id-PICH-768-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 722
id-MICH-768-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 723
id-CommonPhysicalChannelID768-CommonTrChDeletionReq	ProtocolIE-ID ::= 724
id-S-CCPCH-768-InformationList-AuditRsp	ProtocolIE-ID ::= 725
id-S-CCPCH-768-Information-AuditRsp	ProtocolIE-ID ::= 726
id-neighbouringTDDCellMeasurementInformation768	ProtocolIE-ID ::= 727
id-PCCPCH-768-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 728
id-SCH-768-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 729
id-SCH-768-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 730
id-PCCPCH-768-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 731
id-P-CCPCH-768-Information-AuditRsp	ProtocolIE-ID ::= 732
id-PICH-768-Information-AuditRsp	ProtocolIE-ID ::= 733
id-PRACH-768-InformationList-AuditRsp	ProtocolIE-ID ::= 734
id-SCH-768-Information-AuditRsp	ProtocolIE-ID ::= 735
id-MICH-768-Information-AuditRsp	ProtocolIE-ID ::= 736
id-PRACH-768-Information	ProtocolIE-ID ::= 737
id-S-CCPCH-768-Information-ResourceStatusInd	ProtocolIE-ID ::= 738
id-P-CCPCH-768-Information-ResourceStatusInd	ProtocolIE-ID ::= 739
id-PICH-768-Information-ResourceStatusInd	ProtocolIE-ID ::= 740
id-PRACH-768-InformationList-ResourceStatusInd	ProtocolIE-ID ::= 741
id-SCH-768-Information-ResourceStatusInd	ProtocolIE-ID ::= 742
id-MICH-768-Information-ResourceStatusInd	ProtocolIE-ID ::= 743
id-S-CCPCH-768-InformationList-ResourceStatusInd	ProtocolIE-ID ::= 744
id-UL-DPCH-768-Information-RL-SetupRqstTDD	ProtocolIE-ID ::= 745
id-DL-DPCH-768-Information-RL-SetupRqstTDD	ProtocolIE-ID ::= 746

id-DL-DPCH-InformationItem-768-RL-AdditionRqstTDD	ProtocolIE-ID ::= 747
id-UL-DPCH-InformationItem-768-RL-AdditionRqstTDD	ProtocolIE-ID ::= 748
id-UL-DPCH-768-InformationAddItemIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 749
id-UL-DPCH-768-InformationAddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 750
id-UL-DPCH-768-InformationModify-AddItem	ProtocolIE-ID ::= 751
id-UL-DPCH-768-InformationModify-AddList	ProtocolIE-ID ::= 752
id-UL-Timeslot768-Information-RL-ReconfPrepTDD	ProtocolIE-ID ::= 753
id-DL-DPCH-768-InformationAddItem-RL-ReconfPrepTDD	ProtocolIE-ID ::= 754
id-DL-DPCH-768-InformationAddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 755
id-DL-DPCH-768-InformationModify-AddItem-RL-ReconfPrepTDD	ProtocolIE-ID ::= 756
id-DL-DPCH-768-InformationModify-AddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 757
id-DL-Timeslot-768-InformationModify-ModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 758
id-DPCH-ID768-DM-Rqst	ProtocolIE-ID ::= 759
id-multiple-DedicatedMeasurementValueList-768-TDD-DM-Rsp	ProtocolIE-ID ::= 760
id-DPCH-ID768-DM-Rsp	ProtocolIE-ID ::= 761
id-Rx-Timing-Deviation-Value-768	ProtocolIE-ID ::= 762
id-DPCH-ID768-DM-Rprt	ProtocolIE-ID ::= 763
id-PDSCH-AddInformation-768-PSCH-ReconfRqst	ProtocolIE-ID ::= 764
id-PDSCH-ModifyInformation-768-PSCH-ReconfRqst	ProtocolIE-ID ::= 765
id-PUSCH-AddInformation-768-PSCH-ReconfRqst	ProtocolIE-ID ::= 766
id-PUSCH-ModifyInformation-768-PSCH-ReconfRqst	ProtocolIE-ID ::= 767
id-dL-HS-PDSCH-Timeslot-Information-768-PSCH-ReconfRqst	ProtocolIE-ID ::= 768
id-hS-SCCH-Information-768-PSCH-ReconfRqst	ProtocolIE-ID ::= 769
id-hS-SCCH-InformationModify-768-PSCH-ReconfRqst	ProtocolIE-ID ::= 770
id-hsSCCH-Specific-Information-ResponseTDD768	ProtocolIE-ID ::= 771
id-E-DPCH-Information-RL-AdditionReqFDD	ProtocolIE-ID ::= 772
id-PDSCH-Timeslot-Format-PSCH-ReconfRqst-LCR	ProtocolIE-ID ::= 775
id-PUSCH-Timeslot-Format-PSCH-ReconfRqst-LCR	ProtocolIE-ID ::= 780
id-E-DCH-PowerOffset-for-SchedulingInfo	ProtocolIE-ID ::= 782
id-HSDSCH-Configured-Indicator	ProtocolIE-ID ::= 783
id-Rx-Timing-Deviation-Value-384-ext	ProtocolIE-ID ::= 786
id-RTWP-ReportingIndicator	ProtocolIE-ID ::= 787
id-RTWP-CellPortion-ReportingIndicator	ProtocolIE-ID ::= 788
id-Received-Scheduled-EDCH-Power-Share-Value	ProtocolIE-ID ::= 789
id-Received-Scheduled-EDCH-Power-Share-For-CellPortion-Value	ProtocolIE-ID ::= 790
id-Received-Scheduled-EDCH-Power-Share	ProtocolIE-ID ::= 791
id-Received-Scheduled-EDCH-Power-Share-For-CellPortion	ProtocolIE-ID ::= 792
id-tFCI-Presence	ProtocolIE-ID ::= 793
id-HSSICH-TPC-StepSize	ProtocolIE-ID ::= 794
id-E-RUCCH-InformationList-AuditRsp	ProtocolIE-ID ::= 795
id-E-RUCCH-InformationList-ResourceStatusInd	ProtocolIE-ID ::= 796
id-E-DCH-TDD-CapacityConsumptionLaw	ProtocolIE-ID ::= 797
id-E-RUCCH-Information	ProtocolIE-ID ::= 798
id-E-DCH-Information	ProtocolIE-ID ::= 799
id-E-DCH-Information-Response	ProtocolIE-ID ::= 800
id-E-DCH-Information-Reconfig	ProtocolIE-ID ::= 801
id-E-PUCH-Information-PSCH-ReconfRqst	ProtocolIE-ID ::= 802
id-Add-To-E-AGCH-Resource-Pool-PSCH-ReconfRqst	ProtocolIE-ID ::= 803
id-Modify-E-AGCH-Resource-Pool-PSCH-ReconfRqst	ProtocolIE-ID ::= 804
id-Delete-From-E-AGCH-Resource-Pool-PSCH-ReconfRqst	ProtocolIE-ID ::= 805
id-E-HICH-Information-PSCH-ReconfRqst	ProtocolIE-ID ::= 806
id-E-HICH-TimeOffset	ProtocolIE-ID ::= 807
id-Maximum-Generated-ReceivedTotalWideBandPowerInOtherCells	ProtocolIE-ID ::= 808
id-E-DCH-Serving-RL-ID	ProtocolIE-ID ::= 809

id-E-RUCCH-768-InformationList-AuditRsp	ProtocolIE-ID ::= 810
id-E-RUCCH-768-InformationList-ResourceStatusInd	ProtocolIE-ID ::= 811
id-E-RUCCH-768-Information	ProtocolIE-ID ::= 812
id-E-DCH-768-Information	ProtocolIE-ID ::= 813
id-E-DCH-768-Information-Reconfig	ProtocolIE-ID ::= 814
id-E-PUCH-Information-768-PSCH-ReconfRqst	ProtocolIE-ID ::= 815
id-Add-To-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst	ProtocolIE-ID ::= 816
id-Modify-E-AGCH-Resource-Pool-768-PSCH-ReconfRqst	ProtocolIE-ID ::= 817
id-E-HICH-Information-768-PSCH-ReconfRqst	ProtocolIE-ID ::= 818
id-ExtendedPropagationDelay	ProtocolIE-ID ::= 819
id-Extended-Round-Trip-Time-Value	ProtocolIE-ID ::= 820
id-AlternativeFormatReportingIndicator	ProtocolIE-ID ::= 821
id-DCH-Indicator-For-E-DCH-HSDPA-Operation	ProtocolIE-ID ::= 822
id-Reference-ReceivedTotalWideBandPowerReporting	ProtocolIE-ID ::= 823
id-Reference-ReceivedTotalWideBandPowerSupportIndicator	ProtocolIE-ID ::= 824
id-ueCapability-Info	ProtocolIE-ID ::= 825
id-MACHs-ResetIndicator	ProtocolIE-ID ::= 826
id-Fast-Reconfiguration-Mode	ProtocolIE-ID ::= 827
id-Fast-Reconfiguration-Permission	ProtocolIE-ID ::= 828
id-BroadcastReference	ProtocolIE-ID ::= 829
id-BroadcastCommonTransportBearerIndication	ProtocolIE-ID ::= 830
id-ContinuousPacketConnectivityDTX-DRX-Capability	ProtocolIE-ID ::= 831
id-ContinuousPacketConnectivityDTX-DRX-Information	ProtocolIE-ID ::= 832
id-ContinuousPacketConnectivityHS-SCCH-less-Capability	ProtocolIE-ID ::= 833
id-ContinuousPacketConnectivityHS-SCCH-less-Information	ProtocolIE-ID ::= 834
id-ContinuousPacketConnectivityHS-SCCH-less-Information-Response	ProtocolIE-ID ::= 835
id-CPC-Information	ProtocolIE-ID ::= 836
id-MIMO-Capability	ProtocolIE-ID ::= 837
id-MIMO-PilotConfiguration	ProtocolIE-ID ::= 838
id-MBSFN-Cell-ParameterID-Cell-SetupRqstTDD	ProtocolIE-ID ::= 841
id-MBSFN-Cell-ParameterID-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 842
id-S-CCPCH-Modulation	ProtocolIE-ID ::= 843
id-HS-PDSCH-Code-Change-Grant	ProtocolIE-ID ::= 844
id-HS-PDSCH-Code-Change-Indicator	ProtocolIE-ID ::= 845
id-SYNC-UL-Partition-LCR	ProtocolIE-ID ::= 846
id-E-DCH-LCR-Information	ProtocolIE-ID ::= 847
id-E-DCH-LCR-Information-Reconfig	ProtocolIE-ID ::= 848
id-E-PUCH-Information-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 852
id-Add-To-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 853
id-Modify-E-AGCH-Resource-Pool-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 854
id-Add-To-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 855
id-Modify-E-HICH-Resource-Pool-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 856
id-Delete-From-E-HICH-Resource-Pool-PSCH-ReconfRqst	ProtocolIE-ID ::= 857
id-E-HICH-TimeOffsetLCR	ProtocolIE-ID ::= 858
id-SixtyfourQAM-DL-Capability	ProtocolIE-ID ::= 860
id-SixteenQAM-UL-Capability	ProtocolIE-ID ::= 861
id-HSDSCH-MACdPDU-SizeCapability	ProtocolIE-ID ::= 864
id-HSDSCH-MACdPDUSizeFormat	ProtocolIE-ID ::= 865
id-MaximumMACdPDU-SizeExtended	ProtocolIE-ID ::= 866
id-F-DPCH-SlotFormat	ProtocolIE-ID ::= 870
id-F-DPCH-SlotFormatCapability	ProtocolIE-ID ::= 871
id-LCRTDD-uplink-Physical-Channel-Capability	ProtocolIE-ID ::= 872
id-Extended-RNC-ID	ProtocolIE-ID ::= 873
id-Max-UE-DTX-Cycle	ProtocolIE-ID ::= 874

id-Secondary-CCPCH-SlotFormat-Extended	ProtocolIE-ID ::= 876
id-MBSFN-Only-Mode-Indicator-Cell-SetupRqstTDD-LCR	ProtocolIE-ID ::= 878
id-MBSFN-Only-Mode-Capability	ProtocolIE-ID ::= 879
id-Time-Slot-Parameter-ID	ProtocolIE-ID ::= 880
id-Additional-failed-HS-SICH	ProtocolIE-ID ::= 881
id-Additional-missed-HS-SICH	ProtocolIE-ID ::= 882
id-Additional-total-HS-SICH	ProtocolIE-ID ::= 883
id-Additional-HS-SICH-Reception-Quality-Measurement-Value	ProtocolIE-ID ::= 884
id-GANSS-Common-Data	ProtocolIE-ID ::= 887
id-GANSS-Information	ProtocolIE-ID ::= 888
id-GANSS-Generic-Data	ProtocolIE-ID ::= 889
id-TUTRANGANSSMeasurementThresholdInformation	ProtocolIE-ID ::= 890
id-TUTRANGANSSMeasurementValueInformation	ProtocolIE-ID ::= 891
id-ModulationPO-MBSFN	ProtocolIE-ID ::= 892
id-Enhanced-FACH-Capability	ProtocolIE-ID ::= 895
id-Enhanced-PCH-Capability	ProtocolIE-ID ::= 896
id-HSDSCH-Common-System-InformationFDD	ProtocolIE-ID ::= 897
id-HSDSCH-Common-System-Information-ResponseFDD	ProtocolIE-ID ::= 898
id-HSDSCH-Paging-System-InformationFDD	ProtocolIE-ID ::= 899
id-HSDSCH-Paging-System-Information-ResponseFDD	ProtocolIE-ID ::= 900
id-MBMS-Capability	ProtocolIE-ID ::= 901
id-Ext-Reference-E-TFCI-PO	ProtocolIE-ID ::= 902
id-Ext-Max-Bits-MACe-PDU-non-scheduled	ProtocolIE-ID ::= 903
id-HARQ-MemoryPartitioningInfoExtForMIMO	ProtocolIE-ID ::= 904
id-MIMO-ActivationIndicator	ProtocolIE-ID ::= 905
id-MIMO-Mode-Indicator	ProtocolIE-ID ::= 906
id-MIMO-N-M-Ratio	ProtocolIE-ID ::= 907
id-IPMulticastIndication	ProtocolIE-ID ::= 908
id-IPMulticastDataBearerIndication	ProtocolIE-ID ::= 909
id-TransportBearerNotSetupIndicator	ProtocolIE-ID ::= 910
id-TransportBearerNotRequestedIndicator	ProtocolIE-ID ::= 911
id-TimeSlotConfigurationList-LCR-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 912
id-Cell-Frequency-List-Information-LCR-MulFreq-AuditRsp	ProtocolIE-ID ::= 913
id-Cell-Frequency-List-InformationItem-LCR-MulFreq-AuditRsp	ProtocolIE-ID ::= 914
id-Cell-Frequency-List-LCR-MulFreq-Cell-SetupRqstTDD	ProtocolIE-ID ::= 915
id-UARFCN-Adjustment	ProtocolIE-ID ::= 916
id-Cell-Frequency-List-Information-LCR-MulFreq-ResourceStatusInd	ProtocolIE-ID ::= 917
id-Cell-Frequency-List-InformationItem-LCR-MulFreq-ResourceStatusInd	ProtocolIE-ID ::= 918
id-UPPCHPositionLCR	ProtocolIE-ID ::= 919
id-UPPCH-LCR-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 920
id-UPPCH-LCR-InformationList-AuditRsp	ProtocolIE-ID ::= 921
id-UPPCH-LCR-InformationItem-AuditRsp	ProtocolIE-ID ::= 922
id-UPPCH-LCR-InformationList-ResourceStatusInd	ProtocolIE-ID ::= 923
id-UPPCH-LCR-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 924
id-multipleFreq-dL-HS-PDSCH-Timeslot-Information-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 925
id-number-Of-Supported-Carriers	ProtocolIE-ID ::= 926
id-multipleFreq-HSPDSCH-InformationList-ResponseTDDLRCR	ProtocolIE-ID ::= 927
id-Unsuccessful-UARFCNItem-PSCH-ReconfFailureTDD	ProtocolIE-ID ::= 928
id-multipleFreq-HS-DSCH-Resources-InformationList-AuditRsp	ProtocolIE-ID ::= 929
id-multipleFreq-HS-DSCH-Resources-InformationList-ResourceStatusInd	ProtocolIE-ID ::= 930
id-UARFCNSpecificCauseList	ProtocolIE-ID ::= 931
id-tSN-Length	ProtocolIE-ID ::= 932
id-MultipleFreq-DL-HS-PDSCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst	ProtocolIE-ID ::= 933
id-multicarrier-number	ProtocolIE-ID ::= 934

id-Extended-HS-SCCH-ID	ProtocolIE-ID ::= 935
id-Extended-HS-SICH-ID	ProtocolIE-ID ::= 936
id-HSSICH-InfoExt-DM-Rqst	ProtocolIE-ID ::= 937
id-Delete-From-HS-SCCH-Resource-PoolExt-PSCH-ReconfRqst	ProtocolIE-ID ::= 938
id-HS-SCCH-InformationExt-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 939
id-HS-SCCH-InformationModifyExt-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 940
id-PowerControlGAP	ProtocolIE-ID ::= 941
id-MBSFN-SpecialTimeSlot-LCR	ProtocolIE-ID ::= 942
id-Common-MACFlows-to-DeleteFDD	ProtocolIE-ID ::= 943
id-Paging-MACFlows-to-DeleteFDD	ProtocolIE-ID ::= 944
id-E-TFCI-Boost-Information	ProtocolIE-ID ::= 945
id-SixteenQAM-UL-Operation-Indicator	ProtocolIE-ID ::= 946
id-SixtyfourQAM-UsageAllowedIndicator	ProtocolIE-ID ::= 947
id-SixtyfourQAM-DL-UsageIndicator	ProtocolIE-ID ::= 948
id-Default-Serving-Grant-in-DTX-Cycle2	ProtocolIE-ID ::= 949
id-Maximum-Target-ReceivedTotalWideBandPower-LCR	ProtocolIE-ID ::= 950
id-E-DPDCH-PowerInterpolation	ProtocolIE-ID ::= 951
id-Extended-E-DCH-LCRTDD-PhysicalLayerCategory	ProtocolIE-ID ::= 952
id-MultipleFreq-E-DCH-Resources-InformationList-AuditRsp	ProtocolIE-ID ::= 953
id-MultipleFreq-E-DCH-Resources-InformationList-ResourceStatusInd	ProtocolIE-ID ::= 954
id-MultipleFreq-E-PUCH-Timeslot-InformationList-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 955
id-MultipleFreq-E-PUCH-Timeslot-Information-LCRItem-PSCH-ReconfRqst	ProtocolIE-ID ::= 956
id-Extended-E-HICH-ID-TDD	ProtocolIE-ID ::= 957
id-ContinuousPacketConnectivityHS-SCCH-less-Deactivate-Indicator	ProtocolIE-ID ::= 958
id-MaximumNumber-Of-Retransmission-for-Scheduling-Info-LCRTDD	ProtocolIE-ID ::= 961
id-E-DCH-RetransmissionTimer-for-SchedulingInfo-LCRTDD	ProtocolIE-ID ::= 962
id-E-HICH-TimeOffset-Extension	ProtocolIE-ID ::= 963
id-MultipleFreq-E-HICH-TimeOffsetLCR	ProtocolIE-ID ::= 964
id-E-PUCH-PowerControlGAP	ProtocolIE-ID ::= 965
id-HSDSCH-TBSizeTableIndicator	ProtocolIE-ID ::= 966
id-E-DCH-DL-Control-Channel-Change-Information	ProtocolIE-ID ::= 967
id-E-DCH-DL-Control-Channel-Grant-Information	ProtocolIE-ID ::= 968
id-DGANSS-Corrections-Req	ProtocolIE-ID ::= 969
id-AdditionalTimeSlotListLCR	ProtocolIE-ID ::= 971
id-AdditionalMeasurementValueList	ProtocolIE-ID ::= 972
id-E-AGCH-Table-Choice	ProtocolIE-ID ::= 978
id-PLCCH-parameters	ProtocolIE-ID ::= 981
id-E-RUCCH-parameters	ProtocolIE-ID ::= 982
id-E-RUCCH-768-parameters	ProtocolIE-ID ::= 983
id-HS-Cause	ProtocolIE-ID ::= 984
id-E-Cause	ProtocolIE-ID ::= 985
id-TransportBearerRequestIndicator	ProtocolIE-ID ::= 996
id-E-DPCCH-Power-Boosting-Capability	ProtocolIE-ID ::= 1020
id-MACes-Maximum-Bitrate-LCR	ProtocolIE-ID ::= 1046
id-UE-Selected-MBMS-Service-Information	ProtocolIE-ID ::= 1074
id-MultiCarrier-HSDSCH-Physical-Layer-Category	ProtocolIE-ID ::= 1077
id-TimeSlotMeasurementValueListLCR	ProtocolIE-ID ::= 1082
id-MIMO-Power-Offset-For-S-CPICH-Capability	ProtocolIE-ID ::= 1101
id-MIMO-PilotConfigurationExtension	ProtocolIE-ID ::= 1102
id-TxDiversityOnDLControlChannelsByMIMOUECapability	ProtocolIE-ID ::= 1103

END

9.3.7 Container Definitions

```

-- *****
--
-- Container definitions
--
-- *****

NBAP-Containers {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-Containers (5) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- *****
--
-- IE parameter types from other modules.
--
-- *****

IMPORTS
    maxProtocolExtensions,
    maxPrivateIEs,
    maxProtocolIEs,
    Criticality,
    Presence,
    PrivateIE-ID,
    ProtocolIE-ID
FROM NBAP-CommonDataTypes;

-- *****
--
-- Class Definition for Protocol IEs
--
-- *****

NBAP-PROTOCOL-IES ::= CLASS {
    &id      ProtocolIE-ID          UNIQUE,
    &criticality  Criticality,
    &Value,
    &presence  Presence
}
WITH SYNTAX {
    ID      &id
    CRITICALITY &criticality
    TYPE    &Value
    PRESENCE &presence
}

-- *****

```

```
--
-- Class Definition for Protocol IEs
--
-- *****
NBAP-PROTOCOL-IES-PAIR ::= CLASS {
    &id          ProtocolIE-ID          UNIQUE,
    &firstCriticality  Criticality,
    &FirstValue,
    &secondCriticality  Criticality,
    &SecondValue,
    &presence          Presence
}
WITH SYNTAX {
    ID          &id
    FIRST CRITICALITY  &firstCriticality
    FIRST TYPE        &FirstValue
    SECOND CRITICALITY &secondCriticality
    SECOND TYPE       &SecondValue
    PRESENCE         &presence
}
-- *****
--
-- Class Definition for Protocol Extensions
--
-- *****
NBAP-PROTOCOL-EXTENSION ::= CLASS {
    &id          ProtocolIE-ID          UNIQUE,
    &criticality  Criticality,
    &Extension,
    &presence          Presence
}
WITH SYNTAX {
    ID          &id
    CRITICALITY &criticality
    EXTENSION   &Extension
    PRESENCE    &presence
}
-- *****
--
-- Class Definition for Private IEs
--
-- *****
NBAP-PRIVATE-IES ::= CLASS {
    &id          PrivateIE-ID,
    &criticality  Criticality,
    &Value,
    &presence          Presence
}
WITH SYNTAX {
```



```

    ID      &id
    CRITICALITY &criticality
    TYPE    &Value
    PRESENCE &presence
}

-- *****
--
-- Container for Protocol IES
--
-- *****

ProtocolIE-Container {NBAP-PROTOCOL-IES : IESSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
        ProtocolIE-Field {{IESSetParam}}

ProtocolIE-Single-Container {NBAP-PROTOCOL-IES : IESSetParam} ::=
    ProtocolIE-Field {{IESSetParam}}

ProtocolIE-Field {NBAP-PROTOCOL-IES : IESSetParam} ::= SEQUENCE {
    id          NBAP-PROTOCOL-IES.&id          ({IESSetParam}),
    criticality NBAP-PROTOCOL-IES.&criticality ({IESSetParam}{@id}),
    value      NBAP-PROTOCOL-IES.&Value      ({IESSetParam}{@id})
}

-- *****
--
-- Container for Protocol IE Pairs
--
-- *****

ProtocolIE-ContainerPair {NBAP-PROTOCOL-IES-PAIR : IESSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
        ProtocolIE-FieldPair {{IESSetParam}}

ProtocolIE-FieldPair {NBAP-PROTOCOL-IES-PAIR : IESSetParam} ::= SEQUENCE {
    id          NBAP-PROTOCOL-IES-PAIR.&id          ({IESSetParam}),
    firstCriticality NBAP-PROTOCOL-IES-PAIR.&firstCriticality ({IESSetParam}{@id}),
    firstValue     NBAP-PROTOCOL-IES-PAIR.&FirstValue ({IESSetParam}{@id}),
    secondCriticality NBAP-PROTOCOL-IES-PAIR.&secondCriticality ({IESSetParam}{@id}),
    secondValue    NBAP-PROTOCOL-IES-PAIR.&SecondValue ({IESSetParam}{@id})
}

-- *****
--
-- Container Lists for Protocol IE Containers
--
-- *****

ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, NBAP-PROTOCOL-IES : IESSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
        ProtocolIE-Container {{IESSetParam}}

ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, NBAP-PROTOCOL-IES-PAIR : IESSetParam} ::=

```

```
SEQUENCE (SIZE (lowerBound..upperBound)) OF
ProtocolIE-ContainerPair {{IEsSetParam}}

-- *****
--
-- Container for Protocol Extensions
--
-- *****

ProtocolExtensionContainer {NBAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
ProtocolExtensionField {{ExtensionSetParam}}

ProtocolExtensionField {NBAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {
id          NBAP-PROTOCOL-EXTENSION.&id  ({ExtensionSetParam}),
criticality NBAP-PROTOCOL-EXTENSION.&criticality  ({ExtensionSetParam}@id),
extensionValue NBAP-PROTOCOL-EXTENSION.&Extension  ({ExtensionSetParam}@id)
}

-- *****
--
-- Container for Private IEs
--
-- *****

PrivateIE-Container {NBAP-PRIVATE-IES : IEsSetParam} ::=
SEQUENCE (SIZE (1..maxPrivateIEs)) OF
PrivateIE-Field {{IEsSetParam}}

PrivateIE-Field {NBAP-PRIVATE-IES : IEsSetParam} ::= SEQUENCE {
id          NBAP-PRIVATE-IES.&id
  ({IEsSetParam}),
criticality NBAP-PRIVATE-IES.&criticality
  ({IEsSetParam}@id),
value      NBAP-PRIVATE-IES.&Value
  ({IEsSetParam}@id)
}

END
```

9.4 Message Transfer Syntax

NBAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [11].

9.5 Timers

T_{Preempt}

- Specifies the maximum time that a Node B may wait for pre-emption of resources for establishment or reconfiguration of Radio Links.

10 Handling of Unknown, Unforeseen and Erroneous Protocol Data

10.1 General

Protocol Error cases can be divided into three classes:

- Transfer Syntax Error
- Abstract Syntax Error
- Logical Error

Protocol errors can occur in the following functions within a receiving node:

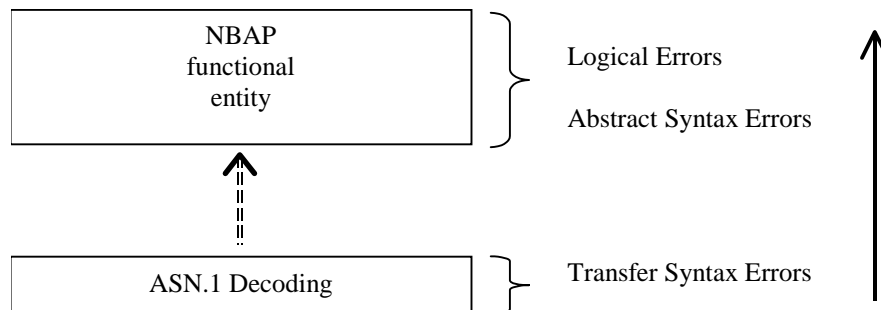


Figure 38: Protocol Errors in NBAP.

The information stated in subclauses 10.2, 10.3 and 10.4, to be included in the message used when reporting an error, is what at minimum shall be included. Other optional information elements within the message may also be included, if available. This is also valid for the case when the reporting is done with a response message. The latter is an exception to what is stated in subclause 4.1.

10.2 Transfer Syntax Error

A Transfer Syntax Error occurs when the receiver is not able to decode the received physical message. Transfer syntax errors are always detected in the process of ASN.1 decoding. If a Transfer Syntax Error occurs, the receiver should initiate Error Indication procedure with appropriate cause value for the Transfer Syntax protocol error.

Examples for Transfer Syntax Errors are:

- Violation of value ranges in ASN.1 definition of messages. e.g.: If an IE has a defined value range of 0 to 10 (ASN.1: INTEGER (0..10)), and 12 will be received, then this will be treated as a transfer syntax error.

- Violation in list element constraints. e.g.: If a list is defined as containing 1 to 10 elements, and 12 elements will be received, then this case will be handled as a transfer syntax error.
- Missing mandatory elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).
- Wrong order of elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).

10.3 Abstract Syntax Error

10.3.1 General

An Abstract Syntax Error occurs when the receiving functional NBAP entity:

1. receives IEs or IE groups that cannot be understood (unknown id);
2. receives IEs for which the logical range is violated (e.g.: ASN.1 definition: 0 to 15, the logical range is 0 to 10 (values 11 to 15 are undefined), and 12 will be received; this case will be handled as an abstract syntax error using criticality information sent by the originator of the message);
3. does not receive IEs or IE groups but according to the specified presence of the concerned object, the IEs or IE groups should have been present in the received message;
4. receives IEs or IE groups that are defined to be part of that message in wrong order or with too many occurrences of the same IE or IE group;
5. receives IEs or IE groups but according to the conditional presence of the concerned object and the specified condition, the IEs or IE groups should not have been present in the received message.

Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver. Case 4 (IEs or IE groups in wrong order or with too many occurrences) and Case 5 (erroneously present conditional IEs or IE groups) result in rejecting the procedure.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error that belong to cases 1-3 act according to the Criticality Information and Presence Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclauses 10.3.4 and 10.3.5. The handling of cases 4 and 5 is specified in subclause 10.3.6.

10.3.2 Criticality Information

In the NBAP messages there is criticality information set for individual IEs and/or IE groups. This criticality information instructs the receiver how to act when receiving an IE or an IE group that is not comprehended, i.e. the entire item (IE or IE group) which is not (fully or partially) comprehended shall be treated in accordance with its own criticality information as specified in subclause 10.3.4.

In addition, the criticality information is used in case of the missing IE/IE group abstract syntax error (see subclause 10.3.5).

The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information for an IE/IE group are:

- Reject IE
- Ignore IE and Notify Sender
- Ignore IE

The following rules restrict when a receiving entity may consider an IE, an IE group or an EP not comprehended (not implemented), and when action based on criticality information is applicable:

1. IE or IE group: When one new or modified IE or IE group is implemented for one EP from a standard version, then other new or modified IEs or IE groups specified for that EP in that standard version shall be considered comprehended by the receiving entity (some may still remain unsupported).

2. EP: The comprehension of different EPs within a standard version or between different standard versions is not mandated. Any EP that is not supported may be considered not comprehended, even if another EP from that standard version is comprehended, and action based on criticality shall be applied.

10.3.3 Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, NBAP specifies separately if the presence of these IEs/IE groups is optional or mandatory with respect to RNS application by means of the presence field of the concerned object of class NBAP-PROTOCOL-IES, NBAP-PROTOCOL-IES-PAIR, NBAP-PROTOCOL-EXTENSION or NBAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

1. Optional;
2. Conditional;
3. Mandatory.

If an IE/IE group is not included in a received message and the presence of the IE/IE group is mandatory or the presence is conditional and the condition is true according to the version of the specification used by the receiver, an abstract syntax error occurs due to a missing IE/IE group.

If an IE/IE group is included in a received message and the presence of the IE/IE group is conditional and the condition is false according to the version of the specification used by the receiver, an abstract syntax error occurs due to this erroneously present conditional IE/IE group.

10.3.4 Not comprehended IE/IE group

10.3.4.1 Procedure ID

The receiving node shall treat the different types of received criticality information of the *Procedure ID* according to the following:

Reject IE:

- If a message is received with a *Procedure ID* marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall reject the procedure using the Error Indication procedure.

Ignore IE and Notify Sender:

- If a message is received with a *Procedure ID* marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the procedure and initiate the Error Indication procedure.

Ignore IE:

- If a message is received with a *Procedure ID* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

When using the Error Indication procedure to reject a procedure or to report an ignored procedure it shall include the *Procedure ID* IE, the *Triggering Message* IE, and the *Procedure Criticality* IE in the *Criticality Diagnostics* IE.

10.3.4.1A Type of Message

When the receiving node cannot decode the *Type of Message* IE, the Error Indication procedure shall be initiated with an appropriate cause value.

10.3.4.2 IEs Other Than the Procedure ID and Type of Message

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure ID* IE and *Type of Message* IE according to the following:

Reject IE:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall terminate the procedure and initiate the Error Indication procedure.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE*" that the receiving node does not comprehend, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and report in the response message of the procedure that one or more IEs/IE groups have been ignored. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report the outcome of the procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and initiate the Error Indication procedure to report that one or more IEs/IE groups have been ignored.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and initiate the Error Indication procedure.

Ignore IE:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

When reporting not comprehended IEs/IE groups marked with "*Reject IE*" or "*Ignore IE and Notify Sender*" using a response message defined for the procedure, the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

When reporting not comprehended IEs/IE groups marked with "*Reject IE*" or "*Ignore IE and Notify Sender*" using the Error Indication procedure, the *Procedure ID* IE, the *Triggering Message* IE, *Procedure Criticality* IE, the *Transaction ID* IE, and the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be

included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

10.3.5 Missing IE or IE Group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

Reject IE:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall terminate the procedure and initiate the Error Indication procedure.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a received message *initiating* a procedure that does not have a message to report the outcome of the procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

Ignore IE:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs/IE groups are missing and continue with the procedure based on the other IEs/IE groups present in the message.

When reporting missing IEs/IE groups with specified criticality "*Reject IE*" or "*Ignore IE and Notify Sender*" using a response message defined for the procedure, the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

When reporting missing IEs/IE groups with specified criticality "*Reject IE*" or "*Ignore IE and Notify Sender*" using the Error Indication procedure, the *Procedure ID* IE, the *Triggering Message* IE, *Procedure Criticality* IE, the *Transaction ID* IE, and the *Information Element Criticality Diagnostics* IE shall be included in the *Criticality Diagnostics* IE for each reported IE/IE group. In the *Information Element Criticality Diagnostics* IE the *Repetition Number* IE shall be

included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure IE* shall be included.

10.3.6 IEs or IE Groups Received in Wrong Order or With Too Many Occurrences or Erroneously Present

If a message with IEs or IE groups in wrong order or with too many occurrences is received or if IEs or IE groups with a conditional presence are present when the condition is not met (i.e. erroneously present), the receiving node shall behave according to the following:

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall terminate the procedure and initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".
- If a *response* message is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

10.4 Logical Error

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality of the IEs/IE groups containing the erroneous values.

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a message to report this unsuccessful outcome, this message shall be sent with an appropriate cause value.

Typical cause values are:

- Protocol Causes:
 1. Semantic Error
 2. Message not compatible with receiver state

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a message to report this unsuccessful outcome, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID IE*, the *Triggering Message IE* and the *Transaction ID IE* within the *Criticality Diagnostics IE* shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID IE*, the *Triggering*

Message IE and the *Transaction ID IE* within the *Criticality Diagnostics IE* shall then be included in order to identify the message containing the logical error.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclause of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
- In case a response message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.
- If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality “ignore and notify” have earlier occurred within the same procedure.

Annex A (normative): Allocation and Pre-emption of Radio Links in the Node B

A.1 Deriving Allocation Information for a Radio Link

A.1.1 Establishment of a New Radio Link

The Allocation Information for a Radio Link in the case of establishment of a new Radio Link shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

NOTE: The *Allocation/Retention Priority* IE for a transport channel may have been received in

- a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node B or
- b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels that are intended to use the Radio Link is set to "no priority", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels that are intended to use the Radio Link is not set to "no priority", the allocation priority and the pre-emption capability of the Radio Link shall be set according to the following:
 - The transport channels that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link.
 - The allocation priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all non excluded transport channels that are intended to use the Radio Link.
 - If all non-excluded transport channels that are intended to use a Radio Link to be established have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
If one or more non-excluded transport channels that are intended to use the Radio Link to be established have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.1.2 Modification of an Existing Radio Link

The Allocation Information for a Radio Link in the case of modification of a Radio Link (addition or modification of transport channels using the Radio Link) shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in

- a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node B,
- b) a previous procedure adding or modifying the transport channel, or
- c) the current procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels to be added or modified in the Radio Link is set to "no priority", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels to be added or modified in the Radio Link is not set to "no priority", the allocation priority of and the pre-emption capability of the Radio Link to be modified shall be set according to the following:
 - The transport channels to be added or modified that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link to be modified.
 - The allocation priority for a Radio Link to be modified shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all the non-excluded transport channels that are to be added or modified.
 - If all non-excluded transport channels that are to be added or modified in the Radio Link have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
If one or more of the non-excluded transport channels to be added or modified in the Radio Link have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.2 Deriving Retention Information for a Radio Link

The Retention Information for an existing Radio Link shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

NOTE: The *Allocation/Retention Priority* IE for a transport channel may have been received in

- a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node B or
- b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more transport channels using the Radio Link is set to "no priority", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all the transport channels using the Radio Link is not set to "no priority", the retention priority of the Radio Link and the pre-emption vulnerability of the Radio Link shall be set according to the following:
 - The retention priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all transport channels that uses the Radio Link.
 - If all transport channels that uses the Radio Link have the pre-emption vulnerability, given by the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE, set to "pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "pre-emptable".
If one or more transport channels that uses the Radio Link have the value of the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE set to "not pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

The derived retention priority and pre-emption vulnerability are valid until they are changed, or until the Radio Link is deleted. When new transport channels are added to or deleted from the Radio Link or when existing transport channels are modified with regards to the *Allocation/Retention Priority* IE, the retention information shall be derived again according to above.

A.3 The Allocation/Retention Process

The Node B shall establish or modify the resources for a Radio Link according to:

- The value of the Allocation Information (allocation priority and pre-emption capability) of the Radio Link to be established or modified. The Allocation Information is derived according to clause A.1.
- The value of the Retention Information (retention priority and pre-emption vulnerability) of existing Radio Links. The Retention Information derived according to clause A.2.
- The resource situation in the cell.

Whilst the process and the extent of the pre-emption functionality is operator dependent, the pre-emption indicators (pre-emption capability and pre-emption vulnerability) shall be treated as follows:

- If the pre-emption capability for a Radio Link to be established or modified is set to "may trigger pre-emption" and the resource situation so requires, the Node B may trigger the pre-emption process in clause A.4 to free resources for this allocation request.
- If the pre-emption capability for a Radio Link to be established or modified is set to "shall not trigger pre-emption", then this allocation request shall not trigger the pre-emption process in clause A.4.
- If the pre-emption vulnerability for an existing Radio Link is set to "pre-emptable", then this Radio Link shall be included in the pre-emption process in clause A.4.
- If the pre-emption vulnerability for an existing Radio Link is set to "not pre-emptable", then this Radio Link shall not be included in the pre-emption process in clause A.4.

A.4 The Pre-emption Process

The pre-emption process shall only pre-empt Radio Links with lower retention priority than the allocation priority of the Radio Link to be established or modified. The Radio Links to be pre-empted shall be selected in ascending order of the retention priority.

When the pre-emption process detects that one or more Radio Links have to be pre-empted to free resources for a Radio Link(s) to be established or modified, the Node B shall initiate the Radio Link Pre-emption procedure for all the Node B Communication Contexts having Radio Links selected for pre-emption and start the T_{Preempt} timer.

When enough resources are freed to establish or modify the Radio Link(s) according to the request, the Node B shall stop the T_{Preempt} timer and complete the procedure that triggered the pre-emption process in accordance with the "Successful Operation" subclause of the procedure.

If the T_{Preempt} timer expires, the Node B shall regard the procedure that triggered the pre-emption process as failed and complete the procedure in accordance with the "Unsuccessful Operation" subclause of the procedure.

Annex B (informative): Measurement Reporting

When the *Report Characteristics* IE is set to "Event A" (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

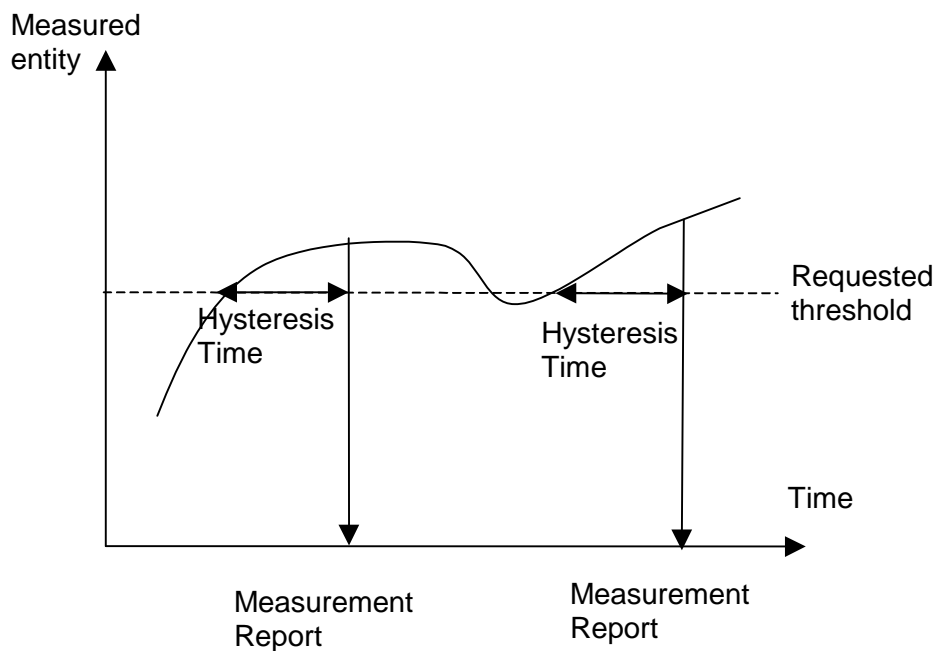


Figure B.1: Event A reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event B" (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

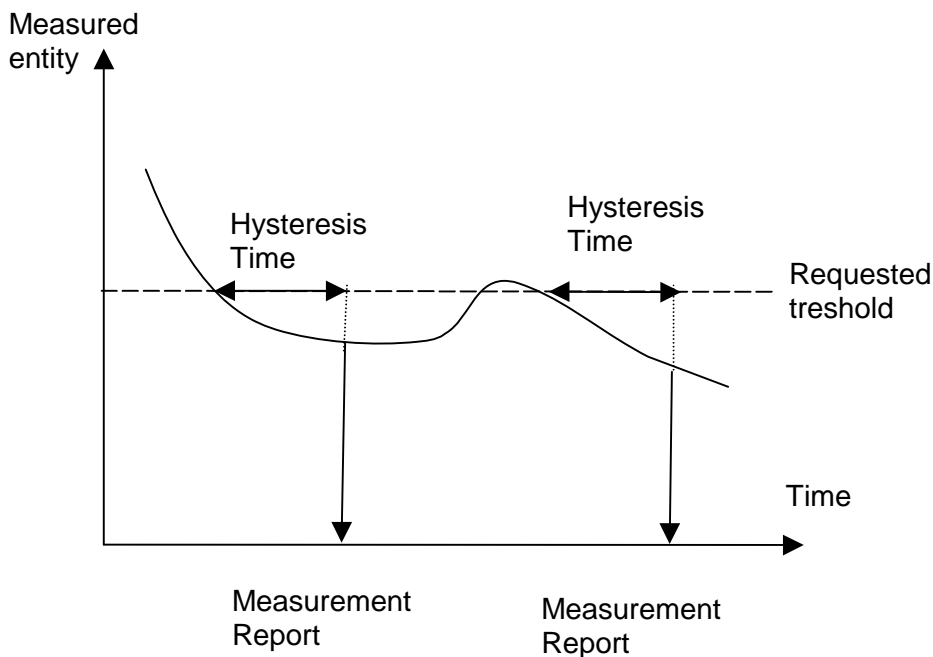


Figure B.2: Event B reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event C" (figure B.3), the Measurement Reporting procedure is initiated always when the measured entity rises by an amount greater than the requested threshold within the requested time. The reporting in figure B.3 is initiated if the Rising Time T1 is less than the requested time.

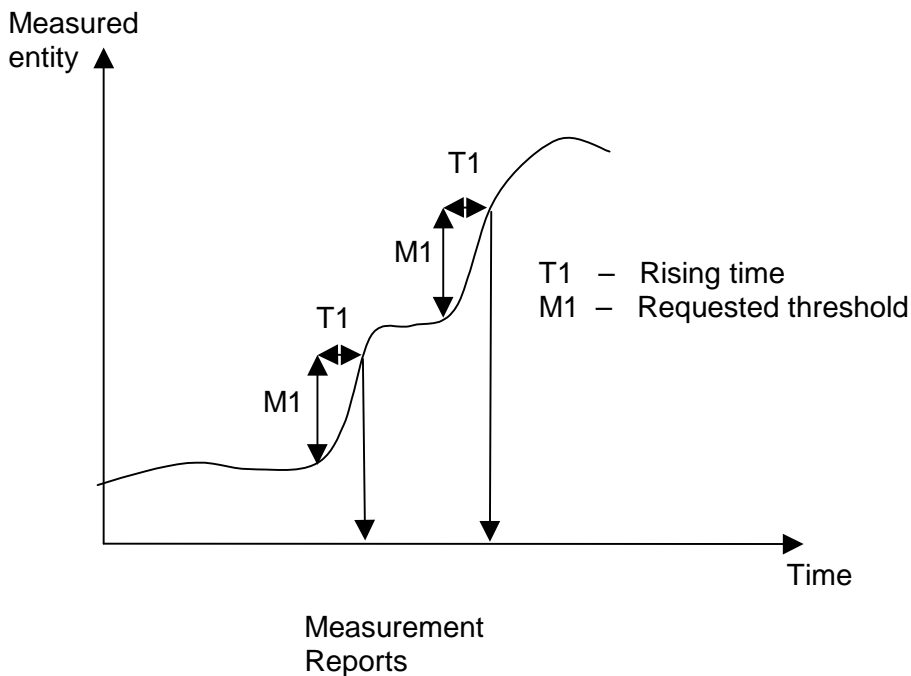


Figure B.3: Event C reporting

When the *Report Characteristics* IE is set to "Event D" (figure B.4), the Measurement Reporting procedure is initiated always when the measured entity falls by an amount greater than the requested threshold within the requested time. The reporting in figure B.4 is initiated if the Falling Time T1 is less than the requested time.

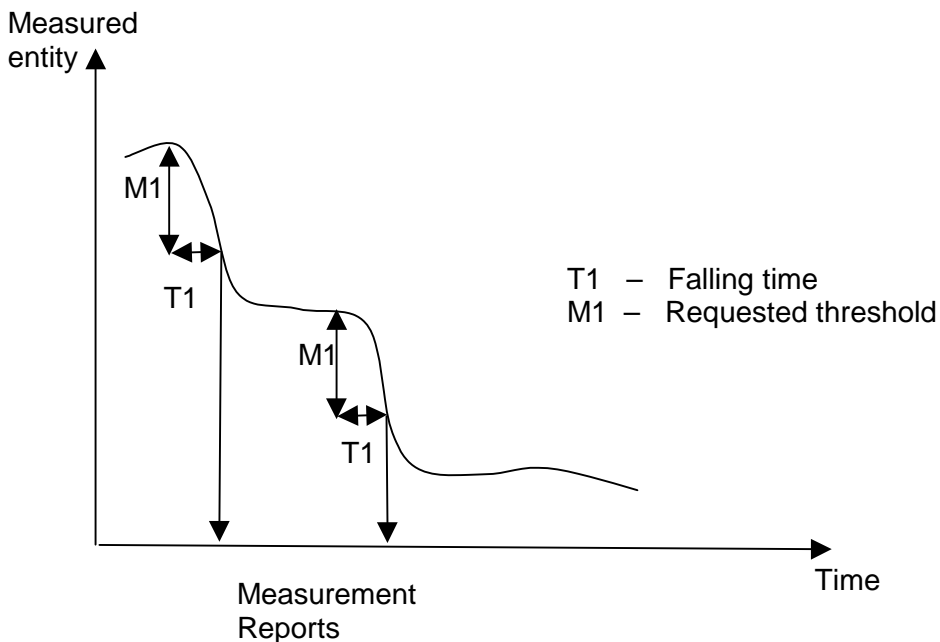


Figure B.4: Event D reporting

When the *Report Characteristics* IE is set to "Event E" (figure B.5), the Measurement Reporting procedure (Report A) is initiated always when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (T1 in figure B.5). If *Report Periodicity* IE is provided Node B shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity falls below the 'Measurement Threshold 1' and is terminated by the Report B.

When the Report A conditions have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

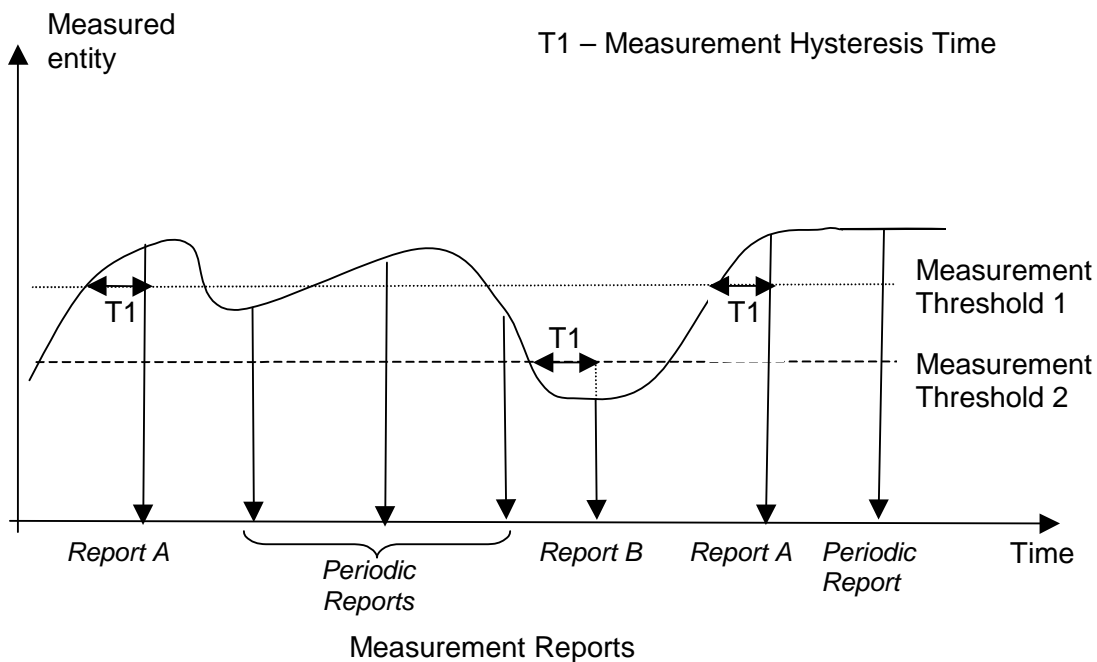


Figure B.5: Event E reporting with Hysteresis Time specified and Periodic Reporting requested

When the *Report Characteristics* IE is set to "Event F" (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (T1 in figure B.6). If *Report Periodicity* IE is provided Node B shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the 'Measurement Threshold 1' and is terminated by the Report B.

When the Report A conditions have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

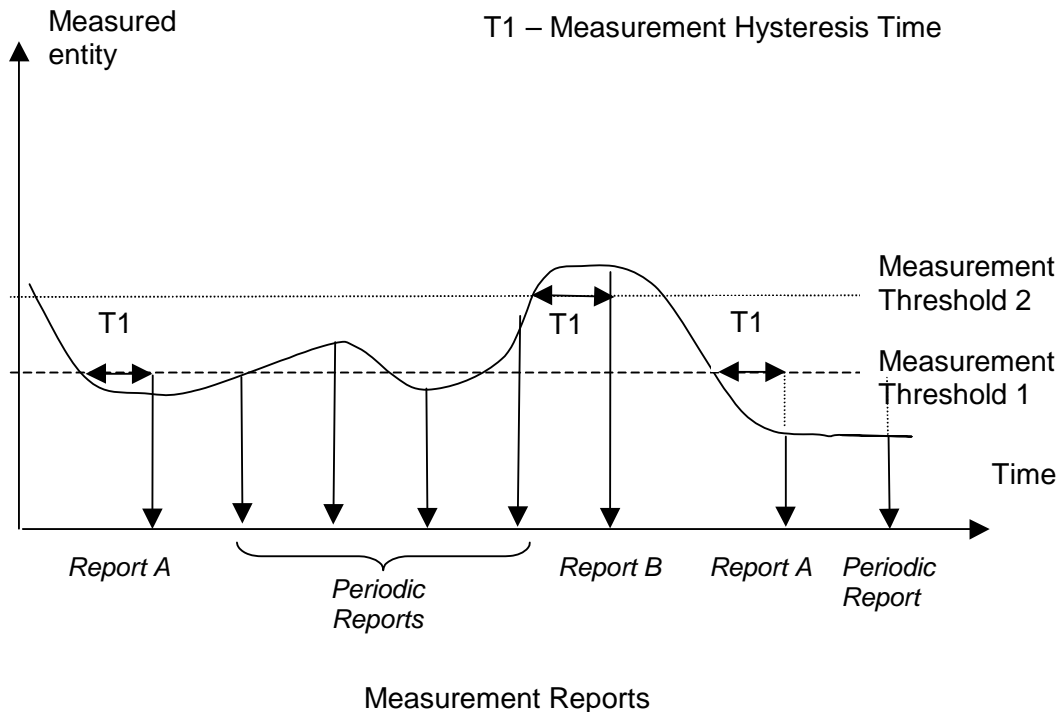


Figure B.6: Event F reporting with Hysteresis Time specified and Periodic Reporting requested

Annex C (informative): Guidelines for Usage of the Criticality Diagnostics IE

C.1 EXAMPLE MESSAGE Layout

Assume the following message format:

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
A	M				YES	reject
B	M				YES	reject
>E		1..<maxE>			EACH	ignore
>>F		1..<maxF>			–	
>>>G		0..3, ...			EACH	ignore
>>H		1..<maxH>			EACH	ignore
>>>G		0..3, ...			EACH	ignore and notify
>>G	M				YES	reject
>>J		1..<maxJ>			–	
>>>G		0..3, ...			EACH	reject
C	M				YES	reject
>K		1..<maxK>			EACH	ignore and notify
>>L		1..<maxL>			–	
>>>M	O				–	
D	M				YES	reject

NOTE 1: The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g. ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause C.4.

C.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.

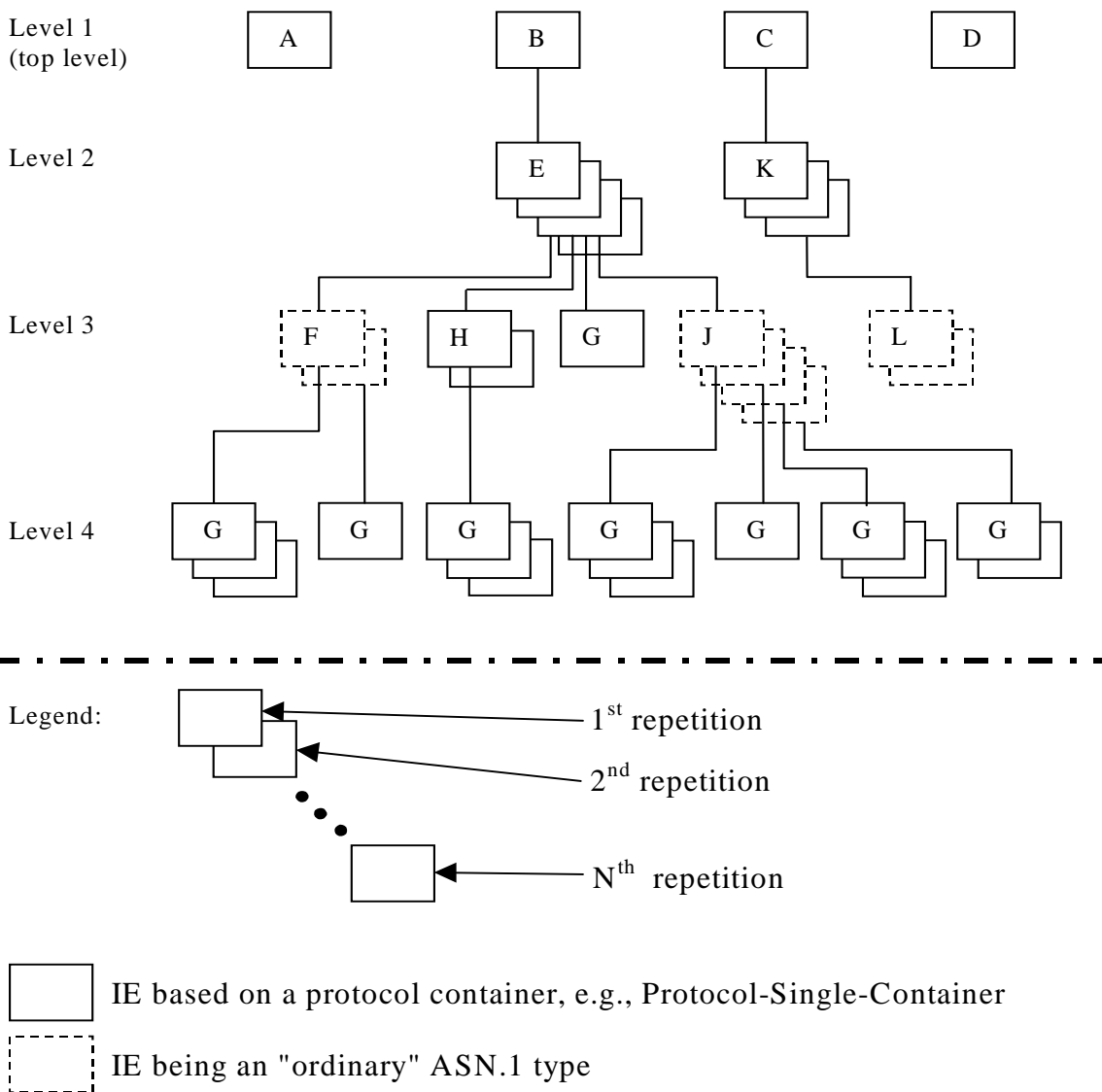
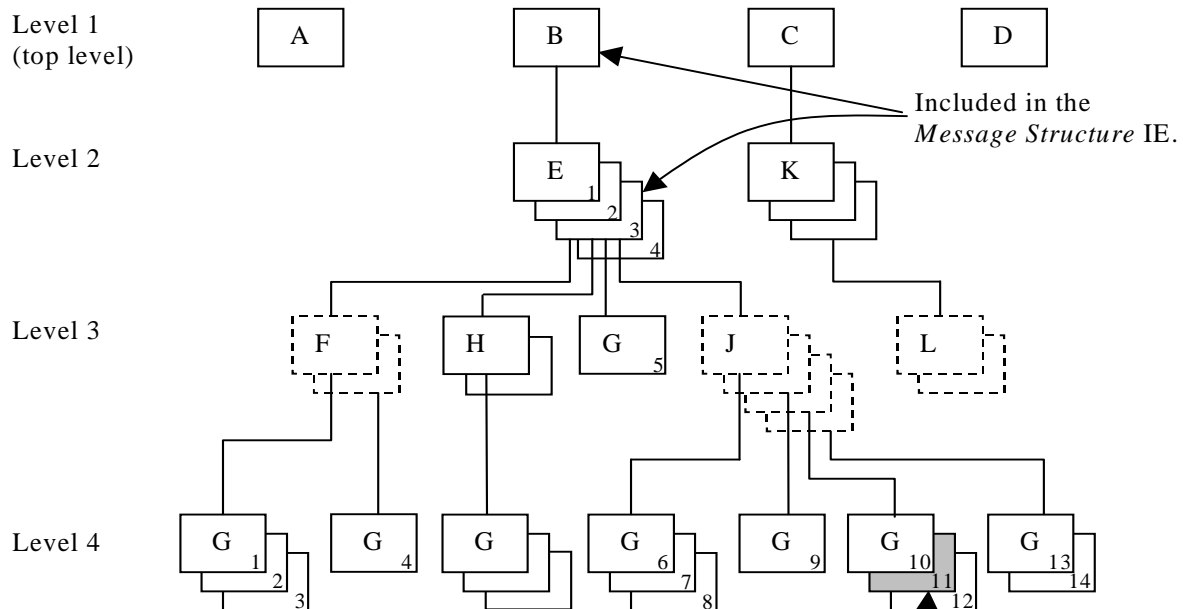


Figure C.1: Example of content of a received NBAP message based on the EXAMPLE MESSAGE

C.3 Content of Criticality Diagnostics

C.3.1 Example 1



Included in the *Information Element Criticality Diagnostics* IE:

- a) *IE ID* IE
- b) *Repetition Number* IE

Figure C.2: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure C.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 4.
IE ID	id-G	IE ID from the reported level, i.e. level 4.
Repetition Number	11	Repetition number on the reported level, i.e. level 4. (Since the IE E (level 2) is the lowest level included in the <i>Message Structure</i> IE this is the eleventh occurrence of IE G within the IE E (level 2).)
Type of Error	not understood	
<i>Message Structure, first repetition</i>		
>IE ID	id-B	IE ID from level 1.
<i>Message Structure, second repetition</i>		
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.

Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their own.

NOTE 3: The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.2 Example 2

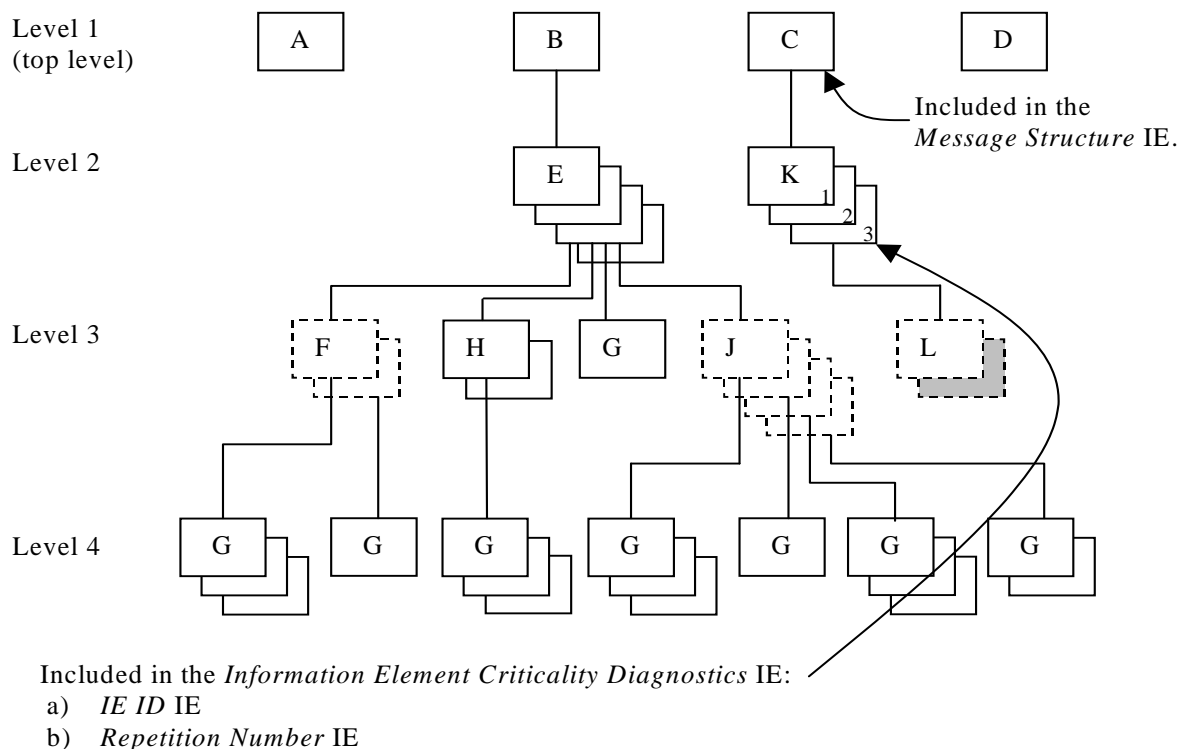


Figure C.3: Example of a received NBAP message containing a not comprehended IE

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure C.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	ignore and notify	Criticality for IE on the reported level, i.e. level 2.
IE ID	id-K	IE ID from the reported level, i.e. level 2.
Repetition Number	3	Repetition number on the reported level, i.e. level 2.
Type of Error	not understood	
<i>Message Structure, first repetition</i>		
>IE ID	id-C	IE ID from the lowest level above the reported level, i.e. level 1.

NOTE 4: The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.

C.3.3 Example 3

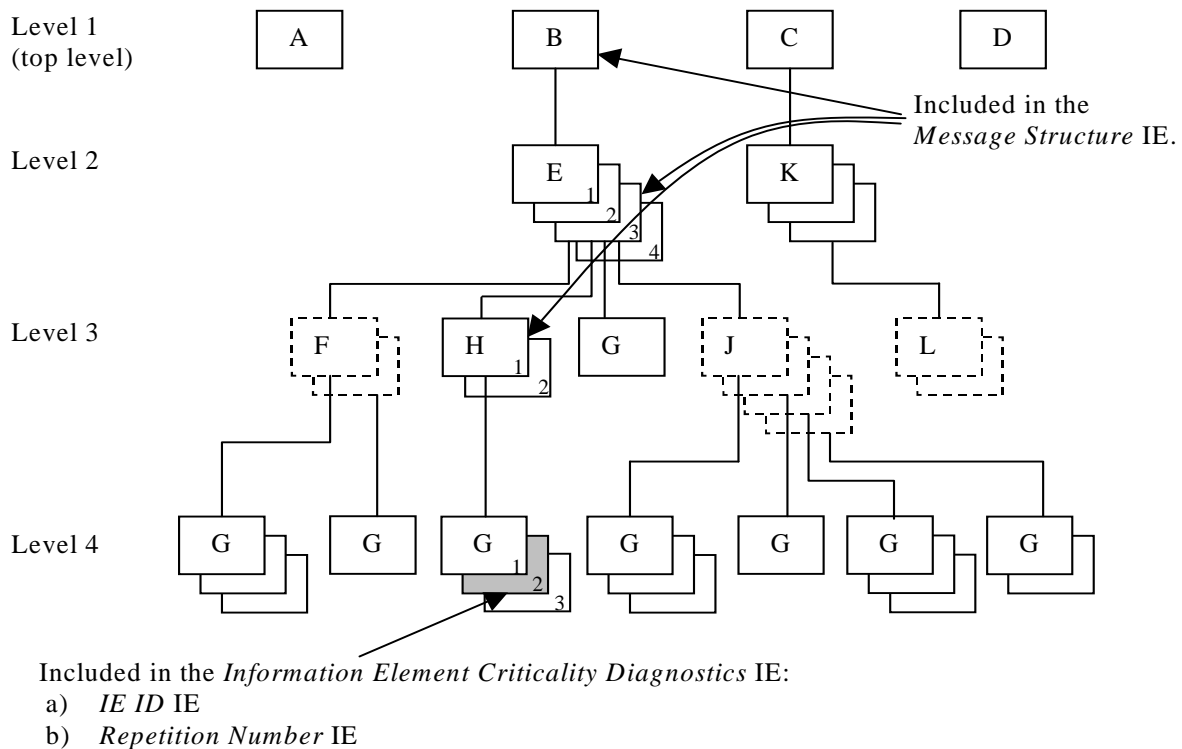


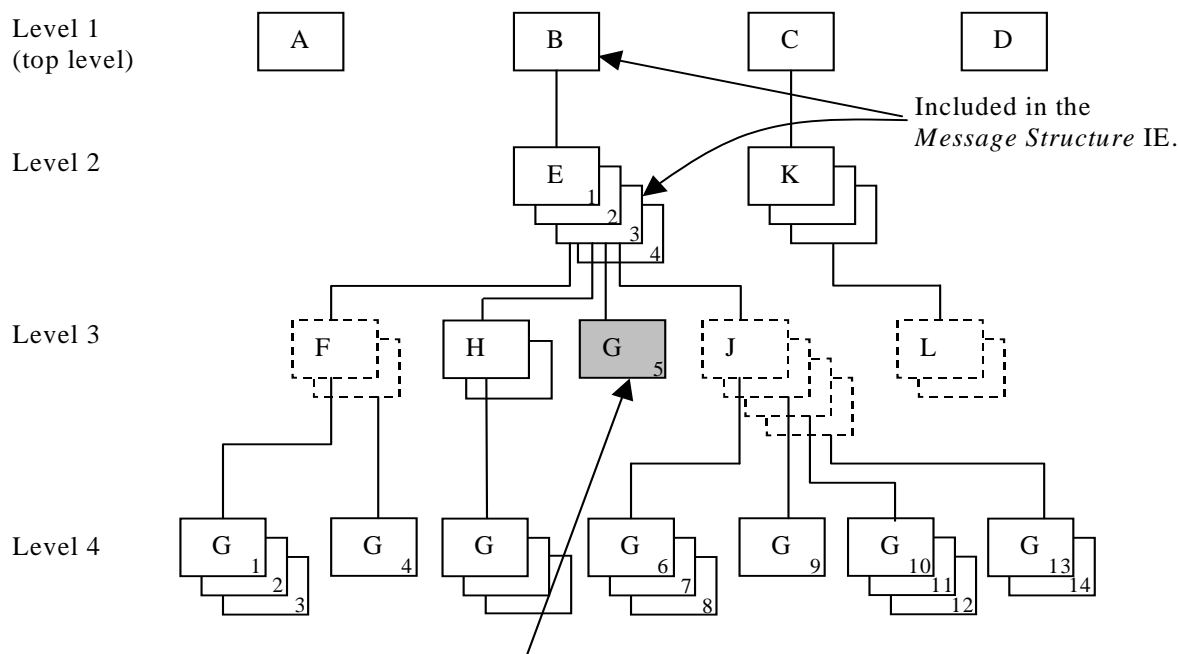
Figure C.4: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure C.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	ignore and notify	Criticality for IE on the reported level, i.e. level 4.
IE ID	id-G	IE ID from the reported level, i.e. level 4.
Repetition Number	2	Repetition number on the reported level, i.e. level 4.
Type of Error	not understood	
<i>Message Structure, first repetition</i>		
>IE ID	id-B	IE ID from level 1.
<i>Message Structure, second repetition</i>		
>IE ID	id-E	IE ID from level 2.
>Repetition Number	3	Repetition number from level 2.
<i>Message Structure, third repetition</i>		
>IE ID	id-H	IE ID from the lowest level above the reported level, i.e. level 3.
>Repetition Number	1	Repetition number from the lowest level above the reported level, i.e. level 3.

NOTE 5: The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).

C.3.4 Example 4



Included in the *Information Element Criticality Diagnostics* IE:

- a) *IE ID* IE
- b) *Repetition Number* IE

Figure C.5: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure C.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.
IE ID	id-G	IE ID from the reported level, i.e. level 3.
Repetition Number	5	Repetition number on the reported level, i.e. level 3. (Since the IE E (level 2) is the lowest level included in the <i>Message Structure</i> IE this is the fifth occurrence of IE G within the IE E (level 2).
Type of Error	not understood	
<i>Message Structure, first repetition</i>		
>IE ID	id-B	IE ID from level 1.
<i>Message Structure, second repetition</i>		
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.

NOTE 6: The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.5 Example 5

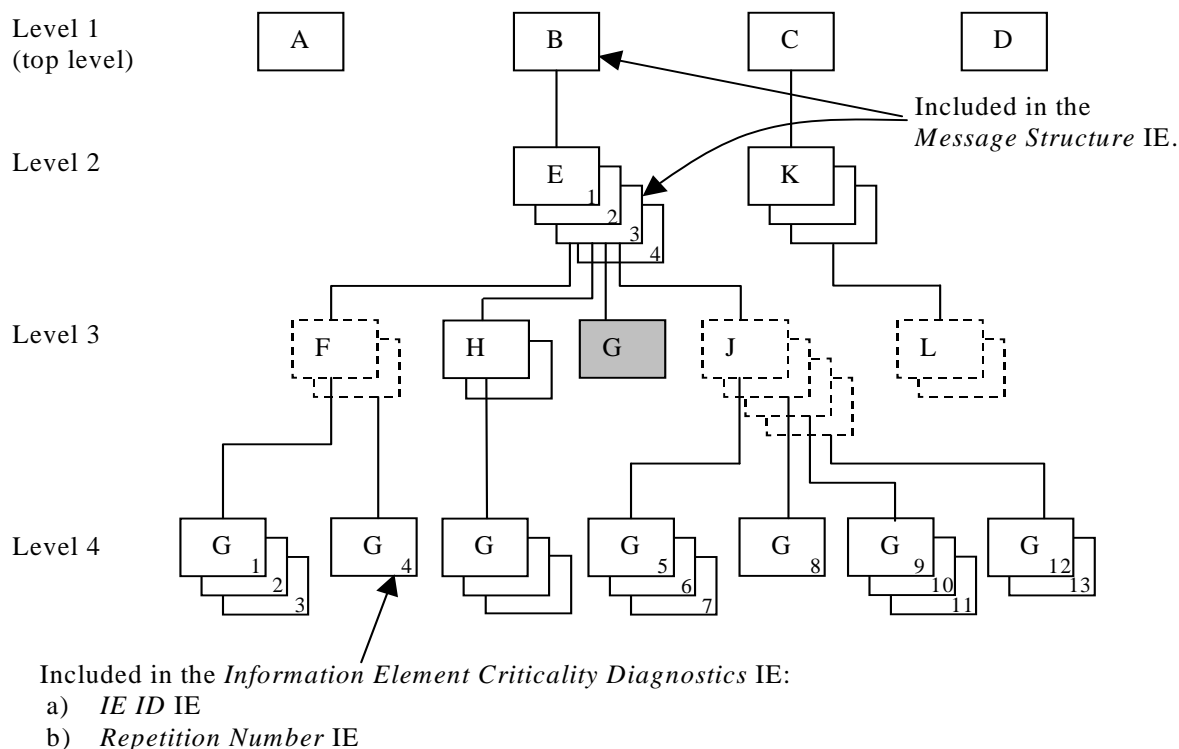


Figure C.6: Example of a received NBAP message with a missing IE

If the instance marked as grey in the IE G in the IE E shown in the figure C.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.
IE ID	id-G	IE ID from the reported level, i.e. level 3.
Repetition Number	4	Repetition number up to the missing IE on the reported level, i.e. level 3. (Since the IE E (level 2) is the lowest level included in the <i>Message Structure</i> IE there have been four occurrences of IE G within the IE E (level 2) up to the missing occurrence.
Type of Error	missing	
<i>Message Structure, first repetition</i>		
>IE ID	id-B	IE ID from level 1.
<i>Message Structure, second repetition</i>		
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.

NOTE 7: The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.4 ASN.1 of EXAMPLE MESSAGE

```

ExampleMessage ::= SEQUENCE {
    ProtocolIEs          ProtocolIE-Container          {{ExampleMessage-IEs}},
    ProtocolExtensions  ProtocolExtensionContainer  {{ExampleMessage-Extensions}}  OPTIONAL,
    ...
}

ExampleMessage-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-A    CRITICALITY reject  TYPE A  PRESENCE mandatory } |
    { ID id-B    CRITICALITY reject  TYPE B  PRESENCE mandatory } |
    { ID id-C    CRITICALITY reject  TYPE C  PRESENCE mandatory } |
    { ID id-D    CRITICALITY reject  TYPE D  PRESENCE mandatory } ,
    ...
}

B ::= SEQUENCE {
    e                E-List,
    iE-Extensions   ProtocolExtensionContainer { {B-ExtIEs} }  OPTIONAL,
    ...
}

B-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

E-List ::= SEQUENCE (SIZE (1..maxE)) OF ProtocolIE-Single-Container { {E-IEs} }

E-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-E    CRITICALITY ignore  TYPE E  PRESENCE mandatory }
}

E ::= SEQUENCE {
    f                F-List,
    h                H-List,
    g                G-List1,
    j                J-List,
    iE-Extensions   ProtocolExtensionContainer { {E-ExtIEs} }  OPTIONAL,
    ...
}

E-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

F-List ::= SEQUENCE (SIZE (1..maxF)) OF F

F ::= SEQUENCE {
    g                G-List2 OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {F-ExtIEs} }  OPTIONAL,
    ...
}

F-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

G-List2 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G2-IEs} }

G2-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G    CRITICALITY ignore  TYPE G  PRESENCE mandatory }
}

H-List ::= SEQUENCE (SIZE (1..maxH)) OF ProtocolIE-Single-Container { {H-IEs} }

H-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-H    CRITICALITY ignore  TYPE H  PRESENCE mandatory }
}

H ::= SEQUENCE {
    g                G-List3 OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { {H-ExtIEs} }  OPTIONAL,
    ...
}

H-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```



```

    ...
}
G-List3 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G3-IEs} }
G3-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G    CRITICALITY notify  TYPE G  PRESENCE mandatory }
}
G-List1 ::= ProtocolIE-Single-Container { {G1-IEs} }
G1-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G    CRITICALITY reject  TYPE G  PRESENCE mandatory }
}
J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J
J ::= SEQUENCE {
    g                G-List4 OPTIONAL,
    iE-Extensions    ProtocolExtensionContainer { {J-ExtIEs} } OPTIONAL,
    ...
}
J-ExtIEs    NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
G-List4 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { {G4-IEs} }
G4-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-G    CRITICALITY reject  TYPE G  PRESENCE mandatory }
}
C ::= SEQUENCE {
    k                K-List,
    iE-Extensions    ProtocolExtensionContainer { {C-ExtIEs} } OPTIONAL,
    ...
}
C-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { {K-IEs} }
K-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-K    CRITICALITY notify  TYPE K  PRESENCE mandatory }
}
K ::= SEQUENCE {
    l                L-List,
    iE-Extensions    ProtocolExtensionContainer { {K-ExtIEs} } OPTIONAL,
    ...
}
K-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
L-List ::= SEQUENCE (SIZE (1..maxL)) OF L
L ::= SEQUENCE {
    m                M OPTIONAL,
    iE-Extensions    ProtocolExtensionContainer { {L-ExtIEs} } OPTIONAL,
    ...
}
L-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
ExampleMessage-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

Annex D (normative): IB_SG_DATA Encoding

D.1 Overall Description

There exist two variants for encoding *IB_SG_DATA* IE (see section 9.2.1.32), which are detailed in subsections below. To avoid incorrect transmission of System Information on Uu, the following behaviour is required:

- For each Iub, CRNC shall use the encoding variant supported by the Node B for the *IB_SG_DATA* IE (see section 9.2.1.32) when sending the SYSTEM INFORMATION UPDATE REQUEST message to the Node B. This is supported by configuration in the CRNC.

D.2 IB_SG_DATA Encoding Variant 1

This variant corresponds to the algorithm, that ASN.1 length encoding for the conveyed SIB segment is performed by the RNC. Building of *IB_SG_DATA* segments involves two steps:

- 1) Segmentation of MIB/SIB/SB and
- 2) RRC encoding of the segments, which includes the PER encoding of the length in case of "SIB data variable".

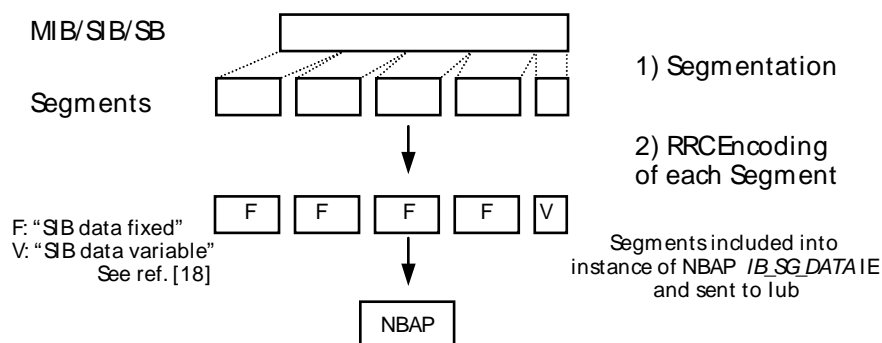


Figure D.1: The Building of Segments

D.3 IB_SG_DATA Encoding Variant 2

This variant corresponds to the algorithm, that ASN.1 length encoding for the conveyed segment is not performed by the RNC. Segments are built in the CRNC by segmentation of a MIB/SIB/SB.

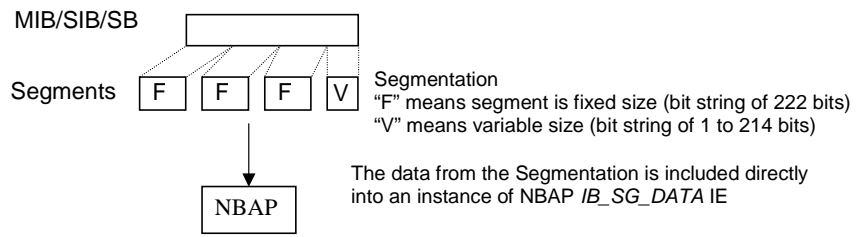


Figure D.2: The Building of Segments

Annex E (informative): Reporting the status of resources used for frequency (1.28 Mcps TDD only)

For a multi-frequency cell, the Local Cell represents the resources in the Node B that can be used for the configuration of a number of frequencies in the cell. The resources for a frequency in Node B are defined as FPM (Frequency Process Module) and is identified by FPM ID.

In the Cell Setup procedure, RNC should configure FPM for each frequency by including *FPM ID* IE in the CELL SETUP REQUEST message.

In the Cell Reconfiguration procedure, RNC should configure FPM for each added frequency by including *FPM ID* IE in the CELL RECONFIGURATION REQUEST message.

In Audit procedure, the Node B should include the *FPM ID* IE and the *Local Cell ID* IE in the *Local Cell Information* IE to report the status of a FPM in the AUDIT RESPONSE message.

In Resource Status Indication procedure, the Node B should include the *FPM ID* IE and the *Local Cell ID* IE in the *Local Cell Information* IE to report the status of a FPM in the RESOURCE STATUS INDICATION message.

Annex F (informative): Change history

TSG #	TSG Doc.	CR	Re v	Subject/Comment	New
03/2006	-	-	-	Creation of Rel-7 version based on v6.9.0	7.0.0
31	RP-060070	1184	1	Introduction of the PLCCH	7.0.0
31	RP-060073	1185	1	Introduction of 7.68Mcps TDD option	7.0.0
32	RP-060285	1215	2	Correction to the Time Slot Format Configuration of PUSCH/PDSCH for LCR TDD	7.1.0
32	RP-060279	1217	2	CR to 25.433[Rel-7] on correction for DL DPCH Power Information	7.1.0
32	RP-060280	1226	1	CR cross-dependencies for E-DCH Reference Power Offset by RL ADDITION	7.1.0
32	RP-060280	1230	2	Corrections to E-DCH Uplink Combination in RL SETUP and RL ADDITION	7.1.0
32	RP-060281	1234	1	Correction of the common related information for E-HICH and E-RGCH	7.1.0
32	RP-060281	1236		E-RGCH/E-HICH Power Offset value range	7.1.0
32	RP-060279	1238		Corrections to Combined RL Additoin with HS-DSCH /E-DCH Serving change	7.1.0
32	RP-060290	1239	2	Release 7 Timing Advance (3.84 Mcps and 7.68 Mcps TDD)	7.1.0
32	RP-060291	1240		Addition of HS-DSCH information in radio link addition procedure for 7.68 Mcps TDD	7.1.0
32	RP-060280	1242	2	E-DCH and HS-DSCH same serving cell	7.1.0
32	RP-060280	1244	1	HS-DSCH Configured Indicator for Radio Link Addition	7.1.0
32	RP-060281	1246	1	E-RNTI allocation on serving change	7.1.0
32	RP-060276	1250		Aspect of CPCH not removed for power offset	7.1.0
32	RP-060407	1252	2	Introduction of TNL QoS IE for shared channels	7.1.0
32	RP-060289	1253	1	Change semantic description in tabular format of UARFCN IE	7.1.0
32	RP-060431	1256	2	Power Offset for E-DCH control-only transmissions	7.1.0
32	RP-060281	1258	1	Abnormal condition for HS-DSCH Configured Indicator IE	7.1.0
33	RP-060495	1260	2	Introduction of a Node B measurement for E-DCH RRM	7.2.0
33	RP-060506	1262	3	Modifying HS-DSCH Physical Layer Category Info in Radio Link Reconfiguration procedure	7.2.0
33	RP-060506	1270	2	Addition of the TPC step size for HS-SICH in 1.28Mcps TDD	7.2.0
33	RP-060501	1275	1	Correction on the value range of E-DCH IEs	7.2.0
33	RP-060505	1277	2	Corrections on physical shared channel reconfiguration	7.2.0
33	RP-060501	1279	1	E-AGCH and E-RGCH/E-HICH FDD scrambling code in response messages	7.2.0
33	RP-060500	1281	1	DCH combined when EDCH operation	7.2.0
33	RP-060505	1283		Alignment of the RL Specific E-DCH Information IE tabular format to ASN.1	7.2.0
33	RP-060500	1287		Optional usage of the E-DCH Reference Power Offset IE	7.2.0
33	RP-060506	1289	1	Clarification on Communication Context ID usage for the Reset Request	7.2.0
33	RP-060498	1292		TFCI2 bearer Cleanup for Radio link Deletion	7.2.0
33	RP-060511	1294	1	Introduction of 3.84 Mcps and 7.68Mcps TDD Enhanced Uplink	7.2.0
33	RP-060506	1296	2	Per time slot configuration of TFCI for TDD FACH type CCTrCHs	7.2.0
33	RP-060509	1299	2	Extended WCDMA Cell Range	7.2.0
33	RP-060514	1300	1	Addition of missing ASN.1 from CR1252	7.2.0
33	RP-060500	1305		Further Abnormal Conditions for E-DCH	7.2.0
33	RP-060505	1307		General Description for E-DCH in RL Setup procedure	7.2.0
33	RP-060596	1308	2	Introduction of a noise floor indication from Node B for E-DCH RRM	7.2.0
33	RP-060502	1310		Introduction of new indicator for non DCH operation	7.2.0
33	RP-060479	1311		Correction to coding of PLCCH for 1.28Mcps TDD	7.2.0
33	RP-060570	1313		Introduction of SIB11bis	7.2.0
34	RP-060700	1317	1	Correction for the max reptition of RL Information Response IE in tabular	7.3.0
34	RP-060700	1323		Correction to an abnormal case in E-DCH RL ADDITION	7.3.0
34	RP-060703	1326	1	MAC-hs Reset Indicator	7.3.0
34	RP-060709	1327	2	Fast Reconfiguration	7.3.0
34	RP-060705	1328	2	Correction of Round Trip Time for Extended Cell Range	7.3.0
34	RP-060707	1331	1	RL Setup Procedure Combined with HSPA Serving Cell Change	7.3.0
35	RP-070065	1329	5	Iub transport efficiency improvement for MBMS	7.4.0
35	RP-070057	1330	2	Introduction of Continuous Packet Connectivity in NBAP	7.4.0
35	RP-070057	1334	1	HS-PDSCH code change for CPC mode	7.4.0
35	RP-070053	1337	1	Abnormal conditions for IP Transport Option and Diversity Control field	7.4.0
35	RP-070056	1339	1	Correction of the Maximum number of logical channel ID	7.4.0
35	RP-070061	1342	1	Introduction of MIMO in NBAP	7.4.0
35	RP-070129	1344	2	Introduction of 1.28 Mcps TDD Enhanced Uplink	7.4.0
35	RP-070067	1346	1	Introduction of Downlink Higher Order Modulation in NBAP	7.4.0
35	RP-070063	1351	2	Presence of Guaranteed Bit Rate	7.4.0
36	RP-070332	1341	3	Support of higher bitrates and Flexible RLC PDU size on HS-DSCH	7.5.0
36	RP-070331	1347	4	Introduction of Uplink Higher Order Modulation in NBAP	7.5.0
36	RP-070328	1348	5	Introduction of Enhanced Cell_FACH state feature	7.5.0
36	RP-070338	1352	1	Support of F-DPCH Enhancement	7.5.0
36	RP-070335	1353	1	Introduction of MBMS SFN (TDD)	7.5.0
36	RP-070333	1354	2	Introduction of MBMS SFN (FDD)	7.5.0
36	RP-070322	1357	2	The introduction of MBMS capability indicator	7.5.0

36	RP-070320	1359		Correction of wrong description for E-DCH HARQ process allocation for 2ms TT	7.5.0
36	RP-070339	1362	1	Abnormal condition for Unidirection DCH Indicator	7.5.0
36	RP-070320	1364	2	Modification on the range of Measurement Value for HS-SICH reception quality in LCR TDD	7.5.0
36	RP-070320	1366		Further clarification on application of the HS-SICH SIR Target IE	7.5.0
36	RP-070320	1368	1	Further correction of HS-DSCH information for LCR TDD	7.5.0
36	RP-070336	1370	3	Introduction of MBMS LCR TDD physical layer enhancements	7.5.0
36	RP-070326	1371		Alignment of UE DTX long preamble IE in RNSAP/NBAP with RRC	7.5.0
36	RP-070327	1372		Introduction of missing cause values for MIMO	7.5.0
36	RP-070326	1373	1	Introduction of missing cause values for CPC	7.5.0
36	RP-070394	1375		Correction to definition of Power Resource Related Information (TDD only)	7.5.0
36	RP-070339	1378	2	Alignment of LCR TDD IEs tabular description with ASN.1 definition	7.5.0
36	RP-070337	1379	2	Introduction of GANSS (Galileo and Additional Navigation Systems) in NBAP	7.5.0
36	RP-070340	1380	1	Max UE DTX Cycle Signaling Support for CPC operation	7.5.0
36	RP-070324	1382		Some minor corrections for 1.28 Mcps TDD E-DCH	7.5.0
36	RP-070324	1383	1	Modification on the non-scheduled transmission and the UL interference control for 1.28 Mcps TDD E-DCH	7.5.0
36	RP-070474	1386	2	Introduction of Extended RNC-ID	7.5.0
37	RP-070565	1388	2	Clarification of the MBMS Notification update procedure	7.6.0
37	RP-070566	1390	2	Correction of Power offset for E-HICH, E-AGCH, E-RGCH and HS-SCCH when F-DPCH is configured	7.6.0
37	RP-070565	1392	1	PO2 for F-DPCH	7.6.0
37	RP-070569	1393		TDD E-DCH Non-scheduled resource deletion	7.6.0
37	RP-070571	1394		Extension of the ranges of the MAC-hs / MAC-es Guaranteed Bit Rate IEs	7.6.0
37	RP-070572	1395	1	Extension of the range of the "Reference E-TFCI Power Offset" for UL 16QAM	7.6.0
37	RP-070572	1396	1	Extension of the ranges of the "Maximum Number of Bits per MAC-e PDU for Non-scheduled transmission" and "E-DCH Maximum Bitrate" for UL 16QAM	7.6.0
37	RP-070630	1397	2	HARQ Memory Partitioning for MIMO	7.6.0
37	RP-070580	1399	1	Transport bearer sharing for FACHs	7.6.0
37	RP-070580	1400		Binding ID and Transport Layer Address IEs in CTRCH SETUP RESPONSE	7.6.0
37	RP-070580	1401		ToA window reconfiguration in case of transport bearer shared by several FACHs	7.6.0
37	RP-070580	1402	1	Use of RSI (service impacting) for change of capabilities reported in conditional IEs	7.6.0
37	RP-070574	1403		MBSFN Only Mode Capability IE in AUDIT RESPONSE message	7.6.0
37	RP-070567	1404		TUTRAN-GPS Accuracy Class IE not applicable to GANSS	7.6.0
37	RP-070580	1407	2	A small change on the configuration of MBSFN Cell Parameter ID for 1.28 Mcps TDD	7.6.0
37	RP-070650	1408	3	Introduction of multi-frequency for 1.28Mcps TDD in 25.433	7.6.0
37	RP-070571	1410	1	N/M ratio for MIMO decided by the Node B	7.6.0
37	RP-070573	1411		Corrections related to changes for Improved L2 and Enhanced FACH	7.6.0
37	RP-070580	1412		Removal of reference to SIB 8,9,10	7.6.0
37	RP-070580	1413	3	NBAP clean up	7.6.0
37	RP-070574	1414		Adding unit to modulation power offset for MBSFN	7.6.0
37	RP-070573	1416	2	Corrections/Small Improvements for Enhanced Cell_FACH	7.6.0
37	RP-070575	1417		Corrections/Small Improvements for CPC	7.6.0
37	RP-070581	1420	1	Enhancements to Macro Diversity & Cell Interference Control	7.6.0
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