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Technical Specification

**LTE;
Evolved Universal Terrestrial Radio Access (E-UTRA);
User Equipment (UE) conformance specification;
Radio transmission and reception;
Part 2: Implementation Conformance Statement (ICS)
(3GPP TS 36.521-2 version 9.7.0 Release 9)**



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Foreword

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Introduction

The present document is part 2 of a multi-parts TS:

3GPP TS 36.521-1 [1]: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception Part 1: Conformance testing.

3GPP TS 36.521-2: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception Part :2 Implementation Conformance Statement (ICS).

3GPP TS 36.521-3 [2]: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception Part 3: Radio Resource Management (RRM) Conformance Testing.

1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for 3G Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE), in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-1 [3] and ISO/IEC 9646-7 [4]

The present document specifies the recommended applicability statement for the test cases included in 3GPP TS 36.521-1 [1] and 3GPP TS 36.521-3 [2]. These applicability statements are based on the features implemented in the UE.

Special conformance testing functions can be found in 3GPP TS 36.509 [5] and the common test environments are included in 3GPP TS 36.508 [6].

The present document is valid for UE implemented according to 3GPP releases starting from Release 8 up to the Release indicated on the cover page of the present document.

2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.
 - For a Release 8 UE, references to 3GPP documents are to version 8.x.y, when available.

Editor's Note: The Reference list is incomplete and some references are still to UMTS specs.

- [1] 3GPP TS 36.521-1: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception Part 1: Conformance testing".
- [2] 3GPP TS 36.521-3: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception Part 3: Radio Resource Management Conformance Testing".
- [3] ISO/IEC 9646-1: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [4] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [5] 3GPP TS 36.509: " Evolved Universal Terrestrial Radio Access (E-UTRA); Special conformance testing functions for User Equipment".
- [6] 3GPP TS 36.508: "Evolved Universal Terrestrial Radio Access (E-UTRA); Common Test Environments for User Equipment (UE) Conformance Testing".
- [8] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [9] 3GPP TS 36.201: " LTE Physical Layer - General Description"
- [10] 3GPP TS 36.302: " Evolved Universal Terrestrial Radio Access (E-UTRA); Services provided by the physical layer for E-UTRA".
- [11] 3GPP TS 36.321: "Evolved Universal Terrestrial Radio Access (E-UTRA); Medium Access Control (MAC) protocol specification".

- [12] 3GPP TS 36.322: "Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Link Control (RLC) protocol specification".
- [13] 3GPP TS 36.323: "Evolved Universal Terrestrial Radio Access (E-UTRA); Packet Data Convergence Protocol (PDCP) specification".
- [14] 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRA); Radio Resource Control (RRC) Protocol Specification".
- [15] 3GPP TS 24.301: "Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS); Stage 3"
- [16] 3GPP TS 36.307: "Requirements on User Equipments (UEs) Supporting a release-independent frequency band".

3 Definitions, symbols and abbreviations

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

- such given in TR 21.905 [8]
- such given in ISO/IEC 9646-1 [3] and ISO/IEC 9646-7 [4]

NOTE: Some terms and abbreviations defined in [3] and [4] are explicitly included below with small modification to reflect the terminology used in 3GPP.

3.1 Definitions

Implementation Conformance Statement (ICS): statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented

ICS proforma: document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS

Implementation eXtra Information for Testing (IXIT): A statement made by a supplier or implementer of an UEUT which contains or references all of the information (in addition to that given in the ICS) related to the UEUT and its testing environment, which will enable the test laboratory to run an appropriate test suite against the UEUT

IXIT proforma: A document, in the form of a questionnaire, which when completed for an UEUT becomes an IXIT

Protocol Implementation Conformance Statement (PICS): An ICS for an implementation or system claimed to conform to a given protocol specification

Protocol Implementation eXtra Information for Testing (PIXIT): An IXIT related to testing for conformance to a given protocol specification

static conformance review: A review of the extent to which the static conformance requirements are claimed to be supported by the UEUT, by comparing the answers in the ICS(s) with the static conformance requirements expressed in the relevant specification(s)

3.2 Symbols

No specific symbols have been identified so far.

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [8].

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

ICS	Implementation Conformance Statement
IXIT	Implementation eXtra Information for Testing
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
RRM	Radio Resource Management
SCS	System Conformance Statement
TC	Test Case
UEUT	User Equipment Under Test

4 Recommended test case applicability

The applicability of each individual test is identified in the tables 4.1-1 or 4.2-1. This is just a recommendation based on the purpose for which the test case was written.

The applicability of every test is formally expressed by the use of Boolean expression that are based on parameters (ICS) included in annex A of the present document.

Additional information related to the Test Case (TC), e.g. affecting its dynamic behaviour or its execution may be provided as well

The columns in tables 4.1-1 / 4.2-1 have the following meaning:

Clause

The clause column indicates the clause number in TS 36.521-1 [1] or respectively TS 36.521-3 [2] that contains the test body.

Title

The title column describes the name of the test and contains the clause title of the clause in TS 36.521-1 [1] or TS 36.521-3 [2] that contains the test body.

Release

The release column indicates the earliest release from which each test case is applicable.

Applicability - Condition

The following notations are used for the applicability column:

R	recommended - the test case is recommended to all terminals supporting E-UTRA
O	optional – the test case is optional
N/A	not applicable - in the given context, the test case is not recommended.

Ci conditional - the test is recommended ("R") or not ("N/A") depending on the support of other items. "i" is an integer identifying a unique conditional status expression which is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." is used to avoid ambiguities.

Applicability - Comments

This comments column contains a verbal description of the condition included in the applicability column.

Additional Information

This column contains indication if the test case may perform differently depending on the UE capabilities.

NOTE To meet the validation requirements from certification bodies then there is a need to uniquely reference the FDD and TDD branch (i.e. different behaviour within one and the same TC) of common FDD and TDD test cases. The FDD and TDD branches of common FDD and TDD test cases can be referenced by amending a "FDD" or "TDD" suffix to the test case clause number. For example for test case 6.2.2 the FDD and TDD branches can be identified by "6.2.2 FDD" and "6.2.2 TDD".

4.1 RF conformance test cases

Table 4.1-1: Applicability of RF conformance test cases, ref. TS 36.521-1 [1]

Clause	Title	Release	Applicability		Additional Information
			Condition	Comments	
Transmitter Characteristics					
6.2.2	UE Maximum Output Power	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.2.3	Maximum Power Reduction (MPR)	Rel-8	N/A	UE supporting E-UTRA, The minimum requirement tested in 6.2.3 is covered by test case 6.6.2.3.	FDD TDD
6.2.4	Additional Maximum Power Reduction (A-MPR)	Rel-8	N/A	UE supporting E-UTRA. The minimum requirement tested in 6.2.4 is covered by test case 6.6.2.2 or 6.6.3.3 according to the supported NS value.	FDD TDD
6.2.5	Configured UE transmitted Output Power	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.3.1	Void				
6.3.2	Minimum Output Power	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.3.3	Transmit OFF Power	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.3.4.1	General ON/OFF time mask	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.3.4.2.1	PRACH time mask	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.3.4.2.2	SRS time mask	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.3.5.1	Power Control Absolute Power Tolerance	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.3.5.2	Power Control Relative Power Tolerance	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.3.5.3	Aggregate Power Control Tolerance	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.5.1	Frequency Error	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.5.2.1	Error Vector Magnitude (EVM)	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.5.2.1A	PUSCH-EVM with exclusion period	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.5.2.2	Carrier leakage	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.5.2.3	In-band emissions for non allocated RB	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.5.2.4	EVM equalizer spectrum flatness	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.6.1	Occupied bandwidth	Rel-8	R	UE supporting E-UTRA	FDD TDD
6.6.2.1	Spectrum Emission Mask	Rel-8	R	UE supporting E-UTRA	FDD TDD

Clause	Title	Release	Applicability		Additional Information
			Condition	Comments	
6.6.2.2	Additional Spectrum Emission Mask	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
6.6.2.3	Adjacent Channel Leakage power Ratio	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
6.6.2.4	Void				
6.6.3.1	Transmitter Spurious emissions	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
6.6.3.2	Spurious emission band UE co-existence	Rel-8 only	R	UE supporting E-UTRA	FDD
					TDD
6.6.3.2_1	Spurious emission band UE co-existence (Release 9 and forward)	Rel-9	R	UE supporting E-UTRA	FDD
6.6.3.3	Additional spurious emissions	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
6.7	Transmit intermodulation	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
Receiver Characteristics					
7.3	Reference sensitivity level	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
7.4	Maximum input level	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
7.5	Adjacent Channel Selectivity (ACS)	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
7.6.1	In-band blocking	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
7.6.2	Out-of-band blocking	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
7.6.3	Narrow band blocking	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
7.7	Spurious response	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
7.8.1	Wide band Intermodulation	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
7.9	Spurious emissions	Rel-8	R	UE supporting E-UTRA	FDD
					TDD
Performance Requirement					
8.2.1.1.1	FDD PDSCH Single Antenna Port Performance	Rel-8	C01	UE supporting E-UTRA FDD	
8.2.1.1.1_1	FDD PDSCH Single Antenna Port Performance (Release 9 and forward)	Rel-9	C01	UE supporting E-UTRA FDD	
8.2.1.1.2	FDD PDSCH Single Antenna Port Performance with 1 PRB in presence of MBSFN	Rel-8	C01	UE supporting E-UTRA FDD	
8.2.1.2.1	FDD PDSCH Transmit Diversity 2x2	Rel-8	C01	UE supporting E-UTRA FDD	
8.2.1.2.1_1	FDD PDSCH Transmit Diversity 2x2 (Release 9 and forward)	Rel-9	C01	UE supporting E-UTRA FDD	
8.2.1.2.2	FDD PDSCH Transmit Diversity 4x2	Rel-8	C01	UE supporting E-UTRA FDD	
8.2.1.2.2_1	FDD PDSCH Transmit Diversity 4x2 (Release 9 and forward)	Rel-9	C01	UE supporting E-UTRA FDD	
8.2.1.3.1	FDD PDSCH Open Loop Spatial Multiplexing 2x2	Rel-8	C01	UE supporting E-UTRA FDD	
8.2.1.3.2	FDD PDSCH Open Loop Spatial Multiplexing 4x2	Rel-8	C01	UE supporting E-UTRA FDD	
8.2.1.4.1	FDD PDSCH Closed Loop Single/Multi Layer Spatial Multiplexing 2x2	Rel-8 only	C01	UE supporting E-UTRA FDD	
8.2.1.4.1_1	FDD PDSCH Closed Loop Single/Multi Layer Spatial Multiplexing 2x2 (Release 9 and forward)	Rel-9	C01	UE supporting E-UTRA FDD	
8.2.1.4.2	FDD PDSCH Closed Loop Single/Multi Layer Spatial Multiplexing 4x2	Rel-8 only	C01	UE supporting E-UTRA FDD	

Clause	Title	Release	Applicability		Additional Information
			Condition	Comments	
8.2.1.4.2_1	FDD PDSCH Closed Loop Single/Multi Layer Spatial Multiplexing 4x2 (Release 9 and forward)	Rel-9	C01	UE supporting E-UTRA FDD	
8.2.2.1	Void				
8.2.2.1.1	TDD PDSCH Single Antenna Port Performance	Rel-8	C02	UE supporting E-UTRA TDD	
8.2.2.1.1_1	TDD PDSCH Single Antenna Port Performance (Release 9 and forward)	Rel-9	C02	UE supporting E-UTRA TDD	
8.2.2.1.2	TDD PDSCH Single Antenna Port Performance with 1PRB in the presence of MBSFN	Rel-8	C02	UE supporting E-UTRA TDD	
8.2.2.2	Void				
8.2.2.2.1	TDD PDSCH Transmit Diversity 2x2	Rel-8	C02	UE supporting E-UTRA TDD	
8.2.2.2.1_1	TDD PDSCH Transmit Diversity 2x2 (Release 9 and forward)	Rel-9	C02	UE supporting E-UTRA TDD	
8.2.2.2.2	TDD PDSCH Transmit Diversity 4x2	Rel-8	C02	UE supporting E-UTRA TDD	
8.2.2.2.2_1	TDD PDSCH Transmit Diversity 4x2 (Release 9 and forward)	Rel-9	C02	UE supporting E-UTRA TDD	
8.2.2.3	Void				
8.2.2.3.1	TDD PDSCH Open Loop Spatial Multiplexing 2x2	Rel-8	C02	UE supporting E-UTRA TDD	
8.2.2.3.2	TDD PDSCH Open Loop Spatial Multiplexing 4x2	Rel-8	C02	UE supporting E-UTRA TDD	
8.2.2.4	Void				
8.2.2.4.1	TDD PDSCH Closed Loop Single/Multi Layer Spatial Multiplexing 2x2	Rel-8 only	C02	UE supporting E-UTRA TDD	
8.2.2.4.1_1	TDD PDSCH Closed Loop Multi Layer Spatial Multiplexing 2x2 (Release 9 and forward)	Rel-9	C02	UE supporting E-UTRA TDD	
8.2.2.4.2	TDD PDSCH Closed Loop Single/Multi Layer Spatial Multiplexing 4x2	Rel-8 only	C02	UE supporting E-UTRA TDD	
8.2.2.4.2_1	TDD PDSCH Closed Loop Multi Layer Spatial Multiplexing 4x2 (Release 9 and forward)	Rel-9	C02	UE supporting E-UTRA TDD	
8.3.1	Void				
8.3.2.1.1	TDD PDSCH Single-layer Spatial Multiplexing on antenna port 5 (Release 8 and forward)	Rel-8	C02	UE supporting E-UTRA TDD	
8.3.2.1.1_1	TDD PDSCH Single-layer Spatial Multiplexing on antenna port 5 (Release 9 and forward)	Rel-9	C02	UE supporting E-UTRA TDD	
8.3.2.1.2	TDD PDSCH Single-layer Spatial Multiplexing on antenna port 7 or 8 without a simultaneous transmission	Rel-9	C02	UE supporting E-UTRA TDD	
8.3.2.1.3	TDD PDSCH Single-layer Spatial Multiplexing on antenna port 7 or 8 with a simultaneous transmission	Rel-9	C02	UE supporting E-UTRA TDD	
8.3.2.2.1	TDD PDSCH Dual-layer Spatial Multiplexing	Rel-9	C02	UE supporting E-UTRA TDD	
8.4.1.1	FDD PCFICH/PDCCH Single-antenna Port Performance	Rel-8	C01	UE supporting E-UTRA FDD	
8.4.1.2	Void				
8.4.1.2.1	FDD PCFICH/PDCCH Transmit Diversity 2x2	Rel-8 only	C01	UE supporting E-UTRA FDD	
8.4.1.2.1_1	FDD PCFICH/PDCCH Transmit Diversity 2x2 (Release 9 and forward)	Rel-9	C01	UE supporting E-UTRA FDD	
8.4.1.2.2	FDD PCFICH/PDCCH Transmit Diversity 4x2	Rel-8 only	C01	UE supporting E-UTRA FDD	
8.4.1.2.2_1	FDD PCFICH/PDCCH Transmit Diversity 4x2 (Release 9 and forward)	Rel-9	C01	UE supporting E-UTRA FDD	
8.4.2.1	TDD PCFICH/PDCCH Single-antenna Port Performance	Rel-8	C02	UE supporting E-UTRA TDD	

Clause	Title	Release	Applicability		Additional Information
			Condition	Comments	
8.4.2.2	Void				
8.4.2.2.1	TDD PCFICH/PDCCH Transmit Diversity 2x2	Rel-8 only	C02	UE supporting E-UTRA TDD	
8.4.2.2.1_1	TDD PCFICH/PDCCH Transmit Diversity 2x2 (Release 9 and forward)	Rel-9	C02	UE supporting E-UTRA TDD	
8.4.2.2.2	TDD PCFICH/PDCCH Transmit Diversity 4x2	Rel-8 only	C02	UE supporting E-UTRA TDD	
8.4.2.2.2_1	TDD PCFICH/PDCCH Transmit Diversity 4x2 (Release 9 and forward)	Rel-9	C02	UE supporting E-UTRA TDD	
8.5.1.1	FDD PHICH Single-antenna Port Performance	Rel-8	C01	UE supporting E-UTRA FDD	
8.5.1.2	Void				
8.5.1.2.1	FDD PHICH Transmit Diversity 2x2	Rel-8 only	C01	UE supporting E-UTRA FDD	
8.5.1.2.1_1	FDD PHICH Transmit Diversity 2x2 (Release 9 and forward)	Rel-9	C01	UE supporting E-UTRA FDD	
8.5.1.2.2	FDD PHICH Transmit Diversity 4x2	Rel-8 only	C01	UE supporting E-UTRA FDD	
8.5.1.2.2_1	FDD PHICH Transmit Diversity 4x2 (Release 9 and forward)	Rel-9	C01	UE supporting E-UTRA FDD	
8.5.2.1	TDD PHICH Single-antenna Port Performance	Rel-8	C02	UE supporting E-UTRA TDD	
8.5.2.2	Void				
8.5.2.2.1	TDD PHICH Transmit Diversity 2x2	Rel-8 only	C02	UE supporting E-UTRA TDD	
8.5.2.2.1_1	TDD PHICH Transmit Diversity 2x2 (Release 9 and forward)	Rel-9	C02	UE supporting E-UTRA TDD	
8.5.2.2.2	TDD PHICH Transmit Diversity 4x2	Rel-8 only	C02	UE supporting E-UTRA TDD	
8.5.2.2.2_1	TDD PHICH Transmit Diversity 4x2 (Release 9 and forward)	Rel-9	C02	UE supporting E-UTRA TDD	
8.7.1.1	FDD sustained data rate performance	Rel-9	C01	UE supporting E-UTRA FDD	
8.7.2.1	TDD sustained data rate performance	Rel-9	C02	UE supporting E-UTRA TDD	
Reporting of Channel State Information					
9.2.1.1	FDD CQI Reporting under AWGN conditions – PUCCH 1-0	Rel-8	C01	UE supporting E-UTRA FDD	
9.2.1.2	TDD CQI Reporting under AWGN conditions – PUCCH 1-0	Rel-8	C02	UE supporting E-UTRA TDD	
9.2.2.1	FDD CQI Reporting under AWGN conditions – PUCCH 1-1	Rel-8	C01	UE supporting E-UTRA FDD	
9.2.2.2	TDD CQI Reporting under AWGN conditions – PUCCH 1-1	Rel-8	C02	UE supporting E-UTRA TDD	
9.3.1.1.1	FDD CQI Reporting under fading conditions – PUSCH 3-0	Rel-8	C01	UE supporting E-UTRA FDD	
9.3.1.1.2	TDD CQI Reporting under fading conditions – PUSCH 3-0	Rel-8	C02	UE supporting E-UTRA TDD	
9.3.2.1.1	FDD CQI Reporting under fading conditions – PUCCH 1-0	Rel-8	C01	UE supporting E-UTRA FDD	
9.3.2.1.2	TDD CQI Reporting under fading conditions – PUCCH 1-0	Rel-8	C02	UE supporting E-UTRA TDD	
9.3.3.1.1	FDD CQI Reporting under fading conditions and frequency-selective interference – PUSCH 3-0	Rel-8	C01	UE supporting E-UTRA FDD	
9.3.3.1.2	TDD CQI Reporting under fading conditions and frequency-selective interference – PUSCH 3-0	Rel-8	C02	UE supporting E-UTRA TDD	
9.4.1.1.1	FDD PMI Reporting – PUSCH 3-1 (Single PMI)	Rel-8	C01	UE supporting E-UTRA FDD	
9.4.1.1.2	TDD PMI Reporting – PUSCH 3-1 (Single PMI)	Rel-8	C02	UE supporting E-UTRA TDD	
9.4.2.1.1	FDD PMI Reporting – PUSCH 1-2 (Multiple PMI)	Rel-8 only	C01	UE supporting E-UTRA FDD	
9.4.2.1.1_1	FDD PMI Reporting – PUSCH 1-2 (Multiple PMI) (Release 9 and forward)	Rel-9	C01	UE supporting E-UTRA FDD	

Clause	Title	Release	Applicability		Additional Information
			Condition	Comments	
9.4.2.1.2	TDD PMI Reporting – PUSCH 1-2 (Multiple PMI)	Rel-8 only	C02	UE supporting E-UTRA TDD	
9.4.2.1.2_1	TDD PMI Reporting – PUSCH 1-2 (Multiple PMI) (Release 9 and forward)	Rel-9	C02	UE supporting E-UTRA TDD	
9.5.1.1	FDD RI Reporting– PUCCH 1-1	Rel-8	C01	UE supporting E-UTRA FDD	
9.5.1.2	TDD RI Reporting– PUCCH 1-1	Rel-8	C02	UE supporting E-UTRA TDD	
MBMS Performance Testing					
10.1	FDD MBMS performance (Fixed Reference Channel)	Rel-9	C03	UE supporting E-UTRA FDD and MBMS	
10.2	TDD MBMS performance (Fixed Reference Channel)	Rel-9	C04	UE supporting E-UTRA TDD and MBMS	

Table 4.1-1a: Applicability of RF conformance test cases Conditions

C01	IF A.4.1-1/1 THEN R ELSE N/A
C02	IF A.4.1-1/2 THEN R ELSE N/A
C03	IF (A.4.1-1/1 AND A.4.2-1/1) THEN R ELSE N/A
C04	IF (A.4.1-1/2 AND A.4.2-1/1) THEN R ELSE N/A

4.2 RRM conformance test cases

Table 4.2-1: Applicability of RRM conformance test cases, ref. TS 36.521-3 [2]

Clause	Title	Release	Applicability		Additional Information
			Condition	Comments	
E-UTRAN RRC_IDLE State Mobility					
4.2.1	E-UTRAN FDD - FDD cell re-selection intra frequency case	Rel-8	C01c	UE supporting E-UTRA FDD and Feature Group Indicator 5	
4.2.2	E-UTRAN TDD - TDD cell re-selection intra frequency case	Rel-8	C02c	UE supporting E-UTRA TDD and Feature Group Indicator 5	
4.2.3	E-UTRAN FDD - FDD cell re-selection inter frequency case	Rel-8	C01c	UE supporting E-UTRA FDD and Feature Group Indicator 5	
4.2.4	E-UTRAN FDD - TDD cell re-selection inter frequency case	Rel-8	C03	UE supporting E-UTRA FDD and E-UTRA TDD	
4.2.5	E-UTRAN TDD - FDD cell re-selection inter frequency case	Rel-8	C03	UE supporting E-UTRA FDD and E-UTRA TDD	
4.2.6	E-UTRAN TDD - TDD cell re-selection inter frequency case	Rel-8	C02c	UE supporting E-UTRA TDD and Feature Group Indicator 5	
4.3.1.1	E-UTRA FDD - UTRAN FDD cell re-selection	Rel-8	C04c	UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicator 5	
4.3.1.2	E-UTRA FDD - UTRAN FDD cell re-selection: UTRA FDD is of lower priority	Rel-8	C04c	UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicator 5	
4.3.1.3	E-UTRAN FDD - UTRAN FDD cell re-selection in fading propagation conditions: UTRA FDD is of lower priority	Rel-8	C04c	UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicator 5	
4.3.2	E-UTRAN FDD - UTRAN TDD cell re-selection	Rel-8	C06	UE supporting E-UTRA FDD and UTRA TDD and Feature Group Indicator 5	
4.3.3	E-UTRAN TDD - UTRAN FDD cell re-selection	Rel-8	C07c	UE supporting E-UTRA TDD and UTRA FDD and Feature Group Indicator 5	
4.3.4.1	E-UTRA TDD - UTRAN TDD cell re-selection	Rel-8	C05c	UE supporting E-UTRA TDD and UTRA TDD and Feature Group Indicator 5	
4.3.4.2	E-UTRAN TDD - UTRAN TDD cell re-selection: UTRA is of lower priority	Rel-8	C05c	UE supporting E-UTRA TDD and UTRA TDD and Feature Group Indicator 5	
4.3.4.3	EUTRA TDD-UTRA TDD cell reselection in fading propagation conditions: UTRA TDD is of lower priority	Rel-8	C05c	UE supporting E-UTRA TDD and UTRA TDD and Feature Group Indicator 5	
4.4.1	E-UTRAN FDD - GSM cell re-selection	Rel-8	C08	UE supporting E-UTRA FDD and GSM and Feature Group Indicator 5	
4.4.2	E-UTRAN TDD - GSM cell re-selection	Rel-8	C09d	UE supporting E-UTRA TDD and GSM and Feature Group Indicator 5	
4.5.1.1	E-UTRAN FDD - HRPD Cell re-selection: HRPD is of lower priority	Rel-8	C10	UE supporting E-UTRA FDD and cdma2000 HRPD and Feature Group Indicator 5	
4.6.1.1	E-UTRAN FDD - cdma2000 1xRTT Cell re-selection: cdma2000 1x is of lower priority	Rel-8	C11	UE supporting E-UTRA FDD and cdma2000 1xRTT and Feature Group Indicator 5	
E-UTRAN RRC_CONNECTED State Mobility					
5.1.1	E-UTRAN FDD - FDD Handover intra frequency case	Rel-8	C01	UE supporting E-UTRA FDD	
5.1.2	E-UTRAN TDD - TDD Handover intra frequency case	Rel-8	C02	UE supporting E-UTRA TDD	
5.1.3	E-UTRAN FDD - FDD Handover inter frequency case	Rel-8	C01d	UE supporting E-UTRA FDD and Feature Group Indicators 5, 13 and 25	
5.1.4	E-UTRAN TDD - TDD Handover inter frequency case	Rel-8	C02d	UE supporting E-UTRA TDD and Feature Group Indicators 5, 13 and 25	
5.1.5	E-UTRAN FDD - FDD inter frequency handover: unknown target cell	Rel-8	C01a	UE supporting E-UTRA FDD and Feature Group Indicators 13 and 25	

Clause	Title	Release	Applicability		Additional Information
			Condition	Comments	
5.1.6	E-UTRAN TDD-TDD inter frequency handover: unknown target cell	Rel-8	C02a	UE supporting E-UTRA TDD and Feature Group Indicators 13 and 25	
5.2.1	E-UTRAN FDD - UTRAN FDD handover	Rel-8	C04a	UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicators 8 and 22	
5.2.2	E-UTRAN TDD - UTRAN FDD handover	Rel-8	C07a	UE supporting E-UTRA TDD and UTRA FDD and Feature Group Indicators 8 and 22	
5.2.3	E-UTRAN FDD - GSM handover	Rel-8	C08a	UE supporting E-UTRA FDD and GSM and Feature Group Indicators 9 and 23	
5.2.4	E-UTRAN TDD - UTRAN TDD handover	Rel-8	C05a	UE supporting E-UTRA TDD and UTRA TDD and Feature Group Indicators 8 and 22	
5.2.5	E-UTRAN FDD - UTRAN TDD handover	Rel-8	C06a	UE supporting E-UTRA FDD and UTRA TDD and Feature Group Indicators 8 and 22	
5.2.6	E-UTRA TDD - GSM handover	Rel-8	C09b	UE supporting E-UTRA FDD and GSM and Feature Group Indicators 9 and 23	
5.2.7	E-UTRAN FDD - UTRAN FDD handover: unknown target cell	Rel-8	C04a	UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicators 8 and 22	
5.2.8	E-UTRAN FDD - GSM handover: unknown target cell	Rel-8	C08a	UE supporting E-UTRA FDD and GSM and Feature Group Indicators 9 and 23	
5.2.9	E-UTRAN TDD - GSM handover: unknown target cell	Rel-8	C09b	UE supporting E-UTRA TDD and GSM and Feature Group Indicators 9 and 23	
5.2.10	E-UTRAN TDD - UTRAN TDD handover: unknown target cell	Rel-8	C05a	UE supporting E-UTRA FDD and UTRA TDD and Feature Group Indicators 8 and 22	
5.3.1	E-UTRAN FDD - HRPD Handover	Rel-8	C10a	UE supporting E-UTRA FDD and cdma2000 HRPD and Feature Group Indicators 12 and 26	
5.3.2	E-UTRAN FDD - cdma2000 1xRTT handover	Rel-8	C11a	UE supporting E-UTRA FDD and cdma2000 1xRTT and Feature Group Indicators 11 and 24	
5.3.3	E-UTRAN FDD - HRPD handover: unknown target cell	Rel-8	C10a	UE supporting E-UTRA FDD and cdma2000 HRPD and Feature Group Indicators 12 and 26	
5.3.4	E-UTRAN FDD - cdma2000 1xRTT handover: unknown target cell	Rel-8	C11a	UE supporting E-UTRA FDD and cdma2000 1xRTT and Feature Group Indicators 11 and 24	
RRC Connection Mobility Control					
6.1.1	E-UTRAN FDD Intra-frequency RRC Re-establishment	Rel-8	C01	UE supporting E-UTRA FDD	
6.1.2	E-UTRAN FDD Inter-frequency RRC Re-establishment	Rel-8	C01b	UE supporting E-UTRA FDD and Feature Group Indicator 25	
6.1.3	E-UTRAN TDD Intra-frequency RRC Re-establishment	Rel-8	C02	UE supporting E-UTRA TDD	
6.1.4	E-UTRAN TDD Inter-frequency RRC Re-establishment	Rel-8	C02b	UE supporting E-UTRA TDD and Feature Group Indicator 25	
6.2.1	E-UTRAN FDD - Contention Based Random Access Test	Rel-8	C01	UE supporting E-UTRA FDD	
6.2.2	E-UTRAN FDD - Non-Contention Based Random Access Test	Rel-8	C01	UE supporting E-UTRA FDD	
6.2.3	E-UTRAN TDD - Contention Based Random Access Test	Rel-8	C02	UE supporting E-UTRA TDD	
6.2.4	E-UTRAN TDD - Non-Contention Based Random Access Test	Rel-8	C02	UE supporting E-UTRA TDD	
Timing and Signalling Characteristics					
7.1.1	E-UTRAN FDD - UE Transmit Timing Accuracy	Rel-8	C01c	UE supporting E-UTRA FDD and Feature Group Indicator 5	
7.1.2	E-UTRAN TDD - UE Transmit Timing Accuracy	Rel-8	C02c	UE supporting E-UTRA TDD and Feature Group Indicator 5	
7.2.1	E-UTRAN FDD - UE Timing Advance Adjustment Accuracy	Rel-8	C01	UE supporting E-UTRA FDD	
7.2.2	E-UTRAN TDD - UE Timing Advance Adjustment Accuracy	Rel-8	C02	UE supporting E-UTRA TDD	

Clause	Title	Release	Applicability		Additional Information
			Condition	Comments	
7.3.1	E-UTRAN FDD Radio Link Monitoring Test for Out-of-Sync	Rel-8	C01	UE supporting E-UTRA FDD	
7.3.2	E-UTRAN FDD Radio Link Monitoring Test for In-Sync	Rel-8	C01	UE supporting E-UTRA FDD	
7.3.3	E-UTRAN TDD Radio Link Monitoring Test for Out-of-Sync	Rel-8	C02	UE supporting E-UTRA TDD	
7.3.4	E-UTRAN TDD Radio Link Monitoring Test for In-Sync	Rel-8	C02	UE supporting E-UTRA TDD	
7.3.5	E-UTRAN FDD Radio Link Monitoring Test for Out-of-sync in DRX	Rel-8	C01c	UE supporting E-UTRA FDD and Feature Group Indicator 5	
7.3.6	E-UTRAN FDD Radio Link Monitoring Test for In-sync in DRX	Rel-8	C01c	UE supporting E-UTRA FDD and Feature Group Indicator 5	
7.3.7	E-UTRAN TDD Radio Link Monitoring Test for Out-of-sync in DRX	Rel-8	C02c	UE supporting E-UTRA TDD and Feature Group Indicator 5	
7.3.8	E-UTRAN TDD Radio Link Monitoring Test for In-sync in DRX	Rel-8	C02c	UE supporting E-UTRA TDD and Feature Group Indicator 5	
UE Measurements Procedures					
8.1.1	E-UTRAN FDD-FDD intra-frequency event triggered reporting under fading propagation conditions in asynchronous cells	Rel-8	C01	UE supporting E-UTRA FDD	
8.1.2	E-UTRAN FDD-FDD intra-frequency event triggered reporting under fading propagation conditions in synchronous cells	Rel-8	C01c	UE supporting E-UTRA FDD and Feature Group Indicator 5	
8.1.3	E-UTRAN FDD-FDD intra-frequency event triggered reporting under fading propagation conditions in synchronous cells with DRX	Rel-8	C01c	UE supporting E-UTRA FDD and Feature Group Indicator 5	
8.1.4	Void				
8.1.5	E-UTRAN FDD - FDD Intra-frequency identification of a new CGI of E-UTRA cell using autonomous gaps	Rel-9	C13	UE supporting E-UTRA FDD, CSG and intra-frequency SI acquisition for HO	
8.1.6	E-UTRAN FDD - FDD Intra-frequency identification of a new CGI of E-UTRA cell using autonomous gaps with DRX	Rel-9	C13	UE supporting E-UTRA FDD, CSG and intra-frequency SI acquisition for HO	
8.2.1	E-UTRAN TDD-TDD intra-frequency event triggered reporting under fading propagation conditions in synchronous cells	Rel-8	C02c	UE supporting E-UTRA TDD and Feature Group Indicator 5	
8.2.2	E-UTRAN TDD-TDD intra-frequency event triggered reporting under fading propagation conditions in synchronous cells with DRX	Rel-8	C02c	UE supporting E-UTRA TDD and Feature Group Indicator 5	
8.2.3	E-UTRAN TDD - TDD Intra-frequency identification of a new CGI of E-UTRA cell using autonomous gaps	Rel-9	C15	UE supporting E-UTRA TDD, CSG and intra-frequency SI acquisition for HO.	
8.2.4	E-UTRAN TDD - TDD Intra-frequency identification of a new CGI of E-UTRA cell using autonomous gaps with DRX	Rel-9	C15	UE supporting E-UTRA TDD, CSG and intra-frequency SI acquisition for HO	
8.3.1	E-UTRAN FDD-FDD inter-frequency event triggered reporting under fading propagation conditions in asynchronous cells	Rel-8	C01b	UE supporting E-UTRA FDD and Feature Group Indicator 25	
8.3.2	E-UTRAN FDD-FDD inter-frequency event triggered reporting when DRX is used under fading propagation conditions in asynchronous cells	Rel-8	C01e	UE supporting E-UTRA FDD and Feature Group Indicators 5 and 25	
8.3.3	E-UTRAN FDD-FDD inter frequency event triggered reporting under AWGN propagation conditions in asynchronous cells with DRX when L3 filtering is used	Rel-8	C01e	UE supporting E-UTRA FDD and Feature Group Indicators 5 and 25	
8.3.4	E-UTRAN FDD - FDD Inter-frequency identification of a new CGI of E-UTRA cell using autonomous gaps	Rel-9	C14	UE supporting E-UTRA FDD, CSG and inter-frequency SI acquisition for HO	
8.3.5	E-UTRAN FDD - FDD Inter-frequency identification of a new CGI of E-UTRA cell using autonomous gaps with DRX	Rel-9	C14	UE supporting E-UTRA FDD, CSG and inter-frequency SI acquisition for HO.	

Clause	Title	Release	Applicability		Additional Information
			Condition	Comments	
8.4.1	E-UTRAN TDD-TDD inter-frequency event triggered reporting under fading propagation conditions in synchronous cells	Rel-8	C02b	UE supporting E-UTRA TDD and Feature Group Indicator 25	
8.4.2	E-UTRAN TDD-TDD inter-frequency event triggered reporting when DRX is used under fading propagation conditions in synchronous cells	Rel-8	C02e	UE supporting E-UTRA TDD and Feature Group Indicators 5 and 25	
8.4.3	E-UTRAN TDD-TDD inter-frequency event triggered reporting under AWGN propagation conditions in synchronous cells with DRX when L3 filtering is used	Rel-8	C02e	UE supporting E-UTRA TDD and Feature Group Indicators 5 and 25	
8.4.4	E-UTRAN TDD - TDD Inter-frequency identification of a new CGI of E-UTRA cell using autonomous gaps	Rel-9	C16	UE supporting E-UTRA TDD, CSG and inter-frequency SI acquisition for HO.	
8.4.5	E-UTRAN TDD - TDD Inter-frequency identification of a new CGI of E-UTRA cell using autonomous gaps with DRX	Rel-9	C16	UE supporting E-UTRA TDD, CSG and inter-frequency SI acquisition for HO.	
8.5.1	E-UTRAN FDD-UTRAN FDD event triggered reporting under fading propagation conditions	Rel-8	C04b	UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicator 22	
8.5.2	E-UTRAN FDD-UTRAN FDD SON ANR cell search reporting under AWGN propagation conditions	Rel-8	C04b	UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicator 22	
8.5.3	E-UTRAN FDD - UTRAN FDD event triggered reporting when DRX is used under fading propagation conditions	Rel-8	C04d	UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicators 5 and 22	
8.6.1	E-UTRAN TDD-UTRAN FDD event triggered reporting under fading propagation conditions	Rel-8	C07b	UE supporting E-UTRA TDD and UTRA FDD and Feature Group Indicator 22	
8.7.1	E-UTRAN TDD-UTRAN TDD cell search under fading propagation conditions	Rel-8	C05b	UE supporting E-UTRA TDD and UTRA TDD and Feature Group Indicator 22	
8.7.2	E-UTRAN TDD - UTRAN TDD cell search when DRX is used under fading propagation conditions	Rel-8	C05d	UE supporting E-UTRA TDD and UTRA TDD and Feature Group Indicators 5 and 22	
8.7.3	E-UTRAN TDD - UTRAN TDD SON ANR cell search reporting under AWGN propagation conditions	Rel-8	C05b	UE supporting E-UTRA TDD and UTRA TDD and Feature Group Indicator 22	
8.8.1	E-UTRAN FDD-GSM event triggered reporting in AWGN	Rel-8	C08b	UE supporting E-UTRA FDD and GSM and Feature Group Indicator 23	
8.8.2	E-UTRAN FDD - GSM event triggered reporting when DRX is used in AWGN	Rel-8	C08d	UE supporting E-UTRA FDD and GSM and Feature Group Indicators 5 and 23	
8.9.1	E-UTRAN FDD-UTRAN TDD event triggered reporting in fading propagation conditions	Rel-8	C06b	UE supporting E-UTRA FDD and UTRA TDD and Feature Group Indicator 22	
8.10.1	E-UTRAN TDD-GSM event triggered reporting in AWGN	Rel-8	C09a	UE supporting E-UTRA TDD and GSM and Feature Group Indicator 23	
8.10.2	E-UTRAN TDD - GSM event triggered reporting when DRX is used in AWGN	Rel-8	C09e	UE supporting E-UTRA TDD and GSM and Feature Group Indicators 5 and 23	
8.11.1	Multiple E-UTRAN FDD-FDD Inter-frequency event triggered reporting under fading propagation conditions	Rel-8	C01b	UE supporting E-UTRA FDD and Feature Group Indicator 25	
8.11.2	E-UTRAN TDD - E-UTRAN TDD and E-UTRAN TDD Inter-frequency event triggered reporting under fading propagation conditions	Rel-8	C02b	UE supporting E-UTRA TDD and Feature Group Indicator 25	
8.11.3	E-UTRAN FDD-FDD Inter-frequency and UTRAN FDD event triggered reporting under fading propagation conditions	Rel-8	C04e	UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicators 22 and 25	
8.11.4	InterRAT E-UTRA TDD to E-UTRA TDD and UTRA TDD cell search	Rel-8	C05e	UE supporting E-UTRA TDD and UTRA TDD and Feature Group Indicators 22 and 25	

Clause	Title	Release	Applicability		Additional Information
			Condition	Comments	
8.11.5	Combined E-UTRAN FDD - E-UTRA FDD and GSM cell search; E-UTRA cells in fading; GSM cell in static propagation conditions	Rel-8	C08b	UE supporting E-UTRA FDD and GSM and Feature Group Indicator 23	
8.11.6	Combined E-UTRAN TDD - E-UTRA TDD and GSM cell search; E-UTRA cells in fading; GSM cell in static propagation conditions	Rel-8	C09a	UE supporting E-UTRA TDD and GSM and Feature Group Indicator 23	
Measurement Performance Requirements					
9.1.1.1	FDD Intra Frequency Absolute RSRP Accuracy	Rel-8	C01	UE supporting E-UTRA FDD	
9.1.1.2	FDD Intra Frequency Relative Accuracy of RSRP	Rel-8	C01	UE supporting E-UTRA FDD	
9.1.2.1	TDD Intra Frequency Absolute RSRP Accuracy	Rel-8	C02	UE supporting E-UTRA TDD	
9.1.2.2	TDD Intra Frequency Relative Accuracy of RSRP	Rel-8	C02	UE supporting E-UTRA TDD	
9.1.3.1	FDD - FDD Inter Frequency Absolute RSRP Accuracy	Rel-8	C01b	UE supporting E-UTRA FDD and Feature Group Indicator 25	
9.1.3.2	FDD - FDD Inter Frequency Relative Accuracy of RSRP	Rel-8	C01b	UE supporting E-UTRA FDD and Feature Group Indicator 25	
9.1.4.1	TDD - TDD Inter Frequency Absolute RSRP Accuracy	Rel-8	C02b	UE supporting E-UTRA TDD and Feature Group Indicator 25	
9.1.4.2	TDD - TDD Inter Frequency Relative Accuracy of RSRP	Rel-8	C02b	UE supporting E-UTRA TDD and Feature Group Indicator 25	
9.2.1.1	FDD Intra Frequency Absolute RSRQ Accuracy	Rel-8	C01	UE supporting E-UTRA FDD	
9.2.2.1	TDD Intra Frequency Absolute RSRQ Accuracy	Rel-8	C02	UE supporting E-UTRA TDD	
9.2.3.1	FDD - FDD Inter Frequency Absolute RSRQ Accuracy	Rel-8	C01b	UE supporting E-UTRA FDD and Feature Group Indicator 25	
9.2.3.2	FDD - FDD Inter Frequency Relative Accuracy of RSRQ	Rel-8	C01b	UE supporting E-UTRA FDD and Feature Group Indicator 25	
9.2.4.1	TDD - TDD Inter Frequency Absolute RSRQ Accuracy	Rel-8	C02b	UE supporting E-UTRA TDD and Feature Group Indicator 25	
9.2.4.2	TDD - TDD Inter Frequency Relative Accuracy of RSRQ	Rel-8	C02b	UE supporting E-UTRA TDD and Feature Group Indicator 25	
9.3.1	E-UTRAN FDD - UTRA FDD CPICH RSCP absolute accuracy	Rel-9	C04	UE supporting E-UTRA FDD and UTRA FDD	
9.4.1	E-UTRAN FDD - UTRA FDD CPICH Ec/No absolute accuracy	Rel-9	C04	UE supporting E-UTRA FDD and UTRA FDD	
9.3.2	E-UTRAN TDD - UTRA FDD CPICH RSCP absolute accuracy	Rel-9	C07	UE supporting E-UTRA TDD and UTRA FDD	
9.4.2	E-UTRAN TDD - UTRA FDD CPICH Ec/No absolute accuracy	Rel-9	C07	UE supporting E-UTRA TDD and UTRA FDD	
9.6.2	GSM RSSI absolute accuracy for E-UTRAN TDD	Rel-9	C09	UE supporting E-UTRA TDD and GSM and Feature Group Indicator 23	

Table 4.2-1a: Applicability of RRM conformance test cases Conditions

C01	IF A.4.1-1/1 THEN R ELSE N/A
C01a	IF (A.4.1-1/1 AND A.4.4-1/13 AND A.4.4-1/25) THEN R ELSE N/A
C01b	IF (A.4.1-1/1 AND A.4.4-1/25) THEN R ELSE N/A
C01c	IF (A.4.1-1/1 AND A.4.4-1/5) THEN R ELSE N/A
C01d	IF (A.4.1-1/1 AND A.4.4-1/5 AND A.4.4-1/13 AND A.4.4-1/25) THEN R ELSE N/A
C01e	IF (A.4.1-1/1 AND A.4.4-1/5 AND A.4.4-1/25) THEN R ELSE N/A
C02	IF A.4.1-1/2 THEN R ELSE N/A
C02a	IF (A.4.1-1/2 AND A.4.4-1/13 AND A.4.4-1/25) THEN R ELSE N/A
C02b	IF (A.4.1-1/2 AND A.4.4-1/25) THEN R ELSE N/A
C02c	IF (A.4.1-1/2 AND A.4.4-1/5) THEN R ELSE N/A
C02d	IF (A.4.1-1/2 AND A.4.4-1/5 AND A.4.4-1/13 AND A.4.4-1/25) THEN R ELSE N/A
C02e	IF (A.4.1-1/2 AND A.4.4-1/5 AND A.4.4-1/25) THEN R ELSE N/A
C03	IF (A.4.1-1/1 AND A.4.1-1/2) THEN R ELSE N/A
C04	IF (A.4.1-1/1 AND A.4.1-1/3) THEN R ELSE N/A
C04a	IF (A.4.1-1/1 AND A.4.1-1/3 AND A.4.4-1/8 AND A.4.4-1/22) THEN R ELSE N/A
C04b	IF (A.4.1-1/1 AND A.4.1-1/3 AND A.4.4-1/22) THEN R ELSE N/A
C04c	IF (A.4.1-1/1 AND A.4.1-1/3 AND A.4.4-1/5) THEN R ELSE N/A
C04d	IF (A.4.1-1/1 AND A.4.1-1/3 AND A.4.4-1/5 AND A.4.4-1/22) THEN R ELSE N/A
C04e	IF (A.4.1-1/1 AND A.4.1-1/3 AND A.4.4-1/22 AND A.4.4-1/25) THEN R ELSE N/A
C05	IF (A.4.1-1/2 AND A.4.1-1/4) THEN R ELSE N/A
C05a	IF (A.4.1-1/2 AND A.4.1-1/4 AND A.4.4-1/9 AND A.4.4-1/25) THEN R ELSE N/A
C05b	IF (A.4.1-1/2 AND A.4.1-1/4 AND A.4.4-1/25) THEN R ELSE N/A
C05c	IF (A.4.1-1/2 AND A.4.1-1/4 AND A.4.4-1/5) THEN R ELSE N/A
C05d	IF (A.4.1-1/2 AND A.4.1-1/4 AND A.4.4-1/5 AND A.4.4-1/25) THEN R ELSE N/A
C05e	IF (A.4.1-1/2 AND A.4.1-1/4 AND A.4.4-1/22 AND A.4.4-1/25) THEN R ELSE N/A
C06	IF (A.4.1-1/1 AND A.4.1-1/4 AND A.4.4-1/5) THEN R ELSE N/A
C06a	IF (A.4.1-1/1 AND A.4.1-1/4 AND A.4.4-1/11 AND A.4.4-1/22) THEN R ELSE N/A
C06b	IF (A.4.1-1/1 AND A.4.1-1/4 AND A.4.4-1/22) THEN R ELSE N/A
C07	IF (A.4.1-1/2 AND A.4.1-1/3) THEN R ELSE N/A
C07a	IF (A.4.1-1/2 AND A.4.1-1/3 AND A.4.4-1/8 AND A.4.4-1/22) THEN R ELSE N/A
C07b	IF (A.4.1-1/2 AND A.4.1-1/3 AND A.4.4-1/22) THEN R ELSE N/A
C07c	IF (A.4.1-1/2 AND A.4.1-1/3 AND A.4.4-1/5) THEN R ELSE N/A
C08	IF (A.4.1-1/1 AND A.4.1-1/5 AND A.4.4-1/5) THEN R ELSE N/A
C08a	IF (A.4.1-1/1 AND A.4.1-1/5 AND A.4.4-1/9 AND A.4.4-1/23) THEN R ELSE N/A
C08b	IF (A.4.1-1/1 AND A.4.1-1/5 AND A.4.4-1/23) THEN R ELSE N/A
C08c	IF (A.4.1-1/1 AND A.4.1-1/5 AND A.4.4-1/22) THEN R ELSE N/A
C08d	IF (A.4.1-1/1 AND A.4.1-1/5 AND A.4.4-1/5 AND A.4.4-1/23) THEN R ELSE N/A
C09	IF (A.4.1-1/2 AND A.4.1-1/5 AND A.4.4-1/5) THEN R ELSE N/A
C09a	IF (A.4.1-1/2 AND A.4.1-1/5 AND A.4.4-1/23) THEN R ELSE N/A
C09b	IF (A.4.1-1/2 AND A.4.1-1/5 AND A.4.4-1/9 AND A.4.4-1/23) THEN R ELSE N/A
C09c	IF (A.4.1-1/2 AND A.4.1-1/5 AND A.4.4-1/22) THEN R ELSE N/A
C09d	IF (A.4.1-1/2 AND A.4.1-1/5 AND A.4.4-1/5) THEN R ELSE N/A
C09e	IF (A.4.1-1/2 AND A.4.1-1/5 AND A.4.4-1/5 AND A.4.4-1/23) THEN R ELSE N/A
C10	IF (A.4.1-1/1 AND A.4.1-1/6 AND A.4.4-1/5) THEN R ELSE N/A
C10a	IF (A.4.1-1/1 AND A.4.1-1/6 AND A.4.4-1/12 AND A.4.4-1/26) THEN R ELSE N/A
C11	IF (A.4.1-1/1 AND A.4.1-1/7 AND A.4.4-1/5) THEN R ELSE N/A
C11a	IF (A.4.1-1/1 AND A.4.1-1/7 AND A.4.4-1/11 AND A.4.4-1/24) THEN R ELSE N/A
C12	Void
C13	IF (A.4.1-1/1 AND (A.4.5-1/1 AND A.4.5-1/2)) THEN R ELSE N/A
C14	IF (A.4.1-1/1 AND (A.4.5-1/1 AND A.4.5-1/3)) THEN R ELSE N/A
C15	IF (A.4.1-1/2 AND (A.4.5-1/1 AND A.4.5-1/2)) THEN R ELSE N/A
C16	IF (A.4.1-1/2 AND (A.4.5-1/1 AND A.4.5-1/3)) THEN R ELSE N/A

Annex A (normative): ICS proforma for E-UTRA User Equipment

Notwithstanding the provisions of the copyright related to the text of the present document, The Organizational Partners of 3GPP grant that users of the present document may freely reproduce the ICS proforma in this annex so that it can be used for its intended purposes and may further publish the completed ICS.

A.1 Guidance for completing the ICS proforma

A.1.1 Purposes and structure

The purpose of this ICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in relevant specifications may provide information about the implementation in a standardised manner.

The ICS proforma is subdivided into clauses for the following categories of information:

- instructions for completing the ICS proforma;
- identification of the implementation;
- identification of the protocol;
- ICS proforma tables (for example: UE implementation types, Teleservices, etc).

A.1.2 Abbreviations and conventions

The ICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [4].

Item column

The item column contains a number which identifies the item in the table.

Item description column

The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

Reference column

The reference column gives reference to the relevant 3GPP core specifications.

Release column

The release column indicates the earliest release from which the capability or option is relevant.

Comments column

This column is left blank for particular use by the reader of the present document.

References to items

For each possible item answer (answer in the support column) within the ICS proforma there exists a unique reference, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solidus character "/", followed by the item number in the table. If there is more than one support column in a table, the columns shall be discriminated by letters (a, b, etc.), respectively.

EXAMPLE 1: A.4.1-1/2 is the reference to the answer of item 2 in table A.4.1-1.

A.1.3 Instructions for completing the ICS proforma

The supplier of the implementation may complete the ICS proforma in each of the spaces provided. More detailed instructions are given at the beginning of the different clauses of the ICS proforma.

A.2 Identification of the User Equipment

Identification of the User Equipment should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the ICS should be named as the contact person.

A.2.1 Date of the statement

.....

A.2.2 User Equipment Under Test (UEUT) identification

UEUT name:

.....
.....

Hardware configuration:

.....
.....
.....

Software configuration:

.....
.....
.....

A.2.3 Product supplier

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.2.4 Client

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

A.2.5 ICS contact person

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

A.3 Identification of the protocol

This ICS proforma applies to the 3GPP standards listed in the normative references clause of the present document.

A.4 ICS proforma tables

Editor's Note: This clause is not completed

A.4.1 UE Implementation Types

Table A.4.1-1: UE Radio Technologies

Item	UE Radio Technologies	Ref.	Release	Comments
1	E-UTRA FDD	36.101	Rel-8	
2	E-UTRA TDD	36.101	Rel-8	
3	UTRA FDD	25.101	Rel-8	
4	UTRA TDD	25.102	Rel-8	
5	GSM	45.005	Rel-8	
6	cdma2000 HRPD	C.S0024-A	Rel-8	
7	cdma2000 1xRTT	C.S0002-A	Rel-8	

A.4.2 UE Service Capabilities

Table A.4.2-1: UE Radio Technologies

Item	UE Radio Technologies	Ref.	Release	Comments
1	LTE MBMS	36.101	Rel-9	

A.4.3 Baseline Implementation Capabilities

Table A.4.3-1: Supported protocols

Item	Supported protocols	Ref.	Release	Comments
1	EPS Mobility Management	24.301, 5	Rel-8	
2	EPS Session Management	24.301, 6	Rel-8	
3	GPRS Mobility Management	23.060	R99	
4	Radio Resource Control	36.331	Rel-8	
5	Packet Data Convergence Protocol	36.323	Rel-8	
6	Radio Link Control	36.322	Rel-8	
7	Medium Access Control	36.321	Rel-8	
8	Physical Layer	36.201, 36.302	Rel-8	

Table A.4.3-2: Special Conformance Testing Functions

Item	Special Conformance Testing Functions	Ref.	Release	Comments
1	UE test loop	36.509	Rel-8	
2	Max UE test loop UL RLC SDU size 65535 bits	36.509	Rel-8	

Table A.4.3-3: RF Baseline Implementation Capabilities

Item	RF Baseline Implementation Capabilities	Ref.	Release	Comments
1	Frequency band: 1920-1980, 2110-2170 MHz	36.101, 5.5	Rel-8	FDD Band 1
2	Frequency band: 1850-1910, 1930-1990 MHz	36.101, 5.5	Rel-8	FDD Band 2
3	Frequency band: 1710-1785, 1805-1880 MHz	36.101, 5.5	Rel-8	FDD Band 3
4	Frequency band: 1710-1755, 2110-2155 MHz	36.101, 5.5	Rel-8	FDD Band 4
5	Frequency band: 824-849, 869-894 MHz	36.101, 5.5	Rel-8	FDD Band 5
6	Frequency band: 830-840, 875-885 MHz	36.101, 5.5	Rel-8	FDD Band 6
7	Frequency band: 2500-2570, 2620-2690 MHz	36.101, 5.5	Rel-8	FDD Band 7
8	Frequency band: 880-915, 925-960 MHz	36.101, 5.5	Rel-8	FDD Band 8
9	Frequency band: 1749.9-1784.9, 1844.9-1879.9 MHz	36.101, 5.5	Rel-8	FDD Band 9
10	Frequency band: 1710-1770, 2110-2170 MHz	36.101, 5.5	Rel-8	FDD Band 10
11	Frequency band: 1427.9-1447.9, 1475.9-1495.9 MHz	36.101, 5.5	Rel-8	FDD Band 11
12	Frequency band: 699-716, 729-746 MHz	36.101, 5.5	Rel-8	FDD Band 12
13	Frequency band: 777-787, 746-756 MHz	36.101, 5.5	Rel-8	FDD Band 13
14	Frequency band: 788-798, 758-768 MHz	36.101, 5.5	Rel-8	FDD Band 14
15	Reserved	36.101, 5.5	Rel-8	FDD Band 15
16	Reserved	36.101, 5.5	Rel-8	FDD Band 16
17	Frequency band: 704-716, 734-746 MHz	36.101, 5.5	Rel-8	FDD Band 17
18	Frequency band: 815-830, 860-875 MHz	36.101, 5.5	Rel-9	FDD Band 18
19	Frequency band: 830-845, 875-890 MHz	36.101, 5.5	Rel-9	FDD Band 19
20	Frequency band: 832-862, 791-821MHz	36.101, 5.5	Rel-9	FDD Band 20
21	Frequency band: 1447.9-1462.9, 1495.9-1510.9 MHz	36.101, 5.5	Rel-9	FDD Band 21
22	Frequency band: 3410-3490, 3510-3590 MHz	36.101, 5.5	Rel-10	FDD Band 22
23	Frequency band: 2000-2020, 2180-2200 MHz	36.101, 5.5	Rel-10	FDD Band 23
24	Frequency band: 1626.5-1660.5, 1525-1559 MHz	36.101, 5.5	Rel-10	FDD Band 24
25	Frequency band: 1850-1915, 1930-1995 MHz	36.101, 5.5	Rel-10	FDD Band 25
...				
33	Frequency band: 1900-1920, 1900-1920 MHz	36.101, 5.5	Rel-8	TDD Band 33
34	Frequency band: 2010-2025, 2010-2025 MHz	36.101, 5.5	Rel-8	TDD Band 34
35	Frequency band: 1850-1910, 1850-1910 MHz	36.101, 5.5	Rel-8	TDD Band 35
36	Frequency band: 1930-1990, 1930-1990 MHz	36.101, 5.5	Rel-8	TDD Band 36
37	Frequency band: 1910-1930, 1910-1930 MHz	36.101, 5.5	Rel-8	TDD Band 37
38	Frequency band: 2570-2620, 2570-2620 MHz	36.101, 5.5	Rel-8	TDD Band 38
39	Frequency band: 1880-1920, 1880-1920 MHz	36.101, 5.5	Rel-8	TDD Band 39
40	Frequency band: 2300-2400, 2300-2400 MHz	36.101, 5.5	Rel-8	TDD Band 40
41	Frequency band: 2496-2690, 2496-2690 MHz	36.101, 5.5	Rel-10	TDD Band 41
42	Frequency band: 3400-3600, 3400-3600 MHz	36.101, 5.5	Rel-10	TDD Band 42
43	Frequency band: 3600-3800, 3600-3800 MHz	36.101, 5.5	Rel-10	TDD Band 43
Note: The values indicated in column "Release" are to be understood as the specifications release version in which a band was introduced and not as a mandate that a UE conforming to particular release shall support a particular band. For further guidance to release independent bands see TS 36.307 [16]				

Table A.4.3-4: PUSCH physical layer Categories

Item	PUSCH physical layer categories	Ref.	Release	Comments
1	Category 1	36.306, 4.1	Rel-8	
2	Category 2	36.306, 4.1	Rel-8	
3	Category 3	36.306, 4.1	Rel-8	
4	Category 4	36.306, 4.1	Rel-8	
5	Category 5	36.306, 4.1	Rel-8	Support for 64QAM in UL

Table A.4.3-5: PDSCH physical layer Categories

Item	PDSCH physical layer categories	Ref.	Release	Comments
1	Category 1	36.306, 4.1	Rel-8	
2	Category 2	36.306, 4.1	Rel-8	
3	Category 3	36.306, 4.1	Rel-8	
4	Category 4	36.306, 4.1	Rel-8	
5	Category 5	36.306, 4.1	Rel-8	

Table A.4.3-6: Supported Mixed MBSFN-unicast capabilities

Item	Supported Mixed MBSFN-unicast capabilities	Ref.	Release	Comments
1	Mixed MBSFN-unicast	36.211, 6.5	Rel-8	Support for MBSFN subframes: 1, 2, 3, 6, 7, 8

A.4.4 Feature group indicators

Table A.4.4-1: Feature group indicators

Item	Additional information	Notes	Ref.	Release	Mnemonic	Comments
1	Support of - Intra-subframe frequency hopping for PUSCH scheduled by UL grant - DCI format 3a (TPC commands for PUCCH and PUSCH with single bit power adjustments) - Multi-user MIMO for PDSCH - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-0 – UE selected subband CQI without PMI - Aperiodic CQI/PMI/RI reporting on PUSCH: Mode 2-2 – UE selected subband CQI with multiple PMI		36.331, Annex B.1	Rel-8	pc_FeatrGrp_1	Corresponding to the Index of Indicator, the leftmost binary bit 1 Set to true if supporting all functionalities in the feature group
2	Support of - Simultaneous CQI and ACK/NACK on PUCCH, i.e. PUCCH format 2a and 2b - Absolute TPC command for PUSCH - Resource allocation type 1 for PDSCH - Periodic CQI/PMI/RI reporting on PUCCH: Mode 2-0 – UE selected subband CQI without PMI - Periodic CQI/PMI/RI reporting on PUCCH: Mode 2-1 – UE selected subband CQI with single PMI		36.331, Annex B.1	Rel-8	pc_FeatrGrp_2	Corresponding to the Index of Indicator, the leftmost binary bit 2 Set to true if supporting all functionalities in the feature group

3	Support of - Semi-persistent scheduling - TTI bundling - 5bit RLC UM SN - 7bit PDCP SN	- can only be set to 1 if the UE has set bit number 7 to 1.	36.331, Annex B.1	Rel-8	pc_FeatrGrp_3	Corresponding to the Index of Indicator, the leftmost binary bit 3 Set to true if supporting all functionalities in the feature group
	Support of - 5bit RLC UM SN - 7bit PDCP SN	- can only be set to 1 if the UE has set bit number 7 to 1.		Rel-9		
4	Support of - Short DRX cycle	- can only be set to 1 if the UE has set bit number 5 to 1.	36.331, Annex B.1	Rel-8	pc_FeatrGrp_4	Corresponding to the Index of Indicator, the leftmost binary bit 4 Set to true if supporting all functionalities in the feature group
5	Support of - Long DRX cycle - DRX command MAC control element		36.331, Annex B.1	Rel-8	pc_FeatrGrp_5	Corresponding to the Index of Indicator, the leftmost binary bit 5 Set to true if supporting all functionalities in the feature group
6	Support of - Prioritized bit rate		36.331, Annex B.1	Rel-8	pc_FeatrGrp_6	Corresponding to the Index of Indicator, the leftmost binary bit 6 Set to true if supporting all functionalities in the feature group
7	Support of - RLC UM	- can only be set to 0 if the UE does not support voice	36.331, Annex B.1	Rel-8	pc_FeatrGrp_7	Corresponding to the Index of Indicator, the leftmost binary bit 7 Set to true if supporting all functionalities in the feature group
8	Support of - EUTRA RRC_CONNECTED to UTRA CELL_DCH PS handover	- can only be set to 1 if the UE has set bit number 22 to 1	36.331, Annex B.1	Rel-8	pc_FeatrGrp_8	Corresponding to the Index of Indicator, the leftmost binary bit 8 Set to true if supporting all functionalities in the feature group
9	Support of - EUTRA RRC_CONNECTED to GERAN GSM_Dedicated handover	- related to SR-VCC - can only be set to 1 if the UE has set bit number 23 to 1	36.331, Annex B.1	Rel-8	pc_FeatrGrp_9	Corresponding to the Index of Indicator, the leftmost binary bit 9 Set to true if supporting all functionalities in the feature group

10	Support of - EUTRA RRC_CONNECTED to GERAN (Packet_)Idle by Cell Change Order - EUTRA RRC_CONNECTED to GERAN (Packet_)Idle by Cell Change Order with NACC (Network Assisted Cell Change)		36.331, Annex B.1	Rel-8	pc_FeatrGrp_10	Corresponding to the Index of Indicator, the leftmost binary bit 10 Set to true if supporting all functionalities in the feature group
11	Support of - EUTRA RRC_CONNECTED to CDMA2000 1xRTT CS Active handover	- can only be set to 1 if the UE has sets bit number 24 to 1	36.331, Annex B.1	Rel-8	pc_FeatrGrp_11	Corresponding to the Index of Indicator, the leftmost binary bit 11 Set to true if supporting all functionalities in the feature group
12	Support of - EUTRA RRC_CONNECTED to CDMA2000 HRPD Active handover	- can only be set to 1 if the UE has set bit number 26 to 1	36.331, Annex B.1	Rel-8	pc_FeatrGrp_12	Corresponding to the Index of Indicator, the leftmost binary bit 12 Set to true if supporting all functionalities in the feature group
13	Support of - Inter-frequency handover (within FDD or TDD)	- can only be set to 1 if the UE has set bit number 25 to 1	36.331, Annex B.1	Rel-8	pc_FeatrGrp_13	Corresponding to the Index of Indicator, the leftmost binary bit 13 Set to true if supporting all functionalities in the feature group
14	Support of - Measurement reporting event: Event A4 – Neighbour > threshold - Measurement reporting event: Event A5 – Serving < threshold1 & Neighbour > threshold2		36.331, Annex B.1	Rel-8	pc_FeatrGrp_14	Corresponding to the Index of Indicator, the leftmost binary bit 14 Set to true if supporting all functionalities in the feature group
15	Support of - Measurement reporting event: Event B1 – Neighbour > threshold	- can only be set to 1 if the UE has set at least one of the bit number 22, 23, 24 or 26 to 1.	36.331, Annex B.1	Rel-8	pc_FeatrGrp_15	Corresponding to the Index of Indicator, the leftmost binary bit 15 Set to true if supporting all functionalities in the feature group

16	<p>Support of</p> <ul style="list-style-type: none"> - non-ANR related intra-frequency periodical measurement reporting; - non-ANR related inter-frequency periodical measurement reporting, if the UE has set bit number 25 to 1; and - non-ANR related inter-RAT periodical measurement reporting for UTRAN, GERAN, 1xRTT or HRPD, if the UE has set bit number 22, 23, 24 or 26 to 1, respectively. <p>NOTE: 'non-ANR related periodical measurement reporting' corresponds only to periodical trigger type with purpose set to <i>reportStrongestCells</i>. Event triggered periodical reporting (i.e., event trigger type with <i>reportAmount</i> > 1) is a mandatory functionality of event triggered reporting and therefore not the subject of this bit.</p>		36.331, Annex B.1	Rel-8	pc_FeatrGrp_16	<p>Corresponding to the Index of Indicator, the leftmost binary bit 16</p> <p>Set to true if supporting all functionalities in the feature group</p>
17	<p>Support of</p> <ul style="list-style-type: none"> - Periodical measurement reporting for SON / ANR - ANR related intra-frequency measurement reporting events 	- can only be set to 1 if the UE has set bit number 5 to 1.	36.331, Annex B.1	Rel-8	pc_FeatrGrp_17	<p>Corresponding to the Index of Indicator, the leftmost binary bit 17</p> <p>Set to true if supporting all functionalities in the feature group</p>
18	<p>Support of</p> <ul style="list-style-type: none"> - ANR related inter-frequency measurement reporting events 	- can only be set to 1 if the UE has set bit number 5 to 1.	36.331, Annex B.1	Rel-8	pc_FeatrGrp_18	<p>Corresponding to the Index of Indicator, the leftmost binary bit 18</p> <p>Set to true if supporting all functionalities in the feature group</p>
19	<p>Support of</p> <ul style="list-style-type: none"> - ANR related inter-RAT measurement reporting events 	- can only be set to 1 if the UE has set bit number 5 to 1.	36.331, Annex B.1	Rel-8	pc_FeatrGrp_19	<p>Corresponding to the Index of Indicator, the leftmost binary bit 19</p> <p>Set to true if supporting all functionalities in the feature group</p>

20	<p>If bit number 7 is set to "0":</p> <ul style="list-style-type: none"> - SRB1 and SRB2 for DCCH + 8x AM DRB <p>If bit number 7 is set to "1":</p> <ul style="list-style-type: none"> - SRB1 and SRB2 for DCCH + 8x AM DRB - SRB1 and SRB2 for DCCH + 5x AM DRB + 3x UM DRB <p>NOTE: UE which indicate support for a DRB combination also support all subsets of the DRB combination. Therefore, release of DRB(s) never results in an unsupported DRB combination.</p>	<p>- Regardless of what bit number 7 and bit number 20 is set to, UE shall support at least SRB1 and SRB2 for DCCH + 4x AM DRB</p> <p>- Regardless of what bit number 20 is set to, if bit number 7 is set to "1", UE shall support at least SRB1 and SRB2 for DCCH + 4x AM DRB + 1x UM DRB</p>	36.331, Annex B.1	Rel-8	pc_FeatrGrp_20	Corresponding to the Index of Indicator, the leftmost binary bit 20 Set to true if supporting all functionalities in the feature group
21	<p>Support of</p> <ul style="list-style-type: none"> - Predefined intra- and inter-subframe frequency hopping for PUSCH with $N_{sb} > 1$ - Predefined inter-subframe frequency hopping for PUSCH with $N_{sb} > 1$ 		36.331, Annex B.1	Rel-8	pc_FeatrGrp_21	Corresponding to the Index of Indicator, the leftmost binary bit 21 Set to true if supporting all functionalities in the feature group
22	<p>Support of</p> <ul style="list-style-type: none"> - UTRAN measurements, reporting and measurement reporting event B2 in E-UTRA connected mode 		36.331, Annex B.1	Rel-8	pc_FeatrGrp_22	Corresponding to the Index of Indicator, the leftmost binary bit 22 Set to true if supporting all functionalities in the feature group
23	<p>Support of</p> <ul style="list-style-type: none"> - GERAN measurements, reporting and measurement reporting event B2 in E-UTRA connected mode 		36.331, Annex B.1	Rel-8	pc_FeatrGrp_23	Corresponding to the Index of Indicator, the leftmost binary bit 23 Set to true if supporting all functionalities in the feature group
24	<p>Support of</p> <ul style="list-style-type: none"> - 1xRTT measurements, reporting and measurement reporting event B2 in E-UTRA connected mode 		36.331, Annex B.1	Rel-8	pc_FeatrGrp_24	Corresponding to the Index of Indicator, the leftmost binary bit 24 Set to true if supporting all functionalities in the feature group

25	Support of - Inter-frequency measurements and reporting in E-UTRA connected mode NOTE: The UE setting this bit to 1 and indicating support for FDD and TDD frequency bands in the UE capability signalling implements and is tested for FDD measurements while the UE is in TDD, and for TDD measurements while the UE is in FDD.		36.331, Annex B.1	Rel-8	pc_FeatGrp_25	Corresponding to the Index of Indicator, the leftmost binary bit 25 Set to true if supporting all functionalities in the feature group
26	Support of - HRPD measurements, reporting and measurement reporting event B2 in E-UTRA connected mode		36.331, Annex B.1	Rel-8	pc_FeatGrp_26	Corresponding to the Index of Indicator, the leftmost binary bit 26 Set to true if supporting all functionalities in the feature group
27	Support of - EUTRA RRC_CONNECTED to UTRA CELL_DCH CS handover	- related to SR-VCC - can only be set to 1 if the UE has set bit number 8 to 1	36.331, Annex B.1	Rel-8	pc_FeatGrp_27	Corresponding to the Index of Indicator, the leftmost binary bit 27 Set to true if supporting all functionalities in the feature group
28	Support of - TTI bundling		36.331, Annex B.1	Rel-9	pc_FeatGrp_28	Corresponding to the Index of Indicator, the leftmost binary bit 28 Set to true if supporting all functionalities in the feature group
29	Support of - Semi-Persistent Scheduling		36.331, Annex B.1	Rel-9	pc_FeatGrp_29	Corresponding to the Index of Indicator, the leftmost binary bit 29 Set to true if supporting all functionalities in the feature group
30	Support of - Handover between FDD and TDD	- can only be set to 1 if the UE has set bit number 13 to 1	36.331, Annex B.1	Rel-8	pc_FeatGrp_30	Corresponding to the Index of Indicator, the leftmost binary bit 30 Set to true if supporting all functionalities in the feature group
31	Undefined		36.331, Annex B.1	Rel-8	pc_FeatGrp_31	Corresponding to the Index of Indicator, the leftmost binary bit 31 Set to true if supporting all functionalities in the feature group

32	Undefined		36.331, Annex B.1	Rel-8	pc_FeatrGrp_32	Corresponding to the Index of Indicator, the leftmost binary bit 32 Set to true if supporting all functionalities in the feature group
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A.4.5 Additional information

Table A.4.5-1: Additional information

Item	Additional information	Ref.	Release	Mnemonic	Comments
1	Support of CSG	36.331 Annex B.2	Rel-8	pc_CSG_list	
2	Support of intra-frequency SI acquisition for HO	36.304 4.3.11.1	Rel-9	pc_intraFreqSI-AcquisitionForHO	
3	Support of inter-frequency SI acquisition for HO	36.304 4.3.11.2	Rel-9	pc_interFreqSI-AcquisitionForHO	

Annex B (informative): Change history

Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
2008-03					Skeleton proposed for RAN5#38 Malaga		0.0.1
2008-06					Updated after RAN5#39bis: - Editorial update and alignment with 36.523-2 - TC included in 36.521-1 and 36.521-3 included - Some Conditions for TC selections introduce	0.0.1	0.1.0
2008-08					Updated after RAN5#40: - Editorial update in regard to changing spec names, etc. - FDD and TDD split (R5-083839) - RRM TC numbers aligned with 36.521-3 v030	0.1.1	0.2.0
2008-10					Update after RAN5#40bis: - Table split in different clauses for Conformance and RRM test cases - Extension of applicability tables to include Additional information column - Change of applicability of TCs that apply to any E-UTRA device into "R" - recommended - Updated TCs in accordance to 36.521-1 v110 and 36.521-3 v040 - Some editorial updates	0.2.0	0.3.0
2008-11					Update After RAN5#41 (R5-055360): - Renamed 8.1.1, added new 8.1.2, - Added new TCs to RRM section Measurement Performance Requirements - Added Table A.4.3-2 with reference to test loop functions in 36.509 - Some editorial changes - Normative References updated - Change RRM TC titles to reflect their applicability to FDD only	0.3.0	2.0.0
2008-12	RAN#42	RP-080970			Approval of version 2.0.0 at RAN#42, then put to version 8.0.0.	2.0.0	8.0.0
2008-01					Editorial corrections.	8.0.0	8.0.1
2009-05	RAN#44	RP-090448	0001		CR to 36.521-2: Applicability changes and additions for RRM test cases	8.0.1	8.1.0
2009-05	RAN#44	RP-090448	0002		LTE-RF: Applicability for Output Power Dynamics test cases	8.0.1	8.1.0
2009-09	RAN#45	R5-094035	0003	-	Correction CR to 36.521-2: Applicability changes to introduce additional RRM tests	8.1.0	8.2.0
2009-09	RAN#45	R5-094572	0004	-	Applicability for Output Power Dynamics test cases	8.1.0	8.2.0
2009-09	RAN#45	R5-094710	0005	-	Resubmission-Correction CR to 36.521-2: Applicability changes to introduce additional RRM tests	8.1.0	8.2.0
2009-09	RAN#45	R5-094768	0006	-	Update of RRM Conformance test applicability for SON	8.1.0	8.2.0
2009-09	RAN#45	R5-094999	0007	-	Correction CR to 36.521-2: Applicability changes to RF PDSCH Demodulation tests	8.1.0	8.2.0
2009-12	RAN#46	R5-095519	0008		Correction CR to 36.521-2: Applicability changes to update the Demodulation of PDSCH (FDD) tests based on the CR merge results from RAN5#44	8.2.0	8.3.0
2009-12	RAN#46	R5-095778	0009		Update of RRM Conformance test applicability for RLM in DRX test cases	8.2.0	8.3.0
2009-12	RAN#46	R5-095841	0010	-	CR to 36.521-2: Applicability additions for new RRM (FDD) tests	8.2.0	8.3.0
2010-03	RAN#47	R5-100358	0011	-	CR to 36.521-2 Rel-8 Introduction of Applicability for E-UTRAN FDD - FDD Intra Frequency Cell Search with DRX when L3 filtering is used	8.3.0	8.4.0
2010-03	RAN#47	R5-100561	0012	-	CR to 36.521-2: Update baseline implementation capabilities with extended LTE1500 operating bands	8.3.0	8.4.0
2010-03	RAN#47	R5-100872	0013	-	CSI: Following up corrections to tests titles and RI clause structure	8.3.0	8.4.0
2010-03	RAN#47	-	-	-	Moved to v9.0.0 with no change	8.4.0	9.0.0
2010-06	RAN#48	R5-103147	0014	-	Adding band 20, 800MHZ in EU to TS36.521-2	9.0.0	9.1.0
2010-06	RAN#48	R5-103757	0015	-	Introduction of feature group indicator in applicability for RRM test cases	9.0.0	9.1.0
2010-09	RAN#49	R5-104246	0017	-	CR to 36.521-2 on Correction to cell search	9.1.0	9.2.0
2010-09	RAN#49	R5-104264	0018	-	Addition of applicability for new RRM test cases	9.1.0	9.2.0
2010-09	RAN#49	R5-104372	0019	-	Update of Applicability for Demodulation test cases and UE implementation Types for UTRA TDD	9.1.0	9.2.0
2010-09	RAN#49	R5-104840	0020	-	36521-2 General update to add-remove TCs applicability correct, TC titles and numbers and editorials	9.1.0	9.2.0

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2010-09	RAN#49	R5-105056	0021	-	Applicability of a new Rel-9 downlink sustained data rate performance test cases	9.1.0	9.2.0
2010-12	RAN#50	R5-106118	0022	-	CR to 36.521-2: Update baseline implementation capabilities for EUTRA TDD LTE band 41	9.2.0	9.3.0
2011-03	RAN#51	R5-110536	0023	-	Defining new bands 42 and 43 (3500MHz)	9.3.0	9.4.0
2011-03	RAN#51	R5-110955	0024	-	CR to 36.521-2: General update to add, remove, and correct applicability of RRM TCs	9.3.0	9.4.0
2011-06	RAN#52	R5-112131	0025	-	Correction to Band 12 frequency range in 36.521-2	9.4.0	9.5.0
2011-06	RAN#52	R5-112212	0026	-	Adding Band 24 to TS 36.521-2	9.4.0	9.5.0
2011-06	RAN#52	R5-112378	0027	-	Update of FGI bit definitions for rel-9	9.4.0	9.5.0
2011-06	RAN#52	R5-112821	0028	-	Add release applicability for spatial multiplexing test cases	9.4.0	9.5.0
2011-06	RAN#52	R5-112857	0029	-	Addition of applicability for new RRM test cases 4.3.4.3 and 8.4.3	9.4.0	9.5.0
2011-06	RAN#52	R5-112865	0030	-	Addition of applicability for new MBMS test cases 10.1 and 10.2	9.4.0	9.5.0
2011-09	RAN#53	R5-113306	0031	-	Adding band 25 to TS36.521-2	9.5.0	9.6.0
2011-09	RAN#53	R5-113625	0033	-	Introduction of applicability of Rel-9 Scenarios	9.5.0	9.6.0
2011-09	RAN#53	R5-113626	0034	-	Introduction of applicability of PDSCH performance tests for low UE categories	9.5.0	9.6.0
2011-09	RAN#53	R5-114025	0035	-	Test Cases 6.2.3 and 6.2.4 Applicability Clarification	9.5.0	9.6.0
2011-09	RAN#53	R5-114070	0036	-	Update baseline implementation capabilities for FDD LTE Band 23 in 36.521-2	9.5.0	9.6.0
2011-09	RAN#53	R5-114074	0037	-	Applicability for new R9 RRM test cases	9.5.0	9.6.0
2011-09	RAN#53	R5-114096	0038	-	Missing FGIs in RRM Test Case Applicabilities in 36.521-2	9.5.0	9.6.0
2011-12	RAN#54	R5-115128	0039	-	Correction the content of A.4.4-1_16 in 36.521-2	9.6.0	9.7.0
2011-12	RAN#54	R5-115134	0040	-	Correction to the test case condition of C12 in 3GPP TS 36.521-2	9.6.0	9.7.0
2011-12	RAN#54	R5-115186	0041	-	Adding band 22 (3500MHz FDD) to 36.521-2	9.6.0	9.7.0
2011-12	RAN#54	R5-115785	0042	-	Requirement change in UE spurious emissions for Band 7 and 38 co-existence (Rel-8 only)	9.6.0	9.7.0
2011-12	RAN#54	R5-115422	0043	-	Update of FGI bit table in 36.521-2	9.6.0	9.7.0
2011-12	RAN#54	R5-115813	0044	-	RF: Update of the applicability list	9.6.0	9.7.0

History

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