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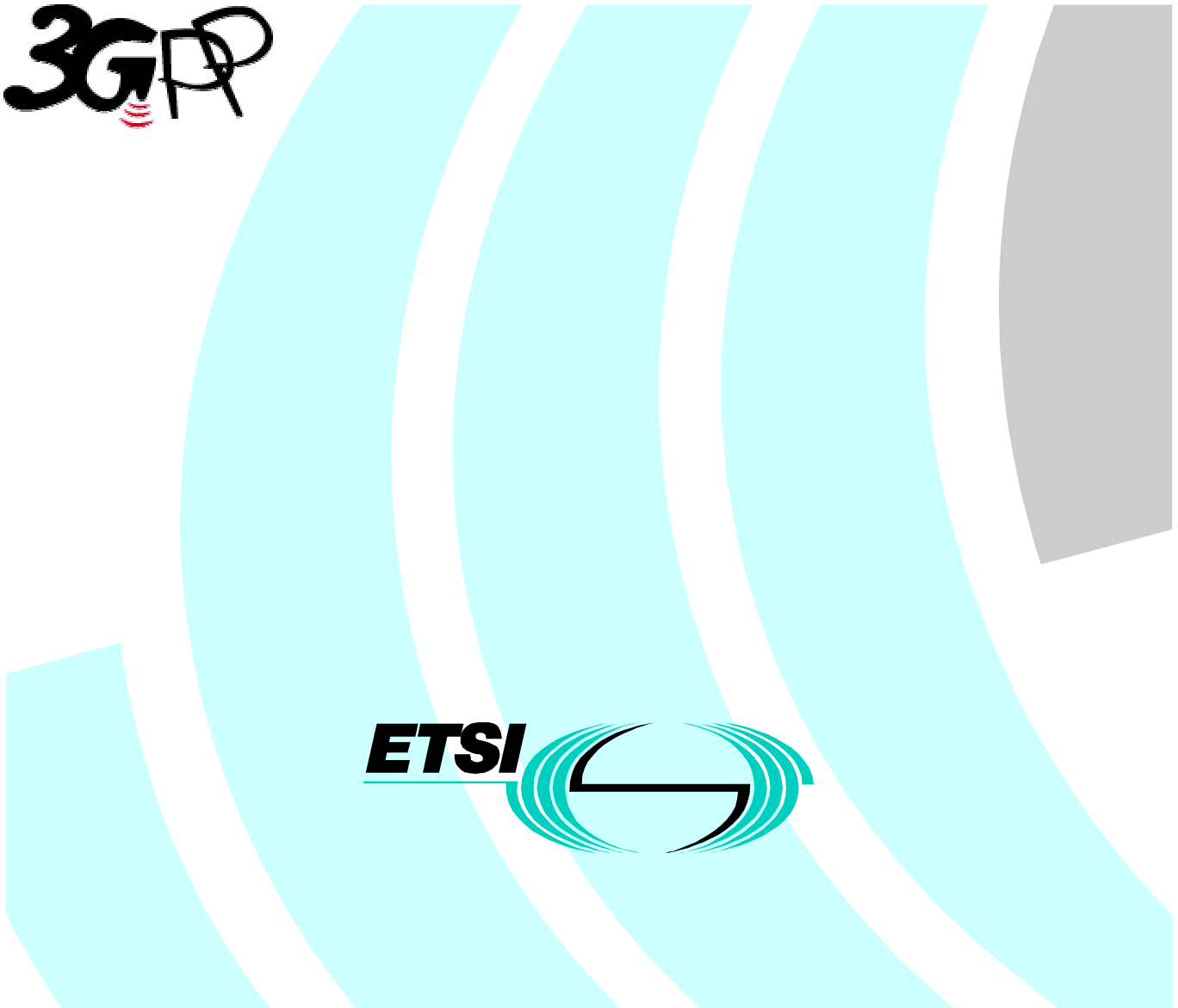
Technical Specification

Universal Mobile Telecommunications System (UMTS);
UTRAN Iur Interface RNSAP Signalling
(3G TS 25.423 version 3.1.0 Release 1999)



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Contents

Foreword

This Technical Specification (TS) has been produced by the 3rd Generation Partnership Project (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 the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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- 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 procedures between RNCs in UTRAN.

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.

[1] 3G TS 23.003: "Numbering, addressing and identification".

[2] 3G TS 25.413: "UTRAN Iu Interface RANAP Signalling".

[3] 3G TS 25.426: "UTRAN Iur and Iub Interface Data Transport & Transport Layer Signalling for DCH Data Streams".

[4] 3G TS 25.427: "UTRAN Iur and Iub Interface User Plane Protocols for DCH Data Streams".

[5] 3G TS xx.yyy: "Specification containing different Identifiers for UMTS (to be identified)".

[6] 3G TS 25.104: "UTRA (BS) FDD; Radio transmission and Reception"

[7] 3G TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception".

[8] 3G TS 25.211: "Physical Channels and Mapping of Transport Channels onto Physical Channels (FDD)".

[9] 3G TS 25.212: "Multiplexing and Channel Coding (FDD)

[10] UMTS 25.214, Physical Layer Procedures (FDD)".

[11] 3G TS 25.215: "Physical Layer – Measurements (FDD)".

[12] 3G TS 25.221: "Physical Channels and Mapping of Transport Channels onto Physical Channels (TDD)".

[13] 3G TS 25.223: "Spreading and Modulation (TDD)".

[14] 3G TS 25.225: "Physical Layer – Measurements (TDD)".

[15] 3G TS 25.304: "UE Procedures in Idle Mode"

[16] 3G TS 25.331: "RRC Protocol Specification".

[17] 3G TS 25.402: "Synchronisation in UTRAN, Stage 2".

[18] X.680 (12/94): "Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".

[19] ITU-T Recommendation X.681 (12/94): "Information technology - Abstract Syntax Notation One (ASN.1): Information object specification".

[20] ITU-T Recommendation X.691 (12/94): "Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER)".

[Editor's note: The dating of reference [20] needs to be verified. It has been included from the ITU-T list of recommendations in force. The dating of the reference is FFS.]

[Editor's note: The reference [5] needs to be identified. Until then the description of the parameters CN PS Domain Identifier, CN CS Domain Identifier, and CRNC ID contains more information than otherwise may be needed.]

3 Definitions and abbreviations

3.1 Definitions

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

Elementary Procedure: RNSAP protocol consists of Elementary Procedures (EPs). An Elementary Procedure is a unit of interaction between two RNCs. 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 successfully completed with the receipt of the response.

Unsuccessful

- A signalling message explicitly indicates that the EP failed.
- On time supervision expiry (i.e. absence of expected response). Whether or not any Class 1 procedure will have a timer on RNSAP is FFS. To de sorted out when discussing the details of the error cases.

Class 2 EPs are considered always successful.

Prepared Reconfiguration: Prepared Reconfiguration exists when the Synchronised Radio Link Reconfiguration Preparation procedure has been completed successfully. The Prepared Reconfiguration does not exist any more after either of the procedures Synchronised Radio Link Reconfiguration Commit or Synchronised Radio Link Reconfiguration Cancellation has been completed.

Radio Link Set: set of one or more Radio Links that has a common generation of Transmit Power Control (TPC) commands in the DL.

3.2 Abbreviations

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

ASN.1	Abstract Syntax Notation One
BLER	Block Error Rate
CCCH	Common Control Channel
CCPCH	Common Control Physical Channel
CCTrCH	Coded Composite Transport Channel
CFN	Connection Frame Number
CN	Core Network
CPICH	Common Pilot Channel
CRNC	Controlling RNC
DCH	Dedicated Channel
DL	Downlink
DPCCH	Dedicated Physical Control Channel

DPCH	Dedicated Physical Channel
DRNC	Drift RNC
DRNS	Drift RNS
DRX	Discontinuous Reception
DSCH	Downlink Shared Channel
EP	Elementary Procedure
FACH	Forward Access Channel
FDD	Frequency Division Duplex
FP	Frame Protocol
IE	Information Element
MAC	Medium Access Control
PCPCH	Physical Common Packet Channel
PDU	Protocol Data Unit
RAB	Radio Access Bearer
RACH	Random Access Channel
RL	Radio Link
RLC	Radio Link Control
RLS	Radio Link Set
RNS	Radio Network Subsystem
RNSAP	Radio Network Subsystem Application Part
RNTI	Radio Network Temporary Identifier
RRC	Radio Resource Control
RSCP	Received Signal Code Power
SCH	Synchronisation Channel
SDU	Signalling Data Unit
SFN	System Frame Number
SRNC	Serving RNC
SRNS	Serving RNS
SSDT	Site Selection Diversity Transmit
TDD	Time Division Duplex
TFCI	Transport Format Combination Indicator
TFCS	Transport Format Combination Set
TFS	Transport Format Set
TPC	Transmit Power Control
UARFCN	UTRA Absolute Radio Frequency Channel Number
UE	User Equipment
UL	Uplink
URA	UTRAN Registration Area
UTRAN	UMTS 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 CRNC exactly and completely. The SRNC functional behaviour is left unspecified. The EP Physical Channel Reconfiguration is an exception from this principle.

4.2 Forwards and Backwards Compatibility

The forwards and backwards compatibility of the protocol is assured by a mechanism where 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 Source Signalling Address Handling

The sender of an RNSAP messages shall include the Source Signalling Address, i.e. the Signalling Address of the sending node.

5 RNSAP Services

The RNSAP offers the following services.

5.1 RNSAP Procedure Modules

The Iur interface RNSAP procedures are divided into four modules as follows:

1. RNSAP Basic Mobility Procedures;
2. RNSAP DCH Procedures;
3. RNSAP Common Transport Channel Procedures;
4. RNSAP Global Procedures.

The Basic Procedures module contains procedures used to handle the mobility within UTRAN.

The DCH Procedures module contains procedures that are used to handle DCHs between two RNSs. If procedures from this module are not used in a specific Iur, then the usage of DCH traffic between corresponding RNSs is not possible.

The Common Transport Channel Procedures module contains procedures that are used to control common transport channel data streams over Iur interface.

The Global Procedures module contains procedures that are not related to a specific UE. The procedures in this module are in contrast to the above modules involving two peer CRNCs.

5.2 Parallel Transactions

Unless explicitly indicated in the procedure specification, at any instance in time one protocol peer shall have initiated maximum one ongoing RNSAP DCH procedure related to a certain UE.

6 Services Expected from Signalling Transport

The signalling transport shall provide two different service modes for the RNSAP.

1. Connection oriented data transfer service. This service is supported by a signalling connection between two RNCs. It shall be possible to dynamically establish and release signalling connections based on the need. Each active UE shall have its own signalling connection. The signalling connection shall provide in sequence delivery of RNSAP messages. RNSAP shall be notified if the signalling connection breaks.
2. Connectionless data transfer service. RNSAP shall be notified in case a RNSAP message did not reach the intended peer RNSAP entity.

7 Functions of RNSAP

The RNSAP protocol has the following functions:

- Radio Link Management. This function allows the SRNC to manage radio links using dedicated resources in a DRNS;

- Physical Channel Reconfiguration. This function allows the DRNC to reallocate the physical channel resources for a Radio Link;
- Radio Link Supervision. This function allows the DRNC to report failures and restorations of a Radio Link;
- Compressed Mode Control [FDD]. This function allows the SRNC to control the usage of compressed mode within a DRNS;
- Measurements on Dedicated Resources. This function allows the SRNC to initiate measurements on dedicated resources in the DRNS. The function also allows the DRNC to report the result of the measurements;
- DL Power Drifting Correction [FDD]. This function allows the SRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links;
- CCCH Signalling Transfer. This function allows the SRNC and DRNC to pass information between the UE and the SRNC on a CCCH controlled by the DRNS;
- Paging. This function allows the SRNC to page a UE in a URA or a cell in the DRNS;
- Common Transport Channel Resources Management. This function allows the SRNC to utilise Common Transport Channel Resources within the DRNS (excluding DSCH resources for FDD);
- Relocation Execution. This function allows the SRNC to finalise a Relocation previously prepared via other interfaces;
- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.

The mapping between the above functions and RNSAP elementary procedures is shown in the table 1.

Table 1: Mapping between functions and RNSAP elementary procedures

Function	Elementary Procedure(s)
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
Physical Channel Reconfiguration	Physical Channel Reconfiguration
Radio Link Supervision	a) Radio Link Failure b) Radio Link Restoration
Compressed Mode Control [FDD]	a) Compressed Mode Preparation b) Compressed Mode Commit c) Compressed Mode Cancellation
Measurements on Dedicated Resources	a) Measurement Initiation b) Measurement Reporting c) Measurement Termination d) Measurement Failure
DL Power Drifting Correction [FDD]	Downlink Power Control
CCCH Signalling Transfer	a) Uplink Signalling Transfer b) Downlink Signalling Transfer
Paging	Paging
Common Transport Channel Resources Management	a) Common Transport Channel Resources Initiation b) Common Transport Channel Resources Release
Relocation Execution	Relocation Commit
Reporting of General Error Situations	Error Indication

8 RNSAP Procedures

8.1 Elementary Procedures

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

Table 2: Class 1

Elementary Procedure	Initiating Message	Successful Outcome	Unsuccessful Outcome	
		Response message	Response message	Timer
Radio Link Setup	RADIO LINK SETUP REQUEST	RADIO LINK SETUP RESPONSE	RADIO LINK SETUP 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	
Physical Channel Reconfiguration	PHYSICAL CHANNEL RECONFIGURATION REQUEST	PHYSICAL CHANNEL RECONFIGURATION COMMAND	PHYSICAL CHANNEL RECONFIGURATION FAILURE	
Measurement Initiation	DEDICATED MEASUREMENT INITIATION REQUEST	DEDICATED MEASUREMENT INITIATION RESPONSE	DEDICATED MEASUREMENT INITIATION FAILURE	
Compressed Mode Preparation [FDD]	COMPRESSED MODE PREPARE	COMPRESSED MODE READY	COMPRESSED MODE FAILURE	
Common Transport Channel Resources Initiation	COMMON TRANSPORT CHANNEL RESOURCES REQUEST	COMMON TRANSPORT CHANNEL RESOURCES RESPONSE	COMMON TRANSPORT CHANNEL RESOURCES FAILURE	

The need for Timers will be defined on a per procedure basis. The content of this column is thus FFS.

Table 3: Class 2

Elementary Procedure	Initiating Message
Uplink Signalling Transfer	UPLINK SIGNALLING TRANSFER INDICATION
Downlink Signalling Transfer	DOWNLINK SIGNALLING TRANSFER REQUEST
SRNS Relocation Commit	SRNS RELOCATION COMMIT
Paging	PAGING REQUEST
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
Measurement Reporting	DEDICATED MEASUREMENT REPORT
Measurement Termination	DEDICATED MEASUREMENT TERMINATION REQUEST
Measurement Failure	DEDICATED MEASUREMENT FAILURE INDICATION
Downlink Power Control [FDD]	DL POWER CONTROL REQUEST
Compressed Mode Commit [FDD]	COMPRESSED MODE COMMIT
Compressed Mode Cancellation [FDD]	COMPRESSED MODE CANCEL
Common Transport Channel Resources Release	COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
Error Indication	ERROR INDICATION

8.2 Basic Mobility Procedures

8.2.1 Uplink SignallingTransfer

8.2.1.1 General

The procedure is used by the DRNC to forward a Uu message received on the CCCH to the SRNC.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.1.2 Successful Operation

When the DRNC receives an Uu message on the CCCH where the UE addressing information is U-RNTI, i.e. S-RNTI and SRNC-ID, DRNC shall send the UPLINK SIGNALLING TRANSFER INDICATION message to the SRNC identified by the SRNC-ID received from the UE.

The DRNC shall include in the message the URA Identity of the URA where the Uu message was received, an indication on whether or not the accessed cell belongs to multiple URAs, and the RNC Identity of all other RNCs that are having at least one cell within the URA where the Uu message was received.

The DRNC shall include in the message the C-RNTI that it allocates to identify the UE in the radio interface. When DRNC allocates a new C-RNTI to the UE, it releases the old one.

If the message received from the UE was the first message from that UE in the DRNC, the DRNC shall include the D-RNTI and the identifiers for the CN CS Domain and CN PS Domain that the DRNC is connected to in the UPLINK SIGNALLING TRANSFER INDICATION message. These CN Domain Identifiers shall be based on the LAC and RAC respectively of the cell where the message was received from the UE.

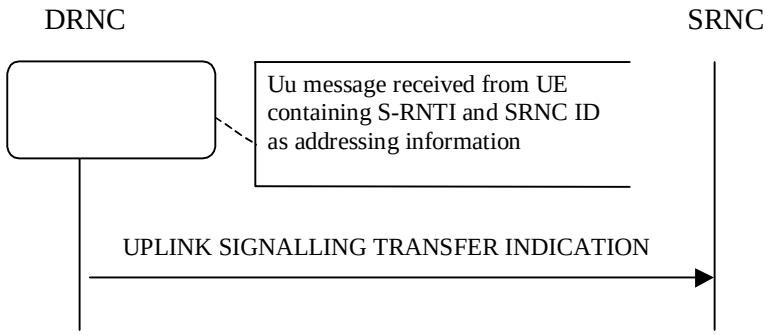

Figure 1: Uplink Signalling Transfer procedure, Successful Operation

8.2.1.3 Abnormal Conditions

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8.2.2 Downlink SignallingTransfer

8.2.2.1 General

The procedure is used by the SRNC to request to the DRNC the transfer of a Uu message on the CCCH in a cell. When used, the procedure is in response to a received Uplink Signalling Transfer procedure.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.2.2 Successful Operation

The procedure consists of the DOWNLINK SIGNALLING TRANSFER REQUEST message sent by the SRNC to the DRNC.

The message contains the Cell Identifier (C-Id) contained in the received UPLINK SIGNALLING TRANSFER INDICATION message and the D-RNTI.

At the reception of the message, the DRNC shall send the L3 Information on the CCCH in the cell indicated by the C-Id IE to the UE identified by the D-RNTI.

If the *D-RNTI Release Indication* IE is set to "Release D-RNTI", the D-RNTI and thus the UE Context and any DRNS resource allocated to the UE Context shall be released at the reception of the UPLINK SIGNALLING TRANSFER INDICATION message.

Figure 2: Downlink Signalling Transfer procedure, Successful Operation

8.2.2.3 Abnormal Conditions

If the user identified by the D-RNTI is not camping in the cell identified by the *C-Id* IE in the UPLINK SIGNALLING TRANSFER INDICATION message, the message shall be ignored.

If the D-RNTI is allocated to one UE context whose status does not allow the sending of the L3 information from the DRNC, then the UPLINK SIGNALLING TRANSFER INDICATION message shall be ignored.

8.2.3 Relocation Commit

8.2.3.1 General

The Relocation Commit procedure is used by target RNC to execute the Relocation. This procedure supports the Relocation procedures described in [2].

This procedure shall use the signalling bearer mode specified below.

8.2.3.2 Successful Operation

The source RNC sends the RELOCATION COMMIT message to the target RNC to request the target RNC to proceed with the Relocation. When the UE is utilising one or more radio links in the DRNC the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE context in the DRNC is required. If on the other hand, the UE is not utilising any radio link the message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE context in the DRNC.

At reception of the RELOCATION COMMIT message from the source RNC the target RNC finalises the Relocation. If the message contains the transparent *RANAP Relocation Information* IE the target RNC shall use this information when finalising the Relocation.

Figure 3: Relocation Commit procedure, Successful Operation

8.2.3.3 Abnormal Conditions

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8.2.4 Paging

8.2.4.1 General

This procedure is used by the SRNC to indicate to a CRNC that a UE shall be paged in a cell or URA that is under the control of the CRNC.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.4.2 Successful Operation

Figure 4: Paging procedure, Successful Operation

The procedure is initiated with a PAGING REQUEST message sent from the SRNC to the CRNC.

If the message contains the *C-Id* IE, the CRNC shall page in the indicated cell. Alternatively, if the message contains the *URA-Id* IE, the CRNC shall page in all cells that it controls in the indicated URA.

The CRNC shall calculate the Paging Occasions from the *IMSI* IE and the *DRX Cycle Length Coefficient* IE according to specification in ref. 15 and apply transmission on PICH and PCH accordingly.

8.2.4.3 Abnormal Conditions

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8.3 DCH procedures

8.3.1 Radio Link Setup

8.3.1.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more radio links.

The connection-oriented service of the signalling bearer shall be established in conjunction with this procedure.

8.3.1.2 Successful Operation

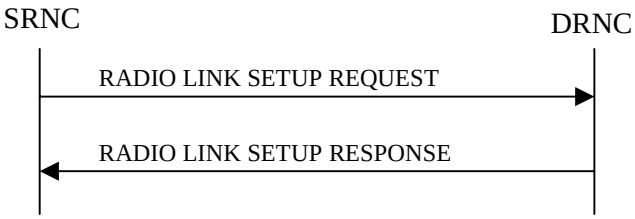

Figure 5: Radio Link Setup procedure: Successful Operation

When the SRNC makes an algorithmic decision to add the first cell or set of cells from a DRNS to the active set of a specific RRC connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request setup of the radio link(s).

The message includes the S-RNTI associated to the UE, and, if the UE context is already present in the DRNC, the corresponding D-RNTI.

[FDD - The Diversity Control Field indicates for each RL except for the first RL whether the DRNS shall combine the RL with any of the other RLs or not on the Iur. If the *Diversity Control Field* IE is set to "May" (be combined with another RL), then the DRNS shall decide for any of the alternatives. When an RL is to be combined the DRNS shall choose which RL(s) to combine it with.]

If the RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request before providing a response to the SRNC.

[FDD - If the *Initial DL TX Power* IE and *Uplink SIR Target* IE are present in the message, the DRNS shall use the indicated DL TX Power and Uplink SIR Target as initial value.]

If the *Primary CPICH Ec/No* IE [FDD] or the *Primary CCPCH RSCP* IE [TDD] is present, the DRNC should use them when deciding the Initial DL TX Power.

If the RADIO LINK SETUP REQUEST message includes the *DCH Combination Indicator* IE for a DCH, the DRNS shall treat all DCHs with the same value of this IE as a set of co-ordinated DCHs.

[FDD - For DCHs with a unique or no "DCH Combination Ind" and the *QE-Selector* IE set to "selected DCH", 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. [25.427]. If the QE-Selector is set to "non-selected DCH", the Physical channel BER shall be used for the QE in the UL data frames, ref. [25.427]].

[FDD - For DCHs with the same "DCH Combination Ind" the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected DCH" shall be used for the QE in the UL data frames, ref. [25.427]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [25.427]. If all DCHs have *QE-Selector* IE set to "non-selected DCH" the Physical channel BER shall be used for the QE, ref. [25.427]].

The *Allocation/Retention Priority* IE defines the priority level that should be used by the DRNS to prioritise the allocation and the retention of the resources used by the DCH. The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise the discard/delay of the data frames of the DCH.

The DRNS shall use the included *UL DCH FP Mode* IE for a DCH as the new DCH FP Mode in the Uplink of the user plane for this DCH.

The DRNS shall use the included *ToAWS* IE for a DCH as the new Time of Arrival Window Start Point in the user plane for this DCH.

The DRNS shall use the included *ToAWE* IE for a DCH as the new Time of Arrival Window End Point in the user plane for this DCH.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity* IE, the DRNS may activate SSDT using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE.]

At the reception of the RADIO LINK SETUP REQUEST message, DRNS allocates requested type of channelisation codes and other physical channel resources for each RL and assigns a binding identifier and a transport layer address for each DCH or set of co-ordinated DCHs. This information shall be sent to the SRNS in the message RADIO LINK SETUP RESPONSE when all the RLs have been successfully setup.

[FDD - If the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not present in the RADIO LINK SETUP REQUEST message, then DRNC shall include the suggested initial Uplink and Downlink SIR Targets in the RADIO LINK SETUP RESPONSE message.]

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS 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 UE context.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another RL, the DRNS 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 UE context.]

[FDD - In the case of combining one or more RLs the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message with the Diversity Indication that the RL is combined with another RL. In this case the Reference RL ID shall be included to indicate with which RL the combination is performed. The Reference RL ID shall be included for all but one of the combined RLs, for which the *Transport Layer Address* IE and the *Binding ID* IE shall be included.]

[FDD - In the case of not combining an RL with another RL, the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message with the *Diversity Indication* IE that no combining is performed. In this case the DRNC shall include 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 SETUP RESPONSE message.]

[TDD - The DRNC shall always include in the RADIO LINK SETUP RESPONSE message 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 case of a set of coordinated DCHs requiring a new transport bearer on Iur the *Binding Identifier* IE and the *Transport Layer Address* IE shall be included only for one of the DCH in the set of co-ordinated DCHs.

[FDD - Irrespective of SSDT activation, the DRNS shall include in the RADIO LINK SETUP RESPONSE message an indication concerning the capability to support SSDT on this RL. Only if the RADIO LINK SETUP REQUEST message requested SSDT activation and the RADIO LINK SETUP RESPONSE message indicates that the SSDT capability is supported for this RL, SSDT is activated in the DRNS.]

The DRNS shall also provide the SRNC with the UTRAN Cell Identifier (UC-Id), the Frequency Number, the [FDD-Primary Scrambling Code], the [TDD-Cell Parameter ID, the Sync Case, the PSCH Time Slot information] of the neighbouring cells to the cell(s) where the radio link(s) are added. In addition, if the information is available, the DRNC shall also provide the [FDD-CPICH Power level]/[TDD-PCCPCH Power level, DPCH Constant Value] and Frame Offset of the neighbouring cell.

If a neighbouring cell is controlled by another RNC, the DRNC shall report also the node identifications (i.e. RNC, CN domain nodes) of the RNC controlling the neighbouring cell. [FDD – If the information is available, the DRNC shall include the *Tx diversity indicator* and Tx diversity capability (i.e. *STTD Support Indicator*, *Closed Loop mode1 Support Indicator*, and *Closed Loop mode2 Support Indicator*) in Neighbouring FDD Cell Information].

If there was no UE context for this UE in the DRNS before the RADIO LINK SETUP REQUEST message was received the DRNC shall include the node identifications of the CN Domain nodes that the RNC is connected to (using LAC and RAC of the current cell), and the D-RNTI in the RADIO LINK SETUP RESPONSE message.

[FDD - If the *DRAC Control* IE is set to "requested" in the RADIO LINK SETUP REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message the *Secondary CCPCH Info IE* to be received on FACH, for each added Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK SETUP RESPONSE message.]

After sending of the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The DRNS shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [3].

[FDD – When *Diversity Mode* IE is "*STTD*", "*Closedloop mode1*", or "*Closedloop mode2*", the DRNC shall activate/deactivate the Transmit Diversity to each Radio Link in accordance with *Transmit Diversity Indication* IE]

8.3.1.3 Unsuccessful Operation

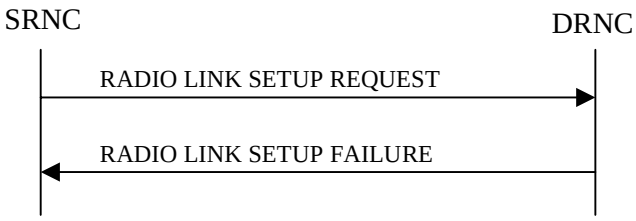

Figure 6: Radio Link Setup procedure: Unsuccessful Operation

In unsuccessful case (i.e. one or more RLs can not be setup) the RADIO LINK SETUP FAILURE message shall be sent to the SRNC, indicating the reason for failure. If some radio links were established successfully, the DRNC shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.

[FDD - If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected DCH" the DRNS shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message].

Typical cause values are:

Radio Network Layer Causes:

- [FDD - UL Scrambling Code Already in Use];
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Unknown C-ID;
- [FDD - Macrodiversity Combining not Possible];
- Requested Configuration not Supported;
- Cell not Available;
- Power Level not Supported.

Transport Layer Causes:

- Transport Link Failure

Protocol Causes:

- Transaction not Allowed

Miscellaneous Causes:

- Control Processing Overload;
- HW Failure;
- Not enough User Plane Processing Resources.

8.3.1.4 Abnormal Conditions

If the DRNC receives either an S-RNTI or a D-RNTI which already has RL(s) established the DRNC shall send the RADIO LINK SETUP FAILURE message to the SRNC, indicating the reason for failure.

8.3.2 Radio Link Addition

8.3.2.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more additional RLs towards a UE when there is already at least one RL established to the concerning UE via this DRNS.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.2.2 Successful Operation

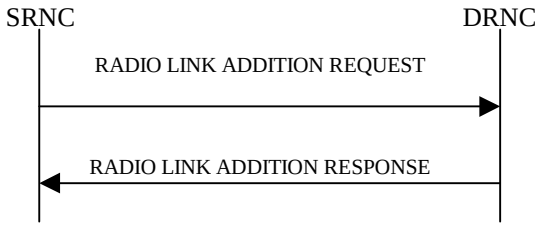

Figure 7: Radio Link Addition procedure: Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the SRNC to the DRNC.

Upon reception, the DRNS 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 Diversity Control Field indicates for each RL whether the DRNS shall combine the new RL with existing RL(s) or not on the Iur. If the *Diversity Control Field* IE is set to "May" (be combined with another RL), then the DRNS shall decide for any of the alternatives. When a new RL is to be combined the DRNS shall choose which RL(s) to combine it with.

If the *Primary CCPCH Ec/No* IE [FDD] or the *Primary CCPCH RSCP* IE [TDD] measured by the UE is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power. If the *Primary CCPCH Ec/No* IE is not present, the DRNS sets the Initial DL TX Power accordingly to the power used by the existing RLs.

[FDD - The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

[FDD - If the RADIO LINK ADDITION REQUEST message contains an *SSDT Cell Identity* IE, SSDT may be activated for the concerned new RL, with the indicated SSDT Cell Identity used for that RL.]

The DRNS shall activate any feedback mode diversity according to the received settings.

If all requested RLs are successfully added, the DRNC shall respond with a RADIO LINK ADDITION RESPONSE message.

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS 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 UE context.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the DRNS 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 UE context.]

In the case of combining an RL with existing RL(s) the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message with the Diversity Indication that the RL is combined. In this case the Reference RL ID shall be included to indicate one of the existing RLs that the new RL is combined with.

In the case of not combining an RL with existing RL(s), the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message with the Diversity Indication that no combining is done. In this case the DRNC shall include both the Transport Layer Address and the binding ID for the transport bearer to be established for each DCH of the RL in the RADIO LINK ADDITION RESPONSE message.

In case of coordinated DCH, the binding ID and the transport address shall be included for only one of the co-ordinated DCHs.

[FDD - Irrespective of SSDT activation, the DRNS shall include in the RADIO LINK ADDITION RESPONSE message an indication concerning the capability to support SSDT on this RL. Only if the RADIO LINK ADDITION REQUEST message requested SSDT activation and the RADIO LINK ADDITION RESPONSE message indicates that the SSDT capability is supported for this RL, SSDT is activated in the DRNS.]

For any cell neighbouring of a cell in which a RL was added, the DRNC shall provide in the RADIO LINK ADDITION RESPONSE message the UTRAN Cell Identifier (UC-Id), the Frequency Number, the Primary Scrambling Code and the node identification of CN nodes connected to the RNC controlling the neighbouring cell if the neighbouring cell is not controlled by the DRNC. In addition, if the information is available, the DRNC shall also provide the [FDD-CPICH Power level]/[TDD-PCCPCH Power level, DPCH Constant Value], Frame Offset of the neighbouring cell, Tx diversity indicator [FDD], and Tx diversity capability[FDD] (i.e. *STTD Support Indicator*, *Closed Loop mode1 Support Indicator*, and *Closed Loop mode2 Support Indicator*).

The DRNC shall also provide the configured uplink Maximum SIR and UL Minimum SIR for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. These values are taken into consideration by DRNS admission control and shall be used by the SRNC as limits for the UL inner-loop power control target.

The DRNC shall also provide the selected scrambling and channelisation codes of the new RLs in order to enable the SRNC to inform the UE about the selected codes.

After sending of the RADIO LINK ADDITION RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The DRNS shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [4].

[FDD - If the UE has been allocated one or several DCH controlled by DRAC (*DRAC Control* IE was set to "requested" in the RADIO LINK ADDITION REQUEST message for at least one DCH) and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message the *Secondary CCPCH Info* IE to be received on FACH, for each added Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK ADDITION RESPONSE message.]

[FDD – When *Diversity Mode* IE is "*STTD*", "*Closedloop mode1*", or "*Closedloop mode2*", the DRNC shall activate/deactivate the Transmit Diversity to each Radio Link in accordance with *Transmit Diversity Indication* IE]

8.3.2.3 Unsuccessful Operation

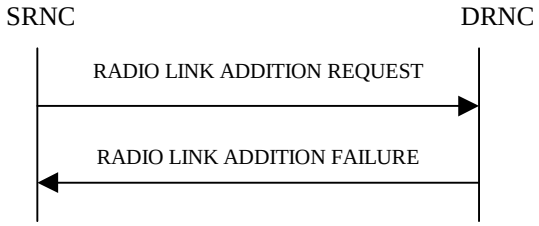

Figure 8: Radio Link Addition procedure: Unsuccessful Operation

If the establishment of at least one RL is unsuccessful, the DRNC shall send a RADIO LINK ADDITION FAILURE as response.

If some RL(s) were established successfully, the DRNC shall indicate this in the RADIO LINK ADDITION FAILURE message in the same way as in the RADIO LINK ADDITION RESPONSE message.

Typical cause values are:

Radio Network Layer Causes:

- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Unknown C-ID;
- Macrodiversity Combining not Possible;
- Cell not Available;
- Power Level not Supported.

Transport Layer Causes:

- Transport Link Failure.

Miscellaneous Causes:

- Control Processing Overload;
- HW Failure;
- Not enough User Plane Processing Resources.

8.3.2.4 Abnormal Conditions

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8.3.3 Radio Link Deletion

8.3.3.1 General

The Radio Link Deletion procedure is used to release the resources in a DRNS for one or more established radio links towards a UE.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Radio Link Deletion procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.3.2 Successful Operation

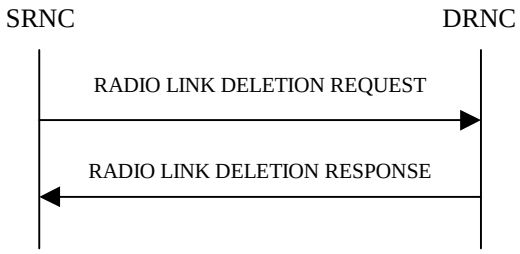

Figure 9: Radio Link Deletion procedure, Successful Operation

The procedure is initiated with a RADIO LINK DELETION REQUEST message sent from the SRNC to the DRNC.

Upon receipt of this message, the DRNS shall delete the radio link(s) identified in the message and release all associated resources and respond to the SRNC with a RADIO LINK DELETION RESPONSE message.

If the radio link(s) to be deleted represent the last radio link(s) for the UE in the DRNS then the DRNC shall also release the UE context, unless the UE is using common resources in the DRNS.

8.3.3.3 Unsuccessful Operation

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8.3.3.4 Abnormal Conditions

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8.3.4 Synchronised Radio Link Reconfiguration Preparation

8.3.4.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of all Radio Links related to one UE-UTRAN connection within a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.4.2 Successful Operation

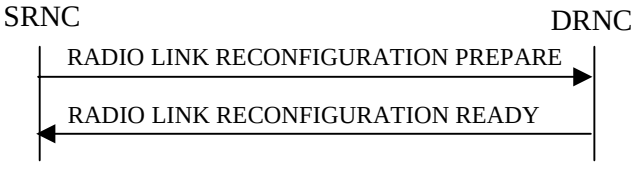

Figure 10: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION PREPARE message to the DRNC.

Upon reception, the DRNS 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.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Allowed Queuing Time* IE the DRNS may queue the request before providing a response to the SRNC.

DCH Modification:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Allocation/Retention Priority* IE for a DCH to be modified, the DRNS should use this information when reserving resources for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Frame Handling Priority* IE for a DCH to be modified, the DRNS 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 DRNS once the new configuration has been activated.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *UL FP Mode* IE for a DCH to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes on the *ToAWS* IE for a DCH to be modified, the DRNS shall apply the new ToAWS in the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes on the *ToAWE* IE for a DCH to be modified, the DRNS shall apply the new ToAWE in the user plane for this DCH in the new configuration.

[FDD - If the *DRAC Control* IE is present and set to "requested" in the RADIO LINK RECONFIGURATION PREPARE message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]

DCH Addition:

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be added to the Radio Link(s), the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *DCH Combination Indicator* IE for a DCH to be added, the DRNS shall:

1. treat all DCHs with the same value of this IE as a set of co-ordinated DCHs; and

2. include this DCH in the new configuration only if it can include all DCHs with the same value of the *DCH Combination Indicator* IE in the new configuration.

[FDD - For DCHs with a unique or no "DCH Combination Ind" and the *QE-Selector* IE set to "selected DCH", 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. [25.427]. If the QE-Selector is set to "non-selected DCH", the Physical channel BER shall be used for the QE in the UL data frames, ref. [25.427]].

[FDD - For DCHs with the same "DCH Combination Ind" the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected DCH" shall be used for the QE in the UL data frames, ref. [25.427]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [25.427]. If all DCHs have *QE-Selector* IE set to "non-selected DCH" the Physical channel BER shall be used for the QE, ref. [25.427]].

The DRNS 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 radio interface in congestion situations within the DRNS once the new configuration has been activated.

The DRNS shall use the included *UL FP Mode* IE for a DCH to be added as the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

The DRNS shall use the included *ToAWS* IE for a DCH to be added as the new Time of Arrival Window Start Point in the user plane for this DCH in the new configuration.

The DRNS shall use the included *ToAWE* IE for a DCH to be added as the new Time of Arrival Window End Point in the user plane for this DCH in the new configuration.

[FDD - If the *DRAC Control* IE is set to "requested" in the RADIO LINK RECONFIGURATION PREPARE message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]

DCH Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be deleted from the Radio Link(s), the DRNS 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 DRNS 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 the *Uplink Scrambling Code* IE, the DRNS shall apply this Uplink Scrambling Code to the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *Uplink Channelisation Code* IEs, the DRNS shall apply the new Uplink Channelisation Code(s) in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *Spreading Factor of Channelisation Code (DL)* IE, for each *Spreading Factor of Channelisation Code (DL)* IE the DRNS shall allocate one new Downlink Channelisation Code per Radio Link and apply the new Downlink Channelisation Code(s) to the new configuration. Each Downlink Channelisation Code allocated for the new configuration shall be included as a *Channelisation Code (DL)* IE in the RADIO LINK RECONFIGURATION READY message when sent to the SRNC.]

The DRNS shall use the *TFCS* IE for the UL when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the Uplink of [TDD – the CCTrCH of] the new configuration.

The DRNS shall use the *TFCS* IE for the DL when reserving resources for the downlink of the new configuration. The DRNS shall apply the new TFCS in the Downlink of [TDD – the CCTrCH of] the new configuration.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes on the *UL DPCCH Structure* IE, group the DRNS shall apply the new Uplink DPCCH Structure to the new configuration.]

FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *UL SIR Target* IE, the DRNS shall set the UL inner loop power control to the UL SIR target when the new configuration is being used.]

[TDD – The DRNC shall include all the IEs corresponding to the new physical channel resources for the DL DPCH and/or the UL DPCH to be reconfigured in the RADIO LINK RECONFIGURATION READY message sent to the SRNC.]

SSDT Activation/Deactivation:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SSDT Indication* IE set to "SSDT Active in the UE", the DRNS may activate SSDT using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the SSDT Indication IE set to "SSDT not Active in the UE", the DRNS shall deactivate SSDT in the new configuration.]

If the requested modifications are allowed by the DRNS, and the DRNS has successfully reserved the required resources for the new configuration of the Radio Link(s) it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message. When this procedure has been completed successfully there exist a Prepared Reconfiguration, as defined in subclause 3.1.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s) and shall return this in the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE for each Radio Link in the RADIO LINK RECONFIGURATION READY message.

In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur the *DCH to be Added* IE group or the *DCH to be Modified* IE group shall be included only for one of the DCHs in the set of co-ordinated DCHs.

In case of a Radio Link being combined with another Radio Link within the DRNS the *DCH to be Added* IE group and the *DCH to be Modified* IE group shall be included only for one of the combined Radio Links.

8.3.4.3 Unsuccessful Operation

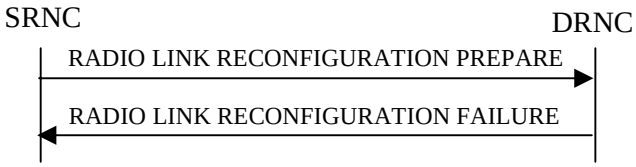

Figure 11: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation

If the DRNS cannot reserve the necessary resources for all the new DCHs of a set of co-ordinated DCHs requested to be added, it shall regard the Synchronised Radio Link Reconfiguration procedure as having failed.

- If the requested Synchronised Radio Link Reconfiguration procedure fails for one or more RLs the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure.

[FDD - If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected DCH" the DRNS shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.]

In which cases to include only the *Cause* IE on message level and in which cases the *Cause* IE also shall be included for a specific RL is FFS.

Typical cause values are:

Radio Network Layer Causes:

- UL Scrambling Code Already in Use;
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Requested Configuration not Supported.

Protocol Causes:

- Transaction not Allowed.

Miscellaneous Causes:

- Control Processing Overload;
- Not enough User Plane Processing Resources.

8.3.4.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

8.3.5 Synchronised Radio Link Reconfiguration Commit

8.3.5.1 General

This procedure is used to order the DRNS to switch to the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE context.

8.3.5.2 Successful Operation

Figure 12: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation

The DRNS shall switch to the new configuration previously prepared by the Synchronised RL Reconfiguration procedure at the CFN requested by the SRNC when receiving the RADIO LINK RECONFIGURATION COMMIT message from the SRNC. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

8.3.5.3 Abnormal Conditions

8.3.6 Synchronised Radio Link Reconfiguration Cancellation

8.3.6.1 General

This procedure is used to order the DRNS to release the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE context.

8.3.6.2 Successful Operation

Figure 13: Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation

The DRNS shall release the new configuration previously prepared by the Synchronised RL Reconfiguration Preparation procedure and continue using the old configuration when receiving the RADIO LINK RECONFIGURATION CANCEL message from the SRNC. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

8.3.6.3 Abnormal Conditions

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8.3.7 Unsynchronised Radio Link Reconfiguration

8.3.7.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a DRNS.

The procedure is used when there is no need to synchronise the time of the switching from the old to the new radio link configuration in the cells used by the UE-UTRAN connection within the DRNS.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Unsynchronised Radio Link Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.7.2 Successful Operation

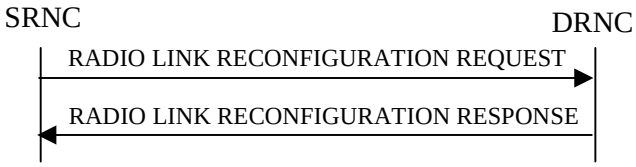

Figure 14: Unsynchronised Radio Link Reconfiguration procedure, Successful Operation

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION REQUEST message to the DRNC.

Upon reception, the DRNS 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.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request before providing a response to the SRNC.

DCH Modification:

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *Allocation/Retention Priority* IE for a DCH to be modified, the DRNS should use this new value when reserving resources for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *Frame Handling Priority* IE for a DCH to be modified, the DRNS 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 DRNS once the new configuration has been activated.

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *UL FP Mode* IE for a DCH to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *ToAWS* IE for a DCH to be modified, the DRNS shall apply the new ToAWS in the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *ToAWE* IE for a DCH to be modified, the DRNS shall apply the new ToAWE in the user plane for this DCH in the new configuration.

[FDD - If the *DRAC Control* IE is present and set to "requested" in the RADIO LINK RECONFIGURATION REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.]

DCH Addition:

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be added to the Radio Link(s), the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *DCH Combination Indicator* IE for a DCH to be added, the DRNS shall:

1. treat all DCHs with the same value of this IE as a set of co-ordinated DCHs; and
2. include this DCH in the new configuration only if it can include all DCHs with the same value of the *DCH Combination Indicator* IE in the new configuration.

[FDD - For DCHs with a unique or no "DCH Combination Ind" and the *QE-Selector* IE set to "selected DCH", 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. [25.427]. If the QE-Selector is set to "non-selected DCH", the Physical channel BER shall be used for the QE in the UL data frames, ref. [25.427]].

[FDD - For DCHs with the same "DCH Combination Ind" the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected DCH" shall be used for the QE in the UL data frames, ref. [25.427]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [25.427]. If all DCHs have *QE-Selector* IE set to "non-selected DCH" the Physical channel BER shall be used for the QE, ref. [25.427]].

The DRNS 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 radio interface in congestion situations within the DRNS once the new configuration has been activated.

The DRNS shall use the included *UL FP Mode* IE for a DCH to be added as the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

The DRNS shall use the included *ToAWS* IE for a DCH to be added as the new Time of Arrival Window Start Point in the user plane for this DCH in the new configuration.

The DRNS shall use the included *ToAWE* IE for a DCH to be added as the new Time of Arrival Window End Point in the user plane for this DCH in the new configuration.

[FDD - If the *DRAC Control* IE is set to "requested" in the RADIO LINK RECONFIGURATION REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE and the *Reference to System Information blocks IE* to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.

DCH Deletion:

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be deleted from the Radio Link(s), the DRNS 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 DRNS shall not include this set of co-ordinated DCHs in the new configuration.

Physical Channel Modification:

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *TFCS* IE for the UL, the DRNS shall apply the new TFCS in the Uplink of [TDD – the CCTrCH of] the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *TFCS* IE for the DL, the DRNS shall apply the new TFCS in the Downlink of [TDD – the CCTrCH of] the new configuration.

If the requested modifications are allowed by the DRNS, the DRNS has successfully allocated the required resources, and changed to the new configuration it shall respond to the SRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s) and shall return this in the IEs *Maximum Uplink SIR* and *Minimum Uplink SIR* for each Radio Link in the RADIO LINK RECONFIGURATION RESPONSE message.

In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur the *DCH to be Added* IE group or the *DCH to be Modified* IE group shall be included only for one of the DCH in the set of co-ordinated DCHs.

In case of a Radio Link being combined with another Radio Link within the DRNS the *DCH to be Added* IE group and the *DCH to be Modified* IE group shall be included only for one of the combined Radio Links.

8.3.7.3 Unsuccessful Operation

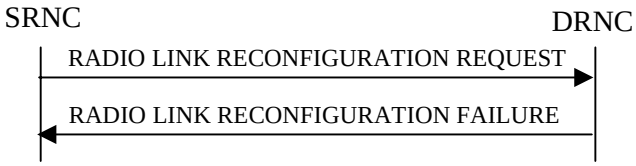

Figure 15: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

[FDD - If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected DCH" the DRNS shall regard the Unsynchronised Radio Link Reconfiguration procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.]

If the DRNS cannot allocate the necessary resources for all the new DCHs of a set of co-ordinated DCHs requested to be added 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 DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure.

Typical cause values are:

Radio Network Layer Causes:

- UL Scrambling Code Already in Use;
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Requested Configuration not Supported.

Protocol Causes:

- Transaction not Allowed.

Miscellaneous Causes:

- Control Processing Overload;
- Not enough User Plane Processing Resources.

8.3.7.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

8.3.8 Physical Channel Reconfiguration

8.3.8.1 General

Physical Channel Reconfiguration procedure is used by the DRNC to request to SRNC the reconfiguration of one of its physical channels.

This procedure shall use the signalling bearer connection for the relevant UE context.

8.3.8.2 Successful Operation

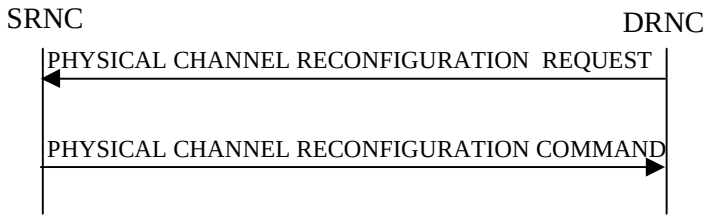

Figure 16: Physical Channel Reconfiguration procedure, Successful Operation

When the DRNC detects the need to modify one of its physical channels, it sends a PHYSICAL CHANNEL RECONFIGURATION REQUEST to the SRNC.

The message contains the new value of the physical channel parameter(s) that shall be reconfigured and in which radio link.

Upon reception of the PHYSICAL CHANNEL RECONFIGURATION REQUEST, the SRNC decides appropriate execution time for the change. It informs the UE and responds with the PHYSICAL CHANNEL RECONFIGURATION COMMAND to the DRNC that includes the CFN indicating the execution time.

At the CFN, the DRNS shall switch to the new configuration that has been requested, and release the resources related to the old physical channel configuration.

8.3.8.3 Unsuccessful Operation

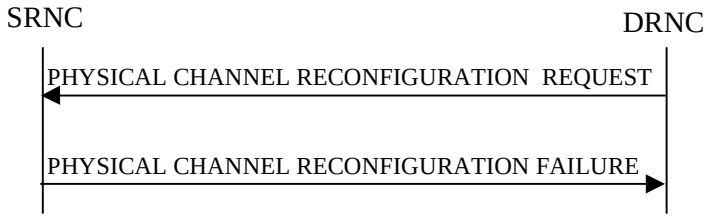

Figure 17: Physical Channel Reconfiguration procedure, Unsuccessful Operation

If the SRNC can not accept the reconfiguration request it will send the PHYSICAL CHANNEL RECONFIGURATION FAILURE message to the DRNC, that included the cause for the failure.

Typical cause values are:

Radio Network Layer Causes:

- Reconfiguration not Allowed.

8.3.8.4 Abnormal Conditions

If the DRNC receives any of the messages RADIO LINK RECONFIGURATION PREPARE, RADIO LINK RECONFIGURATION REQUEST, or RADIO LINK DELETION REQUEST while waiting for the PHYSICAL CHANNEL RECONFIGURATION COMMAND message, this shall be regarded as a Physical Channel Reconfiguration failure. These messages thus override the DRNC request for physical channel reconfiguration.

8.3.9 Radio Link Failure

8.3.9.1 General

This procedure is started by the DRNS when one or more Radio Links or Radio Link Sets are no longer available.

This procedure shall use the signalling bearer connection for the relevant UE context.

The DRNC may initiate the Radio Link Failure procedure at any time after establishing a Radio Link.

8.3.9.2 Successful Operation

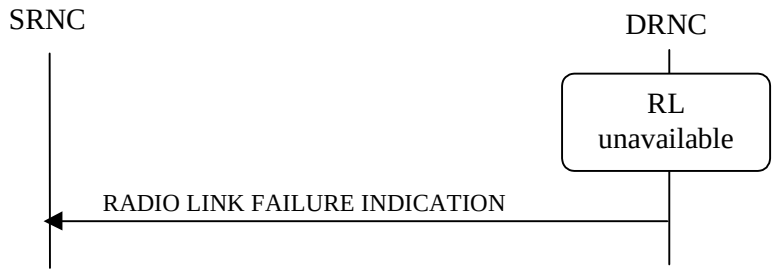

Figure 18: RL Failure procedure, Successful Operation

When DRNC detects that a one or more Radio Links or Radio Link Sets are no longer available, it shall send the RL FAILURE INDICATION message to the SRNC. The message indicates the failed Radio Links or Radio Link Sets with the most appropriate cause values defined in the *Cause* IE. If the failure concerns one or more individual Radio Links the DRNS shall indicate the affected Radio Link(s) using the *RL Information* IE group. [FDD - If the failure concerns one or more Radio Link Sets the DRNS shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE group.]

[FDD - When the RL Failure procedure is used to notify loss of UL synchronisation: the message shall be sent when indicated by the UL sync detection algorithm defined in [TS25.214 and TS25.224]].

[TDD - When the RL Failure procedure is used to notify the non achievement or loss of UL synchronisation: the message shall be sent when the UL synchronisation of newly established Radio Link is not achieved after any of the procedures RL Setup or RL Addition. The message shall also be sent if the UL synchronisation it is lost during an active connection.]

Typical cause values are:

Radio Network Layer Causes:

- Synchronisation Failure.

Miscellaneous Causes:

- Control Processing Overload;
- HW Failure;
- O&M Intervention.

8.3.9.3 Abnormal Conditions

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8.3.10 Radio Link Restoration

8.3.10.1 General

This procedure is used to notify establishment and re-establishment of UL synchronisation.

This procedure shall use the signalling bearer connection for the relevant UE context.

The DRNC may initiate the Radio Link Restoration procedure after establishing a Radio Link.

8.3.10.2 Successful Operation

Figure 19: RL Restoration procedure, Successful Operation

The DRNC shall send the RADIO LINK RESTORE INDICATION message to the SRNC when indicated by the UL sync detection algorithm defined in [TS25.214 and TS25.224].

8.3.10.3 Abnormal Conditions

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8.3.11 Measurement Initiation

[Editor's note: According to TSGR#5 (99)564, the following measurements shall also be considered:
* Time of Arrival
* Frequency Offset
* Round Trip Time
* RX Timing Deviation

Whether these measurements shall be dedicated or common measurements have so far not been considered by TSG RAN WG3 and are thus not incorporated.]

8.3.11.1 General

This procedure is used by an SRNS to request the initiation of measurements in a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.11.2 Successful Operation

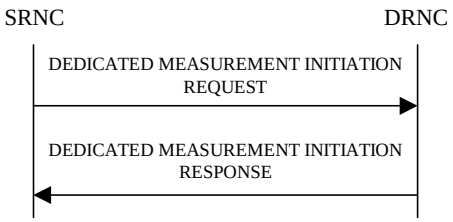

Figure 20: Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the SRNC to the DRNC.

Upon reception, the DRNC 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.

If the *Dedicated Measurement Object* IE is set to "RL", the measurement reports shall give the measurement result for each of the indicated Radio Links.

[FDD - If the *Dedicated Measurement Object* IE is set to "RLS", the measurement reports shall give the measurement result for each of the indicated Radio Link Sets.]

If the *Dedicated Measurement Object* IE is set to "ALL RL", the measurement reports shall give the measurement result for each of the current and future Radio Links within the UE Context.

[FDD - If the *Dedicated Measurement Object* IE is set to "ALL RLS", the measurement reports shall give the measurement result for each of the existing and future Radio Link Sets within the UE Context.]

The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed.

If the *Report Characteristics* IE is set to 'On-Demand', the DRNS shall report the measurement result immediately.

If the *Report Characteristics* IE is set to 'Periodic', the DRNS shall periodically initiate a Measurement Report procedure for this measurement, with the requested report periodicity.

If the *Report Characteristics* IE is set to 'Event A', the DRNS shall initiate a Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event B', the DRNS shall initiate a Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event C', the DRNS shall initiate a Measurement Reporting procedure when the measured entity rises more than the requested threshold within the requested time.

If the *Report Characteristics* IE is set to 'Event D', the DRNS shall initiate a Measurement Reporting procedure when the measured entity falls more than the requested threshold within the requested time.

If the *Report Characteristics* IE is set to 'Event E', the DRNS shall initiate a Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). The DRNS shall also initiate a Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (Report B). If the *Report Periodicity* IE is provided, the DRNS shall initiate Measurement Reporting procedures periodically, with the requested frequency, between Report A and Report B. If 'Measurement Threshold 2' is not present, the DRNS shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the DRNC 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 DRNS shall initiate a Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). The DRNS shall also initiate a Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (Report B). If the *Report Periodicity* IE is provided, the DRNS shall initiate Measurement Reporting procedures periodically, with the requested frequency, between Report A and Report B. If 'Measurement Threshold 2' is not present, the DRNS shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

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 DRNS shall initiate a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

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

a = one divided by 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 initialize the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

If the DRNS was able to initiate the measurement requested by the SRNS it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement Id that was used in the measurement request.

Only in the case when the *Report Characteristics* IE is set to "On-Demand", the DEDICATED MEASUREMENT INITIATION RESPONSE message shall contain the measurement result. In this case also the *Dedicated Measurement Object* IE shall be included if it was included in the request message.

8.3.11.3 Unsuccessful Operation

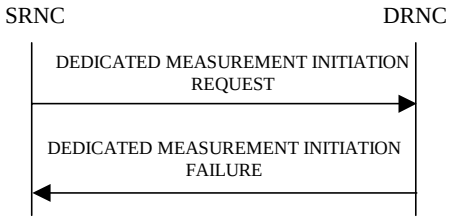

Figure 21: Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement can not be initiated, the DRNC shall send a DEDICATED MEASUREMENT INITIATION FAILURE message. 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.

Typical cause values are:

Radio Network Layer Causes:

- Measurement not Supported For The Object

Miscellaneous Causes:

- Control Processing Overload
- HW Failure

8.3.11.4 Abnormal Conditions

-

8.3.12 Measurements Reporting

8.3.12.1 General

This procedure is used by the DRNS to report results of measurements requested by the SRNS with the Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE context.

The DRNC may initiate the Measurement Reporting procedure at any time after establishing a Radio Link.

8.3.12.2 Successful Operation

Figure 22: Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the DRNS shall initiate a Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Dedicated Measurement Id* IE shall be set to the Dedicated Measurement Id provided by the SRNS when initiating the measurement with the Measurement Initiation procedure.

8.3.12.3 Abnormal Conditions

-

8.3.13 Measurement Termination

8.3.13.1 General

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

This procedure shall use the signalling bearer connection for the relevant UE context.

The Measurement Termination procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.13.2 Successful Operation

Figure 23: Measurement Termination procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT TERMINATION REQUEST message, sent from the SRNC to the DRNC.

Upon reception, the DRNS shall terminate reporting of measurements corresponding to the received Dedicated Measurement Id.

8.3.13.3 Abnormal Conditions

-

8.3.14 Measurement Failure

8.3.14.1 General

This procedure is used by the DRNS to notify the SRNS that a measurement previously requested by the Measurement Initiation procedure can no longer be reported.

This procedure shall use the signalling bearer connection for the relevant UE context.

The DRNC may initiate the Measurement Failure procedure at any time after establishing a Radio Link.

8.3.14.2 Successful Operation

Figure 24: Measurement Failure procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the DRNC to the SRNC, to inform the SRNC that a previously requested measurement no longer can be reported.

Typical cause values are:

Miscellaneous Causes:

- Control Processing Overload
- HW Failure
- O&M Intervention

8.3.14.3 Abnormal Conditions

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8.3.15 Downlink Power Control [FDD]

8.3.15.1 General

The purpose of this procedure is to balance the DL transmission powers of the radio links for one UE.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Downlink Power Control procedure may be initiated by the SRNC at any time after establishing a Radio Link. If the SRNC has initiated deletion of the last Radio Link in this DRNS the Downlink Power Control procedure shall not be initiated.

8.3.15.2 Successful Operation

Figure 25: Downlink Power Control procedure, Successful Operation

The Downlink Power Control procedure is initiated by the SRNC sending a DL POWER CONTROL REQUEST message to the DRNC.

The *Power Adjustment Type* IE defines the characteristic of the power adjustment.

If the value of the *Power Adjustment Type* IE is *Common*, the DRNC shall perform the power adjustment (see below) for all radio links for the UE context using a common DL reference power level.

If the value of the *Power Adjustment Type* IE is *Individual*, the DRNC shall perform the power adjustment (see below) for all radio links addressed in the message using the given DL Reference Power per RL.

If the value of the *Power Adjustment Type* IE is '*None*', the DRNS shall suspend on going power adjustments for all radio links for the UE context.

Power Adjustment

The DRNS performs the power balancing by using the received desired *DL Reference Power* IE as a reference for adjusting the applied DL power.

The adjustment of the power shall be done with constrains given by the included parameters *Max Adjustment Step* IE and *Adjustment Period* IE. The Power adjustment is repeated for every adjustment period.

DRNS shall suspend on going power adjustment operations at the reception of a new DL POWER CONTROL REQUEST message, and then performs the adjustment based on the new parameters.

8.3.15.3 Abnormal Conditions

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8.3.16 Compressed Mode Preparation [FDD]

8.3.16.1 General

The Compressed Mode Preparation procedure is used to prepare the compressed mode in the DRNS for one UE-UTRAN connection.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Compressed Mode Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.16.2 Successful Operation

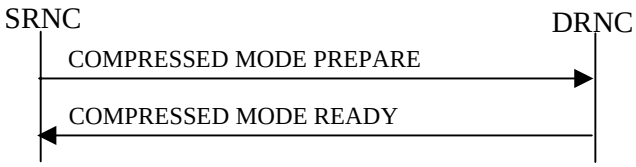

Figure 26: Compressed Mode Preparation procedure, Successful Operation

The Compressed Mode Preparation procedure is initiated by the SRNC by sending the COMPRESSED MODE PREPARE message to the DRNC.

If the *PD* IE is set to 'infinite', the DRNS shall continue with the compressed mode until it is requested to terminate the compressed mode.

If the proposed modifications are allowed by the DRNS and the DRNC has successfully initialised the required resources, the DRNC shall respond to the SRNC with COMPRESSED MODE READY message.

If the *Compressed Mode Method* IE is set to 'None', the DRNS shall terminate the compressed mode even if the COMPRESSED MODE PREPARE message was received before the end of the compressed mode period.

8.3.16.3 Unsuccessful Operation

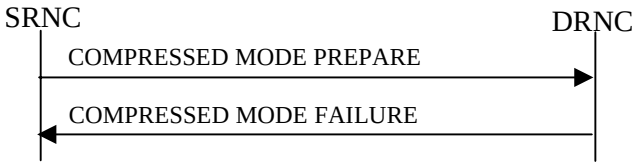

Figure 27: Compressed Mode Preparation procedure, unsuccessful case

If the requested reconfiguration fails for one or more RLs the DRNC shall abort the procedure and send the COMPRESSED MODE FAILURE message to the SRNC, indicating the reason for failure.

Typical cause values are:

Radio Network Layer Causes:

- Requested Configuration not Supported

Miscellaneous Causes:

- Not enough User Plane Processing Resources

8.3.16.4 Abnormal Conditions

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8.3.17 Compressed Mode Commit [FDD]

8.3.17.1 General

The Compressed Mode Commit procedure is used to activate the compressed mode in the DRNS for one UE-UTRAN connection. This procedure shall use the signalling bearer connection for the relevant UE context.

The Compressed Mode Commit procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.17.2 Successful Operation

Figure 28: Compressed Mode Commit procedure, Successful Operation

The DRNS shall initiate the compressed mode in accordance with the settings prepared by the Compressed Mode Preparation procedure at the CFN requested by the SRNC when receiving the COMPRESSED MODE COMMIT message from the SRNC.

8.3.17.3 Abnormal Conditions

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8.3.18 Compressed Mode Cancellation [FDD]

8.3.18.1 General

The Compressed Mode Cancellation procedure is used to cancel the compressed mode in the DRNS for one UE-UTRAN connection.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Compressed Mode Cancellation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.18.2 Successful Operation

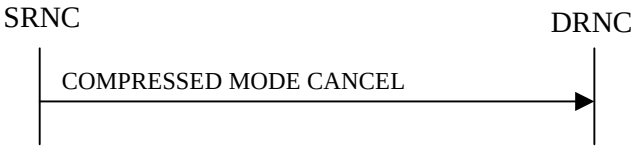

Figure 29: Compressed Mode Cancellation procedure, Successful Operation

The DRNS shall abort the compressed mode if it receives the COMPRESSED MODE CANCEL message.

8.3.18.3 Abnormal Conditions

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8.4 Common Transport Channel Procedures

8.4.1 Common Transport Channel Resources Initialisation

8.4.1.1 General

The Common Transport Channel Resources Initialisation procedure is used by the SRNC for the initialisation of the Common Transport Channel user plane towards the DRNC and/or for the initialisation of the UE context in the DRNC.

This procedure shall use the connectionless mode of the signalling bearer.

8.4.1.2 Successful Operation

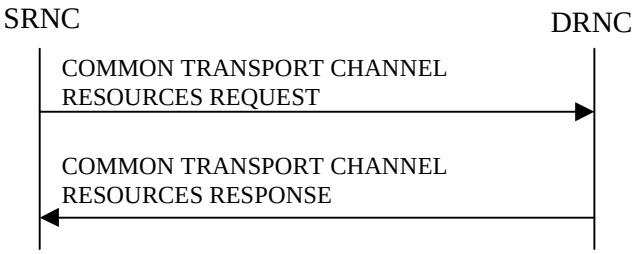

Figure 30: Common Transport Channel Resources Initialisation procedure, Successful Operation

The SRNC initiates the procedure by sending the message COMMON TRANSPORT CHANNEL RESOURCES REQUEST to the DRNC.

Upon reception of the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall respond by sending a COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message to the SRNC.

If the value of the *Transport Bearer Request Indicator* IE is set to "Bearer Requested", the DRNC shall store the received *Transport Bearer ID* IE and include the *Binding Identity* and *Transport Layer Address* IEs in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the value of the *Transport Bearer Request Indicator* IE is set to" Bearer not Requested", the DRNC shall use the transport bearer for the indicated by the *Transport Bearer ID* IE.

The DRNC shall include the *FACH Priority Indicator* IE and *FACH Initial Window Size* IE for each priority class that the DRNC has determined shall be used. The DRNC may include several *MAC-c SDU Length* IEs for each priority class.

If there exists multiple Secondary CCPCHs in the cell where the UE is located, the DRNC may include in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message the *FACH Info for optional S-CCPCH* IE group to be used by the UE which is different from the Secondary CCPCH used by the UE at reception of the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message. If the DRNC includes the *FACH Info for optional S-CCPCH* IE group, then it shall also include the *FACH Priority Indicator* IE and *FACH Initial Window Size* IE for each priority class for the new Secondary CCPCH.

8.4.1.3 Unsuccessful Operation

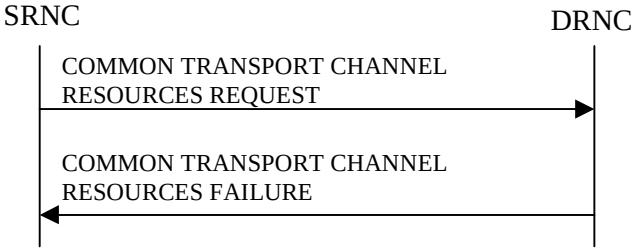

Figure 31: Common Transport Channel Resources Initialisation procedure, Unsuccessful Operation

If the *Transport Bearer Request Indicator* IE is set to "Bearer Requested" and the DRNC is not able to provide a Transport Bearer, the DRNC shall respond to the SRNC with the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, indicating the cause of the failure.

8.4.1.4 Abnormal Conditions

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8.4.2 Common Transport Channel Resources Release

8.4.2.1 General

This procedure is used by the SRNC to request release of Common Transport Channel Resources for a given UE in the DRNS. The SRNC uses this procedure either to release the UE context from the DRNC (and thus both the D-RNTI and the C-RNTI) or to release only the C-RNTI.

This procedure shall use the connectionless mode of the signalling bearer.

8.4.2.2 Successful Operation

Figure 32: Common Transport Channel Resources Release procedure, Successful Operation

The SRNC initiates the Common Transport Channel Resources Release procedure by sending the message COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST to the DRNC. The SRNC may include the *C-RNTI* IE in the message to request the release of an individual C-RNTI.

At the reception of the message, if the *C-RNTI* IE is not present in the message, the DRNC shall release the whole UE context identified by the D-RNTI.

If the *C-RNTI* IE is included in the message, the DRNC shall release only the indicated C-RNTI.

8.4.2.3 Abnormal Conditions

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8.5 Global Procedures

8.5.1 Error Indication

8.5.1.1 General

The Error Indication procedure is initiated by a node to report detected errors in one incoming message, provided they cannot be reported by an appropriate failure message.

This procedure shall use the signalling bearer mode specified below.

8.5.1.2 Successful Operation

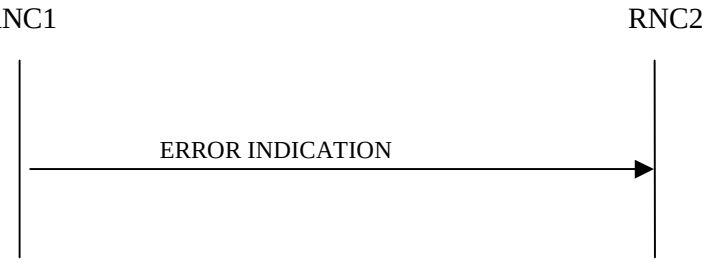

Figure 33: Error Indication procedure, Successful Operation

When the conditions defined in clause 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node. This message shall use the same mode of the signalling bearer and the same signalling bearer connection (if connection oriented) as the message that triggers the procedure.

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

8.5.1.3 Abnormal Conditions

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9 Elements for RNSAP Communication

9.1 Message Functional Definition and Content

9.1.1 General

This subclause defines the structure of the messages required for the RNSAP protocols.

All the RNSAP messages are listed in the following table:

Message name	Reference
RADIO LINK SETUP REQUEST	9.1.3
RADIO LINK SETUP RESPONSE	9.1.4
RADIO LINK SETUP FAILURE	9.1.5
RADIO LINK ADDITION REQUEST	9.1.6
RADIO LINK ADDITION RESPONSE	9.1.7
RADIO LINK ADDITION FAILURE	9.1.8
RADIO LINK DELETION REQUEST	9.1.9
RADIO LINK DELETION RESPONSE	9.1.10
RADIO LINK RECONFIGURATION PREPARE	9.1.11
RADIO LINK RECONFIGURATION READY	9.1.12
RADIO LINK RECONFIGURATION COMMIT	9.1.13
RADIO LINK RECONFIGURATION FAILURE	9.1.14
RADIO LINK RECONFIGURATION CANCEL	9.1.15
RADIO LINK RECONFIGURATION REQUEST	9.1.16
RADIO LINK RECONFIGURATION RESPONSE	9.1.17
RADIO LINK FAILURE INDICATION	9.1.18
RADIO LINK RESTORE INDICATION	9.1.19
DL POWER CONTROL REQUEST	9.1.20
PHYSICAL CHANNELRECONFIGURATION REQUEST	9.1.21
PHYSICAL CHANNELRECONFIGURATION COMMAND	9.1.22
PHYSICAL CHANNELRECONFIGURATION FAILURE	9.1.23
UPLINK SIGNALLING TRANSFER INDICATION	9.1.24
DOWNLINK SIGNALLING TRANSFER REQUEST	9.1.25
RELOCATION COMMIT	9.1.26
PAGING REQUEST	9.1.27
DEDICATED MEASUREMENT INITIATION REQUEST	9.1.28
DEDICATED MEASUREMENT INITIATION RESPONSE	9.1.29
DEDICATED MEASUREMENT INITIATION FAILURE	9.1.30
DEDICATED MEASUREMENT REPORT	9.1.31
DEDICATED MEASUREMENT TERMINATION REQUEST	9.1.32
DEDICATED MEASUREMENT FAILURE INDICATION	9.1.33
COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST	9.1.34
COMMON TRANSPORT CHANNEL RESOURCES REQUEST	9.1.35
COMMON TRANSPORT CHANNEL RESOURCES RESPONSE	9.1.36
COMMON TRANSPORT CHANNEL RESOURCES FAILURE	9.1.37
COMPRESSED MODE PREPARE	9.1.38
COMPRESSED MODE READY	9.1.39
COMPRESSED MODE FAILURE	9.1.40
COMPRESSED MODE COMMIT	9.1.41
COMPRESSED MODE CANCEL	9.1.42
ERROR INDICATION	9.1.43

9.1.2 Message Contents

9.1.2.1 Presence

An information element can be of the following *types*:

M	The information element is mandatory, i.e. always present in the message
O	The information element is optional, i.e. may or may not be present in the message independently on the presence or value of other information elements in the same message
C#	The presence of the information element is conditional to the presence or to the value of another information element, as reported in the table below the message containing the explanation of the condition.

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. Each group may be also repeated within one message. 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.

9.1.3 RADIO LINK SETUP REQUEST

9.1.3.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
S-RNTI	M				YES	reject
D-RNTI	O				YES	reject
Allowed Queuing time	O				YES	reject
UL DPCH Information		*1*			YES	reject
>UL Scrambling Code	M				–	
>Min UL Channelisation Code Length	M				–	
>Max Number of UL DPDCHs	C – CodeLen				–	
>Puncture Limit	M			For the UL.	–	
>UL Transport Format Combination Set	M				–	
>UL DPCCH Slot Format	M				–	
>Uplink SIR Target	O		Uplink SIR		–	
>Diversity mode	M				–	
>D Field Length	C-FB				–	
>SSDT Cell ID Length	O				–	
>S Field Length	O				–	
DL DPCH Information		*1*			YES	reject
>Transport Format Combination Set	M				–	
>DL DPCH Slot Format	M				–	
>TFCI Signalling Mode	M				–	
>TFCI Presence	C-SlotFormat				–	
>Multiplexing Position	M				–	
>Power Offset Information		*1*			–	
>>PO1	M		Power Offset	Power offset for the TFCI bits.	–	
>>PO2	M		Power Offset	Power offset for the TPC bits.	–	
>>PO3	M		Power Offset	Power offset for the pilot bits.	–	
>FDD TPC Downlink Step Size	M				–	
DCH Information		*1..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	M				–	
>Tr Ch Source Statistics Descriptor	M				–	
>Transport Format Set	M			For the UL.	–	
>Transport Format Set	M			For the DL.	–	
>BLER	M			For the UL.	–	
>BLER	M			For the DL.	–	
>Allocation/Retention Priority	M				–	
>Frame Handling Priority	M				–	
>Payload CRC Presence Indicator	M				–	
>UL FP Mode	M				–	
> QE-Selector	M				–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>ToAWS	M				–	
>ToAWE	M				–	
>DRAC control	M				–	
RL Information		*1…<maxnoofRLs>*			EACH	notify
>RL ID	M				–	
>C-ID	M				–	
>Frame Offset	M				–	
>Chip Offset	M				–	
>Propagation Delay	O				–	
>Diversity Control Field	C – NotFirstRL				–	
>Initial DL TX Power	O		DL Power		–	
>Primary CPICH Ec/No	O				–	
>SSDT Cell ID	O				–	
>Transmit Diversity Indicator	C – Diversity mode				–	

Condition	Explanation
CodeLen	This IE is present only if "Min UL Channelisation Code length" equals to 4
FB	This IE is present only if Feed Back mode diversity is activated.
SlotFormat	This IE is only present if the DL DPCH Slot Format is equal to any of the values 12 to 16.
NotFirstRL	This IE is present only if the RL is not the first one in the **RL Information**.
Diversity mode	This IE is present unless *Diversity Mode* IE in *UL DPCH Information* group is "none"

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofRLs	Maximum number of RLs for one UE.

9.1.3.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
S-RNTI	M				YES	reject
D-RNTI	O				YES	reject
Allowed Queuing time	O				YES	reject
UL CCTrCH Information		*1..<maxnoofCCTrCHs>*			EACH	notify
>CCTrCH ID	M				–	
>TFCS	M			For the UL.	–	
>TFCI Coding	M				–	
>Puncture Limit	M				–	
DL CCTrCH Information		*1..<maxnoofCCTrCHs>*			EACH	notify
>CCTrCH ID	M				–	
>TFCS	M			For the DL.	–	
>TFCI Coding	M				–	
>Puncture Limit	M				–	
>TDD TPC Downlink Step Size	M				–	
DCH Information		*1..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M				–	
>CCTrCH ID	M			UL CCTrCH in which the DCH is mapped	–	
>CCTrCH ID	M			DL CCTrCH in which the DCH is mapped	–	
>DCH Combination Ind	O				–	
>Limited Power Increase	M				–	
>Tr Ch Source Statistics Descriptor	M				–	
>Transport Format Set	M			For the UL.	–	
>Transport Format Set	M			For the DL.	–	
>BLER	M			For the UL.	–	
>BLER	M			For the DL.	–	
>Allocation/Retention Priority	M				–	
>Frame Handling Priority	M				–	
>Payload CRC Presence Indicator	M				–	
>UL FP Mode	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
RL Information		*1*			YES	reject
>RL ID	M				–	
>C-ID	M				–	
>Frame Offset	M				–	
>Primary CCPCH RSCP	O				–	

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofCCTrCHs	Maximum number of CCTrCH for one UE.

9.1.4 RADIO LINK SETUP RESPONSE

9.1.4.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
D-RNTI	O				YES	
CN PS Domain Identifier	O				YES	ignore
CN CS Domain Identifier	O				YES	ignore
RL Information Response		*1..<maxnoofRLs>*			EACH	ignore
>RL ID	M				–	
>RL Set ID	M				–	
>SAI	M				–	
>UL Interference Level	M				–	
> **Secondary CCPCH Info**		0..1			–	
>>FDD S-CCPCH Offset	M			Corresponds to: $\tau_{S\text{-}CCPCH,k}$, see ref. [8]	–	
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	
>>TFCS	M			For the DL.	–	
>>Secondary CCPCH Slot Format	M				–	
>>TFCI presence	C - SlotFormat				–	
>>MultiplexingPosition	M				–	
>>STTD Indicator	M				–	
>>FACH/PCH Information		1 .. <maxFACHcount+1>			–	
>>>TFS				For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
>>Scheduling Information		1			–	
>>>IB_SG REP	M				–	
>>>Segment Information		*1.. <maxIBSEG>*			–	
>>>>IB SG POS	M				–	
>DL Code Information		*1.. <maxnoofDLCodes*			–	
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	
>Diversity Indication	C-NotFirstRL				–	
>CHOICE *diversity Indication*						
>>*Combining*					YES	ignore
>>>RL ID	M			Reference RL ID for the	–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
				combining		
>>Non Combining or IE not present				"IE not present" is equivalent to "First RL".	YES	ignore
>>>DCH Information Response		*0..<maxnoofDCHs>*		Only one DCH per set of co-ordinated DCHs shall be included	–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>SSDT Support Indicator	M				–	
>Maximum Uplink SIR	M		Uplink SIR		–	
>Minimum Uplink SIR	M		Uplink SIR		–	
>Maximum Allowed UL Tx Power	M				–	
>Neighbouring Cell Information		*0..<maxnoofneighbouringRNCs>*			EACH	ignore
>> RNC-Id	M				–	
>>CN PS Domain Identifier	O				–	
>>CN CS Domain Identifier	O				–	
>>Per FDD Cell Information		*0..<maxnoofFDDneighbours>*				
>>>C-Id	M					
>>>UARFCN	M			Corresponds to Nu [TS25.104]	–	
>>>UARFCN	M			Corresponds to Nd [TS25.104]		
>>>Frame Offset	O				–	
>>>Primary Scrambling Code	M				–	
>>>Primary CPICH Power	O				–	
>>>Cell Individual Offset	O					
>>>Tx diversity Indicator	O					
>>>STTD Support Indicator	O					
>>>Closed Loop mode1 Support Indicator	O					
>>>Closed Loop mode2 Support Indicator	O					
>>Per TDD Cell Information		*0..<maxnoofTDDneighbours>*				
>>>C-Id	M					
>>>UARFCN	M			Corresponds to Nt [TS25.105]	–	
>>>Frame Offset	O				–	
>>>Cell Parameter ID	M				–	
>>>Sync Case	M				–	
>>>Time Slot	C-Case1				–	
>>>SCH Time Slot	C-Case2				–	
>>>Cell Individual Offset	O				–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>DPCH Constant Value	O				–	
>>>PCCPCH Power	O				–	
Uplink SIR Target	O		Uplink SIR		YES	ignore
Downlink SIR Target	M		Uplink SIR		YES	ignore
Criticality Diagnostics	O				YES	ignore

Condition	Explanation
NotFirstRL	The IE is present only if the RL is not the first RL in the RL Information
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell.
MaxnoofTDDneighbours	Maximum number of neighbouring TDD cell for one cell.
MaxFACHCount	Maximum number of FACH's mapped onto secondary CCPCH's
MaxIBSEG	Maximum number of segments for one Information Block

9.1.4.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
D-RNTI	O				YES	ignore
CN PS Domain Identifier	O				YES	ignore
CN CS Domain Identifier	O				YES	ignore
RL Information Response		*1*			YES	ignore
>RL ID	M				–	
>SAI	M				–	
>UL Interference per Time Slot		1 .. <maxnoof ULts>		Interference Level for each UL time slot within the Radio Link	–	
>>Time Slot	M				–	
>>UL Interference Level	M				–	
>Maximum Uplink SIR	M		Uplink SIR		–	
>Minimum Uplink SIR	M		Uplink SIR		–	
>Maximum Allowed UL Tx Power	M				–	
>UL CCTrCH Information		*1..<maxnoofCCTrCHs>*			GLOBAL	ignore
>>CCTrCH ID	M				–	
>>UL DPCH Information		*1..<MaxnoofDPCHs>*			EACH	ignore
>>> DPCH ID	M				–	
>>>TDD Channelisation Code	M				–	
>>>Burst Type	M				–	
>>>Midamble Shift	M				–	
>>>Time Slot	M				–	
>>>TDD Physical Channel Offset	M				–	
>>>Repetition Period	M				–	
>>>Repetition Length	M				–	
>>>TFCI Presence	M				–	
>DL CCTrCH Information		*1..<maxnoofCCTrCHs>*			GLOBAL	ignore
>>CCTrCH ID	M				–	
>>DL DPCH Information		*1..<MaxnoofDPCHs>*			EACH	ignore
>>>DPCH ID	M				–	
>>>TDD Channelisation Code	M				–	
>>>Burst Type	M				–	
>>>Midamble Shift	M				–	
>>>Time Slot	M				–	
>>>TDD Physical Channel Offset	M				–	
>>>Repetition Period	M				–	
>>>Repetition Length	M				–	
>>>TFCI Presence	M				–	
>DCH Information Response		*1..<maxnoofDCHs>*		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M				–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>Neighbouring Cell Information	O	0..<maxnoofneighbouringRNCs>			EACH	ignore
>>RNC-Id	M				–	
>>CN PS Domain Identifier	O				–	
>>CN CS Domain Identifier	O				–	
>>Per FDD Cell Information		*0..<maxnoofFDDneighbours>*				
>>>C-Id	M					
>>>UARFCN	M			Corresponds to Nu [TS25.104	–	
>>>UARFCN	M			Corresponds to Nd [TS25.104]		
>>>Frame Offset	O				–	
>>>Primary Scrambling Code	M				–	
>>>Cell Individual Offset	O					
>>>Primary CPICH Power	O				–	
>>>Tx diversity Indicator	O					
>>>STTD Support Indicator	O					
>>>Closed Loop mode1 Support Indicator	O					
>>>Closed Loop mode2 Support Indicator	O					
>>Per TDD Cell Information		*0..<maxnoofTDDneighbours>*				
>>>C-Id	M					
>>>UARFCN	M			Corresponds to Nt [TS25.105]	–	
>>>Frame Offset	O				–	
>>>Cell Parameter ID	M				–	
>>>Sync Case	M				–	
>>>Time Slot	C-Case1				–	
>>>SCH Time Slot	C-Case2				–	
>>>Cell Individual Offset	O				–	
>>>DPCH Constant Value	O				–	
>>>PCCPCH Power	O				–	
Uplink SIR Target	O		Uplink SIR		–	
Downlink SIR Target	M		Uplink SIR		–	
Criticality Diagnostics	O				YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.

Range bound	Explanation
MaxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell
MaxnoofTDDneighbours	Maximum number of neighbouring TDD cell for one cell
MaxnoofCCTrCHs	Maximum number of CCTrCH for one UE.
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.1.5 RADIO LINK SETUP FAILURE

9.1.5.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
D-RNTI	O				YES	ignore
CN PS Domain Identifier	O				YES	ignore
CN CS Domain Identifier	O				YES	ignore
Unsuccessful RL Information Response		*1...<maxnoofRLs>*			EACH	ignore
>RL ID	M				–	
>Cause	M				–	
Successful RL Information Response		*0..<maxnoofRLs-1>*			EACH	ignore
>RL ID	M				–	
>RL Set ID	M				–	
>SAI	M				–	
>UL Interference Level	M				–	
>DL Code Information		*1..<maxnoofDLCodes*			GLOBAL	ignore
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	
>Diversity Indication	M				–	
>CHOICE *diversity Indication*						
>>*Combining*					YES	ignore
>>>RL ID	M			Reference RL ID for the combining	–	
>>*Non Combining or IE not present*				"IE not present" is equivalent to "First RL".	YES	ignore
>>>DCH Information Response		*0..<maxnoofDCHs>*		Only one DCH per set of co-ordinated DCHs shall be included.	–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>SSDT Support Indicator	M				–	
>Maximum Uplink SIR	M		Uplink SIR		–	
>Minimum Uplink SIR	M		Uplink SIR		–	
>Maximum Allowed UL Tx Power	M				–	
>Neighbouring Cell Information	O	*0..<maxnoofneighbouringRNCs>*			EACH	ignore
>>RNC-Id	M				–	
>>CN PS Domain Identifier	O				–	
>>CN CS Domain Identifier	O				–	
>>**Per FDD Cell Information**		*0..<maxnoofFDDneighbours>*				
>>>C-Id	M					

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>UARFCN	M			Corresponds to Nu [TS25.104]	–	
>>>UARFCN	M			Corresponds to Nd [TS25.104]		
>>>Frame Offset	O				–	
>>>Primary Scrambling Code	M				–	
>>>Primary CPICH Power	O				–	
>>>Cell Individual Offset	O					
>>>Tx diversity Indicator	O					
>>>STTD Support Indicator	O					
>>>Closed Loop mode1 Support Indicator	O					
>>>Closed Loop mode2 Support Indicator	O					
>>**Per TDD Cell Information**		*0..<maxnoofTDDneighbours>*				
>>>C-Id	M					
>>>UARFCN	M			Corresponds to Nt [TS25.105]	–	
>>>Frame Offset	O				–	
>>>Cell Parameter ID	M				–	
>>>Sync Case	M				–	
>>>Time Slot	C-Case1				–	
>>>SCH Time Slot	C-Case2				–	
>>>Cell Individual Offset	O				–	
>>>DPCH Constant Value	O				–	
>>>PCCPCH Power	O				–	
Uplink SIR Target	O		Uplink SIR		–	
Downlink SIR Target	M		Uplink SIR		–	
Criticality Diagnostics	O				YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell
MaxnoofTDDneighbours	Maximum number of neighbouring TDD cell for one cell

9.1.5.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Unsuccessful RL Information Response		*1*			YES	ignore
>RL ID	M				–	
>Cause	M				–	
Criticality Diagnostics	O				YES	ignore

9.1.6 RADIO LINK ADDITION REQUEST

9.1.6.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Uplink SIR Target	M		Uplink SIR		YES	reject
RL Information		*1..<maxnoofRLs-1>*			EACH	notify
>RL ID	M				–	
>C-Id	M				–	
>Frame Offset	M				–	
>Chip Offset	M				–	
>Diversity Control Field	M				–	
>Primary CPICH Ec/No	O				–	
>SSDT Cell Identity	O					
>Transmit Diversity Indicator	C – Diversity mode				–	

Range bound	Explanation
MaxnoofRLs	Maximum number of radio links for one UE
Diversity mode	This IE is present unless *Diversity Mode* IE in *UL DPCH Information* group is "none"

9.1.6.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
RL Information		*1*			YES	reject
>RL ID	M				–	
>C-Id	M				–	
>Frame Offset	M				–	
>Diversity Control Field	M				–	
>Primary CCPCH RSCP	O				–	

9.1.7 RADIO LINK ADDITION RESPONSE

9.1.7.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
RL Information Response		*1..<maxnoof RLs-1>*			EACH	ignore
>RL ID	M				–	
>RL Set ID	M				–	
>SAI	M				–	
>UL Interference Level	M				–	
>**Secondary CCPCH Info**		0..1			–	
>>FDD S-CCPCH Offset	M			Corresponds to: $\tau_{S\text{-}CCPCH,k}$, see ref. [8]	–	
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	
>>TFCS	M			For the DL.	–	
>>Secondary CCPCH Slot Format	M				–	
>>TFCI presence	C - SlotFormat				–	
>>MultiplexingPosition	M				–	
>>STTD Indicator	M				–	
>>FACH/PCH Information		1 .. <maxFACHcount+1>			–	
TFS				For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
>>Scheduling Information		1			–	
>>>IB_SG REP	M				–	
>>>Segment Information		*1.. <maxIBSEG>*			–	
>>>>IB SG POS	M				–	
>DL Code Information		*1..<maxnoof DLCodes>*			GLOBAL	ignore
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	
>Diversity Indication	M				YES	ignore
>CHOICE *diversity indication*						
>>*Combining*					YES	ignore
>>>RL ID	M			Reference RL-Id	–	
>>*Non combining*					YES	ignore

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>DCH Information Response		*1..<maxnoofDCHs>*		Only one DCH per set of co-ordinated DCHs shall be included.	–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>SSDT Support Indicator	M				–	
>Minimum Uplink SIR	M		Uplink SIR		–	
>Maximum Uplink SIR	M		Uplink SIR		–	
>Maximum Allowed UL Tx Power	M				–	
>Neighbouring Cell Information		*0..<maxnoofneighbouringRNCs>*			EACH	ignore
>>RNC-Id	M				–	
>>CN PS Domain Identifier	O				–	
>>CN CS Domain Identifier	O				–	
>>Per FDD Cell Information		*0..<maxnoofFDDneighbours>*				
>>>C-Id	M					
>>>UARFCN	M			Corresponds to Nu [TS25.104]	–	
>>>UARFCN	M			Corresponds to Nd [TS25.104]		
>>>Frame Offset	O				–	
>>>Primary Scrambling Code	M				–	
>>>Primary CPICH Power	O				–	
>>>Cell Individual Offset	O					
>>>Tx diversity Indicator	O					
>>>STTD Support Indicator	O					
>>>Closed Loop mode1 Support Indicator	O					
>>>Closed Loop mode2 Support Indicator	O					
>>Per TDD Cell Information		*0..<maxnoofTDDneighbours>*				
>>>C-Id	M					
>>>UARFCN	M			Corresponds to Nt [TS25.105]	–	
>>>Frame Offset	O				–	
>>>Cell Parameter ID	M				–	
>>>Sync Case	M				–	
>>>Time Slot	C-Case1				–	
>>>SCH Time Slot	C-Case2				–	
>>>Cell Individual Offset	O				–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>DPCH Constant Value	O				–	
>>>PCCPCH Power	O				–	
Criticality Diagnostics	O				YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

Range bound	Explanation
MaxnoofDCHs	Maximum number of dedicated channels on one RL
MaxnoofRLs	Maximum number of radio links for one UE
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDNeighbours	Maximum number of neighbouring FDD cells for one cell
MaxnoofTDDNeighbours	Maximum number of neighbouring TDD cells for one cell
MaxnoofDLCodes	Maximum number of DL code information
MaxFACHCount	Maximum number of FACH's mapped onto secondary CCPCH's
MaxIBSEG	Maximum number of segments for one Information Block

9.1.7.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
RL Information Response		*1*			YES	ignore
>RL ID	M				–	
>SAI	M				–	
>UL Interference per Time Slot		1 .. <maxnoofULts>		Interference Level for each UL time slot within the Radio Link	–	
>>Time Slot	M				–	
>>UL Interference Level	M				–	
>UL CCTrCH Information		*1..<maxnoofCCTrCHs>*			GLOBAL	ignore
>>CCTrCH ID	M				–	
>>UL DPCH Information		*1..<maxnoOfDPCHs>*			EACH	ignore
>>>DPCH ID	M				–	
>>>TDD Channelisation Code	M				–	
>>>Burst Type	M				–	
>>>Midamble Shift	M				–	
>>>Time Slot	M				–	
>>>TDD Physical Channel Offset	M				–	
>>>Repetition Period	M				–	
>>>Repetition Length	M				–	
>>>TFCI Presence	M				–	
>DL CCTrCH Information		*1..<maxnoofCCTrCHs>*			GLOBAL	ignore
>>CCTrCH ID	M				–	
>>DL DPCH Information		*1..<maxnoOfDPCHs>*			EACH	ignore
>>>DPCH ID	M				–	
>>>TDD Channelisation Code	M				–	
>>>Burst Type	M				–	
>>>Midamble Shift	M				–	
>>>Time Slot	M				–	
>>>TDD Physical Channel Offset	M				–	
>>>Repetition Period	M				–	
>>>Repetition Length	M				–	
>>>TFCI Presence	M				–	
>Diversity Indication	M				YES	ignore
>CHOICE *diversity indication*						
>>*Combining*					YES	ignore
>>>RL ID	M			Reference RL	–	
>>*Non combining*					YES	ignore
>>>DCH Information Response		*1..<maxnoofDCHs>*		Only one DCH per set of co-ordinated DCHs shall be included.	–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer	M				–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Address						
>Minimum Uplink SIR	M		Uplink SIR		–	
>Maximum Uplink SIR	M		Uplink SIR		–	
>Maximum Allowed UL Tx Power	M				–	
>Neighbouring Cell Information		*0..<maxnoofneighbouringRNCs>*			EACH	ignore
>>RNC-Id	M				–	
>>CN PS Domain Identifier	O				–	
>>CN CS Domain Identifier	O				–	
>>Per FDD Cell Information		*0..<maxnoofFDDneighbours>*				
>>>C-Id	M					
>>>UARFCN	M			Corresponds to Nu [TS25.104]	–	
>>>UARFCN	M			Corresponds to Nd [TS25.104]		
>>>Frame Offset	O				–	
>>>Primary Scrambling Code	M				–	
>>>Primary CPICH Power	O				–	
>>>Cell Individual Offset	O					
>>>Tx diversity Indicator	O					
>>>STTD Support Indicator	O					
>>>Closed Loop mode1 Support Indicator	O					
>>>Closed Loop mode2 Support Indicator	O					
>>Per TDD Cell Information		*0..<maxnoofTDDneighbours>*				
>>>C-Id	M					
>>>UARFCN	M			Corresponds to Nt [TS25.105]	–	
>>>Frame Offset	O				–	
>>>Cell Parameter ID	M				–	
>>>Sync Case	M				–	
>>>Time Slot	C-Case1				–	
>>>SCH Time Slot	C-Case2				–	
>>>Cell Individual Offset	O				–	
>>>DPCH Constant Value	O				–	
>>>PCCPCH Power	O				–	
Criticality Diagnostics	O				YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1
Case2	This IE is present only if Sync Case = Case2.

Range Bound	Explanation
MaxnoofDCHs	Maximum number of dedicated channels on one RL
Maxno*ofneighbouringRNC*s	Maximum number of neighbouring RNCs
MaxnoofFDDNeighbours	Maximum number of neighbouring FDD cells for one cell
MaxnoofTDDNeighbours	Maximum number of neighbouring TDD cells for one cell
MaxnoofDLCodes	Maximum number of DL code information
MaxnoOfDPCHs	Maximum number of DPCH in one CCTrCH
MaxnoofCCTrCHs	number of CCTrCH for one UE.
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.1.8 RADIO LINK ADDITION FAILURE

9.1.8.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Unsuccessful RL Information Response		*1..<maxnoof RLs-1>*			EACH	ignore
>RL ID	M				–	
>Cause	M				–	
Succesfull RL Information Response		*0..<maxnoof RLs-2>*			EACH	ignore
>RL ID	M				–	
>RL Set ID	M				–	
>SAI	M				–	
>UL Interference Level	M				–	
>DL Code Information		*1..<maxnoof DLCodes>*			GLOBAL	ignore
>>DL scrambling code	M				–	
>>FDD DL channelisation code Number	M				–	
>Diversity Indication	M				YES	ignore
>CHOICE *diversity indication*						
>>*Combining*					YES	ignore
>>>RL ID	M			Reference RL-Id	–	
>>*Non combining*					YES	ignore
>>>DCH Information Response		*1..<maxnoof DCHs>*		Only one DCH per set of co-ordinated DCHs shall be included.	–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>SSDT Support Indicator	M				–	
>Minimum Uplink SIR	M		Uplink SIR		–	
>Maximum Uplink SIR	M		Uplink SIR		–	
>Maximum Allowed UL Tx Power	M				–	
>Neighbouring Cell Information		*0..<maxnoofneighbouringRNCs>*			EACH	ignore
>>RNC-Id	M				–	
>>CN PS Domain Identifier	O				–	
>>CN CS Domain Identifier	O				–	
>>Per FDD Cell Information		*0..<maxnoof FDDneighbours>*				
>>>C-Id	M					
>>>UARFCN	M			Corresponds to Nu [TS25.104]	–	
>>>UARFCN	M			Corresponds to Nd [TS25.104]		
>>>Frame Offset	O				–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>Primary Scrambling Code	M				–	
>>>Primary CPICH Power	O				–	
>>>Cell Individual Offset	O					
>>>Tx diversity Indicator	O					
>>>STTD Support Indicator	O					
>>>Closed Loop mode1 Support Indicator	O					
>>>Closed Loop mode2 Support Indicator	O					
>>Per TDD Cell Information		*0..<maxnoofTDDneighbours>*				
>>>C-Id	M					
>>>UARFCN	M			Corresponds to Nt [TS25.105]	–	
>>>Frame Offset	O				–	
>>>Cell Parameter ID	M				–	
>>>Sync Case	M				–	
>>>Time Slot	C-Case1				–	
>>>SCH Time Slot	C-Case2				–	
>>>Cell Individual Offset	O				–	
>>>DPCH Constant Value	O				–	
>>>PCCPCH Power	O				–	
Criticality Diagnostics	O				YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.

Range bound	Explanation
MaxnoofDCHs	Maximum number of dedicated channels on one RL
MaxnoofRLs	Maximum number of radio links for one UE
Maxno*ofneighbouringRNC*s	Maximum number of neighbouring RNCs
MaxnoofFDDNeighbours	Maximum number of neighbouring FDD cells for one cell
MaxnoofTDDNeighbours	Maximum number of neighbouring TDD cells for one cell
MaxnoofDLCodes	Maximum number of DL code information

9.1.8.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Unsuccessful RL Information Response		*1*			YES	ignore
>RL ID	M				–	
>Cause	M				–	
Criticality Diagnostics	O				YES	ignore

9.1.9 RADIO LINK DELETION REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
RL Information		*1..<maxnoofRLs>*			EACH	notify
>RL ID	M				–	

Range bound	Explanation
MaxnoofRLs	Maximum number of radio links for one UE

9.1.10 RADIO LINK DELETION RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Criticality Diagnostics	O				YES	ignore

9.1.11 RADIO LINK RECONFIGURATION PREPARE

9.1.11.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Allowed Queuing Time	O				YES	reject
UL DPCH Information		*0..1*			YES	reject
>UL Scrambling code	O				–	
>UL SIR Target	O		Uplink SIR		–	
>Min UL Channelisation Code Length	O				–	
>Max Number of UL DPDCHs	C – CodeLen				–	
>Puncture Limit	O			For the UL.	–	
>TFCS	O			TFCS for the UL.	–	
>UL DPCCH Slot Format	O				–	
>SSDT Cell Identity Length	O				–	
>S-Field Length	O				–	
DL DPCH Information		*0..1*			YES	reject
>TFCS	O			TFCS for the DL.	–	
>DL DPCH Slot Format	O				–	
>TFCI Signalling Mode	O				–	
>TFCI Presence	C-SlotFormat				–	
>MultiplexingPosition	O				–	
DCHs to Modify		*0..<maxnoof DCHs>*			GLOBAL	reject
>DCH ID	M				–	
>Transport Format Set	O			For the UL.	–	
>Transport Format Set	O			For the DL.	–	
>Allocation/Retention Priority	O				–	
>Frame Handling Priority	O				–	
>UL FP Mode	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
>DRAC Control	O				–	
DCHs to Add		*0..<maxnoof DCHs>*			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Indicator	O				–	
>Limited Power Increase	M				–	
>Tr Ch Source Statistics Descriptor	M				–	
>Transport Format Set	M			For the UL.	–	
>Transport Format Set	M			For the DL.	–	
>BLER	M			For the UL.	–	
>BLER	M			For the DL.	–	
>Allocation/Retention Priority	M				–	
>Frame Handling Priority	M				–	
>Payload CRC Presence Indicator	M				–	
>UL FP Mode	M				–	
>QE-Selector	M				–	
>ToAWS	M				–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>ToAWE	M				–	
>DRAC Control	M				–	
DCHs to Delete		*0..<maxnoof DCHs>*			GLOBAL	reject
>DCH ID	M				–	
RL Information		*0..<maxnoof RLs>*			EACH	reject
>RL ID	M				–	
>SSDT Indication	O				–	
>SSDT Cell Identity	C - SSDTIndON				–	

Condition	Explanation
SSDTIndON	The IE may be present if the SSDT Indication is set to 'SSDT Active in the UE'.
CodeLen	This IE is present only if "Min UL Channelisation Code length" equals to 4.
SlotFormat	This IE is only present if the DL DPCH Slot Format is equal to any of the values 12 to 16.

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofRLs	Maximum number of RLs for a UE.

9.1.11.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Allowed Queuing Time	O				YES	reject
UL CCTrCH Information		*0..<maxnoofCCTrCHs>*			EACH	notify
>CCTrCH ID	M				–	
>TFCS	O			For the UL.	–	
>TFCI Coding	O				–	
>Puncture Limit	O				–	
DL CCTrCH Information		*0..<maxnoofCCTrCHs>*			EACH	notify
>CCTrCH ID	M				–	
>TFCS	O			For the DL.	–	
>TFCI Coding	O				–	
>Puncture Limit	O				–	
DCHs to Modify		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M				–	
>CCTrCH Id	O			UL CCTrCH in which the DCH is mapped.	–	
>CCTrCH Id	O			DL CCTrCH in which the DCH is mapped	–	
>Transport Format Set	O			For the UL.	–	
>Transport Format Set	O			For the DL.	–	
>Allocation/Retention Priority	O				–	
>Frame Handling Priority	O				–	
>UL FP Mode	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
DCHs to Add		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M				–	
>CCTrCH Id	M			UL CCTrCH in which the DCH is mapped.	–	
>CCTrCH Id	M			DL CCTrCH in which the DCH is mapped	–	
>DCH Combination Indicator	O				–	
>Limited Power Increase	M				–	
>Tr Ch Source Statistics Descriptor	M				–	
>Transport Format Set	M			For the UL.	–	
>Transport Format Set	M			For the DL.	–	
>BLER	M			For the UL.	–	
>BLER	M			For the DL.	–	
>Allocation/Retention Priority	M				–	
>Frame Handling Priority	M				–	
>Payload CRC Presence	M				–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Indicator						
>UL FP Mode	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
DCHs to Delete		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M				–	

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.

9.1.12 RADIO LINK RECONFIGURATION READY

9.1.12.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
RL Information Response		*0..<maxnoofRLs>*			EACH	ignore
>RL ID	M				–	
>Maximum Uplink SIR	O		Uplink SIR		–	
>Minimum Uplink SIR	O		Uplink SIR		–	
>**Secondary CCPCH Info**		0..1			–	
>>FDD S-CCPCH Offset	M			Corresponds to: $\tau_{S\text{-}CCPCH,k}$, see ref. [8]	–	
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	
>>TFCS	M			For the DL.	–	
>>Secondary CCPCH Slot Format	M				–	
>>TFCI presence	C - SlotFormat				–	
>>MultiplexingPosition	M				–	
>>STTD Indicator	M				–	
>>FACH/PCH Information		1 .. <maxFACHcount+1>			–	
>>>TFS				For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
>>Scheduling Information		1			–	
>>>IB_SG REP	M				–	
>>>Segment Information		*1.. <maxIBSEG>*			–	
>>>>IB SG POS	M				–	
>Downlink Code Information		*0..<maxnoofDLCodes>*			GLOBAL	ignore
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	
>DCH to be Added		*0..<maxnoofDCHs>*		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				The IE group shall be included only once per DCH per set of combined RLs.		
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DCH to be Modified		*0..<maxnoofDCHs>*		Only one DCH per set of co-ordinated DCHs shall be included. The IE group shall be included only once per DCH per set of combined RLs.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
Criticality Diagnostics	O				YES	ignore

Condition	Explanation
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxnoofDLCodes	Maximum number of Downlink Channelisation Codes.
MaxFACHCount	Maximum number of FACH's mapped onto secondary CCPCH's
MaxIBSEG	Maximum number of segments for one Information Block

9.1.12.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
RL Information Response		*0..1*			YES	ignore
>RL ID	M				–	
>Maximum Uplink SIR	O		Uplink SIR		–	
>Minimum Uplink SIR	O		Uplink SIR		–	
>UL CCTrCH Information		*0..<maxnoof CCTrCHs>*			GLOBAL	ignore
>>CCTrCH ID	M				–	
>>UL DPCH Information		*1..<maxnoof DPCHs>*			GLOBAL	ignore
>>>DPCH ID	M				–	
>>>TDD Channelisation Code	O				–	
>>>Burst Type	O				–	
>>>Midamble Shift	O				–	
>>>Time Slot	O				–	
>>>TDD Physical Channel Offset	O				–	
>>>Repetition Period	O				–	
>>>Repetition Length	O				–	
>>>TFCI Presence	O				–	
>DL CCTrCH Information		*0..<maxnoof CCTrCHs>*			GLOBAL	ignore
>>CCTrCH ID	M				–	
>>DL DPCH Information		*1..<maxnoof DPCHs>*			GLOBAL	ignore
>>>DPCH ID	M				–	
>>>TDD Channelisation Code	O				–	
>>>Burst Type	O				–	
>>>Midamble Shift	O				–	
>>>Time Slot	O				–	
>>>TDD Physical Channel Offset	O				–	
>>> Repetition Period	O				–	
>>>Repetition Length	O				–	
>>>TFCI Presence	O				–	
>DCH to be Added		*0..<maxnoof DCHs>*		Only one DCH per set of co-ordinated DCHs shall be included. The IE group shall be included only once per DCH per set of combined RLs.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DCH to be Modified		*0..<maxnoof DCHs>*		Only one DCH per set of co-ordinated DCHs shall	GLOBAL	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				be included. The IE group shall be included only once per DCH per set of combined RLs.		
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
Criticality Diagnostics	O				YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
Maxnoof DPCHs	Maximum number of DPCHs in one CCTrCH.

9.1.13 RADIO LINK RECONFIGURATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
CFN	M				YES	ignore

9.1.14 RADIO LINK RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Cause	M				YES	ignore
RLs Causing Reconfiguration Failure		*0..<maxnoof RLs>*			EACH	ignore
>RL ID	M				–	
>Cause	M				–	
Criticality Diagnostics	O				YES	ignore

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for a UE.

9.1.15 RADIO LINK RECONFIGURATION CANCEL

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	

9.1.16 RADIO LINK RECONFIGURATION REQUEST

9.1.16.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Allowed Queuing Time	O				YES	reject
UL DPCH Information		*0..1*			YES	reject
>TFCS	O			TFCS for the UL.	–	
DL DPCH Information		*0..1*			YES	reject
>TFCS	O			TFCS for the DL.	–	
>TFCI Signalling Mode	O				–	
DCHs to Modify		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M				–	
>Transport Format Set	O			For the UL.	–	
>Transport Format Set	O			For the DL.	–	
>Allocation/Retention Priority	O				–	
>Frame Handling Priority	O				–	
>UL FP Mode	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
>DRAC Control	O					
DCHs to add		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	M				–	
>Tr Ch Source Statistics Descriptor	M				–	
>Transport Format Set	M			For the UL.	–	
>Transport Format Set	M			For the DL.	–	
>BLER	M			For the UL.	–	
>BLER	M			For the DL.	–	
>Allocation/Retention Priority	M				–	
>Frame Handling Priority	M				–	
>Payload CRC Presence Indicator	M				–	
>UL FP mode	M				–	
>QE-Selector	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
>DRAC Control	M				-	
DCHs to Delete		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M				–	

Range Bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.

9.1.16.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Allowed Queuing Time	O				YES	reject
UL CCTrCH Information		*0..<maxnoof CCTrCHs>*			EACH	notify
>CCTrCH ID	M				–	
>TFCS	M				–	
DL CCTrCH Information		*0..<maxnoof CCTrCHs>*			EACH	notify
>CCTrCH ID	M				–	
>TFCS	M				–	
DCHs to Modify		*0..<maxnoof DCHs>*			GLOBAL	reject
>DCH ID	M				–	
>CCTrCH ID	O			UL CCTrCH in which the DCH is mapped.	–	
>CCTrCH ID	O			DL CCTrCH in which the DCH is mapped	–	
>Transport Format Set	O			For the UL.	–	
>Transport Format Set	O			For the DL.	–	
>Allocation/Retention Priority	O				–	
>Frame Handling Priority	O				–	
>UL FP Mode	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
DCHs to Add		*0..<maxnoof DCHs>*			GLOBAL	reject
>DCH ID	M				–	
>Limited Power Increase	M				–	
>Tr Ch Source Statistics Descriptor	M				–	
>CCTrCH ID	M			UL CCTrCH in which the DCH is mapped.	–	
>CCTrCH ID	M			DL CCTrCH in which the DCH is mapped	–	
>DCH Combination Ind	O				–	
>Transport Format Set	M			For the UL.	–	
>Transport Format Set	M			For the DL.	–	
>BLER	M			For the UL.	–	
>BLER	M			For the DL.	–	
>Allocation/Retention Priority	M				–	
>Frame Handling Priority	M				–	
>Payload CRC Presence Indicator	M				–	
>UL FP Mode	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
DCHs to Delete		*0..<maxnoof DCHs>*			GLOBAL	reject
>DCH ID	M				–	

Range Bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.

9.1.17 RADIO LINK RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
RL Information Response		*0..<maxnoofRLs>*			EACH	ignore
>RL ID	M				–	
>Maximum Uplink SIR	O		Uplink SIR		–	
>Minimum Uplink SIR	O		Uplink SIR		–	
>**Secondary CCPCH Info**		0..1			–	
>>FDD S-CCPCH Offset	M			Corresponds to: $\tau_{S\text{-}CCPCH,k}$, see ref. [8]	–	
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	
>>TFCS	M			For the DL.	–	
>>Secondary CCPCH Slot Format	M				–	
>>TFCI presence	C - SlotFormat				–	
>>MultiplexingPosition	M				–	
>>STTD Indicator	M				–	
>>FACH/PCH Information		1 .. <maxFACHcount+1>			–	
>>>TFS				For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
>>Scheduling Information		1			–	
>>>IB_SG REP	M				–	
>>>Segment Information		*1.. <maxIBSEG>*			–	
>>>>IB SG POS	M				–	
>DCH to be Added		*0..<maxnoofDCHs>*		Only one DCH per set of co-ordinated DCHs shall be included. The IE group shall be included only once per DCH per set of combined RLs.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer	M				–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Address						
>DCH to be Modified		*0..<maxnoofDCHs>*		Only one DCH per set of co-ordinated DCHs shall be included. The IE group shall be included only once per DCH per set of combined RLs.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
Criticality Diagnostics	O				YES	ignore

Condition	Explanation
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

Range Bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxSysinfoFACHCount	Maximum number of references to system information blocks on the FACH
MaxIBSEG	Maximum number of segments for one Information Block

9.1.18 RADIO LINK FAILURE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction ID	M				–	
CHOICE *Reporting Object*	M			Object for which the Failure shall be reported.	–	
>"RL"					–	
>>RL Information	M	*1 .. <MaxnoofRLs>*			EACH	ignore
>>>RL ID	M				–	
>>>Cause	M				–	
>"RL Set"					–	
>>RL Set Information		*1 .. <MaxnoofRLSets>*			EACH	ignore
>>>RL Set ID	M				–	
>>>Cause	M				–	

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofRLSets	Maximum number of RL Sets for one UE.

9.1.19 RADIO LINK RESTORE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction ID	M				–	
CHOICE *Reporting Object*	M			Object for which the Restoration shall be reported.	–	
>"RL"					–	
>>RL Information		*1 .. <MaxnoofRLs>*			EACH	ignore
>>>RL ID	M				–	
>"RL Set"					–	
>>RL Set Information		*1 .. <MaxnoofRLSets>*			EACH	ignore
>>>RL Set ID	M				–	

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofRLSets	Maximum number of RL Sets for one UE.

9.1.20 DL POWER CONTROL REQUEST [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction ID	M				–	
Power Adjustment Type	M				YES	ignore
DL Reference Power	C-Common		DL Power		–	
>DL Reference Power Information	C-Individual	*1..<maxnoofRLs>*			GLOBAL	ignore
>>RL ID	M				–	
>>DL Reference Power	M		DL Power		–	
Max Adjustment Step	C-CommonOrIndividual				–	
Max. Adjustment Period	C-CommonOrIndividual				–	

Condition	Explanation
Common	This IE is present only "Adjustment Type " equals to 'Common'
Individual	This IE is present only "Adjustment Type " equals to 'Individual'
CommonOrIndividual	This IE is present only "Adjustment Type " equals to 'Common' or 'Individual'

Range Bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.

9.1.21 PHYSICAL CHANNEL RECONFIGURATION REQUEST

9.1.21.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
RL Information		*1*			YES	reject
>RL ID	M				–	
>DL Code Information		*1 .. <maxnoof DLCodes>*			GLOBAL	notify
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	

Range bound	Explanation
MaxnoofDLcodes	Maximum number of DL codes for one UE

9.1.21.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
RL Information		*1*			YES	reject
>RL ID	M				–	
>UL CCTrCH Information		*1.. <maxnoof CCTrCHs>*			GLOBAL	reject
>>CCTrCH ID	M				–	
>>UL DPCH Information		*1..<MaxnoofDPCHs>*			EACH	notify
>>>DPCH ID	M				–	
>>>TDD Channelisation Code	O				–	
>>>Burst Type	O				–	
>>>Midamble Shift	O				–	
>>>Time Slot	O				–	
>>>TDD Physical Channel Offset	O				–	
>>>Repetition Period	O				–	
>>>Repetition Length	O				–	
>>>TFCI Presence	O				–	
>DL CCTrCH Information		*1..<maxnoofCCTrCHs>*			GLOBAL	reject
>>CCTrCH ID	M				–	
>>DL DPCH Information		*1..<MaxnoofDPCHs>*			EACH	notify
>>>DPCH ID	M				–	
>>>TDD Channelisation Code	O				–	
>>>Burst Type	O				–	
>>>Midamble Shift	O				–	
>>>Time Slot	O				–	
>>>TDD Physical Channel Offset	O				–	
>>>Repetition Period	O				–	
>>>Repetition Length	O				–	
>>>TFCI Presence	O				–	

Range bound	Explanation
MaxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.

9.1.22 PHYSICAL CHANNEL RECONFIGURATION COMMAND

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
CFN	M				YES	reject
Criticality Diagnostics	O				YES	reject

9.1.23 PHYSICAL CHANNEL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Cause	M				YES	ignore
Criticality Diagnostics	O				YES	ignore

9.1.24 UPLINK SIGNALLING TRANSFER INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction ID	M				–	
UC-ID	M				YES	ignore
SAI	M				YES	ignore
C-RNTI	M				YES	ignore
S-RNTI	M				YES	ignore
D-RNTI	O				YES	ignore
L3 Information	M				YES	ignore
CN PS Domain Identifier	O				YES	ignore
CN CS Domain Identifier	O				YES	ignore
URA ID	M				YES	ignore
Multiple URAs Indicator	M				YES	ignore
RNCs with Cells in the Accessed URA		*0 .. <MaxRNCinURA-1>*			GLOBAL	ignore
>RNC-Id	M				–	

Range bound	Explanation
MaxRNCinURA	Maximum number of RNC in one URA

9.1.25 DOWNLINK SIGNALLING TRANSFER REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction ID	M				–	
C-Id	M				YES	ignore
D-RNTI	M				YES	ignore
L3 Information	M				YES	ignore
D-RNTI Release Indication	M				YES	ignore

9.1.26 RELOCATION COMMIT

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction ID	M				–	
D-RNTI	O				YES	ignore
RANAP Relocation Information	O				YES	ignore

9.1.27 PAGING REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction ID	M				–	
CHOICE *paging area*					YES	ignore
>*"URA"*					YES	ignore
>>URA-Id	M				–	
>*"Cell"*					YES	ignore
>>C-Id	M				–	
SRNC-Id	M		RNC-Id		YES	ignore
S-RNTI	M				YES	ignore
IMSI	M				–	
DRX Cycle Length Coefficient	M				YES	ignore

9.1.28 DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction Id	M				–	
Measurement Id	M				YES	reject
Dedicated Measurement Object Type	M				YES	reject
CHOICE *Dedicated Measurement Object Type*					YES	ignore
>"RL"					YES	reject
>>**RL Information**		*1..<maxnoofRLs>*			EACH	reject
>>>RL-Id	M				–	
>>>DPCH Id	O				–	
>"RLS"					YES	reject
>>RL Information		*1..<maxnoofRLSets>*			EACH	reject
>>>RL-Set-id	M				–	
Dedicated Measurement Type	M				YES	reject
Measurement Filter Coefficient	O				YES	reject
Report Characteristics	M				YES	reject

Range bound	Explanation
MaxnoofRLs	Maximum number of individual RLs a measurement can be started on.
MaxnoofRLSets	Maximum number of individual RL Sets a measurement can be started on.

9.1.29 DEDICATED MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction Id	M			Are both transaction id and Measurement id needed ?	–	
Measurement Id	M				YES	ignore
CHOICE *Dedicated Measurement Object Type*				Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>"RL" or "ALL RL"					YES	ignore
>>RL Information		*1..<maxnoofRLs>*			EACH	ignore
>>>RL-Id	M				–	
>>>DPCH Id	O				–	
>>>Dedicated Measurement Value	M				–	
>"RLS" or "ALL RLS"					YES	ignore
>>RL Set Information		*1..<maxnoofRLSets>*			EACH	ignore
>>>RL Set ID	M				–	
>>>Dedicated Measurement Value	M				–	
CFN	O			Dedicated Measurement Time Reference	YES	ignore
Criticality Diagnostics	O				YES	ignore

Range bound	Explanation
MaxnoofRLs	Maximum number of individual RLs the measurement can be started on.
MaxnoofRLSets	Maximum number of individual RL Sets the measurement can be started on.

9.1.30 DEDICATED MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction Id	M				–	
Measurement Id	M				YES	ignore
Cause	M				YES	ignore
Criticality Diagnostics	O				YES	ignore

9.1.31 DEDICATED MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
CHOICE *Dedicated Measurement Object Type*				Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>"RL" or "ALL RL"						
>>RL Information		*1..<maxnoofRLs>*			EACH	ignore
>>>RL-Id	M				–	
>>>DPCH Id	O				–	
>>>Dedicated Measurement Value	M				–	
>"RLS" or "ALL RLS"					–	
>>RL Set Information		*1..<maxnoofRLSets>*			–	
>>>RL Set ID	M				–	
>>>Dedicated Measurement Value	M				–	
CFN	O			Dedicated Measurement Time Reference	YES	ignore

Range bound	Explanation
MaxnoofRLs	Maximum number of individual RLs the measurement can be started on.
MaxnoofRLSets	Maximum number of individual RL Sets the measurement can be started on.

9.1.32 DEDICATED MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore

9.1.33 DEDICATED MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
Cause	M				YES	ignore

9.1.34 COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction ID	M				–	
D-RNTI	M				YES	ignore
C-RNTI	O			Release of an individual C-RNTI.	YES	ignore

9.1.35 COMMON TRANSPORT CHANNEL RESOURCES REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
D-RNTI	M				YES	reject
Transport Bearer Request Indicator	M			Request a new transport bearer or to use an existing bearer for the user plane.	YES	reject
Transport Bearer ID	M			Indicates the Iur transport bearer to be used for the user plane.	YES	reject

9.1.36 COMMON TRANSPORT CHANNEL RESOURCES RESPONSE

9.1.36.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
S-RNTI	M				YES	ignore
FACH Info for S-CCPCH coupled to PRACH or PCPCH		1			YES	ignore
>Priority Indicator & Initial Window Size		*1..16*		Provide Information for each priority class used	GLOBAL	ignore
>>FACH Priority Indicator	M				–	
>>MAC-c SDU Length		*1..<MaxNb MACcSDU Length>*			GLOBAL	ignore
>>>MAC-c SDU Length	M				–	
>>FACH Initial Window Size	M				–	
FACH Info for optional S-CCPCH		0..1			YES	ignore
>FDD S-CCPCH Offset	M			Corresponds to: $\tau_{S\text{-}CCPCH,k}$, see ref. [7]	–	
>DL Scrambling Code	M				–	
>FDD DL Channelisation Code Number	M				–	
>TFCS	M			For the DL.	–	
>Secondary CCPCH Slot Format	M				–	
>MultiplexingPosition	M				–	
>STTD Indicator	M				–	
>Priority Indicator & Initial Window Size		*1..16*		Provide Information for each priority class used	GLOBAL	ignore
>>FACH Priority Indicator	M				–	
>>MAC-c SDU Length		*1..<MaxNb MACcSDU Length>*			GLOBAL	ignore
>>>MAC-c SDU Length	M				–	
>>FACH Initial Window Size	M				–	
Transport Layer Address	O				YES	ignore
Binding Identity	O				YES	ignore
Criticality Diagnostics	O				YES	ignore

Range Bound	Explanation
MaxNbMACcSDULength	Maximum number of different MAC-c SDU Lengths.

9.1.36.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
S-RNTI	M				YES	ignore
FACH Info for S-CCPCHs coupled to PRACH		*1*			YES	ignore
>Priority Indicator & Initial Window Size		*1 .. 16*		Provide Information for each priority class used	GLOBAL	ignore
>>FACH Priority Indicator	M				–	
>>MAC-c SDU Length		*1..< MaxNbMACcSDULength>*			GLOBAL	ignore
>>>MAC-c SDU Length	M				–	
>>FACH Initial Window Size	M				–	
FACH Info for optional group of S-CCPCHs		*0 .. 1*			YES	ignore
>TFCS	M			For DL CCTrCH supporting several Secondary CCPCHs	–	
>Secondary CCPCH	M	*1.. <MaxnoofSCCPCHs>*			GLOBAL	ignore
>>TDD Channelisation Code	M				–	
>>Time Slot	M				–	
>>Burst Type	M				–	
>>Midamble shift	M				–	
>>TDD Physical Channel Offset	M				–	
>>Repetition Period	M				–	
>>Repetition Length	M				–	
>>Priority Indicator & Initial Window Size		*1..16*		Provide Information for each priority class used	GLOBAL	ignore
>>>FACH Priority Indicator	M				–	
>>>MAC-c SDU Length		*1..< MaxNbMACcSDULength>*			GLOBAL	ignore
>>>>MAC-c SDU Length	M				–	
>>>FACH Initial Window Size	M				–	
>>>Transport Layer Address	O				YES	ignore
>>>Binding Identity	O				YES	ignore
Criticality Diagnostics	O				YES	ignore

Range Bound	Explanation
MaxNbMACcSDULength	Maximum number of different MAC-c SDU Lengths.
MaxnoofSCCPCHs	TBD

9.1.37 COMMON TRANSPORT CHANNEL RESOURCES FAILURE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
S-RNTI	M				YES	ignore
Cause	M				YES	ignore
Criticality Diagnostics	O				YES	ignore

9.1.38 COMPRESSED MODE PREPARE [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type					YES	reject
Transaction ID					–	
CM Pattern Information		1 to 8		Range defined in [9]	EACH	reject
>CFN Offset	M				–	
>TGP1	M		Gap Period	Applies only to the first and all the subsequent odd gaps if TGP2 is present, see ref. [10].	–	
>TGP2	O		Gap Period		–	
>TGL	M				–	
>TGD	M				–	
>PD	M				–	
>UL/DL Compressed Mode Selection	M				–	
>Compressed Mode Method	M				–	
>Gap Position Mode	M				–	
>SN	C-Flex				–	
>Downlink Frame Type	M				–	
>Scrambling Code Change	C-SF/2				–	
>Power Control Mode	M				–	
>Power Resume Mode	M				–	
>Uplink Delta SIR	M				–	
>Uplink Delta SIR After	M				–	

Condition	Explanation
Flex	This IE is present only if "Gap position Mode" equals to 'flexible'.
SF/2	This IE is present only if Compressed Mode Method equals toSF/2

9.1.39 COMPRESSED MODE READY [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Criticality Diagnostics	O				YES	ignore

9.1.40 COMPRESSED MODE FAILURE [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	reject
Transaction ID	M				–	
Cause	M				YES	ignore
Criticality Diagnostics	O				YES	ignore

9.1.41 COMPRESSED MODE COMMIT [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction ID	M				–	
CFN	M				YES	ignore

9.1.42 COMPRESSED MODE CANCEL [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction ID	M				–	

9.1.43 ERROR INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				YES	ignore
Transaction Id	M				–	
Cause	C_ifalone				YES	ignore
Criticality Diagnostics	C_ifalone				YES	ignore

Condition	Explanation
C_ifalone	At least either of Cause IE or Criticality Diagnostics IE shall be present.

9.2 Information Element Functional Definition and Contents

9.2.1 Common Parameters

This subclause contains parameters that are common to FDD and TDD.

9.2.1.1 Allocation/Retention Priority

This parameter indicates the priority level in the allocation and retention of transport channel resources in DRNS. DRNS may use the Allocation/Retention priority information of the transport channels composing the RL to prioritise requests for RL Setup/addition and reconfiguration. In similar way, DRNS may use the allocation/Retention priority information of the transport channels composing the RL to prioritise which RL shall be set to failure, in case prioritisation is possible

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Allocation/Retention Priority			Frame Handling Priority	

9.2.1.2 Allowed Queuing Time

This parameter specifies the maximum queuing time that is allowed in the DRNS. The default value is no queuing.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Allowed Queuing Time			INTEGER(0. .60)	Seconds

9.2.1.3 Binding ID

The Binding ID is the identifier of a user data stream. It is allocated at the DRNS and it is unique for each transport bearer under establishment to/from the DRNS. The length of this parameter is variable.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Binding ID			Octetstring (1..4,…)	

9.2.1.4 BLER

This Block Error Rate defines the target radio interface Transport Block Error Rate of the transport channel . BLER is used by the DRNS to determine the needed SIR targets, for admission control and power management reasons.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
BLER			INTEGER (-63..0)	Step 0.1. (Range –6.3…0). It is the Log10 of the BLER

9.2.1.5 Cause

The purpose of the cause information element is to indicate the reason for a particular event for the whole protocol.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE *cause group*				
>Radio Network Layer				
>>Radio Network Layer Cause	M		ENUMERATED (Unknown C-ID, Cell not Available, Power Level not Supported, UL Scrambling Code Already in Use, DL Radio Resources not Available, UL Radio Resources not Available, Measurement not Supported For The Object, Macrodiversity Combining Not Possible, Reconfiguration not Allowed, Requested Configuration not Supported, Synchronisation Failure, Unspecified,...)	
>Transport Layer				
>>Transport Layer Cause	M		ENUMERATED (Transport link failure, Transmission port not available, Unspecified,...)	
>Protocol				
>>Protocol Cause			ENUMERATED (Transaction not Allowed, Transfer Syntax Error, Abstract Syntax Error (Reject), Abstract Syntax Error (Ignore and Notify), Message not Compatible with Receiver State, Semantic Error, Unspecified,...)	
>Misc				
>>Miscellaneous Cause	M		ENUMERATED (Control Processing Overload, Hardware Failure, O&M Intervention, Not enough User Plane Processing Resources, Unspecified,...)	

9.2.1.6 Cell Identifier (C-Id)

The C-ID (Cell Identifier) is the identifier of a cell in one RNS.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
C-ID			INTEGER (0…65535)	

9.2.1.7 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the Code Groups, Scrambling Codes, Midambles and Toffset (see table 9 of ref. [13]).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell Parameter ID			INTEGER (0…127)	

9.2.1.8 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)	

9.2.1.9 CN CS Domain Identifier

Identification of the CN node in the CS Domain.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CN PS Domain Identifier				
>PLMN Id	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN-ID consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
>LAC	M		OCTET STRING (2)	0000 and FFFE not allowed

9.2.1.10 CN PS Domain Identifier

Identification of the CN Node in the PS Domain.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CN PS Domain Identifier				
>PLMN Id	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN-ID consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
>LAC	M		OCTET STRING (2)	0000 and FFFE not allowed
>RAC	M		OCTET STRING (1)	

9.2.1.11 Criticality Diagnostics

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Criticality Diagnostics				
>Procedure Code	O		INTEGER (0..255)	Procedure code is to be used if Criticality diagnostics is part of Error Indication procedure, and not within the response message of the same operation that caused the error
>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 except when the procedure code is not understood.
>Criticality Response	O		ENUMERATED(reject, ignore, notify)	This Criticality response IE is used for reporting the Criticality of the Triggering message
>Transaction Id	O		INTEGER (0..255)	
Information Element Criticality Diagnostics		*1..<maxnoof errors>*		
>Criticality Response	M		ENUMERATED(reject, ignore, notify)	The Criticality response IE 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 IE as defined in the ASN.1 part of the specification.
>Repetition Number	O		INTEGER (0..255)	The repetition number of the not understood IE if applicable

Range bound	Explanation
maxnooferrors	Maximum number. of IE errors allowed to be reported with a single message. The value for maxnooferrors is 256.

9.2.1.12 C-RNTI

C-RNTI (Cell RNTI) is the UE identifier allocated by the DRNS to be used over the radio interface. It is unique in the cell. One UE context has one unique C-RNTI value allocated in the DRNS.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
C-RNTI			INTEGER(0..65535)	

9.2.1.13 DCH Combination Indicator

The DCH Combination Indicator is used to indicate the multiplexing of more than one DCH on transport bearer. The value should be unique for each group of coordinated DCH's per request message.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DCH Combination Ind			INTEGER (0..255)	

9.2.1.14 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)	

9.2.1.15 Dedicated Measurement Object Type

The Dedicated Measurement Object type indicates the type of object that the measurement is to be performed on.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dedicated Measurement Object Type			ENUMERATED (RL, RLS, ALL RL, ALL RLS,…)	

9.2.1.16 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,…)	RSCP is used by TDD only.

NOTE: For definitions of the measurement types refer to ref. [1] and [14].

9.2.1.17 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
Dedicated measurement Value				
>SIR value	C *MeasValue*		INTEGER(0..63)	According to mapping in 25.215/25.225
>SIR error Value	C *MeasValue*		INTEGER(0..125)	SIR_Error=SIR-SIR_target 0: < -31.0 dB 1: -31.0dB ≤ SIR_Error < 30.5dB 2: -30.5dB ≤ SIR_Error < 30.0dB … 62: -0.5dB ≤ SIR_Error < 0dB 63: 0dB ≤ SIR_Error < 0.5dB … 124: 30.5dB ≤ SIR_Error < 31dB 125: ≥ 31dB
>Transmitted Code Power Value	C *MeasValue*		INTEGER(0..127)	According to mapping in 25.215/25.225
>RSCP	C *MeasValue*		INTEGER(0..81)	According to mapping in 25.225 (TDD only)

Condition	Explanation
MeasValue	Only one measurement value can be present at the same time.

9.2.1.18 Downlink SIR Target

It is the Target Downlink SIR that shall be used as initial value by the UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Downlink SIR Target			Uplink SIR	

9.2.1.19 D-RNTI

D-RNTI is the UE context identifier in the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
D-RNTI			Integer(0..2^20 –1)	

9.2.1.20 D-RNTI Release Indication

The D-RNTI Release Indication indicates whether or not a CRNC shall release the D-RNTI allocated for a particular UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
D-RNTI Release Indication			ENUMERATED (Release D-RNTI, not Release D-RNTI)	

9.2.1.21 DRX Cycle Length Coefficient

The DRX Cycle Length Coefficient is used as input for the formula to establish the paging occasions to be used in DRX.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DRX Cycle Length Coefficient			Integer (2, .., 12)	Refers to 'k' in the formula as specified in ref. 15, Discontinous Reception.

9.2.1.22 FACH Initial Window Size

Indicates the initial number of MAC-c SDUs that may be transmitted before an acknowledgement is received from the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
FACH Initial Window Size			INTEGER (0..255)	Number of framesMAC-c SDUs. 255 = Unlimited number of FACH data frames.

9.2.1.23 FACH Priority Indicator

Indicates the relative priority of the FACH data frame. Used by the DRNC when scheduling FACH traffic.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
FACH Priority Indicator			INTEGER (0..15)	Relative priority of the FACH data frame: 0=Lowest Priority … 15=Highest Priority

9.2.1.24 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH/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

9.2.1.25 Frame Offset

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 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

9.2.1.26 MAC-c SDU Length

Indicates the MAC-c SDU Length. There may be multiple data frame sizes per priority class.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-c SDU Length			INTEGER (1..5000)	Size of the MAC-c SDU in number of bits.

9.2.1.27 TrCh Source Statistics Descriptor

Defines the statistics of the data transmitted in the transport channel. This information may be used in reserving resources in the DRNS.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TrCh Source Statistics Descriptor			ENUMERATED (speech, RRC, unknown, …)	'Speech' = Statistics of the data corresponds to speech. 'RRC' = Statistics of the data corresponds to RRC signalling 'Unknown' = The statistics of the data is unknown

9.2.1.28 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	M		INTEGER (1..256)	

9.2.1.29 Measurement ID

The Measurement Id uniquely identifies any measurement on dedicated resources requested over RNSAP.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement ID			Integer(0 .. 2^20-1)	

9.2.1.30 Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Message Type				
>Procedure ID		1		
>>Procedure Code	M		ENUMERATED (RL Setup, RL Addition, RL Deletion, Synchronised RL Reconfiguration Preparation, Synchronised RL Reconfiguration Commit, Synchronised RL Reconfiguration Cancel, Unsynchronised RL Reconfiguration Request, RL Failure, RL Restoration, DL Power Control, Physical Channel Reconfiguration, UL Signalling Transfer, DL Signalling Transfer, Relocation Commit, Paging, Measurement Initiation, Measurement Reporting, Measurement Termination, Measurement Failure, Common Transport Channel Resources Initiation, Common Transport Channel Resources Release, Compressed Mode Preparation, Compressed Mode Commit, Compressed Mode Cancellation, Error Indication, …)	
>>Ddmode	M		ENUMERATED (FDD, TDD, Common)	Common = common to FDD and TDD.
>Type of Message	M		ENUMERATED (Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.1.31 Multiple URAs Indicator

The Multiple URAs Indicator indicates whether the accessed cell has multiple URAs.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Multiple URAs Indicator			Enumerated (Multiple URA s exist, Single URA Exists)	

9.2.1.32 Payload CRC Present 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)	

9.2.1.33 Primary CPICH Power

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Primary CPICH power			ENUMERATED (-10..50)	Unit dBm Granularity 0.1 dB.

9.2.1.34 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)	

9.2.1.35 SCH Time Slot

The SCH Time Slot is only applicable if the value of *Sync Case* IE is Case 2.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SCHTime Slot			INTEGER(0..6)	

9.2.1.36 Puncture Limit

The maximum amount of puncturing for a transport channel in rate matching.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Puncture Limit			INTEGER (0..15)	0: 40% 1: 44 % … 14: 96% 15: 100%

9.2.1.37 RANAP Relocation Information

This parameter is transparent to the RNSAP. The parameter contains information for the Relocation procedure as defined in [1].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RANAP Relocation Information			Bit String	The contents is defined in ref. [1].

9.2.1.38 Report Characteristics

The report characteristics, defines how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Report characteristics				
>Report characteristics type			ENUMERATED(On Demand, Periodic, Event A, Event B, Event C, Event D, Event E, Event F, …)	
>**Periodic Report Information**	C – Periodic			
>>Report Periodicity	M		ENUMERATED (10ms…1min) step 10ms, (1min…1hr) step 1min	The periodicity with which the DRNS shall send measurement reports. First working assumption!
>**Event A**	C – Event A			
>>Measurement Threshold	M		Measurement Threshold	The threshold for which the DRNS shall trigger a measurement report.
>>Measurement Hysteresis Time	O		ENUMERATED (10ms…1min) step 10ms,…	
>**Event B**	C – Event B			
>>Measurement Threshold	M		Measurement Threshold	The threshold for which the DRNS shall trigger a measurement report.
>>Measurement Hysteresis Time	O		ENUMERATED (10ms…1min) step 10ms,…	
>**Event C**	C – Event C			
>> Measurement Increase/Decrease Threshold	M		Measurement Increase/Decrease Threshold	
>>Measurement Change Time	M		ENUMERATED (10ms…1min) step 10ms,…	The time within which the measurement entity shall rise, in order to trigger a measurement report.
>**Event D**	C – Event D			
>> Measurement Increase/Decrease Threshold	M		Measurement Increase/Decrease Threshold	
>>Measurement Change Time	M		ENUMERATED (10ms…1min) step 10ms,…	The time within which the measurement entity shall fall, in order to trigger a measurement report.
>**Event E**	C – Event E			
>>Measurement Threshold 1	M		Measurement Threshold	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
>>Measurement Threshold 2	O		Measurement Threshold	
>>Measurement Hysteresis Time	O		ENUMERATED (10ms…1min) step 10ms,…	The hysteresis time in ms
>>Report Periodicity	O		ENUMERATED (10ms…1min) step 10ms, (1min…1hr) step 1min	The periodicity with which the DRNS shall send measurement reports.
>**Event F**	C – Event F			
>>Measurement Threshold 1	M		Measurement Threshold	
>>Measurement Threshold 2	O		Measurement Threshold	
>>Measurement Hysteresis Time	O		ENUMERATED (10ms…1min) step 10ms,…	The hysteresis time in ms
>>Report Periodicity	O		ENUMERATED (10ms…1min) step 10ms, (1min…1hr) step 1min	The periodicity with which the DRNS shall send measurement reports.

Condition	Explanation
C-Periodic	Valid if *Report Characteristics Type* IE indicates "periodic"
C-Event A	Valid if *Report Characteristics Type* IE indicates "Event A"
C-Event B	Valid if *Report Characteristics Type* IE indicates "Event B"
C-Event C	Valid if *Report Characteristics Type* IE indicates "Event C"
C-Event D	Valid if *Report Characteristics Type* IE indicates "Event D"
C-Event E	Valid if *Report Characteristics Type* IE indicates "Event E"
C-Event F	Valid if *Report Characteristics Type* IE indicates "Event F"

9.2.1.39 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)	

9.2.1.40 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, DRNS shall not increase the DL power of the RL if it exceeds by more than *Power_Raise_Limit* dB the averaged DL power used in the last *DL_power_averaging_window_size* timeslots of the same RL.

Power_Raise_Limit and *DL_power_averaging_window_size* are parameters configured in the DRNS.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Limited Power Increase			ENUMERATED(Used, Not used ,)	

9.2.1.41 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)	

9.2.1.42 Service Area Identifier (SAI)

This information element is used to uniquely identify an area consisting of one or more cells belonging to the same Location Area. Such an area is called a Service Area and can be used for indicating the location of a UE to the CN.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SAI				
>PLMN Id	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN-ID consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
>LAC	M		OCTET STRING (2)	0000 and FFFE not allowed
>SAC	M		OCTET STRING (2)	

9.2.1.43 S-RNTI

S-RNTI is the UE context identifier in the SRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
S-RNTI			Integer(0..2^20 –1)	

9.2.1.44 Sync Case

The SCH and PCCPCH in a TDD cell are mapped on one or two downlink slots per frame. There are two cases of Sync Case 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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Sync Case			ENUMERATED (Case1, Case2)	

9.2.1.45 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TFCI presence			ENUMERATED (Present, not present)	

9.2.1.46 Time Slot

The Time Slot represents the time interval assigned to a Physical Channel referred to the start of a Radio Frame.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Time Slot			INTEGER (0..14)	

9.2.1.47 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 ToAWS gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
ToAWE			INTEGER (0..2559)	msec.

9.2.1.48 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)	msec.

9.2.1.49 Transaction ID

The Transaction ID is used to associate all the messages belonging to the same pending procedure of the same RNSAP procedure type (e.g. Radio Link Addition), i.e. the Request-, Response-, Confirm-type of messages have the same Transaction ID. The messages belonging to different pending procedures have different Transaction IDs.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transaction ID			INTEGER (0..255)	Since the scope is not clear, the range of this parameter is to be considered a working assumption

9.2.1.50 Transport Bearer ID

The Transport Bearer ID uniquely identifies an Iur transport bearer.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transport Bearer ID			INTEGER (0..4095)	

9.2.1.51 Transport Bearer Request Indicator

Indicates whether an Iur transport bearer needs to be established for carrying the FACH data stream(s), or whether an existing transport bearer will be used.

IE/Group Name	Presence	Mult	IE type and reference	Semantics description
Transport Bearer Request Indicator			ENUMRATED(Bearer Requested, Bearer not Requested)	

9.2.1.52 Transport Layer Address

Transport Layer Address defines the transport address of the DRNS. For details on the Transport Address used see [3].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transport Layer Address			Bit string(1…160, …)	

9.2.1.53 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
TFCS		1 to <maxnoofTFCs>		The first instance of the parameter corresponds to TFC zero, the second to 1 and so on.
>CTFC	M		INTEGER(0..MaxCTFC-1)	Integer number calculated according to ref. [14].
>CHOICE Gain Factors	C-PhysChan			
>>Signalled Gain Factors				
>>>Gain Factor β_C	M		Integer (0..15)	For UL DPCCH or control part of PRACH in FDD; mapping in accordance to TS 25.213
>>>Gain Factor β_D	M		Integer (0..15)	For UL DPDCH or data part of PRACH in FDD: mapping in accordance to TS 25.213
>>>Reference TFC nr	O		Integer (0..15)	If this TFC is a reference TFC, this IE indicates the reference number
>>Computed Gain Factors				
>>>Reference TFC nr	M		Integer (0..15)	Indicates the reference TFC to be used to calculate the gain factors for this TFC

Condition	Explanation
PhysChan	The choice shall be present if the TFCS concerns a UL DPCH or PRACH channel in FDD, not when the TFCS is used for other physical channels.

Range bound	Explanation
MaxnoofTFCs	The maximum number of Transport Format Combinations (1024).
MaxCTFC	Maximum number of the CTFC value is calculated according to the following: $\sum_{i=1}^{I}(L_i - 1)P_i$ with the notation according to ref. [16].

9.2.1.54 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transport Format Set				
>Dynamic Transport Format Information		1..<maxTFcount>		
>>Number of Transport blocks	M		INTEGER (0..4095)	
>>Transport Block Size	C – Blocks		INTEGER (1..5000)	Bits
>CHOICE *mode*				
>>*TDD*				
>>>Transmission time interval	C-TTIdynamic	1..<maxTTIcount>	Enumerated(10, 20, 40, 80)	
>Semi-static Transport Format Information				
>>Transmission time interval	C-TTIsemistatic		ENUMERATED (10, 20, 40, 80)	msec
>>Type of channel coding	M		ENUMERATED (No coding, Convolutional, Turbo)	
>>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 *mode*				
>>>*TDD*				
>>>>2nd interleaving mode	M		Enumerated (Frame related, Timeslot related)	

Condition	Explanation
Blocks	This IE is only present if "Number of Transport Blocks" is greater than 0.
Coding	This IE is only present if IE "Type of channel coding" is "Convolutional" or "Turbo"
TTIdynamic	This IE is mandatory if not defined as semistatic parameter. Otherwise it is absent.
TTIsemistatic	This IE is mandatory if not defined as dynamic parameter. Otherwise it is absent.

Range bound	Explanation
MaxTFcount	The maximum number of different transport formats that can be included in the Transport format set for one transport channel is 32.
MaxRM	The maximum number that could be set as rate matching attribute for a transport channel is 256.
MaxTTIcount	The amount of different TTI that are possible for that transport format is 4.

9.2.1.55 UARFCN

The UTRA Absolute Radio Frequency Channel Number defines the carrier.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UARFCN			INTEGER (0..16383, …)	Corresponds to: 0.0Hz.. 3276.6MHz see 25.104, 25.105.

9.2.1.56 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)	

9.2.1.57 Uplink SIR

The UL SIR indicates a received UL SIR.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Uplink SIR			ENUMERATED (-8.2 .. 17.3)	Step 0.1 dB

9.2.1.58 UL Interference Level

The parameter indicates the UL Interference Level in a cell [FDD]/time slot[TDD]. The UL Interference Level is used by the UE to calculate its initial UL power for the cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL Interference Level			ENUMERATED (-128..-60)	Unit: dBm, Step size=0.1 dB

9.2.1.59 URA ID

IE/Group Name	Presence	Range	IE type and reference	Semantics description
URA ID			INTEGER (0..65 535)	

9.2.1.60 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
UC-ID		1		
>RNC-ID	M		INTEGER (0…4095)	
>C-ID	M		C-ID	

9.2.1.61 L3 Information

This parameter contains the Layer 3 Information from a Uu message as received from the UE over the Uu interface or the Layer 3 Information for a Uu message to be sent to a UE by the CRNC, as defined in ref. [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
L3 Information			Bit String	The content is defined in ref. [1413]

9.2.1.62 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)	

9.2.1.63 Diversity Indication

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Diversity Indication			ENUMERATED (Combined, Not Combined)	

9.2.1.64 Cell Individual Offset

Cell individual offset is an offset that will be applied by UE to the measurement results for a P-CPICH[FDD]/ P-CCPCH[TDD], before the measurement takes place. This allows operators to easily monitor specific cell, as well as other uses. The offset can be positive or negative, so the measured results can be reported as better than, or worse than what it really is.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell individual offset			Integer (-20,..,+20)	-20 -> -10dB -19 -> -9.5dB … +20 -> +10dB

9.2.1.65 Maximum Allowed UL Tx Power

Maximum Allowed UL Tx Power is the maximum power that a UE in a particular cell is allowed to transmit.

The Diversity Indication indicates if the RL has been or has not been combined with another RL.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Maximum Allowed UL Tx Power			INTEGER (-50..+33)	dBm

9.2.1.66 DPCH Constant Value

DPCH Constant Value is the power margin used by a UE to set the proper uplink power.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DPCH Constant Value			INTEGER (-32...31)	Unit dBm Granularity 1 dB.

9.2.1.67 Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event A, B, E or F.

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
SIR	*C – Threshold*		INTEGER(0. .63)	According to mapping in 25.215/25.225
SIR Error	*C – Threshold*		INTEGER(0. .125)	SIR_Error=SIR-SIR_target 0: < -31.0 dB 1: -31.0dB ≤ SIR_Error < 30.5dB 2: -30.5dB ≤ SIR_Error < 30.0dB … 62: -0.5dB ≤ SIR_Error < 0dB 63: 0dB ≤ SIR_Error < 0.5dB … 124: 30.5dB ≤ SIR_Error < 31dB 125: ≥ 31dB
Transmitted Code Power	*C – Threshold*		INTEGER(0. .127)	According to mapping in 25.215/25.225
RSCP	*C – Threshold*		INTEGER(0. .81)	According to mapping in 25.225 (TDD only)

Condition	Explanation
Threshold	Only one measurement threshold can be present at the same time.

9.2.1.68 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
SIR	*C – Threshold*		INTEGER(0. .62)	0: 0 dB 1: 0.5 dB 2: 1 dB … 62: 31dB
SIR Error	*C – Threshold*		INTEGER(0. .124)	0: 0 dB 1: 0.5 dB 2: 1 dB … 124: 62 dB
Transmitted Code Power	*C – Threshold*		INTEGER(0. .112,...)	0: 0 dB 1: 0.5 dB 2: 1 dB … 112: 56 dB
RSCP	*C – Threshold*		INTEGER(0. .80)	0: 0 dB 1: 0.5 dB 2: 1 dB … 80: 40dB

Condition	Explanation
Threshold	Only one measurement threshold can be present at the same time.

9.2.1.69 PCCPCH Power

Primary CCPCH power is the power that shall be used for reference power value in a TDD cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PCCPCH power			INTEGER(-15..40)	Unit dBm Granularity 0.1 dB.

9.2.1.70 IMSI

The IMSI is the permanent UE user Identity, see ref. 1.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IMSI			OCTET STRING (SIZE(3..8))	-Decimal digits coded in BCD -'1111' used as filler -bit 4 to 1 of octet n is encoding digit 2n-1 -bit 8 to 5 of octet n is encoding digit 2n

9.2.1.71 CFN Offset

Activation time for the compressed mode pattern.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CFN Offset			INTEGER (0… 255)	Number of frames between CFN and the compressed mode activation.

9.2.2 FDD Specific Parameters

This subclause contains parameters that are specific to FDD.

9.2.2.1 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip Offset is used as offset for the DL DPCH relative to the Primary CPICH timing.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Chip Offset			INTEGER (0..38399)	Chips

9.2.2.2 Compressed Mode Method

Defines the method for generating the downlink compressed mode gap, as described in ref. [9].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Compressed Mode Method			ENUMERATED (None, Puncturing, SF/2, Higher Layer Scheduling)	None = restore the normal mode

9.2.2.3 D-Field Length

Defines the D Field size of the UL DPCCH slot.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
D Field Length			ENUMERATED (1, 2)	

9.2.2.4

-Deleted.

9.2.2.5

-Deleted.

9.2.2.6 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, Closed loop mode2)	

9.2.2.7 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, according to ref. [8].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL DPCH Slot Format			INTEGER (0..16)	

9.2.2.8 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

9.2.2.9 Downlink Frame Type

This parameter defines if frame type 'A' or 'B' shall be used in downlink compressed mode. This is defined in [9].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Downlink Frame Type			ENUMERATED (TypeA, TypeB)	

9.2.2.10 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	M		INTEGER(0. . 255)	The maximum value is equal to the DL spreading factor –1

9.2.2.11 FDD TPC Downlink 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)	

9.2.2.12 Gap Position Mode

The gap position can be fixed or adjustable, as defined in ref. [9].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Gap Position Mode			ENUMERATED (Fixed, Flexible)	

9.2.2.13 Gap Period (TGP)

Gap Period is the period of repetition of a set of consecutive frames containing up to 2 transmission gaps.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Gap Period			INTEGER(0..255)	Frames

9.2.2.14 Gap Starting Slot Number (SN)

It defines the slot number when the transmission gap starts.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SN			Time Slot	

9.2.2.15 Max Number of UL DPDCHs

This parameter is an UE Radio Access Capability parameter which is needed in rate matching algorithm.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Max Number of UL DPDCHs			INTEGER (1..6)	

9.2.2.16 Min UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH which is supported by UE. 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)	

9.2.2.17 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 Position			ENUMERATED(Fixed, Flexible)	

9.2.2.18 Pattern Duration (PD)

Pattern duration is the total time of then compressed mode pattern (all consecutive TGPs) expressed in number of frames.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PD			INTEGER(0..2047, …)	Frames If the value is set to '0', the Pattern Duration shall be interpreted as 'infinite'

9.2.2.19 Power Control Mode (PCM)

Power Control Mode specifies the uplink power mode applied during recovery period after each transmission gap in compressed mode. PCM can take 2 values (0 or 1). The different power control modes are described in ref. [10].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Control Mode			ENUMERATED (0, 1,..)	

9.2.2.20 Power Offset

This IE defines a power offset respect the Downlink transmission power of a DPCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Offset			INTEGER (0…24)	Unit dB, Step 0.25 dB, range 0-6 dB

9.2.2.21 Power Resume Mode (PRM)

Power Resume Mode selects the uplink power control method to calculate the initial transmit power after the gap. PRM can take two values (0 or 1) and is described in ref. [12].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Resume Mode			ENUMERATED (0, 1,..)	Described in ref. [98].

9.2.2.22 Primary CPICH Ec/No

Energy per chip divided by the power density per band measured on the Primary CPICH by the terminal.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Primary CPICH Ec/No			INTEGER (-30…+30)	Unit dB, step 1 dB

9.2.2.23 Propagation Delay (PD)

Propagation delay is the one-way propagation delay of the radio signal from the UE to the Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Propagation Delay			INTEGER (0..255)	Chips. Step size is 3 chips. 0=0 chips, 1=3 chips, …

9.2.2.24 S-Field Length

The UE uses the S Field of the UL DPCCH slot to send the SSDT Cell ID to the network.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
S Field Length			ENUMERATED (1, 2)	

9.2.2.25 Scrambling Code Change

This parameter indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Scrambling Code Change			ENUMERATED (Change, No change)	

9.2.2.26 Slot Number (SN)

It defines the slot number when the transmission gap starts.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SN			Time Slot	

9.2.2.27 SSDT Cell Identity

The SSDT Cell ID is a temporary ID for SSDT assigned to a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SSDT Cell Identity			ENUMERATED (a, b.., h)	

9.2.2.28 SSDT Cell Identity Length

The SSDT Cell ID Length parameter shows the length of the SSDT Cell ID.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell ID Length			ENUMERATED(Short, Medium, Long)	

9.2.2.29 SSDT Indication

The SSDT Indication indicates whether SSDT is in use by the UE or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SSDT Indication			ENUMERATED(SSDT Active in the UE, SSDT not Active in the UE)	

9.2.2.30 SSDT Support Indicator

The SSDT Support Indicator indicates whether a RL supports SSDT or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SSDT Support Indicator			ENUMERATED (SSDT Supported, SSDT not supported).	

9.2.2.31 TFCI Signalling Mode

This parameter indicates if the normal or split mode is used for the TFCI.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TFCI Signalling Mode			ENUMERATED (Normal, Split)	

9.2.2.32 Transmission Gap Distance (TGD)

Transmission Gap Distance is the duration of transmission between two consecutive transmission gaps within a transmission gap period, expressed in number of slots. In case there is only one transmission gap in the transmission gap period, this parameter shall be set to zero.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TGD			INTEGER(0. .3839)	Slots

9.2.2.33 Transmit Gap Length (TGL)

Transmission Gap Length is the duration of no transmission, expressed in number of slots.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TGL			INTEGER (3,4,7,10,14)	Slot

9.2.2.34 UL/DL Compressed Mode Selection

This parameter specifies whether compressed mode is used in UL only, DL only or both UL and DL

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL/DL Compressed Mode Selection			ENUMERATED (UL only, DL only, both UL and DL)	

9.2.2.35 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, according to ref. [8].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL DPCCH Slot Format			INTEGER (0..5)	

9.2.2.36 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				
>UL Scrambling Code Number	M		INTEGER (0.. 2^{24}-1)	
>UL Scrambling Code Length	M		ENUMERATED(Short, Long)	

9.2.2.37 Uplink Delta SIR

The delta in uplink SIR that shall be added to the SIR target used during compressed mode frames.

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
Uplink Delta SIR			Enumerated (-6..+10dB)	Step 0.1 dB.

9.2.2.38 Uplink Delta SIR After

The delta in uplink SIR o target that shall be added to the SIR target used one frame after the compressed mode frames.

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
Uplink Delta SIR after			Enumerated (-6..+10dB)	Step 0.1 dB.

9.2.2.39 FDD S-CCPCH 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 S-CCPCH Offset			INTEGER(0. . 149)	0: 0 chip 1: 256 chip 2: 512 chip .. 149: 38144 chip [TS 25.211]

9.2.2.40 Secondary CCPCH Slot Format

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
Secondary CCPCH Slot Format			INTEGER (0..17)	refer to 25.211.

9.2.2.41 Tx diversity indicator

The Tx diversity support indicator indicates if the following conditions are satisfied:

- P-CPICH is broadcast from two antennas
- STTD is applied to P-CCPCH
- TSTD is applied to P-SCH and S-SCH

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Tx diversity indicator			ENUMERATED (true, false).	

9.2.2.42 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)	

9.2.2.43 STTD Support Indicator

The STTD Support Indicator indicates whether the STTD can be applied to DL DPCH in the cell or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
STTD Support Indicator			ENUMERATED (STTD Supported, STTD not Supported).	

9.2.2.44 Closed loop mode1 Support indicator

The Closed loop mode1 Support Indicator indicates whether the particular cell is capable to support Closed loop mode1 or not

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Closed loop mode1 Support Indicator			ENUMERATED (Closed loop mode1 Supported, Closed loop mode1 not supported).	

9.2.2.45 Closed loop mode2 Support indicator

The Closed loop mode2 Support Indicator indicates whether the particular cell is capable to support Closed loop mode2 or not

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Closed loop mode2 Support Indicator			ENUMERATED (Closed loop mode2 Supported, Closed loop mode2 not supported).	

9.2.2.46 DL Power

The DL Power IE indicates the power level of the DPDCH symbols, expressed as a relative value with respect to the CPICH power.

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
DL Power			Enumerated(-35..+15dB)	Step 0.1dB

9.2.2.47 Transmit Diversity Indicator

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transmit Diversity Indicator			ENUMERATED (active, inactive)	

9.2.2.48 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 DCH, non-selected DCH)	

9.2.2.49 DRAC Control

This IE indicates whether the DCH is control by DRAC or not.

The Transmit Diversity Indicator indicates whether Transmit Diversity shall be active or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DRAC Control			Enumerated (Requested, Not-Requested)	Requested means that DCH is controlled by DRAC

9.2.2.50 IB_SG_POS

First position of an 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..2^{12}-1)	

9.2.2.51 IB_SG_REP

Repetition distance for an Information Block segment. The segment shall be transmitted when SFN mod IB_SG_REP = IB_SG_POS.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IB SG REP			INTEGER (16, 32, 64, 128, 256, 512, 1024,2048)	Repetition period for the IB segment in frames

9.2.2.52 Power Adjustment Type

Defines the characteristic of the power adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PowerAdjustment Type			ENUMERATED (None, Common, Individual)	

9.2.2.53 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level in one slot period that can be utilised by the Power drifting prevention algorithm. This value does not include the DL inner loop PC adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Maximum Adjustment Step			INTEGER (0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1)	dB

9.2.2.54 Max Adjustment Period

Adjustment Period IE defines the period at the end of which the DL transmitted power shall converge, [with an accuracy of +-0.25 dB] to the reference power value assuming zero-sum alternating stream of DL PC commands received in that period of time.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Max Adjustment Period			INTEGER (10, 20, 30, 40, …, 500)	Slots

9.2.2.55 RL Set ID

The RL Set ID uniquely identifies one RL Set within a UE Context.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RL Set ID			INTEGER (0..31)	

9.2.3 TDD Specific Parameters

This subclause contains parameters that are specific to TDD.

9.2.3.1 Burst Type

Defines the burst type of the physical channel, see ref. [12].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Burst Type			ENUMERATED (Type1, Type2)	

9.2.3.2 CCTrCH ID

The CCTrCH ID identifies unambiguously a CCTrCH inside a Radio Link.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CCTrCH ID			INTEGER (0..15)	

9.2.3.3 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)	

9.2.3.4 Midamble Shift

Different bursts transmitted simultaneously, using the same midamble code shall use different Midamble Shifts.

The 256 chip midamble supports 3 different time shifts, the 512 chips midamble may support 8 or even 16 time shifts.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Midamble Shift			INTEGER (0..15)	

9.2.3.5 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. [14].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Primary CCPCH RSCP			INTEGER (0..91)	According to mapping in 25.225.

9.2.3.6 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.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Repetition Length			INTEGER(1..63)	

9.2.3.7 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).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Repetition Period			ENUMERATED (1,2,4,8,16,32,64)	

9.2.3.8 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))	

9.2.3.9 TDD Physical Channel Offset

The TDD Physical Channel Offset represents the phase information for the allocation of a physical channel. (SFN mod Repetition Period = TDD Physical Channel Offset).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD Physical Channel Offset			INTEGER (0..63)	

9.2.3.10 TDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD TPC Downlink step size			ENUMERATED (1, 2, 3)	

9.2.3.11 TFCI Coding

The TFCI Coding describes 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	M		Enumerated (4, 8, 16, 32)	

9.3 Message and Information element abstract syntax (with ASN.1)

This subclause is for the time being only **INFORMATIVE**.

In case of misalignment with the tabular format of the messages in subclause 9.1 the ASN.1 needs to be aligned with the tabular format.

The setting of the criticality field and the level on which criticality is set for the IEs and sequences of IEs is still to be decided upon.

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 multivendor 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
--
-- **************************************************************

RNSAP-PDU-Descriptions -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Criticality,
    ProcedureID,
    TransactionID
FROM RNSAP-CommonDataTypes
```

```
    CommonTransportChannelResourcesFailure,
    CommonTransportChannelResourcesRequest,
    CommonTransportChannelResourcesReleaseRequest,
    CommonTransportChannelResourcesResponseFDD,
    CommonTransportChannelResourcesResponseTDD,
    CompressedModeCancel,
    CompressedModeCommit,
    CompressedModeFailure,
    CompressedModePrepare,
    CompressedModeReady,
    DedicatedMeasurementFailureIndication,
    DedicatedMeasurementInitiationFailure,
    DedicatedMeasurementInitiationRequest,
    DedicatedMeasurementInitiationResponse,
    DedicatedMeasurementReport,
    DedicatedMeasurementTerminationRequest,
    DL-PowerControlRequest,
    DownlinkSignallingTransferRequest,
    ErrorIndication,
    PagingRequest,
    PhysicalChannelReconfigurationCommand,
    PhysicalChannelReconfigurationFailure,
    PhysicalChannelReconfigurationRequestFDD,
    PhysicalChannelReconfigurationRequestTDD,
    PrivateMessage,
    RadioLinkAdditionFailureFDD,
    RadioLinkAdditionFailureTDD,
    RadioLinkAdditionRequestFDD,
    RadioLinkAdditionRequestTDD,
    RadioLinkAdditionResponseFDD,
    RadioLinkAdditionResponseTDD,
    RadioLinkDeletionRequest,
    RadioLinkDeletionResponse,
    RadioLinkFailureIndication,
    RadioLinkReconfigurationCancel,
    RadioLinkReconfigurationCommit,
    RadioLinkReconfigurationFailure,
    RadioLinkReconfigurationPrepareFDD,
    RadioLinkReconfigurationPrepareTDD,
    RadioLinkReconfigurationReadyFDD,
    RadioLinkReconfigurationReadyTDD,
    RadioLinkReconfigurationRequestFDD,
    RadioLinkReconfigurationRequestTDD,
    RadioLinkReconfigurationResponse,
    RadioLinkRestoreIndication,
    RadioLinkSetupFailureFDD,
    RadioLinkSetupFailureTDD,
    RadioLinkSetupRequestFDD,
    RadioLinkSetupRequestTDD,
    RadioLinkSetupResponseFDD,
    RadioLinkSetupResponseTDD,
```

```
    RelocationCommit,
    UplinkSignallingTransferIndication
FROM RNSAP-PDU-Contents

    id-commonTransportChannelResourcesInitiationFDD,
    id-commonTransportChannelResourcesInitiationTDD,
    id-commonTransportChannelResourcesRelease,
    id-compressedModeCancellationFDD,
    id-compressedModeCommitFDD,
    id-compressedModePrepareFDD,
    id-downlinkPowerControl,
    id-downlinkSignallingTransfer,
    id-errorIndication,
    id-measurementFailure,
    id-measurementInitiation,
    id-measurementReporting,
    id-measurementTermination,
    id-pagingRequest,
    id-physicalChannelReconfiguration,
    id-privateMessage,
    id-radioLinkAddition,
    id-radioLinkDeletion,
    id-radioLinkFailure,
    id-radioLinkRestoration,
    id-radioLinkSetup,
    id-srnsRelocationCommit,
    id-synchronisedRadioLinkReconfigurationCancellation,
    id-synchronisedRadioLinkReconfigurationCommit,
    id-synchronisedRadioLinkReconfigurationPrepare,
    id-unSynchronisedRadioLinkReconfiguration,
    id-uplinkSignallingTransfer
FROM RNSAP-Constants;

-- **************************************************************
--
-- Interface Elementary Procedure Class
--
-- **************************************************************

RNSAP-ELEMENTARY-PROCEDURE ::= CLASS {
    &InitiatingMessage              ,
    &SuccessfulOutcome              OPTIONAL,
    &UnsuccessfulOutcome                OPTIONAL,
    &Outcome                    OPTIONAL,
    &procedureID            ProcedureID     UNIQUE,
    &criticality            Criticality     DEFAULT ignore
}
WITH SYNTAX {
    INITIATING MESSAGE      &InitiatingMessage
    [SUCCESSFUL OUTCOME     &SuccessfulOutcome]
    [UNSUCCESSFUL OUTCOME       &UnsuccessfulOutcome]
```

```
    [OUTCOME            &Outcome]
    PROCEDURE ID            &procedureID
    [CRITICALITY            &criticality]
}

-- **************************************************************
--
-- Interface PDU Definition
--
-- **************************************************************

RNSAP-PDU ::= CHOICE {
    initiatingMessage   InitiatingMessage,
    succesfulOutcome    SuccessfulOutcome,
    unsuccesfulOutcome  UnsuccessfulOutcome,
    outcome         Outcome,
    ...
}

InitiatingMessage ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID     ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality     ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID   TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&InitiatingMessage   ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

SuccessfulOutcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID     ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality     ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID   TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome   ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

UnsuccessfulOutcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID     ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality     ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID   TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

Outcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID     ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality     ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID   TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&Outcome     ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

-- **************************************************************
--
-- Interface Elementary Procedure List
--
```

```
-- **************************************************************

RNSAP-ELEMENTARY-PROCEDURES RNSAP-ELEMENTARY-PROCEDURE ::= {
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-1         |
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-2         |
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-3         ,
    ...
}

RNSAP-ELEMENTARY-PROCEDURES-CLASS-1 RNSAP-ELEMENTARY-PROCEDURE ::= {
    radioLinkSetupFDD                                   |
    radioLinkSetupTDD                                   |
    radioLinkAdditionFDD                                |
    radioLinkAdditionTDD                                |
    radioLinkDeletion                                   |
    synchronisedRadioLinkReconfigurationPreparationFDD  |
    synchronisedRadioLinkReconfigurationPreparationTDD  |
    unSynchronisedRadioLinkReconfigurationFDD           |
    unSynchronisedRadioLinkReconfigurationTDD           |
    physicalChannelReconfigurationFDD                   |
    physicalChannelReconfigurationTDD                   |
    measurementInitiation                               |
    compressedModePreparationFDD                        |
    commonTransportChannelResourcesInitiationFDD        |
    commonTransportChannelResourcesInitiationTDD        ,
    ...
}

RNSAP-ELEMENTARY-PROCEDURES-CLASS-2 RNSAP-ELEMENTARY-PROCEDURE ::= {
    uplinkSignallingTransfer                            |
    downlinkSignallingTransfer                          |
    srnsRelocationCommit                                |
    paging                                              |
    synchronisedRadioLinkReconfigurationCommit          |
    synchronisedRadioLinkReconfigurationCancellation    |
    radioLinkFailure                                    |
    radioLinkRestoration                                |
    measurementReporting                                |
    measurementTermination                              |
    measurementFailure                                  |
    downlinkPowerControlFDD                             |
    compressedModeCommitFDD                             |
    compressedModeCancellationFDD                       |
    commonTransportChannelResourcesRelease              |
    errorIndication                                     |
    privateMessage                                      ,
    ...
}

RNSAP-ELEMENTARY-PROCEDURES-CLASS-3 RNSAP-ELEMENTARY-PROCEDURE ::= {
    ...
```

```
}

-- **************************************************************
--
-- Interface Elementary Procedures
--
-- **************************************************************

radioLinkSetupFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkSetupRequestFDD
    SUCCESSFUL OUTCOME  RadioLinkSetupResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureFDD
    PROCEDURE ID        { procedureCode id-radioLinkSetup, ddMode fdd }
    CRITICALITY     reject
}

radioLinkSetupTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkSetupRequestTDD
    SUCCESSFUL OUTCOME  RadioLinkSetupResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureTDD
    PROCEDURE ID        { procedureCode id-radioLinkSetup, ddMode tdd }
    CRITICALITY     reject
}

radioLinkAdditionFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkAdditionRequestFDD
    SUCCESSFUL OUTCOME  RadioLinkAdditionResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureFDD
    PROCEDURE ID        { procedureCode id-radioLinkAddition , ddMode fdd }
    CRITICALITY     reject
}

radioLinkAdditionTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkAdditionRequestTDD
    SUCCESSFUL OUTCOME  RadioLinkAdditionResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureTDD
    PROCEDURE ID        { procedureCode id-radioLinkAddition , ddMode tdd }
    CRITICALITY     reject
}

radioLinkDeletion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkDeletionRequest
    SUCCESSFUL OUTCOME  RadioLinkDeletionResponse
    PROCEDURE ID        { procedureCode id-radioLinkDeletion, ddMode common }
    CRITICALITY     reject
}

synchronisedRadioLinkReconfigurationPreparationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationPrepareFDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationReadyFDD
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
```

```
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationPrepare, ddMode fdd }
    CRITICALITY     reject
}

synchronisedRadioLinkReconfigurationPreparationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationPrepareTDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationReadyTDD
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationPrepare, ddMode tdd }
    CRITICALITY     reject
}

unSynchronisedRadioLinkReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationRequestFDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationResponse
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
    CRITICALITY     reject
}

unSynchronisedRadioLinkReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationRequestTDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationResponse
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
    CRITICALITY     reject
}

physicalChannelReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PhysicalChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME  PhysicalChannelReconfigurationCommand
    UNSUCCESSFUL OUTCOME    PhysicalChannelReconfigurationFailure
    PROCEDURE ID        { procedureCode id-physicalChannelReconfiguration, ddMode fdd }
    CRITICALITY     reject
}

physicalChannelReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PhysicalChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME  PhysicalChannelReconfigurationCommand
    UNSUCCESSFUL OUTCOME    PhysicalChannelReconfigurationFailure
    PROCEDURE ID        { procedureCode id-physicalChannelReconfiguration, ddMode tdd }
    CRITICALITY     reject
}

measurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DedicatedMeasurementInitiationRequest
    SUCCESSFUL OUTCOME  DedicatedMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME    DedicatedMeasurementInitiationFailure
    PROCEDURE ID        { procedureCode id-measurementInitiation, ddMode common }
    CRITICALITY     reject
}
```

```
compressedModePreparationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CompressedModePrepare
    SUCCESSFUL OUTCOME  CompressedModeReady
    UNSUCCESSFUL OUTCOME    CompressedModeFailure
    PROCEDURE ID        { procedureCode id-compressedModePrepareFDD, ddMode fdd }
    CRITICALITY     reject
}

commonTransportChannelResourcesInitiationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME  CommonTransportChannelResourcesResponseFDD
    UNSUCCESSFUL OUTCOME    CommonTransportChannelResourcesFailure
    PROCEDURE ID        { procedureCode id-commonTransportChannelResourcesInitiationFDD, ddMode common }
    CRITICALITY     reject
}

commonTransportChannelResourcesInitiationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME  CommonTransportChannelResourcesResponseTDD
    UNSUCCESSFUL OUTCOME    CommonTransportChannelResourcesFailure
    PROCEDURE ID        { procedureCode id-commonTransportChannelResourcesInitiationTDD, ddMode common }
    CRITICALITY     reject
}

uplinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  UplinkSignallingTransferIndication
    PROCEDURE ID        { procedureCode id-uplinkSignallingTransfer, ddMode common }
    CRITICALITY     ignore
}

downlinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DownlinkSignallingTransferRequest
    PROCEDURE ID        { procedureCode id-downlinkSignallingTransfer, ddMode common }
    CRITICALITY     ignore
}

srnsRelocationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RelocationCommit
    PROCEDURE ID        { procedureCode id-srnsRelocationCommit, ddMode common }
    CRITICALITY     ignore
}

paging RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PagingRequest
    PROCEDURE ID        { procedureCode id-pagingRequest, ddMode common }
    CRITICALITY     ignore
}

synchronisedRadioLinkReconfigurationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationCommit
```

```
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
    CRITICALITY     ignore
}

synchronisedRadioLinkReconfigurationCancellation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationCancel
    PROCEDURE ID        { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
    CRITICALITY     ignore
}

radioLinkFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkFailureIndication
    PROCEDURE ID        { procedureCode id-radioLinkFailure, ddMode common }
    CRITICALITY     ignore
}

radioLinkRestoration RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkRestoreIndication
    PROCEDURE ID        { procedureCode id-radioLinkRestoration, ddMode common }
    CRITICALITY     ignore
}

measurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DedicatedMeasurementReport
    PROCEDURE ID        { procedureCode id-measurementReporting, ddMode common }
    CRITICALITY     ignore
}

measurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DedicatedMeasurementTerminationRequest
    PROCEDURE ID        { procedureCode id-measurementTermination, ddMode common }
    CRITICALITY     ignore
}

measurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DedicatedMeasurementFailureIndication
    PROCEDURE ID        { procedureCode id-measurementFailure, ddMode common }
    CRITICALITY     ignore
}

downlinkPowerControlFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  DL-PowerControlRequest
    PROCEDURE ID        { procedureCode id-downlinkPowerControl, ddMode fdd }
    CRITICALITY     ignore
}

compressedModeCommitFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CompressedModeCommit
    PROCEDURE ID        { procedureCode id-compressedModeCommitFDD, ddMode fdd }
    CRITICALITY     ignore
}
```

```
compressedModeCancellationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CompressedModeCancel
    PROCEDURE ID        { procedureCode id-compressedModeCancellationFDD, ddMode fdd }
    CRITICALITY     ignore
}

commonTransportChannelResourcesRelease RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonTransportChannelResourcesReleaseRequest
    PROCEDURE ID        { procedureCode id-commonTransportChannelResourcesRelease, ddMode common }
    CRITICALITY     ignore
}

errorIndication RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  ErrorIndication
    PROCEDURE ID        { procedureCode id-errorIndication, ddMode common }
    CRITICALITY     ignore
}

privateMessage RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  PrivateMessage
    PROCEDURE ID        { procedureCode id-privateMessage, ddMode common }
    CRITICALITY     ignore
}

END
```

9.3.3 PDU Definitions

```
-- **************************************************************
--
-- PDU definitions for RNSAP.
--
-- **************************************************************

RNSAP-PDU-Contents -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    AllocationRetentionPriority,
    AllowedQueuingTime,
    BLER,
```

```
    BindingID,
    BurstType,
    C-ID,
    C-RNTI,
    CCTrCH-ID,
    CellIndividualOffset,
    CFN,
    CFNOffset,
    ClosedLoopMode1-SupportIndicator,
    ClosedLoopMode2-SupportIndicator,
    CN-CS-DomainIdentifier,
    CN-PS-DomainIdentifier,
    Cause,
    CellParameterID,
    ChipOffset,
    CompressedModeMethod,
    CriticalityDiagnostics,
    D-FieldLength,
    D-RNTI,
    D-RNTI-ReleaseIndication,
    DCH-CombinationInd,
    DCH-ID,
    DL-DPCH-SlotFormat,
    DL-SIRTarget,
    DL-FrameType,
    DL-Power,
    DL-ScramblingCode,
    DPCHConstantValue,
    DPCH-ID,
    DRACControl,
    DRXCycleLengthCoefficient,
    DedicatedMeasurementType,
    DedicatedMeasurementValue,
    DiversityControlField,
    DiversityMode,
    FACH-InitialWindowSize,
    FACH-PriorityIndicator,
    FDD-DL-ChannelisationCodeNumber,
    FDD-S-CCPCH-Offset,
    FDD-TPC-DownlinkStepSize,
    FrameHandlingPriority,
    FrameOffset,
    GapPeriod,
    GapPositionMode,
    IB-SG-POS,
    IB-SG-REP,
    IMSI,
    L3-Information,
    LimitedPowerIncrease,
    MAC-c-SDU-Length,
    MaximumAllowedULTxPower,
```

```
    MaxNrOfUL-DPCHs,
    MeasurementFilterCoefficient,
    MeasurementID,
    MidambleShift,
    MinUL-ChannelisationCodeLength,
    MultipleURAsIndicator,
    MultiplexingPosition,
    PD,
    PayloadCRC-PresenceIndicator,
    PCCPCH-Power,
    PowerAdjustmentType,
    PowerControlMode,
    PowerOffset,
    PowerResumeMode,
    PrimaryCCPCH-RSCP,
    PrimaryCPICH-EcNo,
    PrimaryCPICH-Power,
    PrimaryScramblingCode,
    PropagationDelay,
    PunctureLimit,
    QE-Selector,
    RANAP-RelocationInformation,
    RL-ID,
    RL-Set-ID,
    RNC-ID,
    RepetitionLength,
    RepetitionPeriod,
    ReportCharacteristics,
    S-FieldLength,
    S-RNTI,
    SCH-TimeSlot,
    SAI,
    SN,
    SSDT-CellID,
    SSDT-CellID-Length,
    SSDT-Indication,
    SSDT-SupportIndicator,
    STTD-Indicator,
    STTD-SupportIndicator,
    ScaledMaxAdjustmentPeriod,
    ScaledMaxAdjustmentStep,
    ScramblingCodeChange,
    SecondaryCCPCH-SlotFormat,
    SyncCase,
    TDD-ChannelisationCode,
    TDD-PhysicalChannelOffset,
    TDD-TPC-DownlinkStepSize,
    TFCI-Coding,
    TFCI-Presence,
    TFCI-SignallingMode,
    TGD,
```

```
    TGL,
    TimeSlot,
    ToAWE,
    ToAWS,
    TransmitDiversityIndicator,
    TransportBearerID,
    TransportBearerRequestIndicator,
    TFCS,
    TransportFormatSet,
    TransportLayerAddress,
    TrCH-SrcStatisticsDescr,
    TxDiversityIndicator,
    UARFCN,
    UC-ID,
    UL-DeltaSIR,
    UL-DeltaSIRAfter,
    UL-DL-CompressedModeSelection,
    UL-DPCCH-SlotFormat,
    UL-InterferenceLevel,
    UL-SIR,
    UL-FP-Mode,
    UL-ScramblingCode,
    URA-ID
FROM RNSAP-IEs

    PrivateIE-Container{},
    ProtocolExtensionContainer{},
    ProtocolIE-ContainerList{},
    ProtocolIE-ContainerPair{},
    ProtocolIE-ContainerPairList{},
    ProtocolIE-Container{},
    RNSAP-PRIVATE-IES,
    RNSAP-PROTOCOL-EXTENSION,
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-IES-PAIR
FROM RNSAP-Containers

    maxNrOfCCTrCHs,
    maxNrOfDCHs,
    maxNrOfDL-Codes,
    maxNrOfDPCHs,
    maxNrOfMACcSDU-Length,
    maxNrOfRLs,
    maxNrOfRLSets,
    maxNrOfRLs-1,
    maxNrOfRLs-2,
    maxNrOfSCCPCHs,
    maxNrOfULTs,
    maxNrOfCMpatterns,
    maxRNCinURA,
    maxNrOfNeighbouringRNCs,
```

```
    maxNrOfFDDNeighboursPerRNC,
    maxNrOfTDDNeighboursPerRNC,
    maxFACHCountPlus1,
    maxIBSEG,

    id-AllRLItem-DM-Rprt,
    id-AllRLItem-DM-Rsp,
    id-AllRL-SetItem-DM-Rprt,
    id-AllRL-SetItem-DM-Rsp,
    id-AllowedQueuingTime,
    id-BindingID,
    id-C-ID,
    id-C-RNTI,
    id-CFN,
    id-CN-CS-DomainIdentifier,
    id-CN-PS-DomainIdentifier,
    id-Cause,
    id-CellItem-PagingRqst,
    id-CM-PatternInformationItem-CompressedModePrep,
    id-CM-PatternInformationList-CompressedModePrep,
    id-CombiningItem-RL-AdditionFailureFDD,
    id-CombiningItem-RL-AdditionRspFDD,
    id-CombiningItem-RL-AdditionRspTDD,
    id-CombiningItem-RL-SetupFailureFDD,
    id-CombiningItem-RL-SetupRspFDD,
    id-CriticalityDiagnostics,
    id-D-RNTI,
    id-D-RNTI-ReleaseIndication,
    id-DCH-AddListIE-RL-ReconfReadyFDD,
    id-DCH-AddListIE-RL-ReconfReadyTDD,
    id-DCH-AddListIE-RL-ReconfRsp,
    id-DCH-AddList-RL-ReconfPrepFDD,
    id-DCH-AddList-RL-ReconfPrepTDD,
    id-DCH-AddList-RL-ReconfRqstFDD,
    id-DCH-AddList-RL-ReconfRqstTDD,
    id-DCH-DeleteList-RL-ReconfPrepFDD,
    id-DCH-DeleteList-RL-ReconfPrepTDD,
    id-DCH-DeleteList-RL-ReconfRqstFDD,
    id-DCH-DeleteList-RL-ReconfRqstTDD,
    id-DCH-Information-RL-SetupRqstFDD,
    id-DCH-InformationList-RL-SetupRqstTDD,
    id-DCH-ModifyListIE-RL-ReconfReadyFDD,
    id-DCH-ModifyListIE-RL-ReconfReadyTDD,
    id-DCH-ModifyListIE-RL-ReconfRsp,
    id-DCH-ModifyList-RL-ReconfPrepFDD,
    id-DCH-ModifyList-RL-ReconfPrepTDD,
    id-DCH-ModifyList-RL-ReconfRqstFDD,
    id-DCH-ModifyList-RL-ReconfRqstTDD,
    id-DCH-InformationResponseListIE-RL-SetupRspTDD,
    id-DL-CCTrCH-InformationItem-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
```

```
    id-DL-CCTrCH-InformationItem-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
    id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
    id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD,
    id-DL-CCTrCH-InformationList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationList-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,
    id-DL-CodeInformationListIE-PhyChReconfRqstFDD,
    id-DL-CodeInformationListIE-RL-AdditionFailureFDD,
    id-DL-CodeInformationListIE-RL-AdditionRspFDD,
    id-DL-CodeInformationListIE-RL-ReconfReadyFDD,
    id-DL-CodeInformationListIE-RL-SetupFailureFDD,
    id-DL-DPCH-Information-RL-ReconfPrepFDD,
    id-DL-DPCH-Information-RL-SetupRqstFDD,
    id-DL-DPCH-Information-RL-ReconfRqstFDD,
    id-DL-DPCH-InformationItem-PhyChReconfRqstTDD,
    id-DL-DPCH-InformationItem-RL-AdditionRspTDD,
    id-DL-DPCH-InformationItem-RL-SetupRspTDD,
    id-DL-DPCH-InformationListIE-RL-ReconfReadyTDD,
    id-DL-SIRTarget,
    id-DLReferencePower,
    id-DLReferencePowerList-DL-PC-Rqst,
    id-DL-ReferencePowerInformation-DL-PC-Rqst,
    id-DRXCycleLengthCoefficient,
    id-DedicatedMeasurementObjectType-DM-Rprt,
    id-DedicatedMeasurementObjectType-DM-Rqst,
    id-DedicatedMeasurementObjectType-DM-Rsp,
    id-DedicatedMeasurementType,
    id-DiversityIndicationItem-RL-AdditionFailureFDD,
    id-DiversityIndicationItem-RL-AdditionRspFDD,
    id-DiversityIndicationItem-RL-AdditionRspTDD,
    id-DiversityIndicationItem-RL-SetupFailureFDD,
    id-DiversityIndicationItem-RL-SetupRspFDD,
    id-FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspFDD,
    id-FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspTDD,
    id-FACH-InfoForS-CCPCH-CoupledToPRACHorPCPCH-CTCH-ResourceRspFDD,
    id-FACH-InfoForS-CCPCH-CoupledToPRACH-CTCH-ResourceRspTDD,
    id-IMSI,
    id-L3-Information,
    id-MAC-c-SDU-LengthListIE-CTCH-ResourceRspFDD,
    id-MAC-c-SDU-LengthListIE-CTCH-ResourceRspTDD,
    id-MAC-c-SDU-LengthListIE-option-CTCH-ResourceRspFDD,
    id-MAC-c-SDU-LengthListIE-option-CTCH-ResourceRspTDD,
    id-MaxAdjustmentPeriod,
    id-MaxAdjustmentStep,
    id-MeasurementFilterCoefficient,
    id-MeasurementID,
    id-MultipleURAsIndicator,
    id-NeighbouringFDD-CellInformationItem-RL-AdditionFailureFDD,
    id-NeighbouringFDD-CellInformationItem-RL-AdditionRsp,
```

```
    id-NeighbouringFDD-CellInformationItem-RL-SetupFailureFDD,
    id-NeighbouringFDD-CellInformationItem-RL-SetupRsp,
    id-NeighbouringTDD-CellInformationItem-RL-AdditionFailureFDD,
    id-NeighbouringTDD-CellInformationItem-RL-AdditionRsp,
    id-NeighbouringTDD-CellInformationItem-RL-SetupFailureFDD,
    id-NeighbouringTDD-CellInformationItem-RL-SetupRsp,
    id-Neighbouring-CellInformationItem-RL-SetupFailureFDD,
    id-Neighbouring-CellInformationItem-RL-SetupRsp,
    id-NonCombiningItem-RL-AdditionFailureFDD,
    id-NonCombiningItem-RL-AdditionRspFDD,
    id-NonCombiningItem-RL-AdditionRspTDD,
    id-NonCombiningOrIEnotPresenItem-RL-SetupFailureFDD,
    id-NonCombiningOrIEnotPresenItem-RL-SetupRspFDD,
    id-PagingArea-PagingRqst,
    id-PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspFDD,
    id-PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspTDD,
    id-PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspFDD,
    id-PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspTDD,
    id-PowerAdjustmentType,
    id-ProcedureScope-DL-PC-Rqst,
    id-RANAP-RelocationInformation,
    id-RL-Information-PhyChReconfRqstFDD,
    id-RL-Information-PhyChReconfRqstTDD,
    id-RL-Information-RL-AdditionRqstFDD,
    id-RL-Information-RL-AdditionRqstTDD,
    id-RL-Information-RL-DeletionRqst,
    id-RL-Information-RL-FailureInd,
    id-RL-Information-RL-ReconfPrepFDD,
    id-RL-Information-RL-RestoreInd,
    id-RL-Information-RL-SetupRqstFDD,
    id-RL-Information-RL-SetupRqstTDD,
    id-RL-InformationItem-DM-Rprt,
    id-RL-InformationItem-DM-Rqst,
    id-RL-InformationItem-DM-Rsp,
    id-RL-InformationItem-RL-SetupRqstFDD,
    id-RL-InformationList-RL-AdditionRqstFDD,
    id-RL-InformationList-RL-DeletionRqst,
    id-RL-InformationList-RL-ReconfPrepFDD,
    id-RL-InformationResponse-RL-AdditionRspTDD,
    id-RL-InformationResponse-RL-ReconfReadyTDD,
    id-RL-InformationResponse-RL-SetupRspTDD,
    id-RL-InformationResponseItem-RL-AdditionRspFDD,
    id-RL-InformationResponseItem-RL-ReconfReadyFDD,
    id-RL-InformationResponseItem-RL-ReconfRsp,
    id-RL-InformationResponseItem-RL-SetupRspFDD,
    id-RL-InformationResponseList-RL-AdditionRspFDD,
    id-RL-InformationResponseList-RL-ReconfReadyFDD,
    id-RL-InformationResponseList-RL-ReconfRsp,
    id-RL-InformationResponseList-RL-SetupRspFDD,
    id-RLItem-DM-Rprt,
    id-RLItem-DM-Rqst,
```

```
    id-RLItem-DM-Rsp,
    id-RL-ReconfigurationFailure-RL-ReconfFail,
    id-RL-ReconfigurationFailureList-RL-ReconfFail,
    id-RL-Set-InformationItem-DM-Rprt,
    id-RL-Set-InformationItem-DM-Rqst,
    id-RL-Set-InformationItem-DM-Rsp,
    id-RL-Set-Information-RL-FailureInd,
    id-RL-Set-Information-RL-RestoreInd,
    id-RL-SetItem-DM-Rprt,
    id-RL-SetItem-DM-Rqst,
    id-RL-SetItem-DM-Rsp,
    id-RNCsWithCellsInTheAccessedURA-List-UL-ST-Ind,
    id-ReportCharacteristics,
    id-Reporting-Object-RL-FailureInd,
    id-Reporing-Object-RL-RestoreInd,
    id-S-RNTI,
    id-SAI,
    id-SRNC-ID,
    id-SecondaryCCPCHListIE-CTCH-ResourceRspTDD,
    id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
    id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD,
    id-SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,
    id-SuccessfulRL-InformationResponseList-RL-SetupFailureFDD,
    id-TransportBearerID,
    id-TransportBearerRequestIndicator,
    id-TransportLayerAddress,
    id-UC-ID,
    id-UL-CCTrCH-Information-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationItem-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationList-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
    id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
    id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
    id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD,
    id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD,
    id-UL-DPCH-Information-RL-ReconfPrepFDD,
    id-UL-DPCH-Information-RL-ReconfRqstFDD,
    id-UL-DPCH-Information-RL-SetupRqstFDD,
    id-UL-DPCH-InformationItem-PhyChReconfRqstTDD,
    id-UL-DPCH-InformationItem-RL-AdditionRspTDD,
    id-UL-DPCH-InformationItem-RL-SetupRspTDD,
    id-UL-DPCH-InformationListIE-RL-ReconfReadyTDD,
    id-UL-SIRTarget,
    id-URA-ID,
    id-URAItem-PagingRqst,
    id-UnsuccessfulRL-InformationResponse,
    id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
    id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD,
```

```
    id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD,
    id-UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,
    id-UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD
FROM RNSAP-Constants;

-- **************************************************************
--
-- Common Container List
--
-- **************************************************************

DPCH-IE-ContainerList       { RNSAP-PROTOCOL-IES : IEsSetParam}     ::= ProtocolIE-ContainerList { 1, maxNrOfDPCHs,    { IEsSetParam } }
RL-IE-ContainerList0        { RNSAP-PROTOCOL-IES : IEsSetParam}     ::= ProtocolIE-ContainerList { 0, maxNrOfRLs,      { IEsSetParam } }
RL-IE-ContainerList1        { RNSAP-PROTOCOL-IES : IEsSetParam}     ::= ProtocolIE-ContainerList { 1, maxNrOfRLs,      { IEsSetParam } }
RL-IE-ContainerList1-1      { RNSAP-PROTOCOL-IES : IEsSetParam}     ::= ProtocolIE-ContainerList { 1, maxNrOfRLs-1,    { IEsSetParam } }
RL-IE-ContainerList0-1      { RNSAP-PROTOCOL-IES : IEsSetParam}     ::= ProtocolIE-ContainerList { 0, maxNrOfRLs-1,    { IEsSetParam } }
RL-IE-ContainerList0-2      { RNSAP-PROTOCOL-IES : IEsSetParam}     ::= ProtocolIE-ContainerList { 0, maxNrOfRLs-2,    { IEsSetParam } }
RL-Set-IE-ContainerList     { RNSAP-PROTOCOL-IES : IEsSetParam}     ::= ProtocolIE-ContainerList { 1, maxNrOfRLSets,   { IEsSetParam } }
CCTrCH-IE-ContainerList0    { RNSAP-PROTOCOL-IES : IEsSetParam}     ::= ProtocolIE-ContainerList { 0, maxNrOfCCTrCHs,  { IEsSetParam } }
CCTrCH-IE-ContainerList1    { RNSAP-PROTOCOL-IES : IEsSetParam}     ::= ProtocolIE-ContainerList { 1, maxNrOfCCTrCHs,  { IEsSetParam } }

-- **************************************************************
--
-- RADIO LINK SETUP REQUEST FDD
--
-- **************************************************************

RadioLinkSetupRequestFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupRequestFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupRequestFDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkSetupRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-S-RNTI                  CRITICALITY reject  TYPE S-RNTI                    PRESENCE mandatory } |
    { ID id-D-RNTI                  CRITICALITY reject  TYPE D-RNTI                  PRESENCE optional   } |
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional  } |
    { 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 mandatory   } |
    { ID id-DCH-Information-RL-SetupRqstFDD     CRITICALITY reject  TYPE DCH-InformationList-RL-SetupRqstFDD    PRESENCE mandatory   } |
    { ID id-RL-Information-RL-SetupRqstFDD      CRITICALITY notify  TYPE RL-InformationList-RL-SetupRqstFDD     PRESENCE mandatory   },
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    ul-ScramblingCode               UL-ScramblingCode,
    minUL-ChannelisationCodeLength          MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPCHs                 MaxNrOfUL-DPCHs         OPTIONAL
    -- This IE is present only if minUL-ChannelisationCodeLength equals to 4 -- ,
    ul-PunctureLimit                PunctureLimit,
    ul-TFCS                         TFCS,
```

```
    ul-DPCCH-SlotFormat             UL-DPCCH-SlotFormat,
    ul-SIRTarget                    UL-SIR          OPTIONAL,
    diversityMode                   DiversityMode,
    d-FieldLength                   D-FieldLength           OPTIONAL
    -- This IE is present only if Feed Back mode diversity is activated -- ,
    sSDT-CellIdLength               SSDT-CellID-Length      OPTIONAL,
    s-FieldLength                   S-FieldLength           OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

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 is present if Slot Format is from 12 to 16 --,
    multiplexingPosition                MultiplexingPosition,
    powerOffsetInformation              SEQUENCE {
        po1-ForTFCI-Bits                PowerOffset,
        po2-ForTPC-Bits                 PowerOffset,
        po3-ForPilotBits                PowerOffset,
        ...
    },
    fdd-dl-TPC-DownlinkStepSize     FDD-TPC-DownlinkStepSize,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationList-RL-SetupRqstFDD             ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationItem-RL-SetupRqstFDD

DCH-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    dCH-ID                              DCH-ID,
    dCH-CombinationInd                  DCH-CombinationInd      OPTIONAL,
    limitedPowerIncrease                LimitedPowerIncrease,
    trCH-SrcStatisticsDescr             TrCH-SrcStatisticsDescr,
    ul-transportFormatSet               TransportFormatSet,
    dl-transportFormatSet               TransportFormatSet,
    ul-BLER                             BLER,
    dl-BLER                             BLER,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
```

```
    ul-FP-Mode                      UL-FP-Mode,
    qE-Selector                     QE-Selector,
    toAWS                           ToAWS,
    toAWE                           ToAWE,
    dRACControl                     DRACControl,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-InformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-InformationItem-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-SetupRqstFDD          ::= RL-IE-ContainerList1 { {RL-InformationItemIEs-RL-SetupRqstFDD} }

RL-InformationItemIEs-RL-SetupRqstFDD RNSAP-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,
    frameOffset                     FrameOffset,
    chipOffset                      ChipOffset,
    propagationDelay                PropagationDelay        OPTIONAL,
    diversityControlField           DiversityControlField       OPTIONAL
    -- This IE is present only if the RL is not the first one in the RL-InformationList-RL-SetupRqstFDD --,
    dl-InitialTX-Power              DL-Power            OPTIONAL,
    primaryCPICH-EcNo               PrimaryCPICH-EcNo           OPTIONAL,
    sSDT-CellID                     SSDT-CellID         OPTIONAL,
    transmitDiversityIndicator      TransmitDiversityIndicator      OPTIONAL,
    -- This IE is present unless Diversity Mode IE in UL DPCH Information group is "none"
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP REQUEST TDD
--
-- **************************************************************
```

```
RadioLinkSetupRequestTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupRequestTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupRequestTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkSetupRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-S-RNTI                  CRITICALITY reject  TYPE S-RNTI                    PRESENCE mandatory } |
    { ID id-D-RNTI                  CRITICALITY reject  TYPE D-RNTI                 PRESENCE optional  } |
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional  } |
    { ID id-UL-CCTrCH-InformationList-RL-SetupRqstTDD   CRITICALITY notify  TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD  PRESENCE mandatory  } |
    { ID id-DL-CCTrCH-InformationList-RL-SetupRqstTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationList-RL-SetupRqstTDD  PRESENCE mandatory  } |
    { ID id-DCH-InformationList-RL-SetupRqstTDD CRITICALITY reject  TYPE DCH-InformationList-RL-SetupRqstTDD PRESENCE mandatory  } |
    { ID id-RL-Information-RL-SetupRqstTDD      CRITICALITY reject  TYPE RL-Information-RL-SetupRqstTDD   PRESENCE mandatory  },
    ...
}

UL-CCTrCH-InformationList-RL-SetupRqstTDD           ::= CCTrCH-IE-ContainerList1 { {UL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD} }

UL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-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,
    ul-TFCS                     TFCS,
    tFCI-Coding                 TFCI-Coding,
    ul-PunctureLimit                PunctureLimit,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-SetupRqstTDD           ::= CCTrCH-IE-ContainerList1 { {DL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD} }

DL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-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,
    dl-TFCS                     TFCS,
    tFCI-Coding                 TFCI-Coding,
    dl-PunctureLimit                PunctureLimit,
    tdd-TPC-DownlinkStepSize        TDD-TPC-DownlinkStepSize,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
```

```
    ...
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationList-RL-SetupRqstTDD            ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationItem-RL-SetupRqstTDD

DCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    dCH-ID                              DCH-ID,
    ul-cCTrCH-ID                        CCTrCH-ID, -- UL CCTrCH in which the DCH is mapped
    dl-cCTrCH-ID                        CCTrCH-ID, -- DL CCTrCH in which the DCH is mapped
    dCH-CombinationInd                  DCH-CombinationInd      OPTIONAL,
    limitedPowerIncrease                LimitedPowerIncrease,
    trCH-SrcStatisticsDescr             TrCH-SrcStatisticsDescr,
    ul-transportFormatSet               TransportFormatSet,
    dl-transportFormatSet               TransportFormatSet,
    ul-BLER                             BLER,
    dl-BLER                             BLER,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    iE-Extensions                       ProtocolExtensionContainer { {DCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-SetupRqstTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    c-ID                        C-ID,
    frameOffset                 FrameOffset,
    primaryCCPCH-RSCP               PrimaryCCPCH-RSCP       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- RADIO LINK SETUP RESPONSE FDD
--
-- **************************************************************

RadioLinkSetupResponseFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupResponseFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupResponseFDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkSetupResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                  CRITICALITY ignore  TYPE D-RNTI                     PRESENCE optional  } |
    { ID id-CN-PS-DomainIdentifier          CRITICALITY ignore  TYPE CN-PS-DomainIdentifier      PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier          CRITICALITY ignore  TYPE CN-CS-DomainIdentifier      PRESENCE optional } |
    { ID id-RL-InformationResponseList-RL-SetupRspFDD   CRITICALITY ignore  TYPE RL-InformationResponseList-RL-SetupRspFDD  PRESENCE mandatory   } |
    { ID id-UL-SIRTarget                CRITICALITY ignore  TYPE UL-SIR                 PRESENCE optional  } |
    { ID id-DL-SIRTarget                CRITICALITY ignore  TYPE DL-SIRTarget               PRESENCE optional } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-SetupRspFDD       ::= RL-IE-ContainerList1 { {RL-InformationResponseItemIEs-RL-SetupRspFDD} }

RL-InformationResponseItemIEs-RL-SetupRspFDD RNSAP-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,
    sAI                             SAI,
    ul-InterferenceLevel            UL-InterferenceLevel,
    secondary-CCPCH-Info            Secondary-CCPCH-Info-RL-SetupRspFDD     OPTIONAL,
    dl-CodeInformation              DL-CodeInformationList-RL-SetupRspFDD,
    diversityIndication             DiversityIndication-RL-SetupRspFDD,
    sSDT-SupportIndicator           SSDT-SupportIndicator,
    maxUL-SIR                       UL-SIR,
    minUL-SIR                       UL-SIR,
    maximumAllowedULTxPower         MaximumAllowedULTxPower,
    neighbouring-CellInformation    Neighbouring-CellInformationList-RL-SetupRsp OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
Secondary-CCPCH-Info-RL-SetupRspFDD ::= SEQUENCE {
    fDD-S-CCPCH-Offset                      FDD-S-CCPCH-Offset,
    dl-ScramblingCode                       DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    dl-TFCS                                 TFCS,
    secondaryCCPCH-SlotFormat               SecondaryCCPCH-SlotFormat,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    -- This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17
    multiplexingPosition                    MultiplexingPosition,
    sTTD-Indicator                          STTD-Indicator,
    fACH-PCH-InformationList                FACH-PCH-InformationList-RL-SetupRspFDD,
    schedulingInformation                   SchedulingInformation-RL-SetupRspFDD,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-CCPCH-Info-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-Info-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-PCH-InformationList-RL-SetupRspFDD ::= SEQUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem-RL-SetupRspFDD

FACH-PCH-InformationItem-RL-SetupRspFDD ::= SEQUENCE {
    transportFormatSet              TransportFormatSet,
    iE-Extensions                   ProtocolExtensionContainer { { FACH-PCH-InformationItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

FACH-PCH-InformationItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SchedulingInformation-RL-SetupRspFDD ::= SEQUENCE {
    iB-SG-Rep                       IB-SG-REP,
    segmentInformationList          SegmentInformationList-RL-SetupRspFDD,
    iE-Extensions                   ProtocolExtensionContainer { { SchedulingInformation-RL-SetupRspFDD-ExtIEs } } OPTIONAL,
        ...
}

SchedulingInformation-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SegmentInformationList-RL-SetupRspFDD ::= SEQUENCE (SIZE(1..maxIBSEG)) OF SegmentInformationItem-RL-SetupRspFDD

SegmentInformationItem-RL-SetupRspFDD ::= SEQUENCE {
    iB-SG-POS                       IB-SG-POS,
    iE-Extensions                   ProtocolExtensionContainer { {  SegmentInformationItem-RL-SetupRspFDD-ExtIEs } } OPTIONAL,
    ...
}
```

```
SegmentInformationItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CodeInformationList-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF DL-CodeInformationItem-RL-SetupRspFDD

DL-CodeInformationItem-RL-SetupRspFDD ::= SEQUENCE {
    dl-ScramblingCode               DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CodeInformationItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CodeInformationItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
DiversityIndication-RL-SetupRspFDD ::= ProtocolIE-Container {{ DiversityIndicationIE-RL-SetupRspFDD }}

DiversityIndicationIE-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DiversityIndicationItem-RL-SetupRspFDD   CRITICALITY ignore TYPE     DiversityIndicationItem-RL-SetupRspFDD  PRESENCE mandatory },
    ...
}

DiversityIndicationItem-RL-SetupRspFDD ::= CHOICE {
    combining                       Combining-RL-SetupRspFDD,
    nonCombiningOrIEnotPresent      NonCombiningOrIEnotPresen-RL-SetupRspFDD,
    ...
}

Combining-RL-SetupRspFDD ::= ProtocolIE-Container {{ CombiningIE-RL-SetupRspFDD }}

CombiningIE-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-SetupRspFDD   CRITICALITY ignore   TYPE CombiningItem-RL-SetupRspFDD PRESENCE mandatory },
    ...
}

CombiningItem-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombiningOrIEnotPresen-RL-SetupRspFDD ::= ProtocolIE-Container {{ NonCombiningOrIEnotPresenIE-RL-SetupRspFDD }}

NonCombiningOrIEnotPresenIE-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-NonCombiningOrIEnotPresenItem-RL-SetupRspFDD   CRITICALITY ignore   TYPE    NonCombiningOrIEnotPresenItem-RL-SetupRspFDD  PRESENCE
    mandatory },
    ...
}

NonCombiningOrIEnotPresenItem-RL-SetupRspFDD ::= SEQUENCE {
    dCH-InformationResponse-RL-SetupRspFDD      DCH-InformationResponseList-RL-SetupRspFDD  OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { NonCombiningOrIEnotPresenItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningOrIEnotPresenItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-SetupRspFDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-SetupRspFDD

DCH-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    bindingID                   BindingID,
    transportLayerAddress               TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-InformationResponseItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-InformationResponseItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Neighbouring-CellInformationList-RL-SetupRsp ::= SEQUENCE (SIZE (0..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Container {{ Neighbouring-
CellInformationItemIE-RL-SetupRsp }}

Neighbouring-CellInformationItemIE-RL-SetupRsp RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-CellInformationItem-RL-SetupRsp   CRITICALITY ignore   TYPE    Neighbouring-CellInformationItem-RL-SetupRsp  PRESENCE
    mandatory },
    ...
}

Neighbouring-CellInformationItem-RL-SetupRsp ::= SEQUENCE {
    rNC-ID                              RNC-ID,
    cN-PS-DomainIdentifier              CN-PS-DomainIdentifier      OPTIONAL,
    cN-CS-DomainIdentifier              CN-CS-DomainIdentifier      OPTIONAL,
    per-FDD-Cell-InformationList        Per-FDD-Cell-InformationList-RL-SetupRsp    OPTIONAL,
    per-TDD-Cell-InformationList        Per-TDD-Cell-InformationList-RL-SetupRsp    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {Neighbouring-CellInformationItem-RL-SetupRsp-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-CellInformationItem-RL-SetupRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
Per-FDD-Cell-InformationList-RL-SetupRsp ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC)) OF Per-FDD-Cell-InformationItem-RL-SetupRsp

Per-FDD-Cell-InformationItem-RL-SetupRsp ::= SEQUENCE {
    c-ID                                C-ID,
    uARFCNforNu                         UARFCN,
    uARFCNforNd                         UARFCN,
    frameOffset                         FrameOffset         OPTIONAL,
    primaryScramblingCode               PrimaryScramblingCode,
    primaryCPICH-Power                  PrimaryCPICH-Power      OPTIONAL,
    cellIndividualOffset                CellIndividualOffset    OPTIONAL,
    txDiversityIndicator                TxDiversityIndicator    OPTIONAL,
    sTTD-SupportIndicator               STTD-SupportIndicator   OPTIONAL,
    closedLoopMode1-SupportIndicator    ClosedLoopMode1-SupportIndicator    OPTIONAL,
    closedLoopMode2-SupportIndicator    ClosedLoopMode2-SupportIndicator    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Per-FDD-Cell-InformationItem-RL-SetupRsp-ExtIEs} } OPTIONAL,
    ...
}

Per-FDD-Cell-InformationItem-RL-SetupRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-TDD-Cell-InformationList-RL-SetupRsp ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC)) OF Per-TDD-Cell-InformationItem-RL-SetupRsp

Per-TDD-Cell-InformationItem-RL-SetupRsp ::= SEQUENCE {
    c-ID                            C-ID,
    uARFCNforNt                     UARFCN,
    frameOffset                     FrameOffset         OPTIONAL,
    cellParameterID                 CellParameterID,
    syncCase                        SyncCase,
    timeSlot                        TimeSlot            OPTIONAL
    -- This IE is present only if Sync Case = Case1 -- ,
    sCH-TimeSlot                    SCH-TimeSlot            OPTIONAL
    -- This IE is present only if Sync Case = Case2 -- ,
    cellIndividualOffset            CellIndividualOffset    OPTIONAL,
    dPCHConstantValue               DPCHConstantValue   OPTIONAL,
    pCCPCH-Power                    PCCPCH-Power            OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Per-TDD-Cell-InformationItem-RL-SetupRsp-ExtIEs} } OPTIONAL,
    ...
}

Per-TDD-Cell-InformationItem-RL-SetupRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
```

```
--
-- RADIO LINK SETUP RESPONSE TDD
--
-- **********************************************************

RadioLinkSetupResponseTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupResponseTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupResponseTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkSetupResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                  CRITICALITY ignore  TYPE D-RNTI                     PRESENCE optional  } |
    { ID id-CN-PS-DomainIdentifier          CRITICALITY ignore  TYPE CN-PS-DomainIdentifier      PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier          CRITICALITY ignore  TYPE CN-CS-DomainIdentifier      PRESENCE optional } |
    { ID id-RL-InformationResponse-RL-SetupRspTDD   CRITICALITY ignore  TYPE RL-InformationResponse-RL-SetupRspTDD PRESENCE mandatory   } |
    { ID id-UL-SIRTarget                CRITICALITY ignore  TYPE UL-SIR                 PRESENCE mandatory } |
    { ID id-DL-SIRTarget                CRITICALITY ignore  TYPE DL-SIRTarget               PRESENCE mandatory   } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    sAI                         SAI,
    ul-InterferencePerTimeslot  UL-InterferenceList-RL-SetupRspTDD,
    maxUL-SIR                   UL-SIR,
    minUL-SIR                   UL-SIR,
    maximumAllowedULTxPower     MaximumAllowedULTxPower,
    ul-CCTrCHInformation                UL-CCTrCHInformationList-RL-SetupRspTDD,
    dl-CCTrCHInformation                DL-CCTrCHInformationList-RL-SetupRspTDD,
    dCH-InformationResponse             DCH-InformationResponseList-RL-SetupRspTDD,
    neighbouring-CellInformationList            Neighbouring-CellInformationList-RL-SetupRsp OPTIONAL,
    -- note: refer to "Neighbouring-CellInformationList-RL-SetupRsp" in the "RL Seup Response FDD
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponse-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-InterferenceList-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfULTs)) OF UL-InterferenceItem-RL-SetupRspTDD

UL-InterferenceItem-RL-SetupRspTDD ::= SEQUENCE {
    timeSlot                    TimeSlot,
    ul-InterferenceLevel        UL-InterferenceLevel,
    iE-Extensions                   ProtocolExtensionContainer { { UL-InterferenceItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
UL-InterferenceItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Container {{UL-CCTrCHInformationListIEs-RL-SetupRspTDD}}

UL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE UL-CCTrCHInformationListIE-RL-SetupRspTDD     PRESENCE mandatory },
    ...
}

UL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-SetupRspTDD

UL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-Information             UL-DPCH-InformationList-RL-SetupRspTDD,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-RL-SetupRspTDD ::= DPCH-IE-ContainerList { {UL-DPCH-InformationListIEs-RL-SetupRspTDD} }

UL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-SetupRspTDD      CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-SetupRspTDD  PRESENCE mandatory},
    ...
}

UL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    dPCH-ID                     DPCH-ID,
    tDD-ChannelisationCode              TDD-ChannelisationCode,
    burstType                   BurstType,
    midambleShift                   MidambleShift,
    timeSlot                    TimeSlot,
    tDD-PhysicalChannelOffset           TDD-PhysicalChannelOffset,
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tFCI-Presence                   TFCI-Presence,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Container {{DL-CCTrCHInformationListIEs-RL-SetupRspTDD}}
```

```
DL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE DL-CCTrCHInformationListIE-RL-SetupRspTDD  PRESENCE mandatory },
    ...
}

DL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-SetupRspTDD

DL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-DPCH-Information              DL-DPCH-InformationList-RL-SetupRspTDD,
    iE-Extensions                    ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-RL-SetupRspTDD ::= DPCH-IE-ContainerList { {DL-DPCH-InformationListIEs-RL-SetupRspTDD} }

DL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-SetupRspTDD      CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-SetupRspTDD  PRESENCE mandatory},
    ...
}

DL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    dPCH-ID                     DPCH-ID,
    tDD-ChannelisationCode              TDD-ChannelisationCode,
    burstType                   BurstType,
    midambleShift                    MidambleShift,
    timeSlot                    TimeSlot,
    tDD-PhysicalChannelOffset           TDD-PhysicalChannelOffset,
    repetitionPeriod                 RepetitionPeriod,
    repetitionLength                 RepetitionLength,
    tFCI-Presence                    TFCI-Presence,
    iE-Extensions                    ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Container {{DCH-InformationResponseListIEs-RL-SetupRspTDD}}

DCH-InformationResponseListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponseListIE-RL-SetupRspTDD   CRITICALITY ignore   TYPE DCH-InformationResponseListIE-RL-SetupRspTDD  PRESENCE mandatory
},
    ...
}
```

```
DCH-InformationResponseListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-SetupRspTDD

DCH-InformationResponseItem-RL-SetupRspTDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    bindingID                   BindingID,
    transportLayerAddress               TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-InformationResponseItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-InformationResponseItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP FAILURE FDD
--
-- **************************************************************

RadioLinkSetupFailureFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupFailureFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupFailureFDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkSetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                  CRITICALITY ignore  TYPE D-RNTI                PRESENCE optional   } |
    { ID id-CN-PS-DomainIdentifier          CRITICALITY ignore  TYPE CN-PS-DomainIdentifier      PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier          CRITICALITY ignore  TYPE CN-CS-DomainIdentifier      PRESENCE optional } |
    { ID id-UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD   CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponseList-RL-
SetupFailureFDD     PRESENCE mandatory  } |
    { ID id-SuccessfulRL-InformationResponseList-RL-SetupFailureFDD     CRITICALITY ignore  TYPE SuccessfulRL-InformationResponseList-RL-
SetupFailureFDD     PRESENCE optional   } |
    { ID id-UL-SIRTarget                CRITICALITY ignore  TYPE UL-SIR                PRESENCE optional  } |
    { ID id-DL-SIRTarget                CRITICALITY ignore  TYPE DL-SIRTarget              PRESENCE optional } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= RL-IE-ContainerList1-1 { {UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs} }

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD
                            CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD
                                                    PRESENCE mandatory  },
    ...
```

```
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions                   ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= RL-IE-ContainerList0-1 { {SuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs} }

SuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD
                            CRITICALITY ignore  TYPE SuccessfulRL-InformationResponse-RL-SetupFailureFDD
                                                    PRESENCE mandatory  },
    ...
}

SuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    rL-Set-ID                               RL-Set-ID,
    sAI                                     SAI,
    ul-InterferenceLevel                    UL-InterferenceLevel,
    dl-CodeInformation                      DL-CodeInformationList-RL-SetupFailureFDD,
    diversityIndication                     DiversityIndication-RL-SetupFailureFDD,
    sSDT-SupportIndicator                   SSDT-SupportIndicator,
    maxUL-SIR                               UL-SIR,
    minUL-SIR                               UL-SIR,
    maximumAllowedULTxPower                 MaximumAllowedULTxPower,
    neighbouring-CellInformationList        Neighbouring-CellInformationList-RL-SetupFailureFDD OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


DL-CodeInformationList-RL-SetupFailureFDD ::= ProtocolIE-Container {{ DL-CodeInformationListIEs-RL-SetupFailureFDD }}

DL-CodeInformationListIEs-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CodeInformationListIE-RL-SetupFailureFDD   CRITICALITY ignore    TYPE DL-CodeInformationListIE-RL-SetupFailureFDD     PRESENCE mandatory
},
    ...
}
```

```
DL-CodeInformationListIE-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF DL-CodeInformationItem-RL-SetupFailureFDD

DL-CodeInformationItem-RL-SetupFailureFDD ::= SEQUENCE {
    dl-ScramblingCode               DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CodeInformationItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CodeInformationItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-SetupFailureFDD ::= ProtocolIE-Container {{ DiversityIndicationIE-RL-SetupFailureFDD }}

DiversityIndicationIE-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DiversityIndicationItem-RL-SetupFailureFDD   CRITICALITY ignore TYPE     DiversityIndicationItem-RL-SetupFailureFDD  PRESENCE mandatory },
    ...
}

DiversityIndicationItem-RL-SetupFailureFDD ::= CHOICE {
    combining                       Combining-RL-SetupFailureFDD,
    nonCombiningOrIEnotPresent      NonCombiningOrIEnotPresen-RL-SetupFailureFDD,
    ...
}

Combining-RL-SetupFailureFDD ::= ProtocolIE-Container {{ CombiningIE-RL-SetupFailureFDD }}

CombiningIE-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-SetupFailureFDD   CRITICALITY ignore   TYPE CombiningItem-RL-SetupFailureFDD  PRESENCE mandatory },
    ...
}

CombiningItem-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombiningOrIEnotPresen-RL-SetupFailureFDD ::= ProtocolIE-Container {{ NonCombiningOrIEnotPresenIE-RL-SetupFailureFDD }}

NonCombiningOrIEnotPresenIE-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-NonCombiningOrIEnotPresenItem-RL-SetupFailureFDD   CRITICALITY ignore   TYPE    NonCombiningOrIEnotPresenItem-RL-SetupFailureFDD  PRESENCE
mandatory },
    ...
}
```

```
NonCombiningOrIEnotPresenItem-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-InformationResponse-RL-SetupFailureFDD      DCH-InformationResponseList-RL-SetupFailureFDD     OPTIONAL,
    iE-Extensions                                ProtocolExtensionContainer { { NonCombiningOrIEnotPresenItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningOrIEnotPresenItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-SetupFailureFDD

DCH-InformationResponseItem-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    bindingID                   BindingID,
    transportLayerAddress               TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-InformationResponseItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-InformationResponseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Neighbouring-CellInformationList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Container {{ Neighbouring-
CellInformationItemIE-RL-SetupFailureFDD }}

Neighbouring-CellInformationItemIE-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-CellInformationItem-RL-SetupFailureFDD   CRITICALITY ignore    TYPE    Neighbouring-CellInformationItem-RL-SetupFailureFDD
PRESENCE    mandatory },
    ...
}

Neighbouring-CellInformationItem-RL-SetupFailureFDD ::= SEQUENCE {
    rNC-ID                              RNC-ID,
    cN-PS-DomainIdentifier              CN-PS-DomainIdentifier      OPTIONAL,
    cN-CS-DomainIdentifier              CN-CS-DomainIdentifier      OPTIONAL,
    per-FDD-Cell-InformationList        Per-FDD-Cell-InformationList-RL-SetupFailureFDD OPTIONAL,
    per-TDD-Cell-InformationList        Per-TDD-Cell-InformationList-RL-SetupFailureFDD OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {Neighbouring-CellInformationItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-CellInformationItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-FDD-Cell-InformationList-RL-SetupFailureFDD ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC)) OF Per-FDD-Cell-InformationItem-RL-SetupFailureFDD

Per-FDD-Cell-InformationItem-RL-SetupFailureFDD ::= SEQUENCE {
    c-ID                                C-ID,
```

```
    uARFCNforNu                         UARFCN,
    uARFCNforNd                         UARFCN,
    frameOffset                         FrameOffset         OPTIONAL,
    primaryScramblingCode               PrimaryScramblingCode,
    primaryCPICH-Power                  PrimaryCPICH-Power      OPTIONAL,
    cellIndividualOffset                CellIndividualOffset    OPTIONAL,
    txDiversityIndicator                TxDiversityIndicator    OPTIONAL,
    sTTD-SupportIndicator               STTD-SupportIndicator   OPTIONAL,
    closedLoopMode1-SupportIndicator    ClosedLoopMode1-SupportIndicator    OPTIONAL,
    closedLoopMode2-SupportIndicator    ClosedLoopMode2-SupportIndicator    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Per-FDD-Cell-InformationItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

Per-FDD-Cell-InformationItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-TDD-Cell-InformationList-RL-SetupFailureFDD ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC)) OF Per-TDD-Cell-InformationItem-RL-SetupFailureFDD

Per-TDD-Cell-InformationItem-RL-SetupFailureFDD ::= SEQUENCE {
    c-ID                            C-ID,
    uARFCNforNt                     UARFCN,
    frameOffset                     FrameOffset         OPTIONAL,
    cellParameterID                 CellParameterID,
    syncCase                        SyncCase,
    timeSlot                        TimeSlot            OPTIONAL
    -- This IE is present only if Sync Case = Case1 -- ,
    sCH-TimeSlot                    SCH-TimeSlot            OPTIONAL
    -- This IE is present only if Sync Case = Case2 -- ,
    cellIndividualOffset            CellIndividualOffset    OPTIONAL,
    dPCHConstantValue               DPCHConstantValue   OPTIONAL,
    pCCPCH-Power                    PCCPCH-Power,
    iE-Extensions                   ProtocolExtensionContainer { { Per-TDD-Cell-InformationItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

Per-TDD-Cell-InformationItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP FAILURE TDD
--
-- **************************************************************
```

```
RadioLinkSetupFailureTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkSetupFailureTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkSetupFailureTDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkSetupFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD
                           CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD
                                                    PRESENCE mandatory  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions                   ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION REQUEST FDD
--
-- **************************************************************

RadioLinkAdditionRequestFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionRequestFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionRequestFDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkAdditionRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-SIRTarget                CRITICALITY reject  TYPE UL-SIR                 PRESENCE mandatory } |
    { ID id-RL-InformationList-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-InformationList-RL-AdditionRqstFDD  PRESENCE mandatory   },
    ...
}

RL-InformationList-RL-AdditionRqstFDD           ::= RL-IE-ContainerList1-1 { {RL-Information-RL-AdditionRqstFDD-IEs} }

RL-Information-RL-AdditionRqstFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-Information-RL-AdditionRqstFDD    PRESENCE mandatory   },
```

```
    ...
}

RL-Information-RL-AdditionRqstFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    c-ID                            C-ID,
    frameOffset                     FrameOffset,
    chipOffset                      ChipOffset,
    diversityControlField           DiversityControlField,
    primaryCPICH-EcNo               PrimaryCPICH-EcNo       OPTIONAL,
    sSDT-CellID                     SSDT-CellID         OPTIONAL,
    transmitDiversityIndicator      TransmitDiversityIndicator      OPTIONAL,
    -- This IE is present unless Diversity Mode IE in UL DPCH Information group is "none"
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-AdditionRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION REQUEST TDD
--
-- **************************************************************

RadioLinkAdditionRequestTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionRequestTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionRequestTDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkAdditionRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-AdditionRqstTDD   CRITICALITY reject  TYPE RL-Information-RL-AdditionRqstTDD   PRESENCE mandatory   },
    ...
}

RL-Information-RL-AdditionRqstTDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    c-ID                            C-ID,
    frameOffset                     FrameOffset,
    diversityControlField           DiversityControlField,
    primaryCCPCH-RSCP               PrimaryCCPCH-RSCP       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
RL-Information-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE FDD
--
-- **************************************************************

RadioLinkAdditionResponseFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionResponseFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionResponseFDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkAdditionResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-AdditionRspFDD    CRITICALITY ignore  TYPE RL-InformationResponseList-RL-AdditionRspFDD    PRESENCE mandatory
    } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-AdditionRspFDD        ::= RL-IE-ContainerList1-1 { {RL-InformationResponseItemIEs-RL-AdditionRspFDD} }

RL-InformationResponseItemIEs-RL-AdditionRspFDD RNSAP-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,
    sAI                             SAI,
    ul-InterferenceLevel            UL-InterferenceLevel,
    secondary-CCPCH-Info            Secondary-CCPCH-Info-RL-AdditionRspFDD      OPTIONAL,
    dl-CodeInformation              DL-CodeInformationList-RL-AdditionRspFDD,
    diversityIndication             DiversityIndication-RL-AdditionRspFDD,
    sSDT-SupportIndicator           SSDT-SupportIndicator,
    minUL-SIR                       UL-SIR,
    maxUL-SIR                       UL-SIR,
    maximumAllowedULTxPower         MaximumAllowedULTxPower,
    neighbouring-CellInformation    Neighbouring-CellInformationList-RL-SetupRsp    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-Info-RL-AdditionRspFDD ::= SEQUENCE {
    fDD-S-CCPCH-Offset                      FDD-S-CCPCH-Offset,
    dl-ScramblingCode                       DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    dl-TFCS                                 TFCS,
    secondaryCCPCH-SlotFormat               SecondaryCCPCH-SlotFormat,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    -- This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17
    multiplexingPosition                    MultiplexingPosition,
    sTTD-Indicator                          STTD-Indicator,
    fACH-PCH-InformationList                FACH-PCH-InformationList-RL-AdditionRspFDD,
    schedulingInformation                   SchedulingInformation-RL-AdditionRspFDD,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-CCPCH-Info-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-Info-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-PCH-InformationList-RL-AdditionRspFDD ::= SEQUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem-RL-AdditionRspFDD

FACH-PCH-InformationItem-RL-AdditionRspFDD ::= SEQUENCE {
    transportFormatSet              TransportFormatSet,
    iE-Extensions                   ProtocolExtensionContainer { { FACH-PCH-InformationItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

FACH-PCH-InformationItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SchedulingInformation-RL-AdditionRspFDD ::= SEQUENCE {
    iB-SG-Rep                       IB-SG-REP,
    segmentInformationList          SegmentInformationList-RL-AdditionRspFDD,
    iE-Extensions                   ProtocolExtensionContainer { { SchedulingInformation-RL-AdditionRspFDD-ExtIEs } } OPTIONAL,
        ...
}

SchedulingInformation-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SegmentInformationList-RL-AdditionRspFDD ::= SEQUENCE (SIZE(1..maxIBSEG)) OF SegmentInformationItem-RL-AdditionRspFDD
```

```
SegmentInformationItem-RL-AdditionRspFDD ::= SEQUENCE {
    iB-SG-POS                       IB-SG-POS,
    iE-Extensions                   ProtocolExtensionContainer { {  SegmentInformationItem-RL-AdditionRspFDD-ExtIEs } } OPTIONAL,
    ...
}

SegmentInformationItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CodeInformationList-RL-AdditionRspFDD ::= ProtocolIE-Container {{ DL-CodeInformationListIEs-RL-AdditionRspFDD }}

DL-CodeInformationListIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CodeInformationListIE-RL-AdditionRspFDD   CRITICALITY ignore TYPE DL-CodeInformationListIE-RL-AdditionRspFDD    PRESENCE mandatory },
    ...
}

DL-CodeInformationListIE-RL-AdditionRspFDD ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF DL-CodeInformationItem-RL-AdditionRspFDD

DL-CodeInformationItem-RL-AdditionRspFDD ::= SEQUENCE {
    dl-ScramblingCode               DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CodeInformationItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CodeInformationItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspFDD ::= ProtocolIE-Container {{ DiversityIndicationIE-RL-AdditionRspFDD }}

DiversityIndicationIE-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DiversityIndicationItem-RL-AdditionRspFDD   CRITICALITY ignore  TYPE     DiversityIndicationItem-RL-AdditionRspFDD  PRESENCE mandatory },
    ...
}

DiversityIndicationItem-RL-AdditionRspFDD ::= CHOICE {
    combining                       Combining-RL-AdditionRspFDD,
    nonCombining                    NonCombining-RL-AdditionRspFDD,
    ...
}

Combining-RL-AdditionRspFDD ::= ProtocolIE-Container {{ CombiningIE-RL-AdditionRspFDD }}

CombiningIE-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-AdditionRspFDD   CRITICALITY ignore    TYPE CombiningItem-RL-AdditionRspFDD  PRESENCE mandatory },
    ...
}

CombiningItem-RL-AdditionRspFDD ::= SEQUENCE {
```

```
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombining-RL-AdditionRspFDD ::= ProtocolIE-Container {{ NonCombiningIE-RL-AdditionRspFDD }}

NonCombiningIE-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-NonCombiningItem-RL-AdditionRspFDD   CRITICALITY ignore TYPE NonCombiningItem-RL-AdditionRspFDD  PRESENCE mandatory },
    ...
}

NonCombiningItem-RL-AdditionRspFDD ::= SEQUENCE {
    dCH-InformationResponse-RL-AdditionRspFDD       DCH-InformationResponseList-RL-AdditionRspFDD,
    iE-Extensions                                ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-AdditionRspFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-AdditionRspFDD

DCH-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    bindingID                   BindingID,
    transportLayerAddress               TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-InformationResponseItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Neighbouring-CellInformationList-RL-AdditionRsp ::= SEQUENCE (SIZE (0..maxNrOfNeighbouringRNCs)) OF Neighbouring-CellInformationItem-RL-AdditionRsp

Neighbouring-CellInformationItem-RL-AdditionRsp ::= SEQUENCE {
    rNC-ID                                  RNC-ID,
    cN-PS-DomainIdentifier                  CN-PS-DomainIdentifier      OPTIONAL,
    cN-CS-DomainIdentifier                  CN-CS-DomainIdentifier      OPTIONAL,
    per-FDD-Cell-InformationList            Per-FDD-Cell-InformationList-RL-AdditionRsp OPTIONAL,
    per-TDD-Cell-InformationList            Per-TDD-Cell-InformationList-RL-AdditionRsp OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {Neighbouring-CellInformationItem-RL-AdditionRsp-ExtIEs} } OPTIONAL,
    ...
}
```

```
Neighbouring-CellInformationItem-RL-AdditionRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-FDD-Cell-InformationList-RL-AdditionRsp ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC)) OF Per-FDD-Cell-InformationItem-RL-AdditionRsp

Per-FDD-Cell-InformationItem-RL-AdditionRsp ::= SEQUENCE {
    c-ID                                C-ID,
    uARFCNforNu                         UARFCN,
    uARFCNforNd                         UARFCN,
    frameOffset                         FrameOffset         OPTIONAL,
    primaryScramblingCode               PrimaryScramblingCode,
    primaryCPICH-Power                  PrimaryCPICH-Power          OPTIONAL,
    cellIndividualOffset                CellIndividualOffset        OPTIONAL,
    txDiversityIndicator                TxDiversityIndicator        OPTIONAL,
    sTTD-SupportIndicator               STTD-SupportIndicator       OPTIONAL,
    closedLoopMode1-SupportIndicator    ClosedLoopMode1-SupportIndicator    OPTIONAL,
    closedLoopMode2-SupportIndicator    ClosedLoopMode2-SupportIndicator    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Per-FDD-Cell-InformationItem-RL-AdditionRsp-ExtIEs} } OPTIONAL,
    ...
}

Per-FDD-Cell-InformationItem-RL-AdditionRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-TDD-Cell-InformationList-RL-AdditionRsp ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC)) OF Per-TDD-Cell-InformationItem-RL-AdditionRsp

Per-TDD-Cell-InformationItem-RL-AdditionRsp ::= SEQUENCE {
    c-ID                            C-ID,
    uARFCNforNt                     UARFCN,
    frameOffset                     FrameOffset         OPTIONAL,
    cellParameterID                 CellParameterID,
    syncCase                        SyncCase,
    timeSlot                        TimeSlot            OPTIONAL
    -- This IE is present only if Sync Case = Case1 -- ,
    sCH-TimeSlot                    SCH-TimeSlot            OPTIONAL
    -- This IE is present only if Sync Case = Case2 -- ,
    cellIndividualOffset            CellIndividualOffset    OPTIONAL,
    dPCHConstantValue               DPCHConstantValue   OPTIONAL,
    pCCPCH-Power                    PCCPCH-Power,
    iE-Extensions                   ProtocolExtensionContainer { { Per-TDD-Cell-InformationItem-RL-AdditionRsp-ExtIEs} } OPTIONAL,
    ...
}

Per-TDD-Cell-InformationItem-RL-AdditionRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE TDD
--
-- **************************************************************

RadioLinkAdditionResponseTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionResponseTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionResponseTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkAdditionResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-AdditionRspTDD
                          CRITICALITY ignore  TYPE RL-InformationResponse-RL-AdditionRspTDD   PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    sAI                                 SAI,
    ul-InteferencePerTimeslot           UL-InterferenceList-RL-AdditionRspTDD,
    ul-CCTrCHInformation                UL-CCTrCHInformationList-RL-AdditionRspTDD,
    dl-CCTrCHInformation                DL-CCTrCHInformationList-RL-AdditionRspTDD,
    diversityIndication                 DiversityIndication-RL-AdditionRspTDD,
    minUL-SIR                           UL-SIR,
    maxUL-SIR                           UL-SIR,
    maximumAllowedULTxPower             MaximumAllowedULTxPower,
    neighbouring-CellInformationList    Neighbouring-CellInformationList-RL-AdditionRspTDD  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-InterferenceList-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfULTs)) OF UL-InterferenceItem-RL-AdditionRspTDD

UL-InterferenceItem-RL-AdditionRspTDD ::= SEQUENCE {
    timeSlot                    TimeSlot,
    ul-InterferenceLevel        UL-InterferenceLevel,
    iE-Extensions               ProtocolExtensionContainer { { UL-InterferenceItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-InterferenceItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

UL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Container {{UL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}

UL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE UL-CCTrCHInformationListIE-RL-AdditionRspTDD    PRESENCE mandatory
},
    ...
}

UL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-AdditionRspTDD

UL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-Information             UL-DPCH-InformationList-RL-AdditionRspTDD,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-RL-AdditionRspTDD ::= DPCH-IE-ContainerList { {UL-DPCH-InformationListIEs-RL-AdditionRspTDD} }

UL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-AdditionRspTDD  PRESENCE mandatory  },
    ...
}

UL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    burstType                       BurstType,
    midambleShift                   MidambleShift,
    timeSlot                        TimeSlot,
    tDD-PhysicalChannelOffset       TDD-PhysicalChannelOffset,
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tFCI-Presence                   TFCI-Presence,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Container {{DL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
```

```
DL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE DL-CCTrCHInformationListIE-RL-AdditionRspTDD    PRESENCE mandatory
},
    ...
}

DL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-AdditionRspTDD

DL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-DPCH-Information             DL-DPCH-InformationList-RL-AdditionRspTDD,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-RL-AdditionRspTDD ::= DPCH-IE-ContainerList { {DL-DPCH-InformationListIEs-RL-AdditionRspTDD} }

DL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-AdditionRspTDD  PRESENCE mandatory  },
    ...
}

DL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    burstType                       BurstType,
    midambleShift                   MidambleShift,
    timeSlot                        TimeSlot,
    tDD-PhysicalChannelOffset       TDD-PhysicalChannelOffset,
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tFCI-Presence                   TFCI-Presence,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspTDD ::= ProtocolIE-Container {{DiversityIndicationIE-RL-AdditionRspTDD}}

DiversityIndicationIE-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DiversityIndicationItem-RL-AdditionRspTDD   CRITICALITY ignore  TYPE DiversityIndicationItem-RL-AdditionRspTDD  PRESENCE mandatory },
    ...
}
```

```
DiversityIndicationItem-RL-AdditionRspTDD       ::= CHOICE {
    combining       Combining-RL-AdditionRspTDD,
    nonCombining    NonCombining-RL-AdditionRspTDD,
    ...
}

Combining-RL-AdditionRspTDD ::=     ProtocolIE-Container {{CombiningIE-RL-AdditionRspTDD}}

CombiningIE-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-AdditionRspTDD   CRITICALITY ignore    TYPE CombiningItem-RL-AdditionRspTDD  PRESENCE mandatory },
    ...
}

CombiningItem-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombining-RL-AdditionRspTDD  ::=     ProtocolIE-Container {{NonCombiningIE-RL-AdditionRspTDD}}

NonCombiningIE-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-NonCombiningItem-RL-AdditionRspTDD   CRITICALITY ignore TYPE NonCombiningItem-RL-AdditionRspTDD  PRESENCE mandatory },
    ...
}
NonCombiningItem-RL-AdditionRspTDD ::= SEQUENCE {
    dCH-InformationResponse-RL-AdditionRspFDD       DCH-InformationResponseList-RL-AdditionRspFDD,
    iE-Extensions                   ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-AdditionRspTDD

DCH-InformationResponseItem-RL-AdditionRspTDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    bindingID                       BindingID,
    transportLayerAddress           TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

Neighbouring-CellInformationList-RL-AdditionRspTDD ::= SEQUENCE (SIZE (0..maxNrOfNeighbouringRNCs)) OF Neighbouring-CellInformationItem-RL-
AdditionRspTDD

Neighbouring-CellInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    rNC-ID                                  RNC-ID,
    cN-PS-DomainIdentifier                  CN-PS-DomainIdentifier      OPTIONAL,
    cN-CS-DomainIdentifier                  CN-CS-DomainIdentifier      OPTIONAL,
    per-FDD-Cell-InformationList            Per-FDD-Cell-InformationList-RL-AdditionRspTDD  OPTIONAL,
    per-TDD-Cell-InformationList            Per-TDD-Cell-InformationList-RL-AdditionRspTDD  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {Neighbouring-CellInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-CellInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-FDD-Cell-InformationList-RL-AdditionRspTDD ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC)) OF Per-FDD-Cell-InformationItem-RL-AdditionRspTDD

Per-FDD-Cell-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    c-ID                                C-ID,
    uARFCNforNu                         UARFCN,
    uARFCNforNd                         UARFCN,
    frameOffset                         FrameOffset         OPTIONAL,
    primaryScramblingCode               PrimaryScramblingCode,
    primaryCPICH-Power                  PrimaryCPICH-Power      OPTIONAL,
    cellIndividualOffset                CellIndividualOffset    OPTIONAL,
    txDiversityIndicator                TxDiversityIndicator    OPTIONAL,
    sTTD-SupportIndicator               STTD-SupportIndicator   OPTIONAL,
    closedLoopMode1-SupportIndicator    ClosedLoopMode1-SupportIndicator    OPTIONAL,
    closedLoopMode2-SupportIndicator    ClosedLoopMode2-SupportIndicator    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Per-FDD-Cell-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

Per-FDD-Cell-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-TDD-Cell-InformationList-RL-AdditionRspTDD ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC)) OF Per-TDD-Cell-InformationItem-RL-AdditionRspTDD

Per-TDD-Cell-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    c-ID                            C-ID,
    uARFCNforNt                     UARFCN,
    frameOffset                     FrameOffset         OPTIONAL,
    cellParameterID                 CellParameterID,
    syncCase                        SyncCase,
    timeSlot                        TimeSlot            OPTIONAL
    -- This IE is present only if Sync Case = Case1 -- ,
```

```
    sCH-TimeSlot                    SCH-TimeSlot            OPTIONAL
    -- This IE is present only if Sync Case = Case2 -- ,
    cellIndividualOffset            CellIndividualOffset    OPTIONAL,
    dPCHConstantValue               DPCHConstantValue   OPTIONAL,
    pCCPCH-Power                    PCCPCH-Power,
    iE-Extensions                   ProtocolExtensionContainer { { Per-TDD-Cell-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

Per-TDD-Cell-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION FAILURE FDD
--
-- **************************************************************

RadioLinkAdditionFailureFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionFailureFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionFailureFDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkAdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD    CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponseList-RL-
AdditionFailureFDD      PRESENCE mandatory  } |
    { ID id-SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD      CRITICALITY ignore  TYPE SuccessfulRL-InformationResponseList-RL-
AdditionFailureFDD      PRESENCE optional   } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= RL-IE-ContainerList1-1 { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-
IEs} }

UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD    CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureFDD      PRESENCE mandatory  },
    ...
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
```

```
    ...
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= RL-IE-ContainerList0-2 { {SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs} }

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD      CRITICALITY ignore  TYPE SuccessfulRL-InformationResponse-RL-AdditionFailureFDD
        PRESENCE mandatory  },
    ...
}

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    rL-Set-ID                           RL-Set-ID,
    sAI                                 SAI,
    ul-InterferenceLevel                UL-InterferenceLevel,
    dl-CodeInformation                  DL-CodeInformationList-RL-AdditionFailureFDD,
    diversityIndication                 DiversityIndication-RL-AdditionFailureFDD,
    sSDT-SupportIndicator               SSDT-SupportIndicator,
    minUL-SIR                           UL-SIR,
    maxUL-SIR                           UL-SIR,
    maximumAllowedULTxPower             MaximumAllowedULTxPower,
    neighbouring-CellInformationList    Neighbouring-CellInformationList-RL-AdditionFailureFDD OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CodeInformationList-RL-AdditionFailureFDD ::= ProtocolIE-Container {{ DL-CodeInformationListIEs-RL-AdditionFailureFDD }}

DL-CodeInformationListIEs-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CodeInformationListIE-RL-AdditionFailureFDD   CRITICALITY ignore TYPE DL-CodeInformationListIE-RL-AdditionFailureFDD     PRESENCE
mandatory },
    ...
}

DL-CodeInformationListIE-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF DL-CodeInformationItem-RL-AdditionFailureFDD

DL-CodeInformationItem-RL-AdditionFailureFDD ::= SEQUENCE {
    dl-ScramblingCode                   DL-ScramblingCode,
    fdd-DL-ChannelisationCodeNumber     FDD-DL-ChannelisationCodeNumber,
    iE-Extensions                       ProtocolExtensionContainer { {DL-CodeInformationItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
DL-CodeInformationItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionFailureFDD ::= ProtocolIE-Container {{ DiversityIndicationIE-RL-AdditionFailureFDD }}

DiversityIndicationIE-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DiversityIndicationItem-RL-AdditionFailureFDD   CRITICALITY ignore  TYPE     DiversityIndicationItem-RL-AdditionFailureFDD  PRESENCE
mandatory },
    ...
}

DiversityIndicationItem-RL-AdditionFailureFDD ::= CHOICE {
    combining                       Combining-RL-AdditionFailureFDD,
    nonCombining                    NonCombining-RL-AdditionFailureFDD,
    ...
}

Combining-RL-AdditionFailureFDD ::= ProtocolIE-Container {{ CombiningIE-RL-AdditionFailureFDD }}

CombiningIE-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-AdditionFailureFDD   CRITICALITY ignore    TYPE CombiningItem-RL-AdditionFailureFDD  PRESENCE mandatory },
    ...
}

CombiningItem-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombining-RL-AdditionFailureFDD ::= ProtocolIE-Container {{ NonCombiningIE-RL-AdditionFailureFDD }}

NonCombiningIE-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-NonCombiningItem-RL-AdditionFailureFDD   CRITICALITY ignore TYPE NonCombiningItem-RL-AdditionFailureFDD  PRESENCE mandatory },
    ...
}

NonCombiningItem-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-InformationResponse-RL-AdditionFailureFDD       DCH-InformationResponseList-RL-AdditionFailureFDD,
    iE-Extensions                               ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

DCH-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-AdditionFailureFDD

DCH-InformationResponseItem-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    bindingID                   BindingID,
    transportLayerAddress               TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-InformationResponseItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-InformationResponseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Neighbouring-CellInformationList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfNeighbouringRNCs)) OF Neighbouring-CellInformationItem-RL-
AdditionFailureFDD

Neighbouring-CellInformationItem-RL-AdditionFailureFDD ::= SEQUENCE {
    rNC-ID                              RNC-ID,
    cN-PS-DomainIdentifier              CN-PS-DomainIdentifier      OPTIONAL,
    cN-CS-DomainIdentifier              CN-CS-DomainIdentifier      OPTIONAL,
    per-FDD-Cell-InformationList        Per-FDD-Cell-InformationList-RL-AdditionFailureFDD  OPTIONAL,
    per-TDD-Cell-InformationList        Per-TDD-Cell-InformationList-RL-AdditionFailureFDD  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {Neighbouring-CellInformationItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-CellInformationItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-FDD-Cell-InformationList-RL-AdditionFailureFDD ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC)) OF Per-FDD-Cell-InformationItem-RL-
AdditionFailureFDD

Per-FDD-Cell-InformationItem-RL-AdditionFailureFDD ::= SEQUENCE {
    c-ID                            C-ID,
    uARFCNforNu                     UARFCN,
    uARFCNforNd                     UARFCN,
    frameOffset                     FrameOffset         OPTIONAL,
    primaryScramblingCode           PrimaryScramblingCode,
    primaryCPICH-Power              PrimaryCPICH-Power      OPTIONAL,
    cellIndividualOffset            CellIndividualOffset    OPTIONAL,
    txDiversityIndicator            TxDiversityIndicator    OPTIONAL,
    sTTD-SupportIndicator           STTD-SupportIndicator   OPTIONAL,
    closedLoopMode1-SupportIndicator    ClosedLoopMode1-SupportIndicator    OPTIONAL,
    closedLoopMode2-SupportIndicator    ClosedLoopMode2-SupportIndicator    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { Per-FDD-Cell-InformationItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
Per-FDD-Cell-InformationItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-TDD-Cell-InformationList-RL-AdditionFailureFDD ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC)) OF Per-TDD-Cell-InformationItem-RL-
AdditionFailureFDD

Per-TDD-Cell-InformationItem-RL-AdditionFailureFDD ::= SEQUENCE {
    c-ID                            C-ID,
    uARFCNforNt                     UARFCN,
    frameOffset                     FrameOffset         OPTIONAL,
    cellParameterID                 CellParameterID,
    syncCase                        SyncCase,
    timeSlot                        TimeSlot            OPTIONAL
    -- This IE is present only if Sync Case = Case1 -- ,
    sCH-TimeSlot                    SCH-TimeSlot            OPTIONAL
    -- This IE is present only if Sync Case = Case2 -- ,
    cellIndividualOffset            CellIndividualOffset    OPTIONAL,
    dPCHConstantValue               DPCHConstantValue   OPTIONAL,
    pCCPCH-Power                    PCCPCH-Power,
    iE-Extensions                   ProtocolExtensionContainer { { Per-TDD-Cell-InformationItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

Per-TDD-Cell-InformationItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION FAILURE TDD
--
-- **************************************************************

RadioLinkAdditionFailureTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkAdditionFailureTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkAdditionFailureTDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkAdditionFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse  CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponse      PRESENCE mandatory   } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}
```

```
UnsuccessfulRL-InformationResponse ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK DELETION REQUEST
--
-- **************************************************************

RadioLinkDeletionRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkDeletionRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkDeletionRequest-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkDeletionRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationList-RL-DeletionRqst  CRITICALITY notify  TYPE RL-InformationList-RL-DeletionRqst     PRESENCE mandatory   },
    ...
}

RL-InformationList-RL-DeletionRqst          ::= RL-IE-ContainerList1 { {RL-Information-RL-DeletionRqst-IEs} }

RL-Information-RL-DeletionRqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-DeletionRqst      CRITICALITY notify  TYPE RL-Information-RL-DeletionRqst    PRESENCE mandatory   },
    ...
}

RL-Information-RL-DeletionRqst ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { {RL-Information-RL-DeletionRqst-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-DeletionRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkDeletionRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

-- **************************************************************
--
-- RADIO LINK DELETION RESPONSE
--
-- **************************************************************

RadioLinkDeletionResponse ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkDeletionResponse-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkDeletionResponse-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkDeletionResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RadioLinkDeletionResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE FDD
--
-- **************************************************************

RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationPrepareFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareFDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationPrepareFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional  } |
    { 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-DCH-ModifyList-RL-ReconfPrepFDD     CRITICALITY reject  TYPE DCH-ModifyList-RL-ReconfPrepFDD     PRESENCE optional } |
    { ID id-DCH-AddList-RL-ReconfPrepFDD        CRITICALITY reject  TYPE DCH-AddList-RL-ReconfPrepFDD     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 },
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    ul-ScramblingCode               UL-ScramblingCode       OPTIONAL,
    ul-SIRTarget                    UL-SIR                  OPTIONAL,
    minUL-ChannelisationCodeLength  MinUL-ChannelisationCodeLength  OPTIONAL,
    maxNrOfUL-DPDCHs                MaxNrOfUL-DPCHs         OPTIONAL
```

```
    -- This IE is present only if minUL-ChannelisationCodeLength equals to 4 --,
    ul-PunctureLimit                PunctureLimit           OPTIONAL,
    tFCS                            TFCS    OPTIONAL,
    ul-DPCCH-SlotFormat             UL-DPCCH-SlotFormat     OPTIONAL,
    sSDT-CellIDLength               SSDT-CellID-Length      OPTIONAL,
    s-FieldLength                   S-FieldLength           OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

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 is present if Slot Format is from 12 to 16 --,
    multiplexingPosition            MultiplexingPosition        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifyList-RL-ReconfPrepFDD             ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfPrepFDD

DCH-ModifyItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    ul-TransportformatSet           TransportFormatSet      OPTIONAL,
    dl-TransportformatSet           TransportFormatSet      OPTIONAL,
    allocationRetentionPriority     AllocationRetentionPriority     OPTIONAL,
    frameHandlingPriority           FrameHandlingPriority       OPTIONAL,
    ul-FP-Mode                      UL-FP-Mode          OPTIONAL,
    toAWS                           ToAWS               OPTIONAL,
    toAWE                           ToAWE               OPTIONAL,
    dRACControl                     DRACControl     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfPrepFDD                ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfPrepFDD
```

```
DCH-AddItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dCH-ID                              DCH-ID,
    dCH-CombinationInd                  DCH-CombinationInd      OPTIONAL,
    limitedPowerIncrease                LimitedPowerIncrease,
    trCH-SrcStatisticsDescr             TrCH-SrcStatisticsDescr,
    ul-TransportformatSet               TransportFormatSet,
    dl-TransportformatSet               TransportFormatSet,
    ul-BLER                             BLER,
    dl-BLER                             BLER,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    qE-Selector                         QE-Selector,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dRACControl                         DRACControl,
    iE-Extensions                       ProtocolExtensionContainer { {DCH-AddItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-AddItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepFDD             ::= SEQUENCE (SIZE (0..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 RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfPrepFDD         ::= RL-IE-ContainerList0 { {RL-Information-RL-ReconfPrepFDD-IEs} }

RL-Information-RL-ReconfPrepFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-ReconfPrepFDD     CRITICALITY reject  TYPE RL-Information-RL-ReconfPrepFDD     PRESENCE mandatory   },
    ...
}

RL-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    sSDT-Indication                 SSDT-Indication     OPTIONAL,
    sSDT-CellIdentity               SSDT-CellID     OPTIONAL
    -- The IE may be present if the sSDT-Indication is set to 'sSDT-active-in-the-UE' --,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

RL-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationPrepareFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE TDD
--
-- **************************************************************

RadioLinkReconfigurationPrepareTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationPrepareTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationPrepareTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional  } |
    { ID id-UL-CCTrCH-InformationList-RL-ReconfPrepTDD  CRITICALITY notify  TYPE UL-CCTrCH-InformationList-RL-ReconfPrepTDD  PRESENCE optional } |
    { ID id-DL-CCTrCH-InformationList-RL-ReconfPrepTDD  CRITICALITY notify  TYPE DL-CCTrCH-InformationList-RL-ReconfPrepTDD  PRESENCE optional } |
    { ID id-DCH-ModifyList-RL-ReconfPrepTDD     CRITICALITY reject  TYPE DCH-ModifyList-RL-ReconfPrepTDD      PRESENCE optional } |
    { ID id-DCH-AddList-RL-ReconfPrepTDD        CRITICALITY reject  TYPE DCH-AddList-RL-ReconfPrepTDD      PRESENCE optional } |
    { ID id-DCH-DeleteList-RL-ReconfPrepTDD     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepTDD      PRESENCE optional },
    ...
}

UL-CCTrCH-InformationList-RL-ReconfPrepTDD      ::= CCTrCH-IE-ContainerList0 { {UL-CCTrCH-Information-RL-ReconfPrepTDD-IEs} }

UL-CCTrCH-Information-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-Information-RL-ReconfPrepTDD  CRITICALITY notify  TYPE UL-CCTrCH-Information-RL-ReconfPrepTDD PRESENCE mandatory   },
    ...
}

UL-CCTrCH-Information-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    tFCS                        TFCS        OPTIONAL,
    tFCI-Coding                 TFCI-Coding             OPTIONAL,
    punctureLimit                   PunctureLimit               OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-Information-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-Information-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DL-CCTrCH-InformationList-RL-ReconfPrepTDD      ::= CCTrCH-IE-ContainerList0 { {DL-CCTrCH-Information-RL-ReconfPrepTDD-IEs} }

DL-CCTrCH-Information-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationItem-RL-ReconfPrepTDD  CRITICALITY notify  TYPE DL-CCTrCH-InformationItem-RL-ReconfPrepTDD PRESENCE mandatory   },
    ...
}

DL-CCTrCH-InformationItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    tFCS                        TFCS        OPTIONAL,
    tFCI-Coding                 TFCI-Coding             OPTIONAL,
    punctureLimit                   PunctureLimit               OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifyList-RL-ReconfPrepTDD             ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfPrepTDD

DCH-ModifyItem-RL-ReconfPrepTDD ::= 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,
    ul-FP-Mode                      UL-FP-Mode      OPTIONAL,
    toAWS                           ToAWS           OPTIONAL,
    toAWE                           ToAWE           OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfPrepTDD                ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfPrepTDD

DCH-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dCH-ID                              DCH-ID,
    ul-CCTrCH-ID                        CCTrCH-ID,
    dl-CCTrCH-ID                        CCTrCH-ID,
    dCH-CombinationInd                  DCH-CombinationInd  OPTIONAL,
    limitedPowerIncrease                LimitedPowerIncrease,
    trCH-SrcStatisticsDescr             TrCH-SrcStatisticsDescr,
```

```
    ul-TransportformatSet               TransportFormatSet,
    dl-TransportformatSet               TransportFormatSet,
    ul-BLER                             BLER,
    dl-BLER                             BLER,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    iE-Extensions                       ProtocolExtensionContainer { {DCH-AddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-AddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepTDD             ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD

DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    iE-Extensions               ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationPrepareTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION READY FDD
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-- **************************************************************

RadioLinkReconfigurationReadyFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationReadyFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationReadyFDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-ReconfReadyFDD    CRITICALITY ignore  TYPE RL-InformationResponseList-RL-ReconfReadyFDD    PRESENCE optional
    } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
```

```
}

RL-InformationResponseList-RL-ReconfReadyFDD        ::= RL-IE-ContainerList0 { {RL-InformationResponse-RL-ReconfReadyFDD-IEs} }

RL-InformationResponse-RL-ReconfReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-ReconfReadyFDD    CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-ReconfReadyFDD    PRESENCE mandatory
    },
    ...
}

RL-InformationResponseItem-RL-ReconfReadyFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    max-UL-SIR                      UL-SIR          OPTIONAL,
    min-UL-SIR                      UL-SIR          OPTIONAL,
    secondary-CCPCH-Info            Secondary-CCPCH-Info-RL-ReconfReadyFDD      OPTIONAL,
    dl-CodeInformationList          DL-CodeInformationList-RL-ReconfReadyFDD    OPTIONAL,
    dCHsToBeAdded                   DCH-AddList-RL-ReconfReadyFDD           OPTIONAL,
    dCHsToBeModified                DCH-ModifyList-RL-ReconfReadyFDD        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-Info-RL-ReconfReadyFDD ::= SEQUENCE {
    fDD-S-CCPCH-Offset                      FDD-S-CCPCH-Offset,
    dl-ScramblingCode                       DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    dl-TFCS                                 TFCS,
    secondaryCCPCH-SlotFormat               SecondaryCCPCH-SlotFormat,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    -- This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17
    multiplexingPosition                    MultiplexingPosition,
    sTTD-Indicator                          STTD-Indicator,
    fACH-PCH-InformationList                FACH-PCH-InformationList-RL-ReconfReadyFDD,
    schedulingInformation                   SchedulingInformation-RL-ReconfReadyFDD,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-CCPCH-Info-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-Info-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-PCH-InformationList-RL-ReconfReadyFDD ::= SEQUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem-RL-ReconfReadyFDD

FACH-PCH-InformationItem-RL-ReconfReadyFDD ::= SEQUENCE {
    transportFormatSet              TransportFormatSet,
    iE-Extensions                   ProtocolExtensionContainer { { FACH-PCH-InformationItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
```

```
    ...
}

FACH-PCH-InformationItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SchedulingInformation-RL-ReconfReadyFDD ::= SEQUENCE {
    iB-SG-Rep                           IB-SG-REP,
    segmentInformationList              SegmentInformationList-RL-ReconfReadyFDD,
    iE-Extensions                       ProtocolExtensionContainer { { SchedulingInformation-RL-ReconfReadyFDD-ExtIEs } } OPTIONAL,
        ...
}

SchedulingInformation-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SegmentInformationList-RL-ReconfReadyFDD ::= SEQUENCE (SIZE(1..maxIBSEG)) OF SegmentInformationItem-RL-ReconfReadyFDD

SegmentInformationItem-RL-ReconfReadyFDD ::= SEQUENCE {
    iB-SG-POS                       IB-SG-POS,
    iE-Extensions                   ProtocolExtensionContainer { {  SegmentInformationItem-RL-ReconfReadyFDD-ExtIEs } } OPTIONAL,
    ...
}

SegmentInformationItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CodeInformationList-RL-ReconfReadyFDD ::= ProtocolIE-Container {{ DL-CodeInformationListIEs-RL-ReconfReadyFDD }}

DL-CodeInformationListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CodeInformationListIE-RL-ReconfReadyFDD   CRITICALITY ignore TYPE DL-CodeInformationListIE-RL-ReconfReadyFDD    PRESENCE mandatory },
    ...
}

DL-CodeInformationListIE-RL-ReconfReadyFDD ::= SEQUENCE (SIZE (0..maxNrOfDL-Codes)) OF DL-CodeInformationItem-RL-ReconfReadyFDD

DL-CodeInformationItem-RL-ReconfReadyFDD ::= SEQUENCE {
    dl-ScramblingCode                   DL-ScramblingCode,
    fdd-DL-ChannelisationCodeNumber     FDD-DL-ChannelisationCodeNumber,
    iE-Extensions                       ProtocolExtensionContainer { { DL-CodeInformationItem-RL-ReconfReadyFDD–ExtIEs } } OPTIONAL,
    ...
}

DL-CodeInformationItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfReadyFDD               ::= ProtocolIE-Container { {DCH-AddListIEs-RL-ReconfReadyFDD} }
```

```
DCH-AddListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-AddListIE-RL-ReconfReadyFDD     CRITICALITY ignore  TYPE DCH-AddListIE-RL-ReconfReadyFDD     PRESENCE mandatory   },
    ...
}

DCH-AddListIE-RL-ReconfReadyFDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfReadyFDD

DCH-AddItem-RL-ReconfReadyFDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    bindingID                       BindingID,
    transportLayerAddress           TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-AddItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-AddItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifyList-RL-ReconfReadyFDD            ::= ProtocolIE-Container { {DCH-ModifyListIEs-RL-ReconfReadyFDD} }

DCH-ModifyListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-ModifyListIE-RL-ReconfReadyFDD  CRITICALITY ignore  TYPE DCH-ModifyListIE-RL-ReconfReadyFDD     PRESENCE mandatory   },
    ...
}

DCH-ModifyListIE-RL-ReconfReadyFDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfReadyFDD

DCH-ModifyItem-RL-ReconfReadyFDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    bindingID                   BindingID,
    transportLayerAddress               TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-ModifyItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationReadyFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION READY TDD
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-- **************************************************************
```

```
RadioLinkReconfigurationReadyTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationReadyTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationReadyTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationReadyTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfReadyTDD
                           CRITICALITY ignore  TYPE RL-InformationResponse-RL-ReconfReadyTDD   PRESENCE optional  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponse-RL-ReconfReadyTDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    max-UL-SIR                      UL-SIR          OPTIONAL,
    min-UL-SIR                      UL-SIR          OPTIONAL,
    ul-CCTrCH-Information           UL-CCTrCH-InformationList-RL-ReconfReadyTDD     OPTIONAL,
    dl-CCTrCH-Information           DL-CCTrCH-InformationList-RL-ReconfReadyTDD OPTIONAL,
    dCHsToBeAdded                   DCH-AddList-RL-ReconfReadyTDD           OPTIONAL,
    dCHsToBeModified                DCH-ModifyList-RL-ReconfReadyTDD        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCH-InformationList-RL-ReconfReadyTDD         ::= ProtocolIE-Container {{UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}

UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE UL-CCTrCHInformationListIE-RL-ReconfReadyTDD    PRESENCE mandatory
},
    ...
}

UL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-ReconfReadyTDD

UL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    ul-DPCH-Information             UL-DPCH-InformationList-RL-ReconfReadyTDD,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-RL-ReconfReadyTDD ::= ProtocolIE-Container {{UL-DPCH-InformationListIEs-RL-ReconfReadyTDD}}
```

```
UL-DPCH-InformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationListIE-RL-ReconfReadyTDD   CRITICALITY ignore    TYPE UL-DPCH-InformationListIE-RL-ReconfReadyTDD     PRESENCE mandatory
},
    ...
}

UL-DPCH-InformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationItem-RL-ReconfReadyTDD

UL-DPCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                     DPCH-ID,
    tDD-ChannelisationCode              TDD-ChannelisationCode          OPTIONAL,
    burstType                   BurstType               OPTIONAL,
    midambleShift                   MidambleShift               OPTIONAL,
    timeSlot                    TimeSlot                OPTIONAL,
    tDD-PhysicalChannelOffset           TDD-PhysicalChannelOffset       OPTIONAL,
    repetitionPeriod                RepetitionPeriod            OPTIONAL,
    repetitionLength                RepetitionLength            OPTIONAL,
    tFCI-Presence                   TFCI-Presence               OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-ReconfReadyTDD         ::= ProtocolIE-Container {{DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}

DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD   CRITICALITY ignore  TYPE DL-CCTrCHInformationListIE-RL-ReconfReadyTDD    PRESENCE mandatory
},
    ...
}

DL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfReadyTDD

DL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    dl-DPCH-Information              DL-DPCH-InformationList-RL-ReconfReadyTDD,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-RL-ReconfReadyTDD ::= ProtocolIE-Container {{DL-DPCH-InformationListIEs-RL-ReconfReadyTDD}}

DL-DPCH-InformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-DL-DPCH-InformationListIE-RL-ReconfReadyTDD   CRITICALITY ignore    TYPE DL-DPCH-InformationListIE-RL-ReconfReadyTDD     PRESENCE mandatory
},
    ...
}

DL-DPCH-InformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-DPCH-InformationItem-RL-ReconfReadyTDD

DL-DPCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID                     DPCH-ID,
    tDD-ChannelisationCode              TDD-ChannelisationCode          OPTIONAL,
    burstType                   BurstType               OPTIONAL,
    midambleShift                   MidambleShift               OPTIONAL,
    timeSlot                    TimeSlot                OPTIONAL,
    tDD-PhysicalChannelOffset           TDD-PhysicalChannelOffset       OPTIONAL,
    repetitionPeriod                RepetitionPeriod            OPTIONAL,
    repetitionLength                RepetitionLength            OPTIONAL,
    tFCI-Presence                   TFCI-Presence               OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfReadyTDD               ::= ProtocolIE-Container { {DCH-AddListIEs-RL-ReconfReadyTDD} }

DCH-AddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-AddListIE-RL-ReconfReadyTDD             CRITICALITY ignore  TYPE DCH-AddListIE-RL-ReconfReadyTDD    PRESENCE mandatory   },
    ...
}

DCH-AddListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfReadyTDD

DCH-AddItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    bindingID                       BindingID,
    transportLayerAddress           TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-AddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-AddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifyList-RL-ReconfReadyTDD            ::= ProtocolIE-Container { {DCH-ModifyListIEs-RL-ReconfReadyTDD} }

DCH-ModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-ModifyListIE-RL-ReconfReadyTDD              CRITICALITY ignore  TYPE DCH-ModifyListIE-RL-ReconfReadyTDD     PRESENCE mandatory   },
    ...
```

```
}

DCH-ModifyListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfReadyTDD

DCH-ModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    bindingID                       BindingID,
    transportLayerAddress           TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-ModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationReadyTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION COMMIT
--
-- **************************************************************

RadioLinkReconfigurationCommit ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationCommit-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationCommit-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationCommit-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CFN                CRITICALITY ignore  TYPE CFN                    PRESENCE mandatory   },
    ...
}

RadioLinkReconfigurationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION FAILURE
--
-- **************************************************************

RadioLinkReconfigurationFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationFailure-Extensions}}                  OPTIONAL,
    ...
```

```
}

RadioLinkReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause                   CRITICALITY ignore  TYPE Cause                  PRESENCE mandatory  } |
    { ID id-RL-ReconfigurationFailureList-RL-ReconfFail     CRITICALITY ignore  TYPE RL-ReconfigurationFailureList-RL-ReconfFail  PRESENCE optional } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-ReconfigurationFailureList-RL-ReconfFail     ::= RL-IE-ContainerList0 { {RL-ReconfigurationFailure-RL-ReconfFail-IEs} }

RL-ReconfigurationFailure-RL-ReconfFail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationFailure-RL-ReconfFail CRITICALITY ignore  TYPE RL-ReconfigurationFailure-RL-ReconfFail  PRESENCE mandatory   },
    ...
}

RL-ReconfigurationFailure-RL-ReconfFail ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions                   ProtocolExtensionContainer { {RL-ReconfigurationFailure-RL-ReconfFail-ExtIEs} } OPTIONAL,
    ...
}

RL-ReconfigurationFailure-RL-ReconfFail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION CANCEL
--
-- **************************************************************

RadioLinkReconfigurationCancel ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationCancel-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationCancel-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationCancel-IEs RNSAP-PROTOCOL-IES ::= {
    ...
}

RadioLinkReconfigurationCancel-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- RADIO LINK RECONFIGURATION REQUEST FDD
--
-- **************************************************************

RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationRequestFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationRequestFDD-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional  } |
    { 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-DCH-ModifyList-RL-ReconfRqstFDD     CRITICALITY reject  TYPE DCH-ModifyList-RL-ReconfRqstFDD     PRESENCE optional } |
    { ID id-DCH-AddList-RL-ReconfRqstFDD        CRITICALITY reject  TYPE DCH-AddList-RL-ReconfRqstFDD     PRESENCE optional } |
    { ID id-DCH-DeleteList-RL-ReconfRqstFDD     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstFDD     PRESENCE optional },
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    tFCS                            TFCS    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    tFCS                            TFCS    OPTIONAL,
    tFCI-SignallingMode             TFCI-SignallingMode OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifyList-RL-ReconfRqstFDD             ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfRqstFDD

DCH-ModifyItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    ul-TransportformatSet           TransportFormatSet  OPTIONAL,
    dl-TransportformatSet           TransportFormatSet  OPTIONAL,
    allocationRetentionPriority     AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority           FrameHandlingPriority   OPTIONAL,
```

```
    ul-FP-Mode                      UL-FP-Mode      OPTIONAL,
    toAWS                           ToAWS           OPTIONAL,
    toAWE                           ToAWE           OPTIONAL,
    dRACControl                     DRACControl     OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfRqstFDD                ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRqstFDD

DCH-AddItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID                              DCH-ID,
    dCH-CombinationInd                  DCH-CombinationInd  OPTIONAL,
    limitedPowerIncrease                LimitedPowerIncrease,
    trCH-SrcStatisticsDescr             TrCH-SrcStatisticsDescr,
    ul-TransportformatSet               TransportFormatSet,
    dl-TransportformatSet               TransportFormatSet,
    ul-BLER                             BLER,
    dl-BLER                             BLER,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    qE-Selector                         QE-Selector,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dRACControl                         DRACControl,
    iE-Extensions                       ProtocolExtensionContainer { {DCH-AddItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-AddItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstFDD             ::= SEQUENCE (SIZE (0..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 RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
RadioLinkReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION REQUEST TDD
--
-- **************************************************************

RadioLinkReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationRequestTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationRequestTDD-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional  } |
    { ID id-UL-CCTrCH-InformationList-RL-ReconfRqstTDD  CRITICALITY notify  TYPE UL-CCTrCH-InformationList-RL-ReconfRqstTDD PRESENCE optional } |
    { ID id-DL-CCTrCH-InformationList-RL-ReconfRqstTDD  CRITICALITY notify  TYPE DL-CCTrCH-InformationList-RL-ReconfRqstTDD PRESENCE optional } |
    { ID id-DCH-ModifyList-RL-ReconfRqstTDD     CRITICALITY reject  TYPE DCH-ModifyList-RL-ReconfRqstTDD     PRESENCE optional } |
    { ID id-DCH-AddList-RL-ReconfRqstTDD        CRITICALITY reject  TYPE DCH-AddList-RL-ReconfRqstTDD     PRESENCE optional } |
    { ID id-DCH-DeleteList-RL-ReconfRqstTDD     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstTDD     PRESENCE optional },
    ...
}

UL-CCTrCH-InformationList-RL-ReconfRqstTDD      ::= CCTrCH-IE-ContainerList0 { {UL-CCTrCH-InformationList-RL-ReconfRqstTDD-IEs} }

UL-CCTrCH-InformationList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationItem-RL-ReconfRqstTDD  CRITICALITY notify  TYPE UL-CCTrCH-InformationItem-RL-ReconfRqstTDD PRESENCE mandatory   },
    ...
}

UL-CCTrCH-InformationItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    tFCS                        TFCS,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-ReconfRqstTDD      ::= CCTrCH-IE-ContainerList0 { {DL-CCTrCH-InformationList-RL-ReconfRqstTDD-IEs} }

DL-CCTrCH-InformationList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationItem-RL-ReconfRqstTDD  CRITICALITY notify  TYPE DL-CCTrCH-InformationItem-RL-ReconfRqstTDD PRESENCE mandatory   },
    ...
}
```

```
DL-CCTrCH-InformationItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    tFCS                        TFCS,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifyList-RL-ReconfRqstTDD             ::= SEQUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfRqstTDD

DCH-ModifyItem-RL-ReconfRqstTDD ::= 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,
    ul-FP-Mode                      UL-FP-Mode      OPTIONAL,
    toAWS                           ToAWS           OPTIONAL,
    toAWE                           ToAWE           OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-ModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfRqstTDD                ::= SEQUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRqstTDD

DCH-AddItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    limitedPowerIncrease            LimitedPowerIncrease,
    trCH-SrcStatisticsDescr         TrCH-SrcStatisticsDescr,
    ul-CCTrCH-ID                    CCTrCH-ID,
    dl-CCTrCH-ID                    CCTrCH-ID,
    dCH-CombinationInd              DCH-CombinationInd  OPTIONAL,
    ul-TransportformatSet           TransportFormatSet,
    dl-TransportformatSet           TransportFormatSet,
    ul-BLER                         BLER,
    dl-BLER                         BLER,
    allocationRetentionPriority     AllocationRetentionPriority,
    frameHandlingPriority           FrameHandlingPriority,
    ul-FP-Mode                      UL-FP-Mode,
    toAWS                           ToAWS,
    toAWE                           ToAWE,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-AddItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
```

```
    ...
}

DCH-AddItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstTDD             ::= SEQUENCE (SIZE(0..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 RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION RESPONSE
--
-- **************************************************************

RadioLinkReconfigurationResponse ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkReconfigurationResponse-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkReconfigurationResponse-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkReconfigurationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-ReconfRsp     CRITICALITY ignore  TYPE RL-InformationResponseList-RL-ReconfRsp       PRESENCE optional } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-ReconfRsp     ::= RL-IE-ContainerList0 { {RL-InformationResponse-RL-ReconfRsp-IEs} }

RL-InformationResponse-RL-ReconfRsp-IEs RNSAP-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,
    max-UL-SIR                      UL-SIR          OPTIONAL,
```

```
    min-UL-SIR                      UL-SIR          OPTIONAL,
    secondary-CCPCH-Info            Secondary-CCPCH-Info-RL-ReconfRsp       OPTIONAL,
    dCHsToBeAdded                   DCH-AddList-RL-ReconfRsp            OPTIONAL,
    dCHsToBeModified                DCH-ModifyList-RL-ReconfRsp         OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfRsp-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-Info-RL-ReconfRsp ::= SEQUENCE {
    fDD-S-CCPCH-Offset                      FDD-S-CCPCH-Offset,
    dl-ScramblingCode                       DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    dl-TFCS                                 TFCS,
    secondaryCCPCH-SlotFormat               SecondaryCCPCH-SlotFormat,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    -- This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17
    multiplexingPosition                    MultiplexingPosition,
    sTTD-Indicator                          STTD-Indicator,
    fACH-PCH-InformationList                FACH-PCH-InformationList-RL-ReconfRsp,
    schedulingInformation                   SchedulingInformation-RL-ReconfRsp,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-CCPCH-Info-RL-ReconfRsp-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-Info-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-PCH-InformationList-RL-ReconfRsp ::= SEQUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem-RL-ReconfRsp

FACH-PCH-InformationItem-RL-ReconfRsp ::= SEQUENCE {
    transportFormatSet              TransportFormatSet,
    iE-Extensions                   ProtocolExtensionContainer { { FACH-PCH-InformationItem-RL-ReconfRsp-ExtIEs} } OPTIONAL,
    ...
}

FACH-PCH-InformationItem-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SchedulingInformation-RL-ReconfRsp ::= SEQUENCE {
    iB-SG-Rep                       IB-SG-REP,
    segmentInformationList          SegmentInformationList-RL-ReconfRsp,
    iE-Extensions                   ProtocolExtensionContainer { { SchedulingInformation-RL-ReconfRsp-ExtIEs } } OPTIONAL,
        ...
}
```

```
SchedulingInformation-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SegmentInformationList-RL-ReconfRsp ::= SEQUENCE (SIZE(1..maxIBSEG)) OF SegmentInformationItem-RL-ReconfRsp

SegmentInformationItem-RL-ReconfRsp ::= SEQUENCE {
    iB-SG-POS                       IB-SG-POS,
    iE-Extensions                   ProtocolExtensionContainer { {  SegmentInformationItem-RL-ReconfRsp-ExtIEs } } OPTIONAL,
    ...
}

SegmentInformationItem-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfRsp               ::= ProtocolIE-Container { {DCH-AddListIEs-RL-ReconfRsp} }

DCH-AddListIEs-RL-ReconfRsp RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-AddListIE-RL-ReconfRsp      CRITICALITY ignore  TYPE DCH-AddListIE-RL-ReconfRsp   PRESENCE mandatory   },
    ...
}

DCH-AddListIE-RL-ReconfRsp ::= SEQUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRsp

DCH-AddItem-RL-ReconfRsp ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    bindingID                       BindingID,
    transportLayerAddress           TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-AddItem-RL-ReconfRspFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-AddItem-RL-ReconfRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifyList-RL-ReconfRsp         ::= ProtocolIE-Container { {DCH-ModifyListIEs-RL-ReconfRsp} }

DCH-ModifyListIEs-RL-ReconfRsp RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-ModifyListIE-RL-ReconfRsp   CRITICALITY ignore  TYPE DCH-ModifyListIE-RL-ReconfRsp     PRESENCE mandatory   },
    ...
}

DCH-ModifyListIE-RL-ReconfRsp ::= SEQUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfRsp

DCH-ModifyItem-RL-ReconfRsp ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    bindingID                       BindingID,
    transportLayerAddress           TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-ModifyItem-RL-ReconfRsp-ExtIEs} } OPTIONAL,
```

```
    ...
}

DCH-ModifyItem-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK FAILURE INDICATION
--
-- **************************************************************

RadioLinkFailureIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkFailureIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkFailureIndication-Extensions}}                   OPTIONAL,
    ...
}

RadioLinkFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Reporting-Object-RL-FailureInd  CRITICALITY ignore  TYPE Reporting-Object-RL-FailureInd     PRESENCE mandatory   },
    ...
}

Reporting-Object-RL-FailureInd ::= CHOICE {
    rL                      RL-InformationList-RL-FailureInd,
    rL-Set                  RL-Set-InformationList-RL-FailureInd,
    ...
}

RL-InformationList-RL-FailureInd            ::= RL-IE-ContainerList1 { {RL-Information-RL-FailureInd-IEs} }

RL-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-FailureInd        CRITICALITY ignore  TYPE RL-Information-RL-FailureInd     PRESENCE mandatory   },
    ...
}

RL-Information-RL-FailureInd ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
RL-Set-InformationList-RL-FailureInd           ::= RL-Set-IE-ContainerList { {RL-Set-Information-RL-FailureInd-IEs} }

RL-Set-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Information-RL-FailureInd        CRITICALITY ignore  TYPE RL-Set-Information-RL-FailureInd    PRESENCE mandatory   },
    ...
}

RL—Set-Information-RL-FailureInd ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RESTORE INDICATION
--
-- **************************************************************

RadioLinkRestoreIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RadioLinkRestoreIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RadioLinkRestoreIndication-Extensions}}                  OPTIONAL,
    ...
}

RadioLinkRestoreIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Reporing-Object-RL-RestoreInd   CRITICALITY ignore  TYPE Reporting-Object-RL-RestoreInd     PRESENCE mandatory   },
    ...
}

Reporting-Object-RL-RestoreInd ::= CHOICE {
    rL                      RL-InformationList-RL-RestoreInd,
    rL-Set                  RL-Set-InformationList-RL-RestoreInd,
    ...
}

RL-InformationList-RL-RestoreInd           ::= RL-IE-ContainerList1 { {RL-Information-RL-RestoreInd-IEs} }

RL-Information-RL-RestoreInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-RestoreInd        CRITICALITY ignore  TYPE RL-Information-RL-RestoreInd     PRESENCE mandatory   },
    ...
```

```
}

RL-Information-RL-RestoreInd ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-RL-RestoreInd            ::= RL-Set-IE-ContainerList { {RL-Set-Information-RL-RestoreInd-IEs} }

RL-Set-Information-RL-RestoreInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Information-RL-RestoreInd        CRITICALITY ignore  TYPE RL-Set-Information-RL-RestoreInd   PRESENCE mandatory   },
    ...
}

RL-Set-Information-RL-RestoreInd ::= SEQUENCE {
    rL-Set-ID                   RL-Set-ID,
    iE-Extensions               ProtocolExtensionContainer { {RL-Set-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkRestoreIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DOWNLINK POWER CONTROL REQUEST
--
-- **************************************************************

DL-PowerControlRequest ::= SEQUENCE {
    protocolIEs                 ProtocolIE-Container       {{DL-PowerControlRequest-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{DL-PowerControlRequest-Extensions}}                  OPTIONAL,
    ...
}

DL-PowerControlRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-PowerAdjustmentType         CRITICALITY ignore  TYPE PowerAdjustmentType            PRESENCE mandatory} |
    { ID id-DLReferencePower            CRITICALITY ignore  TYPE DL-Power                       PRESENCE conditional} |
    -- This IE is present only 'Adjustment Type' equals to 'Common'
    { ID id-DLReferencePowerList-DL-PC-Rqst     CRITICALITY ignore  TYPE DL-ReferencePowerInformationList-DL-PC-Rqst  PRESENCE conditional} |
    -- This IE is present only 'Adjustment Type' equals to 'Individual'
```

```
    { ID id-MaxAdjustmentStep           CRITICALITY ignore  TYPE ScaledMaxAdjustmentStep         PRESENCE conditional } |
    -- This IE is present only ''Adjustment Type " equals to 'Common' or 'Individual'
    { ID id-MaxAdjustmentPeriod         CRITICALITY ignore  TYPE ScaledMaxAdjustmentPeriod       PRESENCE conditional },
    -- This IE is present only ''Adjustment Type " equals to 'Common' or 'Individual'
    ...
}

DL-ReferencePowerInformationList-DL-PC-Rqst         ::= RL-IE-ContainerList1 { {DL-ReferencePowerInformation-DL-PC-Rqst-IEs} }

DL-ReferencePowerInformation-DL-PC-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-ReferencePowerInformation-DL-PC-Rqst CRITICALITY ignore  TYPE DL-ReferencePowerInformation-DL-PC-Rqst  PRESENCE mandatory   },
    ...
}

DL-ReferencePowerInformation-DL-PC-Rqst ::= SEQUENCE {
    rL-ID                       RL-ID,
    dl-Reference-Power              DL-Power,
    iE-Extensions                   ProtocolExtensionContainer { {DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs} } OPTIONAL,
    ...
}

DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-PowerControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST FDD
--
-- **************************************************************

PhysicalChannelReconfigurationRequestFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PhysicalChannelReconfigurationRequestFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestFDD-Extensions}}                   OPTIONAL,
    ...
}

PhysicalChannelReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-PhyChReconfRqstFDD   CRITICALITY reject  TYPE RL-Information-PhyChReconfRqstFDD    PRESENCE mandatory   },
    ...
}

RL-Information-PhyChReconfRqstFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    dl-CodeInformations             DL-CodeInformationList-PhyChReconfRqstFDD,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

RL-Information-PhyChReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CodeInformationList-PhyChReconfRqstFDD       ::= ProtocolIE-Container { {DL-CodeInformationListIEs-PhyChReconfRqstFDD} }

DL-CodeInformationListIEs-PhyChReconfRqstFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CodeInformationListIE-PhyChReconfRqstFDD CRITICALITY notify  TYPE DL-CodeInformationListIE-PhyChReconfRqstFDD PRESENCE mandatory   },
    ...
}

DL-CodeInformationListIE-PhyChReconfRqstFDD ::= SEQUENCE (SIZE(1..maxNrOfDL-Codes)) OF DL-CodeInformationItem-PhyChReconfRqstFDD

DL-CodeInformationItem-PhyChReconfRqstFDD ::= SEQUENCE {
    dl-scramblingCode               DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CodeInformationItem-PhyChReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CodeInformationItem-PhyChReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PhysicalChannelReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST TDD
--
-- **************************************************************

PhysicalChannelReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PhysicalChannelReconfigurationRequestTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestTDD-Extensions}}                   OPTIONAL,
    ...
}

PhysicalChannelReconfigurationRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-PhyChReconfRqstTDD   CRITICALITY reject  TYPE RL-Information-PhyChReconfRqstTDD    PRESENCE mandatory   },
    ...
}

RL-Information-PhyChReconfRqstTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    ul-CCTrCH-Information               UL-CCTrCH-InformationList-PhyChReconfRqstTDD,
    dl-CCTrCH-Information               DL-CCTrCH-InformationList-PhyChReconfRqstTDD,
```

```
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCH-InformationList-PhyChReconfRqstTDD        ::= ProtocolIE-Container { {UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD} }

UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD      CRITICALITY reject  TYPE UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD    PRESENCE
mandatory   } ,
    ...
}
UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-PhyChReconfRqstTDD

UL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    ul-DPCH-Information             UL-DPCH-InformationList-PhyChReconfRqstTDD,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-PhyChReconfRqstTDD ::= DPCH-IE-ContainerList {{UL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}

UL-DPCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-PhyChReconfRqstTDD   CRITICALITY notify TYPE UL-DPCH-InformationItem-PhyChReconfRqstTDD    PRESENCE mandatory },
    ...
}

UL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    dPCH-ID                         DPCH-ID,
    tDD-ChannelisationCode          TDD-ChannelisationCode          OPTIONAL,
    burstType                       BurstType               OPTIONAL,
    midambleShift                   MidambleShift               OPTIONAL,
    timeSlot                        TimeSlot                OPTIONAL,
    tDD-PhysicalChannelOffset       TDD-PhysicalChannelOffset       OPTIONAL,
    repetitionPeriod                RepetitionPeriod            OPTIONAL,
    repetitionLength                RepetitionLength            OPTIONAL,
    tFCI-Presence                   TFCI-Presence               OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

DL-CCTrCH-InformationList-PhyChReconfRqstTDD        ::= ProtocolIE-Container { {DL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD} }

DL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD      CRITICALITY reject  TYPE DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD    PRESENCE
mandatory   } ,
    ...
}

DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-PhyChReconfRqstTDD

DL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID                       CCTrCH-ID,
    dl-DPCH-Information             DL-DPCH-InformationList-PhyChReconfRqstTDD,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-PhyChReconfRqstTDD ::= DPCH-IE-ContainerList {{DL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}

DL-DPCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-PhyChReconfRqstTDD   CRITICALITY notify TYPE DL-DPCH-InformationItem-PhyChReconfRqstTDD    PRESENCE mandatory },
    ...
}

DL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    dPCH-ID                     DPCH-ID,
    tDD-ChannelisationCode              TDD-ChannelisationCode          OPTIONAL,
    burstType                   BurstType               OPTIONAL,
    midambleShift                   MidambleShift               OPTIONAL,
    timeSlot                    TimeSlot                OPTIONAL,
    tDD-PhysicalChannelOffset           TDD-PhysicalChannelOffset       OPTIONAL,
    repetitionPeriod                RepetitionPeriod            OPTIONAL,
    repetitionLength                RepetitionLength            OPTIONAL,
    tFCI-Presence                   TFCI-Presence               OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
        ...
    }

DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PhysicalChannelReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION COMMAND
--
-- **************************************************************

PhysicalChannelReconfigurationCommand ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PhysicalChannelReconfigurationCommand-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PhysicalChannelReconfigurationCommand-Extensions}}                    OPTIONAL,
    ...
}

PhysicalChannelReconfigurationCommand-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CFN                 CRITICALITY ignore  TYPE CFN                    PRESENCE mandatory   } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

PhysicalChannelReconfigurationCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PHYSICAL CHANNEL RECONFIGURATION FAILURE
--
-- **************************************************************

PhysicalChannelReconfigurationFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PhysicalChannelReconfigurationFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PhysicalChannelReconfigurationFailure-Extensions}}                    OPTIONAL,
    ...
}

PhysicalChannelReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause                   CRITICALITY ignore  TYPE Cause                  PRESENCE mandatory  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

PhysicalChannelReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- UPLINK SIGNALLING TRANSFER INDICATION
--
-- **************************************************************
```

```
UplinkSignallingTransferIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{UplinkSignallingTransferIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{UplinkSignallingTransferIndication-Extensions}}                  OPTIONAL,
    ...
}

UplinkSignallingTransferIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UC-ID                   CRITICALITY ignore  TYPE UC-ID                 PRESENCE mandatory  } |
    { ID id-SAI                CRITICALITY ignore  TYPE SAI                    PRESENCE mandatory   } |
    { ID id-C-RNTI                  CRITICALITY ignore  TYPE C-RNTI                 PRESENCE mandatory  } |
    { ID id-S-RNTI                  CRITICALITY ignore  TYPE S-RNTI                 PRESENCE mandatory  } |
    { ID id-D-RNTI                  CRITICALITY ignore  TYPE D-RNTI                 PRESENCE optional   } |
    { ID id-L3-Information              CRITICALITY ignore  TYPE L3-Information             PRESENCE mandatory   } |
    { ID id-CN-PS-DomainIdentifier          CRITICALITY ignore  TYPE CN-PS-DomainIdentifier      PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier          CRITICALITY ignore  TYPE CN-CS-DomainIdentifier      PRESENCE optional } |
    { ID id-URA-ID                  CRITICALITY ignore  TYPE URA-ID                 PRESENCE mandatory  } |
    { ID id-MultipleURAsIndicator           CRITICALITY ignore  TYPE MultipleURAsIndicator       PRESENCE mandatory   } |
    { ID id-RNCsWithCellsInTheAccessedURA-List-UL-ST-Ind    CRITICALITY ignore  TYPE RNCsWithCellsInTheAccessedURA-List-UL-ST-Ind    PRESENCE optional
    },
    ...
}

RNCsWithCellsInTheAccessedURA-List-UL-ST-Ind ::= SEQUENCE (SIZE (0..maxRNCinURA)) OF RNCsWithCellsInTheAccessedURA-Item-UL-ST-Ind

RNCsWithCellsInTheAccessedURA-Item-UL-ST-Ind ::= SEQUENCE {
    rNC-ID                          RNC-ID,
    iE-Extensions                   ProtocolExtensionContainer { {RNCsWithCellsInTheAccessedURA-List-UL-ST-Ind-ExtIEs} } OPTIONAL,
    ...
}

RNCsWithCellsInTheAccessedURA-List-UL-ST-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UplinkSignallingTransferIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DOWNLINK SIGNALLING TRANSFER REQUEST
--
-- **************************************************************

DownlinkSignallingTransferRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DownlinkSignallingTransferRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DownlinkSignallingTransferRequest-Extensions}}                  OPTIONAL,
    ...
}

DownlinkSignallingTransferRequest-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-C-ID                    CRITICALITY ignore  TYPE C-ID                   PRESENCE mandatory  } |
    { ID id-D-RNTI                  CRITICALITY ignore  TYPE D-RNTI                 PRESENCE mandatory  } |
    { ID id-L3-Information              CRITICALITY ignore  TYPE L3-Information             PRESENCE mandatory  } |
    { ID id-D-RNTI-ReleaseIndication        CRITICALITY ignore  TYPE D-RNTI-ReleaseIndication       PRESENCE mandatory  },
    ...
}

DownlinkSignallingTransferRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RELOCATION COMMIT
--
-- **************************************************************

RelocationCommit ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{RelocationCommit-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{RelocationCommit-Extensions}}                  OPTIONAL,
    ...
}

RelocationCommit-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                  CRITICALITY ignore  TYPE D-RNTI                 PRESENCE optional  } |
    { ID id-RANAP-RelocationInformation     CRITICALITY ignore  TYPE RANAP-RelocationInformation    PRESENCE optional },
    ...
}

RelocationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PAGING REQUEST
--
-- **************************************************************

PagingRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{PagingRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{PagingRequest-Extensions}}                  OPTIONAL,
    ...
}

PagingRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-PagingArea-PagingRqst           CRITICALITY ignore  TYPE PagingArea-PagingRqst       PRESENCE mandatory  } |
    { ID id-SRNC-ID                 CRITICALITY ignore  TYPE RNC-ID                 PRESENCE mandatory  } |
    { ID id-S-RNTI                  CRITICALITY ignore  TYPE S-RNTI                 PRESENCE mandatory  } |
    { ID id-IMSI                    CRITICALITY ignore  TYPE IMSI                   PRESENCE mandatory  } |
    { ID id-DRXCycleLengthCoefficient           CRITICALITY ignore  TYPE DRXCycleLengthCoefficient          PRESENCE mandatory  },
```

```
    ...
}

PagingArea-PagingRqst ::= CHOICE {
    uRA                     URA-PagingRqst,
    cell                    Cell-PagingRqst,
    ...
}

URA-PagingRqst ::= ProtocolIE-Container {{ URAIE-PagingRqst }}

URAIE-PagingRqst RNSAP-PROTOCOL-IES ::= {
    { ID id-URAItem-PagingRqst   CRITICALITY ignore TYPE URAItem-PagingRqst PRESENCE mandatory },
    ...
}

URAItem-PagingRqst ::= SEQUENCE {
    uRA-ID                      URA-ID,
    iE-Extensions               ProtocolExtensionContainer { { URAItem-PagingRqst-ExtIEs} } OPTIONAL,
    ...
}

URAItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-PagingRqst ::= ProtocolIE-Container {{ CellIE-PagingRqst }}

CellIE-PagingRqst RNSAP-PROTOCOL-IES ::= {
    { ID id-CellItem-PagingRqst   CRITICALITY ignore    TYPE CellItem-PagingRqst    PRESENCE mandatory },
    ...
}

CellItem-PagingRqst ::= SEQUENCE {
    c-ID                        C-ID,
    iE-Extensions               ProtocolExtensionContainer { { CellItem-PagingRqst-ExtIEs} } OPTIONAL,
    ...
}

CellItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PagingRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
```

```
-- **************************************************************

DedicatedMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementInitiationRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementInitiationRequest-Extensions}}                   OPTIONAL,
    ...
}

DedicatedMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY reject  TYPE MeasurementID              PRESENCE mandatory   } |
    { ID id-DedicatedMeasurementObjectType-DM-Rqst  CRITICALITY ignore  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   },
    ...
}

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
    rL                      RL-DM-Rqst,
    rLS                     RL-Set-DM-Rqst,
    ...
}

RL-DM-Rqst ::= ProtocolIE-Container { { RLIE-DM-Rqst } }

RLIE-DM-Rqst RNSAP-PROTOCOL-IES ::= {
    { ID id-RLItem-DM-Rqst      CRITICALITY reject  TYPE RLItem-DM-Rqst     PRESENCE mandatory  },
    ...
}

RLItem-DM-Rqst ::= SEQUENCE {
    rL-InformationList-DM-Rqst      RL-InformationList-DM-Rqst,
    iE-Extensions                   ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs} } OPTIONAL,
        ...
    }

RLItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rqst                  ::= RL-IE-ContainerList1 { {RL-Information-DM-Rqst-IEs} }

RL-Information-DM-Rqst-IEs RNSAP-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,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
```

```
    ...
}

RL-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rqst ::= ProtocolIE-Container { { RL-SetIE-DM-Rqst } }

RL-SetIE-DM-Rqst RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-SetItem-DM-Rqst      CRITICALITY reject  TYPE RL-SetItem-DM-Rqst     PRESENCE mandatory  },
    ...
}

RL-SetItem-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 RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rqst                 ::= RL-Set-IE-ContainerList { {RL-Set-Information-DM-Rqst-IEs} }

RL-Set-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rqst      CRITICALITY ignore  TYPE RL-Set-InformationItem-DM-Rqst      PRESENCE mandatory   },
    ...
}

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 RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION RESPONSE
--
-- **************************************************************
```

```
DedicatedMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementInitiationResponse-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementInitiationResponse-Extensions}}                   OPTIONAL,
    ...
}

DedicatedMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore  TYPE MeasurementID              PRESENCE mandatory   } |
    { ID id-DedicatedMeasurementObjectType-DM-Rsp   CRITICALITY ignore  TYPE DedicatedMeasurementObjectType-DM-Rsp  PRESENCE mandatory   } |
    { ID id-CFN                 CRITICALITY ignore  TYPE CFN                    PRESENCE optional } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
    rLs                     RL-DM-Rsp,
    rLS                     RL-Set-DM-Rsp,
    allRL                   AllRL-DM-Rsp,
    allRLS                  AllRL-Set-DM-Rsp,
    ...
}

RL-DM-Rsp ::= ProtocolIE-Container {{ RLIE-DM-Rsp }}

RLIE-DM-Rsp RNSAP-PROTOCOL-IES ::= {
    { ID id-RLItem-DM-Rsp       CRITICALITY ignore      TYPE    RLItem-DM-Rsp       PRESENCE    mandatory  },
    ...
}

RLItem-DM-Rsp ::= SEQUENCE {
    rL-InformationList-DM-Rsp       RL-InformationList-DM-Rsp,
    iE-Extensions                   ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rsp ::= ProtocolIE-Container {{ RL-SetIE-DM-Rsp }}

RL-SetIE-DM-Rsp RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-SetItem-DM-Rsp       CRITICALITY ignore      TYPE    RL-SetItem-DM-Rsp       PRESENCE mandatory   },
    ...
}

RL-SetItem-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 RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-DM-Rsp ::= ProtocolIE-Container {{ AllRLIE-DM-Rsp }}

AllRLIE-DM-Rsp RNSAP-PROTOCOL-IES ::= {
    { ID id-AllRLItem-DM-Rsp        CRITICALITY ignore      TYPE    AllRLItem-DM-Rsp        PRESENCE mandatory   },
    ...
}

AllRLItem-DM-Rsp ::= SEQUENCE {
    rL-InformationList-DM-Rsp       RL-InformationList-DM-Rsp,
    iE-Extensions                   ProtocolExtensionContainer { { AllRLItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
}

AllRLItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-Set-DM-Rsp ::= ProtocolIE-Container {{ AllRL-SetIE-DM-Rsp }}

AllRL-SetIE-DM-Rsp RNSAP-PROTOCOL-IES ::= {
    { ID id-AllRL-SetItem-DM-Rsp        CRITICALITY ignore      TYPE    AllRL-SetItem-DM-Rsp      PRESENCE mandatory   },
    ...
}

AllRL-SetItem-DM-Rsp ::= SEQUENCE {
    rL-Set-InformationList-DM-Rsp   RL-Set-InformationList-DM-Rsp,
    iE-Extensions                   ProtocolExtensionContainer { { AllRL-SetItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
}

AllRL-SetItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rsp                   ::= RL-IE-ContainerList1 { {RL-Information-DM-Rsp-IEs} }

RL-Information-DM-Rsp-IEs RNSAP-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,
    dedicatedMeasurementValue           DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
```

```
    ...
}

RL-InformationItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rsp                  ::= RL-Set-IE-ContainerList { {RL-Set-Information-DM-Rsp-IEs} }

RL-Set-Information-DM-Rsp-IEs RNSAP-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,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rspns-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rspns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT INITIATION FAILURE
--
-- **************************************************************

DedicatedMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementInitiationFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementInitiationFailure-Extensions}}                   OPTIONAL,
    ...
}

DedicatedMeasurementInitiationFailure-IEs RNSAP-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 },
    ...
}

DedicatedMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- DEDICATED MEASUREMENT REPORT
--
-- **************************************************************

DedicatedMeasurementReport ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementReport-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementReport-Extensions}}                    OPTIONAL,
    ...
}

DedicatedMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore  TYPE MeasurementID              PRESENCE mandatory   } |
    { ID id-DedicatedMeasurementObjectType-DM-Rprt  CRITICALITY ignore  TYPE DedicatedMeasurementObjectType-DM-Rprt PRESENCE mandatory   } |
    { ID id-CFN                 CRITICALITY ignore  TYPE CFN                    PRESENCE optional },
    ...
}

DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
    rLs                     RL-DM-Rprt,
    rLS                     RL-Set-DM-Rprt,
    allRL                   AllRL-DM-Rprt,
    allRLS                  AllRL-Set-DM-Rprt,
    ...
}

RL-DM-Rprt ::= ProtocolIE-Container {{ RLIE-DM-Rprt }}

RLIE-DM-Rprt RNSAP-PROTOCOL-IES ::= {
    { ID id-RLItem-DM-Rprt      CRITICALITY ignore      TYPE    RLItem-DM-Rprt      PRESENCE    mandatory  },
    ...
}

RLItem-DM-Rprt ::= SEQUENCE {
    rL-InformationList-DM-Rprt      RL-InformationList-DM-Rprt,
    iE-Extensions                   ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RLItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rprt ::= ProtocolIE-Container {{ RL-SetIE-DM-Rprt }}

RL-SetIE-DM-Rprt RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-SetItem-DM-Rprt      CRITICALITY ignore      TYPE    RL-SetItem-DM-Rprt      PRESENCE mandatory   },
    ...
}
```

```
RL-SetItem-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 RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-DM-Rprt ::= ProtocolIE-Container {{ AllRLIE-DM-Rprt }}

AllRLIE-DM-Rprt RNSAP-PROTOCOL-IES ::= {
    { ID id-AllRLItem-DM-Rprt       CRITICALITY ignore      TYPE    AllRLItem-DM-Rprt       PRESENCE mandatory   },
    ...
}

AllRLItem-DM-Rprt ::= SEQUENCE {
    rL-InformationList-DM-Rprt      RL-InformationList-DM-Rprt,
    iE-Extensions                   ProtocolExtensionContainer { { AllRLItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

AllRLItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-Set-DM-Rprt ::= ProtocolIE-Container {{ AllRL-SetIE-DM-Rprt }}

AllRL-SetIE-DM-Rprt RNSAP-PROTOCOL-IES ::= {
    { ID id-AllRL-SetItem-DM-Rprt       CRITICALITY ignore      TYPE    AllRL-SetItem-DM-Rprt     PRESENCE mandatory   },
    ...
}

AllRL-SetItem-DM-Rprt ::= SEQUENCE {
    rL-Set-InformationList-DM-Rprt  RL-Set-InformationList-DM-Rprt,
    iE-Extensions                   ProtocolExtensionContainer { { AllRL-SetItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

AllRL-SetItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rprt                  ::= RL-IE-ContainerList1 { {RL-Information-DM-Rprt-IEs} }

RL-Information-DM-Rprt-IEs RNSAP-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,
    dedicatedMeasurementValue           DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rprt                 ::= RL-Set-IE-ContainerList { {RL-Set-Information-DM-Rprt-IEs} }

RL-Set-Information-DM-Rprt-IEs RNSAP-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,
    dedicatedMeasurementValue           DedicatedMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT TERMINATION REQUEST
--
-- **************************************************************

DedicatedMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementTerminationRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementTerminationRequest-Extensions}}                   OPTIONAL,
    ...
}

DedicatedMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore  TYPE MeasurementID              PRESENCE mandatory   },
    ...
}
```

```
DedicatedMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- DEDICATED MEASUREMENT FAILURE INDICATION
--
-- **************************************************************

DedicatedMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{DedicatedMeasurementFailureIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{DedicatedMeasurementFailureIndication-Extensions}}                  OPTIONAL,
    ...
}

DedicatedMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore  TYPE MeasurementID              PRESENCE mandatory  } |
    { ID id-Cause                   CRITICALITY ignore  TYPE Cause                  PRESENCE mandatory  },
    ...
}

DedicatedMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
--
-- **************************************************************

CommonTransportChannelResourcesReleaseRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CommonTransportChannelResourcesReleaseRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CommonTransportChannelResourcesReleaseRequest-Extensions}}                  OPTIONAL,
    ...
}

CommonTransportChannelResourcesReleaseRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                  CRITICALITY ignore  TYPE D-RNTI                 PRESENCE mandatory  } |
    { ID id-C-RNTI                  CRITICALITY ignore  TYPE C-RNTI                 PRESENCE optional   },
    ...
}

CommonTransportChannelResourcesReleaseRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
```

```
-- COMMON TRANSPORT CHANNEL RESOURCES REQUEST
--
-- **************************************************************

CommonTransportChannelResourcesRequest ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CommonTransportChannelResourcesRequest-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CommonTransportChannelResourcesRequest-Extensions}}        OPTIONAL,
    ...
}

CommonTransportChannelResourcesRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                  CRITICALITY reject  TYPE D-RNTI                 PRESENCE mandatory  } |
    { ID id-TransportBearerRequestIndicator     CRITICALITY reject  TYPE TransportBearerRequestIndicator     PRESENCE mandatory   } |
    { ID id-TransportBearerID           CRITICALITY reject  TYPE TransportBearerID              PRESENCE mandatory },
    ...
}

CommonTransportChannelResourcesRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES RESPONSE FDD
--
-- **************************************************************

CommonTransportChannelResourcesResponseFDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CommonTransportChannelResourcesResponseFDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseFDD-Extensions}}       OPTIONAL,
    ...
}

CommonTransportChannelResourcesResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-S-RNTI                  CRITICALITY ignore  TYPE S-RNTI                 PRESENCE mandatory  } |
    { ID id-FACH-InfoForS-CCPCH-CoupledToPRACHorPCPCH-CTCH-ResourceRspFDD   CRITICALITY ignore  TYPE FACH-InfoForS-CCPCH-CoupledToPRACHorPCPCH-CTCH-
ResourceRspFDD      PRESENCE mandatory  } |
    { ID id-FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspFDD     CRITICALITY ignore  TYPE FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspFDD   PRESENCE
optional    } |
    { ID id-TransportLayerAddress           CRITICALITY ignore  TYPE TransportLayerAddress       PRESENCE optional } |
    { ID id-BindingID               CRITICALITY ignore  TYPE BindingID                  PRESENCE optional  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

FACH-InfoForS-CCPCH-CoupledToPRACHorPCPCH-CTCH-ResourceRspFDD ::= SEQUENCE {
    priorityIndicatorAndInitialWindowSizes      PriorityIndicatorAndInitialWindowSizeList-CTCH-ResourceRspFDD,
    iE-Extensions                   ProtocolExtensionContainer { {FACH-InfoForS-CCPCH-CoupledToPRACHorPCPCH-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
FACH-InfoForS-CCPCH-CoupledToPRACHorPCPCH-CTCH-ResourceRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityIndicatorAndInitialWindowSizeList-CTCH-ResourceRspFDD ::= ProtocolIE-Container {{ PriorityIndicatorAndInitialWindowSizeListIEs-CTCH-
ResourceRspFDD }}

PriorityIndicatorAndInitialWindowSizeListIEs-CTCH-ResourceRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspFDD CRITICALITY ignore  TYPE PriorityIndicatorAndInitialWindowSizeListIE-CTCH-
ResourceRspFDD  PRESENCE mandatory  },
    ...
}

PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspFDD ::= SEQUENCE (SIZE (1..16)) OF PriorityIndicatorAndInitialWindowSizeItem-CTCH-
ResourceRspFDD

PriorityIndicatorAndInitialWindowSizeItem-CTCH-ResourceRspFDD ::= SEQUENCE {
    fACH-PriorityIndicator              FACH-PriorityIndicator,
    mAC-c-SDU-Lengths               MAC-c-SDU-LengthList-CTCH-ResourceRspFDD,
    fACH-InitialWindowSize              FACH-InitialWindowSize,
    iE-Extensions                   ProtocolExtensionContainer { {PriorityIndicatorAndInitialWindowSizeItem-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
    ...
}

PriorityIndicatorAndInitialWindowSizeItem-CTCH-ResourceRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MAC-c-SDU-LengthList-CTCH-ResourceRspFDD ::= ProtocolIE-Container {{ MAC-c-SDU-LengthListIEs-CTCH-ResourceRspFDD }}

MAC-c-SDU-LengthListIEs-CTCH-ResourceRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-MAC-c-SDU-LengthListIE-CTCH-ResourceRspFDD  CRITICALITY ignore  TYPE    MAC-c-SDU-LengthListIE-CTCH-ResourceRspFDD PRESENCE mandatory   },
    ...
}

MAC-c-SDU-LengthListIE-CTCH-ResourceRspFDD  ::= SEQUENCE (SIZE (1..maxNrOfMACcSDU-Length)) OF MAC-c-SDU-LengthItem-CTCH-ResourceRspFDD

MAC-c-SDU-LengthItem-CTCH-ResourceRspFDD ::= SEQUENCE {
    mAC-c-SDU-Length                MAC-c-SDU-Length,
    iE-Extensions                   ProtocolExtensionContainer { {MAC-c-SDU-LengthItem-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
    ...
}

MAC-c-SDU-LengthItem-CTCH-ResourceRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspFDD ::= SEQUENCE {
    fDD-S-CCPCH-Offset              FDD-S-CCPCH-Offset,
    dl-ScramblingCode               DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
```

```
    dl-TFCS                     TFCS,
    secondaryCCPCH-SlotFormat                   SecondaryCCPCH-SlotFormat,
    multiplexingPosition                MultiplexingPosition,
    sTTD-Indicator                  STTD-Indicator,
    priorityIndicatorAndInitialWindowSizeList   PriorityIndicatorAndInitialWindowSizeList-option-CTCH-ResourceRspFDD,
    iE-Extensions                   ProtocolExtensionContainer { {FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
    ...
}

FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityIndicatorAndInitialWindowSizeList-option-CTCH-ResourceRspFDD ::= ProtocolIE-Container {{ PriorityIndicatorAndInitialWindowSizeListIEs-option-
CTCH-ResourceRspFDD }}

PriorityIndicatorAndInitialWindowSizeListIEs-option-CTCH-ResourceRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspFDD  CRITICALITY ignore  TYPE
    PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspFDD  PRESENCE mandatory  },
    ...
}

PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspFDD ::= SEQUENCE (SIZE (1..16)) OF PriorityIndicatorAndInitialWindowSizeItem-option-
CTCH-ResourceRspFDD

PriorityIndicatorAndInitialWindowSizeItem-option-CTCH-ResourceRspFDD ::= SEQUENCE {
    fACH-PriorityIndicator          FACH-PriorityIndicator,
    mAC-c-SDU-Lengths               MAC-c-SDU-LengthList-option-CTCH-ResourceRspFDD,
    fACH-InitialWindowSize          FACH-InitialWindowSize,
    iE-Extensions                   ProtocolExtensionContainer { {PriorityIndicatorAndInitialWindowSizeItem-option-CTCH-ResourceRspFDD-ExtIEs} }
OPTIONAL,
    ...
}

PriorityIndicatorAndInitialWindowSizeItem-option-CTCH-ResourceRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MAC-c-SDU-LengthList-option-CTCH-ResourceRspFDD ::= ProtocolIE-Container {{ MAC-c-SDU-LengthListIEs-option-CTCH-ResourceRspFDD }}

MAC-c-SDU-LengthListIEs-option-CTCH-ResourceRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-MAC-c-SDU-LengthListIE-option-CTCH-ResourceRspFDD   CRITICALITY ignore  TYPE    MAC-c-SDU-LengthListIE-option-CTCH-ResourceRspFDD PRESENCE
mandatory   },
    ...
}

MAC-c-SDU-LengthListIE-option-CTCH-ResourceRspFDD ::= SEQUENCE (SIZE (1..maxNrOfMACcSDU-Length)) OF MAC-c-SDU-LengthItem-option-CTCH-ResourceRspFDD

MAC-c-SDU-LengthItem-option-CTCH-ResourceRspFDD ::= SEQUENCE {
    mAC-c-SDU-Length                MAC-c-SDU-Length,
    iE-Extensions                   ProtocolExtensionContainer { {MAC-c-SDU-LengthItem-option-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
```

```
    ...
}

MAC-c-SDU-LengthItem-option-CTCH-ResourceRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonTransportChannelResourcesResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES RESPONSE TDD
--
-- **************************************************************

CommonTransportChannelResourcesResponseTDD ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CommonTransportChannelResourcesResponseTDD-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseTDD-Extensions}}       OPTIONAL,
    ...
}

CommonTransportChannelResourcesResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-S-RNTI                  CRITICALITY ignore  TYPE S-RNTI                 PRESENCE mandatory  } |
    { ID id-FACH-InfoForS-CCPCH-CoupledToPRACH-CTCH-ResourceRspTDD  CRITICALITY ignore  TYPE FACH-InfoForS-CCPCH-CoupledToPRACH-CTCH-ResourceRspTDD
    PRESENCE mandatory  } |
    { ID id-FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspTDD CRITICALITY ignore  TYPE FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspTDD    PRESENCE
optional    } |
    { ID id-TransportLayerAddress           CRITICALITY ignore  TYPE TransportLayerAddress       PRESENCE optional } |
    { ID id-BindingID               CRITICALITY ignore  TYPE BindingID                  PRESENCE optional  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

FACH-InfoForS-CCPCH-CoupledToPRACH-CTCH-ResourceRspTDD ::= SEQUENCE {
    priorityIndicatorAndInitialWindowSizes      PriorityIndicatorAndInitialWindowSizeList-CTCH-ResourceRspTDD,
    iE-Extensions                   ProtocolExtensionContainer { {FACH-InfoForS-CCPCH-CoupledToPRACH-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
    ...
}

FACH-InfoForS-CCPCH-CoupledToPRACH-CTCH-ResourceRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityIndicatorAndInitialWindowSizeList-CTCH-ResourceRspTDD ::= ProtocolIE-Container {{ PriorityIndicatorAndInitialWindowSizeListIEs-CTCH-
ResourceRspTDD }}

PriorityIndicatorAndInitialWindowSizeListIEs-CTCH-ResourceRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspTDD CRITICALITY ignore  TYPE PriorityIndicatorAndInitialWindowSizeListIE-CTCH-
ResourceRspTDD  PRESENCE mandatory  },
```

```
    ...
}

PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspTDD ::= SEQUENCE (SIZE (1..16)) OF PriorityIndicatorAndInitialWindowSizeItem-CTCH-
ResourceRspTDD

PriorityIndicatorAndInitialWindowSizeItem-CTCH-ResourceRspTDD ::= SEQUENCE {
    fACH-PriorityIndicator          FACH-PriorityIndicator,
    mAC-c-SDU-Lengths               MAC-c-SDU-LengthList-CTCH-ResourceRspTDD,
    fACH-InitialWindowSize          FACH-InitialWindowSize,
    iE-Extensions                   ProtocolExtensionContainer { {PriorityIndicatorAndInitialWindowSizeItem-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
    ...
}

PriorityIndicatorAndInitialWindowSizeItem-CTCH-ResourceRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MAC-c-SDU-LengthList-CTCH-ResourceRspTDD ::= ProtocolIE-Container {{ MAC-c-SDU-LengthListIEs-CTCH-ResourceRspTDD }}

MAC-c-SDU-LengthListIEs-CTCH-ResourceRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-MAC-c-SDU-LengthListIE-CTCH-ResourceRspTDD  CRITICALITY ignore  TYPE    MAC-c-SDU-LengthListIE-CTCH-ResourceRspTDD PRESENCE mandatory   },
    ...
}

MAC-c-SDU-LengthListIE-CTCH-ResourceRspTDD  ::= SEQUENCE (SIZE (1..maxNrOfMACcSDU-Length)) OF MAC-c-SDU-LengthItem-CTCH-ResourceRspTDD

MAC-c-SDU-LengthItem-CTCH-ResourceRspTDD ::= SEQUENCE {
    mAC-c-SDU-Length                MAC-c-SDU-Length,
    iE-Extensions                   ProtocolExtensionContainer { {MAC-c-SDU-LengthList-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
    ...
}

MAC-c-SDU-LengthList-CTCH-ResourceRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspTDD ::= SEQUENCE {
    dl-TFCS                     TFCS,
    secondaryCCPCHs                 SecondaryCCPCHList-CTCH-ResourceRspTDD,
    iE-Extensions                   ProtocolExtensionContainer { {FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
    ...
}

FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondaryCCPCHList-CTCH-ResourceRspTDD ::= ProtocolIE-Container {{ SecondaryCCPCHListIEs-CTCH-ResourceRspTDD }}

SecondaryCCPCHListIEs-CTCH-ResourceRspTDD RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-SecondaryCCPCHListIE-CTCH-ResourceRspTDD    CRITICALITY ignore  TYPE    SecondaryCCPCHListIE-CTCH-ResourceRspTDD PRESENCE mandatory   },
    ...
}

SecondaryCCPCHListIE-CTCH-ResourceRspTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs)) OF SecondaryCCPCHItem-CTCH-ResourceRspTDD

SecondaryCCPCHItem-CTCH-ResourceRspTDD ::= SEQUENCE {
    tDD-ChannelisationCode              TDD-ChannelisationCode,
    timeSlot                    TimeSlot,
    burstType                   BurstType,
    midambleShift                   MidambleShift,
    tDD-PhysicalChannelOffset           TDD-PhysicalChannelOffset,
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    priorityIndicatorAndInitialWindowSizeList   PriorityIndicatorAndInitialWindowSizeList-CTCH-ResourceRspTDD,
    iE-Extensions                   ProtocolExtensionContainer { {SecondaryCCPCHItem-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
    ...
}

SecondaryCCPCHItem-CTCH-ResourceRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityIndicatorAndInitialWindowSizeList-option-CTCH-ResourceRspTDD ::= ProtocolIE-Container {{ PriorityIndicatorAndInitialWindowSizeListIEs-option-
CTCH-ResourceRspTDD }}

PriorityIndicatorAndInitialWindowSizeListIEs-option-CTCH-ResourceRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspTDD  CRITICALITY ignore  TYPE
    PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspTDD  PRESENCE mandatory  },
    ...
}

PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspTDD ::= SEQUENCE (SIZE (1..16)) OF PriorityIndicatorAndInitialWindowSizeItem-option-
CTCH-ResourceRspTDD

PriorityIndicatorAndInitialWindowSizeItem-option-CTCH-ResourceRspTDD ::= SEQUENCE {
    fACH-PriorityIndicator          FACH-PriorityIndicator,
    mAC-c-SDU-Lengths               MAC-c-SDU-LengthList-option-CTCH-ResourceRspTDD,
    fACH-InitialWindowSize          FACH-InitialWindowSize,
    iE-Extensions                   ProtocolExtensionContainer { {PriorityIndicatorAndInitialWindowSizeItem-option-CTCH-ResourceRspTDD-ExtIEs} }
OPTIONAL,
    ...
}

PriorityIndicatorAndInitialWindowSizeItem-option-CTCH-ResourceRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MAC-c-SDU-LengthList-option-CTCH-ResourceRspTDD ::= ProtocolIE-Container {{ MAC-c-SDU-LengthListIEs-option-CTCH-ResourceRspTDD }}

MAC-c-SDU-LengthListIEs-option-CTCH-ResourceRspTDD RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-MAC-c-SDU-LengthListIE-option-CTCH-ResourceRspTDD   CRITICALITY ignore  TYPE    MAC-c-SDU-LengthListIE-option-CTCH-ResourceRspTDD PRESENCE
mandatory   },
    ...
}

MAC-c-SDU-LengthListIE-option-CTCH-ResourceRspTDD ::= SEQUENCE (SIZE (1..maxNrOfMACcSDU-Length)) OF MAC-c-SDU-LengthItem-option-CTCH-ResourceRspTDD

MAC-c-SDU-LengthItem-option-CTCH-ResourceRspTDD ::= SEQUENCE {
    mAC-c-SDU-Length                MAC-c-SDU-Length,
    iE-Extensions                   ProtocolExtensionContainer { {MAC-c-SDU-LengthItem-option-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
    ...
}

MAC-c-SDU-LengthItem-option-CTCH-ResourceRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonTransportChannelResourcesResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL RESOURCES FAILURE
--
-- **************************************************************

CommonTransportChannelResourcesFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CommonTransportChannelResourcesFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CommonTransportChannelResourcesFailure-Extensions}}        OPTIONAL,
    ...
}

CommonTransportChannelResourcesFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-S-RNTI                  CRITICALITY ignore  TYPE S-RNTI                 PRESENCE mandatory  } |
    { ID id-Cause                   CRITICALITY ignore  TYPE Cause                  PRESENCE mandatory  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

CommonTransportChannelResourcesFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMPRESSED MODE PREPARE
--
-- **************************************************************

CompressedModePrepare ::= SEQUENCE {
```

```
    protocolIEs                     ProtocolIE-Container       {{CompressedModePrepare-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CompressedModePrepare-Extensions}}                  OPTIONAL,
    ...
}

CompressedModePrepare-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-CM-PatternInformationList-CompressedModePrep     CRITICALITY reject      TYPE    CM-PatternInformationList-CompressedModePrep
    PRESENCE    mandatory  },
    ...
}

CM-PatternInformationList-CompressedModePrep ::= SEQUENCE (SIZE (1..maxNrOfCMpatterns)) OF ProtocolIE-Container {{ CM-PatternInformationItemIE-
CompressedModePrep }}

CM-PatternInformationItemIE-CompressedModePrep RNSAP-PROTOCOL-IES ::= {
    { ID    id-CM-PatternInformationItem-CompressedModePrep         CRITICALITY     reject       TYPE  CM-PatternInformationItem-CompressedModePrep
    PRESENCE    mandatory},
    ...
 }

CM-PatternInformationItem-CompressedModePrep ::= SEQUENCE {
    cFNOffset                               CFNOffset,
    tGP1                                    GapPeriod,
    tGP2                                    GapPeriod               OPTIONAL,
    tGL                                     TGL,
    tGD                                     TGD,
    pD                                      PD,
    ul-DL-CompressedModeSelection           UL-DL-CompressedModeSelection,
    compressedModeMethod                    CompressedModeMethod,
    gapPositionMode                         GapPositionMode,
    sN                                      TimeSlot                OPTIONAL,
    -- This IE is present if Gap position mode = 'flexible position'--
    dl-FrameType                            DL-FrameType,
    scramblingCodeChange                    ScramblingCodeChange    OPTIONAL,
    -- This IE is present if Compressed mode method = 'SF/2' --
    powerControlMode                        PowerControlMode,
    powerResumeMode                         PowerResumeMode,
    ul-DeltaSIR                             UL-DeltaSIR,
    ul-DeltaSIRAfter                        UL-DeltaSIRAfter,
    iE-Extensions                           ProtocolExtensionContainer { { CM-PatternInformationItem-CompressedModePrep-ExtIEs } }   OPTIONAL,
    ...
 }

CM-PatternInformationItem-CompressedModePrep-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CompressedModePrepare-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- COMPRESSED MODE READY
--
-- **************************************************************

CompressedModeReady ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CompressedModeReady-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CompressedModeReady-Extensions}}                   OPTIONAL,
    ...
}

CompressedModeReady-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

CompressedModeReady-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMPRESSED MODE FAILURE
--
-- **************************************************************

CompressedModeFailure ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CompressedModeFailure-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CompressedModeFailure-Extensions}}                   OPTIONAL,
    ...
}

CompressedModeFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause                   CRITICALITY ignore  TYPE Cause                  PRESENCE mandatory  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

CompressedModeFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMPRESSED MODE COMMIT
--
-- **************************************************************

CompressedModeCommit ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CompressedModeCommit-IEs}},
```

```
    protocolExtensions              ProtocolExtensionContainer {{CompressedModeCommit-Extensions}}                  OPTIONAL,
    ...
}

CompressedModeCommit-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CFN                 CRITICALITY ignore  TYPE CFN                    PRESENCE mandatory   },
    ...
}

CompressedModeCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- COMPRESSED MODE CANCEL
--
-- **************************************************************

CompressedModeCancel ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{CompressedModeCancel-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{CompressedModeCancel-Extensions}}                  OPTIONAL,
    ...
}

CompressedModeCancel-IEs RNSAP-PROTOCOL-IES ::= {
    ...
}

CompressedModeCancel-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- ERROR INDICATION
--
-- **************************************************************

ErrorIndication ::= SEQUENCE {
    protocolIEs                     ProtocolIE-Container       {{ErrorIndication-IEs}},
    protocolExtensions              ProtocolExtensionContainer {{ErrorIndication-Extensions}}                   OPTIONAL,
    ...
}

ErrorIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause                   CRITICALITY ignore  TYPE Cause                  PRESENCE conditional
    -- At least either of Cause IE or Criticality IE shall be present --                                  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE conditional
    -- At least either of Cause IE or Criticality IE shall be present --                                  },
    ...
```

```
}

ErrorIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- PRIVATE MESSAGE
--
-- **************************************************************

PrivateMessage ::= SEQUENCE {
    privateIEs      PrivateIE-Container  {{PrivateMessage-IEs}},
    ...
}

PrivateMessage-IEs RNSAP-PRIVATE-IES ::= {
    ...
}

END
```

9.3.4 Information Element Definitions

```
-- **************************************************************
--
-- Information Element Definitions
--
-- **************************************************************

RNSAP-IEs -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    maxNrOfErrors,
    maxRateMatching,
    maxNrOfTFCs,
    maxNrOfTFs,
    maxCTFC-1,
    maxTTI-Count
FROM RNSAP-Constants

    Criticality,
    ProcedureCode,
    ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
```

```
FROM RNSAP-CommonDataTypes

    ProtocolExtensionContainer{},
    RNSAP-PROTOCOL-EXTENSION
FROM RNSAP-Containers;

-- A

AllocationRetentionPriority     ::= FrameHandlingPriority

AllowedQueuingTime          ::= INTEGER (0..60)
-- seconds

-- B

BetaCD ::= INTEGER (0..15)

BindingID               ::= OCTET STRING (SIZE (1..4,...))

BLER                    ::= INTEGER (-63..0)
-- Step 0.1 (Range -6.3..0). It is the Log10 of the BLER

BurstType ::= ENUMERATED {
    type1 (1),
    type2 (2)
}

-- C

Cause ::= CHOICE {
    radioNetwork        CauseRadioNetwork,
    transport           CauseTransport,
    protocol            CauseProtocol,
    misc                CauseMisc,
    ...
}

CauseMisc ::= ENUMERATED {
    control-processing-overload,
    hardware-failure,
    om-intervention,
    not-enough-user-plane-processing-resources,
    unspecified,
    ...
}

CauseProtocol ::= ENUMERATED {
    transaction-not-allowed,
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
```

```
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    ...
}

CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-scrambling-code-already-in-use,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    measurement-not-supported-for-the-object,
    macrodiversity-combining-not-possible,
    reconfiguration-not-allowed,
    requested-configuration-not-supported,
    synchronisation-failure,
    unspecified,
    ...
}

CauseTransport ::= ENUMERATED {
    transmission-link-failure,
    transmission-port-not-available,
    unspecified,
    ...
}

C-ID                    ::= INTEGER (0..65535)

CCTrCH-ID               ::= INTEGER (0..15)

CellIndividualOffset    ::= INTEGER (-20..20)

CellParameterID             ::= INTEGER (0..127)

CFN                 ::= INTEGER (0..255)

CFNOffset ::= INTEGER (0..255)

ChannelCodingType ::= ENUMERATED {
    no-coding,
    convolutional-coding,
    turbo-coding
}

ChipOffset              ::= INTEGER (0..38399)

ClosedLoopMode1-SupportIndicator    ::= ENUMERATED {
    closedLoop-Mode1-Supported,
```

```
    closedLoop-Mode1-not-Supported
}

ClosedLoopMode2-SupportIndicator    ::= ENUMERATED {
    closedLoop-Mode2-Supported,
    closedLoop-Mode2-not-Supported
}

CodingRate ::= ENUMERATED {
    half,
    third
}

CompressedModeMethod ::= ENUMERATED {
    none,
    puncturing,
    half-SF,
    higher-Layer-Schduling
}

CRC-Size                ::= ENUMERATED {
    v0,
    v8,
    v12,
    v16,
    v24
}

CriticalityDiagnostics ::= SEQUENCE {
    procedureCode               ProcedureCode           OPTIONAL,
    triggeringMessage           TriggeringMessage       OPTIONAL,
    criticalityResponse         Criticality             OPTIONAL,
    transactionID               TransactionID           OPTIONAL,
    iEsCriticalityResponses     CriticalityDiagnostics-IE-List,
    iE-Extensions               ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
    ...
}

CriticalityDiagnostics-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
        criticalityResponse     Criticality,
        iE-ID                   ProtocolIE-ID,
        repetitionNumber        RepetitionNumber        OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,
        ...
    }
```

```
CriticalityDiagnostics-IE-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CTFC                    ::= INTEGER (0..maxCTFC-1)

CN-CS-DomainIdentifier ::= SEQUENCE {
    pLMN-ID             PLMN-ID,
    lAC                 LAC,
    iE-Extensions       ProtocolExtensionContainer { {CN-CS-DomainIdentifier-ExtIEs} } OPTIONAL
}

CN-CS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CN-PS-DomainIdentifier ::= SEQUENCE {
    pLMN-ID             PLMN-ID,
    lAC                 LAC,
    rAC                 RAC,
    iE-Extensions       ProtocolExtensionContainer { {CN-PS-DomainIdentifier-ExtIEs} } OPTIONAL
}

CN-PS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

C-RNTI                  ::= INTEGER (0..65535)

-- D

DCH-CombinationInd          ::= INTEGER (0..255)

DCH-ID                  ::= INTEGER (0..255)

DedicatedMeasurementObjectType ::= ENUMERATED {
    rl,
    rls,
    all-rl,
    all-rls,
    ...
}

DedicatedMeasurementType ::= ENUMERATED {
    sir,
    sir-error,
    transmitted-code-power,
    rSCP,
    ...
}
```

```
DedicatedMeasurementValue ::= CHOICE {
    sIR-Value           SIR-Value,
    sIR-ErrorValue          SIR-Error-Value,
    transmittedCodePowerValue   Transmitted-Code-Power-Value,
    rSCP                RSCP-Value, -- TDD only
    ...
}

DiversityControlField           ::= ENUMERATED {
    may,
    must,
    must-not
}

DiversityMode               ::= ENUMERATED {
    none,
    sTTD,
    closedLoopMode1,
    closedLoopMode2
}

DL-DPCH-SlotFormat          ::= INTEGER (0..16)

DL-SIRTarget                ::= UL-SIR

DL-Power                ::= INTEGER (-350..150)
-- Value = DL-Power / 10
-- Unit dB, Range –35dB .. +15dB, Step +0.1dB

D-RNTI                  ::= INTEGER (0..1048575)

D-RNTI-ReleaseIndication ::= ENUMERATED {
    release-D-RNTI,
    not-release-D-RNTI
}

DL-ScramblingCode           ::= INTEGER (0..15)

DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    ...
}

DPCH-ID                 ::= INTEGER (0..239)

DPCHConstantValue ::= INTEGER (-32..31)
-- Unit dBm, Step 1dBm

DRACControl     ::= ENUMERATED {
    requested,
```

```
    not-requested
}

DRXCycleLengthCoefficient               ::= INTEGER (2..12)

D-FieldLength               ::= ENUMERATED {
    v1,
    v2
}

-- E

EventA ::= SEQUENCE {
    measurementTreshold     MeasurementThreshold,
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {EventA-ExtIEs} } OPTIONAL,
    ...
}

EventA-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EventB ::= SEQUENCE {
    measurementTreshold     MeasurementThreshold,
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {EventB-ExtIEs} } OPTIONAL,
    ...
}

EventB-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}


EventC ::= SEQUENCE {
    measurementIncreaseDecreaseThreshold    MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime       MeasurementChangeTime,
    iE-Extensions           ProtocolExtensionContainer { {EventC-ExtIEs} } OPTIONAL,
    ...
}

EventC-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EventD ::= SEQUENCE {
    measurementIncreaseDecreaseThreshold    MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime       MeasurementChangeTime,
    iE-Extensions           ProtocolExtensionContainer { {EventD-ExtIEs} } OPTIONAL,
    ...
```

```
}

EventD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EventE ::= SEQUENCE {
    measurementThreshold1       MeasurementThreshold,
    measurementThreshold2       MeasurementThreshold            OPTIONAL,
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
    reportPeriodicity       ReportPeriodicity           OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {EventE-ExtIEs} } OPTIONAL,
    ...
}

EventE-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

EventF ::= SEQUENCE {
    measurementThreshold1       MeasurementThreshold,
    measurementThreshold2       MeasurementThreshold            OPTIONAL,
    measurementHysteresisTime   MeasurementHysteresisTime       OPTIONAL,
    reportPeriodicity       ReportPeriodicity           OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {EventF-ExtIEs} } OPTIONAL,
    ...
}

EventF-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- F

FACH-InitialWindowSize          ::= INTEGER { unlimited(255) } (0..255)
-- Number of frames MAC-c SDUs.
-- 255 = Unlimited number of FACH data frames

FDD-DL-ChannelisationCodeNumber     ::= INTEGER (0..255)

FDD-S-CCPCH-Offset          ::= INTEGER (0..149)

FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-size1,
    ...
}

FACH-PriorityIndicator          ::= INTEGER { lowest(0), highest(15) } (0..15)

FrameHandlingPriority           ::= INTEGER { lowest(0), highest(15) } (0..15)
```

```
FrameOffset             ::= INTEGER (0..255)
-- Frames

-- G

GapPositionMode ::= ENUMERATED {
    fixed,
    flexible
}

GapPeriod               ::= INTEGER (0..255)

-- H

-- I

IB-SG-POS   ::= INTEGER (0..4095)

IB-SG-REP   ::= INTEGER (16| 32| 64| 128| 256| 512| 1024| 2480)

IMSI        ::= OCTET STRING (SIZE(3..8))


-- J
-- K
-- L

LAC                 ::= OCTET STRING (SIZE (2)) --(EXCEPT ('0000'H|'FFFF'H))

L3-Information              ::= BIT STRING

-- M

MaxNrOfUL-DPCHs             ::= INTEGER (1..6)

MAC-c-SDU-Length            ::= INTEGER (1..5000)

MaximumAllowedULTxPower     ::= INTEGER (-50..33)

MeasurementFilterCoefficient ::= INTEGER (1..256)
-- Measurement Filter Coefficient to be used for measurement

MeasurementID               ::= INTEGER (0..1048575)

MultipleURAsIndicator ::= ENUMERATED {
    multiple-URAs-exist,
    single-URA-exists
}

ScaledMaxAdjustmentPeriod           ::= INTEGER(1..50)
```

```
-- MaxAdjustmentPeriod (slots) = 10 * ScaledMaxAdjustmentPeriod

ScaledMaxAdjustmentStep         ::= INTEGER(1..10)
-- MaxAdjustmentStep (dB) = ScaledMaxAdjustmentStep / 10

MeasurementChangeTime       ::= INTEGER (1..6000)
-- The MeasurementChangeTime  gives the MeasurementChangeTime
-- in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unis is ms, Step is 10 ms

MeasurementHysteresisTime       ::= INTEGER (1..6000)
-- The MeasurementHysteresisTime  gives the
-- MeasurementHysteresisTime in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10ms

MeasurementIncreaseDecreaseThreshold        ::= CHOICE {
    sir                             SIR-Value-IncrDecrThres,
    sir-error                       SIR-Error-Value-IncrDecrThres,
    transmitted-code-power          Transmitted-Code-Power-Value-IncrDecrThres,
    rscp                            RSCP-Value-IncrDecrThres,
    ...
}

MeasurementThreshold            ::= CHOICE {
    sir                             SIR-Value,
    sir-error                       SIR-Error-Value,
    transmitted-code-power          Transmitted-Code-Power-Value,
    rscp                            RSCP-Value,
    ...
}

MidambleShift               ::= INTEGER (0..15)

MinUL-ChannelisationCodeLength      ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256
}

MultiplexingPosition ::= ENUMERATED {
    fixed,
    flexible
}

-- N
```

```
NrOfTransportBlocks         ::= INTEGER (0..4095)

-- O

-- P

PD                  ::= INTEGER (0..2047, ...)

PayloadCRC-PresenceIndicator ::= ENUMERATED {
    crc-included,
    crc-not-included
}

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 +0.1dBm

SCH-TimeSlot                ::= INTEGER (0..6)

Periodic ::= SEQUENCE {
    reportPeriodicity       ReportPeriodicity,
    iE-Extensions           ProtocolExtensionContainer { {Periodic-ExtIEs} } OPTIONAL,
    ...
}

Periodic-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PLMN-ID ::= OCTET STRING (SIZE(3))

PowerAdjustmentType ::= ENUMERATED {
    none,
    common,
    individual
}

PowerControlMode ::= ENUMERATED {
    v0,
    v1,
    ...
}

PowerOffset             ::= INTEGER (0..24)

PowerResumeMode ::= ENUMERATED {
    v0,
    v1,
```

```
    ...
}

PrimaryCPICH-Power          ::= INTEGER (-100..500)
-- step 0.1 (Range –10.0..50.0) Unit is dBm

PrimaryCPICH-EcNo           ::= INTEGER (-30..30)

PrimaryCCPCH-RSCP           ::= INTEGER (0..91)
-- According to maping in 25.225

PrimaryScramblingCode           ::= INTEGER (0..511)

PropagationDelay            ::= INTEGER (0..255)

SyncCase ::= ENUMERATED {
    case1,
    case2
}

PunctureLimit               ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100

-- Q

QE-Selector ::= ENUMERATED {
    selected-DCH,
    non-selected-DCH
}

-- R

RAC                 ::= OCTET STRING (SIZE(1))

RANAP-RelocationInformation     ::= BIT STRING

RateMatchingAttribute           ::= INTEGER (1..maxRateMatching)

RefTFCNumber ::= INTEGER (0..15)

RepetitionLength            ::= INTEGER (1..63)

RepetitionPeriod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    v16,
    v32,
    v64
}
```

```
RepetitionNumber ::= INTEGER (0..255)

ReportCharacteristics ::= CHOICE {
    onDemand            NULL,
    periodic            Periodic,
    eventA              EventA,
    eventB              EventB,
    eventC              EventC,
    eventD              EventD,
    eventE              EventE,
    eventF              EventF,
    ...
}

ReportPeriodicity ::= CHOICE {
    ten-msec                INTEGER (1..6000),
-- The Report Periodicity gives the reporting periodicity in number of 10 ms periods.
-- E.g. value 6000 means 60000ms (i.e. 1min)
-- Unit ms, Step 10ms
    min             INTEGER (1..60)
-- Unit min, Step 1min
}

LimitedPowerIncrease ::= ENUMERATED {
    used,
    not-used
}

RL-ID                   ::= INTEGER (0..31)

RL-Set-ID               ::= INTEGER (0..31)

RNC-ID                  ::= INTEGER (0..4095)

RSCP-Value ::= INTEGER (0..81)
-- According to mapping in 25.225

RSCP-Value-IncrDecrThres ::= INTEGER (0..80)

-- S

SAC                 ::= OCTET STRING (SIZE (2))

SAI ::= SEQUENCE {
    pLMN-ID             PLMN-ID,
    lAC                 LAC,
    sAC                 SAC,
    iE-Extensions       ProtocolExtensionContainer { {SAI-ExtIEs} } OPTIONAL
}
```

```
SAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ScramblingCodeChange ::= ENUMERATED {
    code-change,
    no-code-change
}

SIR-Error-Value         ::= INTEGER (0..125)

SIR-Error-Value-IncrDecrThres           ::= INTEGER (0..124)

SIR-Value               ::= INTEGER (0..63)
-- According to mapping in 25.215/25.225

SIR-Value-IncrDecrThres ::= INTEGER (0..62)

SecondaryCCPCH-SlotFormat       ::= INTEGER (0..17)
-- refer to 25.211

SN                  ::= TimeSlot

S-FieldLength               ::= ENUMERATED {
    v1,
    v2
}

S-RNTI                  ::= INTEGER (0..1048575)
-- From 0 to 2^20-1

SSDT-CellID ::= ENUMERATED {
    a,
    b,
    c,
    d,
    e,
    f,
    g,
    h
}

SSDT-CellID-Length ::= ENUMERATED {
    short,
    medium,
    long
}

SSDT-Indication ::= ENUMERATED {
    sSDT-active-in-the-UE,
    sSDT-not-active-in-the-UE
```

```
}

SSDT-SupportIndicator ::= ENUMERATED {
    sSDT-supported,
    sSDT-not-supported
}

STTD-Indicator  ::= ENUMERATED {
    active,
    inactive
}

STTD-SupportIndicator   ::= ENUMERATED {
    sTTD-Supported,
    sTTD-not-Supported
}

-- T

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-PhysicalChannelOffset       ::= INTEGER (0..63)

TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}

TFCI-Coding ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32
}

TFCI-Presence ::= ENUMERATED {
    present,
    not-present
}

TFCI-SignallingMode ::= ENUMERATED {
    normal,
    split
}

TimeSlot                ::= INTEGER (0..14)

ToAWE                   ::= INTEGER (0..2559)

ToAWS                   ::= INTEGER (0..1279)

TGD                 ::= INTEGER (0..3839)

TGL                 ::= INTEGER (3| 4| 7| 10| 14)

TransmissionTimeInterval ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80
}

TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive
}
```

```
TransportBearerID       ::= INTEGER (0..4095)

TransportBearerRequestIndicator     ::= ENUMERATED {
    bearer-requested,
    bearer-not-requested
}

TransportBlockSize          ::= INTEGER (1..5000)
-- Unit is bits

TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors    SEQUENCE {
        betaC                   BetaCD,
        betaD                   BetaCD,
        refTFCNumber            RefTFCNumber    OPTIONAL
    },
    refTFCNumber            RefTFCNumber
}

TFCS ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
    SEQUENCE {
        cTFC                CTFC,
        tFC-Beta            TransportFormatCombination-Beta     OPTIONAL,
        iE-Extensions           ProtocolExtensionContainer { {TFCS-ExtIEs} } OPTIONAL,
        ...
    }

TFCS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet ::= SEQUENCE {
    dynamicParts            TransportFormatSet-DynamicPartList,
    semi-staticPart         TransportFormatSet-Semi-staticPart,
    iE-Extensions           ProtocolExtensionContainer { {TransportFormatSet-ExtIEs} } OPTIONAL,
    ...
}

TransportFormatSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
    SEQUENCE {
        nrOfTransportBlocks     NrOfTransportBlocks,
        transportBlockSize      TransportBlockSize      OPTIONAL
        -- This IE is only present if nrOfTransportBlocks is greater than 0 --,
        mode                TransportFormatSet-ModeDP,
        iE-Extensions           ProtocolExtensionContainer { {TransportFormatSet-DynamicPartList-ExtIEs} } OPTIONAL,
        ...
    }
```

```
TransportFormatSet-DynamicPartList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-ModeDP ::= CHOICE {
    tdd                 TransmissionTimeIntervalList,
    -- This IE is mandatory if not defined as semistatic parameter, otherwise it is absent --
    ...
}

TransmissionTimeIntervalList ::= SEQUENCE (SIZE (1..maxTTI-Count)) OF
    SEQUENCE {
        transmissionTimeInterval    TransmissionTimeInterval,
        iE-Extensions           ProtocolExtensionContainer { {TransmissionTimeIntervalList-ExtIEs} } OPTIONAL,
        ...
    }

TransmissionTimeIntervalList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in 25.215/25.225

Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)

TransportFormatSet-Semi-staticPart ::= SEQUENCE {
    transmissionTime        TransmissionTimeInterval,
    channelCoding           ChannelCodingType,
    codingRate          CodingRate              OPTIONAL
    -- This IE is only present if channelCoding is 'convolutional' or 'turbo' --,
    rateMatcingAttribute        RateMatchingAttribute,
    cRC-Size            CRC-Size,
    mode                TransportFormatSet-ModeSSP,
    iE-Extensions           ProtocolExtensionContainer { {TransportFormatSet-Semi-staticPart-ExtIEs} } OPTIONAL,
    ...
}

TransportFormatSet-Semi-staticPart-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-ModeSSP ::= CHOICE {
    tdd             SecondInterleavingMode,
    ...
}

SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeslot-related,
```

```
    ...
}

TransportLayerAddress           ::= BIT STRING (SIZE(1..160, ...))

TrCH-SrcStatisticsDescr     ::= ENUMERATED {
    speech,
    rRC,
    unknown,
    ...
}

TxDiversityIndicator    ::= ENUMERATED {
    true,
    false
}

-- U

UARFCN                  ::= INTEGER (0..16383,...)
-- Corresponds to: 0.0Hz..3276.6Mhz. See 25.101, 25.105

UL-DL-CompressedModeSelection ::= ENUMERATED {
    ul-only,
    dl-only,
    both-ul-and-dl
}

UL-DeltaSIR             ::= INTEGER (-60..100)
-- The UL-Delta-SIR gives the UL-Delta-SIR in number of 0.1 dB steps.
-- E.g. Value 100 means 10 dB
-- Unit dB. Step 0.1 dB.

UL-DeltaSIRAfter            ::= INTEGER (-60..100)
-- The UL-Delat-SIR-After  gives the UL-Delta-SIR-After in number of 0.1 dB steps.
-- E.g. Value 100 means 10 dB
-- Unit dB. Step 0.1 dB.

UL-SIR                  ::= INTEGER (-82..173)
-- The UL-SIR gives the UL-SIR in number of 0.1 dB steps.
-- E.g. Value 173 means 17.3 dB
-- Unit dB. Step 0.1 dB.

UC-ID ::= SEQUENCE {
    rNC-ID              RNC-ID,
    c-ID                C-ID,
    iE-Extensions           ProtocolExtensionContainer { {UC-ID-ExtIEs} } OPTIONAL,
    ...
}

UC-ID-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

UL-DPCCH-SlotFormat         ::= INTEGER (0..5)

UL-FP-Mode ::= ENUMERATED {
    normal,
    silent
}

UL-InterferenceLevel        ::= INTEGER (-1280..-600)
-- The UL-InterferenceLevel gives the UL-InterferenceLevel in number
-- of 0.1 dBm steps.
-- E.g. Value -600 means -60 dBm
-- Unit dBm. Step 0.1 dBm.

UL-ScramblingCode ::= SEQUENCE {
    ul-ScramblingCodeNumber     UL-ScramblingCodeNumber,
    ul-ScramblingCodeLength     UL-ScramblingCodeLength,
    iE-Extensions           ProtocolExtensionContainer { {UL-ScramblingCode-ExtIEs} } OPTIONAL
}

UL-ScramblingCode-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long
}

UL-ScramblingCodeNumber         ::= INTEGER (0..16777215)

URA-ID                  ::= INTEGER (0..65535)

-- V
-- W
-- X
-- Y
-- Z

END
```

9.3.5 Common Definitions

```
-- **************************************************************
--
-- Common definitions
--
-- **************************************************************
```

```
RNSAP-CommonDataTypes -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

Criticality     ::= ENUMERATED { reject, ignore, notify }

Presence        ::= ENUMERATED { optional, conditional, mandatory }

PrivateIE-ID    ::= CHOICE {
    local               INTEGER (0..65535),
    global              OBJECT IDENTIFIER
}

ProcedureCode       ::= INTEGER (0..255)

ProcedureID ::= SEQUENCE {
    procedureCode           ProcedureCode,
    ddMode              ENUMERATED { tdd, fdd, common }
}

ProtocolExtensionID ::= INTEGER (0..65535)

ProtocolIE-ID       ::= INTEGER (0..65535)

TransactionID       ::= INTEGER (0..65535)

TriggeringMessage   ::= ENUMERATED { initiating-message, successful-outcome, unsuccessfull-outcome, outcome }

END
```

9.3.6 Constant Definitions

```
-- **************************************************************
--
-- Constant definitions
--
-- **************************************************************

RNSAP-Constants -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- Elementary Procedures
--
-- **************************************************************
```

```
id-commonTransportChannelResourcesInitiationFDD            INTEGER ::= 0
id-commonTransportChannelResourcesInitiationTDD            INTEGER ::= 1
id-commonTransportChannelResourcesRelease                  INTEGER ::= 2
id-compressedModeCancellationFDD                           INTEGER ::= 3
id-compressedModeCommitFDD                                 INTEGER ::= 4
id-compressedModePrepareFDD                                INTEGER ::= 5
id-downlinkPowerControl                                    INTEGER ::= 6
id-downlinkSignallingTransfer                              INTEGER ::= 7
id-errorIndication                                         INTEGER ::= 8
id-measurementFailure                                      INTEGER ::= 9
id-measurementInitiation                                   INTEGER ::= 10
id-measurementReporting                                    INTEGER ::= 11
id-measurementTermination                                  INTEGER ::= 12
id-pagingRequest                                           INTEGER ::= 13
id-physicalChannelReconfiguration                          INTEGER ::= 14
id-privateMessage                                          INTEGER ::= 15
id-radioLinkAddition                                       INTEGER ::= 16
id-radioLinkDeletion                                       INTEGER ::= 17
id-radioLinkFailure                                        INTEGER ::= 18
id-radioLinkRestoration                                    INTEGER ::= 19
id-radioLinkSetup                                          INTEGER ::= 20
id-srnsRelocationCommit                                    INTEGER ::= 21
id-synchronisedRadioLinkReconfigurationCancellation        INTEGER ::= 22
id-synchronisedRadioLinkReconfigurationCommit              INTEGER ::= 23
id-synchronisedRadioLinkReconfigurationPrepare             INTEGER ::= 24
id-unSynchronisedRadioLinkReconfiguration                  INTEGER ::= 25
id-uplinkSignallingTransfer                                INTEGER ::= 26

-- **************************************************************
--
-- Extension constants
--
-- **************************************************************

maxPrivateIEs                                  INTEGER ::= 65535
maxProtocolExtensions                          INTEGER ::= 65535
maxProtocolIEs                                 INTEGER ::= 65535

-- **************************************************************
--
-- Lists
--
-- **************************************************************

maxRateMatching                        INTEGER ::= 10
maxNrOfTFCs                            INTEGER ::= 10
maxNrOfTFs                             INTEGER ::= 10
maxNrOfCCTrCHs                         INTEGER ::= 10
maxNrOfDCHs                            INTEGER ::= 10
maxNrOfDL-Codes                        INTEGER ::= 10
```

```
maxNrOfDPCHs                            INTEGER ::= 10
maxNrOfErrors                           INTEGER ::= 10
maxNrOfMACcSDU-Length                   INTEGER ::= 10
maxNrOfRLs                              INTEGER ::= 10
maxNrOfRLSets                           INTEGER ::= 10
maxNrOfRLs-1                            INTEGER ::= 10
maxNrOfRLs-2                            INTEGER ::= 10
maxNrOfSCCPCHs                          INTEGER ::= 10
maxNrOfULTs                             INTEGER ::= 15
maxNrOfCMpatterns                       INTEGER ::= 8
maxRNCinURA                             INTEGER ::= 10
maxTTI-Count                            INTEGER ::= 10
maxCTFC-1                               INTEGER ::= 10
maxNrOfNeighbouringRNCs                 INTEGER ::= 10
maxNrOfFDDNeighboursPerRNC              INTEGER ::= 10
maxNrOfTDDNeighboursPerRNC              INTEGER ::= 10
maxFACHCountPlus1                       INTEGER ::= 10
maxIBSEG                                INTEGER ::= 16

-- **************************************************************

--
-- IEs
--
-- **************************************************************

id-AllRLItem-DM-Rprt                                                INTEGER ::= 0
id-AllRLItem-DM-Rsp                                                 INTEGER ::= 1
id-AllRL-SetItem-DM-Rprt                                            INTEGER ::= 2
id-AllRL-SetItem-DM-Rsp                                             INTEGER ::= 3
id-AllowedQueuingTime                                               INTEGER ::= 4
id-BindingID                                                        INTEGER ::= 5
id-C-ID                                                             INTEGER ::= 6
id-C-RNTI                                                           INTEGER ::= 7
id-CFN                                                              INTEGER ::= 8
id-CN-CS-DomainIdentifier                                           INTEGER ::= 9
id-CN-PS-DomainIdentifier                                           INTEGER ::= 10
id-Cause                                                            INTEGER ::= 11
id-CellItem-PagingRqst                                              INTEGER ::= 12
id-CM-PatternInformationItem-CompressedModePrep                     INTEGER ::= 13
id-CM-PatternInformationList-CompressedModePrep                     INTEGER ::= 14
id-CombiningItem-RL-AdditionFailureFDD                              INTEGER ::= 15
id-CombiningItem-RL-AdditionRspFDD                                  INTEGER ::= 16
id-CombiningItem-RL-AdditionRspTDD                                  INTEGER ::= 17
id-CombiningItem-RL-SetupFailureFDD                                 INTEGER ::= 18
id-CombiningItem-RL-SetupRspFDD                                     INTEGER ::= 19
id-CriticalityDiagnostics                                           INTEGER ::= 20
id-D-RNTI                                                           INTEGER ::= 21
id-D-RNTI-ReleaseIndication                                         INTEGER ::= 22
id-DCH-AddListIE-RL-ReconfReadyFDD                                  INTEGER ::= 23
id-DCH-AddListIE-RL-ReconfReadyTDD                                  INTEGER ::= 24
```

```
id-DCH-AddListIE-RL-ReconfRsp                          INTEGER ::= 25
id-DCH-AddList-RL-ReconfPrepFDD                        INTEGER ::= 26
id-DCH-AddList-RL-ReconfPrepTDD                        INTEGER ::= 27
id-DCH-AddList-RL-ReconfRqstFDD                        INTEGER ::= 28
id-DCH-AddList-RL-ReconfRqstTDD                        INTEGER ::= 29
id-DCH-DeleteList-RL-ReconfPrepFDD                     INTEGER ::= 30
id-DCH-DeleteList-RL-ReconfPrepTDD                     INTEGER ::= 31
id-DCH-DeleteList-RL-ReconfRqstFDD                     INTEGER ::= 32
id-DCH-DeleteList-RL-ReconfRqstTDD                     INTEGER ::= 33
id-DCH-Information-RL-SetupRqstFDD                     INTEGER ::= 34
id-DCH-InformationList-RL-SetupRqstTDD                 INTEGER ::= 35
id-DCH-ModifyListIE-RL-ReconfReadyFDD                  INTEGER ::= 36
id-DCH-ModifyListIE-RL-ReconfReadyTDD                  INTEGER ::= 37
id-DCH-ModifyListIE-RL-ReconfRsp                       INTEGER ::= 38
id-DCH-ModifyList-RL-ReconfPrepFDD                     INTEGER ::= 39
id-DCH-ModifyList-RL-ReconfPrepTDD                     INTEGER ::= 40
id-DCH-ModifyList-RL-ReconfRqstFDD                     INTEGER ::= 41
id-DCH-ModifyList-RL-ReconfRqstTDD                     INTEGER ::= 42
id-DCH-InformationResponseListIE-RL-SetupRspTDD        INTEGER ::= 43
id-DL-CCTrCH-InformationItem-RL-ReconfPrepTDD          INTEGER ::= 44
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD       INTEGER ::= 45
id-DL-CCTrCH-InformationItem-RL-ReconfRqstTDD          INTEGER ::= 46
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD           INTEGER ::= 47
id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD      INTEGER ::= 48
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD       INTEGER ::= 49
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD          INTEGER ::= 50
id-DL-CCTrCH-InformationList-RL-ReconfPrepTDD          INTEGER ::= 51
id-DL-CCTrCH-InformationList-RL-ReconfRqstTDD          INTEGER ::= 52
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD           INTEGER ::= 53
id-DL-CodeInformationListIE-PhyChReconfRqstFDD         INTEGER ::= 54
id-DL-CodeInformationListIE-RL-AdditionFailureFDD      INTEGER ::= 55
id-DL-CodeInformationListIE-RL-AdditionRspFDD          INTEGER ::= 56
id-DL-CodeInformationListIE-RL-ReconfReadyFDD          INTEGER ::= 57
id-DL-CodeInformationListIE-RL-SetupFailureFDD         INTEGER ::= 58
id-DL-DPCH-Information-RL-ReconfPrepFDD                INTEGER ::= 59
id-DL-DPCH-Information-RL-SetupRqstFDD                 INTEGER ::= 60
id-DL-DPCH-Information-RL-ReconfRqstFDD                INTEGER ::= 61
id-DL-DPCH-InformationItem-PhyChReconfRqstTDD          INTEGER ::= 62
id-DL-DPCH-InformationItem-RL-AdditionRspTDD           INTEGER ::= 63
id-DL-DPCH-InformationItem-RL-SetupRspTDD              INTEGER ::= 64
id-DL-DPCH-InformationListIE-RL-ReconfReadyTDD         INTEGER ::= 65
id-DL-SIRTarget                                        INTEGER ::= 66
id-DLReferencePower                                    INTEGER ::= 67
id-DLReferencePowerList-DL-PC-Rqst                     INTEGER ::= 68
id-DL-ReferencePowerInformation-DL-PC-Rqst             INTEGER ::= 69
id-DRXCycleLengthCoefficient                           INTEGER ::= 70
id-DedicatedMeasurementObjectType-DM-Rprt              INTEGER ::= 71
id-DedicatedMeasurementObjectType-DM-Rqst              INTEGER ::= 72
id-DedicatedMeasurementObjectType-DM-Rsp               INTEGER ::= 73
id-DedicatedMeasurementType                            INTEGER ::= 74
id-DiversityIndicationItem-RL-AdditionFailureFDD       INTEGER ::= 75
```

```
id-DiversityIndicationItem-RL-AdditionRspFDD                                  INTEGER ::= 76
id-DiversityIndicationItem-RL-AdditionRspTDD                                  INTEGER ::= 77
id-DiversityIndicationItem-RL-SetupFailureFDD                                 INTEGER ::= 78
id-DiversityIndicationItem-RL-SetupRspFDD                                     INTEGER ::= 79
id-FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspFDD                            INTEGER ::= 80
id-FACH-InfoForOptionalS-CCPCH-CTCH-ResourceRspTDD                            INTEGER ::= 81
id-FACH-InfoForS-CCPCH-CoupledToPRACHorPCPCH-CTCH-ResourceRspFDD              INTEGER ::= 82
id-FACH-InfoForS-CCPCH-CoupledToPRACH-CTCH-ResourceRspTDD                     INTEGER ::= 83
id-IMSI                                                                       INTEGER ::= 84
id-L3-Information                                                             INTEGER ::= 85
id-MAC-c-SDU-LengthListIE-CTCH-ResourceRspFDD                                 INTEGER ::= 86
id-MAC-c-SDU-LengthListIE-CTCH-ResourceRspTDD                                 INTEGER ::= 87
id-MAC-c-SDU-LengthListIE-option-CTCH-ResourceRspFDD                          INTEGER ::= 88
id-MAC-c-SDU-LengthListIE-option-CTCH-ResourceRspTDD                          INTEGER ::= 89
id-MaxAdjustmentPeriod                                                        INTEGER ::= 90
id-MaxAdjustmentStep                                                          INTEGER ::= 91
id-MeasurementFilterCoefficient                                               INTEGER ::= 92
id-MeasurementID                                                              INTEGER ::= 93
id-MultipleURAsIndicator                                                      INTEGER ::= 94
id-Neighbouring-CellInformationItem-RL-SetupFailureFDD                        INTEGER ::= 95
id-Neighbouring-CellInformationItem-RL-SetupRsp                               INTEGER ::= 96
id-NonCombiningItem-RL-AdditionFailureFDD                                     INTEGER ::= 97
id-NonCombiningItem-RL-AdditionRspFDD                                         INTEGER ::= 98
id-NonCombiningItem-RL-AdditionRspTDD                                         INTEGER ::= 99
id-NonCombiningOrIEnotPresenItem-RL-SetupFailureFDD                           INTEGER ::= 100
id-NonCombiningOrIEnotPresenItem-RL-SetupRspFDD                               INTEGER ::= 101
id-PagingArea-PagingRqst                                                      INTEGER ::= 102
id-PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspFDD            INTEGER ::= 103
id-PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspTDD            INTEGER ::= 104
id-PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspFDD     INTEGER ::= 105
id-PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspTDD     INTEGER ::= 106
id-PowerAdjustmentType                                                        INTEGER ::= 107
id-ProcedureScope-DL-PC-Rqst                                                  INTEGER ::= 108
id-RANAP-RelocationInformation                                                INTEGER ::= 109
id-RL-Information-PhyChReconfRqstFDD                                          INTEGER ::= 110
id-RL-Information-PhyChReconfRqstTDD                                          INTEGER ::= 111
id-RL-Information-RL-AdditionRqstFDD                                          INTEGER ::= 112
id-RL-Information-RL-AdditionRqstTDD                                          INTEGER ::= 113
id-RL-Information-RL-DeletionRqst                                             INTEGER ::= 114
id-RL-Information-RL-FailureInd                                               INTEGER ::= 115
id-RL-Information-RL-ReconfPrepFDD                                            INTEGER ::= 116
id-RL-Information-RL-RestoreInd                                               INTEGER ::= 117
id-RL-Information-RL-SetupRqstFDD                                             INTEGER ::= 118
id-RL-Information-RL-SetupRqstTDD                                             INTEGER ::= 119
id-RL-InformationItem-DM-Rprt                                                 INTEGER ::= 120
id-RL-InformationItem-DM-Rqst                                                 INTEGER ::= 121
id-RL-InformationItem-DM-Rsp                                                  INTEGER ::= 122
id-RL-InformationItem-RL-SetupRqstFDD                                         INTEGER ::= 123
id-RL-InformationList-RL-AdditionRqstFDD                                      INTEGER ::= 124
id-RL-InformationList-RL-DeletionRqst                                         INTEGER ::= 125
id-RL-InformationList-RL-ReconfPrepFDD                                        INTEGER ::= 126
```

```
id-RL-InformationResponse-RL-AdditionRspTDD                    INTEGER ::= 127
id-RL-InformationResponse-RL-ReconfReadyTDD                    INTEGER ::= 128
id-RL-InformationResponse-RL-SetupRspTDD                       INTEGER ::= 129
id-RL-InformationResponseItem-RL-AdditionRspFDD                INTEGER ::= 130
id-RL-InformationResponseItem-RL-ReconfReadyFDD                INTEGER ::= 131
id-RL-InformationResponseItem-RL-ReconfRsp                     INTEGER ::= 132
id-RL-InformationResponseItem-RL-SetupRspFDD                   INTEGER ::= 133
id-RL-InformationResponseList-RL-AdditionRspFDD                INTEGER ::= 134
id-RL-InformationResponseList-RL-ReconfReadyFDD                INTEGER ::= 135
id-RL-InformationResponseList-RL-ReconfRsp                     INTEGER ::= 136
id-RL-InformationResponseList-RL-SetupRspFDD                   INTEGER ::= 137
id-RLItem-DM-Rprt                                              INTEGER ::= 138
id-RLItem-DM-Rqst                                              INTEGER ::= 139
id-RLItem-DM-Rsp                                               INTEGER ::= 140
id-RL-ReconfigurationFailure-RL-ReconfFail                     INTEGER ::= 141
id-RL-ReconfigurationFailureList-RL-ReconfFail                 INTEGER ::= 142
id-RL-Set-InformationItem-DM-Rprt                              INTEGER ::= 143
id-RL-Set-InformationItem-DM-Rqst                              INTEGER ::= 144
id-RL-Set-InformationItem-DM-Rsp                               INTEGER ::= 145
id-RL-Set-Information-RL-FailureInd                            INTEGER ::= 146
id-RL-Set-Information-RL-RestoreInd                            INTEGER ::= 147
id-RL-SetItem-DM-Rprt                                          INTEGER ::= 148
id-RL-SetItem-DM-Rqst                                          INTEGER ::= 149
id-RL-SetItem-DM-Rsp                                           INTEGER ::= 150
id-RNCsWithCellsInTheAccessedURA-List-UL-ST-Ind                INTEGER ::= 151
id-ReportCharacteristics                                       INTEGER ::= 152
id-Reporting-Object-RL-FailureInd                              INTEGER ::= 153
id-Reporing-Object-RL-RestoreInd                               INTEGER ::= 154
id-S-RNTI                                                      INTEGER ::= 155
id-SAI                                                         INTEGER ::= 156
id-SRNC-ID                                                     INTEGER ::= 157
id-SecondaryCCPCHListIE-CTCH-ResourceRspTDD                    INTEGER ::= 158
id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD      INTEGER ::= 159
id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD         INTEGER ::= 160
id-SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD  INTEGER ::= 161
id-SuccessfulRL-InformationResponseList-RL-SetupFailureFDD     INTEGER ::= 162
id-TransportBearerID                                           INTEGER ::= 163
id-TransportBearerRequestIndicator                             INTEGER ::= 164
id-TransportLayerAddress                                       INTEGER ::= 165
id-UC-ID                                                       INTEGER ::= 166
id-UL-CCTrCH-Information-RL-ReconfPrepTDD                      INTEGER ::= 167
id-UL-CCTrCH-InformationItem-RL-ReconfRqstTDD                  INTEGER ::= 168
id-UL-CCTrCH-InformationList-RL-ReconfPrepTDD                  INTEGER ::= 169
id-UL-CCTrCH-InformationList-RL-ReconfRqstTDD                  INTEGER ::= 170
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD                   INTEGER ::= 171
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD                   INTEGER ::= 172
id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD              INTEGER ::= 173
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD               INTEGER ::= 174
id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD               INTEGER ::= 175
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD                  INTEGER ::= 176
id-UL-DPCH-Information-RL-ReconfPrepFDD                        INTEGER ::= 177
```

```
id-UL-DPCH-Information-RL-ReconfRqstFDD                          INTEGER ::= 178
id-UL-DPCH-Information-RL-SetupRqstFDD                           INTEGER ::= 179
id-UL-DPCH-InformationItem-PhyChReconfRqstTDD                    INTEGER ::= 180
id-UL-DPCH-InformationItem-RL-AdditionRspTDD                     INTEGER ::= 181
id-UL-DPCH-InformationItem-RL-SetupRspTDD                        INTEGER ::= 182
id-UL-DPCH-InformationListIE-RL-ReconfReadyTDD                   INTEGER ::= 183
id-UL-SIRTarget                                                  INTEGER ::= 184
id-URA-ID                                                        INTEGER ::= 185
id-URAItem-PagingRqst                                            INTEGER ::= 186
id-UnsuccessfulRL-InformationResponse                            INTEGER ::= 187
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD      INTEGER ::= 188
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD         INTEGER ::= 189
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD         INTEGER ::= 190
id-UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD  INTEGER ::= 191
id-UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD     INTEGER ::= 192

END
```

9.3.7 Container Definitions

```
-- **************************************************************
--
-- Container definitions
--
-- **************************************************************

RNSAP-Containers -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Criticality,
    Presence,
    PrivateIE-ID,
    ProtocolExtensionID,
    ProtocolIE-ID
FROM RNSAP-CommonDataTypes

    maxPrivateIEs,
    maxProtocolExtensions,
    maxProtocolIEs
FROM RNSAP-Constants;
```

```
-- **************************************************************
--
-- Class Definition for Protocol IEs
--
-- **************************************************************

RNSAP-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
--
-- **************************************************************

RNSAP-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
--
-- **************************************************************

RNSAP-PROTOCOL-EXTENSION ::= CLASS {
    &id             ProtocolExtensionID                 UNIQUE,
    &criticality            Criticality,
```

```
    &Extension,
    &presence       Presence
}
WITH SYNTAX {
    ID              &id
    CRITICALITY         &criticality
    EXTENSION           &Extension
    PRESENCE            &presence
}

-- **************************************************************
--
-- Class Definition for Private IEs
--
-- **************************************************************

RNSAP-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 {RNSAP-PROTOCOL-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-Field {RNSAP-PROTOCOL-IES : IEsSetParam} ::= SEQUENCE {
    id              RNSAP-PROTOCOL-IES.&id              ({IEsSetParam}),
    criticality         RNSAP-PROTOCOL-IES.&criticality         ({IEsSetParam}{@id}),
    value               RNSAP-PROTOCOL-IES.&Value               ({IEsSetParam}{@id})
}

-- **************************************************************
--
-- Container for Protocol IE Pairs
--
-- **************************************************************
```

```
ProtocolIE-ContainerPair {RNSAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-FieldPair {{IEsSetParam}}

ProtocolIE-FieldPair {RNSAP-PROTOCOL-IES-PAIR : IEsSetParam} ::= SEQUENCE {
    id              RNSAP-PROTOCOL-IES-PAIR.&id         ({IEsSetParam}),
    firstCriticality        RNSAP-PROTOCOL-IES-PAIR.&firstCriticality   ({IEsSetParam}{@id}),
    firstValue          RNSAP-PROTOCOL-IES-PAIR.&FirstValue         ({IEsSetParam}{@id}),
    secondCriticality       RNSAP-PROTOCOL-IES-PAIR.&secondCriticality  ({IEsSetParam}{@id}),
    secondValue         RNSAP-PROTOCOL-IES-PAIR.&SecondValue            ({IEsSetParam}{@id})
}

-- **************************************************************
--
-- Container Lists for Protocol IE Containers
--
-- **************************************************************

ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
    ProtocolIE-Container {{IEsSetParam}}

ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
    ProtocolIE-ContainerPair {{IEsSetParam}}

-- **************************************************************
--
-- Container for Protocol Extensions
--
-- **************************************************************

ProtocolExtensionContainer {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
    SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
    ProtocolExtensionField {{ExtensionSetParam}}

ProtocolExtensionField {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {
    id              RNSAP-PROTOCOL-EXTENSION.&id            ({ExtensionSetParam}),
    criticality         RNSAP-PROTOCOL-EXTENSION.&criticality       ({ExtensionSetParam}{@id}),
    extensionValue          RNSAP-PROTOCOL-EXTENSION.&Extension     ({ExtensionSetParam}{@id})
}

-- **************************************************************
--
-- Container for Private IEs
--
-- **************************************************************

PrivateIE-Container {RNSAP-PRIVATE-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (1..maxPrivateIEs)) OF
    PrivateIE-Field {{IEsSetParam}}
```

```
PrivateIE-Field {RNSAP-PRIVATE-IES : IEsSetParam} ::= SEQUENCE {
    id              RNSAP-PRIVATE-IES.&id           ({IEsSetParam}),
    criticality         RNSAP-PRIVATE-IES.&criticality      ({IEsSetParam}{@id}),
    value           RNSAP-PRIVATE-IES.&Value        ({IEsSetParam}{@id})
}

END
```

9.4 Message Transfer Syntax

RNSAP shall use the ASN.1 Packed Encoding Rules (PER) Aligned Variant as transfer syntax as specified in ref. [20].

[Editor's note: The dating of reference [20] needs to be verified. It has been included from the ITU-T list of recommendations in force. The dating of the reference is FFS.]

9.5 Timers

-

10 Handling of Unknown, Unforeseen and Erroneous Protocol Data

10.1 General

Protocol Error cases can be divided into three classes:

1. Transfer Syntax Error;
2. Abstract Syntax Error;
3. Logical Error.

Protocol errors can occur in the following functions within a receiving node.

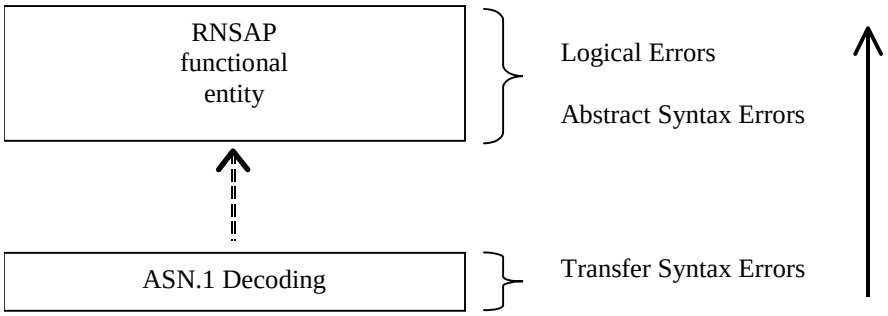

Figure 34: Protocol Errors in RNSAP

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, than 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 RNSAP entity receives IEs or IE groups that cannot be understood. The abstract syntax error also appears if the logical range of an IE 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).

10.3.2 Definition of Criticality Information

In the RNSAP 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 10.3.3.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error act according to the Criticality Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclause 10.3.3.

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:

1. Reject IE;
2. Ignore IE and Notify Sender;
3. Ignore IE.

10.3.3 Handling of the Criticality Information at Reception

10.3.3.1 Procedure Code

The receiving node shall treat the different types of criticality information of the *Procedure Code* according to the following:

Reject IE:

- if a message is received with a *Procedure Code* 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 Code* 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 Code* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

10.3.3.2 IEs other than the Procedure Code

The receiving node shall treat the different types of criticality information of an IE/IE group other than the *Procedure Code* 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.

- 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 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 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 only the understood IEs/IE groups, and report in the response message of the procedure 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 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 only the understood IEs/IE groups.

10.3.4 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 information 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 failure message, the failure 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 failure message, the Error Indication procedure shall be initiated with an appropriate cause value.

Where the logical error exists in a response message of a class 1 procedure, local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the Error Indication procedure shall be initiated with an appropriate cause value.

Annex A (informative): Change history

Change history					
TSG RAN#	Version	CR	Tdoc RAN	New Version	Subject/Comment
RAN_06	-	-	RP-99755	3.0.0	Approved at TSG RAN #6 and placed under Change Control
RAN_07	3.0.0	-	RP-000100	3.1.0	Approved at TSG RAN #7
RAN_07	3.0.0	-	RP-000143	3.1.0	Approved at TSG RAN #7
RAN_07	3.0.0	-	RP-000146	3.1.0	Approved at TSG RAN #7

History

Document history		
V3.1.0	March 2000	Publication