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**Universal Mobile Telecommunications System (UMTS);
LTE;
5G;
User Equipment (UE)
conformance specification for UE positioning;
Part 3: Implementation Conformance Statement (ICS)
(3GPP TS 37.571-3 version 16.8.0 Release 16)**



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Contents

| | |
|---|------------|
| Intellectual Property Rights | 2 |
| Legal Notice | 2 |
| Modal verbs terminology..... | 2 |
| Foreword..... | 4 |
| Introduction | 4 |
| 1 Scope | 5 |
| 2 References | 5 |
| 3 Definitions, symbols and abbreviations | 6 |
| 3.1 Definitions | 6 |
| 3.2 Symbols..... | 6 |
| 3.3 Abbreviations | 6 |
| 4 Recommended Test Case Applicability | 8 |
| Annex A (normative): ICS proforma for User Equipment | 84 |
| A.1 Guidance for completing the ICS proforma | 84 |
| A.1.1 Purposes and structure | 84 |
| A.1.2 Abbreviations and conventions..... | 84 |
| A.1.3 Instructions for completing the ICS proforma | 85 |
| A.2 Identification of the User Equipment | 85 |
| A.2.1 Date of the statement | 85 |
| A.2.2 User Equipment Under Test (UEUT) identification | 85 |
| A.2.3 Product supplier | 85 |
| A.2.4 Client | 86 |
| A.2.5 ICS contact person | 86 |
| A.3 Identification of the protocol | 87 |
| A.4 ICS proforma tables..... | 87 |
| A.4.1 UE Implementation Types | 87 |
| A.4.2 Baseline Implementation Capabilities | 89 |
| A.4.3 UE Positioning Capabilities..... | 89 |
| A.4.4 Additional information | 106 |
| Annex B (informative): Change history | 108 |
| History | 113 |

Foreword

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

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

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 3 of a multi-parts TS:

3GPP TS 37.571-1: User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification.

3GPP TS 37.571-2: User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance.

3GPP TS 37.571-3: User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS).

3GPP TS 37.571-4: User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites.

3GPP TS 37.571-5: User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data.

1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for UTRAN, E-UTRAN and NR User Equipment (UE) supporting UE positioning, in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-1 [7] and ISO/IEC 9646-7 [8].

The present document also specifies a recommended applicability statement for the test cases included in 3GPP TS 37.571-1 [5] and 3GPP TS 37.571-2 [6]. These applicability statements are based on the features implemented in the UE.

Special conformance testing functions can be found in 3GPP TS 34.109 [10] for UTRA, 3GPP TS 36.509 [2] for E-UTRA and 3GPP TS 38.509 [14] for NR. The common test environments are included in 3GPP TS 34.108 [9] for UTRA, in 3GPP TS 36.508 [3] for E-UTRA and in 3GPP TS 38.508-1 [15] for NR.

The present document is valid for UE supporting UE positioning implemented according to 3GPP releases starting from Release 99 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 unless the context in which the reference is made suggests a different Release is relevant (information on the applicable release in a particular context can be found in e.g. test case title, description or applicability, message description or content).

- [1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 36.509: "Special conformance testing functions for User Equipment".
- [3] 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".
- [4] 3GPP TS 36.355: "Evolved Universal Terrestrial Radio Access (E-UTRA); LTE Positioning Protocol (LPP)".
- [5] 3GPP TS 37.571-1: "User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification".
- [6] 3GPP TS 37.571-2: "User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance".
- [7] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [8] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [9] 3GPP TS 34.108: "Common Test Environments for User Equipment (UE) Conformance Testing".
- [10] 3GPP TS 34.109: "Terminal logical test interface; Special conformance testing functions".
- [11] 3GPP TS 36.523-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".

- [12] 3GPP TS 34.123-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".
- [13] 3GPP TS 36.306: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) radio access capabilities".
- [14] 3GPP TS 38.509: "Special conformance testing functions for User Equipment (UE)".
- [15] 3GPP TS 38.508-1: "User Equipment (UE) conformance specification; Part 1: Common test environment".
- [16] 3GPP TS 38.508-2: "5GS; UE conformance specification; Part 2: Common Implementation Conformance Statement (ICS) proforma".
- [17] 3GPP TS 37.355: "LTE Positioning Protocol (LPP)".

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 [7] and ISO/IEC 9646-7 [8]

NOTE: Some terms and abbreviations defined in [7] and [8] 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:

A-BDS Assisted-BeiDou Navigation Satellite System

| | |
|-----------|--|
| A-Galileo | Assisted- Galileo |
| A-GANSS | Assisted- Galileo and Additional Navigation Satellite Systems |
| A-GLONASS | Assisted- GLObal'naya NAVigatsionnaya Sputnikovaya Sistema (English: Global Navigation Satellite System) |
| A-GNSS | Assisted - Global Navigation Satellite System |
| A-GPS | Assisted - Global Positioning System |
| AP | Access Point |
| A-QZSS | Assisted- Quasi-Zenith Satellite System |
| A-SBAS | Assisted- Space Based Augmentation System |
| BDS | BeiDou Navigation Satellite System |
| BLE | Bluetooth Low Energy |
| C/A | Coarse/Acquisition |
| DL-AoD | Downlink Angle-of-Departure |
| DL-TDOA | Downlink Time Difference Of Arrival |
| DUT | Device Under Test |
| E-CID | Enhanced Cell-ID (positioning method) |
| eFDD | Enhanced Frequency Division Duplex |
| ENB | Evolved Node B |
| EN-DC | E-UTRA-NR Dual Connectivity |
| eTDD | Enhanced Time Division Duplex |
| E-UTRA | Evolved UMTS Terrestrial Radio Access |
| E-UTRAN | Evolved UMTS Terrestrial Radio Access Network |
| FDD | Frequency Division Duplex |
| FFS | For Further Study |
| GANSS | Galileo and Additional Navigation Satellite Systems |
| GLONASS | GLObal'naya NAVigatsionnaya Sputnikovaya Sistema (English: Global Navigation Satellite System) |
| GNSS | Global Navigation Satellite System |
| GPS | Global Positioning System |
| ICS | Implementation Conformance Statement |
| IXIT | Implementation eXtra Information for Testing |
| LPP | LTE Positioning Protocol |
| MBS | Metropolitan Beacon System |
| MO-LR | Mobile Originated Location Request |
| Multi-RTT | Multi-Round Trip Time |
| MT-LR | Mobile Terminated Location Request |
| NE-DC | NR-E-UTRA Dual Connectivity |
| NGEN-DC | NG-RAN E-UTRA-NR Dual Connectivity |
| NR E-CID | NR Enhanced Cell ID (positioning method) |
| NG-RAN | NextGen Radio Access Network |
| NR | New Radio |
| NR-DC | NR-NR Dual Connectivity |
| OTDOA | Observed Time Difference Of Arrival |
| PICS | Protocol Implementation Conformance Statement |
| PIXIT | Protocol Implementation eXtra Information for Testing |
| QZSS | Quasi-Zenith Satellite System |
| RRC | Radio Resource Control |
| RSTD | Reference Signal Time Difference |
| SBAS | Space Based Augmentation System |
| SCS | System Conformance Statement |
| TC | Test Case |
| TDD | Time Division Duplex |
| UE | User Equipment |
| UEUT | User Equipment Under Test |
| UTRA | Universal Terrestrial Radio Access |
| UTRAN | Universal Terrestrial Radio Access Network |
| WLAN | Wireless Local Area Network |

4 Recommended Test Case Applicability

The applicability of each individual test is identified in Table 4-1 (UTRA), 4-3 and 4-3a (E-UTRA) and 4-11 (NR) for test cases in TS 37.571-1 [5] and in Table 4-5 (UTRA), 4-7 (E-UTRA) and 4-9 (NR) for test cases in TS 37.571-2 [6]. 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, 4-3, 4-3a, 4-5, 4-7, 4-9 and 4-11 have the following meaning:

Clause

The clause column indicates the clause number in TS 37.571-1 [5] and TS 37.571-2 [6] 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 37.571-1 [5] and TS 37.571-2 [6] that contains the test body.

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 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. |

NOTE: The conditions are defined in Table 4-2, 4-4, 4-6, 4-8, 4-10 and 4-12.

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 36.523-2 [11] 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.

The columns in Tables 4-1 and 4-5 have the following meaning:

Release

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

The columns in Tables 4-3, 4-3a, 4-7, 4-9, and 4-11 have the following meaning:

Release of LPP

The Release of LPP column indicates the earliest release of the positioning functionality in LPP (3GPP TS 36.355 [4] and 3GPP TS 37.355 [17]) from which the test case is applicable. Note that the release of the positioning functionality does not have to align with that of the RAT bearer.

Release RAT

The Release RAT column indicates the earliest release of the RAT bearer over which the test should be conducted. Note that the release of the positioning functionality does not have to align with that of the RAT bearer.

NOTE: To meet the validation requirements from certification bodies then there is a need to uniquely reference the 2Rx (UE supports 2 Rx antenna ports in the tested band) and 4Rx (UE supports 4 Rx antenna ports in the tested band) branch of common 2Rx and 4Rx OTDOA and ECID test cases in table 4-3a. The 2Rx and 4Rx branches of common 2Rx and 4Rx test cases can be referenced by amending a "2Rx" or "4Rx" suffix to the test case clause number. For example for test case 8.1.1 the 2Rx and 4Rx branches can be identified by "8.1.1_2Rx" and "8.1.1_4Rx".

Table 4-1: Applicability of tests and additional information for testing for test cases in TS 37.571-1 [5] for UTRA

| Clause | Title | Release | Applicability | Comments |
|----------|---|---------|---------------|---|
| 5.2.1 | Sensitivity Coarse Time Assistance | Rel-6 | C01ur | All UEs supporting FDD and UE-Based A-GPS L1 C/A only or UE-Assisted A-GPS L1 C/A only |
| 5.2.2 | Sensitivity Fine Time Assistance | Rel-6 | C02ur | All UEs supporting FDD and UE-Based A-GPS L1 C/A only or UE-Assisted A-GPS L1 C/A only and Fine Time Assistance |
| 5.3 | Nominal Accuracy | Rel-6 | C01ur | All UEs supporting FDD and UE-Based A-GPS L1 C/A only or UE-Assisted A-GPS L1 C/A only |
| 5.4 | Dynamic Range | Rel-6 | C01ur | All UEs supporting FDD and UE-Based A-GPS L1 C/A only or UE-Assisted A-GPS L1 C/A only |
| 5.5 | Multi-path Performance | Rel-6 | C01ur | All UEs supporting FDD and UE-Based A-GPS L1 C/A only or UE-Assisted A-GPS L1 C/A only |
| 5.6 | Moving Scenario and Periodic Update Performance | Rel-6 | C01ur | All UEs supporting FDD and UE-Based A-GPS L1 C/A only or UE-Assisted A-GPS L1 C/A only |
| 6.2.1-1 | Sensitivity Coarse Time Assistance: Sub-Test 1 | Rel-10 | C03-1ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with GLONASS only |
| 6.2.1-2 | Sensitivity Coarse Time Assistance: Sub-Test 2 | Rel-12 | C03-2ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with Galileo only |
| 6.2.1-3 | Sensitivity Coarse Time Assistance: Sub-Test 3 | Rel-10 | C03-3ur | All UEs supporting UE-Based A-GPS and A-GANSS with Modernized GPS only or UE-Assisted A-GPS and A-GANSS with Modernized GPS only |
| 6.2.1-4 | Sensitivity Coarse Time Assistance: Sub-Test 4 | Rel-10 | C03-4ur | All UEs supporting UE-Based A-GPS and A-GANSS with GLONASS only or UE-Assisted A-GPS and A-GANSS with GLONASS only |
| 6.2.1-8 | Sensitivity Coarse Time Assistance: Sub-Test 8 | Rel-12 | C03-8ur | All UEs supporting UE-Based A-GPS and A-GANSS with Galileo only or UE-Assisted A-GPS and A-GANSS with Galileo only |
| 6.2.1-9 | Sensitivity Coarse Time Assistance: Sub-Test 9 | Rel-12 | C03-9ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with BDS only |
| 6.2.1-10 | Sensitivity Coarse Time Assistance: Sub-Test 10 | Rel-12 | C03-10ur | All UEs supporting UE-Based A-GPS and A-GANSS with BDS only or UE-Assisted A-GPS and A-GANSS with BDS only |
| 6.2.2-1 | Sensitivity Fine Time Assistance: Sub-Test 1 | Rel-10 | C04-1ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with GLONASS only and Fine Time Assistance |
| 6.2.2-2 | Sensitivity Fine Time Assistance: Sub-Test 2 | Rel-12 | C04-2ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with Galileo only and Fine Time Assistance |
| 6.2.2-3 | Sensitivity Fine Time Assistance: Sub-Test 3 | Rel-10 | C04-3ur | All UEs supporting UE-Based A-GPS and A-GANSS with Modernized GPS only or UE-Assisted A-GPS and A-GANSS with Modernized GPS only and Fine Time Assistance |
| 6.2.2-4 | Sensitivity Fine Time Assistance: Sub-Test 4 | Rel-10 | C04-4ur | All UEs supporting UE-Based A-GPS and A-GANSS with GLONASS only or UE-Assisted A-GPS and A-GANSS with GLONASS only and Fine Time Assistance |
| 6.2.2-8 | Sensitivity Fine Time Assistance: Sub-Test 8 | Rel-12 | C04-8ur | All UEs supporting UE-Based A-GPS and A-GANSS with Galileo only or UE-Assisted A-GPS and A-GANSS with Galileo only and Fine Time Assistance |
| 6.2.2-9 | Sensitivity Fine Time Assistance: Sub-Test 9 | Rel-12 | C04-9ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with BDS only and Fine Time Assistance |
| 6.2.2-10 | Sensitivity Fine Time Assistance: Sub-Test 10 | Rel-12 | C04-10ur | All UEs supporting UE-Based A-GPS and A-GANSS with BDS only or UE-Assisted A-GPS and A-GANSS with BDS only and Fine Time Assistance |

| Clause | Title | Release | Applicability | Comments |
|--------|--------------------------------------|---------|---------------|--|
| 6.3-1 | Nominal Accuracy: Sub-Test 1 | Rel-10 | C03-1ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with GLONASS only |
| 6.3-2 | Nominal Accuracy: Sub-Test 2 | Rel-12 | C03-2ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with Galileo only |
| 6.3-3 | Nominal Accuracy: Sub-Test 3 | Rel-10 | C03-3ur | All UEs supporting UE-Based A-GPS and A-GANSS with Modernized GPS only or UE-Assisted A-GPS and A-GANSS with Modernized GPS only |
| 6.3-4 | Nominal Accuracy: Sub-Test 4 | Rel-10 | C03-4ur | All UEs supporting UE-Based A-GPS and A-GANSS with GLONASS only or UE-Assisted A-GPS and A-GANSS with GLONASS only |
| 6.3-8 | Nominal Accuracy: Sub-Test 8 | Rel-12 | C03-8ur | All UEs supporting UE-Based A-GPS and A-GANSS with Galileo only or UE-Assisted A-GPS and A-GANSS with Galileo only |
| 6.3-9 | Nominal Accuracy: Sub-Test 9 | Rel-12 | C03-9ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with BDS only |
| 6.3-10 | Nominal Accuracy: Sub-Test 10 | Rel-12 | C03-10ur | All UEs supporting UE-Based A-GPS and A-GANSS with BDS only or UE-Assisted A-GPS and A-GANSS with BDS only |
| 6.4-1 | Dynamic Range: Sub-Test 1 | Rel-10 | C03-1ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with GLONASS only |
| 6.4-2 | Dynamic Range: Sub-Test 2 | Rel-12 | C03-2ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with Galileo only |
| 6.4-3 | Dynamic Range: Sub-Test 3 | Rel-10 | C03-3ur | All UEs supporting UE-Based A-GPS and A-GANSS with Modernized GPS only or UE-Assisted A-GPS and A-GANSS with Modernized GPS only |
| 6.4-4 | Dynamic Range: Sub-Test 4 | Rel-10 | C03-4ur | All UEs supporting UE-Based A-GPS and A-GANSS with GLONASS only or UE-Assisted A-GPS and A-GANSS with GLONASS only |
| 6.4-8 | Dynamic Range: Sub-Test 8 | Rel-12 | C03-8ur | All UEs supporting UE-Based A-GPS and A-GANSS with Galileo only or UE-Assisted A-GPS and A-GANSS with Galileo only |
| 6.4-9 | Dynamic Range: Sub-Test 9 | Rel-12 | C03-9ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with BDS only |
| 6.4-10 | Dynamic Range: Sub-Test 10 | Rel-12 | C03-10ur | All UEs supporting UE-Based A-GPS and A-GANSS with BDS only or UE-Assisted A-GPS and A-GANSS with BDS only |
| 6.5-1 | Multi-path Performance: Sub-Test 1 | Rel-10 | C03-1ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with GLONASS only |
| 6.5-2 | Multi- path Performance: Sub-Test 2 | Rel-12 | C03-2ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with Galileo only |
| 6.5-3 | Multi- path Performance: Sub-Test 3 | Rel-10 | C03-3ur | All UEs supporting UE-Based A-GPS and A-GANSS with Modernized GPS only or UE-Assisted A-GPS and A-GANSS with Modernized GPS only |
| 6.5-4 | Multi- path Performance: Sub-Test 4 | Rel-10 | C03-4ur | All UEs supporting UE-Based A-GPS and A-GANSS with GLONASS only or UE-Assisted A-GPS and A-GANSS with GLONASS only |
| 6.5-8 | Multi- path Performance: Sub-Test 8 | Rel-12 | C03-8ur | All UEs supporting UE-Based A-GPS and A-GANSS with Galileo only or UE-Assisted A-GPS and A-GANSS with Galileo only |
| 6.5-9 | Multi- path Performance: Sub-Test 9 | Rel-12 | C03-9ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with BDS only |
| 6.5-10 | Multi- path Performance: Sub-Test 10 | Rel-12 | C03-10ur | All UEs supporting UE-Based A-GPS and A-GANSS with BDS only or UE-Assisted A-GPS and A-GANSS with BDS only |

| Clause | Title | Release | Applicability | Comments |
|--------|--|---------|---------------|--|
| 6.6-1 | Moving Scenario and Periodic Update Performance: Sub-Test 1 | Rel-10 | C03-1ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with GLONASS only |
| 6.6-2 | Moving Scenario and Periodic Update Performance: Sub-Test 2 | Rel-12 | C03-2ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with Galileo only |
| 6.6-3 | Moving Scenario and Periodic Update Performance: Sub-Test 3 | Rel-10 | C03-3ur | All UEs supporting UE-Based A-GPS and A-GANSS with Modernized GPS only or UE-Assisted A-GPS and A-GANSS with Modernized GPS only |
| 6.6-4 | Moving Scenario and Periodic Update Performance: Sub-Test 4 | Rel-10 | C03-4ur | All UEs supporting UE-Based A-GPS and A-GANSS with GLONASS only or UE-Assisted A-GPS and A-GANSS with GLONASS only |
| 6.6-8 | Moving Scenario and Periodic Update Performance: Sub-Test 8 | Rel-12 | C03-8ur | All UEs supporting UE-Based A-GPS and A-GANSS with Galileo only or UE-Assisted A-GPS and A-GANSS with Galileo only |
| 6.6-9 | Moving Scenario and Periodic Update Performance: Sub-Test 9 | Rel-12 | C03-9ur | All UEs supporting UE-Based A-GANSS or UE-Assisted A-GANSS with BDS only |
| 6.6-10 | Moving Scenario and Periodic Update Performance: Sub-Test 10 | Rel-12 | C03-10ur | All UEs supporting UE-Based A-GPS and A-GANSS with BDS only or UE-Assisted A-GPS and A-GANSS with BDS only |

Table 4-2: Applicability of tests Conditions for test cases in TS 37.571-1 [5] for UTRA

| | |
|----------|--|
| C01ur | IF A.4.1-1/3 AND (A.4.3-1/10 OR A.4.3-1/11) AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE N/A |
| C02ur | IF A.4.1-1/3 AND (A.4.3-1/10 OR A.4.3-1/11) AND NOT (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/12 THEN R ELSE N/A |
| C03-1ur | IF (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/11) AND NOT (A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C03-2ur | IF (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/9 AND NOT (A.4.3-1/10 OR A.4.3-1/11) AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/13) THEN R ELSE N/A |
| C03-3ur | IF (A.4.3-1/10 OR A.4.3-1/11) AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/8 AND NOT (A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C03-4ur | IF (A.4.3-1/10 OR A.4.3-1/11) AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/7 AND NOT (A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C03-8ur | IF (A.4.3-1/10 OR A.4.3-1/11) AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/9 AND NOT (A.4.3-1/8 OR A.4.3-1/7 OR A.4.3-1/13) THEN R ELSE N/A |
| C03-9ur | IF (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/13 AND NOT (A.4.3-1/10 OR A.4.3-1/11) AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/9) THEN R ELSE N/A |
| C03-10ur | IF (A.4.3-1/10 OR A.4.3-1/11) AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/13 AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/9) THEN R ELSE N/A |
| C04-1ur | IF (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/11) AND NOT (A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/13) AND A.4.3-1/12 THEN R ELSE N/A |
| C04-2ur | IF (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/9 AND NOT (A.4.3-1/10 OR A.4.3-1/11) AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/13) AND A.4.3-1/12 THEN R ELSE N/A |
| C04-3ur | IF (A.4.3-1/10 OR A.4.3-1/11) AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/8 AND NOT (A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/13) AND A.4.3-1/12 THEN R ELSE N/A |
| C04-4ur | IF (A.4.3-1/10 OR A.4.3-1/11) AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/7 AND NOT (A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/13) AND A.4.3-1/12 THEN R ELSE N/A |
| C04-8ur | IF (A.4.3-1/10 OR A.4.3-1/11) AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/9 AND NOT (A.4.3-1/8 OR A.4.3-1/7 OR A.4.3-1/13) AND A.4.3-1/12 THEN R ELSE N/A |
| C04-9ur | IF (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/13 AND NOT (A.4.3-1/10 OR A.4.3-1/11) AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/9) AND A.4.3-1/12 THEN R ELSE N/A |
| C04-10ur | IF (A.4.3-1/10 OR A.4.3-1/11) AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/13 AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/9) AND A.4.3-1/12 THEN R ELSE N/A |

Table 4-3: Applicability of tests and additional information for testing for RAT-independent test cases in TS 37.571-1 [5] for E-UTRA

| Clause | TC Title | Release of LPP | Applicability | | Additional Information | | | |
|----------|---|----------------|---------------|--|------------------------|---------------|-------------------------|-------------|
| | | | Condition | Comment | Specific ICS | Specific IXIT | Number of TC Executions | Release RAT |
| 7 | A-GNSS minimum performance requirements | | | | | | | |
| 7.1.1-1 | Sensitivity Coarse Time Assistance: Sub-Test 1 | Rel-9 | C01er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS L1C/A only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.1-2 | Sensitivity Coarse Time Assistance: Sub-Test 2 | Rel-9 | C02er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.1-3 | Sensitivity Coarse Time Assistance: Sub-Test 3 | Rel-12 | C03er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-Galileo only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.1-4 | Sensitivity Coarse Time Assistance: Sub-Test 4 | Rel-9 | C04er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.1-5 | Sensitivity Coarse Time Assistance: Sub-Test 5 | Rel-9 | C05er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.1-8 | Sensitivity Coarse Time Assistance: Sub-Test 8 | Rel-12 | C29er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.1-9 | Sensitivity Coarse Time Assistance: Sub-Test 9 | Rel-12 | C19er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.1-10 | Sensitivity Coarse Time Assistance: Sub-Test 10 | Rel-12 | C20er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.1-11 | Sensitivity Coarse Time Assistance: Sub-Test | Rel-12 | C32er | All LTE UEs except | pc_eFDD | | | Rel-9 |

| | | | | | | | | |
|----------|---|--------|-------|---|---------|--|--|-------|
| | 11 | | | Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only (Note 5) | pc_eTDD | | | Rel-9 |
| 7.1.1-12 | Sensitivity Coarse Time Assistance: Sub-Test 12 | Rel-12 | C79er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.1-13 | Sensitivity Coarse Time Assistance: Sub-Test 13 | Rel-12 | C80er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.2-1 | Sensitivity Fine Time Assistance: Sub-Test 1 | Rel-9 | C06er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS L1C/A only, and Fine Time Assistance | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.2-2 | Sensitivity Fine Time Assistance: Sub-Test 2 | Rel-9 | C07er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GLONASS only, and Fine Time Assistance | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.2-3 | Sensitivity Fine Time Assistance: Sub-Test 3 | Rel-12 | C08er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-Galileo only, and Fine Time Assistance | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.2-4 | Sensitivity Fine Time Assistance: Sub-Test 4 | Rel-9 | C09er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only, and Fine Time Assistance | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.2-5 | Sensitivity Fine Time Assistance: Sub-Test 5 | Rel-9 | C10er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only, and Fine Time Assistance | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.2-8 | Sensitivity Fine Time Assistance: Sub-Test 8 | Rel-12 | C30er | All LTE UEs except | pc_eFDD | | | Rel-9 |

| | | | | | | | | |
|----------|---|--------|-------|--|---------|--|--|-------|
| | | | | Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo only, and Fine Time Assistance | pc_eTDD | | | Rel-9 |
| 7.1.2-9 | Sensitivity Fine Time Assistance: Sub-Test 9 | Rel-12 | C23er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-BDS only, and Fine Time Assistance (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.2-10 | Sensitivity Fine Time Assistance: Sub-Test 10 | Rel-12 | C24er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-BDS only, and Fine Time Assistance (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.2-11 | Sensitivity Fine Time Assistance: Sub-Test 11 | Rel-12 | C33er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only, and Fine Time Assistance (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.2-12 | Sensitivity Fine Time Assistance: Sub-Test 12 | Rel-12 | C81er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only, and Fine Time Assistance | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.1.2-13 | Sensitivity Fine Time Assistance: Sub-Test 13 | Rel-12 | C82er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only, and Fine Time Assistance (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2-1 | Nominal Accuracy: Sub-Test 1 | Rel-9 | C01er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS L1C/A only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2-2 | Nominal Accuracy: Sub-Test 2 | Rel-9 | C02er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |

| | | | | | | | | |
|--------|-------------------------------|--------|-------|--|---------|--|--|-------|
| 7.2-3 | Nominal Accuracy: Sub-Test 3 | Rel-12 | C03er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-Galileo only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2-4 | Nominal Accuracy: Sub-Test 4 | Rel-9 | C04er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2-5 | Nominal Accuracy: Sub-Test 5 | Rel-9 | C05er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2-8 | Nominal Accuracy: Sub-Test 8 | Rel-12 | C29er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2-9 | Nominal Accuracy: Sub-Test 9 | Rel-12 | C19er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2-10 | Nominal Accuracy: Sub-Test 10 | Rel-12 | C20er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2-11 | Nominal Accuracy: Sub-Test 11 | Rel-12 | C32er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2-12 | Nominal Accuracy: Sub-Test 12 | Rel-12 | C79er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2-13 | Nominal Accuracy: Sub-Test 13 | Rel-12 | C80er | All LTE UEs except | pc_eFDD | | | Rel-9 |

| | | | | | | | | |
|--------|----------------------------|--------|-------|--|---------|--|--|-------|
| | | | | Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only (Note 5) | pc_eTDD | | | Rel-9 |
| 7.3-1 | Dynamic Range: Sub-Test 1 | Rel-9 | C01er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS L1C/A only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3-2 | Dynamic Range: Sub-Test 2 | Rel-9 | C02er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3-3 | Dynamic Range: Sub-Test 3 | Rel-12 | C03er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-Galileo only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3-4 | Dynamic Range: Sub-Test 4 | Rel-9 | C04er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3-5 | Dynamic Range: Sub-Test 5 | Rel-9 | C05er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3-8 | Dynamic Range: Sub-Test 8 | Rel-12 | C29er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3-9 | Dynamic Range: Sub-Test 9 | Rel-12 | C19er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3-10 | Dynamic Range: Sub-Test 10 | Rel-12 | C20er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3-11 | Dynamic Range: Sub-Test 11 | Rel-12 | C32er | All LTE UEs except | pc_eFDD | | | Rel-9 |

| | | | | | | | | |
|--------|---------------------------------|--------|-------|--|---------|--|--|-------|
| | | | | Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only (Note 5) | pc_eTDD | | | Rel-9 |
| 7.3-12 | Dynamic Range: Sub-Test 12 | Rel-12 | C79er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3-13 | Dynamic Range: Sub-Test 13 | Rel-12 | C80er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4-1 | Multi-path scenario: Sub-Test 1 | Rel-9 | C01er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS L1C/A only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4-2 | Multi-path scenario: Sub-Test 2 | Rel-9 | C02er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4-3 | Multi-path scenario: Sub-Test 3 | Rel-12 | C03er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-Galileo only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4-4 | Multi-path scenario: Sub-Test 4 | Rel-9 | C04er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4-5 | Multi-path scenario: Sub-Test 5 | Rel-9 | C05er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4-8 | Multi-path scenario: Sub-Test 8 | Rel-12 | C29er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4-9 | Multi-path scenario: Sub-Test 9 | Rel-12 | C19er | All LTE UEs except | pc_eFDD | | | Rel-9 |

| | | | | | | | | |
|--------|---|---------------------------------------|-------|--|---------|--|--|-------|
| | | | | Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-BDS only (Note 5) | pc_eTDD | | | Rel-9 |
| 7.4-10 | Multi-path scenario: Sub-Test 10 | Rel-12 | C20er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4-11 | Multi-path scenario: Sub-Test 11 | Rel-12 | C32er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4-12 | Multi-path scenario: Sub-Test 12 | Rel-12 | C79er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4-13 | Multi-path scenario: Sub-Test 13 | Rel-12 | C80er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5-1 | Moving scenario and periodic update: Sub-Test 1 (Rel-9 to Rel-13) | Rel-9, Rel-10, Rel-11, Rel-12, Rel-13 | C01er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS L1C/A only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5-2 | Moving scenario and periodic update: Sub-Test 2 (Rel-9 to Rel-13) | Rel-9, Rel-10, Rel-11, Rel-12, Rel-13 | C02er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5-3 | Moving scenario and periodic update: Sub-Test 3 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C03er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-Galileo only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5-4 | Moving scenario and periodic update: Sub-Test 4 (Rel-9 to Rel-13) | Rel-9, Rel-10, Rel-11, Rel-12, Rel-13 | C04er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5-5 | Moving scenario and periodic update: Sub-Test | Rel-9, | C05er | All LTE UEs except | pc_eFDD | | | Rel-9 |

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| | 5 (Rel-9 to Rel-13) | Rel-10, Rel-11, Rel-12, Rel-13 | | Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only | pc_eTDD | | | Rel-9 |
| 7.5-8 | Moving scenario and periodic update: Sub-Test 8 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C29er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5-9 | Moving scenario and periodic update: Sub-Test 9 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C19er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5-10 | Moving scenario and periodic update: Sub-Test 10 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C20er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5-11 | Moving scenario and periodic update: Sub-Test 11 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C32er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5-12 | Moving scenario and periodic update: Sub-Test 12 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C79er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5-13 | Moving scenario and periodic update: Sub-Test 13 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C80er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5A-1 | Moving scenario and periodic update: Sub-Test 1 (Rel-14 onwards) | Rel-14 | C34er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS L1C/A only and periodical reporting | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5A-2 | | Rel-14 | C35er | | pc_eFDD | | | Rel-9 |

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| | Moving scenario and periodic update: Sub-Test 2 (Rel-14 onwards) | | | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GLONASS only and periodical reporting | pc_eTDD | | | Rel-9 |
| 7.5A-3 | Moving scenario and periodic update: Sub-Test 3 (Rel-14 onwards) | Rel-14 | C36er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-Galileo only and periodical reporting | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5A-4 | Moving scenario and periodic update: Sub-Test 4 (Rel-14 onwards) | Rel-14 | C37er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only and periodical reporting | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5A-5 | Moving scenario and periodic update: Sub-Test 5 (Rel-14 onwards) | Rel-14 | C38er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only and periodical reporting | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5A-8 | Moving scenario and periodic update: Sub-Test 8 (Rel-14 onwards) | Rel-14 | C39er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo only and periodical reporting | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5A-9 | Moving scenario and periodic update: Sub-Test 9 (Rel-14 onwards) | Rel-14 | C40er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-BDS only and periodical reporting (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5A.10 | Moving scenario and periodic update: Sub-Test 10 (Rel-14 onwards) | Rel-14 | C41er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-BDS only and periodical reporting (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5A.11 | | Rel-14 | C85er | | pc_eFDD | | | Rel-9 |

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| | Moving scenario and periodic update: Sub-Test 11 (Rel-14 onwards) | | | All LTE UEs except Cat M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only and periodical reporting (Note 5) | pc_eTDD | | | Rel-9 |
| 7.5A-12 | Moving scenario and periodic update: Sub-Test 12 (Rel-14 onwards) | Rel-14 | C83er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only and periodical reporting | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5A-13 | Moving scenario and periodic update: Sub-Test 13 (Rel-14 onwards) | Rel-14 | C84er | All LTE UEs except Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only and periodical reporting (Note 5) | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 11 | E-UTRA MBS measurement requirements <small>Note 4</small> | | | | | | | |
| 11.1 | MBS Measurement Reporting Delay (Release 13 only) | Rel-13 only | C31er | All UEs supporting UE-Assisted MBS | pc_eFDD | | | Rel-9 |
| 11.1A | MBS Measurement Reporting Delay (Release 14 onwards) | Rel-14 | C31er | All UEs supporting UE-Assisted MBS | pc_eTDD | | | Rel-9 |
| | | | | | pc_eFDD | | | |
| 11.2 | MBS Sensitivity Measurement Accuracy (Release 13 only) | Rel-13 only | C31er | All UEs supporting UE-Assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | |
| 11.2A | MBS Sensitivity Measurement Accuracy (Release 14 onwards) | Rel-14 | C31er | All UEs supporting UE-Assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | |
| 11.3 | MBS Nominal Measurement Accuracy (Release 13 only) | Rel-13 only | C31er | All UEs supporting UE-Assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | |
| 11.3A | MBS Nominal Measurement Accuracy (Release 14 onwards) | Rel-14 | C31er | All UEs supporting UE-Assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | |
| 11.4 | MBS Dynamic Range Measurement Accuracy (Release 13 only) | Rel-13 only | C31er | All UEs supporting UE-Assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | |
| 11.4A | MBS Dynamic Range Measurement Accuracy (Release 14 onwards) | Rel-14 | C31er | All UEs supporting UE-Assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | |
| 11.5 | MBS Measurement Accuracy in Multipath (Release 13 only) | Rel-13 only | C31er | All UEs supporting UE-Assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | |
| 11.5A | MBS Measurement Accuracy in Multipath (Release 14 onwards) | Rel-14 | C31er | All UEs supporting UE-Assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | |
| 12 | E-UTRA WLAN and BLE measurement requirements | | | | | | | |
| 12.1.1 | WLAN AP Identification and reporting delay under nominal conditions | Rel-14 (Note 3) | C42er | All LTE UEs supporting UE-Assisted WLAN | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | |

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|---------|--|-----------------|-------|--|---------|--|--|-------|
| 12.1.2 | WLAN AP Identification and reporting delay under dynamic range conditions | Rel-14 (Note 3) | C42er | All LTE UEs supporting UE-Assisted WLAN | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | |
| 12.2.1 | Bluetooth identification | Rel-14 (Note 3) | C43er | All LTE UEs supporting UE-Assisted Bluetooth | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | |
| Note 1: | Void | | | | | | | |
| Note 2: | Void | | | | | | | |
| Note 3: | This test case can be optionally tested for Rel-9 UEs supporting LPP Rel-13 features for WLAN and BLE measurements. | | | | | | | |
| Note 4: | For MBS, the test requirements in TS 37.571-1 [5] clause 11 applies to both E-UTRA and NR. The applicabilities of the test cases for NR are shown in Table 4-11. | | | | | | | |
| Note 5: | If the signal type for BDS supported by the UE includes B1C then Rel-16 of LPP is required. | | | | | | | |

Table 4-3a: Applicability of tests and additional information for testing for RAT-dependent test cases in TS 37.571-1 [5] for E-UTRA

| Clause | TC Title | Release of LPP | Applicability | | Additional Information | | | | |
|----------|--|----------------|---------------|--|------------------------|---------------|----------|-------------------------|-----------------------|
| | | | Condition | Comment | Specific ICS | Specific IXIT | Branch | Number of TC Executions | Release RAT |
| 8 | E-CID measurement requirements | | | | | | | | |
| 8.1.1 | FDD UE Rx-Tx time difference case (Rel-9 to Rel-11) | Rel-9 | C11er | All FDD UEs supporting E-CID with Rx-Tx time difference | pc_eFDD | | 2Rx, 4Rx | | Rel-9, Rel-10, Rel-11 |
| 8.1.1A | FDD UE Rx-Tx time difference case (Rel-12 onwards) | Rel-9 | C11er | All FDD UEs supporting E-CID with Rx-Tx time difference | pc_eFDD | | 2Rx, 4Rx | | Rel-12 |
| 8.1.1B | FDD UE Rx-Tx time difference case for UE Category 1bis | Rel-9 | C77er | Category 1bis FDD UEs supporting E-CID with Rx-Tx time difference | pc_eFDD | | | | Rel-13 |
| 8.1.2 | TDD UE Rx-Tx time difference case (Rel-9 to Rel-11) | Rel-13 | C12er | All TDD UEs supporting E-CID with Rx-Tx time difference | pc_eTDD | | 2Rx, 4Rx | | Rel-9, Rel-10, Rel-11 |
| 8.1.2A | TDD UE Rx-Tx time difference case (Rel-12 onwards) | Rel-13 | C12er | All TDD UEs supporting E-CID with Rx-Tx time difference | pc_eTDD | | 2Rx, 4Rx | | Rel-12 |
| 8.1.2B | FDD UE Rx-Tx time difference case for UE Category 1bis | Rel-13 | C78er | Category 1bis TDD UEs supporting E-CID with Rx-Tx time difference | pc_eTDD | | | | Rel-13 |
| 8.1.3 | E-UTRAN FDD UE Rx-Tx Time Difference under Time-Domain Measurement Resource Restriction with Non-MBSFN ABS (eICIC) | Rel-9 | C25er | All FDD UEs supporting E-CID with Rx-Tx time difference and Feature Group Indicator 115 | pc_eFDD | | | | Rel-10 |
| 8.1.4 | E-UTRAN TDD UE Rx-Tx Time Difference under Time-Domain Measurement Resource Restriction with Non-MBSFN ABS (eICIC) | Rel-13 | C26er | All TDD UEs supporting E-CID with Rx-Tx time difference and Feature Group Indicator 115 | pc_eTDD | | | | Rel-10 |
| 8.1.5 | E-UTRAN FDD UE Rx-Tx time difference under Time Domain Measurement Resource Restriction with CRS Assistance Information and Non-MBSFN ABS (feICIC) | Rel-9 | C21er | All FDD UEs supporting E-CID with Rx-Tx time difference and CRS interference handling and Feature Group Indicator 115 | pc_eFDD | | | | Rel-11 |
| 8.1.6 | E-UTRAN TDD UE Rx-Tx time difference under Time Domain Measurement Resource Restriction with CRS Assistance Information and Non-MBSFN ABS (feICIC) | Rel-13 | C22er | All TDD UEs supporting E-CID with Rx-Tx time difference and CRS interference handling and ss-CCH interference handling and Feature Group Indicator 115 | pc_eTDD | | | | Rel-11 |
| 8.1.7 | E-UTRAN FDD UE Rx-Tx time difference case for Category M1/M2 UE in CEModeA | Rel-13 | C72er | All FDD Category M1/M2 UEs supporting E-CID with Rx-Tx time difference | pc_eFDD | | | | Rel-14 |

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|----------|---|--------|-------|--|---------|--|----------|--|--------------------|
| 8.1.8 | E-UTRAN HD-FDD UE Rx-Tx time difference case for Category M1/M2 UE in CEModeA | Rel-13 | C73er | All HD-FDD Category M1/M2 UEs supporting E-CID with Rx-Tx time difference | pc_eFDD | | | | Rel-14 |
| 8.1.9 | E-UTRAN TDD UE Rx-Tx time difference case for Category M1/M2 UE in CEModeA | Rel-13 | C74er | All TDD Category M1/M2 UEs supporting E-CID with Rx-Tx time difference | pc_eTDD | | | | Rel-14 |
| 9 | OTDOA measurement requirements | | | | | | | | |
| 9.1.1 | FDD RSTD Measurement Reporting Delay | Rel-9 | C13er | All FDD UEs supporting UE-assisted OTDOA | pc_eFDD | | | | Rel-9 |
| 9.1.1A | FDD RSTD Measurement Reporting Delay for UE Category 1bis | Rel-9 | C44er | Category 1bis FDD UEs supporting UE-assisted OTDOA | pc_eFDD | | | | Rel-13 (Note 3) |
| 9.1.2 | TDD RSTD Measurement Reporting Delay | Rel-9 | C14er | All TDD UEs supporting UE-assisted OTDOA | pc_eTDD | | | | Rel-9 |
| 9.1.2A | TDD RSTD Measurement Reporting Delay for UE Category 1bis | Rel-9 | C45er | Category 1bis TDD UEs supporting UE-assisted OTDOA | pc_eTDD | | | | Rel-13 (Note 3) |
| 9.1.3 | FDD RSTD Measurement Accuracy | Rel-9 | C13er | All FDD UEs supporting UE-assisted OTDOA | pc_eFDD | | 2Rx, 4Rx | | Rel-9 |
| 9.1.3A | FDD RSTD Measurement Accuracy for UE Category 1bis | Rel-9 | C44er | Category 1bis FDD UEs supporting UE-assisted OTDOA | pc_eFDD | | | | Rel-13 (Note 3) |
| 9.1.4 | TDD RSTD Measurement Accuracy | Rel-9 | C14er | All TDD UEs supporting UE-assisted OTDOA | pc_eTDD | | 2Rx, 4Rx | | Rel-9 |
| 9.1.4A | TDD RSTD Measurement Accuracy for UE Category 1bis | Rel-9 | C45er | Category 1bis TDD UEs supporting UE-assisted OTDOA | pc_eTDD | | | | Rel-13 (Note 3) |
| 9.2.1 | FDD-FDD inter-frequency RSTD measurement reporting delay | Rel-10 | C17er | All FDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-10 (Note 1) |
| 9.2.1A | FDD-FDD inter-frequency RSTD measurement reporting delay for UE Category 1bis | Rel-14 | C46er | Category 1bis FDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-13 (Note 1, 3) |
| 9.2.2 | TDD-TDD inter-frequency RSTD measurement reporting delay | Rel-10 | C18er | All TDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eTDD | | | | Rel-10 (Note 1) |
| 9.2.2A | TDD-TDD inter-frequency RSTD measurement reporting delay for UE Category 1bis | Rel-14 | C47er | Category 1bis TDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eTDD | | | | Rel-13 (Note 1, 3) |
| 9.2.4 | FDD-FDD inter-frequency RSTD Accuracy | Rel-10 | C17er | All FDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | 2Rx, 4Rx | | Rel-10 (Note 1) |

| | | | | | | | | | |
|---------|--|--------|-------|--|---------|--|----------|--|--------------------|
| 9.2.4A | FDD-FDD inter-frequency RSTD Accuracy for UE Category 1bis | Rel-10 | C46er | Category 1bis FDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-13 (Note 1, 3) |
| 9.2.5 | TDD-TDD inter-frequency RSTD Accuracy | Rel-10 | C18er | All TDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eTDD | | 2Rx, 4Rx | | Rel-10 (Note 1) |
| 9.2.5A | TDD-TDD inter-frequency RSTD Accuracy for UE Category 1bis | Rel-10 | C47er | Category 1bis TDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eTDD | | | | Rel-13 (Note 1, 3) |
| 9.3.1.1 | FDD intra-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M1 | Rel-13 | C48er | All FDD Category M1 UEs supporting UE-assisted OTDOA | pc_eFDD | | | | Rel-14 |
| 9.3.1.2 | FDD intra-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M2 | Rel-13 | C60er | All FDD Category M2 UEs supporting UE-assisted OTDOA | pc_eFDD | | | | Rel-14 |
| 9.3.2.1 | HD-FDD intra-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M1 | Rel-13 | C49er | All HD-FDD Category M1 UEs supporting UE-assisted OTDOA | pc_eFDD | | | | Rel-14 |
| 9.3.2.2 | HD-FDD intra-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M2 | Rel-13 | C61er | All HD-FDD Category M2 UEs supporting UE-assisted OTDOA | pc_eFDD | | | | Rel-14 |
| 9.3.3.1 | TDD intra-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M1 | Rel-13 | C50er | All TDD Category M1 UEs supporting UE-assisted OTDOA | pc_eTDD | | | | Rel-14 |
| 9.3.3.2 | TDD intra-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M2 | Rel-13 | C62er | All TDD Category M2 UEs supporting UE-assisted OTDOA | pc_eTDD | | | | Rel-14 |
| 9.3.4.1 | FDD intra-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M1 | Rel-13 | C51er | All FDD Category M1 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eFDD | | | | Rel-14 |
| 9.3.4.2 | FDD intra-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M2 | Rel-13 | C63er | All FDD Category M2 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eFDD | | | | Rel-14 |
| 9.3.5.1 | HD-FDD intra-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M1 | Rel-13 | C52er | All HD-FDD Category M1 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eFDD | | | | Rel-14 |
| 9.3.5.2 | HD-FDD intra-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M2 | Rel-13 | C64er | All HD-FDD Category M2 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eFDD | | | | Rel-14 |
| 9.3.6.1 | TDD intra-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M1 | Rel-13 | C53er | All TDD Category M1 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eTDD | | | | Rel-14 |

| | | | | | | | | | |
|----------|--|--------|-------|--|---------|--|--|--|--------|
| 9.3.6.2 | TDD intra-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M2 | Rel-13 | C65er | All TDD Category M2 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eTDD | | | | Rel-14 |
| 9.3.7.1 | FDD intra-frequency RSTD Measurement Accuracy in CE Mode A for Category M1 | Rel-13 | C48er | All FDD Category M1 UEs supporting UE-assisted OTDOA | pc_eFDD | | | | Rel-14 |
| 9.3.7.2 | FDD intra-frequency RSTD Measurement Accuracy in CE Mode A for Category M2 | Rel-13 | C60er | All FDD Category M2 UEs supporting UE-assisted OTDOA | pc_eFDD | | | | Rel-14 |
| 9.3.8.1 | HD-FDD intra-frequency RSTD Measurement Accuracy in CE Mode A for Category M1 | Rel-13 | C49er | All HD-FDD Category M1 UEs supporting UE-assisted OTDOA | pc_eFDD | | | | Rel-14 |
| 9.3.8.2 | HD-FDD intra-frequency RSTD Measurement Accuracy in CE Mode A for Category M2 | Rel-13 | C61er | All HD-FDD Category M2 UEs supporting UE-assisted OTDOA | pc_eFDD | | | | Rel-14 |
| 9.3.9.1 | TDD intra-frequency RSTD Measurement Accuracy in CE Mode A for Category M1 | Rel-13 | C50er | All TDD Category M1 UEs supporting UE-assisted OTDOA | pc_eTDD | | | | Rel-14 |
| 9.3.9.2 | TDD intra-frequency RSTD Measurement Accuracy in CE Mode A for Category M2 | Rel-13 | C62er | All TDD Category M2 UEs supporting UE-assisted OTDOA | pc_eTDD | | | | Rel-14 |
| 9.3.10.1 | FDD intra-frequency RSTD Measurement Accuracy in CE Mode B for Category M1 | Rel-13 | C51er | All FDD Category M1 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eFDD | | | | Rel-14 |
| 9.3.10.2 | FDD intra-frequency RSTD Measurement Accuracy in CE Mode B for Category M2 | Rel-13 | C63er | All FDD Category M2 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eFDD | | | | Rel-14 |
| 9.3.11.1 | HD-FDD intra-frequency RSTD Measurement Accuracy in CE Mode B for Category M1 | Rel-13 | C52er | All HD-FDD Category M1 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eFDD | | | | Rel-14 |
| 9.3.11.2 | HD-FDD intra-frequency RSTD Measurement Accuracy in CE Mode B for Category M2 | Rel-13 | C64er | All HD-FDD Category M2 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eFDD | | | | Rel-14 |
| 9.3.12.1 | TDD intra-frequency RSTD Measurement Accuracy in CE Mode B for Category M1 | Rel-13 | C53er | All TDD Category M1 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eTDD | | | | Rel-14 |
| 9.3.12.2 | TDD intra-frequency RSTD Measurement Accuracy in CE Mode B for Category M2 | Rel-13 | C65er | All TDD Category M2 UEs supporting UE-assisted OTDOA and CE Mode B | pc_eTDD | | | | Rel-14 |
| 9.3.13 | E-UTRAN FDD intra-frequency RSTD measurement period test case in CE Mode A with longer PRS occasions | Rel-15 | C88er | All FDD Category M1 or M2 UEs supporting UE-assisted OTDOA and additional PRS config or dense PRS config | pc_eFDD | | | | Rel-15 |

| | | | | | | | | | |
|--------|---|--------|-------|---|---------|--|--|--|--------|
| 9.3.14 | E-UTRAN HD-FDD intra-frequency RSTD measurement period test case in CE Mode A with longer PRS occasions | Rel-15 | C89er | All HD-FDD Category M1 or M2 UEs supporting UE-assisted OTDOA and additional PRS config or dense PRS config | pc_eFDD | | | | Rel-15 |
| 9.3.15 | E-UTRAN TDD intra-frequency RSTD measurement period test case in CE Mode A with longer PRS occasions | Rel-15 | C90er | All TDD Category M1 or M2 UEs supporting UE-assisted OTDOA and additional PRS config or dense PRS config | pc_eTDD | | | | Rel-15 |
| 9.3.16 | E-UTRAN FDD intra-frequency RSTD measurement period test case in CE Mode B with longer PRS occasions | Rel-15 | C91er | All FDD Category M1 or M2 UEs supporting UE-assisted OTDOA and additional PRS config or dense PRS config and CE Mode B | pc_eFDD | | | | Rel-15 |
| 9.3.17 | E-UTRAN HD-FDD intra-frequency RSTD measurement period test case in CE Mode B with longer PRS occasions | Rel-15 | C92er | All HD-FDD Category M1 or M2 UEs supporting UE-assisted OTDOA and additional PRS config or dense PRS config and CE Mode B | pc_eFDD | | | | Rel-15 |
| 9.3.18 | E-UTRAN TDD intra-frequency RSTD measurement period test case in CE Mode B with longer PRS occasions | Rel-15 | C93er | All TDD Category M1 or M2 UEs supporting UE-assisted OTDOA and additional PRS config or dense PRS config and CE Mode B | pc_eTDD | | | | Rel-15 |

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|---------|--|--------|-------|---|---------|--|--|--|--------|
| 9.4.1.1 | FDD inter-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M1 | Rel-13 | C54er | All FDD Category M1 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.1.2 | FDD inter-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M2 | Rel-13 | C66er | All FDD Category M2 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.2.1 | HD-FDD inter-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M1 | Rel-13 | C55er | All HD-FDD Category M1 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.2.2 | HD-FDD inter-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M2 | Rel-13 | C67er | All HD-FDD Category M2 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |

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| 9.4.3.1 | TDD inter-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M1 | Rel-13 | C56er | All TDD Category M1 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eTDD | | | | Rel-14 |
| 9.4.3.2 | TDD inter-frequency RSTD Measurement Reporting Delay in CE Mode A for Category M2 | Rel-13 | C68er | All TDD Category M2 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eTDD | | | | Rel-14 |
| 9.4.4.1 | FDD inter-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M1 | Rel-13 | C57er | All FDD Category M1 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.4.2 | FDD inter-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M2 | Rel-13 | C69er | All FDD Category M2 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.5.1 | HD-FDD inter-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M1 | Rel-13 | C58er | All HD-FDD Category M1 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.5.2 | HD-FDD inter-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M2 | Rel-13 | C70er | All HD-FDD Category M2 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.6.1 | TDD inter-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M1 | Rel-13 | C59er | All TDD Category M1 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eTDD | | | | Rel-14 |
| 9.4.6.2 | TDD inter-frequency RSTD Measurement Reporting Delay in CE Mode B for Category M2 | Rel-13 | C71er | All TDD Category M2 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eTDD | | | | Rel-14 |
| 9.4.7.1 | FDD inter-frequency RSTD Measurement Accuracy in CE Mode A for Category M1 | Rel-13 | C54er | All FDD Category M1 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |

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|----------|---|--------|-------|--|---------|--|--|--|--------|
| 9.4.7.2 | FDD inter-frequency RSTD Measurement Accuracy in CE Mode A for Category M2 | Rel-13 | C66er | All FDD Category M2 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.8.1 | HD-FDD inter-frequency RSTD Measurement Accuracy in CE Mode A for Category M1 | Rel-13 | C55er | All HD-FDD Category M1 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.8.2 | HD-FDD inter-frequency RSTD Measurement Accuracy in CE Mode A for Category M2 | Rel-13 | C67er | All HD-FDD Category M2 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.9.1 | TDD inter-frequency RSTD Measurement Accuracy in CE Mode A for Category M1 | Rel-13 | C56er | All TDD Category M1 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eTDD | | | | Rel-14 |
| 9.4.9.2 | TDD inter-frequency RSTD Measurement Accuracy in CE Mode A for Category M2 | Rel-13 | C68er | All TDD Category M2 UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | pc_eTDD | | | | Rel-14 |
| 9.4.10.1 | FDD inter-frequency RSTD Measurement Accuracy in CE Mode B for Category M1 | Rel-13 | C57er | All FDD Category M1 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.10.2 | FDD inter-frequency RSTD Measurement Accuracy in CE Mode B for Category M2 | Rel-13 | C69er | All FDD Category M2 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.11.1 | HD-FDD inter-frequency RSTD Measurement Accuracy in CE Mode B for Category M1 | Rel-13 | C58er | All HD-FDD Category M1 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |
| 9.4.11.2 | HD-FDD inter-frequency RSTD Measurement Accuracy in CE Mode B for Category M2 | Rel-13 | C70er | All HD-FDD Category M2 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eFDD | | | | Rel-14 |

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| 9.4.12.1 | TDD inter-frequency RSTD Measurement Accuracy in CE Mode B for Category M1 | Rel-13 | C59er | All TDD Category M1 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eTDD | | | | | Rel-14 |
| 9.4.12.2 | TDD inter-frequency RSTD Measurement Accuracy in CE Mode B for Category M2 | Rel-13 | C71er | All TDD Category M2 UEs supporting UE-assisted OTDOA, CE Mode B and inter-frequency RSTD measurements | pc_eTDD | | | | | Rel-14 |
| 9.5.1 | HD-FDD Intra frequency RSTD Measurement Accuracy for NB-IOT Inband Mode in normal coverage | Rel-14 | C75er | All NB-IoT HD-FDD UEs supporting UE-assisted OTDOA | | | | | | Rel-14 |
| 9.5.2 | HD-FDD Intra frequency RSTD Measurement Accuracy for NB-IOT Inband Mode in enhanced coverage | Rel-14 | C75er | All NB-IoT HD-FDD UEs supporting UE-assisted OTDOA | | | | | | Rel-14 |
| 9.5.3 | HD-FDD Intra frequency RSTD Measurement Reporting Delay for NB-IOT Standalone Mode in enhanced coverage | Rel-14 | C75er | All NB-IoT HD-FDD UEs supporting UE-assisted OTDOA | | | | | | Rel-14 |
| 9.6.1 | HD-FDD Inter frequency RSTD Measurement Accuracy for NB-IOT Inband Mode in normal coverage | Rel-14 | C76er | All NB-IoT HD-FDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | | | | | | Rel-14 |
| 9.6.2 | HD-FDD Inter frequency RSTD Measurement Accuracy for NB-IOT Inband Mode in enhanced coverage | Rel-14 | C76er | All NB-IoT HD-FDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | | | | | | Rel-14 |
| 9.6.3 | HD-FDD Inter frequency RSTD Measurement Reporting Delay for NB-IOT Standalone Mode in enhanced coverage | Rel-14 | C76er | All NB-IoT HD-FDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | | | | | | Rel-14 |
| 9.7.1 | TDD Intra frequency RSTD Measurement Accuracy for NB-IOT Inband Mode in normal coverage | Rel-15 | C86er | All NB-IoT TDD UEs supporting UE-assisted OTDOA | | | | | | Rel-15 |
| 9.7.2 | TDD Intra frequency RSTD Measurement Accuracy for NB-IOT Inband Mode in enhanced coverage | Rel-15 | C86er | All NB-IoT TDD UEs supporting UE-assisted OTDOA | | | | | | Rel-15 |
| 9.7.3 | TDD Intra frequency RSTD Measurement Reporting Delay for NB-IOT Inband Mode in enhanced coverage | Rel-15 | C86er | All NB-IoT TDD UEs supporting UE-assisted OTDOA | | | | | | Rel-15 |
| 9.8.1 | TDD Inter-frequency RSTD Measurement Accuracy for NB-IOT Inband Mode in normal coverage | Rel-15 | C87er | All NB-IoT TDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | | | | | | Rel-15 |

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| 9.8.2 | TDD Inter-frequency RSTD Measurement Accuracy for NB-IOT Inband Mode in enhanced coverage | Rel-15 | C87er | All NB-IoT TDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | | | | | Rel-15 |
| 9.8.3 | TDD Inter frequency RSTD Measurement Reporting Delay for NB-IOT Inband Mode in enhanced coverage | Rel-15 | C87er | All NB-IoT TDD UEs supporting UE-assisted OTDOA and inter-frequency RSTD measurements | | | | | Rel-15 |

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| 10 | OTDOA measurement requirements for Carrier Aggregation | | | | | | | | |
| 10.1 | FDD RSTD Measurement Reporting Delay for Carrier Aggregation | Rel-10 | C15er | All FDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eFDD | | | Either TC 10.1 or TC 10.1A or TC 10.1B or TC 10.1C shall be executed. (Note 2) | Rel-10 |
| 10.1A | FDD RSTD Measurement Reporting Delay for Carrier Aggregation for 20MHz | Rel-10 | C15er | All FDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eFDD | | | Either TC 10.1 or TC 10.1A or TC 10.1B or TC 10.1C shall be executed. (Note 2) | Rel-10 |
| 10.1B | FDD RSTD Measurement Reporting Delay Carrier Aggregation for 5 MHz +5 MHz bandwidth | Rel-12 | C15er | All FDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eFDD | | | Either TC 10.1 or TC 10.1A or TC 10.1B or TC 10.1C shall be executed. (Note 2) | Rel-10 |
| 10.1C | FDD RSTD Measurement Reporting Delay for Carrier Aggregation for 10MHz+5MHz bandwidth | Rel-12 | C15er | All FDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eFDD | | | Either TC 10.1 or TC 10.1A or TC 10.1B or TC 10.1C shall be executed. (Note 2) | Rel-11 |
| 10.2 | TDD RSTD Measurement Reporting Delay for Carrier Aggregation | Rel-10 | C16er | All TDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eTDD | | | Either TC 10.2 or TC 10.2A or TC 10.2B or TC 10.2C or TC 10.2D shall be executed. (Note 2) | Rel-10 |

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| 10.2A | TDD RSTD Measurement Reporting Delay for Carrier Aggregation for 20MHz | Rel-10 | C16er | All TDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eTDD | | | Either TC 10.2 or TC 10.2A or TC 10.2B or TC 10.2C or TC 10.2D shall be executed. (Note 2) | Rel-10 |
| 10.2B | TDD RSTD Measurement Reporting Delay for Carrier Aggregation for 5MHz +5 MHz bandwidth | Rel-12 | C16er | All TDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eTDD | | | Either TC 10.2 or TC 10.2A or TC 10.2B or TC 10.2C or TC 10.2D shall be executed. (Note 2) | Rel-10 |
| 10.2C | TDD RSTD Measurement Reporting Delay for Carrier Aggregation for 10MHz+5MHz bandwidth | Rel-12 | C16er | All TDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eTDD | | | Either TC 10.2 or TC 10.2A or TC 10.2B or TC 10.2C or TC 10.2D shall be executed. (Note 2) | Rel-11 |
| 10.2D | TDD RSTD Measurement Reporting Delay for Carrier Aggregation for 20MHz +10MHz Bandwidth | Rel-10 | C16er | All TDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eTDD | | | Either TC 10.2 or TC 10.2A or TC 10.2B or TC 10.2C or TC 10.2D shall be executed. (Note 2) | Rel-10 |
| 10.3 | FDD RSTD Measurement Accuracy for Carrier Aggregation | Rel-10 | C15er | All FDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eFDD | | 2Rx, 4Rx | Either TC 10.3 or TC 10.3A or TC 10.3A_1 or TC 10.3B or TC 10.3C shall be executed. (Note 2) | Rel-10 |
| 10.3A | FDD RSTD Measurement Accuracy for Carrier Aggregation for 20MHz (Rel-10 and Rel-11) | Rel-10 | C15er | All FDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eFDD | | 2Rx, 4Rx | Either TC 10.3 or TC 10.3A or TC 10.3A_1 or TC 10.3B or TC 10.3C shall be executed. (Note 2) | Rel-10, Rel-11 |

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| 10.3A_1 | FDD RSTD Measurement Accuracy for Carrier Aggregation for 20MHz (Rel-12 onwards) | Rel-10 | C15er | All FDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eFDD | | 2Rx, 4Rx | Either TC 10.3 or TC 10.3A or TC 10.3A_1 or TC 10.3B or TC 10.3C shall be executed. (Note 2) | Rel-12 |
| 10.3B | FDD RSTD Measurement Accuracy for Carrier Aggregation for 5MHz +5 MHz bandwidth | Rel-10 | C15er | All FDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eFDD | | 2Rx, 4Rx | Either TC 10.3 or TC 10.3A or TC 10.3A_1 or TC 10.3B or TC 10.3C shall be executed. (Note 2) | Rel-10 |
| 10.3C | FDD RSTD Measurement Accuracy for Carrier Aggregation for 10MHz+5MHz bandwidth | Rel-10 | C15er | All FDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eFDD | | 2Rx, 4Rx | Either TC 10.3 or TC 10.3A or TC 10.3A_1 or TC 10.3B or TC 10.3C shall be executed. (Note 2) | Rel-11 |
| 10.4 | TDD RSTD Measurement Accuracy for Carrier Aggregation | Rel-10 | C16er | All TDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eTDD | | 2Rx, 4Rx | Either TC 10.4 or TC 10.4A or TC 10.4A_1 or TC 10.4B or TC 10.4C or TC 10.4D shall be executed. (Note 2) | Rel-10 |
| 10.4A | TDD RSTD Measurement Accuracy for Carrier Aggregation for 20MHz (Rel-10 and Rel-11) | Rel-10 | C16er | All TDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eTDD | | 2Rx, 4Rx | Either TC 10.4 or TC 10.4A or TC 10.4A_1 or TC 10.4B or TC 10.4C or TC 10.4D shall be executed. (Note 2) | Rel-10, Rel-11 |

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| 10.4A_1 | TDD RSTD Measurement Accuracy for Carrier Aggregation for 20MHz (Rel-12 onwards) | Rel-10 | C16er | All TDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eTDD | | 2Rx, 4Rx | Either TC 10.4 or TC 10.4A or TC 10.4A_1 or TC 10.4B or TC 10.4C or TC 10.4D shall be executed. (Note 2) | Rel-12 |
| 10.4B | TDD RSTD Measurement Accuracy for Carrier Aggregation for 5 MHz +5 MHz bandwidth | Rel-10 | C16er | All TDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eTDD | | 2Rx, 4Rx | Either TC 10.4 or TC 10.4A or TC 10.4A_1 or TC 10.4B or TC 10.4C or TC 10.4D shall be executed. (Note 2) | Rel-10 |
| 10.4C | TDD RSTD Measurement Accuracy for Carrier Aggregation for 10MHz+5MHz bandwidth | Rel-10 | C16er | All TDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eTDD | | 2Rx, 4Rx | Either TC 10.4 or TC 10.4A or TC 10.4A_1 or TC 10.4B or TC 10.4C or TC 10.4D shall be executed. (Note 2) | Rel-11 |
| 10.4D | TDD RSTD Measurement Accuracy for Carrier Aggregation for 20MHz+10MHz bandwidth | Rel-10 | C16er | All TDD UEs supporting UE-assisted OTDOA for Carrier Aggregation | pc_eTDD | | 2Rx, 4Rx | Either TC 10.4 or TC 10.4A or TC 10.4A_1 or TC 10.4B or TC 10.4C or TC 10.4D shall be executed. (Note 2) | Rel-10 |
| 10.5 | FDD 3 DL CA RSTD Measurement Reporting Delay | Rel-10 | C27er | All FDD UEs supporting UE-assisted OTDOA for 3DL Carrier Aggregation | pc_eFDD | | | | Rel-12 |
| 10.6 | TDD 3 DL CA RSTD Measurement Reporting Delay | Rel-10 | C28er | All TDD UEs supporting UE-assisted OTDOA for 3DL Carrier Aggregation | pc_eTDD | | | | Rel-12 |
| 10.7 | FDD RSTD Measurement Accuracy for 3DL Carrier Aggregation | Rel-10 | C27er | All FDD UEs supporting UE-assisted OTDOA for 3DL Carrier Aggregation | pc_eFDD | | 2Rx, 4Rx | | Rel-12 |

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| 10.8 | TDD RSTD Measurement Accuracy for 3DL Carrier Aggregation | Rel-10 | C28er | All TDD UEs supporting UE-assisted OTDOA for 3DL Carrier Aggregation | pc_eTDD | | 2Rx, 4Rx | | Rel-12 |
| Note 1: | This test case can be optionally tested for Rel-9 UEs supporting inter-frequency RSTD measurements that do not require measurement gaps. | | | | | | | | |
| Note 2: | The Carrier Aggregation TCs verify the same core requirement(s) however with different channel bandwidth configurations, this according to the guidance in TS 37.571-1, Clause 4.7.5 [5]. | | | | | | | | |
| Note 3: | This test case can be optionally tested for E-UTRA Rel-9 and forward UEs with only 1Rx antenna. | | | | | | | | |

Table 4-4: Applicability of tests Conditions for test cases in TS 37.571-1 [5] for E-UTRA

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| C01er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/6 AND NOT (A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A |
| C02er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/7 AND NOT (A.4.3-2/6 OR A.4.3-2/8 OR A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A |
| C03er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/9 AND NOT (A.4.3-2/6 OR A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/18) THEN R ELSE N/A |
| C04er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/8 AND NOT (A.4.3-2/7 OR A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A |
| C05er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND NOT (A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A |
| C06er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/6 AND NOT (A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/9 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |
| C07er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/7 AND NOT (A.4.3-2/6 OR A.4.3-2/8 OR A.4.3-2/9 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |
| C08er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/9 AND NOT (A.4.3-2/6 OR A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |
| C09er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/8 AND NOT (A.4.3-2/7 OR A.4.3-2/9 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |
| C10er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND NOT (A.4.3-2/9 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |
| C11er | IF A.4.1-1/1 AND A.4.3-2/5 AND A.4.3-4/3 THEN R ELSE N/A |
| C12er | IF A.4.1-1/2 AND A.4.3-2/5 AND A.4.3-4/3 THEN R ELSE N/A |
| C13er | IF A.4.1-1/1 AND A.4.3-2/4 THEN R ELSE N/A |
| C14er | IF A.4.1-1/2 AND A.4.3-2/4 THEN R ELSE N/A |
| C15er | IF A.4.1-1/1 AND A.4.3-2/15 THEN R ELSE N/A |
| C16er | IF A.4.1-1/2 AND A.4.3-2/15 THEN R ELSE N/A |
| C17er | IF A.4.1-1/1 AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |
| C18er | IF A.4.1-1/2 AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |
| C19er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/18 AND NOT (A.4.3-2/6 OR A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/9) THEN R ELSE N/A |
| C20er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/18 AND NOT (A.4.3-2/7 OR A.4.3-2/9) THEN R ELSE N/A |
| C21er | IF A.4.1-1/1 AND A.4.3-2/5 AND A.4.3-4/3 AND A.4.4-2/1 AND [11] A.4.5-3a/15 THEN R ELSE N/A |
| C22er | IF A.4.1-1/2 AND A.4.3-2/5 AND A.4.3-4/3 AND A.4.4-2/1 AND A.4.4-2/2 AND [11] A.4.5-3a/15 THEN R ELSE N/A |
| C23er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/18 AND NOT (A.4.3-2/6 OR A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/9) AND A.4.3-2/3 THEN R ELSE N/A |
| C24er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/18 AND NOT (A.4.3-2/7 OR A.4.3-2/9) AND A.4.3-2/3 THEN R ELSE N/A |
| C25er | IF A.4.1-1/1 AND A.4.3-2/5 AND A.4.3-4/3 AND [11] A.4.5-3a/15 THEN R ELSE N/A |
| C26er | IF A.4.1-1/2 AND A.4.3-2/5 AND A.4.3-4/3 AND [11] A.4.5-3a/15 THEN R ELSE N/A |
| C27er | IF A.4.1-1/1 AND A.4.3-2/19 THEN R ELSE N/A |
| C28er | IF A.4.1-1/2 AND A.4.3-2/19 THEN R ELSE N/A |
| C29er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND NOT (A.4.3-2/7 OR A.4.3-2/18) THEN R ELSE N/A |
| C30er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND NOT (A.4.3-2/7 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |

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| C31er | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/20 THEN R ELSE N/A |
| C32er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/18 AND NOT A.4.3-2/9 THEN R ELSE N/A |
| C33er | IF A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/18 AND NOT A.4.3-2/9 AND A.4.3-2/3 THEN R ELSE N/A |
| C34er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND A.4.3-2/6 AND NOT (A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A |
| C35er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND A.4.3-2/7 AND NOT (A.4.3-2/6 OR A.4.3-2/8 OR A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A |
| C36er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND A.4.3-2/9 AND NOT (A.4.3-2/6 OR A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/18) THEN R ELSE N/A |
| C37er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND A.4.3-2/8 AND NOT (A.4.3-2/7 OR A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A |
| C38er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND NOT (A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A |
| C39er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND NOT (A.4.3-2/7 OR A.4.3-2/18) THEN R ELSE N/A |
| C40er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND A.4.3-2/18 AND NOT (A.4.3-2/6 OR A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/9) THEN R ELSE N/A |
| C41er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/18 AND NOT (A.4.3-2/7 OR A.4.3-2/9) THEN R ELSE N/A |
| C42er | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/21 THEN R ELSE N/A |
| C43er | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/22 THEN R ELSE N/A |
| C44er | IF A.4.1-1/1 AND A.4.1-3/1 AND A.4.3-2/4 THEN R ELSE N/A |
| C45er | IF A.4.1-1/2 AND A.4.1-3/1 AND A.4.3-2/4 THEN R ELSE N/A |
| C46er | IF A.4.1-1/1 AND A.4.1-3/1 AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |
| C47er | IF A.4.1-1/2 AND A.4.1-3/1 AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |
| C48er | IF A.4.1-1/1 AND NOT A.4.2-3/1 AND A.4.1-3/2 AND A.4.3-2/4 THEN R ELSE N/A |
| C49er | IF A.4.1-1/1 AND A.4.2-3/1 AND A.4.1-3/2 AND A.4.3-2/4 THEN R ELSE N/A |
| C50er | IF A.4.1-1/2 AND A.4.1-3/2 AND A.4.3-2/4 THEN R ELSE N/A |
| C51er | IF A.4.1-1/1 AND NOT A.4.2-3/1 AND A.4.1-3/2 AND A.4.3-2/4 AND A.4.4-1/3 THEN R ELSE N/A |
| C52er | IF A.4.1-1/1 AND A.4.2-3/1 AND A.4.1-3/2 AND A.4.3-2/4 AND A.4.4-1/3 THEN R ELSE N/A |
| C53er | IF A.4.1-1/2 AND A.4.1-3/2 AND A.4.3-2/4 AND A.4.4-1/3 THEN R ELSE N/A |
| C54er | IF A.4.1-1/1 AND NOT A.4.2-3/1 AND A.4.1-3/2 AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |
| C55er | IF A.4.1-1/1 AND A.4.2-3/1 AND A.4.1-3/2 AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |
| C56er | IF A.4.1-1/2 AND A.4.1-3/2 AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |
| C57er | IF A.4.1-1/1 AND NOT A.4.2-3/1 AND A.4.1-3/2 AND A.4.3-2/4 AND A.4.4-1/3 AND A.4.3-2/17 THEN R ELSE N/A |
| C58er | IF A.4.1-1/1 AND A.4.2-3/1 AND A.4.1-3/2 AND A.4.3-2/4 AND A.4.4-1/3 AND A.4.3-2/17 THEN R ELSE N/A |
| C59er | IF A.4.1-1/2 AND A.4.1-3/2 AND A.4.3-2/4 AND A.4.4-1/3 AND A.4.3-2/17 THEN R ELSE N/A |
| C60er | IF A.4.1-1/1 AND NOT A.4.2-3/1 AND A.4.1-3/3 AND A.4.3-2/4 THEN R ELSE N/A |
| C61er | IF A.4.1-1/1 AND A.4.2-3/1 AND A.4.1-3/3 AND A.4.3-2/4 THEN R ELSE N/A |
| C62er | IF A.4.1-1/2 AND A.4.1-3/3 AND A.4.3-2/4 THEN R ELSE N/A |
| C63er | IF A.4.1-1/1 AND NOT A.4.2-3/1 AND A.4.1-3/3 AND A.4.3-2/4 AND A.4.4-1/3 THEN R ELSE N/A |
| C64er | IF A.4.1-1/1 AND A.4.2-3/1 AND A.4.1-3/3 AND A.4.3-2/4 AND A.4.4-1/3 THEN R ELSE N/A |
| C65er | IF A.4.1-1/2 AND A.4.1-3/3 AND A.4.3-2/4 AND A.4.4-1/3 THEN R ELSE N/A |
| C66er | IF A.4.1-1/1 AND NOT A.4.2-3/1 AND A.4.1-3/3 AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |

| | |
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| C67er | IF A.4.1-1/1 AND A.4.2-3/1 AND A.4.1-3/3 AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |
| C68er | IF A.4.1-1/2 AND A.4.1-3/3 AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |
| C69er | IF A.4.1-1/1 AND NOT A.4.2-3/1 AND A.4.1-3/3 AND A.4.3-2/4 AND A.4.4-1/3 AND A.4.3-2/17 THEN R ELSE N/A |
| C70er | IF A.4.1-1/1 AND A.4.2-3/1 AND A.4.1-3/3 AND A.4.3-2/4 AND A.4.4-1/3 AND A.4.3-2/17 THEN R ELSE N/A |
| C71er | IF A.4.1-1/2 AND A.4.1-3/3 AND A.4.3-2/4 AND A.4.4-1/3 AND A.4.3-2/17 THEN R ELSE N/A |
| C72er | IF A.4.1-1/1 AND NOT A.4.2-3/1 AND (A.4.1-3/2 OR A.4.1-3/3) AND A.4.3-2/5 AND A.4.3-4/3 THEN R ELSE N/A |
| C73er | IF A.4.1-1/1 AND A.4.2-3/1 AND (A.4.1-3/2 OR A.4.1-3/3) AND A.4.3-2/5 AND A.4.3-4/3 THEN R ELSE N/A |
| C74er | IF A.4.1-1/2 AND (A.4.1-3/2 OR A.4.1-3/3) AND A.4.3-2/5 AND A.4.3-4/3 THEN R ELSE N/A |
| C75er | IF A.4.1-1/5 AND A.4.3-2/4 THEN R ELSE N/A |
| C76er | IF A.4.1-1/5 AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |
| C77er | IF A.4.1-1/1 AND A.4.1-3/1 AND A.4.3-2/5 AND A.4.3-4/3 THEN R ELSE N/A |
| C78er | IF A.4.1-1/2 AND A.4.1-3/1 AND A.4.3-2/5 AND A.4.3-4/3 THEN R ELSE N/A |
| C79er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/9 AND NOT A.4.3-2/18 THEN R ELSE N/A |
| C80er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND A.4.3-2/18 AND NOT A.4.3-2/7 THEN R ELSE N/A |
| C81er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/9 AND NOT A.4.3-2/18 AND A.4.3-2/3 THEN R ELSE N/A |
| C82er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND A.4.3-2/18 AND NOT A.4.3-2/7 AND A.4.3-2/3 THEN R ELSE N/A |
| C83er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/9 AND NOT A.4.3-2/18 THEN R ELSE N/A |
| C84er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND A.4.3-2/18 AND NOT A.4.3-2/7 THEN R ELSE N/A |
| C85er | IF (A.4.1-1/1 OR A.4.1-1/2 AND NOT ((A.4.1-3/2 OR A.4.1-3/3) AND NOT A.4.4-1/4)) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/18 AND NOT A.4.3-2/9 THEN R ELSE N/A |
| C86er | IF A.4.1-1/5a AND A.4.3-2/4 THEN R ELSE N/A |
| C87er | IF A.4.1-1/5a AND A.4.3-2/4 AND A.4.3-2/17 THEN R ELSE N/A |
| C88er | IF A.4.1-1/1 AND NOT A.4.2-3/1 AND (A.4.1-3/2 OR A.4.1-3/3) AND A.4.3-2/4 AND (A.4.3-3A/5 OR A.4.3-3A/8) THEN R ELSE N/A |
| C89er | IF A.4.1-1/1 AND A.4.2-3/1 AND (A.4.1-3/2 OR A.4.1-3/3) AND A.4.3-2/4 AND (A.4.3-3A/5 OR A.4.3-3A/8) THEN R ELSE N/A |
| C90er | IF A.4.1-1/2 AND (A.4.1-3/2 OR A.4.1-3/3) AND A.4.3-2/4 AND (A.4.3-3A/5 OR A.4.3-3A/8) THEN R ELSE N/A |
| C91er | IF A.4.1-1/1 AND NOT A.4.2-3/1 AND (A.4.1-3/2 OR A.4.1-3/3) AND A.4.3-2/4 AND A.4.4-1/3 AND (A.4.3-3A/5 OR A.4.3-3A/8) THEN R ELSE N/A |
| C92er | IF A.4.1-1/1 AND A.4.2-3/1 AND (A.4.1-3/2 OR A.4.1-3/3) AND A.4.3-2/4 AND A.4.4-1/3 AND (A.4.3-3A/5 OR A.4.3-3A/8) THEN R ELSE N/A |
| C93er | IF A.4.1-1/2 AND (A.4.1-3/2 OR A.4.1-3/3) AND A.4.3-2/4 AND A.4.4-1/3 AND (A.4.3-3A/5 OR A.4.3-3A/8) THEN R ELSE N/A |

Table 4-5: Applicability of tests and additional information for testing for test cases in TS 37.571-2 [6] for UTRA

| Clause | Title | Release | Applicability | Comments | Number of TC Executions (informative) |
|---------|--|---------|---------------|--|---------------------------------------|
| 6.1.1.1 | LCS Network Induced location request / UE-Based GPS / Emergency Call / with USIM | R99 | C01us | UEs supporting FDD, emergency speech call and UE based Network Assisted GPS L1 C/A only | 1 Execution: CS |
| 6.1.1.2 | LCS Network induced location request / UE-Based GPS / Emergency call / Without USIM | R99 | C01us | UEs supporting FDD, emergency speech call and UE based Network Assisted GPS L1 C/A only | 1 Execution: CS |
| 6.1.1.3 | LCS Network induced location request / UE-Assisted GPS / Emergency call / With USIM | R99 | C03us | UEs supporting FDD, emergency speech call and UE assisted Network Assisted GPS L1 C/A only | 1 Execution: CS |
| 6.1.1.4 | LCS Network induced location request / UE-Assisted GPS / Emergency call / Without USIM | R99 | C03us | UEs supporting FDD, emergency speech call and UE assisted Network Assisted GPS L1 C/A only | 1 Execution: CS |
| 6.1.2.1 | LCS Mobile originated location request / UE-Based GPS / Position estimate request / Success | R99 | C09us | UEs supporting FDD and UE based Network Assisted GPS L1 C/A only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.1.2.2 | LCS Mobile originated location request UE-Based or UE-Assisted GPS / Assistance data request / Success | R99 | C05us | UEs supporting FDD and (UE based or UE assisted Network Assisted GPS L1 C/A only) and MO-LR request for assistance data | 1 Execution: CS |
| 6.1.2.3 | LCS Mobile originated location request / UE-Assisted GPS / Position Estimate / Success | R99 | C10us | UEs supporting FDD and UE assisted Network Assisted GPS L1 C/A only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.1.2.4 | LCS Mobile originated location request / UE-Based GPS / Transfer to third party / Success | R99 | C07us | UEs supporting FDD and UE based Network Assisted GPS L1 C/A only and MO-LR request for transfer to 3rd party | 1 Execution: CS |
| 6.1.2.5 | LCS Mobile originated location request / UE-Assisted GPS / Transfer to third party / Success | R99 | C08us | UEs supporting FDD and UE assisted Network Assisted GPS L1 C/A only and MO-LR request for transfer to 3rd party | 1 Execution: CS |
| 6.1.2.6 | LCS Mobile originated location request / UE-Based or UE-Assisted GPS / Assistance data request / Failure | R99 | C05us | UEs supporting FDD and (either UE based or UE assisted Network Assisted GPS L1 C/A only) and MO-LR request for assistance data | 1 Execution: CS |
| 6.1.2.7 | LCS Mobile originated location request / UE-Based GPS / Position estimate request / Failure | R99 | C09us | UEs supporting FDD and UE based Network Assisted GPS L1 C/A only and MO-LR request for position estimate | 1 Execution: CS |
| 6.1.3.1 | LCS Mobile terminated location request / UE-Based GPS | R99 | C02us | UEs supporting FDD and UE based Network Assisted GPS L1 C/A only and MT-LR LCS location request notification capability | 1 Execution: CS |
| 6.1.3.2 | LCS Mobile terminated location request / UE-Based GPS / Request of additional assistance data / Success | R99 | C02us | UEs supporting FDD and UE based Network Assisted GPS L1 C/A only and MT-LR LCS location request notification capability | 1 Execution: CS |
| 6.1.3.3 | LCS Mobile-terminated location request / UE-Based GPS / Failure - Not Enough Satellites | R99 | C02us | UEs supporting FDD and UE based Network Assisted GPS L1 C/A only and MT-LR LCS location request notification capability | 1 Execution: CS |
| 6.1.3.4 | LCS Mobile terminated location request / UE-Assisted GPS / Success | R99 | C04us | UEs supporting FDD and UE assisted Network Assisted GPS L1 C/A only and MT-LR LCS location request notification capability | 1 Execution: CS |
| 6.1.3.5 | LCS Mobile terminated location request / UE-Assisted GPS / Request for additional assistance data / Success | R99 | C04us | UEs supporting FDD and UE assisted Network Assisted GPS L1 C/A only and MT-LR LCS location request notification capability | 1 Execution: CS |
| 6.1.3.6 | LCS Mobile terminated location request / UE-Based GPS / Privacy Verification / Location Allowed if No Response | R99 | C02us | UEs supporting FDD and UE based Network Assisted GPS L1 C/A only and MT-LR LCS location request notification capability | 1 Execution: CS |
| 6.1.3.7 | LCS Mobile terminated location request / UE-Based GPS / Privacy Verification / Location Not Allowed if No Response | R99 | C02us | UEs supporting FDD and UE based Network Assisted GPS L1 C/A only and MT-LR LCS location request notification capability | 1 Execution: CS |

| Clause | Title | Release | Applicability | Comments | Number of TC Executions (informative) |
|-------------|---|---------|---------------|--|---------------------------------------|
| 6.1.3.8 | LCS Mobile terminated location request / UE-Assisted GPS / Privacy Verification / Location Allowed if No Response | R99 | C04us | UEs supporting FDD and UE assisted Network Assisted GPS L1 C/A only and MT-LR LCS location request notification capability | 1 Execution: CS |
| 6.1.3.9 | LCS Mobile terminated location request / UE-Assisted GPS / Privacy Verification / Location Not Allowed if No Response | R99 | C04us | UEs supporting FDD and UE assisted Network Assisted GPS L1 C/A only and MT-LR LCS location request notification capability | 1 Execution: CS |
| 6.1.3.10 | LCS Mobile terminated location request / UE-Based or UE-Assisted GPS / Configuration incomplete | R99 | C06us | UEs supporting FDD and UE based and/or UE assisted Network Assisted GPS L1 C/A only and MT-LR LCS location request notification capability, but not UE-based OTDOA | 1 Execution: CS |
| 6.2.1.1_1s | NI-LR Emergency Call: UE-Based A-GNSS: Sub-test 1 | Rel-8 | C11us | UEs supporting FDD, emergency speech call and UE based Network Assisted GANSS with GLONASS only | 1 Execution: CS |
| 6.2.1.1_2s | NI-LR Emergency Call: UE-Based A-GNSS: Sub-test 2 | Rel-12 | C12us | UEs supporting FDD, emergency speech call and UE based Network Assisted GANSS with Galileo only | 1 Execution: CS |
| 6.2.1.1_3s | NI-LR Emergency Call: UE-Based A-GNSS: Sub-test 3 | Rel-8 | C13us | UEs supporting FDD, emergency speech call and UE based Network Assisted GPS and GANSS with Modernized GPS only | 1 Execution: CS |
| 6.2.1.1_4s | NI-LR Emergency Call: UE-Based A-GNSS: Sub-test 4 | Rel-8 | C14us | UEs supporting FDD, emergency speech call and UE based Network Assisted GPS and GANSS with GLONASS only | 1 Execution: CS |
| 6.2.1.1_8s | NI-LR Emergency Call: UE-Based A-GNSS: Sub-test 8 | Rel-12 | C54us | UEs supporting FDD, emergency speech call and UE based Network Assisted GPS and GANSS with Galileo only | 1 Execution: CS |
| 6.2.1.1_9s | NI-LR Emergency Call: UE-Based A-GNSS: Sub-test 9 | Rel-12 | C40us | UEs supporting -emergency speech call and UE based Network Assisted GANSS with BDS only | 1 Execution: CS |
| 6.2.1.1_10s | NI-LR Emergency Call: UE-Based A-GNSS: Sub-test 10 | Rel-12 | C41us | UEs supporting emergency speech call and UE based Network Assisted GPS and GANSS with BDS only | 1 Execution: CS |
| 6.2.1.2_1s | NI-LR Emergency Call: UE-Assisted A-GNSS: Sub-test 1 | Rel-8 | C15us | UEs supporting FDD, emergency speech call and UE assisted Network Assisted GANSS with GLONASS only | 1 Execution: CS |
| 6.2.1.2_2s | NI-LR Emergency Call: UE-Assisted A-GNSS: Sub-test 2 | Rel-12 | C16us | UEs supporting FDD, emergency speech call and UE assisted Network Assisted GANSS with Galileo only | 1 Execution: CS |
| 6.2.1.2_3s | NI-LR Emergency Call: UE-Assisted A-GNSS: Sub-test 3 | Rel-8 | C17us | UEs supporting FDD, emergency speech call and UE assisted Network Assisted GPS and GANSS with Modernized GPS only | 1 Execution: CS |
| 6.2.1.2_4s | NI-LR Emergency Call: UE-Assisted A-GNSS: Sub-test 4 | Rel-8 | C18us | UEs supporting FDD, emergency speech call and UE assisted Network Assisted GPS and GANSS with GLONASS only | 1 Execution: CS |
| 6.2.1.2_8s | NI-LR Emergency Call: UE-Assisted A-GNSS: Sub-test 8 | Rel-12 | C55us | UEs supporting FDD, emergency speech call and UE assisted Network Assisted GPS and GANSS with Galileo only | 1 Execution: CS |
| 6.2.1.2_9s | NI-LR Emergency Call: UE-Assisted A-GNSS: Sub-test 9 | Rel-12 | C42us | UEs supporting emergency speech call and UE assisted Network Assisted GANSS with BDS only | 1 Execution: CS |
| 6.2.1.2_10s | NI-LR Emergency Call: UE-Assisted A-GNSS: Sub-test 10 | Rel-12 | C43us | UEs supporting emergency speech call and UE assisted Network Assisted GPS and GANSS with BDS only | 1 Execution: CS |

| Clause | Title | Release | Applicability | Comments | Number of TC Executions (informative) |
|-------------|--|---------|---------------|--|---------------------------------------|
| 6.2.2.1_1s | MO-LR Position Estimate: UE-Based A-GNSS: Sub-test 1 | Rel-8 | C19us | UEs supporting FDD and UE based Network Assisted GANSS with GLONASS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.1_2s | MO-LR Position Estimate: UE-Based A-GNSS: Sub-test 2 | Rel-12 | C20us | UEs supporting FDD and UE based Network Assisted GANSS with Galileo only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.1_3s | MO-LR Position Estimate: UE-Based A-GNSS: Sub-test 3 | Rel-8 | C21us | UEs supporting FDD and UE based Network Assisted GPS and GANSS with Modernized GPS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.1_4s | MO-LR Position Estimate: UE-Based A-GNSS: Sub-test 4 | Rel-8 | C22us | UEs supporting FDD and UE based Network Assisted GPS and GANSS with GLONASS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.1_8s | MO-LR Position Estimate: UE-Based A-GNSS: Sub-test 8 | Rel-12 | C56us | UEs supporting FDD and UE based Network Assisted GPS and GANSS with Galileo only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.1_9s | MO-LR Position Estimate: UE-Based A-GNSS: Sub-test 9 | Rel-12 | C44us | UEs supporting UE based Network Assisted GANSS with BDS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.1_10s | MO-LR Position Estimate: UE-Based A-GNSS: Sub-test 10 | Rel-12 | C45us | UEs supporting UE based Network Assisted GPS and GANSS with BDS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.2_1s | MO-LR Position Estimate: UE-Assisted A-GNSS: Sub-test 1 | Rel-8 | C23us | UEs supporting FDD and UE assisted Network Assisted GANSS with GLONASS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.2_2s | MO-LR Position Estimate: UE-Assisted A-GNSS: Sub-test 2 | Rel-12 | C24us | UEs supporting FDD and UE assisted Network Assisted GANSS with Galileo only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.2_3s | MO-LR Position Estimate: UE-Assisted A-GNSS: Sub-test 3 | Rel-8 | C25us | UEs supporting FDD and UE assisted Network Assisted GPS and GANSS with Modernized GPS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.2_4s | MO-LR Position Estimate: UE-Assisted A-GNSS: Sub-test 4 | Rel-8 | C26us | UEs supporting FDD and UE assisted Network Assisted GPS and GANSS with GLONASS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.2_8s | MO-LR Position Estimate: UE-Assisted A-GNSS: Sub-test 8 | Rel-12 | C57us | UEs supporting FDD and UE assisted Network Assisted GPS and GANSS with Galileo only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.2_9s | MO-LR Position Estimate: UE-Assisted A-GNSS: Sub-test 9 | Rel-12 | C46us | UEs supporting UE assisted Network Assisted GANSS with BDS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.2_10s | MO-LR Position Estimate: UE-Assisted A-GNSS: Sub-test 10 | Rel-12 | C47us | UEs supporting UE assisted Network Assisted GPS and GANSS with BDS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.3_1s | MO-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 1 | Rel-8 | C19us | UEs supporting FDD and UE based Network Assisted GANSS with GLONASS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.3_2s | MO-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 2 | Rel-12 | C20us | UEs supporting FDD and UE based Network Assisted GANSS with Galileo only and MO-LR request for a position estimate | 1 Execution: CS |

| Clause | Title | Release | Applicability | Comments | Number of TC Executions (informative) |
|-------------|---|---------|---------------|---|---------------------------------------|
| 6.2.2.3_3s | MO-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 3 | Rel-8 | C21us | UEs supporting FDD and UE based Network Assisted GPS and GANSS with Modernized GPS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.3_4s | MO-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 4 | Rel-8 | C22us | UEs supporting FDD and UE based Network Assisted GPS and GANSS with GLONASS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.3_8s | MO-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 8 | Rel-12 | C56us | UEs supporting FDD and UE based Network Assisted GPS and GANSS with Galileo only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.3_9s | MO-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 9 | Rel-12 | C44us | UEs supporting UE based Network Assisted GANSS with BDS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.3_10s | MO-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 10 | Rel-12 | C45us | UEs supporting UE based Network Assisted GPS and GANSS with BDS only and MO-LR request for a position estimate | 1 Execution: CS |
| 6.2.2.4_1s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Success: Sub-test 1 | Rel-8 | C27us | UEs supporting FDD and (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) with GLONASS only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.4_2s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Success: Sub-test 2 | Rel-12 | C28us | UEs supporting FDD and (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) with Galileo only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.4_3s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Success: Sub-test 3 | Rel-8 | C29us | UEs supporting FDD and ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with Modernized GPS only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.4_4s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Success: Sub-test 4 | Rel-8 | C30us | UEs supporting FDD and ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with GLONASS only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.4_8s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Success: Sub-test 8 | Rel-12 | C58us | UEs supporting FDD and ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with Galileo only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.4_9s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Success: Sub-test 9 | Rel-12 | C48us | UEs supporting (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) with BDS only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.4_10s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Success: Sub-test 10 | Rel-12 | C49us | UEs supporting ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with BDS only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.5_1s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Failure: Sub-test 1 | Rel-8 | C27us | UEs supporting FDD and (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) with GLONASS only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.5_2s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Failure: Sub-test 2 | Rel-12 | C28us | UEs supporting FDD and (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) with Galileo only and MO-LR request for assistance data | 1 Execution: CS |

| Clause | Title | Release | Applicability | Comments | Number of TC Executions (informative) |
|-------------|--|---------|---------------|---|---------------------------------------|
| 6.2.2.5_3s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Failure: Sub-test 3 | Rel-8 | C29us | UEs supporting FDD and ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with Modernized GPS only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.5_4s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Failure: Sub-test 4 | Rel-8 | C30us | UEs supporting FDD and ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with GLONASS only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.5_8s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Failure: Sub-test 8 | Rel-12 | C58us | UEs supporting FDD and ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with Galileo only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.5_9s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Failure: Sub-test 9 | Rel-12 | C48us | UEs supporting (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) with BDS only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.2.5_10s | MO-LR Assistance Data: UE-Based or UE-Assisted A-GNSS - Failure: Sub-test 10 | Rel-12 | C49us | UEs supporting ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with BDS only and MO-LR request for assistance data | 1 Execution: CS |
| 6.2.3.1_1s | MT-LR UE Based or UE-Assisted A-GNSS - Request for additional assistance data/Success: Sub-test 1 | Rel-8 | C35us | UEs supporting FDD and (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) with GLONASS only | 1 Execution: CS |
| 6.2.3.1_2s | MT-LR UE Based or UE-Assisted A-GNSS - Request for additional assistance data/Success: Sub-test 2 | Rel-12 | C36us | UEs supporting FDD and (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) with Galileo only | 1 Execution: CS |
| 6.2.3.1_3s | MT-LR UE Based or UE-Assisted A-GNSS - Request for additional assistance data/Success: Sub-test 3 | Rel-8 | C37us | UEs supporting FDD and ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with Modernized GPS only | 1 Execution: CS |
| 6.2.3.1_4s | MT-LR UE Based or UE-Assisted A-GNSS - Request for additional assistance data/Success: Sub-test 4 | Rel-8 | C38us | UEs supporting FDD and ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with GLONASS only | 1 Execution: CS |
| 6.2.3.1_8s | MT-LR UE Based or UE-Assisted A-GNSS - Request for additional assistance data/Success: Sub-test 8 | Rel-12 | C59us | UEs supporting FDD and ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with Galileo only | 1 Execution: CS |
| 6.2.3.1_9s | MT-LR UE Based or UE-Assisted A-GNSS - Request for additional assistance data/Success: Sub-test 9 | Rel-12 | C52us | UEs supporting (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) with BDS only | 1 Execution: CS |
| 6.2.3.1_10s | MT-LR UE Based or UE-Assisted A-GNSS - Request for additional assistance data/Success: Sub-test 10 | Rel-12 | C53us | UEs supporting ((UE assisted Network Assisted GPS and GANSS) or (UE based Network Assisted GPS and GANSS)) with BDS only | 1 Execution: CS |
| 6.2.3.2_1s | MT-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 1 | Rel-8 | C31us | UEs supporting FDD and UE based Network Assisted GANSS with GLONASS only | 1 Execution: CS |
| 6.2.3.2_2s | MT-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 2 | Rel-12 | C32us | UEs supporting FDD and UE based Network Assisted GANSS with Galileo only | 1 Execution: CS |
| 6.2.3.2_3s | MT-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 3 | Rel-8 | C33us | UEs supporting FDD and UE based Network Assisted GPS and GANSS with Modernized GPS only | 1 Execution: CS |

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|-------------|---|---------|---------------|---|---------------------------------------|
| 6.2.3.2_4s | MT-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 4 | Rel-8 | C34us | UEs supporting FDD and UE based Network Assisted GPS and GANSS with GLONASS only | 1 Execution: CS |
| 6.2.3.2_8s | MT-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 8 | Rel-12 | C60us | UEs supporting FDD and UE based Network Assisted GPS and GANSS with Galileo only | 1 Execution: CS |
| 6.2.3.2_9s | MT-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 9 | Rel-12 | C50us | UEs supporting UE based Network Assisted GANSS with BDS only | 1 Execution: CS |
| 6.2.3.2_10s | MT-LR Position Estimate: UE-Based A-GNSS - Failure Not Enough Satellites: Sub-test 10 | Rel-12 | C51us | UEs supporting UE based Network Assisted GPS and GANSS with BDS only | 1 Execution: CS |
| 6.2.3.3 | Location Notification | Rel-8 | C39us | UEs supporting FDD and (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) and MT-LR LCS location request notification capability | 1 Execution: CS |
| 6.2.3.4 | Privacy Verification - Location Allowed if No Response | Rel-8 | C39us | UEs supporting FDD and (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) and MT-LR LCS location request notification capability | 1 Execution: CS |
| 6.2.3.5 | Privacy Verification - Location Not Allowed if No Response | Rel-8 | C39us | UEs supporting FDD and (UE assisted Network Assisted GANSS or UE based Network Assisted GANSS) and MT-LR LCS location request notification capability | 1 Execution: CS |

Table 4-6: Applicability of tests Conditions for test cases in TS 37.571-2 [6] for UTRA

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| C01us IF A.4.1-1/3 AND A.4.1-2/1 AND A.4.3-1/10 AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE N/A |
| C02us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/8 AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE N/A |
| C03us IF A.4.1-1/3 AND A.4.1-2/1 AND A.4.3-1/11 AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE N/A |
| C04us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-3/8 AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE N/A |
| C05us IF A.4.1-1/3 AND (A.4.3-1/10 OR A.4.3-1/11) AND A.4.3-3/5 AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE N/A |
| C06us IF A.4.1-1/3 AND (A.4.3-1/10 OR A.4.3-1/11) AND A.4.3-3/8 AND (NOT A.4.3-1/3) AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE N/A |
| C07us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/7 AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE N/A |
| C08us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-3/7 AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE N/A |
| C09us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/6 AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE N/A |
| C10us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-3/6 AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE N/A |
| C11us IF A.4.1-1/3 AND A.4.3-1/5 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C12us IF A.4.1-1/3 AND A.4.3-1/5 AND A.4.3-1/9 AND NOT (A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/13) THEN R ELSE N/A |
| C13us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/5 AND A.4.3-1/8 AND NOT (A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C14us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/5 AND A.4.3-1/7 AND NOT (A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C15us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/11 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C16us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/9 AND NOT (A.4.3-1/11 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/13) THEN R ELSE N/A |
| C17us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/8 AND NOT (A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C18us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C19us IF A.4.1-1/3 AND A.4.3-1/5 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C20us IF A.4.1-1/3 AND A.4.3-1/5 AND A.4.3-1/9 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/13) THEN R ELSE N/A |
| C21us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/5 AND A.4.3-1/8 AND A.4.3-3/6 AND NOT (A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C22us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/5 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C23us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/11 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C24us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/9 AND A.4.3-3/6 AND NOT (A.4.3-1/11 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/13) THEN R ELSE N/A |
| C25us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/8 AND A.4.3-3/6 AND NOT (A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C26us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C27us IF A.4.1-1/3 AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/7 AND A.4.3-3/5 AND NOT (A.4.3-1/11 OR A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C28us IF A.4.1-1/3 AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/9 AND A.4.3-3/5 AND NOT (A.4.3-1/11 OR A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/13) THEN R ELSE N/A |
| C29us IF A.4.1-1/3 AND ((A.4.3-1/5 AND A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11)) AND A.4.3-1/9 AND A.4.3-3/5 AND NOT (A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C30us IF A.4.1-1/3 AND ((A.4.3-1/5 AND A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11)) AND A.4.3-1/7 AND A.4.3-3/5 AND NOT (A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C31us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/11 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C32us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/9 AND NOT (A.4.3-1/11 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/13) THEN R ELSE N/A |
| C33us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/8 AND NOT (A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C34us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C35us IF A.4.1-1/3 AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/7 AND NOT (A.4.3-1/11 OR A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C36us IF A.4.1-1/3 AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/9 AND NOT (A.4.3-1/11 OR A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/13) THEN R ELSE N/A |
| C37us IF A.4.1-1/3 AND ((A.4.3-1/5 AND A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11)) AND A.4.3-1/9 AND NOT (A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C38us IF A.4.1-1/3 AND ((A.4.3-1/5 AND A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11)) AND A.4.3-1/7 AND NOT (A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A |
| C39us IF A.4.1-1/3 AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-3/8 THEN R ELSE N/A |
| C40us IF A.4.3-1/5 AND A.4.3-1/13 AND NOT (A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C41us IF A.4.3-1/10 AND A.4.3-1/5 AND A.4.3-1/13 AND NOT (A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C42us IF A.4.3-1/6 AND A.4.3-1/13 AND NOT (A.4.3-1/11 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |

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|---|
| C43us IF A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/13 AND NOT (A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C44us IF A.4.3-1/5 AND A.4.3-1/13 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C45us IF A.4.3-1/10 AND A.4.3-1/5 AND A.4.3-1/13 AND A.4.3-3/6 AND NOT (A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C46us IF A.4.3-1/6 AND A.4.3-1/13 AND A.4.3-3/6 AND NOT (A.4.3-1/11 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C47us IF A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/13 AND A.4.3-3/6 AND NOT (A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C48us IF (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/13 AND A.4.3-3/5 AND NOT (A.4.3-1/11 OR A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C49us IF ((A.4.3-1/5 AND A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11)) AND A.4.3-1/13 AND A.4.3-3/5 AND NOT (A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C50us IF A.4.3-1/6 AND A.4.3-1/13 AND NOT (A.4.3-1/11 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C51us IF A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/13 AND NOT (A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C52us IF (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/13 AND NOT (A.4.3-1/11 OR A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C53us IF ((A.4.3-1/5 AND A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11)) AND A.4.3-1/13 AND NOT (A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A |
| C54us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/5 AND A.4.3-1/9 AND NOT (A.4.3-1/7 OR A.4.3-1/13) THEN R ELSE N/A |
| C55us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/9 AND NOT (A.4.3-1/7 OR A.4.3-1/13) THEN R ELSE N/A |
| C56us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/5 AND A.4.3-1/9 AND A.4.3-3/6 AND NOT (A.4.3-1/7 OR A.4.3-1/13) THEN R ELSE N/A |
| C57us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/9 AND A.4.3-3/6 AND NOT (A.4.3-1/7 OR A.4.3-1/13) THEN R ELSE N/A |
| C58us IF A.4.1-1/3 AND ((A.4.3-1/5 AND A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11)) AND A.4.3-1/9 AND A.4.3-3/5 AND NOT (A.4.3-1/7 OR A.4.3-1/13) THEN R ELSE N/A |
| C59us IF A.4.1-1/3 AND ((A.4.3-1/5 AND A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11)) AND A.4.3-1/9 AND NOT (A.4.3-1/7 OR A.4.3-1/13) THEN R ELSE N/A |
| C60us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/9 AND NOT (A.4.3-1/7 OR A.4.3-1/13) THEN R ELSE N/A |

Table 4-7: Applicability of tests and additional information for testing for test cases in TS 37.571-2 [6] for E-UTRA

| Clause | TC Title | Release of LPP | Applicability | | Additional Information | | | |
|-------------|---|----------------------|---------------|--|------------------------|--|-------------------------|----------------|
| | | | Condition | Comment | Specific ICS | Specific IXIT | Number of TC Executions | Release RAT |
| 7.1 | NAS Protocol Procedures | | | | | | | |
| 7.1.1 | UE Network Capability | Rel-9 | C11es | All UEs supporting LPP | pc_eFDD pc_eTDD | | | Rel-9 Rel-9 |
| 7.2 | LCS Procedures | | | | | | | |
| 7.2.1.1 | Location Notification | Rel-9 | C14es | All UEs supporting EPC-MT-LR Location Notification | pc_eFDD pc_eTDD | | | Rel-9 Rel-9 |
| 7.2.1.2 | Privacy Verification – Location Allowed if no Response | Rel-9 | C14es | All UEs supporting EPC-MT-LR Location Notification | pc_eFDD pc_eTDD | px_UeLcsNotification: value for UE LCS Notification timeout timer. | | Rel-9 Rel-9 |
| 7.2.1.3 | Privacy Verification – Location not Allowed if No Response | Rel-9 | C14es | All UEs supporting EPC-MT-LR Location Notification | pc_eFDD pc_eTDD | px_UeLcsNotification: value for UE LCS Notification timeout timer. | | Rel-9 Rel-9 |
| 7.2.2.1_1s | Void | | | | | | | |
| 7.2.2.1_2s | Void | | | | | | | |
| 7.2.2.1_3s | Void | | | | | | | |
| 7.2.2.1_4s | Void | | | | | | | |
| 7.2.2.1_8s | Void | | | | | | | |
| 7.2.2.1_9s | Void | | | | | | | |
| 7.2.2.1_10s | Void | | | | | | | |
| 7.2.2.1_15s | Autonomous Self Location: UE-based: Subtest 15 | Rel-9 ⁽²⁾ | C64es | All UEs supporting UE-Based GNSS ⁽¹⁾ and MO-LR request for assistance data. | pc_eFDD pc_eTDD | | | Rel-9 Rel-9 |
| 7.2.2.1_16s | Autonomous Self Location: UE-based: Subtest 16 UE supporting MBS (Rel-14 onwards) | Rel-14 | C69es | All UEs supporting UE-Based MBS and MO-LR request for assistance data | pc_eFDD pc_eTDD | | | Rel-9 Rel-9 |

| Clause | TC Title | Release of LPP | Applicability | | Additional Information | | | |
|---------------|--|----------------|---------------|---|------------------------|---------------|-------------------------|-------------|
| | | | Condition | Comment | Specific ICS | Specific IXIT | Number of TC Executions | Release RAT |
| 7.2.2.1_17s | Autonomous Self Location: UE-based: Subtest 17 UE supporting WLAN (Rel-14 onwards) | Rel-14 | C75es | All UEs supporting UE-Based WLAN and MO-LR request for assistance data | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2.2.1_18s | Autonomous Self Location: UE-based: Subtest 18 UE supporting Sensor (Rel-14 onwards) | Rel-14 | C71es | All UEs supporting UE-Based Sensor and MO-LR request for assistance data | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2.2.2_1s | Void | | | | | | | |
| 7.2.2.2_2s | Void | | | | | | | |
| 7.2.2.2_3s | Void | | | | | | | |
| 7.2.2.2_4s | Void | | | | | | | |
| 7.2.2.2_5s | Basic Self Location: UE-assisted: Subtest 5 | Rel-9 | C09es | All UEs supporting UE-assisted OTDOA and MO-LR request for location estimate | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2.2.2_6FDDs | Basic Self Location: UE-assisted: Subtest 6 (FDD) | Rel-9 | C10es | All FDD UEs supporting UE-assisted ECID and MO-LR request for location estimate | pc_eFDD | | | Rel-9 |
| 7.2.2.2_6TDDs | Basic Self Location: UE-assisted: Subtest 6 (TDD) | Rel-13 | C56es | All TDD UEs supporting UE-assisted ECID and MO-LR request for location estimate | pc_eTDD | | | Rel-9 |
| 7.2.2.2_8s | Void | | | | | | | |
| 7.2.2.2_9s | Void | | | | | | | |
| 7.2.2.2_10s | Void | | | | | | | |
| 7.2.2.2_11s | Basic Self Location: UE-assisted: Subtest 11 UE supporting WLAN (Rel-13 only) | Rel-13 only | C58es | All UEs supporting UE-assisted WLAN and MO-LR request for location estimate | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2.2.2_12s | Basic Self Location: UE-assisted: Subtest 12 | Rel-13 only | C53es | All UEs supporting UE- | pc_eFDD | | | Rel-9 |

| Clause | TC Title | Release of LPP | Applicability | | Additional Information | | | |
|-------------|---|----------------------|---------------|---|------------------------|---------------|-------------------------|-------------|
| | | | Condition | Comment | Specific ICS | Specific IXIT | Number of TC Executions | Release RAT |
| | UE supporting MBS (Rel-13 only) | | | assisted MBS and MO-LR request for location estimate | pc_eTDD | | | Rel-9 |
| 7.2.2.2_13s | Basic Self Location: UE-assisted: Subtest 13 | Rel-13 | C60es | All UEs supporting UE-assisted Bluetooth and MO-LR request for location estimate | pc_eFDD | | | Rel-9 |
| | | | | | Pc_eTDD | | | Rel-9 |
| 7.2.2.2_14s | Basic Self Location: UE-assisted: Subtest 14 UE supporting Sensor (Rel-13 only) | Rel-13 only | C62es | All UEs supporting UE-assisted Sensor and MO-LR request for location estimate | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2.2.2_15s | Basic Self Location: UE-assisted: Subtest 15 | Rel-9 ⁽²⁾ | C65es | All UEs supporting UE-assisted GNSS ⁽¹⁾ and MO-LR request for location estimate | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2.2.2_16s | Basic Self Location: UE-assisted: Subtest 16 UE supporting MBS (Rel-14 onwards) | Rel-14 | C53es | All UEs supporting UE-assisted MBS and MO-LR request for location estimate | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2.2.2_17s | Basic Self Location: UE-assisted: Subtest 17 UE supporting WLAN (Rel-14 onwards) | Rel-14 | C58es | All UEs supporting UE-assisted WLAN and MO-LR request for location estimate | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.2.2.2_18s | Basic Self Location: UE-assisted: Subtest 18 UE supporting Sensor (Rel-14 onwards) | Rel-14 | C62es | All UEs supporting UE-assisted Sensor and MO-LR request for location estimate | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3 | LPP Procedures | | | | | | | |
| 7.3.1.1 | Position Capability Transfer | Rel-9 | C11es | All UEs supporting LPP | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.2.1 | LPP Duplicated Message | Rel-9 | C11es | All UEs supporting LPP | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.2.2 | LPP Acknowledgment | Rel-9 | C11es | All UEs supporting LPP | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.2.3 | LPP Retransmission | Rel-9 | C36es | All UEs supporting LPP and support of sending of acknowledgement request in LPP Provide Capabilities message. | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.3.1 | Void | | | | | | | |
| 7.3.3.1A | Void | | | | | | | |
| 7.3.3.1B | LPP Requested Method not Supported - UE- | Rel-9 ⁽²⁾ | C54es | All UEs supporting at | pc_eFDD | | | Rel-9 |

| Clause | TC Title | Release of LPP | Applicability | | Additional Information | | | |
|-------------|---|----------------------|---------------|---|------------------------|---------------|-------------------------|-------------|
| | | | Condition | Comment | Specific ICS | Specific IXIT | Number of TC Executions | Release RAT |
| | Assisted | | | least one of UE-assisted GNSS ⁽¹⁾ , UE-assisted OTDOA, or UE-assisted ECID or UE-assisted WLAN or UE-assisted MBS or UE-assisted Bluetooth or UE-assisted Sensor but not all of them | pc_eTDD | | | Rel-9 |
| 7.3.4.1_1s | Void | | | | | | | |
| 7.3.4.1_2s | Void | | | | | | | |
| 7.3.4.1_3s | Void | | | | | | | |
| 7.3.4.1_4s | Void | | | | | | | |
| 7.3.4.1_8s | Void | | | | | | | |
| 7.3.4.1_9s | Void | | | | | | | |
| 7.3.4.1_10s | Void | | | | | | | |
| 7.3.4.1_15s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Based: Subtest 15 | Rel-9 ⁽²⁾ | C66es | All UEs supporting UE-based GNSS ⁽¹⁾ | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.1_16s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Based: Subtest 16 UE supporting MBS (Rel-14 onwards) | Rel-14 | C70es | All UEs supporting UE-based MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.1_17s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Based: Subtest 17 UE supporting WLAN (Rel-14 onwards) | Rel-14 | C77es | All UEs supporting UE-based WLAN | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.1_18s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Based: Subtest 18 UE supporting Sensor (Rel-14 onwards) | Rel-14 | C73es | All UEs supporting UE-based Sensor | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.2_1s | Void | | | | | | | |
| 7.3.4.2_2s | Void | | | | | | | |
| 7.3.4.2_3s | Void | | | | | | | |

| Clause | TC Title | Release of LPP | Applicability | | Additional Information | | | |
|---------------|---|----------------------|---------------|---|------------------------|---------------|-------------------------|-------------|
| | | | Condition | Comment | Specific ICS | Specific IXIT | Number of TC Executions | Release RAT |
| 7.3.4.2_4s | Void | | | | | | | |
| 7.3.4.2_5s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-assisted: Subtest 5 | Rel-9 | C26es | All UEs supporting UE-Assisted OTDOA | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.2_6FDDs | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-assisted: Subtest 6 (FDD) | Rel-9 | C27es | All FDD UEs supporting UE-Assisted ECID | pc_eFDD | | | Rel-9 |
| 7.3.4.2_6TDDs | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-assisted: Subtest 6 (TDD) | Rel-13 | C57es | All TDD UEs supporting UE-Assisted ECID | pc_eTDD | | | Rel-9 |
| 7.3.4.2_7s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-assisted: Subtest 7 | Rel-9 | C21es | All UEs supporting UE-assisted GNSS and UE-assisted OTDOA | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.2_8s | Void | | | | | | | |
| 7.3.4.2_9s | Void | | | | | | | |
| 7.3.4.2_10s | Void | | | | | | | |
| 7.3.4.2_11s | E-SMLC Initiated Location Information Transfer: UE-assisted: Subtest 11 UE supporting WLAN (Rel-13 only) | Rel-13 only | C59es | All UEs supporting UE-assisted WLAN | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.2_12s | E-SMLC Initiated Location Information Transfer: UE-assisted: Subtest 12 UE supporting MBS (Rel-13 only) | Rel-13 only | C55es | All UEs supporting UE-assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.2_13s | E-SMLC Initiated Location Information Transfer: UE-assisted: Subtest 13 | Rel-13 | C61es | All UEs supporting UE-assisted Bluetooth | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.2_14s | E-SMLC Initiated Location Information Transfer: UE-assisted: Subtest 14 UE supporting Sensor (Rel-13 only) | Rel-13 only | C63es | All UEs supporting UE-assisted Sensor | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.2_15s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-assisted: Subtest 15 | Rel-9 ⁽²⁾ | C67es | All UEs supporting UE-assisted GNSS ⁽¹⁾ | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.2_16s | E-SMLC Initiated Location Information Transfer: UE-assisted: Subtest 16 UE supporting MBS (Rel-14 onwards) | Rel-14 | C55es | All UEs supporting UE-assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.2_17s | E-SMLC Initiated Location Information Transfer: UE-assisted: Subtest 17 UE supporting WLAN (Rel-14 onwards) | Rel-14 | C59es | All UEs supporting UE-assisted WLAN | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.2_18s | E-SMLC Initiated Location Information Transfer: UE-assisted: Subtest 18 UE supporting Sensor (Rel-14 onwards) | Rel-14 | C63es | All UEs supporting UE-assisted Sensor | pc_eFDD | | | Rel-9 |

| Clause | TC Title | Release of LPP | Applicability | | Additional Information | | | |
|-------------|---|----------------------|---------------|---|------------------------|---------------|-------------------------|-------------|
| | | | Condition | Comment | Specific ICS | Specific IXIT | Number of TC Executions | Release RAT |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.3_1s | Void | | | | | | | |
| 7.3.4.3_2s | Void | | | | | | | |
| 7.3.4.3_3s | Void | | | | | | | |
| 7.3.4.3_4s | Void | | | | | | | |
| 7.3.4.3_8s | Void | | | | | | | |
| 7.3.4.3_9s | Void | | | | | | | |
| 7.3.4.3_10s | Void | | | | | | | |
| 7.3.4.3_15s | E-SMLC Initiated Position Measurement without assistance data: UE-Based: Subtest 15 | Rel-9 ⁽²⁾ | C66es | All UEs supporting UE-based GNSS ⁽¹⁾ | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.3_16s | E-SMLC Initiated Position Measurement without assistance data: UE-Based: Subtest 16 UE supporting MBS (Rel-14 onwards) | Rel-14 | C70es | All UEs supporting UE-based MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.3_17s | E-SMLC Initiated Position Measurement without assistance data: UE-Based: Subtest 17 UE supporting WLAN (Rel-14 onwards) | Rel-14 | C77es | All UEs supporting UE-based WLAN | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.3_18s | E-SMLC Initiated Position Measurement without assistance data: UE-Based: Subtest 18 UE supporting Sensor (Rel-14 onwards) | Rel-14 | C73es | All UEs supporting UE-based Sensor | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.4_1s | Void | | | | | | | |
| 7.3.4.4_2s | Void | | | | | | | |
| 7.3.4.4_3s | Void | | | | | | | |
| 7.3.4.4_4s | Void | | | | | | | |
| 7.3.4.4_5s | E-SMLC Initiated Position Measurement without assistance data: UE-assisted: Subtest 5 | Rel-9 | C26es | All UEs supporting UE-Assisted OTDOA | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.4_7s | E-SMLC Initiated Position Measurement without assistance data: UE-assisted: Subtest 7 | Rel-9 | C21es | All UEs supporting UE-assisted GNSS and UE-assisted OTDOA | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.4_8s | Void | | | | | | | |

| Clause | TC Title | Release of LPP | Applicability | | Additional Information | | | |
|-------------|--|----------------------|---------------|--|------------------------|---------------|-------------------------|-------------|
| | | | Condition | Comment | Specific ICS | Specific IXIT | Number of TC Executions | Release RAT |
| 7.3.4.4_9s | Void | | | | | | | |
| 7.3.4.4_10s | Void | | | | | | | |
| 7.3.4.4_15s | E-SMLC Initiated Position Measurement without assistance data: UE-assisted: Subtest 15 | Rel-9 ⁽²⁾ | C67es | All UEs supporting UE-assisted GNSS ⁽¹⁾ | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.4_16s | E-SMLC Initiated Position Measurement without assistance data: UE-assisted: Subtest 16 UE supporting MBS (Rel-14 onwards) | Rel-14 | C55es | All UEs supporting UE-assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.4_17s | E-SMLC Initiated Position Measurement without assistance data: UE-assisted: Subtest 17 UE supporting WLAN (Rel-14 onwards) | Rel-14 | C59es | All UEs supporting UE-assisted WLAN | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.4.4_18s | E-SMLC Initiated Position Measurement without assistance data: UE-assisted: Subtest 18 UE supporting Sensor (Rel-14 onwards) | Rel-14 | C63es | All UEs supporting UE-assisted Sensor | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.5.1_1s | Void | | | | | | | |
| 7.3.5.1_2s | Void | | | | | | | |
| 7.3.5.1_3s | Void | | | | | | | |
| 7.3.5.1_4s | Void | | | | | | | |
| 7.3.5.1_5s | E-SMLC initiated Abort: Subtest 5 | Rel-9 | C26es | All UEs supporting UE-assisted OTDOA | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.5.1_8s | Void | | | | | | | |
| 7.3.5.1_9s | Void | | | | | | | |
| 7.3.5.1_10s | Void | | | | | | | |
| 7.3.5.1_11s | E-SMLC initiated Abort: Subtest 11 UE supporting WLAN (Rel-13 only) | Rel-13 only | C59es | All UEs supporting UE-assisted WLAN | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.5.1_12s | E-SMLC initiated Abort: Subtest 12 UE supporting MBS (Rel-13 only) | Rel-13 only | C55es | All UEs supporting UE-assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.5.1_13s | E-SMLC initiated Abort: Subtest 13 | Rel-13 | C61es | All UEs supporting UE-assisted Bluetooth | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |

| Clause | TC Title | Release of LPP | Applicability | | Additional Information | | | |
|--|--|----------------------|---------------|--|------------------------|---------------|-------------------------|-------------|
| | | | Condition | Comment | Specific ICS | Specific IXIT | Number of TC Executions | Release RAT |
| 7.3.5.1_15s | E-SMLC initiated Abort: Subtest 15 | Rel-9 ⁽²⁾ | C68es | All UEs supporting UE-based or UE-assisted GNSS ⁽¹⁾ | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.5.1_16s | E-SMLC initiated Abort: Subtest 16 UE supporting MBS (Rel-14 onwards) | Rel-14 | C55es | All UEs supporting UE-assisted MBS | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.3.5.1_17s | E-SMLC initiated Abort: Subtest 17 UE supporting WLAN (Rel-14 onwards) | Rel-14 | C59es | All UEs supporting UE-assisted WLAN | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4 | Circuit Switched (CS) Fallback | | | | | | | |
| 7.4.1.1 | CS fallback: Network does not support EPC-MO-LR | Rel-9 | C12es | All UEs supporting MO-LR procedure for location estimate in the CS fallback in EPS. | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.4.1.2 | CS fallback: UE does not support EPC-MO-LR | Rel-9 | C13es | All UEs not supporting EPC-MO-LR and supporting MO-LR procedure for location estimate in the CS fallback in EPS. | pc_eFDD | | | Rel-9 |
| | | | | | pc_eTDD | | | Rel-9 |
| 7.5 | RRC Protocol Procedures | | | | | | | |
| 7.5.1 | Inter-Frequency RSTD measurement indication | Rel-10 | C37es | All UEs supporting inter-frequency RSTD measurements for OTDOA that require measurement gaps. | pc_eFDD | | | Rel-10 |
| | | | | | pc_eTDD | | | Rel-10 |
| NOTE 1: The GNSS combination of GPS, GLONASS, Galileo, BDS supported by the UE | | | | | | | | |
| NOTE 2: If the GNSS combination supported by the UE includes Galileo and/or BDS then Rel-12 of LPP is required | | | | | | | | |

Table 4-8: Applicability of tests Conditions for test cases in TS 37.571-2 [6] for E-UTRA

| | |
|-------|--|
| C01es | Void |
| C02es | Void |
| C03es | Void |
| C04es | Void |
| C05es | Void |
| C06es | Void |
| C07es | Void |
| C08es | Void |
| C09es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/4 AND A.4.3-3/2 THEN R ELSE N/A |
| C10es | IF A.4.1-1/1 AND A.4.3-2/5 AND A.4.3-3/2 THEN R ELSE N/A |
| C11es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2-1/1 THEN R ELSE N/A |
| C12es | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-1/3 OR A.4.1-1/4) AND A.4.3-3/4 THEN R ELSE N/A |
| C13es | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.1-1/3 OR A.4.1-1/4) AND A.4.3-3/4 AND NOT (A.4.3-3/1 AND A.4.3-3/2) THEN R ELSE N/A |
| C14es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-3/3 THEN R ELSE N/A |
| C15es | Void |
| C16es | Void |
| C17es | Void |
| C18es | Void |
| C19es | Void |
| C20es | Void |
| C21es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/2 AND A.4.3-2/4 THEN R ELSE N/A |
| C22es | Void |
| C23es | Void |
| C24es | Void |
| C25es | Void |
| C26es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/4 THEN R ELSE N/A |
| C27es | IF A.4.1-1/1 AND A.4.3-2/5 THEN R ELSE N/A |
| C28es | Void |
| C29es | Void |
| C30es | Void |
| C31es | Void |
| C32es | Void |
| C33es | Void |
| C34es | Void |
| C35es | Void |
| C36es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.2-1/1 AND A.4.4-1/1 THEN R ELSE N/A |
| C37es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/16 THEN R ELSE N/A |
| C38es | Void |
| C39es | Void |
| C40es | Void |
| C41es | Void |
| C42es | Void |
| C43es | Void |
| C44es | Void |
| C45es | Void |

| | |
|-------|---|
| C46es | Void |
| C47es | Void |
| C48es | Void |
| C49es | Void |
| C50es | Void |
| C51es | Void |
| C52es | Void |
| C53es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-3/2 AND A.4.3-2/20 THEN R ELSE N/A |
| C54es | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3-2/2 OR A.4.3-2/4 OR A.4.3-2/5 OR A.4.3-2/20 OR A.4.3-2/21 OR A.4.3-2/22 OR A.4.3-2/23) AND NOT (A.4.3-2/2 AND A.4.3-2/4 AND A.4.3-2/5 AND A.4.3-2/20 AND A.4.3-2/21 AND A.4.3-2/22 AND A.4.3-2/23) THEN R ELSE N/A |
| C55es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/20 THEN R ELSE N/A |
| C56es | IF A.4.1-1/2 AND A.4.3-2/5 AND A.4.3-3/2 THEN R ELSE N/A |
| C57es | IF A.4.1-1/2 AND A.4.3-2/5 THEN R ELSE N/A |
| C58es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-3/2 AND A.4.3-2/21 THEN R ELSE N/A |
| C59es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/21 THEN R ELSE N/A |
| C60es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-3/2 AND A.4.3-2/22 THEN R ELSE N/A |
| C61es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/22 THEN R ELSE N/A |
| C62es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-3/2 AND A.4.3-2/23 THEN R ELSE N/A |
| C63es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/23 THEN R ELSE N/A |
| C64es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/1 AND A.4.3-3/1 THEN R ELSE N/A |
| C65es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/2 AND A.4.3-3/2 THEN R ELSE N/A |
| C66es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/1 THEN R ELSE N/A |
| C67es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/2 THEN R ELSE N/A |
| C68es | IF (A.4.1-1/1 OR A.4.1-1/2) AND (A.4.3-2/1 OR A.4.3-2/2) THEN R ELSE N/A |
| C69es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/26 AND A.4.3-3/1 THEN R ELSE N/A |
| C70es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/26 THEN R ELSE N/A |
| C71es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/28 AND A.4.3-3/1 THEN R ELSE N/A |
| C72es | Void |
| C73es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/28 THEN R ELSE N/A |
| C74es | Void |
| C75es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/27 AND A.4.3-3/1 THEN R ELSE N/A |
| C76es | Void |
| C77es | IF (A.4.1-1/1 OR A.4.1-1/2) AND A.4.3-2/27 THEN R ELSE N/A |
| C78es | Void |

Table 4-9: Applicability of tests and additional information for testing for test cases in TS 37.571-2 [6] for NR

| Clause | TC Title | Release of LPP | Applicability | | Release RAT |
|--------------|---|--------------------------|---------------|---|-------------|
| | | | Condition | Comment ⁽⁴⁾ | |
| 9.3 | LPP Procedures | | | | |
| 9.3.1 | LPP Common Procedures | | | | |
| 9.3.1.1 | Position Capability Transfer | Rel-9 | C01ns | All UEs supporting LPP | Rel-15 |
| 9.3.1.2_5s | LPP Abort: Subtest 5 | Rel-15 | C02ns | All UEs supporting UE-Assisted OTDOA | Rel-15 |
| 9.3.1.2_11s | LPP Abort: Subtest 11 | Rel-13 only | C06ns | All UEs supporting UE-Assisted WLAN | Rel-15 |
| 9.3.1.2_12s | LPP Abort: Subtest 12 | Rel-13 only | C05ns | All UEs supporting UE-Assisted MBS | Rel-15 |
| 9.3.1.2_13s | LPP Abort: Subtest 13 | Rel-13 | C03ns | All UEs supporting UE-Assisted Bluetooth | Rel-15 |
| 9.3.1.2_15s | LPP Abort: Subtest 15 | Rel-9 ⁽²⁾ | C04ns | All UEs supporting UE-Based or UE-Assisted A-GNSS ⁽¹⁾ | Rel-15 |
| 9.3.1.2_16s | LPP Abort: Subtest 16 | Rel-14 | C05ns | All UEs supporting UE-Assisted MBS | Rel-15 |
| 9.3.1.2_17s | LPP Abort: Subtest 17 | Rel-14 | C06ns | All UEs supporting UE-Assisted WLAN | Rel-15 |
| 9.3.1.2_19s | LPP Abort: Subtest 19 | Rel-16 | C19ns | All UEs supporting UE-Assisted Multi-RTT | Rel-16 |
| 9.3.1.2_20s | LPP Abort: Subtest 20 | Rel-16 | C20ns | All UEs supporting UE-Based or UE-Assisted DL-AoD | Rel-16 |
| 9.3.1.2_21s | LPP Abort: Subtest 21 | Rel-16 | C21ns | All UEs supporting UE-Based or UE-Assisted DL-TDOA | Rel-16 |
| 9.3.2 | LPP Transport | | | | |
| 9.3.2.1 | LPP Duplicated Message | Rel-9 | C01ns | All UEs supporting LPP | Rel-15 |
| 9.3.2.2 | LPP Acknowledgement | Rel-9 | C01ns | All UEs supporting LPP | Rel-15 |
| 9.3.2.3 | LPP Retransmission | Rel-9 | C07ns | All UEs supporting LPP and the sending of acknowledgement request in LPP Provide Capabilities message | Rel-15 |
| 9.3.3 | LPP Error Handling | | | | |
| 9.3.3.1 | Void | | | | |
| 9.3.3.1A | Void | | | | |
| 9.3.3.1B | LPP Requested Method not Supported - UE-Assisted | Rel-9 ^{(2) (5)} | C08ns | All UEs supporting at least one of UE-Assisted GNSS ⁽¹⁾ , UE-Assisted OTDOA, or UE-Assisted ECID or UE-Assisted WLAN or UE-Assisted MBS or UE-Assisted Bluetooth or UE-Assisted Sensor or UE-Assisted DL-TDOA or UE-Assisted DL-AoD or UE-Assisted Multi-RTT or UE-Assisted NR E-CID but not all of them | Rel-15 |
| 9.3.4 | LPP Positioning Procedures | | | | |
| 9.3.4.1_15s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Based: Subtest 15 | Rel-9 ⁽²⁾ | C10ns | All UEs supporting UE-Based A-GNSS ⁽¹⁾ | Rel-15 |
| 9.3.4.1_16s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Based: Subtest 16 | Rel-14 | C11ns | All UEs supporting UE-Based MBS | Rel-15 |
| 9.3.4.1_17s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Based: Subtest 17 | Rel-14 | C12ns | All UEs supporting UE-Based WLAN | Rel-15 |
| 9.3.4.1_18s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Based: Subtest 18 | Rel-14 | C13ns | All UEs supporting UE-Based Sensor | Rel-15 |
| 9.3.4.1_20s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Based: Subtest 20 | Rel-16 | C22ns | All UEs supporting UE-Based DL-AoD | Rel-16 |

| Clause | TC Title | Release of LPP | Applicability | | Release RAT |
|-------------|--|----------------------|---------------|--|-------------|
| | | | Condition | Comment ⁽⁴⁾ | |
| 9.3.4.1_21s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Based: Subtest 21 | Rel-16 | C23ns | All UEs supporting UE-Based DL-TDOA | Rel-16 |
| 9.3.4.2_5s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 5 | Rel-15 | C02ns | All UEs supporting UE-Assisted OTDOA | Rel-15 |
| 9.3.4.2_6s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 6 | Rel-9 | C15ns | All UEs supporting UE-Assisted ECID | Rel-15 |
| 9.3.4.2_7s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 7 | Rel-15 | C16ns | All UEs supporting UE-Assisted GNSS and OTDOA | Rel-15 |
| 9.3.4.2_11s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 11 | Rel-13 only | C06ns | All UEs supporting UE-Assisted WLAN | Rel-15 |
| 9.3.4.2_12s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 12 | Rel-13 only | C05ns | All UEs supporting UE-Assisted MBS | Rel-15 |
| 9.3.4.2_13s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 13 | Rel-13 | C03ns | All UEs supporting UE-Assisted Bluetooth | Rel-15 |
| 9.3.4.2_14s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 14 | Rel-13 only | C09ns | All UEs supporting UE-Assisted Sensor | Rel-15 |
| 9.3.4.2_15s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 15 | Rel-9 ⁽²⁾ | C14ns | All UEs supporting UE-Assisted A-GNSS ⁽¹⁾ | Rel-15 |
| 9.3.4.2_16s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 16 | Rel-14 | C05ns | All UEs supporting UE-Assisted MBS | Rel-15 |
| 9.3.4.2_17s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 17 | Rel-14 | C06ns | All UEs supporting UE-Assisted WLAN | Rel-15 |
| 9.3.4.2_18s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 18 | Rel-14 | C09ns | All UEs supporting UE-Assisted Sensor | Rel-15 |
| 9.3.4.2_19s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 19 | Rel-16 | C19ns | All UEs supporting UE-Assisted Multi-RTT | Rel-16 |
| 9.3.4.2_20s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 20 | Rel-16 | C24ns | All UEs supporting UE-Assisted DL-AoD | Rel-16 |
| 9.3.4.2_21s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 21 | Rel-16 | C25ns | All UEs supporting UE-Assisted DL-TDOA | Rel-16 |
| 9.3.4.2_22s | E-SMLC Initiated Assistance Data Delivery followed by Location Information Transfer: UE-Assisted: Subtest 22 | Rel-16 | C26ns | All UEs supporting UE-Assisted NR E-CID | Rel-16 |

| Clause | TC Title | Release of LPP | Applicability | | |
|---|--|----------------------|---------------|--|-------------|
| | | | Condition | Comment ⁽⁴⁾ | Release RAT |
| 9.3.4.3_15s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Based: Subtest 15 | Rel-9 ⁽²⁾ | C10ns | All UEs supporting UE-Based A-GNSS ⁽¹⁾ | Rel-15 |
| 9.3.4.3_16s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Based: Subtest 16 | Rel-14 | C11ns | All UEs supporting UE-Based MBS | Rel-15 |
| 9.3.4.3_17s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Based: Subtest 17 | Rel-14 | C12ns | All UEs supporting UE-Based WLAN | Rel-15 |
| 9.3.4.3_18s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Based: Subtest 18 | Rel-14 | C13ns | All UEs supporting UE-Based Sensor | Rel-15 |
| 9.3.4.3_20s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Based: Subtest 20 | Rel-16 | C22ns | All UEs supporting UE-Based DL-AoD | Rel-16 |
| 9.3.4.3_21s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Based: Subtest 21 | Rel-16 | C23ns | All UEs supporting UE-Based DL-TDOA | Rel-16 |
| 9.3.4.4_5s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Assisted: Subtest 5 | Rel-15 | C02ns | All UEs supporting UE-Assisted OTDOA | Rel-15 |
| 9.3.4.4_7s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Assisted: Subtest 7 | Rel-15 | C16ns | All UEs supporting UE-assisted A-GNSS ⁽¹⁾ and UE-assisted OTDOA | Rel-15 |
| 9.3.4.4_15s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Assisted: Subtest 15 | Rel-9 ⁽²⁾ | C14ns | All UEs supporting UE-Assisted A-GNSS ⁽¹⁾ | Rel-15 |
| 9.3.4.4_16s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Assisted: Subtest 16 | Rel-14 | C05ns | All UEs supporting UE-Assisted MBS | Rel-15 |
| 9.3.4.4_17s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Assisted: Subtest 17 | Rel-14 | C06ns | All UEs supporting UE-Assisted WLAN | Rel-15 |
| 9.3.4.4_18s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Assisted: Subtest 18 | Rel-14 | C09ns | All UEs supporting UE-Assisted Sensor | Rel-15 |
| 9.3.4.4_19s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Assisted: Subtest 19 | Rel-16 | C19ns | All UEs supporting UE-Assisted Multi-RTT | Rel-16 |
| 9.3.4.4_20s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Assisted: Subtest 20 | Rel-16 | C24ns | All UEs supporting UE-Assisted DL-AoD | Rel-16 |
| 9.3.4.4_21s | E-SMLC Initiated Position Measurement without Assistance Data: UE-Assisted: Subtest 21 | Rel-16 | C25ns | All UEs supporting UE-Assisted DL-TDOA | Rel-16 |
| <p>NOTE 1: The GNSS combination of GPS, GLONASS, Galileo, BDS supported by the UE</p> <p>NOTE 2: If the GNSS combination supported by the UE includes Galileo and/or BDS then Rel-12 of LPP is required</p> <p>NOTE 3: Void</p> <p>NOTE 4: The required support of RAN-CN Interface Options is given in Table 4-10.</p> <p>NOTE 5: If the UE-Assisted DL-TDOA or UE-Assisted DL-AoD or UE-Assisted Multi-RTT or UE-Assisted NR E-CID supported by the UE then Rel-16 LPP is required.</p> | | | | | |

Table 4-10: Applicability of tests Conditions for test cases in TS 37.571-2 [6] for NR

| | |
|-------|--|
| C01ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.2-1/1 THEN R ELSE N/A |
| C02ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/4 THEN R ELSE N/A |
| C03ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/22 THEN R ELSE N/A |
| C04ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND (A.4.3-2/1 OR A.4.3-2/2) THEN R ELSE N/A |
| C05ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/20 THEN R ELSE N/A |
| C06ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/21 THEN R ELSE N/A |
| C07ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.2-1/1 AND A.4.4-1/1 THEN R ELSE N/A |
| C08ns | IF (A.4.1-4/1 AND (A.4.3-2/2 OR A.4.3-2/4 OR A.4.3-2/20 OR A.4.3-2/21 OR A.4.3-2/22 OR A.4.3-2/23 OR A.4.3-2/29 OR A.4.3-2/30 OR A.4.3-2/32 OR A.4.3-2/34) AND NOT (A.4.3-2/2 AND A.4.3-2/4 AND A.4.3-2/20 AND A.4.3-2/21 AND A.4.3-2/22 AND A.4.3-2/23 AND A.4.3-2/29 AND A.4.3-2/30 AND A.4.3-2/32 AND A.4.3-2/34)) OR (A.4.1-4/4 AND (A.4.3-2/2 OR A.4.3-2/4 OR A.4.3-2/5 OR A.4.3-2/20 OR A.4.3-2/21 OR A.4.3-2/22 OR A.4.3-2/23) AND NOT (A.4.3-2/2 AND A.4.3-2/4 AND A.4.3-2/5 AND A.4.3-2/20 AND A.4.3-2/21 AND A.4.3-2/22 AND A.4.3-2/23)) THEN R ELSE N/A |
| C09ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/23 THEN R ELSE N/A |
| C10ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/1 THEN R ELSE N/A |
| C11ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/26 THEN R ELSE N/A |
| C12ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/27 THEN R ELSE N/A |
| C13ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/28 THEN R ELSE N/A |
| C14ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 THEN R ELSE N/A |
| C15ns | IF A.4.1-4/4 AND A.4.3-2/5 THEN R ELSE N/A |
| C16ns | IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 AND A.4.3-2/4 THEN R ELSE N/A |
| C17ns | Void |
| C18ns | Void |
| C19ns | IF A.4.1-4/1 AND A.4.3-2/29 THEN R ELSE N/A |
| C20ns | IF A.4.1-4/1 AND (A.4.3-2/30 OR A.4.3-2/31) THEN R ELSE N/A |
| C21ns | IF A.4.1-4/1 AND (A.4.3-2/32 OR A.4.3-2/33) THEN R ELSE N/A |
| C22ns | IF A.4.1-4/1 AND A.4.3-2/31 THEN R ELSE N/A |
| C23ns | IF A.4.1-4/1 AND A.4.3-2/33 THEN R ELSE N/A |
| C24ns | IF A.4.1-4/1 AND A.4.3-2/30 THEN R ELSE N/A |
| C25ns | IF A.4.1-4/1 AND A.4.3-2/32 THEN R ELSE N/A |
| C26ns | IF A.4.1-4/1 AND A.4.3-2/34 THEN R ELSE N/A |

Editor's Note: The required support of RAN-CN Interface Options NE-DC and NGEN-DC in this Table requires further study.

Table 4-11: Applicability of tests and additional information for testing for test cases in TS 37.571-1 [5] for NR

| Clause | TC Title | Release of LPP | Applicability | | Additional Information | | | |
|-----------|---|----------------|---------------|--|------------------------|---------------|-------------------------|-------------|
| | | | Condition | Comment | Specific ICS | Specific IXIT | Number of TC Executions | Release RAT |
| 11 | NR MBS measurement requirements | | | | | | | |
| 11.1B | MBS Measurement Reporting Delay (NR) | Rel-13 | C45nr | All NR UEs supporting UE-Assisted MBS | | | | Rel-15 |
| 11.2B | MBS Sensitivity Measurement Accuracy (NR) | Rel-13 | C45nr | All NR UEs supporting UE-Assisted MBS | | | | Rel-15 |
| 11.3B | MBS Nominal Measurement Accuracy (NR) | Rel-13 | C45nr | All NR UEs supporting UE-Assisted MBS | | | | Rel-15 |
| 11.4B | MBS Dynamic Range Measurement Accuracy (NR) | Rel-13 | C45nr | All NR UEs supporting UE-Assisted MBS | | | | Rel-15 |
| 11.5B | MBS Measurement Accuracy in Multipath (NR) | Rel-13 | C45nr | All NR UEs supporting UE-Assisted MBS | | | | Rel-15 |
| 13 | A-GNSS minimum performance requirements | | | | | | | |
| 13.2.1-1 | Sensitivity Coarse Time Assistance: Sub-Test 1 | Rel-9 | C01nr | All FR1 NR UEs. The UEs shall support A-GPS L1C/A only | | | | Rel-15 |
| 13.2.1-2 | Sensitivity Coarse Time Assistance: Sub-Test 2 | Rel-9 | C02nr | All FR1 NR UEs. The UEs shall support A-GLONASS only | | | | Rel-15 |
| 13.2.1-3 | Sensitivity Coarse Time Assistance: Sub-Test 3 | Rel-12 | C03nr | All FR1 NR UEs. The UEs shall support A-Galileo only | | | | Rel-15 |
| 13.2.1-4 | Sensitivity Coarse Time Assistance: Sub-Test 4 | Rel-9 | C04nr | All FR1 NR UEs. The UEs shall support A-GPS and Modernized GPS only | | | | Rel-15 |
| 13.2.1-5 | Sensitivity Coarse Time Assistance: Sub-Test 5 | Rel-9 | C05nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only | | | | Rel-15 |
| 13.2.1-8 | Sensitivity Coarse Time Assistance: Sub-Test 8 | Rel-12 | C15nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo only | | | | Rel-15 |
| 13.2.1-9 | Sensitivity Coarse Time Assistance: Sub-Test 9 | Rel-12 | C11nr | All FR1 NR UEs. The UEs shall support A-BDS only (Note 1) | | | | Rel-15 |
| 13.2.1-10 | Sensitivity Coarse Time Assistance: Sub-Test 10 | Rel-12 | C12nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-BDS only (Note 1) | | | | Rel-15 |
| 13.2.1-11 | Sensitivity Coarse Time Assistance: Sub-Test 11 | Rel-12 | C17nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only (Note 1) | | | | Rel-15 |

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|-----------|---|--------|-------|--|--|--|--|--------|
| 13.2.1-12 | Sensitivity Coarse Time Assistance: Sub-Test 12 | Rel-12 | C27nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only | | | | Rel-15 |
| 13.2.1-13 | Sensitivity Coarse Time Assistance: Sub-Test 13 | Rel-12 | C28nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only (Note 1) | | | | Rel-15 |
| 13.2.2-1 | Sensitivity Fine Time Assistance: Sub-Test 1 | Rel-9 | C06nr | All FR1 NR UEs supporting EN-DC. The UEs shall support A-GPS L1C/A only, and Fine Time Assistance | | | | Rel-15 |
| | | Rel-15 | C34nr | All FR1 NR UEs supporting NG-RAN NR. The UEs shall support A-GPS L1C/A only, and Fine Time Assistance | | | | Rel-15 |
| 13.2.2-2 | Sensitivity Fine Time Assistance: Sub-Test 2 | Rel-9 | C07nr | All FR1 NR UEs supporting EN-DC. The UEs shall support A-GLONASS only, and Fine Time Assistance | | | | Rel-15 |
| | | Rel-15 | C35nr | All FR1 NR UEs supporting NG-RAN NR. The UEs shall support A-GLONASS only, and Fine Time Assistance | | | | Rel-15 |
| 13.2.2-3 | Sensitivity Fine Time Assistance: Sub-Test 3 | Rel-12 | C08nr | All FR1 NR UEs supporting EN-DC. The UEs shall support A-Galileo only, and Fine Time Assistance | | | | Rel-15 |
| | | Rel-15 | C36nr | All FR1 NR UEs supporting NG-RAN NR. The UEs shall support A-Galileo only, and Fine Time Assistance | | | | Rel-15 |
| 13.2.2-4 | Sensitivity Fine Time Assistance: Sub-Test 4 | Rel-9 | C09nr | All FR1 NR UEs supporting EN-DC. The UEs shall support A-GPS and Modernized GPS only, and Fine Time Assistance | | | | Rel-15 |
| | | Rel-15 | C37nr | All FR1 NR UEs supporting NG-RAN NR. The UEs shall support A-GPS and Modernized GPS only, and Fine Time Assistance | | | | Rel-15 |

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|-----------|---|--------|-------|---|--|--|--|--------|
| 13.2.2-5 | Sensitivity Fine Time Assistance: Sub-Test 5 | Rel-9 | C10nr | All FR1 NR UEs supporting EN-DC. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only, and Fine Time Assistance | | | | Rel-15 |
| | | Rel-15 | C38nr | All FR1 NR UEs supporting NG-RAN NR. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only, and Fine Time Assistance | | | | Rel-15 |
| 13.2.2-8 | Sensitivity Fine Time Assistance: Sub-Test 8 | Rel-12 | C16nr | All FR1 NR UEs supporting EN-DC. The UEs shall support A-GPS/Modernized GPS and A-Galileo only, and Fine Time Assistance | | | | Rel-15 |
| | | Rel-15 | C39nr | All FR1 NR UEs supporting NG-RAN NR. The UEs shall support A-GPS/Modernized GPS and A-Galileo only, and Fine Time Assistance | | | | Rel-15 |
| 13.2.2-9 | Sensitivity Fine Time Assistance: Sub-Test 9 | Rel-12 | C13nr | All FR1 NR UEs supporting EN-DC. The UEs shall support A-BDS only, and Fine Time Assistance (Note 1) | | | | Rel-15 |
| | | Rel-15 | C40nr | All FR1 NR UEs supporting NG-RAN NR. The UEs shall support A-BDS only, and Fine Time Assistance (Note 1) | | | | Rel-15 |
| 13.2.2-10 | Sensitivity Fine Time Assistance: Sub-Test 10 | Rel-12 | C14nr | All FR1 NR UEs supporting EN-DC. The UEs shall support A-GPS/Modernized GPS and A-BDS only, and Fine Time Assistance (Note 1) | | | | Rel-15 |
| | | Rel-15 | C41nr | All FR1 NR UEs supporting NG-RAN NR. The UEs shall support A-GPS/Modernized GPS and A-BDS only, and Fine Time Assistance (Note 1) | | | | Rel-15 |
| 13.2.2-11 | Sensitivity Fine Time Assistance: Sub-Test 11 | Rel-12 | C18nr | All FR1 NR UEs supporting EN-DC. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only, and Fine Time Assistance (Note 1) | | | | Rel-15 |

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|-----------|---|--------|-------|---|--|--|--|--------|
| | | Rel-15 | C42nr | All FR1 NR UEs supporting NG-RAN NR. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only, and Fine Time Assistance (Note 1) | | | | Rel-15 |
| 13.2.2-12 | Sensitivity Fine Time Assistance: Sub-Test 12 | Rel-12 | C29nr | All FR1 NR UEs supporting EN-DC. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only, and Fine Time Assistance | | | | Rel-15 |
| | | Rel-15 | C43nr | All FR1 NR UEs supporting NG-RAN NR. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only, and Fine Time Assistance | | | | Rel-15 |
| 13.2.2-13 | Sensitivity Fine Time Assistance: Sub-Test 13 | Rel-12 | C30nr | All FR1 NR UEs supporting EN-DC. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only, and Fine Time Assistance (Note 1) | | | | Rel-15 |
| | | Rel-15 | C44nr | All FR1 NR UEs supporting NG-RAN NR. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only, and Fine Time Assistance (Note 1) | | | | Rel-15 |
| 13.3-1 | Nominal Accuracy: Sub-Test 1 | Rel-9 | C01nr | All FR1 NR UEs. The UEs shall support A-GPS L1C/A only | | | | Rel-15 |
| 13.3-2 | Nominal Accuracy: Sub-Test 2 | Rel-9 | C02nr | All FR1 NR UEs. The UEs shall support A-GLONASS only | | | | Rel-15 |
| 13.3-3 | Nominal Accuracy: Sub-Test 3 | Rel-12 | C03nr | All FR1 NR UEs. The UEs shall support A-Galileo only | | | | Rel-15 |
| 13.3-4 | Nominal Accuracy: Sub-Test 4 | Rel-9 | C04nr | All FR1 NR UEs. The UEs shall support A-GPS and Modernized GPS only | | | | Rel-15 |
| 13.3-5 | Nominal Accuracy: Sub-Test 5 | Rel-9 | C05nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only | | | | Rel-15 |

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|---------|-------------------------------|--------|-------|--|--|--|--|--------|
| 13.3-8 | Nominal Accuracy: Sub-Test 8 | Rel-12 | C15nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo only | | | | Rel-15 |
| 13.3-9 | Nominal Accuracy: Sub-Test 9 | Rel-12 | C11nr | All FR1 NR UEs. The UEs shall support A-BDS only (Note 1) | | | | Rel-15 |
| 13.3-10 | Nominal Accuracy: Sub-Test 10 | Rel-12 | C12nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-BDS only (Note 1) | | | | Rel-15 |
| 13.3-11 | Nominal Accuracy: Sub-Test 11 | Rel-12 | C17nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only (Note 1) | | | | Rel-15 |
| 13.3-12 | Nominal Accuracy: Sub-Test 12 | Rel-12 | C27nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only | | | | Rel-15 |
| 13.3-13 | Nominal Accuracy: Sub-Test 13 | Rel-12 | C28nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only (Note 1) | | | | Rel-15 |
| 13.4-1 | Dynamic Range: Sub-Test 1 | Rel-9 | C01nr | All FR1 NR UEs. The UEs shall support A-GPS L1C/A only | | | | Rel-15 |
| 13.4-2 | Dynamic Range: Sub-Test 2 | Rel-9 | C02nr | All FR1 NR UEs. The UEs shall support A-GLONASS only | | | | Rel-15 |
| 13.4-3 | Dynamic Range: Sub-Test 3 | Rel-12 | C03nr | All FR1 NR UEs. The UEs shall support A-Galileo only | | | | Rel-15 |
| 13.4-4 | Dynamic Range: Sub-Test 4 | Rel-9 | C04nr | All FR1 NR UEs. The UEs shall support A-GPS and Modernized GPS only | | | | Rel-15 |
| 13.4-5 | Dynamic Range: Sub-Test 5 | Rel-9 | C05nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only | | | | Rel-15 |
| 13.4-8 | Dynamic Range: Sub-Test 8 | Rel-12 | C15nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo only | | | | Rel-15 |
| 13.4-9 | Dynamic Range: Sub-Test 9 | Rel-12 | C11nr | All FR1 NR UEs. The UEs shall support A-BDS only (Note 1) | | | | Rel-15 |
| 13.4-10 | Dynamic Range: Sub-Test 10 | Rel-12 | C12nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-BDS only (Note 1) | | | | Rel-15 |

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|---------|----------------------------------|--------|-------|--|--|--|--|--------|
| 13.4-11 | Dynamic Range: Sub-Test 11 | Rel-12 | C17nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only (Note 1) | | | | Rel-15 |
| 13.4-12 | Dynamic Range: Sub-Test 12 | Rel-12 | C27nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only | | | | Rel-15 |
| 13.4-13 | Dynamic Range: Sub-Test 13 | Rel-12 | C28nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only (Note 1) | | | | Rel-15 |
| 13.5-1 | Multi-path scenario: Sub-Test 1 | Rel-9 | C01nr | All FR1 NR UEs. The UEs shall support A-GPS L1C/A only | | | | Rel-15 |
| 13.5-2 | Multi-path scenario: Sub-Test 2 | Rel-9 | C02nr | All FR1 NR UEs. The UEs shall support A-GLONASS only | | | | Rel-15 |
| 13.5-3 | Multi-path scenario: Sub-Test 3 | Rel-12 | C03nr | All FR1 NR UEs. The UEs shall support A-Galileo only | | | | Rel-15 |
| 13.5-4 | Multi-path scenario: Sub-Test 4 | Rel-9 | C04nr | All FR1 NR UEs. The UEs shall support A-GPS and Modernized GPS only | | | | Rel-15 |
| 13.5-5 | Multi-path scenario: Sub-Test 5 | Rel-9 | C05nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only | | | | Rel-15 |
| 13.5-8 | Multi-path scenario: Sub-Test 8 | Rel-12 | C15nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo only | | | | Rel-15 |
| 13.5-9 | Multi-path scenario: Sub-Test 9 | Rel-12 | C11nr | All FR1 NR UEs. The UEs shall support A-BDS only (Note 1) | | | | Rel-15 |
| 13.5-10 | Multi-path scenario: Sub-Test 10 | Rel-12 | C12nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-BDS only (Note 1) | | | | Rel-15 |
| 13.5-11 | Multi-path scenario: Sub-Test 11 | Rel-12 | C17nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only (Note 1) | | | | Rel-15 |
| 13.5-12 | Multi-path scenario: Sub-Test 12 | Rel-12 | C27nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only | | | | Rel-15 |

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|---------|--|---------------------------------------|-------|--|--|--|--|--------|
| 13.5-13 | Multi-path scenario: Sub-Test 13 | Rel-12 | C28nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only (Note 1) | | | | Rel-15 |
| 13.6-1 | Moving scenario and periodic update: Sub-Test 1 (Rel-9 to Rel-13) | Rel-9, Rel-10, Rel-11, Rel-12, Rel-13 | C01nr | All FR1 NR UEs. The UEs shall support A-GPS L1C/A only | | | | Rel-15 |
| 13.6-2 | Moving scenario and periodic update: Sub-Test 2 (Rel-9 to Rel-13) | Rel-9, Rel-10, Rel-11, Rel-12, Rel-13 | C02nr | All FR1 NR UEs. The UEs shall support A-GLONASS only | | | | Rel-15 |
| 13.6-3 | Moving scenario and periodic update: Sub-Test 3 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C03nr | All FR1 NR UEs. The UEs shall support A-Galileo only | | | | Rel-15 |
| 13.6-4 | Moving scenario and periodic update: Sub-Test 4 (Rel-9 to Rel-13) | Rel-9, Rel-10, Rel-11, Rel-12, Rel-13 | C04nr | All FR1 NR UEs. The UEs shall support A-GPS and Modernized GPS only | | | | Rel-15 |
| 13.6-5 | Moving scenario and periodic update: Sub-Test 5 (Rel-9 to Rel-13) | Rel-9, Rel-10, Rel-11, Rel-12, Rel-13 | C05nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only | | | | Rel-15 |
| 13.6-8 | Moving scenario and periodic update: Sub-Test 8 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C15nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo only | | | | Rel-15 |
| 13.6-9 | Moving scenario and periodic update: Sub-Test 9 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C11nr | All FR1 NR UEs. The UEs shall support A-BDS only (Note 1) | | | | Rel-15 |
| 13.6-10 | Moving scenario and periodic update: Sub-Test 10 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C12nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-BDS only (Note 1) | | | | Rel-15 |
| 13.6-11 | Moving scenario and periodic update: Sub-Test 11 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C17nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only (Note 1) | | | | Rel-15 |
| 13.6-12 | Moving scenario and periodic update: Sub-Test 12 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C27nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only | | | | Rel-15 |

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|---------|--|----------------|-------|---|--|--|--|--------|
| 13.6-13 | Moving scenario and periodic update: Sub-Test 13 (Rel-9 to Rel-13) | Rel-12, Rel-13 | C28nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only (Note 1) | | | | Rel-15 |
| 13.7-1 | Moving scenario and periodic update: Sub-Test 1 (Rel-14 onwards) | Rel-14 | C19nr | All FR1 NR UEs. The UEs shall support A-GPS L1C/A only and periodical reporting | | | | Rel-15 |
| 13.7-2 | Moving scenario and periodic update: Sub-Test 2 (Rel-14 onwards) | Rel-14 | C20nr | All FR1 NR UEs. The UEs shall support A-GLONASS only and periodical reporting | | | | Rel-15 |
| 13.7-3 | Moving scenario and periodic update: Sub-Test 3 (Rel-14 onwards) | Rel-14 | C21nr | All FR1 NR UEs. The UEs shall support A-Galileo only and periodical reporting | | | | Rel-15 |
| 13.7-4 | Moving scenario and periodic update: Sub-Test 4 (Rel-14 onwards) | Rel-14 | C22nr | All FR1 NR UEs. The UEs shall support A-GPS and Modernized GPS only and periodical reporting | | | | Rel-15 |
| 13.7-5 | Moving scenario and periodic update: Sub-Test 5 (Rel-14 onwards) | Rel-14 | C23nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS only and periodical reporting | | | | Rel-15 |
| 13.7-8 | Moving scenario and periodic update: Sub-Test 8 (Rel-14 onwards) | Rel-14 | C24nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo only and periodical reporting | | | | Rel-15 |
| 13.7-9 | Moving scenario and periodic update: Sub-Test 9 (Rel-14 onwards) | Rel-14 | C25nr | All FR1 NR UEs. The UEs shall support A-BDS only and periodical reporting (Note 1) | | | | Rel-15 |
| 13.7.10 | Moving scenario and periodic update: Sub-Test 10 (Rel-14 onwards) | Rel-14 | C26nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-BDS only and periodical reporting (Note 1) | | | | Rel-15 |
| 13.7.11 | Moving scenario and periodic update: Sub-Test 11 (Rel-14 onwards) | Rel-14 | C33nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-GLONASS and A-BDS only and periodical reporting (Note 1) | | | | Rel-15 |
| 13.7-12 | Moving scenario and periodic update: Sub-Test 12 (Rel-14 onwards) | Rel-14 | C31nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-GLONASS only and periodical reporting | | | | Rel-15 |

| | | | | | | | | | |
|---|---|--------|-------|---|--|--|--|--|--------|
| 13.7-13 | Moving scenario and periodic update: Sub-Test 13 (Rel-14 onwards) | Rel-14 | C32nr | All FR1 NR UEs. The UEs shall support A-GPS/Modernized GPS and A-Galileo and A-BDS only and periodical reporting (Note 1) | | | | | Rel-15 |
| Note 1: If the signal type for BDS supported by the UE includes B1C then Rel-16 of LPP is required. | | | | | | | | | |

Table 4-12: Applicability of tests Conditions for RAT-independent test cases in TS 37.571-1 [5] for NR

| | |
|-------|---|
| C24nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND (A.4.1-4/1 OR A.4.1-4/2) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND NOT (A.4.3-2/7 OR A.4.3-2/18) THEN R ELSE N/A |
| C25nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND (A.4.1-4/1 OR A.4.1-4/2) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND A.4.3-2/18 AND NOT (A.4.3-2/6 OR A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/9) THEN R ELSE N/A |
| C26nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND (A.4.1-4/1 OR A.4.1-4/2) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/18 AND NOT (A.4.3-2/7 OR A.4.3-2/9) THEN R ELSE N/A |
| C27nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND (A.4.1-4/1 OR A.4.1-4/2) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/9 AND NOT A.4.3-2/18 THEN R ELSE N/A |
| C28nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND (A.4.1-4/1 OR A.4.1-4/2) AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND A.4.3-2/18 AND NOT A.4.3-2/7 THEN R ELSE N/A |
| C29nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/2 AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/9 AND NOT A.4.3-2/18 AND A.4.3-2/3 THEN R ELSE N/A |
| C30nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/2 AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND A.4.3-2/18 AND NOT A.4.3-2/7 AND A.4.3-2/3 THEN R ELSE N/A |
| C31nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND (A.4.1-4/1 OR A.4.1-4/2) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/9 AND NOT A.4.3-2/18 THEN R ELSE N/A |
| C32nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND (A.4.1-4/1 OR A.4.1-4/2) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND A.4.3-2/18 AND NOT A.4.3-2/7 THEN R ELSE N/A |
| C33nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND (A.4.1-4/1 OR A.4.1-4/2) AND ((A.4.3-2/1 AND NOT A.4.3-2/24) OR (A.4.3-2/2 AND NOT A.4.3-2/25)) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/18 AND NOT A.4.3-2/9 THEN R ELSE N/A |
| C34nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/1 AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/6 AND NOT (A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/9 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |
| C35nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/1 AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/7 AND NOT (A.4.3-2/6 OR A.4.3-2/8 OR A.4.3-2/9 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |
| C36nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/1 AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/9 AND NOT (A.4.3-2/6 OR A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |
| C37nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/1 AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/8 AND NOT (A.4.3-2/7 OR A.4.3-2/9 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |
| C38nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/1 AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND NOT (A.4.3-2/9 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |
| C39nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/1 AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND NOT (A.4.3-2/7 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A |
| C40nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/1 AND (A.4.3-2/1 OR A.4.3-2/2) AND A.4.3-2/18 AND NOT (A.4.3-2/6 OR A.4.3-2/7 OR A.4.3-2/8 OR A.4.3-2/9) AND A.4.3-2/3 THEN R ELSE N/A |
| C41nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/1 AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/18 AND NOT (A.4.3-2/7 OR A.4.3-2/9) AND A.4.3-2/3 THEN R ELSE N/A |
| C42nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/1 AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/18 AND NOT A.4.3-2/9 AND A.4.3-2/3 THEN R ELSE N/A |
| C43nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/1 AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/7 AND A.4.3-2/9 AND NOT A.4.3-2/18 AND A.4.3-2/3 THEN R ELSE N/A |
| C44nr | IF (A.4.1-1/6 AND A.4.1-5/1) AND A.4.1-4/1 AND (A.4.3-2/1 OR A.4.3-2/2) AND (A.4.3-2/6 OR A.4.3-2/8) AND A.4.3-2/9 AND A.4.3-2/18 AND NOT A.4.3-2/7 AND A.4.3-2/3 THEN R ELSE N/A |
| C45nr | IF A.4.1-1/6 AND A.4.3-2/20 THEN R ELSE N/A |

Annex A (normative): ICS proforma for User Equipment

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

A.1 Guidance for completing the ICS proforma

A.1.1 Purposes and structure

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

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

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

A.1.2 Abbreviations and conventions

The ICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [8].

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.

Mnemonic column

The Mnemonic column contains mnemonic identifiers for each item.

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.

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

A.4.1 UE Implementation Types

Table A.4.1-1: UE Radio Technologies

| Item | UE Radio Technologies | Ref. | Release | Mnemonic | Comments |
|------|-----------------------|------|---------|----------|--|
| 1 | E-UTRA FDD | | | | Refer to 3GPP TS 36.523-2 [11] Table A.4.1-1/1 |
| 2 | E-UTRA TDD | | | | Refer to 3GPP TS 36.523-2 [11] Table A.4.1-1/2 |
| 3 | UTRA FDD | | | | Refer to 3GPP TS 34.123-2 [12] Table A.1/1 |
| 4 | UTRA TDD | | | | Refer to 3GPP TS 34.123-2 [12] Table A.1/3 |
| 5 | NB-IOT FDD | | | | Refer to 3GPP TS 36.523-2 [11] Table A.4.1-1/8 |
| 5a | NB-IOT TDD | | Rel-15 | | Refer to 3GPP TS 36.523-2 [11] Table A.4.1-1/9 |
| 6 | NR | | | pc_nr | |

Table A.4.1-2: Teleservices

| Item | Teleservices | Ref. | Release | Mnemonic | Comments |
|------|----------------|------|---------|----------|--|
| 1 | Emergency call | | | | Refer to 3GPP TS 34.123-2 [12] Table A.2/2 |

Table A.4.1-3: UE Categories

| Item | UE Category | Ref. | Release | Mnemonic | Comments |
|------|---------------|--------|---------|----------|--|
| 1 | Category 1bis | 36.306 | Rel-13 | | UE with DL Category 1bis and UL Category 1bis as defined in TS 36.306 [13] Table 4.1A-1 and 4.1A-2 |
| 2 | Category M1 | 36.306 | Rel-13 | | UE with DL Category M1 and UL Category M1 as defined in TS 36.306 [13] Table 4.1A-1 and 4.1A-2 |
| 3 | Category M2 | 36.306 | Rel-13 | | UE with DL Category M2 and UL Category M2 as defined in TS 36.306 [13] Table 4.1A-1 and 4.1A-2 |
| 4 | Category NB1 | 36.306 | Rel-13 | | UE with DL Category NB1 and UL Category NB1 as defined in TS 36.306 [13] Table 4.1C-1 and 4.1C-2 |
| 5 | Category NB2 | 36.306 | Rel-13 | | UE with DL Category NB2 and UL Category NB2 as defined in TS 36.306 [13] Table 4.1C-1 and 4.1C-2 |

Table A.4.1-4: RAN-CN Interface Options

| Item | UE support of RAN-CN Interface Options | Ref. | Release | Mnemonic | Comments |
|------|--|--------|---------|----------|--|
| 1 | NG-RAN NR (Option 2) | 38.300 | Rel-15 | | Refer to 3GPP TS 38.508-2 [16] Table A.4.1-3/1 |
| 2 | EN-DC (Option 3) | 37.340 | Rel-15 | | Refer to 3GPP TS 38.508-2 [16] Table A.4.1-3/2 |
| 3 | NE-DC (Option 4) | 37.340 | Rel-15 | | Refer to 3GPP TS 38.508-2 [16] Table A.4.1-3/3 |
| 4 | NG-RAN E-UTRA (Option 5) | 38.300 | Rel-15 | | Refer to 3GPP TS 38.508-2 [16] Table A.4.1-3/4 |
| 5 | NGEN-DC (Option 7) | 37.340 | Rel-15 | | Refer to 3GPP TS 38.508-2 [16] Table A.4.1-3/5 |

Table A.4.1-5: NR FR support

| Item | NR FR support | Ref. | Release | Mnemonic | Comments |
|------|---------------|------|---------|-----------|----------|
| 1 | FR1 | | Rel-15 | pc_nr_Fr1 | |
| 2 | FR2 | | Rel-15 | pc_nr_Fr2 | |

A.4.2 Baseline Implementation Capabilities

Table A.4.2-1: Supported Protocols

| Item | Special Conformance Testing Functions | Ref. | Release | Mnemonic | Comments |
|------|---------------------------------------|------------------|---------|-------------|----------|
| 1 | LTE Positioning Protocol (LPP) | 36.355 | Rel-9 | pc_LPP | |
| 2 | Support for OMA LPPe | OMA-TS-LPPe-V1.0 | Rel-9 | pc_OMA_LPPe | |

Table A.4.2-2: Special Conformance Testing Functions

| Item | Special Conformance Testing Functions | Ref. | Release | Comments |
|------|--|--------|---------|----------|
| 1 | Reset of UE Positioning Stored Information | 36.509 | Rel-9 | E-UTRA |
| 2 | Reset of UE Positioning Stored Information | 34.109 | R99 | UTRA |
| 3 | Reset of UE Positioning Stored Information | 38.509 | Rel-15 | NR |

Table A.4.2-3: Additional Capabilities

| Item | Special Conformance Testing Functions | Ref. | Release | Comments |
|------|---|--------------------------------|---------|---|
| 1 | Support of Type B Half-duplex FDD operation | 36.211, 6.2.5 36.306, 4.2.6 | Rel-12 | Support of Half-duplex FDD operation type B for category 0 and category M1 UE |

A.4.3 UE Positioning Capabilities

Table A.4.3-1: UTRA UE positioning capabilities

| Item | UTRA UE positioning capabilities | Ref. | Release | Mnemonic | Comments |
|------|--|-------------|---------|---|----------|
| 1 | Support for IPDL | 25.306, 4.8 | R99 | pc_UE_PositioningIPDL_Sup | |
| 2 | Support of GPS timing of cell frames | 25.306, 4.8 | R99 | pc_UE_PositioningGPS_TimingOfCellFramesSup | |
| 3 | Support of UE-based OTDOA | 25.306, 4.8 | R99 | pc_UE_PositioningBasedOTDOA_Sup | |
| 4 | Support of Standalone location method | 25.306, 4.8 | R99 | pc_UE_PositioningStandaloneLocationMethodsSup | |
| 5 | Support of UE-Based A-GANSS | 25.306, 4.8 | Rel-8 | pc_UEB_A_GANSS | NOTE 1 |
| 6 | Support of UE-Assisted A-GANSS | 25.306, 4.8 | Rel-8 | pc_UEA_A_GANSS | NOTE 1 |
| 7 | Support for GLONASS | 25.306, 4.8 | Rel-8 | pc_GLONASS | |
| 8 | Support for Modernized GPS | 25.306, 4.8 | Rel-8 | pc_MGPS | |
| 9 | Support for Galileo | 25.306, 4.8 | Rel-12 | pc_GALILEO | NOTE 2 |
| 10 | Support of UE based Network Assisted GPS L1 C/A | 25.306, 4.8 | R99 | pc_UeBasedAgps | |
| 11 | Support of UE assisted Network Assisted GPS L1 C/A | 25.306, 4.8 | R99 | pc_UeAssistedAgps | |
| 12 | Support of Fine Time Assistance | 25.171, 4.4 | Rel-6 | | |
| 13 | Support for BDS | 25.306, 4.8 | Rel-12 | pc_BDS | |

NOTE 1: If the capability is supported by the UE, then at least one of A.4.3-1/7, A.4.3-1/8, A.4.3-1/9 or A.4.3-1/13 must be supported as well.

NOTE 2: Non-backwards compatible changes were made to the Galileo Assistance Data in RRC Rel-12, therefore testing cannot be done for earlier releases.

Table A.4.3-2: E-UTRA and NR UE Positioning Capabilities

| Item | E-UTRA and NR UE Positioning Capabilities | Ref. | Release | Mnemonic | Comments |
|------|---|-------------------------|--|---------------------|--|
| 1 | Support of UE based Assisted-GNSS | 36.355 | Rel-9 | pc_UEB_AG_NSS | This implies support of LPP A.4.2-1/1 |
| 2 | Support of UE assisted Assisted-GNSS | 36.355 | Rel-9 | pc_UEA_AG_NSS | This implies support of LPP A.4.2-1/1 |
| 3 | Support of GNSS Fine Time Assistance | 36.355, 37.355 | Rel-9 (E-UTRA and NR EN-DC) Rel-15 (NR NG-RAN NR) | pc_GNSS_FTA | This implies support of LPP A.4.2-1/1 |
| 4 | Support of UE assisted OTDOA | 36.355 | Rel-9 | pc_OTDOA | This implies support of LPP A.4.2-1/1 |
| 5 | Support of UE assisted ECID | 36.355 | Rel-9 (FDD) Rel-13 (TDD) NOTE 2 | pc_ECID | This implies support of LPP A.4.2-1/1 |
| 6 | Support for A-GPS L1C/A | 36.355 | Rel-9 | pc_A_GPS_L1C_A | This implies support of LPP A.4.2-1/1 |
| 7 | Support for A-GLONASS | 36.355 | Rel-9 | pc_A_GLONASS | This implies support of LPP A.4.2-1/1 |
| 8 | Support for A-GPS L1C/A and Modernized GPS | 36.355 | Rel-9 | pc_A_GPS_L1C_A_MGPS | This implies support of LPP A.4.2-1/1 |
| 9 | Support for A-Galileo | 36.355 | Rel-12 | pc_A_Galileo | This implies support of LPP A.4.2-1/1. NOTE 1 |
| 10 | Support of UE Fine Time Assistance measurements for UE-based Assisted-GNSS | 36.355, 37.355 | Rel-9 (E-UTRA and NR EN-DC) Rel-15 (NR NG-RAN NR) | pc_GNSS_FTA_UEB | This implies support of LPP A.4.2-1/1 |
| 11 | Support of UE Fine Time Assistance measurements for UE-assisted Assisted-GNSS | 36.355, 37.355 | Rel-9 (E-UTRA and NR EN-DC) Rel-15 (NR NG-RAN NR) | pc_GNSS_FTA_UEA | This implies support of LPP A.4.2-1/1 |
| 12 | Support of GNSS Acquisition Assistance | 36.355; 37.571-2, 5.4.1 | Rel-9 | pc_GNSS_AA | This implies support of LPP A.4.2-1/1 |
| 13 | Support for A-SBAS | 36.355 | Rel-9 | pc_A_SBAS | |
| 14 | Support for A-QZSS | 36.355 | Rel-9 | pc_A_QZSS | |
| 15 | Support of UE assisted OTDOA for Carrier Aggregation | 36.355 | Rel-10 | pc_OTDOA_CA | This implies support of LPP A.4.2-1/1 |

| | | | | | |
|----|--|--------|--------|-----------------------------|---|
| 16 | Support of inter-frequency RSTD measurements that require measurement gaps | 36.355 | Rel-10 | pc_InterFreq_RSTD_with Gaps | This implies support of UE assisted OTDOA A.4.3-2/4 |
| 17 | Support of inter-frequency RSTD measurements | 36.355 | Rel-10 | pc_InterFreq_RSTD | This implies support of UE assisted OTDOA A.4.3-2/4 |
| 18 | Support for A-BDS | 36.355 | Rel-12 | pc_A_BDS | This implies support of LPP A.4.2-1/1 (NOTE 3) |
| 19 | Support of UE assisted OTDOA for 3DL Carrier Aggregation | 36.355 | Rel-12 | pc_OTDOA_3DLCA | This implies support of LPP A.4.2-1/1 |
| 20 | Support for UE-Assisted MBS | 36.355 | Rel-13 | pc_UEA_MBS | This implies support of LPP A.4.2-1/1 |
| 21 | Support for UE-Assisted WLAN | 36.355 | Rel-13 | pc_WLAN | This implies support of LPP A.4.2-1/1 |
| 22 | Support for UE-Assisted Bluetooth | 36.355 | Rel-13 | pc_Bluetooth | This implies support of LPP A.4.2-1/1 |
| 23 | Support for UE-Assisted Sensor | 36.355 | Rel-13 | pc_Sens | This implies support of LPP A.4.2-1/1 |
| 24 | No support of periodical reporting for UE based Assisted-GNSS. | 36.355 | Rel-14 | pc_UEB_No periodic | This implies support of LPP A.4.2-1/1 |
| 25 | No support of periodical reporting for UE assisted Assisted-GNSS. | 36.355 | Rel-14 | pc_UEA_No periodic | This implies support of LPP A.4.2-1/1 |
| 26 | Support for UE-Based MBS | 36.355 | Rel-14 | pc_UEB_MBS | This implies support of LPP A.4.2-1/1 |
| 27 | Support for UE-Based WLAN | 36.355 | Rel-14 | pc_UEB_WLAN | This implies support of LPP A.4.2-1/1 |
| 28 | Support for UE-Based Sensor | 36.355 | Rel-14 | pc_UEB_Sensors | This implies support of LPP A.4.2-1/1 |
| 29 | Support for UE-Assisted Multi-RTT | 37.355 | Rel-16 | pc_Multi_RT T | This implies support of LPP A.4.2-1/1 |
| 30 | Support for UE-Assisted DL-AoD | 37.355 | Rel-16 | pc_UEA_DL_AoD | This implies support of LPP A.4.2-1/1 |
| 31 | Support for UE-Based DL-AoD | 37.355 | Rel-16 | pc_UEB_DL_AoD | This implies support of LPP A.4.2-1/1 |
| 32 | Support for UE-Assisted DL-TDOA | 37.355 | Rel-16 | pc_UEA_DL_TDOA | This implies support of LPP A.4.2-1/1 |
| 33 | Support for UE-Based DL-TDOA | 37.355 | Rel-16 | pc_UEB_DL_TDOA | This implies support of LPP A.4.2-1/1 |
| 34 | Support for UE-Assisted NR E-CID | 37.355 | Rel-16 | pc_NR_ECID | This implies support of LPP A.4.2-1/1 |

NOTE 1: Non-backwards compatible changes were made to the Galileo Assistance Data in LPP Rel-12, therefore testing cannot be done for earlier releases.

NOTE 2: For TDD with LPP releases before Rel-13 the UE Rx - Tx time difference measurement report mapping is ambiguous and therefore testing shall not be performed.

NOTE 3: If the signal type for BDS supported by the UE includes B1C then Rel-16 of LPP is required.

Table A.4.3-3: Supplementary Services

| Item | Supplementary Services | Ref. | Release | Mnemonic | Comments |
|------|---|--|---------|--------------------------------------|----------|
| 1 | Support of EPC-MO-LR request for assistance data | 24.171; 24.030; 24.080 | Rel-9 | pc_EPC_MO_LR_RequestAssistanceData | |
| 2 | Support of EPC-MO-LR request for a position estimate | 24.171; 24.030; 24.080 | Rel-9 | pc_EPC_MO_LR_RequestPositionEstimate | |
| 3 | Support of EPC-MT-LR Location Notification | 24.171; 24.030; 24.080 | Rel-9 | pc_MT_LR_loc_notif | |
| 4 | Support for CS-MO-LR with CS Fallback for a position estimate | 23.272 | Rel-9 | pc_CS_MO_LR_CSFallback | |
| 5 | Support of MO-LR request for assistance data | 24.030, 5.1.1;24.080, 4.4.3.44;23.171, 8.1.1 | R99 | pc_ParamGpsAssisData | UTRA |
| 6 | Support of MO-LR request for a position estimate | 23.171, 8.1.1 | R99 | pc_ParamPosEstimate | UTRA |
| 7 | Support of MO-LR request for transfer to 3rd party | 23.171, 8.1.1 | R99 | pc_ParamXfer3rdPty | UTRA |
| 8 | Support of MT-LR LCS value added location request notification capability | 24.030;23.271 | R99 | pc_MT_LR | UTRA |

Table A.4.3-3A: OTDOA Measurements

| Item | OTDOA Measurements | Ref. | Release | Mnemonic | Comments |
|------|--|-----------------|---------|--|----------|
| 1 | Support of interFreqRSTDmeasurement | 36.355, 6.5.1.7 | Rel-10 | pc_OTDOA_interFreqRSTDmeasurement | |
| 2 | Support of additionalNeighbourCellInfoList | 36.355, 6.5.1.7 | Rel-10 | pc_OTDOA_additionalNeighbourCellInfoList | |
| 3 | Support of prs-id | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_prs_id | |
| 4 | Support of tp-separation-via-muting | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_tp_separation_via_muting | |
| 5 | Support of additional-prs-config | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_additional_prs_config | |
| 6 | Support of prs-based-tbs | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_prs_based_tbs | |
| 7 | Support of additionalPathsReport | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_additionalPathsReport | |
| 8 | Support of densePrsConfig | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_densePrsConfig | |
| 9 | Support of maxSupportedPrsBandwidth | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_maxSupportedPrsBandwidth | |
| 10 | Support of prsOccGroup | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_prsOccGroup | |
| 11 | Support of prsFrequencyHopping | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_prsFrequencyHopping | |
| 12 | Support of maxSupportedPrsConfigs | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_maxSupportedPrsConfigs | |
| 13 | Support of periodicalReporting | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_periodicalReporting | |
| 14 | Support of multiPrbNprs | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_multiPrbNprs | |
| 15 | Support of idleStateForMeasurements | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_idleStateForMeasurements | |
| 16 | Support of numberOfRXantennas | 36.355, 6.5.1.7 | Rel-14 | pc_OTDOA_numberOfRXantennas | |
| 17 | Support of motionMeasurements | 37.355, 6.5.1.7 | Rel-15 | pc_OTDOA_motionMeasurements | |
| 18 | Support of interRAT-RSTDmeasurement | 37.355, 6.5.1.7 | Rel-15 | pc_OTDOA_interRAT_RSTDmeasurement | |

Table A.4.3-4: E-CID Measurements

| Item | E-CID Measurements | Ref. | Release | Mnemonic | Comments |
|------|-------------------------------------|-----------------|---------|----------------------------------|----------|
| 1 | Support of RSRP | 36.355, 6.5.3.4 | Rel-9 | pc_ECID_Rsrp | |
| 2 | Support of RSRQ | 36.355, 6.5.3.4 | Rel-9 | pc_ECID_Rsrq | |
| 3 | Support of UE Rx-Tx Time Difference | 36.355, 6.5.3.4 | Rel-9 | pc_ECID_UeRxTx | |
| 4 | Support of ueRxTxSupTDD | 36.355, 6.5.3.4 | Rel-13 | pc_ECID_ueRxTxSupTDD | |
| 5 | Support of periodicalReporting | 36.355, 6.5.3.4 | Rel-14 | pc_ECID_periodicalReporting | |
| 6 | Support of triggeredReporting | 36.355, 6.5.3.4 | Rel-14 | pc_ECID_triggeredReporting | |
| 7 | Support of idleStateForMeasurements | 36.355, 6.5.3.4 | Rel-14 | pc_ECID_idleStateForMeasurements | |

Table A.4.3-5: GNSS Signals

| Item | GNSS Signals Capabilities | Ref. | Release | Mnemonic | Comments |
|------|--------------------------------------|------------------|---------|-------------------|----------|
| 1 | Support of A-GPS L1C signal | 36.355, 6.5.2.13 | Rel-9 | pc_A_GPS_L1C | |
| 2 | Support of A-GPS L2C signal | 36.355, 6.5.2.13 | Rel-9 | pc_A_GPS_L2C | |
| 3 | Support of A-GPS L5 signal | 36.355, 6.5.2.13 | Rel-9 | pc_A_GPS_L5 | |
| 4 | Support of QZS-L1 C/A signal in QZSS | 36.355, 6.5.2.13 | Rel-9 | pc_QZSS_QZS_L1 | |
| 5 | Support of QZS-L1C signal in QZSS | 36.355, 6.5.2.13 | Rel-9 | pc_QZSS_QZS_L1C | |
| 6 | Support of QZS-L2C signal in QZSS | 36.355, 6.5.2.13 | Rel-9 | pc_QZSS_QZS_L2C | |
| 7 | Support of QZS-L5 signal in QZSS | 36.355, 6.5.2.13 | Rel-9 | pc_QZSS_QZS_L5 | |
| 8 | Support of G1 C/A signal in GLONASS | 36.355, 6.5.2.13 | Rel-9 | pc_GLONASS_G1 | |
| 9 | Support of G2 C/A signal in GLONASS | 36.355, 6.5.2.13 | Rel-9 | pc_GLONASS_G2 | |
| 10 | Support of G3 signal in GLONASS | 36.355, 6.5.2.13 | Rel-9 | pc_GLONASS_G3 | |
| 11 | Support of E1 signal in Galileo | 36.355, 6.5.2.13 | Rel-12 | pc_GALILEO_E1 | |
| 12 | Support of E5a signal in Galileo | 36.355, 6.5.2.13 | Rel-12 | pc_GALILEO_E5a | |
| 13 | Support of E5b signal in Galileo | 36.355, 6.5.2.13 | Rel-12 | pc_GALILEO_E5b | |
| 14 | Support of E6 signal in Galileo | 36.355, 6.5.2.13 | Rel-12 | pc_GALILEO_E6 | |
| 15 | Support of E5a+E5b signal in Galileo | 36.355, 6.5.2.13 | Rel-12 | pc_GALILEO_E5aE5b | |
| 16 | Support of B1 I signal in BDS | 36.355, 6.5.2.13 | Rel-12 | pc_BDS_B1I | |
| 17 | Support of B1C signal in BDS | 37.355, 6.5.2.13 | Rel-16 | pc_BDS_B1C | |

Table A.4.3-6: ADR and Velocity Measurements

| Item | ADR and Velocity Measurements | Ref. | Release | Mnemonic | Comments |
|------|---|-----------------|---------|-------------------------|------------------------------------|
| 1 | Support of ADR measurement reporting for Gps | 36.355, 6.5.2.9 | Rel-9 | pc_A_GPS_ADR | |
| 2 | Support of ADR measurement reporting for Sbas | 36.355, 6.5.2.9 | Rel-9 | pc_SBAS_ADR | |
| 3 | Support of ADR measurement reporting for Qzss | 36.355, 6.5.2.9 | Rel-9 | pc_QZSS_ADR | |
| 4 | Support of ADR measurement reporting for Galileo | 36.355, 6.5.2.9 | Rel-12 | pc_GALILEO_ADR | |
| 5 | Support of ADR measurement reporting for Glonass | 36.355, 6.5.2.9 | Rel-9 | pc_GLONASS_ADR | |
| 6 | Support of Velocity measurement reporting for Gps | 36.355, 6.5.2.9 | Rel-9 | pc_A_GPS_VelocityMeas | |
| 7 | Support of Velocity measurement reporting for Sbas | 36.355, 6.5.2.9 | Rel-9 | pc_SBAS_VelocityMeas | |
| 8 | Support of Velocity measurement reporting for Qzss | 36.355, 6.5.2.9 | Rel-9 | pc_QZSS_VelocityMeas | |
| 9 | Support of Velocity measurement reporting for Galileo | 36.355, 6.5.2.9 | Rel-12 | pc_GALILEO_VelocityMeas | |
| 10 | Support of Velocity measurement reporting for Glonass | 36.355, 6.5.2.9 | Rel-9 | pc_GLONASS_VelocityMeas | |
| 11 | Support of ADR measurement reporting for BDS | 36.355, 6.5.2.9 | Rel-12 | pc_BDS_ADR | |
| 12 | Support of Velocity measurement reporting for BDS | 36.355, 6.5.2.9 | Rel-12 | pc_BDS_VelocityMeas | |
| 13 | Support of ADR enhancements for Gps | 37.355, 6.5.2.9 | Rel-15 | pc_A_GPS_ADR_ENH | Requires support of pc_A_GPS_ADR |
| 14 | Support of ADR enhancements for Sbas | 37.355, 6.5.2.9 | Rel-15 | pc_SBAS_ADR_ENH | Requires support of pc_SBAS_ADR |
| 15 | Support of ADR enhancements for Qzss | 37.355, 6.5.2.9 | Rel-15 | pc_QZSS_ADR_ENH | Requires support of pc_QZSS_ADR |
| 16 | Support of ADR enhancements for Galileo | 37.355, 6.5.2.9 | Rel-15 | pc_GALILEO_ADR_ENH | Requires support of pc_GALILEO_ADR |
| 17 | Support of ADR enhancements for Glonass | 37.355, 6.5.2.9 | Rel-15 | pc_GLONASS_ADR_ENH | Requires support of pc_GLONASS_ADR |
| 18 | Support of ADR enhancements for BDS | 37.355, 6.5.2.9 | Rel-15 | pc_BDS_ADR_ENH | Requires support of pc_BDS_ADR |
| 19 | Support of High accuracy GNSS modes for Gps | 37.355, 6.5.2.9 | Rel-15 | pc_A_GPS_HA | |
| 20 | Support of High accuracy GNSS modes for Sbas | 37.355, 6.5.2.9 | Rel-15 | pc_SBAS_HA | |
| 21 | Support of High accuracy GNSS modes for Qzss | 37.355, 6.5.2.9 | Rel-15 | pc_QZSS_HA | |
| 22 | Support of High accuracy GNSS modes for Galileo | 37.355, 6.5.2.9 | Rel-15 | pc_GALILEO_HA | |
| 23 | Support of High accuracy GNSS modes for Glonass | 37.355, 6.5.2.9 | Rel-15 | pc_GLONASS_HA | |
| 24 | Support of High accuracy GNSS modes for BDS | 37.355, 6.5.2.9 | Rel-15 | pc_BDS_HA | |

Table A.4.3-6A: NR E-CID Measurements

| Item | NR E-CID Measurements | Ref. | Release | Mnemonic | Comments |
|------|--------------------------------|-----------------|---------|--------------------------------|----------|
| 1 | Support of SS RSRP | 37.355, 6.5.9.4 | Rel-16 | pc_NR_ECID_SSRsrp | |
| 2 | Support of SS RSRQ | 37.355, 6.5.9.4 | Rel-16 | pc_NR_ECID_SSRsrq | |
| 3 | Support of CSI RSRP | 37.355, 6.5.9.4 | Rel-16 | pc_NR_ECID_CSISrp | |
| 4 | Support of CSI RSRQ | 37.355, 6.5.9.4 | Rel-16 | pc_NR_ECID_CSISrq | |
| 5 | Support of periodicalReporting | 37.355, 6.5.9.4 | Rel-16 | pc_NR_ECID_periodicalReporting | |
| 6 | Support of triggeredReporting | 37.355, 6.5.9.4 | Rel-16 | pc_NR_ECID_triggeredReporting | |

Table A.4.3-6B: NR DL-PRS Capability

| Item | NR DL-PRS Capability | Ref. | Release | Mnemonic | Comments |
|------|---|---------------|---------|---|----------|
| 1 | maxNrOfDL-PRS-ResourceSetPerTrpPerFrequencyLayer | 37.355, 6.4.3 | Rel-16 | pc_maxNrOfDL_PRS_ResourceSetPerTrpPerFrequencyLayer | |
| 2 | maxNrOfTRP-AcrossFreqs | 37.355, 6.4.3 | Rel-16 | pc_maxNrOfTRP_AcrossFreqs | |
| 3 | maxNrOfPosLayer | 37.355, 6.4.3 | Rel-16 | pc_maxNrOfPosLayer | |
| 4 | maxNrOfDL-PRS-ResourcesPerResourceSet | 37.355, 6.4.3 | Rel-16 | pc_maxNrOfDL_PRS_ResourcesPerResourceSet | |
| 5 | maxNrOfDL-PRS-ResourcesPerPositioningFrequencyLayer | 37.355, 6.4.3 | Rel-16 | pc_maxNrOfDL_PRS_ResourcesPerPositioningFrequencyLayer | |
| 6 | maxNrOfDL-PRS-ResourcesPerPositioningFrequencyLayer-fr1-Only | 37.355, 6.4.3 | Rel-16 | pc_maxNrOfDL_PRS_ResourcesPerPositioningFrequencyLayer_fr1_Only | |
| 7 | maxNrOfDL-PRS-ResourcesPerPositioningFrequencyLayer-fr2-Only | 37.355, 6.4.3 | Rel-16 | pc_maxNrOfDL_PRS_ResourcesPerPositioningFrequencyLayer_fr2_Only | |
| 8 | maxNrOfDL-PRS-ResourcesPerPositioningFrequencyLayer- fr1-FR2Mix | 37.355, 6.4.3 | Rel-16 | pc_maxNrOfDL_PRS_ResourcesPerPositioningFrequencyLayer_fr1_FR2Mix | |
| 9 | Support of ssb-FromNeighCellAsQCL | 37.355, 6.4.3 | Rel-16 | pc_ssb_FromNeighCellAsQCL | |
| 10 | Support of prs-FromServNeighCellAsQCL | 37.355, 6.4.3 | Rel-16 | pc_prs_FromServNeighCellAsQCL | |
| 11 | maxSupportedFreqLayers | 37.355, 6.4.3 | Rel-16 | pc_maxSupportedFreqLayers | |
| 12 | Support of simulLTE-NR-PRS | 37.355, 6.4.3 | Rel-16 | pc_simulLTE_NR_PRS | |
| 13 | supportedBandwidthPRS in FR1 | 37.355, 6.4.3 | Rel-16 | pc_supportedBandwidthPRS_FR1 | |
| 14 | supportedBandwidthPRS in FR2 | 37.355, 6.4.3 | Rel-16 | pc_supportedBandwidthPRS_FR2 | |
| 15 | dl-PRS-BufferType | 37.355, 6.4.3 | Rel-16 | pc_dl-PRS_BufferType | |
| 16 | durationOfPRS-ProcessingSymbols | 37.355, 6.4.3 | Rel-16 | pc_durationOfPRS_ProcessingSymbols | |
| 17 | PRS-ProcessingSymbolsInEveryTms | 37.355, 6.4.3 | Rel-16 | pc_PRS_ProcessingSymbolsInEveryTms | |
| 18 | maxNumOfDL-PRS-ResProcessedPerSlot in 15kHz SCS | 37.355, 6.4.3 | Rel-16 | pc_maxNumOfDL_PRS_ResProcessedPerSlot_SCS15 | |
| 19 | maxNumOfDL-PRS-ResProcessedPerSlot in 30kHz SCS | 37.355, 6.4.3 | Rel-16 | pc_maxNumOfDL_PRS_ResProcessedPerSlot_SCS30 | |
| 20 | maxNumOfDL-PRS-ResProcessedPerSlot in 60kHz SCS | 37.355, 6.4.3 | Rel-16 | pc_maxNumOfDL_PRS_ResProcessedPerSlot_SCS60 | |
| 21 | maxNumOfDL-PRS-ResProcessedPerSlot in 120kHz SCS | 37.355, 6.4.3 | Rel-16 | pc_maxNumOfDL_PRS_ResProcessedPerSlot_SCS120 | |

Table A.4.3-6C: NR Multi-RTT Measurements

| Item | NR Multi-RTT Measurements | Ref. | Release | Mnemonic | Comments |
|------|--|------------------|---------|------------------------------------|----------|
| 1 | maxNrOfRx-TX-MeasFR1 | 37.355, 6.5.12.6 | Rel-16 | pc_maxNrOfRx_TX_MeasFR1 | |
| 2 | maxNrOfRx-TX-MeasFR2 | 37.355, 6.5.12.6 | Rel-16 | pc_maxNrOfRx_TX_MeasFR2 | |
| 3 | Support of RSRP-MeasFR1 | 37.355, 6.5.12.6 | Rel-16 | pc_RSRP_MeasFR1 | |
| 4 | Support of RSRP-MeasFR2 | 37.355, 6.5.12.6 | Rel-16 | pc_RSRP_MeasFR2 | |
| 5 | Support of srs-AssocPRS-MultiLayersFR1 | 37.355, 6.5.12.6 | Rel-16 | pc_srs_AssocPRS_MultiLayersFR1 | |
| 6 | Support of srs-AssocPRS-MultiLayersFR2 | 37.355, 6.5.12.6 | Rel-16 | pc_srs_AssocPRS_MultiLayersFR2 | |
| 7 | Support of additionalPathsReport | 37.355, 6.5.12.6 | Rel-16 | pc_Multi_RTT_additionalPathsReport | |
| 8 | Support of periodicalReporting | 37.355, 6.5.12.6 | Rel-16 | pc_Multi_RTT_periodicalReporting | |

Table A.4.3-6D: NR UL-SRS Capability

| Item | NR UL-SRS Capability | Ref. | Release | Mnemonic | Comments |
|------|---|---------------|---------|--|----------|
| 1 | maxNumberSRS-PosPathLossEstimateAllServingCells | 37.355, 6.4.3 | Rel-16 | pc_maxNumberSRS_PosPathLossEstimateAllServingCells | |
| 2 | maxNumberSRS-PosSpatialRelationsAllServingCells | 37.355, 6.4.3 | Rel-16 | pc_maxNumberSRS_PosSpatialRelationsAllServingCells | |
| 3 | Support of olpc-SRS-PosBasedOnPRS-Serving | 37.355, 6.4.3 | Rel-16 | pc_olpc_SRS_PosBasedOnPRS_Serving | |
| 4 | Support of olpc-SRS-PosBasedOnSSB-Neigh | 37.355, 6.4.3 | Rel-16 | pc_olpc_SRS_PosBasedOnSSB_Neigh | |
| 5 | Support of olpc-SRS-PosBasedOnPRS-Neigh | 37.355, 6.4.3 | Rel-16 | pc_olpc_SRS_PosBasedOnPRS_Neigh | |
| 6 | maxNumberPathLossEstimatePerServing | 37.355, 6.4.3 | Rel-16 | pc_maxNumberPathLossEstimatePerServing | |
| 7 | Support of spatialRelation-SRS-PosBasedOnSSB-Serving | 37.355, 6.4.3 | Rel-16 | pc_spatialRelation_SRS_PosBasedOnSSB_Serving | |
| 8 | Support of spatialRelation-SRS-PosBasedOnCSI-RS-Serving | 37.355, 6.4.3 | Rel-16 | pc_spatialRelation_SRS_PosBasedOnCSI_RS_Serving | |
| 9 | Support of spatialRelation-SRS-PosBasedOnPRS-Serving | 37.355, 6.4.3 | Rel-16 | pc_spatialRelation_SRS_PosBasedOnPRS_Serving | |
| 10 | Support of spatialRelation-SRS-PosBasedOnSRS | 37.355, 6.4.3 | Rel-16 | pc_spatialRelation_SRS_PosBasedOnSRS | |
| 11 | Support of spatialRelation-SRS-PosBasedOnSSB-Neigh | 37.355, 6.4.3 | Rel-16 | pc_spatialRelation_SRS_PosBasedOnSSB_Neigh | |
| 12 | Support of spatialRelation-SRS-PosBasedOnPRS-Neigh | 37.355, 6.4.3 | Rel-16 | pc_spatialRelation_SRS_PosBasedOnPRS_Neigh | |
| 13 | maxNumberSRS-PosResourceSetsPerBWP | 37.355, 6.4.3 | Rel-16 | pc_maxNumberSRS_PosResourceSetsPerBWP | |
| 14 | maxNumberSRS-PosResourcesPerBWP | 37.355, 6.4.3 | Rel-16 | pc_maxNumberSRS_PosResourcesPerBWP | |
| 15 | maxNumberPeriodicSRS-PosResourcesPerBWP | 37.355, 6.4.3 | Rel-16 | pc_maxNumberPeriodicSRS_PosResourcesPerBWP | |
| 16 | maxNumberAP-SRS-PosResourcesPerBWP | 37.355, 6.4.3 | Rel-16 | pc_maxNumberAP_SRS_PosResourcesPerBWP | |
| 17 | maxNumberSP-SRS-PosResourcesPerBWP | 37.355, 6.4.3 | Rel-16 | pc_maxNumberSP_SRS_PosResourcesPerBWP | |

Table A.4.3-6E: NR DL-AoD Measurements

| Item | NR DL-AoD Measurements | Ref. | Release | Mnemonic | Comments |
|------|--------------------------------------|------------------|---------|----------------------------------|----------|
| 1 | maxDL-PRS-RSRP-MeasurementFR1 | 37.355, 6.5.11.6 | Rel-16 | pc_maxDL_PRS_RSRP_MeasurementFR1 | |
| 2 | maxDL-PRS-RSRP-MeasurementFR2 | 37.355, 6.5.11.6 | Rel-16 | pc_maxDL_PRS_RSRP_MeasurementFR2 | |
| 3 | Support of simul-NR-DL-AoD-DL-TDOA | 37.355, 6.5.11.6 | Rel-16 | pc_simul_NR_DL_AoD_DL_TDOA | |
| 4 | Support of simul-NR-DL-AoD-Multi-RTT | 37.355, 6.5.11.6 | Rel-16 | pc_simul_NR_DL_AoD_Multi_RTT | |
| 5 | Support of periodicalReporting | 37.355, 6.5.11.6 | Rel-16 | pc_DL_AoD_periodicalReporting | |

Table A.4.3-6F: NR DL-TDOA Measurements

| Item | NR DL-TDOA Measurements | Ref. | Release | Mnemonic | Comments |
|------|-------------------------------------|------------------|---------|--|----------|
| 1 | dl-RSTD-MeasurementPerPairOfTRP-FR1 | 37.355, 6.5.10.6 | Rel-16 | pc_dl_RSTD_MeasurementPerPairOfTRP_FR1 | |
| 2 | dl-RSTD-MeasurementPerPairOfTRP-FR2 | 37.355, 6.5.10.6 | Rel-16 | pc_dl_RSTD_MeasurementPerPairOfTRP_FR2 | |
| 3 | Support of DL-PRS-RSRP-MeasFR1 | 37.355, 6.5.10.6 | Rel-16 | pc_DL_PRS_RSRP_MeasFR1 | |
| 4 | Support of DL-PRS-RSRP-MeasFR2 | 37.355, 6.5.10.6 | Rel-16 | pc_DL_PRS_RSRP_MeasFR2 | |
| 5 | Support of additionalPathsReport | 37.355, 6.5.10.6 | Rel-16 | pc_DL_TDOA_additionalPathsReport | |
| 6 | Support of periodicalReporting | 37.355, 6.5.10.6 | Rel-16 | pc_DL_TDOA_periodicalReporting | |

Table A.4.3-7: GNSS Assistance Data Support

| Item | GNSS Assistance Data Support | Ref. | Release | Mnemonic | Comments |
|------|---|-----------------|---------|-----------------------------|----------|
| 1 | Gnss-ReferenceTimeSupport (Common Assistance Data) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_RefTimeSup | |
| 2 | Gnss-ReferenceLocationSupport (Common Assistance Data) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_RefLocSup | |
| 3 | Gnss-IonosphericModelSupport (Common Assistance Data) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_IonoModSup | |
| 4 | Gnss-EarthOrientationParametersSupport (Common Assistance Data) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_EOPSup | |
| 5 | Gnss-TimeModelsSupport for GPS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_TimeModSup_Gps | |
| 6 | Gnss-TimeModelsSupport for SBAS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_TimeModSup_Sbas | |
| 7 | Gnss-TimeModelsSupport for QZSS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_TimeModSup_Qzss | |
| 8 | Gnss-TimeModelsSupport for Galileo | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_TimeModSup_Galileo | |
| 9 | Gnss-TimeModelsSupport for GLONASS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_TimeModSup_Glonass | |
| 10 | Gnss-DifferentialCorrectionsSupport for GPS L1 C/A | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_DGNSS_Sup_Gps | |
| 11 | Gnss-DifferentialCorrectionsSupport for SBAS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_DGNSS_Sup_Sbas | |
| 12 | Gnss-DifferentialCorrectionsSupport for QZSS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_DGNSS_Sup_Qzss | |
| 13 | Gnss-DifferentialCorrectionsSupport for Galileo E1 | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_DGNSS_Sup_Galileo | |
| 14 | Gnss-DifferentialCorrectionsSupport for GLONASS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_DGNSS_Sup_Glonass | |
| 15 | Gnss-NavigationModelSupport for GPS (Model-2) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_NavModSup_Gps | |
| 16 | Gnss-NavigationModelSupport for SBAS (Model-5) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_NavModSup_Sbas | |
| 17 | Gnss-NavigationModelSupport for QZSS (Model-2) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_NavModSup_Qzss | |
| 18 | Gnss-NavigationModelSupport for Galileo (Model-1) | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_NavModSup_Galileo | |
| 19 | Gnss-NavigationModelSupport for GLONASS (Model-4) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_NavModSup_Glonass | |
| 20 | Gnss-RealTimeIntegritySupport for GPS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_RTISup_Gps | |
| 21 | Gnss-RealTimeIntegritySupport for SBAS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_RTISup_Sbas | |
| 22 | Gnss-RealTimeIntegritySupport for QZSS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_RTISup_Qzss | |
| 23 | Gnss-RealTimeIntegritySupport for Galileo | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_RTISup_Galileo | |
| 24 | Gnss-RealTimeIntegritySupport for GLONASS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_RTISup_Glonass | |
| 25 | Gnss-DataBitAssistanceSupport for GPS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_DataBitsSup_Gps | |
| 26 | Gnss-DataBitAssistanceSupport for SBAS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_DataBitsSup_Sbas | |
| 27 | Gnss-DataBitAssistanceSupport for QZSS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_DataBitsSup_Qzss | |
| 28 | Gnss-DataBitAssistanceSupport for Galileo | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_DataBitsSup_Galileo | |
| 29 | Gnss-DataBitAssistanceSupport for GLONASS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_DataBitsSup_Glonass | |
| 30 | Gnss-AcquisitionAssistanceSupport for GPS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AcquAssistSup_Gps | |

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|----|--|-----------------|--------|-------------------------------|--|
| 31 | Gnss-AcquisitionAssistanceSupport for SBAS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AcquAssistSup_Sbas | |
| 32 | Gnss-AcquisitionAssistanceSupport for QZSS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AcquAssistSup_Qzss | |
| 33 | Gnss-AcquisitionAssistanceSupport for Galileo | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_AcquAssistSup_Galileo | |
| 34 | Gnss-AcquisitionAssistanceSupport for GLONASS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AcquAssistSup_Glonass | |
| 35 | Gnss-AlmanacSupport for GPS (Model-2) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AlmanacSup_Gps | |
| 36 | Gnss-AlmanacSupport for SBAS (Model-6) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AlmanacSup_Sbas | |
| 37 | Gnss-AlmanacSupport for QZSS (Model-2) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AlmanacSup_Qzss | |
| 38 | Gnss-AlmanacSupport for Galileo (Model-1) | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_AlmanacSup_Galileo | |
| 39 | Gnss-AlmanacSupport for GLONASS (Model-5) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AlmanacSup_Glonass | |
| 40 | Gnss-UTC-ModelSupport for GPS (Model-1) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_UTCModSup_Gps | |
| 41 | Gnss-UTC-ModelSupport for SBAS (Model-4) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_UTCModSup_Sbas | |
| 42 | Gnss-UTC-ModelSupport for QZSS (Model-1) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_UTCModSup_Qzss | |
| 43 | Gnss-UTC-ModelSupport for Galileo (Model-1) | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_UTCModSup_Galileo | |
| 44 | Gnss-UTC-ModelSupport for GLONASS (Model-3) | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_UTCModSup_Glonass | |
| 45 | Gnss-AuxiliaryInformationSupport for GPS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AuxInfoSup_Gps | |
| 46 | Gnss-AuxiliaryInformationSupport for SBAS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AuxInfoSup_Sbas | |
| 47 | Gnss-AuxiliaryInformationSupport for QZSS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AuxInfoSup_Qzss | |
| 48 | Gnss-AuxiliaryInformationSupport for Galileo | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_AuxInfoSup_Galileo | |
| 49 | Gnss-AuxiliaryInformationSupport for GLONASS | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_AuxInfoSup_Glonass | |
| 50 | Gnss-TimeModelsSupport for BDS | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_TimeModSup_BDS | |
| 51 | Gnss-DifferentialCorrectionsSupport for BDS B1I | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_DGNSS_Sup_BDS | |
| 52 | Gnss-NavigationModelSupport for BDS (Model-6) | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_NavModSup_BDS | |
| 53 | Gnss-RealTimeIntegritySupport for BDS | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_RTISup_BDS | |
| 54 | Gnss-DataBitAssistanceSupport for BDS | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_DataBitsSup_BDS | |
| 55 | Gnss-AcquisitionAssistanceSupport for BDS | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_AcquAssistSup_BDS | |
| 56 | Gnss-AlmanacSupport for BDS (Model-7) | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_AlmanacSup_BDS | |
| 57 | Gnss-UTC-ModelSupport for BDS (Model-5) | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_UTCModSup_BDS | |
| 58 | Gnss-AuxiliaryInformationSupport for BDS | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_AuxInfoSup_BDS | |
| 59 | Bds-DifferentialCorrectionsSupport for B1I | 36.355, 6.5.2.9 | Rel-12 | pc_BDS_DiffCorr | |
| 60 | Bds-GridModelSupport | 36.355, 6.5.2.9 | Rel-12 | pc_BDS_GridMod | |
| 61 | Support of GNSS-AcquisitionAssistance for GPS L1 C/A | 36.355, 6.5.2.2 | Rel-9 | pc_GNSS_AcquAssist_GPS_L1C/A | |
| 62 | Support of GNSS-AcquisitionAssistance for GPS L5 | 36.355, 6.5.2.2 | Rel-9 | pc_GNSS_AcquAssist_GPS_L5 | |

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|----|---|------------------|--------|---|--|
| 63 | Support of GNSS-AcquisitionAssistance for Galileo E1 | 36.355, 6.5.2.2 | Rel-12 | pc_GNSS_AcquAssist_Galileo_E1 | |
| 64 | Support of GNSS-AcquisitionAssistance for Galileo E5A | 36.355, 6.5.2.2 | Rel-12 | pc_GNSS_AcquAssist_Galileo_E5A | |
| 65 | Gnss-RTK-ReferenceStationInfoSupport-r15 (Common assistance data) | 37.355, 6.5.2.9 | Rel-15 | pc_GNSS_RTK_RefStationInfo | |
| 66 | Gnss-RTK-AuxiliaryStationDataSupport-r15 (Common assistance data) | 37.355, 6.5.2.9 | Rel-15 | pc_GNSS_RTK_AuxStationInfo | |
| 67 | Gnss-RTK-ObservationsSupport-r15 for GPS L1 C/A | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_OBS_Gps | |
| 68 | Gnss-RTK-MAC-CorrectionDifferencesSupport-r15 for GPS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_MAC_CorrectionDifferences_Gps | |
| 69 | Gnss-RTK-ResidualsSupport-r15 for GPS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_Residuals_Gps | |
| 70 | Gnss-RTK-FKP-GradientsSupport-r15 for GPS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_FKP_Gradients_Gps | |
| 71 | Gnss-SSR-OrbitCorrectionsSupport-r15 for GPS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_OrbitCorrections_Gps | |
| 72 | Gnss-SSR-ClockCorrectionsSupport-r15 for GPS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_ClockCorrections_Gps | |
| 73 | Gnss-SSR-CodeBiasSupport-r15 for GPS L1 C/A | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_CodeBias_Gps | |
| 74 | Glo-RTK-BiasInformationSupport-r15 | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_BiasInfo_Glonass | |
| 75 | Gnss-RTK-ObservationsSupport-r15 for GLONASS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_OBS_Glonass | |
| 76 | Gnss-RTK-MAC-CorrectionDifferencesSupport-r15 for GLONASS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_MAC_CorrectionDifferences_Glonass | |
| 77 | Gnss-RTK-ResidualsSupport-r15 for GLONASS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_Residuals_Glonass | |
| 78 | Gnss-RTK-FKP-GradientsSupport-r15 for GLONASS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_FKP_Gradients_Glonass | |
| 79 | Gnss-SSR-OrbitCorrectionsSupport-r15 for GLONASS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_OrbitCorrections_Glonass | |
| 80 | Gnss-SSR-ClockCorrectionsSupport-r15 for GLONASS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_ClockCorrections_Glonass | |
| 81 | Gnss-SSR-CodeBiasSupport-r15 for GLONASS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_CodeBias_Glonass | |
| 82 | Gnss-RTK-ObservationsSupport-r15 for Galileo | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_OBS_Galileo | |
| 83 | Gnss-RTK-MAC-CorrectionDifferencesSupport-r15 for Galileo | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_MAC_CorrectionDifferences_Galileo | |
| 84 | Gnss-RTK-ResidualsSupport-r15 for Galileo | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_Residuals_Galileo | |
| 85 | Gnss-RTK-FKP-GradientsSupport-r15 for Galileo | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_FKP_Gradients_Galileo | |
| 86 | Gnss-SSR-OrbitCorrectionsSupport-r15 for Galileo | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_OrbitCorrections_Galileo | |
| 87 | Gnss-SSR-ClockCorrectionsSupport-r15 for Galileo | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_ClockCorrections_Galileo | |
| 88 | Gnss-SSR-CodeBiasSupport-r15 for Galileo E1 | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_CodeBias_Galileo | |
| 89 | Gnss-RTK-ObservationsSupport-r15 for BDS B1I | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_OBS_Bds | |

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|-----|---|------------------|--------|---|--|
| 90 | Gnss-RTK-MAC-CorrectionDifferencesSupport-r15 for BDS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_MAC_CorrectionDifferences_Bds | |
| 91 | Gnss-RTK-ResidualsSupport-r15 for BDS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_Residuals_Bds | |
| 92 | Gnss-RTK-FKP-GradientsSupport-r15 for BDS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_FKP_Gradients_Bds | |
| 93 | Gnss-SSR-OrbitCorrectionsSupport-r15 for BDS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_OrbitCorrections_Bds | |
| 94 | Gnss-SSR-ClockCorrectionsSupport-r15 for BDS | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_ClockCorrections_Bds | |
| 95 | Gnss-SSR-CodeBiasSupport-r15 for BDS B1I | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_CodeBias_Bds | |
| 97 | Bds-GridModelSupport-r12 | 36.355, 6.5.2.10 | Rel-12 | pc_GNSS_GridModel_Bds | |
| 98 | Support of GNSS-AcquisitionAssistance for BDS B1I | 36.355, 6.5.2.2 | Rel-12 | pc_GNSS_AcquAssist_BDS_B1I | |
| 99 | Support of GNSS-AcquisitionAssistance for BDS B1C | 37.355, 6.5.2.2 | Rel-16 | pc_GNSS_AcquAssist_BDS_B1C | |
| 100 | Gnss-DifferentialCorrectionsSupport for GPS L5 | 36.355, 6.5.2.9 | Rel-9 | pc_GNSS_DGNSS_Sup_Gps_L5 | |
| 101 | Gnss-DifferentialCorrectionsSupport for Galileo E5A | 36.355, 6.5.2.9 | Rel-12 | pc_GNSS_DGNSS_Sup_Galileo_E5A | |
| 102 | Gnss-DifferentialCorrectionsSupport for BDS B1C | 37.355, 6.5.2.9 | Rel-16 | pc_GNSS_DGNSS_Sup_Bds_B1C | |
| 103 | Bds-DifferentialCorrectionsSupport for B1C | 37.355, 6.5.2.9 | Rel-16 | pc_Bds_DiffCorr_B1C | |
| 104 | Gnss-RTK-ObservationsSupport-r15 for GPS L5 | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_OBS_Gps_L5 | |
| 105 | Gnss-RTK-ObservationsSupport-r15 for Galileo E5A | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_OBS_Galileo_E5A | |
| 106 | Gnss-RTK-ObservationsSupport-r15 for BDS B1C | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_OBS_Bds_B1C | |
| 107 | Gnss-SSR-CodeBiasSupport-r15 for GPS L5 | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_CodeBias_Gps_L5 | |
| 108 | Gnss-SSR-CodeBiasSupport-r15 for Galileo E5A | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_CodeBias_Galileo_E5A | |
| 109 | Gnss-SSR-CodeBiasSupport-r15 for BDS B1C | 37.355, 6.5.2.10 | Rel-15 | pc_GNSS_RTK_SSR_CodeBias_Bds_B1C | |
| 110 | Gnss-SSR-URA-Support-r16 for GPS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_URA_Gps | |
| 111 | Gnss-SSR-URA-Support-r16 for QZSS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_URA_Qzss | |
| 112 | Gnss-SSR-URA-Support-r16 for Galileo | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_URA_Galileo | |
| 113 | Gnss-SSR-URA-Support-r16 for GLONASS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_URA_Glonass | |
| 114 | Gnss-SSR-URA-Support-r16 for BDS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_URA_Bds | |
| 115 | Gnss-SSR-PhaseBiasSupport-r16 for GPS L1 C/A | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_PhaseBias_Gps_L1CA | |
| 116 | Gnss-SSR-PhaseBiasSupport-r16 for GPS L5 | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_PhaseBias_Gps_L5 | |
| 117 | Gnss-SSR-PhaseBiasSupport-r16 for QZSS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_PhaseBias_Qzss | |
| 118 | Gnss-SSR-PhaseBiasSupport-r16 for Galileo E1 | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_PhaseBias_Galileo_E1 | |
| 119 | Gnss-SSR-PhaseBiasSupport-r16 for Galileo E5A | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_PhaseBias_Galileo_E5A | |
| 120 | Gnss-SSR-PhaseBiasSupport-r16 for GLONASS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_PhaseBias_Glonass | |

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|-----|---|------------------|--------|-----------------------------------|--|
| 121 | Gnss-SSR-PhaseBiasSupport-r16 for BDS B1I | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_PhaseBias_Bds_B1I | |
| 122 | Gnss-SSR-PhaseBiasSupport-r16 for BDS B1C | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_PhaseBias_Bds_B1C | |
| 123 | Gnss-SSR-STECCorrectionSupport-r16 for GPS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_STEC_CorrSupp_Gps | |
| 124 | Gnss-SSR-STECCorrectionSupport-r16 for QZSS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_STEC_CorrSupp_Qzss | |
| 125 | Gnss-SSR-STECCorrectionSupport-r16 for Galileo | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_STEC_CorrSupp_Galileo | |
| 126 | Gnss-SSR-STECCorrectionSupport-r16 for GLONASS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_STEC_CorrSupp_Glonass | |
| 127 | Gnss-SSR-STECCorrectionSupport-r16 for BDS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_STEC_CorrSupp_Bds | |
| 128 | Gnss-SSR-GriddedCorrectionSupport-r16 for GPS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_GridCorrSupp_Gps | |
| 129 | Gnss-SSR-GriddedCorrectionSupport-r16 for QZSS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_GridCorrSupp_Qzss | |
| 130 | Gnss-SSR-GriddedCorrectionSupport-r16 for Galileo | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_GridCorrSupp_Galileo | |
| 131 | Gnss-SSR-GriddedCorrectionSupport-r16 for GLONASS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_GridCorrSupp_Glonass | |
| 132 | Gnss-SSR-GriddedCorrectionSupport-r16 for BDS | 37.355, 6.5.2.10 | Rel-16 | pc_GNSS_SSR_GridCorrSupp_Bds | |
| 133 | Navic-DifferentialCorrectionsSupport-r16 for | 37.355, 6.5.2.10 | Rel-16 | pc_Navic_DGNSS_Sup | |
| 134 | Navic-GridModelSupport-r16 | 37.355, 6.5.2.10 | Rel-16 | pc_Navic_GridModelSupp | |

Table A.4.3-7A: MBS Assistance Data Support

| Item | MBS Assistance Data | Ref. | Release | Mnemonic | Comments |
|------|--------------------------------------|---------------|---------|--------------------------|----------|
| 1 | Support of mbs-AlmanacAssistance | 36.355, 6.5.4 | Rel-14 | pc_MBS_AlmanacAssist | |
| 2 | Support of mbs-AcquisitionAssistance | 36.355, 6.5.4 | Rel-14 | pc_MBS_AcquisitionAssist | |

Table A.4.3-7B: WLAN Assistance Data Support

| Item | WLAN Assistance Data | Ref. | Release | Mnemonic | Comments |
|------|-----------------------------|---------------|---------|-------------------|----------|
| 1 | Void | | | | |
| 2 | Support of wlan-AP-Location | 36.355, 6.5.6 | Rel-14 | pc_WLAN_APLocinfo | |

Table A.4.3-8: Location Coordinate Types

| Item | Location Coordinate Types | Ref. | Release | Mnemonic | Comments |
|------|---|---------------|---------|-------------------------------------|----------|
| 1 | Ellipsoid Point Support | 36.355, 6.4.1 | Rel-9 | pc_GNSS_EllipPoint | |
| 2 | Ellipsoid Point With Uncertainty Circle Support | 36.355, 6.4.1 | Rel-9 | pc_GNSS_EllipPointUncertCircle | |
| 3 | Ellipsoid Point With Uncertainty Ellipse Support | 36.355, 6.4.1 | Rel-9 | pc_GNSS_EllipPointUncertEllip | |
| 4 | Polygon Support | 36.355, 6.4.1 | Rel-9 | pc_GNSS_Polygon | |
| 5 | Ellipsoid Point With Altitude Support | 36.355, 6.4.1 | Rel-9 | pc_GNSS_EllipPointAlt | |
| 6 | Ellipsoid Point With Altitude And Uncertainty Ellipsoid Support | 36.355, 6.4.1 | Rel-9 | pc_GNSS_EllipPointAltUncertEllip | |
| 7 | Ellipsoid Arc Support | 36.355, 6.4.1 | Rel-9 | pc_GNSS_EllipArc | |
| 8 | High Accuracy Ellipsoid Point With Uncertainty Ellipse-r15 | 37.355, 6.4.1 | Rel-15 | pc_GNSS_HA_EllipPointUncertCircle | |
| 9 | High Accuracy Ellipsoid Point With Altitude And Uncertainty Ellipsoid-r15 | 37.355, 6.4.1 | Rel-15 | pc_GNSS_HA_EllipPointAltUncertEllip | |

Table A.4.3-9: Velocity Types

| Item | Velocity Types | Ref. | Release | Mnemonic | Comments |
|------|---|---------------|---------|---------------------|----------|
| 1 | Horizontal Velocity Support | 36.355, 6.4.1 | Rel-9 | pc_GNSS_HVel | |
| 2 | Horizontal With Vertical Velocity Support | 36.355, 6.4.1 | Rel-9 | pc_GNSS_HVVel | |
| 3 | Horizontal Velocity With Uncertainty Support | 36.355, 6.4.1 | Rel-9 | pc_GNSS_HVelUncert | |
| 4 | Horizontal With Vertical Velocity And Uncertainty Support | 36.355, 6.4.1 | Rel-9 | pc_GNSS_HVVelUncert | |

A.4.4 Additional information

Table A.4.4-1: Additional information

| Item | Additional information | Ref. | Release | Mnemonic | Comments |
|------|--|------------------|---------|---------------------------------------|------------------------------|
| 1 | Support of sending of acknowledgement request in LPP Provide Capabilities message. | 36.355, 4.3.3 | Rel-9 | pc_LPP_SendingACK_ProvideCapabilities | |
| 2 | Support of CE mode A | 36.306, 4.3.29.1 | Rel-13 | pc_CEmodeA | Mandatory for Category M1 UE |
| 3 | Support of CE mode B | 36.306, 4.3.29.2 | Rel-13 | pc_CEmodeB | |
| 4 | Support of "Voice Domain Preference for E-UTRAN" | 24.301 | Rel-9 | pc_VoLTE | VoLTE Capable UE |
| 5 | Support of LPP message segmentation | 36.355, 4.3.5 | Rel-14 | pc_LPP_MsgSegmentation | |

Table A.4.4-2: Additional UE radio access capabilities (Mandatory for Rel-11 and onward)

| Item | Additional capabilities | Ref. | Release | Status (Note 1) | Support Yes/No (Note 2) | Mnemonic | Comments |
|---------|---|------------------|---------|-----------------|-------------------------|---------------------------|------------------------------------|
| 1 | UE supports CRS interference handling | 36.306, 4.3.4.15 | Rel-11 | O.01 | | pc_CRS_Int erference | This is a Rel-11 Mandatory feature |
| 2 | UE supports ss-CCH interference handling | 36.306, 4.3.4.20 | Rel-11 | O.01 | | pc_ssCCH_I nterference | This is a Rel-11 Mandatory feature |
| Note 1: | <p>From Rel-11 onwards 3GPP TSG RAN has introduced the following principles (TS 36.306 [13] clause 4): 'For optional features, the UE radio access capability parameter indicates whether the feature has been implemented and successfully tested. For mandatory features with the UE radio access capability parameter, the parameter indicates whether the feature has been successfully tested.'</p> <p>Reflecting this situation, in the present table the status for Mandatory features would be indicated as conditional Optional (O.xx) until IOT testing availability is ensured. The decision when IOT testing availability can be considered ensured is made by 3GPP TSG RAN. After the 3GPP TSG RAN decision that IOT testing is available, the status of the capability parameter will be changed to Mandatory (M) and the release from which this requirement apply would be explicitly stated.</p> | | | | | | |
| Note 2: | <p>If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release.</p> | | | | | | |

Table A.4.4-3: Additional UE radio access capabilities conditions

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| O.01 | IF The feature has been IOT-ed THEN Support shall be indicated ELSE Support shall not be indicated |
|------|--|

Annex B (informative): Change history

| Change history | | | | | | | |
|-----------------|---------|-----------|------|-----|---|--------|--------|
| Date | TSG # | TSG Doc. | CR | Rev | Subject/Comment | Old | New |
| 36.571-3 | | | | | | | |
| 2010-08 | RAN5#48 | R5-104317 | - | - | Initial version | | 0.0.0 |
| 2011-02 | RAN5#50 | R5-110253 | - | - | Addition of test case applicability | 0.0.0 | 0.1.0 |
| 2011-08 | RAN5#52 | R5-113273 | - | - | Addition of E-CID and OTDOA performance test case applicability | 0.1.0 | |
| | | R5-113139 | - | - | Addition of UE Network Capability test case | | |
| | | R5-113773 | - | - | Addition of Notification test cases | | |
| | | R5-113148 | - | - | Addition of Position Capability Transfer test case | | 1.0.0 |
| 37.571-3 | | | | | | | |
| 2011-11 | RAN5#53 | R5-115253 | - | - | Creation of 37.571-3 based on 36.571-3 v1.0.0, 34.123-2 v9.6.0, 34.171 v9.3.0 and 34.172 va.1.0 | - | 1.0.0 |
| - | - | R5-115254 | - | - | Corrections to the 37.571-3 baseline text | - | - |
| - | - | R5-115255 | - | - | Addition of missing test case applicability to the 37.571-3 baseline text | - | - |
| - | - | R5-115256 | - | - | Applicable Release for UMTS A-GNSS Test Cases in 37.571-3 baseline text | - | 2.0.0 |
| 2011-12 | RAN#54 | - | - | - | Moved to Rel-9 with editorial changes only. | 2.0.0 | 9.0.0 |
| 2012-03 | RAN#55 | R5-120365 | 0001 | - | Addition of missing test case applicability for test cases 7.3.4.1, 7.3.4.2, 7.3.4.3, and 7.3.4.4 | 9.0.0 | 9.1.0 |
| 2012-03 | RAN#55 | R5-120529 | 0002 | - | Remove redundant mnemonics | 9.0.0 | 9.1.0 |
| 2012-06 | RAN#56 | - | - | - | Upgraded to v10.0.0 with no change. | 9.1.0 | 10.0.0 |
| 2012-09 | RAN#57 | R5-123689 | 0003 | - | Correction of sub-test names and PICS names | 10.0.0 | 10.1.0 |
| 2012-09 | RAN#57 | R5-123689 | 0003 | - | Addition of missing sub test cases name change | 10.1.0 | 10.1.1 |
| 2012-12 | RAN#58 | R5-125119 | 0004 | - | Add new PICS and post-fix for conditions | 10.1.1 | 10.2.0 |
| 2012-12 | RAN#58 | R5-124121 | 0006 | - | Applicabilities for new test cases 10.1 - 10.4 for RSTD for Carrier Aggregation | 10.1.1 | 10.2.0 |
| 2013-03 | RAN#59 | R5-130594 | 0007 | - | Correction of applicability for TC 7.3.2.3 | 10.2.0 | 10.3.0 |
| 2013-04 | - | - | - | - | fix of history table | 10.3.0 | 10.3.1 |
| 2013-06 | RAN#60 | R5-131305 | 0008 | - | Correction of applicability for LTE UE Positioning test cases | 10.3.1 | 10.4.0 |
| 2013-06 | RAN#60 | R5-131328 | 0009 | - | Applicability for new test case 7.5.1 for inter-frequency RSTD measurement indication procedure | 10.3.1 | 10.4.0 |
| 2013-06 | RAN#60 | R5-131995 | 0010 | - | Applicabilities for new TDD inter-frequency tests 9.2.2 and 9.2.5 | 10.3.1 | 10.4.0 |
| 2013-06 | RAN#60 | R5-131996 | 0011 | - | Addition of the Applicability for FDD-FDD inter-frequency RSTD Test Cases | 10.3.1 | 10.4.0 |
| 2013-06 | RAN#60 | R5-132011 | 0012 | - | Corrections and clarifications to Applicabilities tables | 10.3.1 | 10.4.0 |
| 2013-09 | RAN#61 | R5-133633 | 0013 | - | Correction to 7.3.3.1 | 10.4.0 | 10.5.0 |
| 2013-12 | RAN#62 | R5-134203 | 0014 | - | Corrections to Applicabilities C12es and C13es | 10.5.0 | 10.6.0 |
| 2013-12 | RAN#62 | R5-134204 | 0015 | - | Addition of Applicabilities for 9.2.1 - 9.2.5 | 10.5.0 | 10.6.0 |
| 2013-12 | RAN#62 | R5-134911 | 0016 | - | Change Applicability of test 7.3.5.1 | 10.5.0 | 10.6.0 |
| 2013-12 | RAN#62 | R5-134981 | 0017 | - | Applicabilities for new tests 10.1a, 10.2a, 10.3a and 10.4a | 10.5.0 | 10.6.0 |
| 2014-06 | RAN#64 | R5-142102 | 0018 | - | Correction to test case title in the Applicability Table 4-1 and Table 4-3 | 10.6.0 | 10.7.0 |
| 2014-06 | RAN#64 | R5-142406 | 0019 | - | Correction of conditions of C26es and C27es. | 10.6.0 | 10.7.0 |
| 2014-09 | RAN#65 | - | - | - | Upgraded to v11.0.0 with no change | 10.7.0 | 11.0.0 |
| 2014-09 | RAN#65 | R5-144843 | 0020 | - | Applicability for new 10+5 and 5+5 RSTD related test cases | 11.0.0 | 12.0.0 |
| 2014-12 | RAN#66 | R5-145263 | 0021 | - | Applicability table update for RRM CA test cases in clause 10 to avoid redundant testing | 12.0.0 | 12.1.0 |
| 2014-12 | RAN#66 | R5-145388 | 0022 | - | Addition of Beidou | 12.0.0 | 12.1.0 |
| 2014-12 | RAN#66 | R5-145843 | 0023 | - | Introduction of feICIC applicability statement for UE Rx-TX Time Difference test cases | 12.0.0 | 12.1.0 |
| 2014-12 | RAN#66 | R5-145894 | 0024 | - | Add BDS testing contents in TS37.571-3 | 12.0.0 | 12.1.0 |
| 2015-03 | RAN#67 | R5-150075 | 0025 | - | Remove incorrect note from CA RSTD accuracy tests | 12.1.0 | 12.2.0 |
| 2015-03 | RAN#67 | R5-150608 | 0026 | - | Typo in name of parameter pc_BDS_B1I | 12.1.0 | 12.2.0 |
| 2015-03 | RAN#67 | R5-150838 | 0027 | - | Missing Abbreviations in Specification | 12.1.0 | 12.2.0 |
| 2015-03 | RAN#67 | R5-150889 | 0028 | - | Missing Fine Time Assistance Conditions | 12.1.0 | 12.2.0 |
| 2015-03 | RAN#67 | R5-150890 | 0029 | - | Applicability for new 20+10MHz RSTD test cases | 12.1.0 | 12.2.0 |
| 2015-06 | RAN#68 | R5-151087 | 0034 | - | RSTD accuracy changes for Rel-12 | 12.2.0 | 12.3.0 |
| 2015-06 | RAN#68 | R5-151090 | 0035 | - | Missing applicability of test case executions in Table 4-3 for E-UTRA pc_eTDD tests | 12.2.0 | 12.3.0 |

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|---------|--------|-----------|------|---|---|--------|--------|
| 2015-06 | RAN#68 | R5-151985 | 0033 | 1 | Change Galileo Release Applicability | 12.2.0 | 12.3.0 |
| 2015-06 | RAN#68 | R5-152034 | 0031 | 1 | Change Galileo Release Applicability | 12.2.0 | 12.3.0 |
| 2015-09 | RAN#69 | R5-153152 | 0036 | - | Incorrect ICS information in Table 4-7 | 12.3.0 | 12.4.0 |
| 2015-09 | RAN#69 | R5-153335 | 0037 | - | Change BDS Applicability for LCR TDD | 12.3.0 | 12.4.0 |
| 2015-09 | RAN#69 | R5-153339 | 0038 | - | Restoration of condition C21es | 12.3.0 | 12.4.0 |
| 2015-09 | RAN#69 | R5-153941 | 0039 | 1 | Adding applicability statements for ECID eICIC test cases 8.1.3 and 8.1.4 | 12.3.0 | 12.4.0 |
| 2015-09 | RAN#69 | - | - | - | update of the "non-specific references" in section 2 according to the approved R5-153582 and an action point on ETSI MCC | 12.3.0 | 12.4.0 |
| 2015-12 | RAN#70 | R5-155137 | 0044 | - | Updating applicability statements for ECID feICIC test cases 8.1.5 and 8.1.6 | 12.4.0 | 12.5.0 |
| 2015-12 | RAN#70 | R5-155876 | 0042 | 1 | Applicabilities for two new 3 DL CA RSTD Measurement Reporting Delay test cases | 12.4.0 | 12.5.0 |
| 2015-12 | RAN#70 | R5-155945 | 0047 | 1 | Addition of release RAT column to applicability tables 4-7 | 12.4.0 | 12.5.0 |
| 2015-12 | RAN#70 | R5-156010 | 0045 | 1 | Addition of release RAT column to applicability table 4-3 | 12.4.0 | 12.5.0 |
| 2015-12 | RAN#70 | R5-156112 | 0043 | 1 | Applicabilities for two new 3 DL CA RSTD Measurement Accuracy test cases | 12.4.0 | 12.5.0 |
| 2016-03 | RAN#71 | R5-160044 | 0048 | - | Releases for the new OTDOA tests 10.5 to 10.8 are missing | 12.5.0 | 12.6.0 |
| 2016-03 | RAN#71 | R5-160045 | 0049 | - | Correct TC Title typo errors in Table 4-3 | 12.5.0 | 12.6.0 |
| 2016-06 | RAN#72 | R5-163036 | 0052 | 1 | Editorial correction of Positioning PICS Mnemonic | 12.6.0 | 12.7.0 |
| 2016-09 | RAN#73 | R5-165128 | 0053 | - | Updates to the UE Rx – Tx Time Difference tests for Rel-12 onwards | 12.7.0 | 12.8.0 |
| 2016-09 | RAN#73 | R5-165352 | 0054 | - | Applicability of new A-GPS and A-Galileo RF test conditions missing for UE Based GNSS | 12.7.0 | 12.8.0 |
| 2016-09 | RAN#73 | R5-165353 | 0055 | - | Applicability of new A-GPS and A-Galileo signalling test conditions missing for UE Based GNSS | 12.7.0 | 12.8.0 |
| 2016-09 | RAN#73 | R5-165997 | 0057 | 1 | Introduction of Indoor Positioning enhancements (MBS) (protocol) | 12.8.0 | 13.0.0 |
| 2016-09 | RAN#73 | R5-166150 | 0056 | 1 | Introduction of Indoor Positioning enhancements (MBS) (rf) | 12.8.0 | 13.0.0 |
| 2016-12 | RAN#74 | R5-168062 | 0058 | - | Change of applicability of UE Rx-Tx tests for TDD | 13.0.0 | 13.1.0 |
| 2016-12 | RAN#74 | R5-168064 | 0059 | - | Change of applicability of ECID tests for TDD | 13.0.0 | 13.1.0 |
| 2016-12 | RAN#74 | R5-168381 | 0061 | - | Modification to note 1 in table A.4.3-1 to remove ambiguity | 13.0.0 | 13.1.0 |
| 2016-12 | RAN#74 | R5-169104 | 0060 | 1 | Clarification of applicability of TC 7.3.3.1 and 7.3.3.1A | 13.0.0 | 13.1.0 |
| 2016-12 | RAN#74 | R5-169105 | 0062 | 1 | Add WLAN signaling sub-test and references for Indoor Positioning | 13.0.0 | 13.1.0 |
| 2016-12 | RAN#74 | R5-169106 | 0063 | 1 | Add BT signaling sub-test and references for Indoor Positioning | 13.0.0 | 13.1.0 |
| 2016-12 | RAN#74 | R5-169107 | 0064 | 1 | Add Sensor signaling sub-test and references for Indoor Positioning | 13.0.0 | 13.1.0 |
| 2017-03 | RAN#75 | R5-170669 | 0065 | - | Maintenance of 37.571-3 Table 4-7 for XML conversion | 13.1.0 | 13.2.0 |
| 2017-03 | RAN#75 | R5-170737 | 0066 | - | Remove Bluetooth Abbreviations | 13.1.0 | 13.2.0 |
| 2017-03 | RAN#75 | R5-170738 | 0067 | - | Correct applicability of tests clause reference | 13.1.0 | 13.2.0 |
| 2017-03 | RAN#75 | - | - | - | Administrative release upgrade to match the release of 3GPP TS 37.571-1 which was upgraded at RAN#74 to Rel-14 due to Rel-14 relevant CR(s) | 13.2.0 | 14.0.0 |

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|---------|--------|-----------|------|---|---|--------|--------|
| 2017-06 | RAN#76 | R5-172180 | 0071 | - | Add new applicability conditions for GPS, GLONASS and BDS | 14.0.0 | 14.1.0 |
| 2017-06 | RAN#76 | R5-172668 | 0073 | - | Introduction of periodical reporting capability for GNSS | 14.0.0 | 14.1.0 |
| 2017-06 | RAN#76 | R5-172965 | 0070 | 1 | Merge GNSS sub-tests into one sub-test | 14.0.0 | 14.1.0 |
| 2017-06 | RAN#76 | R5-172968 | 0075 | 1 | Introduction of Conditions and Applicability for MBS Assistance Data Signalling Sub-tests | 14.0.0 | 14.1.0 |
| 2017-06 | RAN#76 | R5-173365 | 0074 | 1 | Introduction of Conditions and Applicability for MBS Assistance Data Measurement Test Cases | 14.0.0 | 14.1.0 |
| 2017-06 | RAN#76 | - | - | - | The titles of 7.3.3.1A and B were corrected editorially to (Rel-13 only) and (Rel-14 onwards) in order to align with the actual TC Titles. | 14.0.0 | 14.1.0 |
| 2017-09 | RAN#77 | R5-173865 | 0078 | - | Editorial change to align MBS test case names with 37.571-2 | 14.1.0 | 14.2.0 |
| 2017-09 | RAN#77 | R5-173866 | 0079 | - | Editorial change to align MBS test case names with 37.571-1 | 14.1.0 | 14.2.0 |
| 2017-09 | RAN#77 | R5-175120 | 0080 | 1 | Editorial correction to Table 4-3 in 3GPP TS 37.571-3 | 14.1.0 | 14.2.0 |
| 2017-09 | RAN#77 | R5-175189 | 0077 | 1 | Test case applicability for WLAN and BLE | 14.1.0 | 14.2.0 |
| 2017-12 | RAN#78 | R5-177416 | 0081 | 1 | Applicability changes for OTDOA/ECID 4Rx support and WLAN/BLE | 14.2.0 | 14.3.0 |
| 2017-12 | RAN#78 | - | - | - | Administrative release upgrade to match the release of 3GPP TS 37.571-1 which was upgraded at RAN#78 to Rel-15 due to Rel-15 relevant CR(s) | 14.3.0 | 15.0.0 |
| 2018-03 | RAN#79 | R5-180312 | 0083 | - | Applicability of Cat1bis OTDOA tests | 15.0.0 | 15.1.0 |
| 2018-03 | RAN#79 | R5-180313 | 0084 | - | Applicability of feMTC OTDOA and ECID tests | 15.0.0 | 15.1.0 |
| 2018-03 | RAN#79 | R5-180314 | 0085 | - | Applicability of NB-IOT OTDOA tests | 15.0.0 | 15.1.0 |
| 2018-03 | RAN#79 | R5-180586 | 0086 | - | 4Rx support for OTDOA 2CC - Applicability | 15.0.0 | 15.1.0 |
| 2018-03 | RAN#79 | R5-180587 | 0087 | - | 4Rx support for OTDOA 3CC - Applicability | 15.0.0 | 15.1.0 |
| 2018-03 | RAN#79 | R5-180878 | 0089 | - | Update Applicability for Rel-14 Sensor Positioning Protocol Tests and Sub-Tests | 15.0.0 | 15.1.0 |
| 2018-03 | RAN#79 | R5-181273 | 0088 | 1 | Update Applicability for Rel-14 WLAN Positioning Protocol Tests and Sub-Tests | 15.0.0 | 15.1.0 |
| 2018-06 | RAN#80 | R5-182220 | 0090 | - | Applicability for new NB-IOT OTDOA tests | 15.1.0 | 15.2.0 |
| 2018-06 | RAN#80 | R5-182281 | 0091 | - | New ECID Cat1bis tests - Applicability | 15.1.0 | 15.2.0 |
| 2018-06 | RAN#80 | R5-183850 | 0092 | 1 | Applicability statement for A-GNSS min perf test cases for Cat M1 | 15.1.0 | 15.2.0 |
| 2018-06 | RAN#80 | R5-183851 | 0094 | 1 | Corrections to C03-Xur and C04-Xur applicabilities | 15.1.0 | 15.2.0 |
| 2018-09 | RAN#81 | R5-184038 | 0096 | - | Addition of PICS for support of LPP message segmentation | 15.2.0 | 15.3.0 |
| 2018-09 | RAN#81 | R5-184190 | 0098 | - | Editorial - Updates for GNSS Signal Capabilities | 15.2.0 | 15.3.0 |
| 2018-09 | RAN#81 | R5-185359 | 0099 | - | Correction of the title for OTDOA IOT tests | 15.2.0 | 15.3.0 |
| 2018-12 | RAN#82 | R5-186619 | 0100 | - | Addition of applicabilities for two missing Minimum Performance triple-GNSS test cases | 15.3.0 | 15.4.0 |
| 2018-12 | RAN#82 | R5-186620 | 0101 | - | Correction to applicabilities of Modernized GPS for Minimum Performance test cases | 15.3.0 | 15.4.0 |
| 2018-12 | RAN#82 | R5-186621 | 0102 | - | Addition of Category NB2 information | 15.3.0 | 15.4.0 |
| 2018-12 | RAN#82 | R5-186622 | 0103 | - | Addition of PICs for support of Acquisition Assistance for Galileo E5A and GPS L5 signals | 15.3.0 | 15.4.0 |
| 2018-12 | RAN#82 | R5-186623 | 0104 | - | Addition of NR signalling background information | 15.3.0 | 15.4.0 |

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| 2018-12 | RAN#82 | R5-187465 | 0106 | - | Editorial Changes for TS 37.571-3 | 15.3.0 | 15.4.0 |
| 2018-12 | RAN#82 | R5-188198 | 0105 | 2 | Applicability for NR NSA Option 3 protocol tests | 15.3.0 | 15.4.0 |
| 2019-03 | RAN#83 | R5-191126 | 0107 | - | Addition of general NR information for minimum performance | 15.4.0 | 15.5.0 |
| 2019-03 | RAN#83 | R5-192381 | 0108 | 1 | Addition LPP Rel-15 missing PICS | 15.4.0 | 15.5.0 |
| 2019-03 | RAN#83 | - | - | - | Administrative release upgrade to match the release of TS 37.571-1 which was upgraded at RAN#83 to Rel-16 due to a Rel-16 relevant CR | 15.5.0 | 16.0.0 |
| 2019-06 | RAN#84 | R5-194418 | 0110 | - | Remove duplicated PICS | 16.0.0 | 16.1.0 |
| 2019-06 | RAN#84 | R5-195010 | 0112 | - | Addition of applicabilities for A-GNSS Minimum Performance tests for NR | 16.0.0 | 16.1.0 |
| 2019-06 | RAN#84 | R5-195012 | 0111 | 1 | NR applicabilities for MBS Minimum Performance tests | 16.0.0 | 16.1.0 |
| 2019-09 | RAN#85 | R5-196862 | 0121 | - | Update NR Signalling Test Case Titles to Align with TS 37.571-2 | 16.1.0 | 16.2.0 |
| 2019-09 | RAN#85 | R5-197165 | 0117 | 1 | Deletion of duplicated conditions for EUTRA tests | 16.1.0 | 16.2.0 |
| 2019-09 | RAN#85 | R5-197171 | 0118 | 1 | Addition of missing sub-tests for NR tests | 16.1.0 | 16.2.0 |
| 2019-09 | RAN#85 | R5-197172 | 0119 | 1 | Corrections of LPP release information for NR tests | 16.1.0 | 16.2.0 |
| 2019-09 | RAN#85 | R5-197173 | 0120 | 1 | Updates to NR test applicabilities for other NR scenarios | 16.1.0 | 16.2.0 |
| 2019-12 | RAN#86 | R5-198968 | 0122 | 1 | Update to protocol positioning tests - applicability | 16.2.0 | 16.3.0 |
| 2020-03 | RAN#87 | R5-201011 | 0126 | 1 | Applicabilities for ECID signalling test cases deleted for NR Test Configuration B | 16.3.0 | 16.4.0 |
| 2020-03 | RAN#87 | R5-201014 | 0124 | 1 | Editorial changes to TS 37.571-X titles to remove references to individual RATs | 16.3.0 | 16.4.0 |
| 2020-06 | RAN#88 | R5-201624 | 0127 | - | Addition of missing ICS for OTDOA Measurements and E-CID Measurements | 16.4.0 | 16.5.0 |
| 2020-12 | RAN#90 | R5-205106 | 0128 | - | Deletion of tests 7.3.3.1, 7.3.3.1A, 9.3.3.1 and 9.3.3.1A | 16.5.0 | 16.6.0 |
| 2020-12 | RAN#90 | R5-205669 | 0131 | - | Addition of PICS for MBS and WLAN Assistance Data Support | 16.5.0 | 16.6.0 |
| 2020-12 | RAN#90 | R5-206425 | 0130 | 1 | Introduction of BDS B1C Signal test applicabilities in TS 37.571-3 | 16.5.0 | 16.6.0 |
| 2020-12 | RAN#90 | R5-206444 | 0129 | 1 | Updates and additions of PICS for GNSS Assistance Data Support in Table A.4.3-7 | 16.5.0 | 16.6.0 |
| 2021-03 | RAN#91 | R5-210261 | 0132 | - | Deletion of PICS for wlan-AP-Identifier | 16.6.0 | 16.7.0 |
| 2021-03 | RAN#91 | R5-211802 | 0133 | 1 | Addition of applicability for TDD NB-IOT RSTD measurement test cases | 16.6.0 | 16.7.0 |
| 2021-06 | RAN#92 | R5-212243 | 0135 | - | Clarifications to FDD NB-IoT RSTD test case applicabilities | 16.7.0 | 16.8.0 |
| 2021-06 | RAN#92 | R5-213140 | 0139 | - | Add applicability for OTDOA feMTC | 16.7.0 | 16.8.0 |
| 2021-06 | RAN#92 | R5-213640 | 0137 | 1 | Addition of NR Rel 16 positioning methods test applicability and condition | 16.7.0 | 16.8.0 |
| 2021-06 | RAN#92 | R5-213641 | 0138 | 1 | Addition of NR Rel 16 positioning method abbreviations and related PICS | 16.7.0 | 16.8.0 |
| 2021-06 | RAN#92 | R5-214037 | 0136 | 1 | Update Release 15 and onwards references for TS 36.355 to TS 37.355 | 16.7.0 | 16.8.0 |

History

| Document history | | |
|-------------------------|--------------|-------------|
| V16.5.0 | July 2020 | Publication |
| V16.6.0 | January 2021 | Publication |
| V16.7.0 | April 2021 | Publication |
| V16.8.0 | August 2021 | Publication |
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