



**LTE;**  
**Evolved Universal Terrestrial Radio Access (E-UTRA)**  
**and Evolved Packet Core (EPC);**  
**User Equipment (UE) conformance specification;**  
**Part 2: Implementation Conformance Statement (ICS)**  
**proforma specification**  
**(3GPP TS 36.523-2 version 16.8.0 Release 16)**



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Reference

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Keywords

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## Foreword

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

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

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## Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called an Implementation Conformance Statement (ICS).

The present document is part 2 of a multi-part conformance test specification for User Equipment (UE).

3GPP TS 36.523-1 [19]: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification".

3GPP TS 36.523-2: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification". (the present document)

3GPP TS 36.523-3 [20]: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Abstract Test Suite (ATS)".

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# 1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for 3<sup>rd</sup> Generation User Equipment (UE), in compliance with the relevant EPS (E-UTRA/EPC) requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-1 [24] and ISO/IEC 9646-7 [25].

The present document also specifies a recommended applicability statement for the test cases included in TS 36.523-1 [19]. These applicability statements are based on the features implemented in the UE.

Special conformance testing functions can be found in TS 36.509 [6] and the common test environments are included in 3GPP TS 36.508 [18].

The present document is valid for UE complying with EPS (E-UTRA/EPC) and implemented according to 3GPP releases starting from Release 8 up to the Release indicated on the cover page of the present document.

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# 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 TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 23.003: "Numbering, Addressing and Identification".
- [3] 3GPP TS 23.122: "Non-Access-Stratum functions related to Mobile Station (MS) in idle mode".
- [4] 3GPP TS 24.008: "Mobile Radio Interface Layer 3 specification; Core Network Protocols; Stage 3".
- [5] Void
- [6] 3GPP TS 36.509: "Special conformance testing functions for User Equipment".
- [7] Void
- [8] 3GPP TS 34.123-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".
- [9] Void
- [10] 3GPP TS 36.300: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); Overall description; Stage 2".
- [11] 3GPP TS 36.302: "Services provided by the physical layer for E-UTRA".
- [12] 3GPP TS 36.304: "Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE) Procedures in idle mode".
- [13] 3GPP TS 36.306: "Evolved Universal Terrestrial Radio Access (E-UTRA) User Equipment (UE) Radio Access capabilities".
- [14] 3GPP TS 36.321: "Evolved Universal Terrestrial Radio Access (E-UTRA) Medium Access Control (MAC) protocol specification".

- [15] 3GPP TS 36.322: "Evolved Universal Terrestrial Radio Access (E-UTRA) Radio Link Control (RLC) protocol specification".
- [16] 3GPP TS 36.323: "Evolved Universal Terrestrial Radio Access (E-UTRA) Packet Data Convergence Protocol (PDCP) specification".
- [17] 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRA) Radio Resource Control (RRC) Protocol Specification".
- [18] 3GPP TS 36.508: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); Common Test Environments for User Equipment (UE) Conformance Testing".
- [19] 3GPP TS 36.523-1: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 1: Protocol conformance specification".
- [20] 3GPP TS 36.523-3: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification; Part 3: Abstract Test Suites (ATS)".
- [21] 3GPP TR 24.801: "3GPP System Architecture Evolution; CT WG1 Aspects".
- [22] 3GPP TS 23.401: "3GPP System Architecture Evolution; GPRS enhancements for E-UTRAN access".
- [23] 3GPP TS 51.010-1: "Mobile Station (MS) conformance specification; Part 1: Conformance specification".
- [24] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [25] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [26] 3GPP2 C.S0024-A-v3.0: "cdma2000 High Rate Packet Data Air Interface Specification".
- [27] 3GPP2 C.S0002-A: "Physical Layer Standard for cdma2000 Spread Spectrum Systems – Release A".
- [28] 3GPP TS 24.303: "Mobility management based on Dual-Stack Mobile IPv6; Stage 3".
- [29] IEEE Std 802.11 (1999): "Standard for Information Technology - Telecommunications and information exchange between systems - Local and Metropolitan Area networks - Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications".
- [30] 3GPP TS 36.307: "Requirements on User Equipments (UEs) Supporting a release-independent frequency band".
- [33] GSMA PRD IR.92: "IMS Profile for Voice and SMS".
- [34] 3GPP TS 22.101: "Service aspects; Service principles".
- [35] 3GPP TS 24.301: "Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS); Stage 3".
- [36] 3GPP TS 25.306: "UE Radio Access capabilities".
- [37] 3GPP TS 25.331: "Radio Resource Control (RRC); Protocol specification".
- [38] 3GPP TS 23.216: "Super-Charger technical realization; Stage 2".
- [39] 3GPP TS 23.272: "Circuit Switched (CS) fallback in Evolved Packet System (EPS); Stage 2".
- [40] 3GPP TS 44.060: "General Packet Radio Service (GPRS); Mobile Station (MS) - Base Station System (BSS) interface; Radio Link Control / Medium Access Control (RLC/MAC) protocol".



- [41] 3GPP TS 26.114: "IP Multimedia Subsystem (IMS); Multimedia telephony; Media handling and interaction".
- [42] 3GPP TS 24.229: "IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".
- [43] 3GPP TS 24.173: "IMS Multimedia telephony communication service and supplementary services; Stage 3".
- [44] 3GPP TR 21.904: "User Equipment (UE) capability requirements".
- [45] 3GPP TS 34.229-2: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) specification".
- [46] 3GPP TS 36.101: "User Equipment (UE) radio transmission and reception".
- [47] 3GPP TS 24.368: "Non-Access Stratum (NAS) configuration Management Object (MO)".
- [48] 3GPP TS 31.102: "Characteristics of the Universal Subscriber Identity Module (USIM) application".
- [49] 3GPP TS 23.221: "Architectural requirements".
- [50] 3GPP TS 45.008: "GSM/EDGE Radio Access Network; Radio subsystem link control".
- [51] 3GPP TS 23.041: "Technical realization of Cell Broadcast Service (CBS)".
- [52] 3GPP TS 24.334: "Proximity-services (ProSe) User Equipment (UE) to Proximity-services (ProSe) Function Protocol aspects; Stage 3".
- [53] 3GPP TS 24.334: "Proximity-services (ProSe) User Equipment (UE) to Proximity-services (ProSe) Function Protocol aspects; Stage 3".
- [54] GSMA PRD IR.51: "IMS Profile for Voice, Video and SMS over Wi-Fi".  
<https://standards.iteh.ai/catalog/standards/sist/6651c30c-bfa7-4053-867a-300115901115/etsi-ts-136-523-2-v16-8-0-2021-05>
- [55] GSMA PRD NG.108: "IMS Profile for Voice and SMS for UE category M1".
- [56] 3GPP TS 36.579-4: "Mission Critical (MC) services over LTE conformance testing; Part 4: Test Applicability and Implementation Conformance Statement (ICS) proforma specification" (the present document).

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## 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 [1]
- such given in ISO/IEC 9646-1 [24] and ISO/IEC 9646-7 [25]

NOTE: Some terms and abbreviations defined in [24] and [25] are explicitly included below with small modification to reflect the terminology used in 3GPP.

### 3.1 Definitions

**Implementation Conformance Statement (ICS):** A 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:** A 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 following abbreviations apply:

|       |   |
|-------|---|
| ENB   | Evolved Node B  |
| FFS   | For Further Study                                     |
| ICS   | Implementation Conformance Statement                  |
| IXIT  | Implementation eXtra Information for Testing          |
| PICS  | Protocol Implementation Conformance Statement         |
| PIXIT | Protocol Implementation eXtra Information for Testing |
| 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 Table 4-1. 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.

When a test case is to be executed against a category M1 UE and with IMS enabled, it is assumed that the UE is compliant to GSMA profile NG.108 [55].

The columns in Table 4-1 have the following meaning:

### Clause

The clause column indicates the clause number in TS 36.523-1 [19] 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 36.523-1 [19] that contains the test body.

## Release

The release column indicates the earliest release from which the test case is applicable. In some specific cases it may indicate the release(s) for which the TC is **only** applicable.

Note: Some exceptions to this interpretation may be indicated in Notes in column 'Number of TC Executions' e.g. see Note 3 Table 4-1.

## Applicability - Condition

The following notations are used for the applicability column:

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

NOTE: The conditions are defined in Table 4-1a.

## Applicability - Comments

This column contains a verbal description of the condition.

## Additional Information - Specific ICS

This column contains the mnemonics of ICS(s) affecting the dynamic behaviour of the TC.

NOTE: ICS items specified in 3GPP TS 34.123-2 [8] and 3GPP TS 34.229-2 [45] can be referred, to avoid redundant definitions.

## Additional Information - Specific IXIT

This column contains the mnemonics of IXIT(s) affecting the dynamic behaviour of the TC.

## Additional Information - Number of TC Executions

This column contains, wherever applicable, the recommended for certification purposes number of TC executions. It may contain also other information e.g. exceptions to the release applicable to the test. Clarifying notes are listed in Table 4-1b.

## Additional Information - Release other RAT

In regard to a particular test case, this column provides information on the release which is used by the simulated network in the other (i.e. non E-UTRA) RAT(s) where applicable. For each applicable RAT the release shall be indicated in the format 'Rel-X RAT'. When multiple RATs are applicable the entries per RAT shall be separated by a comma. When a value for a 3GPP RAT is not provided but the RAT is in the scope of the test case then for this RAT the release indicated in the Release column applies (per default).

### EXAMPLES:

Rel-9 UTRA FDD, Rel-8 GERAN or simply as Rel-9 UTRA FDD  
(meaning that the UTRA FDD will simulate Rel-9 and the GERAN Rel-8 behaviours)

Rel-9 UTRA TDD  
(meaning that the UTRA LCR TDD network will simulate Rel-9 behaviours)

NOTE 2: To meet the validation requirements from certification bodies then there is a need to uniquely reference the FDD and TDD branch of common FDD and TDD test cases. The FDD and TDD branches of common FDD and TDD test cases can be referenced by amending a "FDD" or "TDD" suffix to the test case clause number. For example for AM RLC test case 7.2.3.13 the FDD and TDD branches can be identified by "7.2.3.13 FDD" and "7.2.3.13 TDD".

Table 4-1: Applicability of tests and additional information for testing

| Clause   | TC Title  | Release | Applicability |   | Additional Information |               | Number of TC Executions                                      | Release other RAT |
|----------|---|---------|---------------|---|------------------------|---------------|--|-------------------|
|          |   |         | Condition     | Comment   | Specific ICS           | Specific IXIT |  |                   |
| <b>6</b> | <b>Idle mode operations</b>   |         |               |   |                        |               |  |                   |
| 6.1.1.1  | PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode                                     | Rel-8   | R             | UEs supporting E-UTRA   | pc_eFDD                |               | Either TC 6.1.1.1 or TC 6.1.1.1b shall be executed. (Note 4) |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.1.1a | PLMN selection / Automatic mode / between FDD and TDD   | Rel-8   | C142          | UEs supporting E-UTRA FDD and E-UTRA TDD  |                        |               |  |                   |
| 6.1.1.1b | PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode / Single Frequency operation        | Rel-8   | R             | UEs supporting E-UTRA. This test is 'cells on single frequency only' equivalent of TC 6.1.1.1   | pc_eFDD                |               | Either TC 6.1.1.1 or TC 6.1.1.1b shall be executed. (Note 4) |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.1.2  | PLMN selection of "Other PLMN/access technology combinations" / Automatic mode                              | Rel-8   | R             | UEs supporting E-UTRA   | pc_eFDD                |               | Either TC 6.1.1.2 or TC 6.1.1.2a shall be executed. (Note 4) |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.1.2a | PLMN selection of "Other PLMN/access technology combinations" / Automatic mode / Single Frequency operation | Rel-8   | R             | UEs supporting E-UTRA This test is 'cells on single frequency only' equivalent of 6.1.1.2   | pc_eFDD                |               | Either TC 6.1.1.2 or TC 6.1.1.2a shall be executed. (Note 4) |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.1.3  | Cell reselection of ePLMN in manual mode  | Rel-8   | C388          | UEs supporting E-UTRA and (( NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                   | pc_eFDD                |               | Either TC 6.1.1.3 or TC 6.1.1.3b shall be executed. (Note 4) |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.1.3a | Cell reselection of ePLMN in manual mode / between FDD and TDD  | Rel-8   | C389          | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) |                        |               | Note 3   |                   |
| 6.1.1.3b | Cell reselection of ePLMN in manual mode / Single Frequency operation                                       | Rel-8   | R             | UEs supporting E-UTRA. This test is 'cells on single frequency only' equivalent of 6.1.1.3  | pc_eFDD                |               | Either TC 6.1.1.3 or TC 6.1.1.3b shall be executed. (Note 4) |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |

| Clause   | TC Title  | Release | Applicability |   | Additional Information |               | Number of TC Executions                                       | Release other RAT |
|----------|---|---------|---------------|---|------------------------|---------------|---|-------------------|
|          |   |         | Condition     | Comment   | Specific ICS           | Specific IXIT |   |                   |
| 6.1.1.4  | PLMN selection in shared network environment / Automatic mode   | Rel-8   | R             | UEs supporting E-UTRA   | pc_eFDD                |               |   |                   |
|          |   |         |               |   | pc_eTDD                |               |   |                   |
| 6.1.1.4a | PLMN selection in shared network environment / Automatic mode / Between FDD and TDD                                     | Rel-8   | C389          | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))   |                        |               |   |                   |
| 6.1.1.5  | Void  |         |               |   |                        |               |   |                   |
| 6.1.1.6  | PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode / User reselection                              | Rel-8   | C157a         | UEs supporting E-UTRA and user initiated PLMN reselection in automatic mode and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                                      | pc_eFDD                |               | Either TC 6.1.1.6 or TC 6.1.1.6a shall be executed. (Note 4)  |                   |
|          |   |         |               |   | pc_eTDD                |               |   |                   |
| 6.1.1.6a | PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode / User reselection / Single Frequency operation | Rel-8   | C157          | UEs supporting E-UTRA and user initiated PLMN reselection in automatic mode. This test is 'cells on single frequency only' equivalent of 6.1.1.6  | pc_eFDD                |               | Either TC 6.1.1.6 or TC 6.1.1.6a shall be executed. (Note 4)  |                   |
|          |   |         |               |   | pc_eTDD                |               |   |                   |
| 6.1.1.6b | PLMN selection of RPLMN, HPLMN/EHPLMN, UPLMN and OPLMN / Automatic mode / User reselection / Two Frequencies operation  | Rel-8   | C157b         | UEs supporting E-UTRA and user initiated PLMN reselection in automatic mode. This test is 'cells on two frequencies only' and 'TDD cat.1bis UE only' equivalent of 6.1.1.6  | pc_eTDD                |               | Either TC 6.1.1.6 or TC 6.1.1.6b shall be executed. (Note 21) |                   |
| 6.1.1.7  | PLMN selection / Periodic reselection / MinimumPeriodicSearchTimer  | Rel-10  | C179a         | UEs supporting E-UTRA and MinimumPeriodicSearchTimer and not supporting "Fast First Higher Priority PLMN search" and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD                |               | Either TC 6.1.1.7 or TC 6.1.1.7a shall be executed. (Note 4)  |                   |
|          |   |         |               |   | pc_eTDD                |               |   |                   |
| 6.1.1.7a | PLMN selection / Periodic reselection / MinimumPeriodicSearchTimer / Single Frequency operation                         | Rel-10  | C179          | UEs supporting E-UTRA and MinimumPeriodicSearchTimer and not supporting "Fast First Higher Priority PLMN search". This test is 'cells on single frequency only' equivalent of 6.1.1.7   | pc_eFDD                |               | Either TC 6.1.1.7 or TC 6.1.1.7a shall be executed. (Note 4)  |                   |
|          |   |         |               |   | pc_eTDD                |               |   |                   |
| 6.1.1.8  | PLMN selection of RPLMN or (E)HPLMN; Automatic mode   | Rel-8   | C212a         | UEs supporting E-UTRA and EF_LRPLMSI_Exception and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))   | pc_eFDD                |               |   |                   |
|          |   |         |               |   | pc_eTDD                |               |   |                   |

| Clause   | TC Title  | Release | Applicability |   | Additional Information |               | Number of TC Executions | Release other RAT |
|----------|---|---------|---------------|---|------------------------|---------------|-------------------------|-------------------|
|          |   |         | Condition     | Comment   | Specific ICS           | Specific IXIT |                         |                   |
| 6.1.1.9  | PLMN selection of RPLMN or (E)HPLMN; Manual mode  | Rel-8   | C213          | UEs supporting E-UTRA and ManualModeNetworkSelectionException   | pc_eFDD                |               |                         |                   |
| 6.1.2.1  | Void  |         |               |   | pc_eTDD                |               |                         |                   |
| 6.1.2.2  | Cell selection / $Q_{rxlevmin}$   | Rel-8   | C224c         | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD                |               |                         |                   |
|          |   |         |               |   | pc_eTDD                |               |                         |                   |
| 6.1.2.2a | Cell selection / $Q_{qualmin}$  | Rel-9   | C224c         | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD                |               | Note 3                  |                   |
|          |   |         |               |   | pc_eTDD                |               |                         |                   |
| 6.1.2.2b | Cell selection / UE Cat 0 not allowed   | Rel-12  | C224          | UEs supporting E-UTRA and UE Category 0   | pc_eFDD                |               |                         |                   |
|          |   |         |               |   | pc_eTDD                |               |                         |                   |
| 6.1.2.2c | Cell selection / $Q_{rxlevmin}$ / Enhanced Coverage   | Rel-13  | C254          | UEs supporting E-UTRA and (CE mode A or CE mode B)  | pc_eFDD                |               |                         |                   |
|          |   |         |               |   | pc_eTDD                |               |                         |                   |
| 6.1.2.2d | Cell selection / $Q_{qualmin}$ / Enhanced Coverage  | Rel-13  | C254          | UEs supporting E-UTRA and (CE mode A or CE mode B)  | pc_eFDD                |               |                         |                   |
|          |   |         |               |   | pc_eTDD                |               |                         |                   |
| 6.1.2.3  | Cell selection / Intra E-UTRAN / Serving cell becomes non-suitable ( $S < 0$ or barred)                   | Rel-8   | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  | pc_eFDD                |               |                         |                   |
|          |   |         |               |   | pc_eTDD                |               |                         |                   |
| 6.1.2.3a | Cell selection / Intra E-UTRAN / Serving cell becomes non-suitable ( $S_{rxlev} > 0$ and $S_{qual} < 0$ ) | Rel-9   | R             | UEs supporting E-UTRA   | pc_eFDD                |               | Note 3                  |                   |
|          |   |         |               |   | pc_eTDD                |               |                         |                   |
| 6.1.2.4  | Cell reselection  | Rel-8   | R             | UEs supporting E-UTRA   | pc_eFDD                |               |                         |                   |
|          |   |         |               |   | pc_eTDD                |               |                         |                   |
| 6.1.2.5  | Cell reselection for interband operation  | Rel-8   | C184 a        | UEs supporting E-UTRA and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD                |               |                         |                   |
|          |   |         |               |   | pc_eTDD                |               |                         |                   |
| 6.1.2.5a | Cell reselection for interband operation/ Power Class 2 UE operation/ Between FDD and TDD                 | Rel-14  | C281          | UEs supporting E-UTRA FDD and E-UTRA TDD and Bands38, 40, 41 and 42 Power class 2 operation and NOT Category M1   | pc_eFDD                |               | Note 17                 |                   |
| 6.1.2.5b | Cell reselection for interband operation using Pcompensation / Between FDD and TDD                        | Rel-14  | C389          | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                     |                        |               |                         |                   |
| 6.1.2.5c | Inter-band Cell reselection / Extended frequency list   | Rel-12  | C184 a        | UEs supporting E-UTRA and more than 1 FDD or TDD E-UTRA band and ((NOT Category M1) OR (Category M1 AND (intra-frequency  | pc_eFDD                |               |                         |                   |

| Clause   | TC Title  | Release | Applicability |   | Additional Information |               | Number of TC Executions                                      | Release other RAT |
|----------|---|---------|---------------|---|------------------------|---------------|--|-------------------|
|          |   |         | Condition     | Comment   | Specific ICS           | Specific IXIT |  |                   |
|          |   |         |               | RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))  |                        |               |  |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.2.6  | Cell reselection using $Q_{\text{hyst}}$ , $Q_{\text{offset}}$ and $T_{\text{reselection}}$                           | Rel-8   | C224c         | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD                |               |  |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.2.6a | Cell reselection using $T_{\text{reselection}}$ / Enhanced Coverage   | Rel-13  | C254          | UEs supporting E-UTRA and (CE mode A or CE mode B)  | pc_eFDD                |               |  |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.2.6b | Cell reselection from cell in enhanced coverage to inter-frequency cell in normal coverage                            | Rel-13  | C254b         | UEs supporting E-UTRA and (CE mode A or CE mode B) and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) | pc_eFDD                |               |  |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.2.7  | Cell reselection / Equivalent PLMN  | Rel-8   | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                              | pc_eFDD                |               | Either TC 6.1.2.7 or TC 6.1.2.7a shall be executed. (Note 4) |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.2.7a | Cell reselection / Equivalent PLMN / Single Frequency operation   | Rel-8   | R             | UEs supporting E-UTRA. This test is 'cells on single frequency only ' equivalent of 6.1.2.7   | pc_eFDD                |               | Either TC 6.1.2.7 or TC 6.1.2.7a shall be executed. (Note 4) |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.2.8  | Cell reselection using cell status and cell reservations / Access control class 0 to 9                                | Rel-8   | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                              | pc_eFDD                |               | Either TC 6.1.2.8 or TC 6.1.2.8a shall be executed. (Note 4) |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.2.8a | Cell reselection using cell status and cell reservations / Access control class 0 to 9 / Single Frequency operation   | Rel-8   | R             | UEs supporting E-UTRA. This test is 'cells on single frequency only ' equivalent of 6.1.2.8   | pc_eFDD                |               | Either TC 6.1.2.8 or TC 6.1.2.8a shall be executed. (Note 4) |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.2.9  | Cell reselection using cell status and cell reservations / Access control class 11 to 15                              | Rel-8   | C224c         | UEs supporting E-UTRA and NOT Category M1   | pc_eFDD                |               | Either TC 6.1.2.9 or TC 6.1.2.9a shall be executed. (Note 4) |                   |
|          |   |         |               |   | pc_eTDD                |               |  |                   |
| 6.1.2.9a | Cell reselection using cell status and cell reservations / Access control class 11 to 15 / Single Frequency operation | Rel-8   | R             | UEs supporting E-UTRA. This test is 'cells on single frequency only ' equivalent of 6.1.2.9   | pc_eFDD                |               | Either TC 6.1.2.9 or TC 6.1.2.9a shall be executed. (Note 4) |                   |

| Clause    | TC Title   | Release | Applicability |   | Additional Information |               | Number of TC Executions | Release other RAT |
|-----------|--|---------|---------------|---|------------------------|---------------|-------------------------|-------------------|
|           |  |         | Condition     | Comment   | Specific ICS           | Specific IXIT |                         |                   |
| 6.1.2.10  | Cell reselection in shared network environment   | Rel-8   | R             | UEs supporting E-UTRA   | pc_eTDD                |               |                         |                   |
| 6.1.2.11  | Inter-frequency Cell reselection   | Rel-8   | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                    | pc_eFDD                |               |                         |                   |
| 6.1.2.11a | Inter-frequency Cell reselection / Extended frequency list   | Rel-12  | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                    | pc_eTDD                |               |                         |                   |
| 6.1.2.12  | Cell reselection / Cell-specific reselection parameters provided by the network in a neighbouring cell list    | Rel-8   | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                    | pc_eFDD                |               |                         |                   |
| 6.1.2.13  | Cell reselection, $S_{intraSearch}$ , $S_{nonintraSearch}$   | Rel-8   | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                    | pc_eTDD                |               |                         |                   |
| 6.1.2.14  | Speed-dependent Cell reselection   | Rel-8   | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                    | pc_eFDD                |               |                         |                   |
| 6.1.2.15  | Inter-frequency Cell reselection according to cell reselection priority provided by SIBs                       | Rel-8   | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED)))                    | pc_eTDD                |               |                         |                   |
| 6.1.2.15a | Inter-frequency Cell reselection according to cell reselection priority provided by SIBs / Between FDD and TDD | Rel-9   | C389          | UEs supporting E-UTRA FDD and E-UTRA TDD and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC_CONNECTED))) |                        |               | Note 3                  |                   |
| 6.1.2.15b | Inter-band Cell reselection according to cell reselection priority provided by SIBs                            | Rel-8   | C388          | UEs supporting E-UTRA and ((NOT Category M1) OR (Category M1 AND (intra-frequency RSRQ measurements and inter-frequency   | pc_eFDD                |               |                         |                   |