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**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 10.3.0 Release 10)**

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# Foreword

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# Contents

# Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

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Version x.y.z

where:

x the first digit:

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y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

# 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*.

[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".

[7] 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 an 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 nunber. 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 | |
| **Transmiter Characteristics** | | | | | |
| 6.2.2 | UE Maximum Output Power | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 6.2.2B | UE Maximum Output Power for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | 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 |
| 6.2.3A | Maximum Power Reduction (MPR) for CA | Rel-10 | C06 | UE supporting E-UTRA and CA, The minimum requirement tested in 6.2.3A is covered by test case 6.6.2.3A | 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 |
| 6.2.4B | Additional Maximum Power Reduction (A-MPR) for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.2.5 | Configured UE transmitted Output Power | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 6.2.5A.1 | Configured UE transmitted Output Power for CA (intra-band contiguous DL CA and UL CA) | Rel-10 | C06 | UE supporting E-UTRA and CA | FDD |
| | | | | | TDD |
| 6.2.5B | Configured transmitted power for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.3.1 | Void | | | | |
| 6.3.2 | Minimum Output Power | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 6.3.2B | Minimum Output Power for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.3.3 | Transmit OFF Power | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 6.3.3A | Transmit OFF Power for CA | Rel-10 | C06 | UE supporting E-UTRA and CA | FDD |
| | | | | | TDD |
| 6.3.3B | UE Transmit OFF power for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | 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 |
| 6.3.4A | General ON/OFF time mask for CA | Rel-10 | C06 | UE supporting E-UTRA and CA | FDD |

| Clause | Title | Release | Applicability | | Additional Information |
|---|---|---|---|---|---|
| | | | Condition | Comments | |
| | | | | | TDD |
| 6.3.4B | ON/OFF time mask for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | 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 |
| 6.3.5B.1 | Power Control Absolute power tolerance for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.3.5B.2 | Power Control Relative power tolerance for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.3.5B.3 | Aggregate power control tolerance for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.5.1 | Frequency Error | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 6.5.1A | Frequency Error for CA | Rel-10 | C06 | UE supporting E-UTRA and CA | FDD |
| | | | | | TDD |
| 6.5.1B | Frequency Error for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | 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 |
| 6.5.2B.1 | Error Vector Magnitude for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.5.2B.2 | Carrier leakage for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.5.2B.3 | In-band emissions for non allocated RB for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.5.2B.4 | EVM equalizer spectrum flatness for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.6.1 | Occupied bandwidth | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 6.6.1A | Occupied bandwidth for CA | Rel-10 | C06 | UE supporting E-UTRA and CA | FDD |
| | | | | | TDD |
| 6.6.1B | Occupied bandwidth for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.6.2.1 | Spectrum Emission Mask | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 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 |
| 6.6.2.3A | Adjacent Channel Leakage power Ratio for CA | Rel-10 | C06 | UE supporting E-UTRA and CA | FDD |

| Clause | Title | Release | Applicability | | Additional Information |
|---|---|---|---|---|---|
| | | | Condition | Comments | |
| | | | | | TDD |
| 6.6.2.4 | Void | | | | |
| 6.6.3.1 | Transmitter Spurious emissions | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 6.6.3.1A | Transmitter Spurious emissions for CA | Rel-10 | C06 | UE supporting E-UTRA and CA | 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 |
| | | | | | TDD |
| 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 |
| 6.7B | Transmit intermodulation for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 6.8B | Time alignment between transmitter branches for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| **Receiver Characteristics** | | | | | |
| 7.3 | Reference sensitivity level | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 7.3A | Reference sensitivity level for CA | Rel-10 | C06 | UE supporting E-UTRA and CA | FDD |
| | | | | | TDD |
| 7.3B | Reference sensitivity level for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 7.4 | Maximum input level | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 7.4B | Maximum input level for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 7.5 | Adjacent Channel Selectivity (ACS) | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 7.5.1A.1 | Adjacent Channel Selectivity (ACS) for CA (intra-band contiguous DL CA and UL CA) | Rel-10 | C06 | UE supporting E-UTRA and CA | FDD |
| | | | | | TDD |
| 7.5B | Adjacent Channel Selectivity (ACS)for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 7.6.1 | In-band blocking | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 7.6.1B | In-band blocking for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 7.6.2 | Out of-band blocking | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 7.6.2B | Out-of-band blocking for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 7.6.3 | Narrow band blocking | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 7.6.3B | Narrow band blocking for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 7.7 | Spurious response | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |
| 7.7B | Spurious response for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | FDD |
| | | | | | TDD |
| 7.8.1 | Wide band Intermodulation | Rel-8 | R | UE supporting E-UTRA | FDD |
| | | | | | TDD |

| Clause | Title | Release | Applicability | | Additional Information |
|---|---|---|---|---|---|
| | | | Condition | Comments | |
| 7.8.1B | Wide band intermodulation for UL-MIMO | Rel-10 | C07 | UE supporting E-UTRA and UL_MIMO | 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 | |
| 8.2.1.1.1_A | FDD PDSCH Single Antenna Port Performance (CA) | Rel-10 | C05 | UE supporting E-UTRA FDD and CA | |
| 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 | C09 | UE supporting E-UTRA FDD and operating bands supporting 1,4 MHz Bandwidth | |
| 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 | |
| 8.2.1.3.1_A | FDD PDSCH Open Loop Spatial Multiplexing 2x2 (CA) | Rel-10 | C05 | UE supporting E-UTRA FDD and CA | |
| 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 | |
| 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 | |
| 8.2.2.1.1_A | TDD PDSCH Single Antenna Port Performance (CA) | Rel-10 | C08 | UE supporting E-UTRA TDD and CA | |
| 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 | C10 | UE supporting E-UTRA TDD and operating bands supporting 1,4 MHz Bandwidth | |
| 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 | |
| 8.2.2.3.1_A | TDD PDSCH Open Loop Spatial Multiplexing 2x2 (CA) | Rel-10 | C08 | UE supporting E-UTRA TDD and CA | |

| Clause | Title | Release | Applicability | | Additional Information |
|---|---|---|---|---|---|
| | | | Condition | Comments | |
| 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 | C09 | UE supporting E-UTRA FDD and operating bands supporting 1,4 MHz Bandwidth | |
| 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 | |
| 8.4.2.2 | Void | | | | |
| 8.4.2.2.1 | TDD PCFICH/PDCCH Transmit Diversity 2x2 | Rel-8 only | C10 | UE supporting E-UTRA TDD and operating bands supporting 1,4 MHz Bandwidth | |
| 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 | C09 | UE supporting E-UTRA FDD and operating bands supporting 1,4 MHz Bandwidth | |
| 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 | |

| Clause | Title | Release | Applicability | | Additional Information |
|---|---|---|---|---|---|
| | | | Condition | Comments | |
| 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 | C10 | UE supporting E-UTRA TDD and operating bands supporting 1,4 MHz Bandwidth | |
| 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 | C13 | UE supporting E-UTRA FDD (UE categories 2-8) | |
| 9.3.2.1.1_1 | FDD CQI Reporting under fading conditions – PUCCH 1-0 (Release 9 and forward) | Rel-9 | C15 | UE supporting E-UTRA FDD (UE category 1) | |
| 9.3.2.1.2 | TDD CQI Reporting under fading conditions – PUCCH 1-0 | Rel-8 | C14 | UE supporting E-UTRA TDD (UE categories 2-8) | |
| 9.3.2.1.2_1 | TDD CQI Reporting under fading conditions – PUCCH 1-0 (Release 9 and forward) | Rel-9 | C16 | UE supporting E-UTRA TDD (UE category 1) | |
| 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 | C11, C17 | UE supporting E-UTRA FDD and operating bands supporting 20 MHz Bandwidth | |
| 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 | |
| 9.4.2.1.2 | TDD PMI Reporting – PUSCH 1-2 (Multiple PMI) | Rel-8 only | C12, C18 | UE supporting E-UTRA TDD and operating bands supporting 20 MHz Bandwidth | |
| 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 |
| C05 | IF (A.4.1-1/1 AND A.4.2-1/2) THEN R ELSE N/A |
| C06 | IF (A.4.1-1/1 OR A.4.1-1/2 AND A.4.2-1/2) THEN R ELSE N/A |
| C07 | IF ((A.4.1-1/1 OR A.4.1-1/2) AND A.4.2-1/3) THEN R ELSE N/A |
| C08 | IF (A.4.1-1/2 AND A.4.2-1/2) THEN R ELSE N/A |
| C09 | IF (A.4.1-1/1 AND A.4.3-3a/1) THEN R ELSE N/A |
| C10 | IF (A.4.1-1/2 AND A.4.3-3a/1) THEN R ELSE N/A |
| C11 | IF (A.4.1-1/1 AND A.4.3-3a/6) THEN R ELSE N/A |
| C12 | IF (A.4.1-1/2 AND A.4.3-3a/6) THEN R ELSE N/A |
| C13 | IF ((A.4.1-1/1) AND (A.4.3-4/2 OR A.4.3-4/3 OR A.4.3-4/4 OR A.4.3-4/5 OR A.4.3-4/6 OR A.4.3-4/7 OR A.4.3-4/8)) THEN R ELSE N/A |
| C14 | IF ((A.4.1-1/2) AND (A.4.3-4/2 OR A.4.3-4/3 OR A.4.3-4/4 OR A.4.3-4/5 OR A.4.3-4/6 OR A.4.3-4/7 OR A.4.3-4/8)) THEN R ELSE N/A |
| C15 | IF (A.4.1-1/1 AND A.4.3-4/1) THEN R ELSE N/A |
| C16 | IF (A.4.1-1/2 AND A.4.3-4/1) THEN R ELSE N/A |
| C17 | IF ((A.4.1-1/1) AND (A.4.3-4/2 OR A.4.3-4/3 OR A.4.3-4/4 OR A.4.3-4/5) THEN R ELSE N/A |
| C18 | IF ((A.4.1-1/2) AND (A.4.3-4/2 OR A.4.3-4/3 OR A.4.3-4/4 OR A.4.3-4/5) 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 | | Release on other RAT |
| **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-9 | C03 | UE supporting E-UTRA FDD and E-UTRA TDD | | |
| 4.2.5 | E-UTRAN TDD - FDD cell re-selection inter frequency case | Rel-9 | 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 | | |
| 4.2.7 | E-UTRAN FDD – FDD Inter frequency case in the existence of non-allowed CSG cell | Rel-9 | C01 | UE supporting E-UTRA FDD | | |
| 4.2.8 | E-UTRAN TDD – TDD Inter frequency case in the existence of non-allowed CSG cell | Rel-9 | C02 | UE supporting E-UTRA TDD | | |
| 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 | | Rel-9 UTRA TDD |
| 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 | | Rel-9 UTRA TDD |
| 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 | | Rel-9 UTRA TDD |
| 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 | | |
| 4.5.2.1 | E-UTRAN TDD - HRPD Cell Reselection: HRPD is of Lower Priority | Rel-9 | C34 | UE supporting E-UTRA TDD 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 | | |
| 4.6.2.1 | E-UTRAN TDD-cdma2000 1X Cell Reselection: cdma2000 1X is of Lower Priority | Rel-9 | C35 | UE supporting E-UTRA TDD and cdma2000 1xRTT and Feature Group Indicator 5 | | |

| Clause | Title | Release | Applicability | | Additional Information | |
|---|---|---|---|---|---|---|
| | | | Condition | Comments | | Release on other RAT |
| **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 | | |
| 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 | | |
| 5.1.7 | E-UTRAN FDD – TDD handover inter frequency case | Rel-9 | C21 | UE supporting E-UTRA FDD and E-UTRA TDD and Feature Group Indicators 5, 25 and 30 | | |
| 5.1.8 | E-UTRAN TDD – FDD handover inter frequency case | Rel-9 | C21 | UE supporting E-UTRA FDD and E-UTRA TDD and Feature Group Indicators 5, 25 and 30 | | |
| 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 | C08e | UE supporting E-UTRA FDD and GSM and Feature Group Indicators 9, 15 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 | | Rel-9 UTRA TDD |
| 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 | | Rel-9 UTRA TDD |
| 5.2.6 | E-UTRA TDD - GSM handover | Rel-8 | C09f | UE supporting E-UTRA FDD and GSM and Feature Group Indicators 9, 15 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 | | Rel-9 UTRA TDD |
| 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 | | |
| 5.3.5 | E-UTRAN TDD-HRPD Handover | Rel-9 | C10a | UE supporting E-UTRA FDD and HRPD and Feature Group Indicators 12 and 26. | | |

| Clause | Title | Release | Applicability | | Additional Information | |
|---|---|---|---|---|---|---|
| | | | Condition | Comments | | Release on other RAT |
| 5.3.6 | E-UTRAN TDD-cdma2000 1X Handover | Rel-9 | 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 | | |
| 6.3.1 | Redirection from E-UTRAN FDD to UTRAN FDD | Rel-9 | C04 | UE supporting E-UTRA FDD and UTRA FDD | | |
| 6.3.2 | Redirection from E-UTRAN TDD to UTRAN FDD | Rel-9 | C07 | UE supporting E-UTRA TDD and UTRA FDD | | |
| 6.3.3 | Redirection from E-UTRAN FDD to GERAN when System Information is provided | Rel-9 | C27 | UE supporting E-UTRA FDD and GERAN | | |
| 6.3.4 | Redirection from E-UTRAN TDD to GERAN when System Information is provided | Rel-9 | C28 | UE supporting E-UTRA TDD and GERAN | | |
| 6.3.5 | E-UTRA TDD RRC connection release redirection to UTRA TDD | Rel-9 | C26 | UE supporting E-UTRA TDD and UTRA TDD | | |
| 6.3.6 | E-UTRA FDD RRC connection release redirection to UTRA TDD | Rel-9 | C25 | UE supporting E-UTRA FDD and UTRA TDD | | |
| 6.3.7 | E-UTRA TDD RRC connection release redirection to UTRA TDD without SI provided | Rel-9 | C26 | UE supporting E-UTRA TDD and UTRA TDD | | |
| 6.3.8 | E-UTRA FDD RRC connection release redirection to UTRA TDD without SI provided | Rel-9 | C25 | UE supporting E-UTRA FDD and UTRA TDD | | |
| 6.3.9 | Redirection from E-UTRAN FDD to UTRAN FDD without System Information | Rel-9 | C04 | UE supporting E-UTRA FDD and UTRA FDD | | |
| 6.3.10 | Redirection from E-UTRAN FDD to GERAN when System Information is not provided | Rel-9 | C27 | UE supporting E-UTRA FDD and GERAN | | |
| 6.3.11 | Redirection from E-UTRAN TDD to GERAN when System Information is not provided | Rel-9 | C28 | UE supporting E-UTRA TDD and GERAN | | |
| 6.3.12 | E-UTRAN TDD RRC connection release redirection to UTRAN FDD without SI provided | Rel-9 | C07 | UE supporting E-UTRA TDD and UTRA FDD | | |
| **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 | | |
| 7.1.1_1 | E-UTRAN FDD - UE Transmit Timing Accuracy (Non DRx UE) | Rel-8 only | C23 | UE supporting E-UTRA FDD but not supporting 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 | | |
| 7.1.2_1 | E-UTRAN TDD - UE Transmit Timing Accuracy (Non DRx UE) | Rel-8 only | C24 | UE supporting E-UTRA TDD but not supporting 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 | | |
| 7.3.1 | E-UTRAN FDD Radio Link Monitoring Test for Out-of-Sync | Rel-8 | C01 | UE supporting E-UTRA FDD | | |

| Clause | Title | Release | Applicability | | Additional Information | |
|---|---|---|---|---|---|---|
| | | | Condition | Comments | | Release on other RAT |
| 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 | | Release on other RAT |
| 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 | C04g | UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicators 15 and 22 | | |
| 8.5.2 | E-UTRAN FDD-UTRAN FDD SON ANR cell search reporting under AWGN propagation conditions | Rel-8 | C04f | UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicators 5, 19 and 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, 15 and 22 | | |
| 8.5.4 | E-UTRAN FDD - UTRAN FDD enhanced cell identification under AWGN propagation conditions | Rel-9 | C29 | UE supporting E-UTRA FDD and UTRA FDD and Feature Group Indicator 15 | | |
| 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 Indicators 15 and 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 Indicators 15 and 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, 15 and 22 | | Rel-9 UTRA TDD |
| 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 | | Rel-9 UTRA TDD |
| 8.7.4 | E-UTRAN TDD - UTRAN TDD enhanced cell identification under AWGN propagation conditions | Rel-9 | C31 | UE supporting E-UTRA TDD and UTRA TDD and Feature Group Indicator 15 | | |
| 8.8.1 | E-UTRAN FDD-GSM event triggered reporting in AWGN | Rel-8 | C08f | UE supporting E-UTRA FDD and GSM and Feature Group Indicator s 15 and 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, 15 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 Indicators 15 and 22 | | Rel-9 UTRA TDD |
| 8.9.2 | E-UTRAN FDD - UTRAN TDD enhanced cell identification under AWGN propagation conditions | Rel-9 | C30 | UE supporting E-UTRA FDD and UTRA TDD and Feature Group Indicator 15 | | |
| 8.10.1 | E-UTRAN TDD-GSM event triggered reporting in AWGN | Rel-8 | C09g | UE supporting E-UTRA TDD and GSM and Feature Group Indicators 15 and 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, 15 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 | | |

| Clause | Title | Release | Applicability | | Additional Information | |
|---|---|---|---|---|---|---|
| | | | Condition | Comments | | Release on other RAT |
| 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 | | |
| 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 | | |
| 8.12.1 | E-UTRAN TDD-FDD Inter-frequency event triggered reporting under fading propagation conditions in asynchronous cells | Rel-9 | C22 | UE supporting E-UTRA FDD and E-UTRA TDD and Feature Group Indicator 25 | | |
| 8.13.1 | Void | | | | | |
| 8.14.1 | E-UTRAN TDD-FDD Inter-frequency event triggered reporting under fading propagation conditions in asynchronous cells | Rel-9 | C22 | UE supporting E-UTRA FDD and E-UTRA TDD and Feature Group Indicator 25 | | |
| 8.14.2 | E-UTRAN TDD-FDD Inter-frequency event triggered reporting when DRX is used under fading propagation conditions in synchronous cells | Rel-9 | C38 | UE supporting E-UTRA FDD and E-UTRA TDD and Feature Group Indicators 4 and 25 | | |
| 8.14.3 | E-UTRAN TDD - FDD Inter-frequency identification of a new CGI of E-UTRA cell using autonomous gaps | Rel-9 | C39 | UE supporting E-UTRA FDD and E-UTRA TDD, CSG and inter-frequency SI acquisition for HO and Feature Group Indicator 25 | | |
| 8.15.1 | E-UTRAN FDD-TDD Inter-frequency event triggered reporting under fading propagation conditions in asynchronous cells | Rel-9 | C22 | UE supporting E-UTRA FDD and E-UTRA TDD and Feature Group Indicator 25 | | |
| 8.15.2 | E-UTRAN FDD-TDD Inter-frequency event triggered reporting when DRX is used under fading propagation conditions in asynchronous cells | Rel-9 | C38 | UE supporting E-UTRA FDD and E-UTRA TDD and Feature Group Indicators 4 and 25 | | |
| 8.15.3 | E-UTRAN FDD - TDD Inter-frequency identification of a new CGI of E-UTRA cell using autonomous gaps | Rel-9 | C39 | UE supporting E-UTRA FDD and E-UTRA TDD, CSG and inter-frequency SI acquisition for HO and Feature Group Indicator 25 | | |
| 8.18.1 | E-UTRAN TDD-HRPD event triggered reporting under fading propagation conditions | Rel-9 | C40 | UE supporting E-UTRA TDD and cdma2000 HRPD and Feature Group Indicator 15 | | |
| 8.19.1 | E-UTRAN TDD-CDMA2000 1X event triggered reporting under fading propagation conditions | Rel-9 | C41 | UE supporting E-UTRA TDD and cdma2000 1xRTT and Feature Group Indicator 15 | | |
| 8.16.3 | E-UTRAN FDD-FDD Event triggered reporting on deactivated SCell with PCell interruption in non-DRX | Rel-10 | C018 | UE supporting E-UTRA FDD and CA and Feature Group Indicator 25 | | |
| 8.16.4 | E-UTRANTDD-TDD Event triggered reporting on deactivated SCell with PCell interruption in non-DRX | Rel-10 | C020 | UE supporting E-UTRA TDD and CA and Feature Group Indicator 25 | | |
| **Measurement Performance Requirements** | | | | | | |
| 9.1.1.1 | FDD Intra Frequency Absolute RSRP Accuracy | Rel-8 | C01f | UE supporting E-UTRA FDD and Feature Group Indicator 16 | | |
| 9.1.1.2 | FDD Intra Frequency Relative Accuracy of RSRP | Rel-8 | C01f | UE supporting E-UTRA FDD and Feature Group Indicator 16 | | |
| 9.1.2.1 | TDD Intra Frequency Absolute RSRP Accuracy | Rel-8 | C02f | UE supporting E-UTRA TDD and Feature Group Indicator 16 | | |
| 9.1.2.2 | TDD Intra Frequency Relative Accuracy of RSRP | Rel-8 | C02f | UE supporting E-UTRA TDD and Feature Group Indicator 16 | | |

| Clause | Title | Release | Applicability | | Additional Information | |
|---|---|---|---|---|---|---|
| | | | Condition | Comments | | Release on other RAT |
| 9.1.3.1 | FDD - FDD Inter Frequency Absolute RSRP Accuracy | Rel-8 | C01g | UE supporting E-UTRA FDD and Feature Group Indicators 16 and 25 | | |
| 9.1.3.2 | FDD - FDD Inter Frequency Relative Accuracy of RSRP | Rel-8 | C01g | UE supporting E-UTRA FDD and Feature Group Indicators 16 and 25 | | |
| 9.1.4.1 | TDD - TDD Inter Frequency Absolute RSRP Accuracy | Rel-8 | C02g | UE supporting E-UTRA TDD and Feature Group Indicators 16 and 25 | | |
| 9.1.4.2 | TDD - TDD Inter Frequency Relative Accuracy of RSRP | Rel-8 | C02g | UE supporting E-UTRA TDD and Feature Group Indicators 16 and 25 | | |
| 9.1.5.1 | FDD - TDD Inter Frequency Absolute RSRP Accuracy | Rel-9 | C42 | UE supporting E-UTRA FDD and E-UTRA TDD and Feature Group Indicators 16 and 25 | | |
| 9.1.5.2 | FDD - TDD Inter Frequency Relative Accuracy of RSRP | Rel-9 | C42 | UE supporting E-UTRA FDD and E-UTRA TDD and Feature Group Indicators and 25 | | |
| 9.1.6.1 | FDD Absolute RSRP Accuracy E-UTRA for Carrier Aggregation | Rel-10 | C018 | UE supporting E-UTRA FDD and CA and Feature Group Indicator 25 | | |
| 9.1.6.2 | FDD Relative RSRP Accuracy E-UTRA for Carrier Aggregation | Rel-10 | C018 | UE supporting E-UTRA FDD and CA and Feature Group Indicator 25 | | |
| 9.2.1.1 | FDD Intra Frequency Absolute RSRQ Accuracy | Rel-8 | C01f | UE supporting E-UTRA FDD and Feature Group Indicator 16 | | |
| 9.2.2.1 | TDD Intra Frequency Absolute RSRQ Accuracy | Rel-8 | C02f | UE supporting E-UTRA TDD and Feature Group Indicator 16 | | |
| 9.2.3.1 | FDD - FDD Inter Frequency Absolute RSRQ Accuracy | Rel-8 | C01g | UE supporting E-UTRA FDD and Feature Group Indicators 16 and 25 | | |
| 9.2.3.2 | FDD - FDD Inter Frequency Relative Accuracy of RSRQ | Rel-8 | C01g | UE supporting E-UTRA FDD and Feature Group Indicators 16 and 25 | | |
| 9.2.4.1 | TDD - TDD Inter Frequency Absolute RSRQ Accuracy | Rel-8 | C02g | UE supporting E-UTRA TDD and Feature Group Indicators 16 and 25 | | |
| 9.2.4.2 | TDD -TDD Inter Frequency Relative Accuracy of RSRQ | Rel-8 | C02g | UE supporting E-UTRA TDD and Feature Group Indicators 16 and 25 | | |
| 9.2.4A.1 | FDD - TDD Inter Frequency Absolute RSRQ Accuracy | Rel-9 | C42 | UE supporting E-UTRA FDD and E-UTRA TDD and Feature Group Indicators 16 and 25 | | |
| 9.2.4A.2 | FDD - TDD Inter Frequency Relative Accuracy of RSRQ | Rel-9 | C42 | UE supporting E-UTRA FDD and E-UTRA TDD and Feature Group Indicators 16 and 25 | | |
| 9.2.5.1 | FDD Absolute RSRQ Accuracy for E-UTRA Carrier Aggregation | Rel-10 | C017 | UE supporting E-UTRA FDD and CA and Feature Group Indicator 16 | | |
| 9.2.5.2 | FDD Relative RSRQ Accuracy E-UTRA for Carrier Aggregation | Rel-10 | C032 | UE supporting E-UTRA FDD and CA and Feature Group Indicators 16 and 25 | | |
| 9.2.6.1 | TDD Absolute RSRQ Accuracy for E-UTRA Carrier Aggregation | Rel-10 | C019 | UE supporting E-UTRA TDD and CA and Feature Group Indicator 16 | | |
| 9.2.6.2 | TDD Relative RSRQ Accuracy for E-UTRA Carrier Aggregation | Rel-10 | C033 | UE supporting E-UTRA TDD and CA and Feature Group Indicators 16 and 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 |
| C01f | IF (A.4.1-1/1 AND A.4.4-1/16) THEN R ELSE N/A |
| C01g | IF (A.4.1-1/1 AND A.4.4-1/16 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 |
| C02f | IF (A.4.1-1/2 AND A.4.4-1/16) THEN R ELSE N/A |
| C02g | IF (A.4.1-1/2 AND A.4.4-1/16 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.4.4-1/15 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 |
| C04f | IF (A.4.1-1/1 AND A.4.1-1/3 AND A.4.4-1/5 AND A.4.4-1/19 AND A.4.4-1/22) THEN R ELSE N/A |
| C04g | IF (A.4.1-1/1 AND A.4.1-1/3 AND A.4.4-1/15 AND A.4.4-1/22) 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.4.4-1/15 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.4.4-1/15 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.4.4-1/15 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.4.4-1/15 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.4.4-1/15 AND A.4.4-1/23) THEN R ELSE N/A |
| C08e | IF (A.4.1-1/1 AND A.4.1-1/5 AND A.4.4-1/9 AND A.4.4-1/15 AND A.4.4-1/23) THEN R ELSE N/A |
| C08f | IF (A.4.1-1/1 AND A.4.1-1/5 AND A.4.4-1/15 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.4.4-1/15 AND A.4.4-1/23) THEN R ELSE N/A |
| C09f | IF (A.4.1-1/2 AND A.4.1-1/5 AND A.4.4-1/9 AND A.4.4-1/15 AND A.4.4-1/23) THEN R ELSE N/A |
| C09g | IF (A.4.1-1/2 AND A.4.1-1/5 AND A.4.4-1/15 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 |
| C17 | IF (A.4.1-1/1 AND A.4.2-1/2 AND A.4.4-1/16) THEN R ELSE N/A |

| | |
|---|---|
| C18 | IF (A.4.1-1/1 AND A.4.4-1/25 AND A.4.2-1/2) THEN R ELSE N/A |
| C19 | IF (A.4.1-1/2 AND A.4.2-1/2 AND A.4.4-1/16) THEN R ELSE N/A |
| C20 | IF (A.4.1-1/2 AND A.4.4-1/25 AND A.4.2-1/2) THEN R ELSE N/A |
| C21 | IF (A.4.1-1/1 AND A.4.1-1/2 AND A.4.4-1/5 AND A.4.4-1/25 AND A.4.4-1/30) THEN R ELSE N/A |
| C22 | IF (A.4.1-1/1 AND A.4.1-1/2 AND A.4.4-1/25) THEN R ELSE N/A |
| C23 | IF (A.4.1-1/1 AND NOT A.4.4-1/5) THEN R ELSE N/A |
| C24 | IF (A.4.1-1/2 AND NOT A.4.4-1/5) THEN R ELSE N/A |
| C25 | IF (A.4.1-1/1 AND A.4.1-1/4) THEN R ELSE N/A |
| C26 | IF (A.4.1-1/2 AND A.4.1-1/4) THEN R ELSE N/A |
| C27 | IF (A.4.1-1/1 AND A.4.1-1/5) THEN R ELSE N/A |
| C28 | IF (A.4.1-1/2 AND A.4.1-1/5) THEN R ELSE N/A |
| C29 | IF (A.4.1-1/1 AND A.4.1-1/3 AND A.4.4-1/15) THEN R ELSE N/A |
| C30 | IF (A.4.1-1/1 AND A.4.1-1/4 AND A.4.4-1/15) THEN R ELSE N/A |
| C31 | IF (A.4.1-1/2 AND A.4.1-1/4 AND A.4.4-1/15) THEN R ELSE N/A |
| C32 | IF (A.4.1-1/1 AND A.4.2-1/2 AND A.4.4-1/16 AND A.4.4-1/25) THEN R ELSE N/A |
| C33 | IF (A.4.1-1/2 AND A.4.2-1/2 AND A.4.4-1/16 AND A.4.4-1/25) THEN R ELSE N/A |
| C34 | IF (A.4.1-1/2 AND A.4.1-1/6 AND A.4.4-1/5) THEN R ELSE N/A |
| C35 | IF (A.4.1-1/2 AND A.4.1-1/7 AND A.4.4-1/5) THEN R ELSE N/A |
| C36 | IF (A.4.1-1/2 AND A.4.1-1/6 AND A.4.4-1/12 AND A.4.4-1/26) THEN R ELSE N/A |
| C37 | IF (A.4.1-1/2 AND A.4.1-1/7 AND A.4.4-1/11 AND A.4.4-1/24) THEN R ELSE N/A |
| C38 | IF (A.4.1-1/1 AND A.4.1-1/2 AND A.4.4-1/4 AND A.4.4-1/25) THEN R ELSE N/A |
| C39 | IF (A.4.1-1/1 AND A.4.1-1/2 AND A.4.5-1/1 AND A.4.5-1/3 AND A.4.4-1/25) THEN R ELSE N/A |
| C40 | IF (A.4.1-1/2 AND A.4.1-1/6 AND A.4.4-1/15) THEN R ELSE N/A |
| C41 | IF (A.4.1-1/2 AND A.4.1-1/7 AND A.4.4-1/15) THEN R ELSE N/A |
| C42 | IF (A.4.1-1/1 AND A.4.1-1/2 AND A.4.4-1/16 AND A.4.4-1/25) THEN R ELSE N/A |

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



## 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 | |
| 2 | LTE CA | 36.101 | Rel-10 | |
| 3 | UL-MIMO | 36.306 subclause 4.3.4.6 | Rel-10 | |
| 4 | eDL-MIMO | 36.306 subclause 4.3.4.7 | Rel-10 | |

## 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 Band16 |
| 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 |
| 26 | Frequency band: 814-849, 859-894 | 36.101, 5.5 | Rel-11 | FDD Band 26 |
| ... | | | | |
| 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.4.3-3a: RF Additional Baseline Implementation Capabilities**

| Item | RF Additional Baseline Implementation Capabilities | Ref. | Comments |
|---|---|---|---|
| 1 | Support of 1.4 MHz channel bandwidth | 36.101, 5.6.1 | Operating bands supporting 1.4 MHz Bandwidth: 2, 3, 4, 5, 8, 12, 23, 25, 26, 27, 35, 36 |
| 2 | Support of 3 MHz channel bandwidth | 36.101, 5.6.1 | Operating bands supporting 3 MHz Bandwidth: 2, 3, 4, 5, 8, 12, 23, 25, 26, 27, 28, 35, 36, 44 |
| 3 | Support of 5 MHz channel bandwidth | 36.101, 5.6.1 | All operating bands support 5 MHz Bandwidth |
| 4 | Support of 10 MHz channel bandwidth | 36.101, 5.6.1 | All operating bands support 10 MHz Bandwidth |
| 5 | Support of 15 MHz channel bandwidth | 36.101, 5.6.1 | Operating bands supporting 15 MHz Bandwidth: 1, 2, 3, 4, 7, 9, 10, 18, 19, 20, 21, 22, 25, 26, 28, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44 |
| 6 | Support of 20 MHz channel bandwidth | 36.101, 5.6.1 | Operating bands supporting 20MHz Bandwidth: 1, 2, 3, 4, 7, 9, 10, 20, 22, 25, 28, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44 |

**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 |
| 6 | Category 6 | 36.306, 4.1 | Rel-10 | |
| 7 | Category 7 | 36.306, 4.1 | Rel-10 | |
| 8 | Category 8 | 36.306, 4.1 | Rel-10 | 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 | |
| 6 | Category 6 | 36.306, 4.1 | Rel-10 | |
| 7 | Category 7 | 36.306, 4.1 | Rel-10 | |
| 8 | Category 8 | 36.306, 4.1 | Rel-10 | |

**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

In Table A.4.4-1, a 'VoLTE capable UE' corresponds to a UE that is capable of the "Voice domain preference for E-UTRAN" defined in TS 24.301 being set to "IMS PS voice only", "IMS PS voice preferred, CS voice as secondary" or "CS voice preferred, IMS PS voice as secondary" (Ref TS 25.331, clause B.1).

**Table A.4.4-1: Feature group indicators**

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

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0 | Support of<br>- EUTRA RRC_CONNECTED to GERAN (Packet_)Idle by Cell Change Order<br>- EUTRA RRC_CONNECTED to GERAN (Packet_)Idle by Cell Change Order with NACC (Network Assisted Cell Change) | | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_10 | Corresponding to the Index of Indicator, the leftmost binary bit 10<br>Set to true if supporting all functionalities in the feature group |
| 1 | Support of<br>- 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 | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_11 | Corresponding to the Index of Indicator, the leftmost binary bit 11<br>Set to true if supporting all functionalities in the feature group |
| 2 | Support of<br>- EUTRA RRC_CONNECTED to CDMA2000 HRPD Active handover | - can only be set to 1 if the UE has set bit number 26 to 1 | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_12 | Corresponding to the Index of Indicator, the leftmost binary bit 12<br>Set to true if supporting all functionalities in the feature group |
| 3 | Support of<br>- Inter-frequency handover (within FDD or TDD) | - can only be set to 1 if the UE has set bit number 25 to 1 | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_13 | Corresponding to the Index of Indicator, the leftmost binary bit 13<br>Set to true if supporting all functionalities in the feature group |
| | | | Yes, unless UE only supports band 13 | Rel-9 | | | |
| 4 | Support of<br>- Measurement reporting event: Event A4 – Neighbour > threshold<br>- Measurement reporting event: Event A5 – Serving < threshold1 & Neighbour > threshold2 | | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_14 | Corresponding to the Index of Indicator, the leftmost binary bit 14<br>Set to true if supporting all functionalities in the feature group |
| 5 | Support of<br>- Measurement reporting event: Event B1 – Neighbour > threshold for UTRAN, GERAN, 1xRTT or HRPD, if the UE has set bit number 22, 23, 24 or 26 to 1, respectively | - 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. | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_15 | Corresponding to the Index of Indicator, the leftmost binary bit 15<br>Set to true if supporting all functionalities in the feature group |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| .6 | Support of<br>- non-ANR related intra-frequency periodical measurement reporting;<br>- non-ANR related inter-frequency periodical measurement reporting, if the UE has set bit number 25 to 1; and<br>- 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.<br><br>NOTE: 'non-ANR related periodical measurement reporting' corresponds only to periodical trigger type with purpose set to *reportStrongestCells*. Event triggered periodical reporting (i.e., event trigger type with *reportAmount* > 1) is a mandatory functionality of event triggered reporting and therefore not the subject of this bit. | | <br>Yes | Rel-8<br>Rel-9 | 36.331, Annex B.1 | pc_FeatrGrp_16 | Corresponding to the Index of Indicator, the leftmost binary bit 16<br>Set to true if supporting all functionalities in the feature group |
| .7 | Support of<br>Intra-frequency ANR features including:<br>- Intra-frequency periodical measurement reporting where *triggerType* is set to *periodical* and *purpose* is set to *reportStrongestCells*<br>- Intra-frequency periodical measurement reporting where *triggerType* is set to *periodical* and *purpose* is set to *reportCGI* | - can only be set to 1 if the UE has set bit number 5 to 1. | <br>Yes | Rel-8<br>Rel-9 | 36.331, Annex B.1 | pc_FeatrGrp_17 | Corresponding to the Index of Indicator, the leftmost binary bit 17<br>Set to true if supporting all functionalities in the feature group |
| .8 | Support of<br>Inter-frequency ANR features including:<br>- Inter-frequency periodical measurement reporting where *triggerType* is set to *periodical* and *purpose* is set to *reportStrongestCells*<br>- Inter-frequency periodical measurement reporting where *triggerType* is set to *periodical* and *purpose* is set to *reportCGI* | - can only be set to 1 if the UE has set bit number 5 to 1. | <br>Yes, unless UE only supports band 13 | Rel-8<br>Rel-9 | 36.331, Annex B.1 | pc_FeatrGrp_18 | Corresponding to the Index of Indicator, the leftmost binary bit 18<br>Set to true if supporting all functionalities in the feature group |
| .9 | Support of<br>Inter-RAT ANR features including:<br>- Inter-RAT periodical measurement reporting where *triggerType* is set to *periodical* and *purpose* is set to *reportStrongestCells* for GERAN, if the UE has set bit number 23 to 1<br>- Inter-RAT periodical measurement reporting where *triggerType* is set to *periodical* and *purpose* is set to *reportStrongestCellsForSON* for UTRAN, 1xRTT or HRPD, if the UE has set bit number 22, 24 or 26 to 1, respectively<br>- Inter-RAT periodical measurement reporting where *triggerType* is set to *periodical* and *purpose* is set to *reportCGI* for UTRAN, GERAN, 1xRTT or HRPD, if the UE has set bit number 22, 23, 24 or 26 to 1, respectively | - can only be set to 1 if the UE has set bit number 5 to 1 and the UE has set at least one of the bit number 22, 23, 24 or 26 to 1. | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_19 | Corresponding to the Index of Indicator, the leftmost binary bit 19<br>Set to true if supporting all functionalities in the feature group |

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|---|---|---|---|---|---|---|---|
| 0 | If bit number 7 is set to "0":<br>- SRB1 and SRB2 for DCCH + 8x AM DRB<br><br>If bit number 7 is set to "1":<br>- SRB1 and SRB2 for DCCH + 8x AM DRB<br>- SRB1 and SRB2 for DCCH + 5x AM DRB + 3x UM DRB<br><br>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. | - 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<br>- 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 | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_20 | Corresponding to the Index of Indicator, the leftmost binary bit 20<br>Set to true if supporting all functionalities in the feature group |
| | | | Yes | Rel-9 | | | |
| 1 | Support of<br>- Predefined intra- and inter-subframe frequency hopping for PUSCH with N_sb > 1<br><br>- Predefined inter-subframe frequency hopping for PUSCH with N_sb > 1 | | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_21 | Corresponding to the Index of Indicator, the leftmost binary bit 21<br>Set to true if supporting all functionalities in the feature group |
| 2 | Support of<br>- UTRAN measurements, reporting and measurement reporting event B2 in E-UTRA connected mode | | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_22 | Corresponding to the Index of Indicator, the leftmost binary bit 22<br>Set to true if supporting all functionalities in the feature group |
| | | | Yes, if UE supports UTRA | Rel-9 | | | |
| 3 | Support of<br>- GERAN measurements, reporting and measurement reporting event B2 in E-UTRA connected mode | | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_23 | Corresponding to the Index of Indicator, the leftmost binary bit 23<br>Set to true if supporting all functionalities in the feature group |
| 4 | Support of<br>- 1xRTT measurements, reporting and measurement reporting event B2 in E-UTRA connected mode | | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_24 | Corresponding to the Index of Indicator, the leftmost binary bit 24<br>Set to true if supporting all functionalities in the feature group |
| | | | Yes, if UE supports enhanced 1xRTT CSFB | Rel-9 | | | |

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|---|---|---|---|---|---|---|---|
| 5 | Support of<br>- Inter-frequency measurements and reporting in E-UTRA connected mode<br><br>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. | | <br>Yes, unless UE only supports band 13 | Rel-8<br>Rel-9 | 36.331, Annex B.1 | pc_FeatrGrp_25 | Corresponding to the Index of Indicator, the leftmost binary bit 25<br>Set to true if supporting all functionalities in the feature group |
| 6 | Support of<br>- HRPD measurements, reporting and measurement reporting event B2 in E-UTRA connected mode | | <br>Yes, if UE supports HRPD | Rel-8<br>Rel-9 | 36.331, Annex B.1 | pc_FeatrGrp_26 | Corresponding to the Index of Indicator, the leftmost binary bit 26<br>Set to true if supporting all functionalities in the feature group |
| 7 | Support of<br>- EUTRA RRC_CONNECTED to UTRA CELL_DCH CS handover | - related to SR-VCC<br>- can only be set to 1 if the UE has set bit number 8 to 1 | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_27 | Corresponding to the Index of Indicator, the leftmost binary bit 27<br>Set to true if supporting all functionalities in the feature group |
| 8 | Support of<br>- TTI bundling | | | Rel-9 | 36.331, Annex B.1 | pc_FeatrGrp_28 | Corresponding to the Index of Indicator, the leftmost binary bit 28<br>Set to true if supporting all functionalities in the feature group |
| 9 | Support of<br>- Semi-Persistent Scheduling | | | Rel-9 | 36.331, Annex B.1 | pc_FeatrGrp_29 | Corresponding to the Index of Indicator, the leftmost binary bit 29<br>Set to true if supporting all functionalities in the feature group |
| 0 | Support of<br>- Handover between FDD and TDD | - can only be set to 1 if the UE has set bit number 13 to 1 | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_30 | Corresponding to the Index of Indicator, the leftmost binary bit 30<br>Set to true if supporting all functionalities in the feature group |
| 1 | Undefined | | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_31 | Corresponding to the Index of Indicator, the leftmost binary bit 31<br>Set to true if supporting all functionalities in the feature group |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | Undefined | | | Rel-8 | 36.331, Annex B.1 | pc_FeatrGrp_32 | Corresponding to the Index of Indicator, the leftmost binary bit 32<br>Set to true if supporting all functionalities in the feature group |

## 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 | 36.306 4.3.11.1 | Rel-9 | pc_ intraFreqSI-AcquisitionForHO | |
| 3 | Support of inter-frequency SI acquisition for HO | 36.306 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:<br>- Editorial update and alignment with 36.523-2<br>- TC included in 36.521-1 and 36.521-3 included<br>- Some Conditions for TC selections introduce | 0.0.1 | 0.1.0 |
| 2008-08 | | | | | Updated after RAN5#40:<br>- Editorial update in regard to changing spec names, etc.<br>- FDD and TDD split (R5-083839)<br>- RRM TC numbers aligned with 36.521-3 v030 | 0.1.1 | 0.2.0 |
| 2008-10 | | | | | Update after RAN5#40bis:<br>- Table split in different clauses for Conformance and RRM test cases<br>- Extension of applicability tables to include Additional information column<br>- Change of applicability of TCs that apply to any E-UTRA device into "R" - recommended<br>- Updated TCs in accordance to 36.521-1 v110 and 36.521-3 v040<br>- Some editorial updates | 0.2.0 | 0.3.0 |
| 2008-11 | | | | | Update After RAN5#41 (R5-055360):<br>- Renamed 8.1.1, added new 8.1.2,<br>- Added new TCs to RRM section Measurement Performance Requirements<br>- Added Table A.4.3-2 with reference to test loop functions in 36.509<br>- Some editorial changes<br>- Normative References updated<br>- 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 |

| Date | TSG # | TSG Doc. | CR | Rev | Subject/Comment | Old | New |
|---|---|---|---|---|---|---|---|
| 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 |
| 2011-12 | RAN#54 | - | - | - | Moved to Rel-10 with no change | 9.7.0 | 10.0.0 |
| 2012-03 | RAN#55 | R5-120340 | 0046 | - | Addition of FGI bit 16 into test cases 9.1.x.x and 9.2.x.x | 10.0.0 | 10.1.0 |
| 2012-03 | RAN#55 | R5-120534 | 0047 | - | Introduction to Applicability for RSRQ for E-UTRA Carrier Aggregation | 10.0.0 | 10.1.0 |
| 2012-03 | RAN#55 | R5-120596 | 0048 | - | Updates to applicability for newly introduced CA feature chapter8 test cases in 36.521-2 | 10.0.0 | 10.1.0 |
| 2012-03 | RAN#55 | R5-120811 | 0049 | - | Correction to FGI bits in test case 8.5.2 | 10.0.0 | 10.1.0 |
| 2012-03 | RAN#55 | R5-120812 | 0050 | - | Addition of FGI bit 15 into test cases configuring event 1B | 10.0.0 | 10.1.0 |
| 2012-03 | RAN#55 | R5-120832 | 0051 | - | Update of FGI bit table in TS36.521-2 | 10.0.0 | 10.1.0 |
| 2012-03 | RAN#55 | R5-120836 | 0052 | - | Introduction to CA Applicability for Transmitter Characteristics tests MPR and ACLR | 10.0.0 | 10.1.0 |
| 2012-03 | RAN#55 | R5-120838 | 0053 | - | RF/RRM: Applicability for new added RRM test cases | 10.0.0 | 10.1.0 |
| 2012-03 | RAN#55 | R5-120840 | 0054 | - | Applicability for new UL MIMO test case | 10.0.0 | 10.1.0 |
| 2012-06 | RAN#56 | R5-121185 | 0055 | - | Updates to applicability for newly introduced CA feature TDD chapter 8 test cases in 36.521-2 | 10.1.0 | 10.2.0 |
| 2012-06 | RAN#56 | R5-121219 | 0056 | - | Adding operating band 26 to TS 36.521-2 | 10.1.0 | 10.2.0 |
| 2012-06 | RAN#56 | R5-121904 | 0057 | - | Addition of applicability for E-UTRAN Inter frequency case reselection in the existence of non-allowed CSG cell | 10.1.0 | 10.2.0 |
| 2012-06 | RAN#56 | R5-121965 | 0058 | - | Applicability for new UL MIMO test cases | 10.1.0 | 10.2.0 |
| 2012-06 | RAN#56 | R5-121966 | 0059 | - | Updates to applicability for Transmit timing tests in 36.521-2 | 10.1.0 | 10.2.0 |
| 2012-06 | RAN#56 | R5-121967 | 0060 | - | Applicability for new R9 RRM test cases | 10.1.0 | 10.2.0 |
| 2012-06 | RAN#56 | R5-121990 | 0061 | - | Addition of applicaplity for CA TCs | 10.1.0 | 10.2.0 |
| 2012-09 | RAN#57 | R5-123093 | 0062 | - | Updates to applicability for Chapter9 absolute and relative RSRP measurement test cases for carrier aggregation. | 10.2.0 | 10.3.0 |
| 2012-09 | RAN#57 | R5-123165 | 0063 | - | Introduction of Applicability for E-UTRAN Event Triggered reporting on deactivated SCell with PCell interruption in non-DRX for CA | 10.2.0 | 10.3.0 |
| 2012-09 | RAN#57 | R5-123169 | 0064 | - | Correction to Applicability for RSRQ for E-UTRA Carrier Aggregation | 10.2.0 | 10.3.0 |
| 2012-09 | RAN#57 | R5-123170 | 0065 | - | Introduction of eDL MIMO to UE service capabilities | 10.2.0 | 10.3.0 |
| 2012-09 | RAN#57 | R5-123533 | 0066 | - | Update of References in 36.521-2 v980 (pointer) | 10.2.0 | 10.3.0 |
| 2012-09 | RAN#57 | R5-123542 | 0067 | - | TS 36.521-2:TDD CA test cases applicability correction | 10.2.0 | 10.3.0 |
| 2012-09 | RAN#57 | R5-123788 | 0068 | - | Clarification of the release of UTRAN-EUTRAN Inter-RAT RRM test cases in 36.521-2 | 10.2.0 | 10.3.0 |
| 2012-09 | RAN#57 | R5-123856 | 0069 | - | Applicability for new RRM test cases | 10.2.0 | 10.3.0 |
| 2012-09 | RAN#57 | R5-123858 | 0070 | - | Introduction of Applicability for ACS for CA and UE config Tx output power for CA | 10.2.0 | 10.3.0 |
| 2012-09 | RAN#57 | R5-123909 | 0071 | - | TS 36.521-2:New UE categories addition | 10.2.0 | 10.3.0 |
| 2012-09 | RAN#57 | R5-123942 | 0072 | - | Applicability update for test cases in TS36.521-1 with single BW requirements not defined for all operating bands, rel-8 | 10.2.0 | 10.3.0 |

| Date | TSG # | TSG Doc. | CR | Rev | Subject/Comment | Old | New |
|---|---|---|---|---|---|---|---|
| 2012-09 | RAN#57 | R5-123993 | 0073 | - | Update applicability of UL-MIMO related conformance test cases | 10.2.0 | 10.3.0 |
| 2012-09 | RAN#57 | R5-123997 | 0074 | - | TS 36.521-2:Applicability for new CQI test cases | 10.2.0 | 10.3.0 |

# History

| Document history | | |
|---|---|---|
| V10.0.0 | January 2012 | Publication |
| V10.1.0 | March 2012 | Publication |
| V10.2.0 | July 2012 | Publication |
| V10.3.0 | October 2012 | Publication |
| | | |