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User Equipment (UE) conformance specification for UE positioning;

Part 3: Implementation Conformance Statement (ICS) (3GPP TS 37.571-3 version 16.6.0 Release 16)



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Foreword

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

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

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

The present document is part 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

[1]

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.

3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

- 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).
- [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".

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 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

MT-LR Mobile Terminated Location Request
NE-DC NR-E-UTRA Dual Connectivity

NGEN-DC NG-RAN E-UTRA-NR Dual Connectivity

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]) 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
C03-10urlF (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.4.3-1/3) 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
C04-10urlF (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			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 pc_eTDD			Rel-9 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 pc_eTDD			Rel-9 Rel-9
7.1.1-3	Sensitivity Coarse Time Assistance: Sub-Test	Rel-12	C03er	All LTE UEs except	pc_eFDD			Rel-9
	3			Category M1/M2 UEs not supporting VoLTE. The UEs shall support A- Galileo only	pc_eTDD			Rel-9
7.1.1-4	Sensitivity Coarse Time Assistance: Sub-Test	Rel-9	C04er	All LTE UEs except	pc_eFDD			Rel-9
	4			Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only	pc_eTDD			Rel-9
7.1.1-5	Sensitivity Coarse Time Assistance: Sub-Test	Rel-9	C05er	All LTE UEs except	pc_eFDD			Rel-9
	5		0000	Category M1/M2 UEs not supporting VoLTE. The UEs shall support A- GPS/Modernized GPS and A-GLONASS only	pc_eTDD			Rel-9
7.1.1-8	Sensitivity Coarse Time Assistance: Sub-Test	Rel-12	C29er	All LTE UEs except	pc_eFDD			Rel-9
	8			Category M1/M2 UEs not supporting VoLTE. The UEs shall support A- GPS/Modernized GPS and A-Galileo only	pc_eTDD			Rel-9
7.1.1-9	Sensitivity Coarse Time Assistance: Sub-Test	Rel-12	C19er	All LTE UEs except	pc_eFDD			Rel-9
	9			Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-BDS only (Note 5)	pc_eTDD			Rel-9
7.1.1-10	Sensitivity Coarse Time Assistance: Sub-Test	Rel-12	C20er	All LTE UEs except	pc_eFDD			Rel-9
	10			Category M1/M2 UEs not supporting VoLTE. The UEs shall support A- GPS/Modernized GPS and A-BDS only (Note 5)	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	pc_eTDD		Rel-9
				supporting VoLTE. The	r -=-		
				UEs shall support A-			
				GPS/Modernized GPS			
				and A-GLONASS and A-			
7.1.1-12	Sensitivity Coarse Time Assistance: Sub-Test	Rel-12	C79er	BDS only (Note 5) All LTE UEs except	pc_eFDD		Rel-9
7.1.1-12	12	Kei-12	07961	Category M1/M2 UEs not	·		
				supporting VoLTE. The UEs shall support A- GPS/Modernized GPS and A-Galileo and A- GLONASS only	pc_eTDD		Rel-9
7.1.1-13	Sensitivity Coarse Time Assistance: Sub-Test	Rel-12	C80er	All LTE UEs except	pc_eFDD		Rel-9
	13			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
7.1.2-1	Sensitivity Fine Time Assistance: Sub-Test 1	Rel-9	C06er	All LTE UEs except	pc_eFDD		Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS	pc_eTDD		Rel-9
7.1.2-2	Sensitivity Fine Time Assistance: Sub-Test 2	Rel-9	C07er	L1C/A only, and Fine Time Assistance All LTE UEs except	pc_eFDD		Rel-9
7.1.2-2	Sensitivity Fine Time Assistance: Sub-Test 2	Rei-9	Cover	Category M1/M2 UEs not	pc_eFDD pc_eTDD		Rel-9
				supporting VoLTE. The UEs shall support A- GLONASS only, and Fine Time Assistance	·		Kers
7.1.2-3	Sensitivity Fine Time Assistance: Sub-Test 3	Rel-12	C08er	All LTE UEs except	pc_eFDD		Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A- Galileo only, and Fine Time Assistance	pc_eTDD		Rel-9
7.1.2-4	Sensitivity Fine Time Assistance: Sub-Test 4	Rel-9	C09er	All LTE UEs except	pc_eFDD		Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only, and Fine Time Assistance	pc_eTDD		Rel-9
7.1.2-5	Sensitivity Fine Time Assistance: Sub-Test 5	Rel-9	C10er	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 only, and Fine Time Assistance	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
1.1.20	Conditivity i inc Time Addictance. Odb-Test o	1101-12	00001	/ III E I E O E O CACCOPI	P0_01 DD		1.01-3

				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-	pc_eTDD	Rel-9
				GPS/Modernized GPS and A-Galileo only, and Fine Time Assistance		
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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 Rel-9

7.2-3	Nominal Accuracy: Sub-Test 3	Rel-12	C03er	All LTE UEs except	pc_eFDD		Rel-9
	·			Category M1/M2 UEs not supporting VoLTE. The UEs shall support A- Galileo only	pc_eTDD		Rel-9
7.2-4	Nominal Accuracy: Sub-Test 4	Rel-9	C04er	All LTE UEs except	pc_eFDD		Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only	pc_eTDD		Rel-9
7.2-5	Nominal Accuracy: Sub-Test 5	Rel-9	C05er	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 only	pc_eTDD		Rel-9
7.2-8	Nominal Accuracy: Sub-Test 8	Rel-12	C29er	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	pc_eTDD		Rel-9
7.2-9	Nominal Accuracy: Sub-Test 9	Rel-12	C19er	All LTE UEs except	pc_eFDD		Rel-9
0	·			Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-BDS only (Note 5)	pc_eTDD		Rel-9
7.2-10	Nominal Accuracy: Sub-Test 10	Rel-12	C20er	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-BDS only (Note 5)	pc_eTDD		Rel-9
7.2-11	Nominal Accuracy: 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
7.2-12	Nominal Accuracy: Sub-Test 12	Rel-12	C79er	All LTE UEs except	pc_eFDD		Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS/Modernized GPS	pc_eTDD		Rel-9
				and A-Galileo and A- GLONASS only			
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	pc_eFDD	Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS L1C/A only	pc_eTDD	Rel-9
7.3-2	Dynamic Range: Sub-Test 2	Rel-9	C02er	All LTE UEs except	pc_eFDD	Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A- GLONASS only	pc_eTDD	Rel-9
7.3-3	Dynamic Range: Sub-Test 3	Rel-12	C03er	All LTE UEs except	pc_eFDD	Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A- Galileo only	pc_eTDD	Rel-9
7.3-4	Dynamic Range: Sub-Test 4	Rel-9	C04er	All LTE UEs except	pc_eFDD	Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only	pc_eTDD	Rel-9
7.3-5	Dynamic Range: Sub-Test 5	Rel-9	C05er	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 only	pc_eTDD	Rel-9
7.3-8	Dynamic Range: Sub-Test 8	Rel-12	C29er	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	pc_eTDD	Rel-9
7.3-9	Dynamic Range: 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
7.3-10	Dynamic Range: Sub-Test 10	Rel-12	C20er	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-BDS only (Note 5)	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	pc_eFDD	Rel-9
				supporting VoLTE. The UEs shall support A- GPS/Modernized GPS and A-Galileo and A- GLONASS only	pc_eTDD	Rel-9
7.3-13	Dynamic Range: Sub-Test 13	Rel-12	C80er	All LTE UEs except Category M1/M2 UEs not	pc_eFDD	Rel-9
				supporting VoLTE. The UEs shall support A- GPS/Modernized GPS and A-Galileo and A-BDS only (Note 5)	pc_eTDD	Rel-9
7.4-1	Multi-path scenario: Sub-Test 1	Rel-9	C01er	All LTE UEs except	pc_eFDD	Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS L1C/A only	pc_eTDD	Rel-9
7.4-2	Multi-path scenario: Sub-Test 2	Rel-9	C02er	All LTE UEs except	pc_eFDD	Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A- GLONASS only	pc_eTDD	Rel-9
7.4-3	Multi-path scenario: Sub-Test 3	Rel-12	C03er	All LTE UEs except	pc_eFDD	Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A- Galileo only	pc_eTDD	Rel-9
7.4-4	Multi-path scenario: Sub-Test 4	Rel-9	C04er	All LTE UEs except	pc_eFDD	Rel-9
				Category M1/M2 UEs not supporting VoLTE. The UEs shall support A-GPS and Modernized GPS only	pc_eTDD	Rel-9
7.4-5	Multi-path scenario: Sub-Test 5	Rel-9	C05er	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 only	pc_eTDD	Rel-9
7.4-8	Multi-path scenario: Sub-Test 8	Rel-12	C29er	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	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	pc_eTDD		Rel-9
				supporting VoLTE. The	рс_етоо		IXel-3
				UEs shall support A-BDS			
				only (Note 5)			
7.4-10	Multi-path scenario: Sub-Test 10	Rel-12	C20er	All LTE UEs except	pc_eFDD		Rel-9
	man pan soonand cas root to		0200.	Category M1/M2 UEs not	pc_eTDD		Rel-9
				supporting VoLTE. The	po_0.22		110.0
				UEs shall support A-			
				GPS/Modernized GPS			
				and A-BDS only (Note 5)			
7.4-11	Multi-path scenario: Sub-Test 11	Rel-12	C32er	All LTE UEs except	pc_eFDD		Rel-9
				Category M1/M2 UEs not	pc_eTDD		Rel-9
				supporting VoLTE. The			
				UEs shall support A-			
				GPS/Modernized GPS			
				and A-GLONASS and A-			
				BDS only (Note 5)			
7.4-12	Multi-path scenario: Sub-Test 12	Rel-12	C79er	All LTE UEs except Category M1/M2 UEs not	pc_eFDD		Rel-9
				supporting VoLTE. The	pc_eTDD		Rel-9
				UEs shall support A-			
				GPS/Modernized GPS			
				and A-Galileo and A-			
				GLONASS only			
7.4-13	Multi-path scenario: Sub-Test 13	Rel-12	C80er	All LTE UEs except	pc_eFDD		Rel-9
				Category M1/M2 UEs not	pc_eTDD		Rel-9
				supporting VoLTE. The	po_0.22		1.0.0
				UEs shall support A- GPS/Modernized GPS			
				and A-Galileo and A-BDS			
				only (Note 5)			
7.5-1	Moving scenario and periodic update: Sub-Test	Rel-9,	C01er	All LTE UEs except	pc_eFDD		Rel-9
	1 (Rel-9 to Rel-13)	Rel-10,		Category M1/M2 UEs not	pc_eTDD		Rel-9
		Rel-11,		supporting VoLTE. The			
		Rel-12,		UEs shall support A-GPS			
		Rel-13		L1C/A only			
7.5-2	Moving scenario and periodic update: Sub-Test	Rel-9,	C02er	All LTE UEs except	pc_eFDD		Rel-9
	2 (Rel-9 to Rel-13)	Rel-10,		Category M1/M2 UEs not	pc_eTDD		Rel-9
		Rel-11,		supporting VoLTE. The			
		Rel-12,		UEs shall support A-			
7.5.0	Maria a seconda a de aria dia condata Och Tast	Rel-13	000	GLONASS only			D.I.O.
7.5-3	Moving scenario and periodic update: Sub-Test	Rel-12,	C03er	All LTE UEs except Category M1/M2 UEs not	pc_eFDD	+	Rel-9
	3 (Rel-9 to Rel-13)	Rel-13		supporting VoLTE. The	pc_eTDD		Rel-9
				UEs shall support A-			
				Galileo only			
7.5-4	Moving scenario and periodic update: Sub-Test	Rel-9,	C04er	All LTE UEs except	pc_eFDD		Rel-9
∪ -τ	4 (Rel-9 to Rel-13)	Rel-10,	30401	Category M1/M2 UEs not	pc_eTDD	 	Rel-9
	(13.010.10)	Rel-11,		supporting VoLTE. The	P0_0100		11010
		Rel-12,		UEs shall support A-GPS			
		Rel-13		and Modernized GPS only			
7.5-5	Moving scenario and periodic update: Sub-Test	Rel-9,	C05er	All LTE UEs except	pc_eFDD		Rel-9
		,				i l	

	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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 Rel-9
7.5A-2		Rel-14	C35er		pc_eFDD	Rel-9

	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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 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 pc_eTDD	Rel-9 Rel-9
7.5A.11		Rel-14	C85er	9,	pc_eFDD	Rel-9

	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	pc_eTDD		Rel-9
				and A-GLONASS and A- BDS only and periodical reporting (Note 5)			
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	pc_eFDD		Rel-9
	12 (Rei-14 Offwards)			supporting VoLTE. The UEs shall support A- GPS/Modernized GPS and A-Galileo and A- GLONASS only and periodical reporting	pc_eTDD		Rel-9
7.5A-13	Moving scenario and periodic update: Sub-Test	Rel-14	C84er	All LTE UEs except	pc_eFDD		Rel-9
	13 (Rel-14 onwards)			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_eTDD		Rel-9
11	E-UTRA MBS measurement requirements Note 4						
11.1	MBS Measurement Reporting Delay (Release 13 only)	Rel-13 only	C31er	All UEs supporting UE- Assisted MBS	pc_eFDD pc_eTDD	_	Rel-9
11.1A	MBS Measurement Reporting Delay (Release 14 onwards)	Rel-14	C31er	All UEs supporting UE- Assisted MBS	pc_eFDD pc_eTDD	-	Rel-9
11.2	MBS Sensitivity Measurement Accuracy (Release 13 only)	Rel-13 only	C31er	All UEs supporting UE- Assisted MBS	pc_eFDD pc_eTDD	_	Rel-9
I1.2A	MBS Sensitivity Measurement Accuracy (Release 14 onwards)	Rel-14	C31er	All UEs supporting UE- Assisted MBS	pc_eFDD pc_eTDD		Rel-9
11.3	MBS Nominal Measurement Accuracy (Release 13 only)	Rel-13 only	C31er	All UEs supporting UE- Assisted MBS	pc_eFDD pc_eTDD		Rel-9
I1.3A	MBS Nominal Measurement Accuracy (Release 14 onwards)	Rel-14	C31er	All UEs supporting UE- Assisted MBS	pc_eFDD pc_eTDD		Rel-9
11.4	MBS Dynamic Range Measurement Accuracy (Release 13 only)	Rel-13 only	C31er	All UEs supporting UE- Assisted MBS	pc_eFDD pc_eTDD	_	Rel-9
11.4A	MBS Dynamic Range Measurement Accuracy (Release 14 onwards)	Rel-14	C31er	All UEs supporting UE- Assisted MBS	pc_eFDD pc_eTDD	_	Rel-9
11.5	MBS Measurement Accuracy in Multipath (Release 13 only)	Rel-13 only	C31er	All UEs supporting UE- Assisted MBS	pc_eFDD pc_eTDD	_	Rel-9
11.5A	MBS Measurement Accuracy in Multipath (Release 14 onwards)	Rel-14	C31er	All UEs supporting UE- Assisted MBS	pc_eFDD pc_eTDD	-	Rel-9
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 pc_eTDD	_	Rel-9
							•

12.1.2	WLAN AP Identification and reporting delay	Rel-14	C42er	All LTE UEs supporting	pc_eFDD		Rel-9
	under dynamic range conditions	(Note 3)		UE-Assisted WLAN	pc_eTDD		
12.2.1	Bluetooth identification	Rel-14	C43er	All LTE UEs supporting	pc_eFDD		Rel-9
		(Note 3)		UE-Assisted Bluetooth	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			Additio	nal Information	n	
			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 Indictor 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 Indictor 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 (felCIC)	Rel-9	C21er	All FDD UEs supporting E-CID with Rx-Tx time difference and CRS interference handling and Feature Group Indictor 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 (felCIC)	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 Indictor 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

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	Rel-10	C46er	Category 1bis FDD UEs	pc_eFDD		Rel-13 (Note
	Accuracy for UE Category 1bis			supporting UE-assisted OTDOA and inter- frequency RSTD measurements			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
9.4.1.1	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-	i-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-	l-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-	I-14
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-	l-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-	l-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-	l-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-	l-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-	i-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-	l-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-	pc_eTDD	Rel-14
9.4.6.2	TDD inter-frequency RSTD Measurement	Rel-13	C71er	frequency RSTD measurements All TDD Category M2	pc_eTDD	Rel-1
9.4.0.2	Reporting Delay in CE Mode B for Category M2	Kel-13		UEs supporting UE- assisted OTDOA, CE Mode B and inter- frequency RSTD measurements	·	Kei-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
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	pc_eFDD	Rel-14
				Mode B and inter- frequency RSTD measurements		
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
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 Category NB1 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 Category NB1 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 Category NB1 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 Category NB1 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 Category NB1 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 Category NB1 UEs supporting UE-assisted OTDOA and inter- frequency RSTD measurements			Rel-14
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
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
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.	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	(Note 2) 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
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
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.

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]. This test case can be optionally tested for E-UTRA Rel-9 and forward UEs with only 1Rx antenna. Note 2:

Note 3:

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

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.4.3-2/8 OR A.4.3-2/9 OR A.4.3-2/8 OR A.4.3-2/9 OR A.4.3-2/8 OR A.
000	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
0000.	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
0000.	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
0.00.	AND NOT (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.4.3-2/6 OR A.4.3-2/2)
01001	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
0200.	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-
02001	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
02 101	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
02001	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
00001	AND NOT (A.4.3-2/7 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A

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

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.4.1-3/3 AND A.4.3-2/4 THEN R ELSE N/A
C76er	IF A.4.1-1/5 AND A.4.1-3/1 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

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

Clause	Title	Release	Applicability	Comments	Number of TC Executions (informative)
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

COZUS 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 NA	
CO39.8 F.A.4.1-1/3 AND A.4.3-2/1 AND A.4.3-2/3 AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE NA CO59.8 F.A.4.1-1/3 AND (A.4.3-1/10 OR A.4.3-1/11) AND A.4.3-35 AND NOT (A.4.3-1/5 OR A.4.3-1/6) THEN R ELSE NA CO59.8 F.A.4.1-1/3 AND (A.4.3-1/10 OR A.4.3-1/11) AND A.4.3-35 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE NA CO79.8 F.A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/7 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE NA CO79.8 F.A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/7 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE NA CO39.8 F.A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/6 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE NA CO39.8 F.A.4.1-1/3 AND A.4.3-1/1 AND A.4.3-3/6 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE NA CO39.8 F.A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/6 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE NA CO39.8 F.A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 OR A.4.3-1/6 THEN R A.1-1/6 THEN R ELSE NA CO39.8 F.A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 OR A.4.3	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
COSUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/8 AND NOT (A.4.3-1/6) THEN R ELSE N/A COSUS IF A.4.1-1/3 AND (A.4.3-1/10 CA A.4.3-1/11) AND A.4.3-3/8 AND NOT (A.4.3-1/6) THEN R ELSE N/A COSUS IF A.4.1-1/3 AND (A.4.3-1/10 AND A.4.3-3/8 AND NOT (A.4.3-1/6) THEN R ELSE N/A COSUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/7 AND NOT (A.4.3-1/6) THEN R ELSE N/A COSUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/7 AND NOT (A.4.3-1/6) THEN R ELSE N/A COSUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/7 AND NOT (A.4.3-1/6) THEN R ELSE N/A COSUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/6 AND NOT (A.4.3-1/6) THEN R ELSE N/A COSUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/6 AND NOT (A.4.3-1/6) THEN R ELSE N/A COSUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/6) OR A.4.3-1/6) THEN R ELSE N/A COSUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/6) OR A.4.3-1/6) OR A.4.3-1/7	
COSUS F. A.4.1-1/3 AND (A.4.3-1/10 OR A.4.3-1/11) AND A.4.3-365 AND NOT (A.4.3-1/15) OR A.4.3-1/6) THEN R ELSE N/A	
COBUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/3 AND NOT (A.4.3-1/3 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/3 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/6 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE N/A CIOUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/6 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE N/A CIOUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE N/A CIOUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE N/A CIOUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/10 OR A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE N/A CIOUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.3-1/6 AND A.3-1/6 AND NOT (A.4.3-1/10 OR A.3-1/6 OR A.3-1/6 OR A.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 OR A.3-1/6 OR A.3-1/6 OR A.3-1/6 AND A.4.3-1/6 AND A.3-1/6 AND A.3-3/6 AND NOT (A.3-1/10 OR A.3-1/10 OR A.3-1/3) THEN R ELSE N/A CIOUS IF A.4-1-1/3 AND A.3-1/6 AND A.3-3-1/6 AND A.3-3/6 AND NOT (A.3-1/10 OR A.3-3-1/3) THEN R ELSE N/A CIOUS IF A.4-1-1/3 AND A.3-1/6 AND A.3-3-1/6 AND A.3-3/6 AND NOT (A.3-3-1/10 OR A.3-3-1/3) THEN R ELSE N/A CIOUS IF A.4-1-1/3 AND A.3-1/6 AND A.3-3-1/6	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
COTUS 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 COBUS 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.3-1/6) THEN R ELSE N/A COBUS 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.3-1/6) THEN R ELSE N/A COBUS 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.3-1/6) THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/7 OR A.4.3-1/6) THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/8) OR A.4.3-1/3) THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/6 AND A.4.3-1/8 AND NOT (A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/10 THEN R ELSE N/A COBUS 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.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A COBUS 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.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/10 THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/8 AND NOT (A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/10 THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 OR A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/10 THEN R ELSE N/A COBUS IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 OR A.4.3-1/10 OR	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
COBUSI F 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 COUSI F 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.3-1/6) THEN R ELSE N/A C10.5 F A.4.1-1/3 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/5 OR A.3-1/6) THEN R ELSE N/A C10.5 F A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/5 OR A.3-1/6) THEN R ELSE N/A C10.5 F A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/6 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C10.5 F A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/6 AND NOT (A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C10.5 F A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/6 AND A.4.3-1/8 AND NOT (A.4.3-1/7 OR A.4.3-1/8) OR A.4.3-1/3) THEN R ELSE N/A C10.5 F A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 CR A.4.3-1/10 CR A.3-1/10	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
CO9US IF A.4.1-1/3 AND A.4.3-3/16 AND A.4.3-3/6 AND NOT (A.4.3-1/6 OR A.4.3-1/6) THEN R ELSE N/A C11US IF A.4.1-1/3 AND A.4.3-3/16 AND A.4.3-3/6 AND NOT (A.4.3-1/6) OR A.4.3-1/8) OR A.4.3-1/3) THEN R ELSE N/A C12US 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.4.3-1/10 THEN R ELSE N/A C13US IF A.4.1-1/3 AND A.4.3-1/5 AND A.4.3-1/8 AND A.4.3-1/8 AND NOT (A.4.3-1/7 OR A.4.3-1/8) OR A.4.3-1/10 THEN R ELSE N/A C13US IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/8 AND A.4.3-1/8 AND NOT (A.4.3-1/7 OR A.4.3-1/10 OR A.4.3-1/10 THEN R ELSE N/A C13US IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/8 AND A.4.3-1/8 AND NOT (A.4.3-1/7 OR A.4.3-1/8) OR A.4.3-1/10 THEN R ELSE N/A C15US IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/7 AND NOT (A.4.3-1/7 AND A.4.3-1/7 AND	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
C1018 IF A.4.1-1/3 AND A.4.3-1/6 AND A.7.1/7 AND DOT (A.4.3-1/6) OR A.4.3-1/6) OR A.4.3-1/6 OR A.3-1/1/3 ITHEN R ELSE N/A C1218 IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3 ITHEN R ELSE N/A C1318 IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3 ITHEN R ELSE N/A C1518 IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3 ITHEN R ELSE N/A C1518 IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/19 OR A.4.3-1/3) ITHEN R ELSE N/A C1518 IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/19 OR A.4.3-1/19 OR A.4.3-1/13 ITHEN R ELSE N/A C1518 IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/19 OR A.4.3-1/13 ITHEN R ELSE N/A C1518 IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/19 AND NOT (A.4.3-1/10 OR A.4.3-1/19 OR A.4.3-1/13 ITHEN R ELSE N/A C1518 IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/19 AND NOT (A.4.3-1/10 OR A.4.3-1/19 OR A.4.3-1/13 ITHEN R ELSE N/A C1518 IF A.4.1-1/3 AND A.4.3-1/14 AND A.4.3-1/19 AND A.4.3-1/14 AND A.4.3-	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
Citus 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.4.3-1/6 OR A.4.3-1/3 THEN R ELSE WA Citus IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/8 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 WA Citus 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 WA Citus IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE WA Citus 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.4.3-1/13) THEN R ELSE WA Citus 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.4.3-1/7 OR A.4.3-1/13) THEN R ELSE WA Citus IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/9 OR A.4.3-1/10) THEN R ELSE WA Citus 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.4.3-1/10 OR A.4.3-1/10 OR 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
C12Us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1	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
C13us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A C15us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/3) GR A.4.3-1/3) 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.4.3-1/6) OR A.4.3-1/3) 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.4.3-1/6) OR A.4.3-1/3) THEN R ELSE N/A C15us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/7 OR A.4.3-1/9) OR A.4.3-1/3) THEN R ELSE N/A C15us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/10) 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.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10) OR A.4.3-1/13 THEN R ELSE N/A C20us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 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.4.3-1/3) THEN R ELSE N/A C20us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.3.3-1/10 OR A.4.3-1/7 OR A.4.3-1/8) OR A.4.3-1/3) THEN R ELSE N/A C20us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C22us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-3/6 AND A.4.3-3/6 AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C22us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.3-3/10 OR A.4.3-1/3) THEN R ELSE N/A C23us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/11 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/11 OR A.4.3-1/8) OR A.4.3-1/3) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/11 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/11 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND (A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/11 OR A.4.3-1/9 OR A.4.3-1/13) 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
C14us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/7 OR A.4.3-1/3) 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.4.3-1/1 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C17us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/8 AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C17us IF A.4.1-1/3 AND A.4.3-1/1 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.4.3-1/3) THEN R ELSE N/A C19us IF A.4.1-1/3 AND A.4.3-1/1 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.4.3-1/3) THEN R ELSE N/A C19us IF A.4.1-1/3 AND A.4.3-1/1 AND A.4.3-1/6 AND A.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A C20us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A C21us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/3) THEN R ELSE N/A C22us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C22us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/10 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.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/10 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.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/16 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C26us IF A.4.1-1/3 AND A.4.3-1/16 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/10) THEN R ELSE N/A C28us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/10) THEN R ELSE N/A C29us IF A.4.1-1/3 AND (A.4.3-1/10 OR A.4.3-1/10 AND A.4.3-1/10 AND A.4.3-1/10 AND A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1	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
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.4.3-1/8 OR A.4.3-1/3) 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.4.3-1/7 AND NOT (A.4.3-1/17 OR A.4.3-1/8 OR A.4.3-1/3) 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.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/3) 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 C20us IF A.4.1-1/3 AND A.4.3-1/16 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C21us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/6 AND A.4.3-1/8 AND A.4.3-1/6 AND NOT (A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C21us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/6 AND A.4.3-1/8 AND A.4.3-1/6 AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C23us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C23us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C23us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C23us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/8 OR A.3-1/1/3) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/7 OR A.4.3-1/8 OR A.3-1/1/3) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/1 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.3-1/7 OR A.4.3-1/8) OR A.3-1/1/3) THEN R ELSE N/A C25us IF A.4.1-1/3 AND (A.3-1/1 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.3-1/7 OR A.4.3-1/10 OR A.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND (A.3-1/15 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND (A.3-1/15 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-1/7 OR A.4.3-1/10 OR A.3-1/10 OR A.3-1/13) THEN R ELSE N/A C35us IF A.4.1-1/3 AND (A.3-1	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
C19us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/8 AND A.5.1/6 AND A.5.1/6 AND A.5.1/6 AND A.5.1/6 AND A.5.1/7 AND A.5.1/8 AND A.5.1/7 AND A.5.1/8 AND A.5	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
C19us 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 C19us IF A.4.1-1/3 AND A.4.3-1/1 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/10 OR A.4.3-1/3) 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.4.3-1/9 OR A.4.3-1/3) 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.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A C20us 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.4.3-1/10 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.4.3-1/7 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/10 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.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/11 OR A.4.3-1/9 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.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/14 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/17 OR A.4.3-1/9 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.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND (A.4.3-1/15 AND A.4.3-1/6) AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/10 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.4.3-1/5 AND A.4.3-1/6) AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/5 AND NOT (A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3	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
C38us IF A.4.1-1/3 AND A.4.3-1/16 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A C20us 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.4.3-1/3) THEN R ELSE N/A C20us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/8 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/8) OR A.4.3-1/3) THEN R ELSE N/A C21us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/8 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.4.3-1/3) THEN R ELSE N/A C22us 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.4.3-1/10 OR A.4.3-1/9) OR A.4.3-1/3) 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.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A C24us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 AND NOT (A.4.3-1/11 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A C26us IF A.4.1-1/3 AND (A.4.3-1/6 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.4.3-1/10 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.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/9	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
C20us IF A.4.1-1/3 AND A.4.3-1/5 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/6 OR A.4.3-1/3) THEN R ELSE N/A C20us IF A.4.1-1/3 AND A.4.3-1/5 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/6 OR A.4.3-1/3) THEN R ELSE N/A C21us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/5 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/3) THEN R ELSE N/A C22us IF A.4.1-1/3 AND A.4.3-1/10 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 C22us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/19 OR A.4.3-1/10) THEN R ELSE N/A C23us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/10 THEN R ELSE N/A C24us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/10 THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/6 AND A.4.3-1/8 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/19 OR A.4.3-1/13) THEN R ELSE N/A C26us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/8) OR A.4.3-1/3) THEN R ELSE N/A C27us IF A.4.1-1/3 AND (A.4.3-1/6 AND 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.4.3-1/8 OR A.4.3-1/8) OR A.4.3-1/8) THEN R ELSE N/A C29us IF A.4.1-1/3 AND (A.4.3-1/6 AND A.4.3-1/6) OR A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/10) OR (A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/10) OR A.4.3-1/10 OR	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
C20us IF A.4.1-1/3 AND A.4.3-1/5 AND A.4.3-1/6 AND A.4.3-2/6 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.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/10 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.4.3-1/9 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.4.3-1/8 AND A.4.3-1/6 AND NOT (A.4.3-1/11 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/17 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/1 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/17 OR A.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/1 AND A.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/19 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.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/8 OR A.4.3-1/3) 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.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/8 OR A.4.3-1/13) THEN R ELSE N/A C31us 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.4.3-1/10 OR A.4.3-1/7 OR 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.4.3-1/5 AND A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11)) AND A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A C31us 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.4.3-1/8 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.4.3-1/6 AND A.4.3-1/7 OR 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.4.3-1/14 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10) 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
C21us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/8 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.4.3-1/6 AND A.4.3-1/7 AND A.4.3-3/6 AND NOT (A.4.3-1/9 OR A.4.3-1/9) 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.4.3-1/9 AND A.4.3-3/6 AND NOT (A.4.3-1/11 OR A.4.3-1/9 OR A.4.3-1/9) OR A.4.3-1/13) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/14 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.4.3-1/9 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.4.3-1/7 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 C25us 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.4.3-1/9 OR A.4.3-1/9 OR A.4.3-1/3) 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.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/8 OR A.4.3-1/3) 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.4.3-1/10) OR (A.4.3-1/7 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.4.3-1/10)	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
C22us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/7 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.4.3-1/9 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.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/11 OR A.4.3-1/7 OR A.4.3-1/9 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.4.3-1/10 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 (IA.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 (IA.4.3-1/5 AND A.4.3-1/10) OR (A.4.3-1/11 OR A.4.3-1/8) OR A.4.3-1/3) THEN R ELSE N/A C31us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/10 AA.3-1/10 OR A.4.3-1/10 OR 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
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.4.3-1/1 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A C24us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-3/6 AND NOT (A.4.3-1/1 OR A.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/3) THEN R ELSE N/A C25us IF A.4.1-1/3 AND A.4.3-1/1 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/6 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.4.3-1/1 AND A.4.3-1/6 AND A.4.3-1/6 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.4.3-1/3) 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.4.3-1/3) 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.4.3-1/9 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.4.3-1/9 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.4.3-1/10 OR (A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/3) THEN R ELSE N/A C32us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/8 AND NOT (A.4.3-1/10 OR A.4.3-1/3) THEN R ELSE N/A C33us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A C33us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/6 AND A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A C33us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A C33us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/10 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.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/10 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	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
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.4.3-1/18 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.4.3-1/9) 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.4.3-1/7 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.4.3-3/6 AND NOT (A.4.3-1/11 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.4.3-1/3) 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.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/3) 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.4.3-1/11) AND A.4.3-1/11) AND A.4.3-1/3 OR A.4.3-1/3 THEN R ELSE N/A C31us IF A.4.1-1/3 AND ((A.4.3-1/6 AND A.4.3-1/11 OR A.4.3-1/10 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.4.3-1/7 AND NOT (A.4.3-1/10 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.4.3-1/7 AND NOT (A.4.3-1/10 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.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C33us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/8 OR A.4.3-1/10 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.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C35us IF A.4.1-1/3 AND A.4.3-1/10 OR A.4.3-1/6 AND	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
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.4.3-1/9 OR 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.4.3-1/10) OR A.4.3-1/10 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.4.3-1/8 AND NOT (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.4.3-1/10 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C33us IF A.4.1-1/3 AND A.4.3-1/10 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/10 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.4.3-1/7 AND NOT (A.4.3-1/10 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.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C35us IF A.4.1-1/3 AND (A.4.3-1/15 OR A.4.3-1/16) AND A.4.3-1/17 AND NOT (A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C35us IF A.4.1-1/3 AND (A.4.3-1/15 OR A.4.3-1/16) AND A.4.3-1/17 AND NOT (A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C35us IF A.4.1-1/3 AND (A.4.3-1/15 OR A.4.3-1/16) AND A.4.3-1/17 AND NOT (A.4.3-1/110 OR A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C35us IF A.4	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
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.4.3-1/8) 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.4.3-1/9 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.4.3-1/10 NOT (A.4.3-1/11 OR A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C32us IF A.4.1-1/3 AND A.4.3-1/4 AND A.4.3-1/6 AND A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/13 THEN R ELSE N/A C33us IF A.4.1-1/3 AND A.4.3-1/1 AND A.4.3-1/6 AND A.4.3-1/7 OR A.4.3-1/10 OR A.4.3-1/13 THEN R ELSE N/A C34us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C35us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/13) THEN R ELSE N/A C35us IF A.4.1-1/3 AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/19 OR 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
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.4.3-1/9 OR A.4.3-1/9 OR A.4.3-1/9 OR A.4.3-1/9 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.4.3-1/6 AND A.4.3-1/7 AND NOT (A.4.3-1/11)) AND 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.4.3-1/7 OR A.4.3-1/8 OR A.4.3-1/13) THEN R ELSE N/A C32us 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.4.3-1/8 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.4.3-1/10 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.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/9 OR A.4.3-1/9 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.4.3-1/9 OR A.4.3-1/13) THEN R ELSE N/A C37us IF A.4.1-1/3 AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/6 AND A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/7 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.4.3-1/6 AND A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/13) THEN R ELSE N/A C39us IF A.4.1-1/3 AND (A.4.3-1/5 AND A.4.3-1/6) AND A.4.3-1/6 AND A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/13 THEN R ELSE N/A C39us IF A.4.1-1/3 AND (A.4.3-1/5 AND A.4.3-1/6) AND A.4.3-1/6 AND A.4.3-1/6 AND A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/13 THEN R ELSE N/A C39us IF A.4.1-1/3 AND (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
N/A C38us 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.4.3-1/10 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 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 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.4.3-1/9 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.4.3-1/6 AND A.4.3-1/7 OR A.4.3-1/7 OR A.4.3-1/9 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.4.3-1/7 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.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/9 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.4.3-1/7 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 C37us IF A.4.1-1/3 AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/6 AND A.4.3-1/11 OR A.4.3-1/10 OR A.4.3-1/9 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 OR A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11) AND A.4.3-1/10 OR 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 C39us 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.4.3-1/9 OR A.4.3-1/3 THEN R ELSE N/A C31us 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.4.3-1/9 OR A.4.3-1/3) THEN R ELSE N/A C32us IF A.4.1-1/3 AND A.4.3-1/1 AND A.4.3-1/9 AND NOT (A.4.3-1/11 OR A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/3) 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.4.3-1/7 AND NOT (A.4.3-1/10 OR A.4.3-1/3) 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.4.3-1/10 OR A.4.3-1/3) 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.4.3-1/8 OR A.4.3-1/8 OR A.4.3-1/9 OR A.4.3-1/3 OR A.4.3-1/3 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.4.3-1/3 THEN R ELSE N/A C37us IF A.4.1-1/3 AND (A.4.3-1/5 OR A.4.3-1/6) AND A.4.3-1/6 AND A.4.3-1/11 OR A.4.3-1/11 OR A.4.3-1/10 OR A.4.3-1/7 OR A.4.3-1/9 OR A.4.3-1/3 THEN R ELSE N/A C39us IF A.4.1-1/3 AND ((A.4.3-1/5 OR A.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11) AND A.4.3-1/10 OR A.4.3-1/10 O	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 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.4.3-1/9 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.4.3-1/9 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.4.3-1/11 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 C35us 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.4.3-1/10 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.4.3-1/10 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.4.3-1/10) AND A.4.3-1/11) AND 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.4.3-1/10) AND A.4.3-1/11) AND A.4.3-1/13) THEN R ELSE N/A C39us 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.4.3-1/13) THEN R ELSE N/A C39us IF A.4.1-1/3 AND (A.4.3-1/5 AND A.4.3-1/6) AND A.4.3-1/6 AND A.4.3-1/10) OR 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 AND A.4.3-1/6) AND A.4.3-1/6 OR A.4.3-1/10) OR 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 AND A.4.3-1/6) AND A.4.3-1/6 OR A.4.3-1/7 AND NOT (A.4.3-1/7 AND NOT (A.4.3-1/13) THEN R ELSE N/A C41us IF A.4.3-1/10 AND A.4.3-1/5 AND A.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/7 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.4.3-1/8) OR A.4.3-1/3) 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.4.3-1/3) THEN R ELSE N/A C32us IF A.4.1-1/3 AND A.4.3-1/11 AND A.4.3-1/6 AND A.4.3-1/17 AND NOT (A.4.3-1/7 OR A.4.3-1/8) OR A.4.3-1/3) 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.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/8 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.4.3-1/7 OR 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 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 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.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11) AND A.4.3-1/7 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.4.3-1/10) OR (A.4.3-1/6 AND A.4.3-1/11) AND A.4.3-1/7 OR A.4.3-1/13 THEN R ELSE N/A C41us IF A.4.3-1/10 AND A.4.3-1/13 AND NOT (A.4.3-1/10 OR A.4.3-1/17) 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
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.4.3-1/10 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.4.3-1/9 OR 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.4.3-1/9 AND NOT (A.4.3-1/11 OR A.4.3-1/10 OR A.4.3-1/10 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.4.3-1/11)) AND A.4.3-1/10) AND 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 OR 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 AND A.4.3-1/6) AND A.4.3-1/6 OR A.4.3-1/9 OR A.4.3-1/7 THEN R ELSE N/A C40us IF A.4.1-1/3 AND (A.4.3-1/13 AND NOT (A.4.3-1/10 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.4.3-1/13 AND NOT (A.4.3-1/13 AND N	
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.4.3-1/10 OR A.4.3-1/10 OR A.4.3-1/8 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.4.3-1/7 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.4.3-1/11)) AND A.4.3-1/9 AND NOT (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 AND A.4.3-1/10) OR (A.4.3-1/6 OR A.4.3-1/7) 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.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A C41us IF A.4.3-1/10 AND A.4.3-1/13 AND NOT (A.4.3-1/13 AND NOT (A.4.3-1/9 OR A.4.3-1/7) THEN R ELSE N/A	
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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.4.3-1/9 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.4.3-1/9 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.4.3-1/10) OR A.4.3-1/9 OR A.4.3-1/7) 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.4.3-1/9 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	
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.4.3-1/9 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	
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.4.3-1/9 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	
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.4.3-1/9 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	
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	
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	
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	
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 OP A 4.3-1/8 OP A 4.3-1/9 OP A 4.3-1/7) THEN P ELSE N/A	
C4203 IF A.4.3-1/0 AND A.4.3-1/13 AND NOT (A.4.3-1/11 OK A.4.3-1/3 OK A.4.3-1/1) ITTEN IX 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	pc_eFDD 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
7.2.2.1_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	pc_eFDD pc_eTDD			Rel-9 Rel-9
7.2.2.2_6FDDs	Basic Self Location: UE-assisted: Subtest 6 (FDD)	Rel-9	C10es	location estimate 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-	pc_eFDD			Rel-9
				LR request for location estimate	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	pc_eFDD			Rel-9
				MO-LR request for location estimate	Pc_eTDD			Rel-9
7.2.2.2_14s	Basic Self Location: UE-assisted: Subtest 14	Rel-13 only	C62es	All UEs supporting UE-	pc_eFDD			Rel-9
	UE supporting Sensor (Rel-13 only)			assisted Sensor and MO- LR request for location estimate	pc_eTDD			Rel-9
7.2.2.2_15s	Basic Self Location: UE-assisted: Subtest 15	Rel-9 ⁽²⁾	C65es	All UEs supporting UE-	pc_eFDD			Rel-9
				assisted GNSS ⁽¹⁾ and MO-LR request for location estimate	pc_eTDD			Rel-9
7.2.2.2_16s	Basic Self Location: UE-assisted: Subtest 16	Rel-14	C53es	All UEs supporting UE-	pc_eFDD			Rel-9
	UE supporting MBS (Rel-14 onwards)			assisted MBS and MO- LR request for location estimate	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
7.3.2.1	LPP Duplicated Message	D-LO	C11es	All UEs supporting LPP	pc_eTDD pc_eFDD			Rel-9 Rel-9
7.3.2.1	LPP Duplicated Message	Rel-9	Cities	All DES supporting LPP	pc_eFDD pc_eTDD			Rel-9
7.3.2.2	LPP Acknowledgment	Rel-9	C11es	All UEs supporting LPP	pc_eFDD			Rel-9
1.3.2.2	Li i Ackilowieugilielit	1/61-9	01169	All OLS Supporting LFF	pc_eFDD pc_eTDD			Rel-9
7.3.2.3	LPP Retransmission	Rel-9	C36es	All UEs supporting LPP	pc_eFDD			Rel-9
	2	71010	5555	and support of sending of acknowledgement request in LPP Provide Capabilities message.	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 pc_eTDD			Rel-9 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 pc_eTDD			Rel-9 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
7.3.4.2_1s	Void				pc_eTDD			Rel-9
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 pc_eTDD			Rel-9 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 pc_eTDD			Rel-9 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	Rel-13 only	C59es	All UEs supporting UE- assisted WLAN	pc_eFDD pc_eTDD			Rel-9 Rel-9
7.3.4.2_12s	supporting WLAN (Rel-13 only) E-SMLC Initiated Location Information Transfer: UE-assisted: Subtest 12 UE	Rel-13 only	C55es	All UEs supporting UE- assisted MBS	pc_eFDD pc_eTDD			Rel-9 Rel-9
7.3.4.2_13s	supporting MBS (Rel-13 only) E-SMLC Initiated Location Information Transfer: UE-assisted: Subtest 13	Rel-13	C61es	All UEs supporting UE- assisted Bluetooth	pc_eFDD pc_eTDD			Rel-9 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 pc_eTDD			Rel-9 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 pc_eTDD			Rel-9 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 pc_eTDD			Rel-9 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 pc_eTDD			Rel-9 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	lity 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	Rel-9 ⁽²⁾	C66es	All UEs supporting UE- based GNSS ⁽¹⁾	pc_eFDD pc_eTDD			Rel-9 Rel-9
7.3.4.3_16s	E-SMLC Initiated Position Measurement	Rel-14	C70es	All UEs supporting UE-	pc_eFDD			Rel-9
7.0.4.0_100	without assistance data: UE-Based: Subtest 16 UE supporting MBS (Rel-14 onwards)	1101 14	07003	based MBS	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
7.3.4.4_1s	Void				pc_eTDD			Rel-9
7.3.4.4_13	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	Rel-9	C26es	All UEs supporting UE-	pc_eFDD			Rel-9
	without assistance data: UE-assisted: Subtest 5			Assisted OTDOA	pc_eTDD			Rel-9
7.3.4.4_7s	E-SMLC Initiated Position Measurement	Rel-9	C21es	All UEs supporting UE-	pc_eFDD			Rel-9
	without assistance data: UE-assisted: Subtest 7			assisted GNSS and UE- assisted OTDOA	pc_eTDD			Rel-9
7.3.4.4_8s	Void							

Clause	TC Title Release of LPP		Applicability	licability 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 pc_eTDD			Rel-9 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 pc_eTDD			Rel-9 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
7.3.4.4_18s	E-SMLC Initiated Position Measurement	Rel-14	C63es	All UEs supporting UE-	pc_eTDD pc_eFDD			Rel-9 Rel-9
	without assistance data: UE-assisted: Subtest 18 UE supporting Sensor (Rel-14 onwards)			assisted Sensor	, -			
	,				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-	pc_eFDD			Rel-9
7.3.5.1_8s	Void			assisted OTDOA	pc_eTDD			Rel-9
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 pc_eTDD			Rel-9 Rel-9
7.3.5.1_12s	E-SMLC initiated Abort: Subtest 12 UE	Rel-13 only	C55es	All UEs supporting UE-	pc_eFDD			Rel-9
7.3.5.1_13s	supporting MBS (Rel-13 only) E-SMLC initiated Abort: Subtest 13	Rel-13	C61es	assisted MBS All UEs supporting UE-	pc_eTDD pc_eFDD			Rel-9 Rel-9
1.3.3.1_138	E-SIVILO IIIIIIaled Abort: Subtest 13	Kel-13	Coles	assisted Bluetooth				
				accided Biddloom	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-	pc_eFDD			Rel-9
				based or UE-assisted GNSS ⁽¹⁾	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
	supporting MDS (IVEI-14 Onwards)			assisted WIDO	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	Rel-9	C12es	All UEs supporting MO-	pc_eFDD			Rel-9
	EPC-MO-LR			LR procedure for location estimate in the CS fallback in EPS.	pc_eTDD			Rel-9
7.4.1.2	CS fallback: UE does not support EPC-MO-	Rel-9	C13es	All UEs not supporting	pc_eFDD			Rel-9
	LR			EPC-MO-LR and supporting MO-LR procedure for location estimate in the CS fallback in EPS.	pc_eTDD			Rel-9
7.5	RRC Protocol Procedures							
7.5.1	Inter-Frequency RSTD measurement	Rel-10	C37es	All UEs supporting inter-	pc_eFDD			Rel-10
	indication CNSS combination of CPS GLONASS Combination			frequency RSTD measurements for OTDOA that require measurement gaps.	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

004 14:1	
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		
			Condition	Comment ⁽⁴⁾	Release RAT
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		Rel-13 only	C06ns	All UEs supporting UE-Assisted WLAN	Rel-15
9.3.1.2_12s		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		Rel-14	C06ns	All UEs supporting UE-Assisted WLAN	Rel-15
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⁾	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 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
9.3.4.2_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

Clause	TC Title	Release of LPP	Applicability		
			Condition	Comment ⁽⁴⁾	Release RAT
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
9.3.4.3_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
9.3.4.4_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

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
NOTE 3: Void

NOTE 4: The required support of RAN-CN Interface Options is given in Table 4-10.

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

CO1ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.2-1/1 THEN R ELSE N/A CO2ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 THEN R ELSE N/A CO3ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 THEN R ELSE N/A CO3ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 THEN R ELSE N/A CO4ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 THEN R ELSE N/A CO5ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 THEN R ELSE N/A CO5ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 THEN R ELSE N/A CO5ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 THEN R ELSE N/A CO5ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 THEN R ELSE N/A CO5ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 OR A.	
C03ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 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 C05ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/21 THEN R ELSE N/A C05ns 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.4.3-2/21 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.4.3-2/22 OR A.4.3-2/23) AND NOT (A.4.3-2/2 AND A.4.3-2/2 AND A.4.3-2/2 AND A.4.3-2/2 OR A.4.3-2/2 OR A.4.3-2/20 OR 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.4.3-2/3 THEN R ELSE N/A C10ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/21 THEN R ELSE N/A C11ns 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 C11ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/28 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/27 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/27 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/27 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/28 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/28 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/28 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/28 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/28 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/28 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/28 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/28 THEN R ELSE N/A	C01ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.2-1/1 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.4.3-2/21 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.4.2-1/1 THEN R ELSE N/A C08ns IF (A.4.1-4/1 AND (A.4.3-2/2 OR A.4.3-2/2 OR	C02ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/4 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.4.3-2/20 OR A.4.3-2/20 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.4.3-2/20 AND A.4.3-2/20 OR A.4.3-2/20	
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.4.2-1/1 THEN R ELSE N/A C08ns IF (A.4.1-4/1 AND (A.4.3-2/2 OR A.4.3-2/2 OR A.4.3-2/2 OR A.4.3-2/2 OR A.4.3-2/2 OR A.4.3-2/2 AND A.4.3-2/2 AND A.4.3-2/2 OR A.4.3-2/2 OR A.4.3-2/2 OR A.4.3-2/2 OR A.4.3-2/2 AND A.4.3-2/2 AND A.4.3-2/2 OR	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
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.4.3-2/23) AND NOT (A.4.3-2/2 AND A.4.3-2/2 AND A.4.3-2/20 AND A.4.3-2/20 OR A.4.	
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) AND NOT (A.4.3-2/2 AND A.4.3-2/4 AND A.4.3-2/20 AND A.4.3-2/20 OR A.4.3-2/20 OR A.4.3-2/20 OR A.4.3-2/20 OR A.4.3-2/21 OR	C06ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/21 THEN R ELSE N/A
2/21 AND A.4.3-2/22 AND A.4.3-2/23)) 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.4.3-2/21 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.4.3-2/23)) THEN R ELSE N/A C09ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/3 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.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 THEN R ELSE N/A C15ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 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	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
(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	
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	
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	(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
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	C09ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/23 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	C10ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/1 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	C11ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/26 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	C12ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/27 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	C13ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/28 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	C14ns IF (A.4.1-4/1 OR A.4.1-4/4) AND A.4.3-2/2 THEN R ELSE N/A
C17ns Void	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
C18ns Void	C17ns Void
	C18ns Void

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

13.2.1-12	Sensitivity Coarse Time Assistance: Sub-Test	Rel-12	C27nr	All FR1 NR UEs. The UEs	Rel-15
	12			shall support A- GPS/Modernized GPS	
				and A-Galileo and A-	
10.0.1.10		D 140	000	GLONASS only	B 145
13.2.1-13	Sensitivity Coarse Time Assistance: Sub-Test	Rel-12	C28nr	All FR1 NR UEs. The UEs shall support A-	Rel-15
	10			GPS/Modernized GPS	
				and A-Galileo and A-BDS	
		5.10		only (Note 1)	
13.2.2-1	Sensitivity Fine Time Assistance: Sub-Test 1	Rel-9	C06nr	All FR1 NR UEs supporting EN-DC. The	Rel-15
				UEs shall support A-GPS	
				L1C/A only, and Fine	
				Time Assistance	
		Rel-15	C34nr	All FR1 NR UEs	Rel-15
				supporting NG-RAN NR. The UEs shall support A-	
				GPS L1C/A only, and Fine	
				Time Assistance	
13.2.2-2	Sensitivity Fine Time Assistance: Sub-Test 2	Rel-9	C07nr	All FR1 NR UEs	Rel-15
				supporting EN-DC. The UEs shall support A-	
				GLONASS only, and Fine	
				Time Assistance	
		Rel-15	C35nr	All FR1 NR UEs	Rel-15
				supporting NG-RAN NR.	
				The UEs shall support A- GLONASS only, and Fine	
				Time Assistance	
13.2.2-3	Sensitivity Fine Time Assistance: Sub-Test 3	Rel-12	C08nr	All FR1 NR UEs	Rel-15
				supporting EN-DC. The	
				UEs shall support A- Galileo only, and Fine	
				Time Assistance	
		Rel-15	C36nr	All FR1 NR UEs	Rel-15
				supporting NG-RAN NR.	
				The UEs shall support A- Galileo only, and Fine	
				Time Assistance	
13.2.2-4	Sensitivity Fine Time Assistance: Sub-Test 4	Rel-9	C09nr	All FR1 NR UEs	Rel-15
				supporting EN-DC. The	
				UEs shall support A-GPS and Modernized GPS	
				only, and Fine Time	
				Assistance	
		Rel-15	C37nr	All FR1 NR UEs	Rel-15
				supporting NG-RAN NR. The UEs shall support A-	
				GPS and Modernized	
				GPS only, and Fine Time	
				Assistance	

13.2.2-5	Consistivity Fine Time Assistance, Cub Test F	Rel-9	C10nr	All FR1 NR UEs	1	1	Rel-15
13.2.2-5	Sensitivity Fine Time Assistance: Sub-Test 5	Rei-9	CTON				Kei-15
				supporting EN-DC. The			
				UEs shall support A-			
				GPS/Modernized GPS			
				and A-GLONASS only,			
				and Fine Time Assistance			
		Rel-15	C38nr	All FR1 NR UEs			Rel-15
				supporting NG-RAN NR.			
				The UEs shall support A-			
				GPS/Modernized GPS			
				and A-GLONASS only,			
				and Fine Time Assistance			
13.2.2-8	Sensitivity Fine Time Assistance: Sub-Test 8	Rel-12	C16nr	All FR1 NR UEs			Rel-15
13.2.2-0	Sensitivity Fine Time Assistance. Sub-Test o	Kel-12	CTOIL	supporting EN-DC. The			Kei-15
				supporting EN-DC. The			
				UEs shall support A-			
				GPS/Modernized GPS			
				and A-Galileo only, and			
				Fine Time Assistance			
		Rel-15	C39nr	All FR1 NR UEs			Rel-15
				supporting NG-RAN NR.			
				The UEs shall support A-			
				GPS/Modernized GPS			
				and A-Galileo only, and			
				Fine Time Assistance			
13.2.2-9	Sensitivity Fine Time Assistance: Sub-Test 9	Rel-12	C13nr	All FR1 NR UEs			Rel-15
13.2.2-9	Sensitivity Fine Fine Assistance. Sub-Test 9	Nei-12	CTSIII	supporting EN-DC. The			Kei-13
				UEs shall support A-BDS			
				UES SHAII SUPPORT A-BDS			
				only, and Fine Time			
				Assistance (Note 1)			
		Rel-15	C40nr	All FR1 NR UEs			Rel-15
				supporting NG-RAN NR.			
				The UEs shall support A-			
i				BDS only, and Fine Time			
				Assistance (Note 1)			
13.2.2-10	Sensitivity Fine Time Assistance: Sub-Test 10	Rel-12	C14nr	All FR1 NR UEs			Rel-15
	2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		•	supporting EN-DC. The			1
				UEs shall support A-			
				GPS/Modernized GPS			
				and A-BDS only, and Fine			
				Time Assistance (Note 1)			
		Del 45	C41nr	All FR1 NR UEs			Dal 45
		Rel-15	C41nr				Rel-15
				supporting NG-RAN NR.			
				The UEs shall support A-			
				GPS/Modernized GPS			
				and A-BDS only, and Fine			
				Time Assistance (Note 1)			
13.2.2-11	Sensitivity Fine Time Assistance: Sub-Test 11	Rel-12	C18nr	All FR1 NR UEs			Rel-15
				supporting EN-DC. The			
				UEs shall support A-			
				GPS/Modernized GPS			
				and A-GLONASS and A-			
				BDS only, and Fine Time			
				Assistance (Note 1)			
				Assistance (Note 1)			

	1 1	D 145	0.40	TAU ED AND LIE	1 5 145
		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

13.3-8	Nominal Accuracy: Sub-Test 8	Rel-12	C15nr	All FR1 NR UEs. The UEs	Rel-15
.0.0	Tromman / too an aboy? Gub Troot o	1.0	0 . 0	shall support A-	1.66
				GPS/Modernized GPS	
				and A-Galileo only	
13.3-9	Nominal Accuracy: Sub-Test 9	Rel-12	C11nr	All FR1 NR UEs. The UEs	Rel-15
	·			shall support A-BDS only	
				(Note 1)	
13.3-10	Nominal Accuracy: Sub-Test 10	Rel-12	C12nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A-	
				GPS/Modernized GPS	
				and A-BDS only (Note 1)	
13.3-11	Nominal Accuracy: Sub-Test 11	Rel-12	C17nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A-	
				GPS/Modernized GPS	
				and A-GLONASS and A-	
10.0.10	N : 14	D 140	207	BDS only (Note 1)	5.145
13.3-12	Nominal Accuracy: Sub-Test 12	Rel-12	C27nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A- GPS/Modernized GPS	
				and A-Galileo and A-	
				GLONASS only	
13.3-13	Nominal Accuracy: Sub-Test 13	Rel-12	C28nr	All FR1 NR UEs. The UEs	Rel-15
13.5-13	Norminal Accuracy. Sub-Test 15	1/61-12	CZOIII	shall support A-	IVer-13
				GPS/Modernized GPS	
				and A-Galileo and A-BDS	
				only (Note 1)	
13.4-1	Dynamic Range: Sub-Test 1	Rel-9	C01nr	All FR1 NR UEs. The UEs	Rel-15
	,			shall support A-GPS	
				L1C/A only	
13.4-2	Dynamic Range: Sub-Test 2	Rel-9	C02nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A-	
				GLONASS only	
13.4-3	Dynamic Range: Sub-Test 3	Rel-12	C03nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A-Galileo	
				only	
13.4-4	Dynamic Range: Sub-Test 4	Rel-9	C04nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A-GPS and	
10.15		D 10	205	Modernized GPS only	5.145
13.4-5	Dynamic Range: Sub-Test 5	Rel-9	C05nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A- GPS/Modernized GPS	
				and A-GLONASS only	
13.4-8	Dynamic Range: Sub-Test 8	Rel-12	C15nr	All FR1 NR UEs. The UEs	Rel-15
10.7 0	Dynamic Range. Sab 1660	NOI-12	010111	shall support A-	1.01-13
				GPS/Modernized GPS	
				and A-Galileo only	
13.4-9	Dynamic Range: Sub-Test 9	Rel-12	C11nr	All FR1 NR UEs. The UEs	Rel-15
-	5			shall support A-BDS only	
				(Note 1)	
13.4-10	Dynamic Range: Sub-Test 10	Rel-12	C12nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A-	
				GPS/Modernized GPS	
				and A-BDS only (Note 1)	

13.4-11	Dynamic Range: Sub-Test 11	Rel-12	C17nr	All FR1 NR UEs. The UEs	Rel-15
13.4 11	Dynamic Range. Oub 163(11	TOPTE	017111	shall support A-	TKCF 13
				GPS/Modernized GPS	
				and A-GLONASS and A-	
				BDS only (Note 1)	
13.4-12	Dynamic Range: Sub-Test 12	Rel-12	C27nr	All FR1 NR UEs. The UEs	Rel-15
10.1 12	Byttamio range. Gas 1660 12	1101 12	027111	shall support A-	110110
				GPS/Modernized GPS	
				and A-Galileo and A-	
				GLONASS only	
13.4-13	Dynamic Range: Sub-Test 13	Rel-12	C28nr	All FR1 NR UÉs. The UEs	Rel-15
	, ,			shall support A-	
				GPS/Modernized GPS	
				and A-Galileo and A-BDS	
				only (Note 1)	
13.5-1	Multi-path scenario: Sub-Test 1	Rel-9	C01nr	All FR1 NR ÚEs. The UEs	Rel-15
				shall support A-GPS	
				L1C/A only	
13.5-2	Multi-path scenario: Sub-Test 2	Rel-9	C02nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A-	
				GLONASS only	
13.5-3	Multi-path scenario: Sub-Test 3	Rel-12	C03nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A-Galileo	
				only	
13.5-4	Multi-path scenario: Sub-Test 4	Rel-9	C04nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A-GPS and	
10.5.5	14 H: 11 : 0 T 15	D 10	205	Modernized GPS only	D 145
13.5-5	Multi-path scenario: Sub-Test 5	Rel-9	C05nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A- GPS/Modernized GPS	
				and A-GLONASS only	
13.5-8	Multi-path scenario: Sub-Test 8	Rel-12	C15nr	All FR1 NR UEs. The UEs	Rel-15
13.3-0	Multi-patif scenario. Sub-Test o	Nei-12	CTSIII	shall support A-	Kel-13
				GPS/Modernized GPS	
				and A-Galileo only	
13.5-9	Multi-path scenario: Sub-Test 9	Rel-12	C11nr	All FR1 NR UEs. The UEs	Rel-15
10.0 0	Walti pati socilario. Cab Test s	TOT 12	011111	shall support A-BDS only	1101 10
				(Note 1)	
13.5-10	Multi-path scenario: Sub-Test 10	Rel-12	C12nr	All FR1 NR UEs. The UEs	Rel-15
10.0 10	Main pair occitano. Cab i con re	1101 12	012	shall support A-	1101 10
				GPS/Modernized GPS	
				and A-BDS only (Note 1)	
13.5-11	Multi-path scenario: Sub-Test 11	Rel-12	C17nr	All FR1 NR UEs. The UEs	Rel-15
	· '			shall support A-	
				GPS/Modernized GPS	
				and A-GLONASS and A-	
				BDS only (Note 1)	
13.5-12	Multi-path scenario: Sub-Test 12	Rel-12	C27nr	All FR1 NR UEs. The UEs	Rel-15
				shall support A-	
				GPS/Modernized GPS	
				and A-Galileo and A-	
				GLONASS only	

13.5-13	Multi-path scenario: Sub-Test 13	Rel-12	C28nr	All FR1 NR UEs. The UEs		Rel-15
				shall support A- GPS/Modernized GPS and A-Galileo and A-BDS only (Note 1)		
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

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

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13.7-13	Moving scenario and periodic update: Sub-Test	Rel-14	C32nr	All FR1 NR UEs. The UEs				Rel-15
	13 (Rel-14 onwards)			shall support A-				
				GPS/Modernized GPS				
				and A-Galileo and A-BDS				
				only and periodical				
				reporting (Note 1)				
Note 1:	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

C01nr	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 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
C02nr	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.4.3-2/7 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
C03nr	IF (Á.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.4.3-2/9 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
C04nr	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.4.3-2/8 AND NOT (A.4.3-2/7 OR A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A
C05nr	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 NOT (A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A
C06nr	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 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
C07nr	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.4.3-2/7 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
C08nr	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.4.3-2/9 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
C09nr	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.4.3-2/8 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
C10nr	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 NOT (A.4.3-2/9 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A
C11nr	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.4.3-2/18 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
C12nr	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.4.3-2/18 AND NOT (A.4.3-2/7 OR A.4.3-2/9) THEN R ELSE N/A
C13nr	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.4.3-2/18 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
C14nr	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.4.3-2/18 AND NOT (A.4.3-2/7 OR A.4.3-2/9) AND A.4.3-2/3 THEN R ELSE N/A
C15nr	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 NOT (A.4.3-2/7 OR A.4.3-2/18) THEN R ELSE N/A
C16nr	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 NOT (A.4.3-2/7 OR A.4.3-2/18) AND A.4.3-2/3 THEN R ELSE N/A
C17nr	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.4.3-2/18 AND NOT A.4.3-2/9 THEN R ELSE N/A
C18nr	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.4.3-2/18 AND NOT A.4.3-2/9 AND A.4.3-2/3 THEN R ELSE N/A
C19nr	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 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
C20nr	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.4.3-2/7 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
C21nr	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.4.3-2/9 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
C22nr	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.4.3-2/8 AND NOT (A.4.3-2/7 OR A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A
C23nr	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 NOT (A.4.3-2/9 OR A.4.3-2/18) THEN R ELSE N/A

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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 UEUT name	User Equipment Under Test (UEUT) identification
Hardware co	onfiguration:
Software co	nfiguration:
A.2.3 Name:	Product supplier
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				Refer to 3GPP TS 36.523-2 [11] Table A.4.1-1/8
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
	l l l l l l l l l l l l l l l l l l l	00.000	D 1 10		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	Rel-12	Support of Half-duplex FDD
		36.306, 4.2.6		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	Services 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_TimingOfCel IFramesSup	
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_PositioningStandaloneLocMet hodsSup	
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	UE Positioning Capabilities	Ref.	Releas e	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	NSS	This implies support of LPP A.4.2-1/1
3	Support of GNSS Fine Time Assistance	36.355	Rel-9 (E- UTRA and NR EN- DC) Rel-15 (NR NG- RAN NR)	ŤΑ	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	ASS	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_MG PS	This implies support of LPP A.4.2-1/1
9	Support for A-Galileo	36.355	Rel-12	pc_A_Galile o	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	Rel-9 (E- UTRA and NR EN- DC) Rel-15 (NR NG- RAN NR)	pc_GNSS_F TA_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	Rel-9 (E- UTRA and NR EN- DC) Rel-15 (NR NG- RAN NR)	pc_GNSS_F TA_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_A A	This implies support of LPP A.4.2-1/1
	Support for A-SBAS	36.355	Rel-9	pc_A_SBAS	
	Support for A-QZSS	36.355		pc_A_QZSS	
15	Support of UE assisted OTDOA for Carrier Aggregation	36.355	Kel-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_MB S	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_Bluetoot h	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_MB S	This implies support of LPP A.4.2-1/1
27	Support for UE-Based WLAN	36.355	Rel-14	pc_UEB_WL AN	This implies support of LPP A.4.2-1/1
28	Support for UE-Based Sensor	36.355	Rel-14	pc_UEB_Se ns	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.

Table A.4.3-3: Supplementary Services

Item	UE Positioning Capabilities	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_CSFall back	
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

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.4.3-3A: OTDOA Measurements

1Support of interFreqRSTDmeasurement36.355, 6.5.1.7Rel-10pc_OTDOA_interFreqRS TDmeasurement2Support of additionalNeighbourCellInfoList36.355, 6.5.1.7Rel-10pc_OTDOA_additionalNe ighbourCellInfoList3Support of prs-id36.355, 6.5.1.7Rel-14pc_OTDOA_prs_id4Support of tp-separation-via-muting36.355, 6.5.1.7Rel-14pc_OTDOA_tp_separation n_via_muting5Support of additional-prs-config36.355, 6.5.1.7Rel-14pc_OTDOA_additional_p rs_config6Support of prs-based-tbs36.355, 6.5.1.7Rel-14pc_OTDOA_prs_based_t bs7Support of additionalPathsReport36.355, 6.5.1.7Rel-14pc_OTDOA_additionalPa thsReport8Support of densePrsConfig36.355, 6.5.1.7Rel-14pc_OTDOA_densePrsCo nfig9Support of maxSupportedPrsBandwidth36.355, 6.5.1.7Rel-14pc_OTDOA_maxSupport edPrsBandwidth	
2 Support of additionalNeighbourCellInfoList 3 Support of prs-id 4 Support of tp-separation-via-muting 5 Support of prs-based-tbs 6 Support of prs-based-tbs 7 Support of additionalPathsReport 8 Support of densePrsConfig 9 Support of maxSupportedPrsBandwidth 8 Support of additionalPathsReport 9 Support of maxSupportedPrsBandwidth 9 Separation	
additionalNeighbourCellInfoList 3 Support of prs-id 4 Support of tp-separation-via-muting 5 Support of additional-prs-config 6 Support of prs-based-tbs 7 Support of additionalPathsReport 8 Support of densePrsConfig 9 Support of maxSupportedPrsBandwidth 36.355, 6.5.1.7 Rel-14 pc_OTDOA_tp_separatio n_via_muting 16 Support of prs-based-tbs 17 Rel-14 pc_OTDOA_additionalPathsReport 18 Support of densePrsConfig 18 Support of densePrsConfig 29 Support of maxSupportedPrsBandwidth 36.355, 6.5.1.7 Rel-14 pc_OTDOA_maxSupport edPrsBandwidth	
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6 Support of prs-based-tbs 36.355, 6.5.1.7 Rel-14 pc_OTDOA_prs_based_t bs 7 Support of additionalPathsReport 36.355, 6.5.1.7 Rel-14 pc_OTDOA_additionalPa thsReport 8 Support of densePrsConfig 36.355, 6.5.1.7 Rel-14 pc_OTDOA_densePrsCo nfig 9 Support of maxSupportedPrsBandwidth 36.355, 6.5.1.7 Rel-14 pc_OTDOA_maxSupport edPrsBandwidth	
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7 Support of additionalPathsReport 36.355, 6.5.1.7 Rel-14 pc_OTDOA_additionalPa thsReport 8 Support of densePrsConfig 36.355, 6.5.1.7 Rel-14 pc_OTDOA_densePrsCo nfig 9 Support of maxSupportedPrsBandwidth 36.355, 6.5.1.7 Rel-14 pc_OTDOA_maxSupport edPrsBandwidth	
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8 Support of densePrsConfig 36.355, 6.5.1.7 Rel-14 pc_OTDOA_densePrsCo nfig 9 Support of maxSupportedPrsBandwidth 36.355, 6.5.1.7 Rel-14 pc_OTDOA_maxSupport edPrsBandwidth	
9 Support of 36.355, 6.5.1.7 Rel-14 pc_OTDOA_maxSupport edPrsBandwidth	
9 Support of 36.355, 6.5.1.7 Rel-14 pc_OTDOA_maxSupport edPrsBandwidth	
maxSupportedPrsBandwidth edPrsBandwidth	
10 Support of prsOccGroup 36.355, 6.5.1.7 Rel-14 pc_OTDOA_prsOccGrou	
p	
11 Support of prsFrequencyHopping 36.355, 6.5.1.7 Rel-14 pc_OTDOA_prsFrequenc	
yHopping	
12 Support of	
maxSupportedPrsConfigs edPrsConfigs	
13 Support of periodicalReporting 36.355, 6.5.1.7 Rel-14 pc_OTDOA_periodicalRe	
porting	
14 Support of multiPrbNprs 36.355, 6.5.1.7 Rel-14 pc_OTDOA_multiPrbNpr	
15 Support of 36.355, 6.5.1.7 Rel-14 pc_OTDOA_idleStateFor	
idleStateForMeasurements Measurements	
16 Support of numberOfRXantennas 36.355, 6.5.1.7 Rel-14 pc_OTDOA_numberOfR	
Xantennas Xa	
17 Support of motionMeasurements 36.355, 6.5.1.7 Rel-15 pc_OTDOA_motionMeas	
urements	
18 Support of interRAT- 36.355, 6.5.1.7 Rel-15 pc_OTDOA_interRAT_R	1
RSTDmeasurement STDmeasurement	

Table A.4.3-4: E-CID Measurements

Item	UE Positioning Capabilities	Ref.	Releas	Mnemonic	Comments
			е		
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_ueRxTxSupTD D	
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_triggeredRepor ting	
7	Support of idleStateForMeasurements	36.355, 6.5.3.4	Rel-14	pc_ECID_idleStateForMe asurements	

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	
	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	36.355, 6.5.2.9	Rel-9	pc_A_GPS_ADR	
	reporting for Gps				
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_VelocityMe as	
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_VelocityM eas	
10	Support of Velocity measurement reporting for Glonass	36.355, 6.5.2.9	Rel-9	pc_GLONASS_Velocity Meas	
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	36.355, 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	36.355, 6.5.2.9	Rel-15	pc_SBAS_ADR_ENH	Requires support of pc_SBAS_ADR
15	Support of ADR enhancements for Qzss	36.355, 6.5.2.9	Rel-15	pc_QZSS_ADR_ENH	Requires support of pc_QZSS_ADR
16	Support of ADR enhancements for Galileo	36.355, 6.5.2.9	Rel-15	pc_GALILEO_ADR_EN H	Requires support of pc_GALILEO_ADR
17	Support of ADR enhancements for Glonass	36.355, 6.5.2.9	Rel-15	pc_GLONASS_ADR_E NH	Requires support of pc_GLONASS_ADR
18	Support of ADR enhancements for BDS	36.355, 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	36.355, 6.5.2.9	Rel-15	pc_A_GPS_HA	
20	Support of High accuracy GNSS modes for Sbas	36.355, 6.5.2.9	Rel-15	pc_SBAS_HA	
21	Support of High accuracy GNSS modes for Qzss	36.355, 6.5.2.9	Rel-15	pc_QZSS_HA	
22	Support of High accuracy GNSS modes for Galileo	36.355, 6.5.2.9	Rel-15	pc_GALILEO_HA	
23	Support of High accuracy GNSS modes for Glonass	36.355, 6.5.2.9	Rel-15	pc_GLONASS_HA	
24	Support of High accuracy GNSS modes for BDS	36.355, 6.5.2.9	Rel-15	pc_BDS_HA	

Table A.4.3-7: GNSS Assistance Data Support

Item	GNSS Assistance Data Support	Ref.	Release		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- EarthOrientationParametersSuppor t (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	
	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		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		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		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_Glonas
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		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-	36.355, 6.5.2.9	Rel-12	pc_GNSS_DGNSS_Sup_BDS
	DifferentialCorrectionsSupport for BDS B1I			
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	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
	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
	requisition resistance for GF3 L3	<u> </u>	<u> </u>	

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_E5
65	Gnss-RTK- ReferenceStationInfoSupport-r15 (Common assistance data)	36.355, 6.5.2.9	Rel-15	pc_GNSS_RTK_RefStationInfo
66	Gnss-RTK- AuxiliaryStationDataSupport-r15 (Common assistance data)	36.355, 6.5.2.9	Rel-15	pc_GNSS_RTK_AuxStationInfo
	Gnss-RTK-ObservationsSupport- r15 for GPS L1 C/A	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_OBS_Gps
68	Gnss-RTK-MAC- CorrectionDifferencesSupport-r15 for GPS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_MAC_Correction Differences_Gps
	Gnss-RTK-ResidualsSupport-r15 for GPS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_Residuals_Gps
	Gnss-RTK-FKP-GradientsSupport- r15 for GPS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_FKP_Gradients_ Gps
71	Gnss-SSR- OrbitCorrectionsSupport-r15 for GPS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_OrbitCorrec tions_Gps
72	Gnss-SSR- ClockCorrectionsSupport-r15 for GPS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_ClockCorre ctions_Gps
73	Gnss-SSR-CodeBiasSupport-r15 for GPS L1 C/A	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_CodeBias_ Gps
	Glo-RTK-BiasInformationSupport-r15	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_BiasInfo_Glonass
75	Gnss-RTK-ObservationsSupport- r15 for GLONASS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_OBS_Glonass
76	Gnss-RTK-MAC- CorrectionDifferencesSupport-r15 for GLONASS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_MAC_Correction Differences_Glonass
77	Gnss-RTK-ResidualsSupport-r15 for GLONASS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_Residuals_Glona ss
78	Gnss-RTK-FKP-GradientsSupport- r15 for GLONASS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_FKP_Gradients_ Glonass
79	Gnss-SSR- OrbitCorrectionsSupport-r15 for GLONASS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_OrbitCorrec tions_Glonass
80	Gnss-SSR- ClockCorrectionsSupport-r15 for GLONASS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_ClockCorre ctions_Glonass
81	Gnss-SSR-CodeBiasSupport-r15 for GLONASS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_CodeBias_ Glonass
82	Gnss-RTK-ObservationsSupport- r15 for Galileo	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_OBS_Galileo
83	Gnss-RTK-MAC- CorrectionDifferencesSupport-r15 for Galileo	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_MAC_Correction Differences_Galileo
	Gnss-RTK-ResidualsSupport-r15 for Galileo	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_Residuals_Galile
	Gnss-RTK-FKP-GradientsSupport- r15 for Galileo	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_FKP_Gradients_ Galileo
86	Gnss-SSR- OrbitCorrectionsSupport-r15 for Galileo	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_OrbitCorrec tions_Galileo
87	Gnss-SSR- ClockCorrectionsSupport-r15 for Galileo	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_ClockCorre ctions_Galileo
	Gnss-SSR-CodeBiasSupport-r15 for Galileo E1	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_CodeBias_ Galileo
	Gnss-RTK-ObservationsSupport- r15 for BDS B1I	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_OBS_Bds

(Gnss-RTK-MAC-	36.355, 6.5.2.10	Rel-15	In a CNCC DTV MAC Correction
	CorrectionDifferencesSupport-r15 for BDS	·		pc_GNSS_RTK_MAC_Correction Differences_Bds
	Gnss-RTK-ResidualsSupport-r15 for BDS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_Residuals_Bds
	Gnss-RTK-FKP-GradientsSupport- r15 for BDS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_FKP_Gradients_ Bds
93 ((Gnss-SSR- OrbitCorrectionsSupport-r15 for BDS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_OrbitCorrec tions_Bds
(E	Gnss-SSR- ClockCorrectionsSupport-r15 for BDS	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_ClockCorre ctions_Bds
f	Gnss-SSR-CodeBiasSupport-r15 for BDS B1I	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_CodeBias_ Bds
	Bds-GridModelSupport-r12	36.355, 6.5.2.10	Rel-12	pc_GNSS_GridModel_Bds
1	Support of GNSS- AcquisitionAssistance for BDS B1I	36.355, 6.5.2.2	Rel-12	pc_GNSS_AcquAssist_BDS_B1I
	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
[Gnss- DifferentialCorrectionsSupport for BDS B1C	36.355, 6.5.2.9	Rel-16	pc_GNSS_DGNSS_Sup_Bds_B1 C
f	for B1C	36.355, 6.5.2.9	Rel-16	pc_Bds_DiffCorr_B1C
104 (Gnss-RTK-ObservationsSupport- r15 for GPS L5	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_OBS_Gps_L5
r	Gnss-RTK-ObservationsSupport- r15 for Galileo E5A	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_OBS_Galileo_E5 A
r	Gnss-RTK-ObservationsSupport- r15 for BDS B1C	36.355, 6.5.2.10	Rel-16	pc_GNSS_RTK_OBS_Bds_B1C
f	Gnss-SSR-CodeBiasSupport-r15 for GPS L5	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_CodeBias_ Gps_L5
	Gnss-SSR-CodeBiasSupport-r15 for Galileo E5A	36.355, 6.5.2.10	Rel-15	pc_GNSS_RTK_SSR_CodeBias_ Galileo_E5A
f	Gnss-SSR-CodeBiasSupport-r15 for BDS B1C	36.355, 6.5.2.10	Rel-16	pc_GNSS_RTK_SSR_CodeBias_ Bds_B1C
(Gnss-SSR-URA-Support-r16 for GPS	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_URA_Gps
(Gnss-SSR-URA-Support-r16 for QZSS	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_URA_Qzss
(Gnss-SSR-URA-Support-r16 for Galileo	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_URA_Galileo
(Gnss-SSR-URA-Support-r16 for GLONASS	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_URA_Glonass
E	Gnss-SSR-URA-Support-r16 for BDS	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_URA_Bds
f	Gnss-SSR-PhaseBiasSupport-r16 for GPS L1 C/A	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_PhaseBias_Gps_ L1CA
f	Gnss-SSR-PhaseBiasSupport-r16 for GPS L5	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_PhaseBias_Gps_ L5
f	Gnss-SSR-PhaseBiasSupport-r16 for QZSS	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_PhaseBias_Qzss
f	Gnss-SSR-PhaseBiasSupport-r16 for Galileo E1	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_PhaseBias_Galile o_E1
f	Gnss-SSR-PhaseBiasSupport-r16 for Galileo E5A	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_PhaseBias_Galile o_E5A
120 (Gnss-SSR-PhaseBiasSupport-r16 for GLONASS	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_PhaseBias_Glon ass

	Gnss-SSR-PhaseBiasSupport-r16 for BDS B1I	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_PhaseBias_Bds_	
		22.255.252.42	D 1 40	B11	
122	Gnss-SSR-PhaseBiasSupport-r16 for BDS B1C	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_PhaseBias_Bds_ B1C	
123	Gnss-SSR-STEC-	36.355, 6.5.2.10	Rel-16	pc GNSS SSR STEC CorrSupp	
	CorrectionSupport-r16 for GPS			_Gps	
124	Gnss-SSR-STEC-	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_STEC_CorrSupp	
	CorrectionSupport-r16 for QZSS	,		_Qzss	
125	Gnss-SSR-STEC-	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_STEC_CorrSupp	
	CorrectionSupport-r16 for Galileo			_Galileo	
126	Gnss-SSR-STEC-	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_STEC_CorrSupp	
	CorrectionSupport-r16 for			_Glonass	
	GLONASS				
127	Gnss-SSR-STEC-	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_STEC_CorrSupp	
	CorrectionSupport-r16 for BDS			_Bds	
128	Gnss-SSR-	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_GridCorrSupp_G	
	GriddedCorrectionSupport-r16 for			ps	
	GPS				
129	Gnss-SSR-	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_GridCorrSupp_Q	
	GriddedCorrectionSupport-r16 for			ZSS	
120	QZSS	20.255.05.240	Dal 40	no CNCC CCD CridCorrCust C	
130	Gnss-SSR-	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_GridCorrSupp_G	
	GriddedCorrectionSupport-r16 for Galileo			alileo	
131	Gnss-SSR-	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_GridCorrSupp_GI	
131	GriddedCorrectionSupport-r16 for	30.333, 0.3.2.10	IVEI-10	onass	
	GLONASS			Ulass	
132	Gnss-SSR-	36.355, 6.5.2.10	Rel-16	pc_GNSS_SSR_GridCorrSupp_Bd	
.02	GriddedCorrectionSupport-r16 for	00.000, 0.0.2.10	1.01.10	s	
	BDS				
133	Navic-	36.355, 6.5.2.10	Rel-16	pc Navic DGNSS Sup	
	DifferentialCorrectionsSupport-r16	,			
	for				
134	Navic-GridModelSupport-r16	36.355, 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	
	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	Support of wlan-AP-Identifier	36.355, 6.5.6	Rel-14	pc_WLAN_APId	
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	36.355, 6.4.1	Rel-9	pc_GNSS_EllipPoint	
	Circle Support			UncertCircle	
3	Ellipsoid Point With Uncertainty	36.355, 6.4.1	Rel-9	pc_GNSS_EllipPoint	
	Ellipse Support			UncertEllip	
4	Polygon Support	36.355, 6.4.1	Rel-9	pc_GNSS_Polygon	
5	Ellipsoid Point With Altitude	36.355, 6.4.1	Rel-9	pc_GNSS_EllipPoint	
	Support			Alt	
6	Ellipsoid Point With Altitude And	36.355, 6.4.1	Rel-9	pc_GNSS_EllipPoint	
	Uncertainty Ellipsoid Support			AltUncertEllip	
7	Ellipsoid Arc Support	36.355, 6.4.1	Rel-9	pc_GNSS_EllipArc	
8	High Accuracy Ellipsoid Point With	36.355, 6.4.1	Rel-15	pc_GNSS_HA_EllipP	
	Uncertainty Ellipse-r15			ointUncertCircle	
9	High Accuracy Ellipsoid Point With	36.355, 6.4.1	Rel-15	pc_GNSS_HA_EllipP	
	Altitude And Uncertainty Ellipsoid-			ointAltUncertEllip	
	r15			·	

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_SendingA CK_ProvideCapabil ities	
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_MsgSegm entation	

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		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			This is a Rel-11 Mandatory feature

Note 1: 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.'

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.

Note 2: If indicated "Yes" the feature shall be implemented and successfully tested for the corresponding release.

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

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

D=1	T00 "	T00 P	00	-	Change history		NI.
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
2010.00	DANE#40	DE 101217	1	1	36.571-3	1	0.00
2010-08 2011-02		R5-104317 R5-110253		-	Initial version Addition of test case applicability	0.0.0	0.0.0
2011-08		R5-113273	-	_	Addition of E-CID and OTDOA performance test case	0.1.0	0.1.0
2011 00	10 11 10 11 02	110270			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,	-	1.0.0
					34.171 v9.3.0 and 34.172 va.1.0		
-	-	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	_	2.0.0
_		10-115250	_	-	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,	9.0.0	9.1.0
					7.3.4.2, 7.3.4.3, and 7.3.4.4		
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		-	Correction of sub-test names and PICS names		10.1.0
2012-09	RAN#57	R5-123689		-	Addition of missing sub test cases name change		10.1.1
2012-12	RAN#58	R5-125119		-	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
2013-03	-	-	-		fix of history table	10.2.0	
2013-04	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	10.3.1	
					measurement indication procedure		
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	10.3.1	10.4.0
					Test Cases		
2013-06	RAN#60	R5-132011		-	Corrections and clarifications to Applicabilities tables		10.4.0
2013-09	RAN#61	R5-133633		-	Correction to 7.3.3.1		10.5.0
2013-12	RAN#62	R5-134203		-	Corrections to Applicabilities C12es and C13es		10.6.0
2013-12	RAN#62	R5-134204		-	Addition of Applicabilities for 9.2.1 - 9.2.5		10.6.0
2013-12 2013-12	RAN#62 RAN#62	R5-134911 R5-134981	0016	-	Change Applicability of test 7.3.5.1 Applicabilities for new tests 10.1a, 10.2a, 10.3a and 10.4a		10.6.0
2013-12	RAN#62	R5-142102		-	Correction to test case title in the Applicability Table 4-1 and		10.6.0
2014-00	IXAIN#U4	13-142102	0010	_	Table 4-3	10.0.0	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		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	
2014-12	RAN#66	R5-145263	0021	-	Applicability table update for RRM CA test cases in clause 10 to	12.0.0	12.1.0
					avoid redundant testing		
004440	DANIHOO	DE 445000	0000		A LEG TO THE	10.00	40.4.0
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 felCIC applicability statement for UE Rx-TX Time	12.0.0	12.1.0
2014-12	INAIN#00	143043	0023	ļ-	Difference test cases	12.0.0	12.1.0
					Difference test eases		
2014-12	RAN#66	R5-145894	0024	-	Add BDS testing contents in TS37.571-3	12.0.0	12.1.0
					ů		
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
2015.02	DANIHO7	DE 450000	0027	1	Missing Abbroviations in Consideration	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
_0.000	7.0.01	100003	3320				1.2.2.0
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-	12.2.0	12.3.0
					UTRA pc_eTDD tests		

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 felCIC 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 R5-172688 0073 Introduction of periodical reporting capability for GNSS 14.0.0								
2017-06 RAN#76 R5-172968 0070 1 Merge GNSS sub-tests into one sub-test 14.0.0	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 R5-173968 0075	2017-06	RAN#76	R5-172668	0073	-	Introduction of periodical reporting capability for GNSS	14.0.0	14.1.0
Data Signalling Sub-tests Data Signalling Sub-tests	2017-06	RAN#76	R5-172965	0070	1	Merge GNSS sub-tests into one sub-test	14.0.0	14.1.0
Data Measurement Test Cases Data Measurement Test Cases 2017-06 RAN#76 - - - The titles of 7.3.3.1 A and B were corrected editorially to (Rel-13 14.0.0 only) and (Rel-14 onwards) in order to align with the actual TC Titles. 2017-09 RAN#77 R5-173865 0078 - Editorial change to align MBS test case names with 37.571-2 14.1.0 2017-09 RAN#77 R5-173866 0079 - Editorial change to align MBS test case names with 37.571-1 14.1.0 2017-09 RAN#77 R5-175120 0080 1 Editorial correction to Table 4-3 in 3GPP TS 37.571-3 14.1.0 2017-09 RAN#78 R5-175189 0077 1 Test case applicability for WLAN and BLE 14.1.0 2017-12 RAN#78 R5-175189 0077 1 Test case applicability of WLAN and BLE 14.1.0 2017-12 RAN#78 R5-177416 0081 1 Applicability changes for OTDOA/ECID 4Rx support and WLAN/BLE 2018-03 RAN#79 R5-180312 0083 - Applicability of Cart bis OTDOA express 15.0.0 2018-03 RAN#79 R5-180313 0084 - Applicability of Cart bis OTDOA and ECID tests 15.0.0 2018-03 RAN#79 R5-180314 0085 - Applicability of Ind/TC OTDOA and ECID tests 15.0.0 2018-03 RAN#79 R5-180386 0086 - 4Rx support for OTDOA 2CC - Applicability 15.0.0 2018-03 RAN#79 R5-180387 0087 - 4Rx support for OTDOA 3CC - Applicability 15.0.0 2018-03 RAN#79 R5-180387 0087 - 4Rx support for OTDOA 3CC - Applicability 15.0.0 2018-03 RAN#79 R5-180387 0087 - 4Rx support for OTDOA 3CC - Applicability 15.0.0 2018-03 RAN#79 R5-180387 0087 - 4Rx support for OTDOA 3CC - Applicability 15.0.0 2018-03 RAN#79 R5-180387 0087 - 4Rx support for OTDOA 3CC - Applicability 15.0.0 2018-03 RAN#79 R5-180387 0087 - 4Rx support for OTDOA 3CC - Applicability 15.0.0 2018-04 RAN#80 R5-18220 0090 - 4Rx support for OTDOA 3CC - Applicability 15.0.0 2018-06 RAN#80 R5-18220 0090 - 4Rx support for OTDOA 3CC - Applicability 15.1.0 2018-09 RAN#81 R5-1838	2017-06	RAN#76	R5-172968	0075	1		14.0.0	14.1.0
only) and (Rel-14 onwards) in order to align with the actual TC Titles. 2017-09 RAN#77 R5-173865 0078 - Editorial change to align MBS test case names with 37.571-2 14.1.0 2017-09 RAN#77 R5-173866 0079 - Editorial change to align MBS test case names with 37.571-1 14.1.0 2017-09 RAN#77 R5-175120 0080 1 Editorial correction to Table 4-3 in 3GPP TS 37.571-3 14.1.0 2017-09 RAN#77 R5-175189 0077 1 Test case applicability for WLAN and BLE 14.1.0 2017-12 RAN#78 R5-177416 0081 1 Applicability changes for OTDOA/ECID 4Rx support and WLANBLE 14.2.0 WLANBLE 2017-12 RAN#78 Administrative release upgrade to match the release of 3GPP TS 14.3.0 37.571-1 which was upgraded at RAN#78 to Rel-15 due to Rel-15 relevant CR(s) 15 relevant CR	2017-06	RAN#76	R5-173365	0074	1		14.0.0	14.1.0
2017-09 RAN#77 R5-173866 0079 Editorial change to align MBS test case names with 37.571-1 14.1.0	2017-06	RAN#76	-	-	-	only) and (Rel-14 onwards) in order to align with the actual TC	14.0.0	14.1.0
2017-09 RAN#77 R5-175120 0080 1 Editorial correction to Table 4-3 in 3GPP TS 37.571-3 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	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
2017-12 RAN#78 R5-177416 0081 1 Applicability changes for OTDOA/ECID 4Rx support and WLAN/BLE 14.2.0 WLAN/BLE 14.2.0 WLAN/BLE 14.3.0 37.571-1 which was upgraded at RAN#78 to Rel-15 due to Rel-15 felevant CR(s) 15.0.0 2018-03 RAN#79 R5-180312 0083 Applicability of Cat1bis OTDOA tests 15.0.0 2018-03 RAN#79 R5-180313 0084 Applicability of IMTC OTDOA and ECID tests 15.0.0 2018-03 RAN#79 R5-180314 0085 Applicability of NB-IOT OTDOA tests 15.0.0 2018-03 RAN#79 R5-180586 0086 Arx support for OTDOA 2CC - Applicability 15.0.0 2018-03 RAN#79 R5-180586 0086 Arx support for OTDOA 2CC - Applicability 15.0.0 2018-03 RAN#79 R5-180586 0086 Arx support for OTDOA 3CC - Applicability 15.0.0 2018-03 RAN#79 R5-180587 0087 Arx support for OTDOA 3CC - Applicability 15.0.0 2018-03 RAN#79 R5-181273 0088 1 Update Applicability for Rel-14 Sensor Positioning Protocol Tests 15.0.0 and Sub-Tests 2018-06 RAN#80 R5-1812220 0090 Applicability for Rel-14 WLAN Positioning Protocol Tests 15.0.0 2018-06 RAN#80 R5-182281 0091 Applicability for new NB-IOT OTDOA tests 15.1.0 2018-06 RAN#80 R5-183850 0092 1 Applicability for new NB-IOT OTDOA tests 15.1.0 2018-09 RAN#81 R5-184038 0096 Addition of PICS for support of LPP message segmentation 15.2.0 2018-09 RAN#81 R5-184038 0096 Addition of PICS for support of LPP message segmentation 15.2.0 2018-12 RAN#82 R5-186620 0101 Addition of Applicabilities for two missing Minimum Performance 15.3.0 15.3.0 2018-12 RAN#82 R5-186620 0101 Addition of Applicabilities of Modernized GPS for Minimum 15.3.0 2018-12 RAN#82 R5-186621 0102 Addition of PICS for support of Acquisition Assistance for Galileo 15.3.0 E5A and GPS L5 signals Calcilition Assistance for Galileo 15.3.0 E5A and GPS L5 signals Calcilition Assistance for Galileo 15.3.0 Calcility and Calcilition Calcilition Assistance	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
WLAN/BLE WLAN/BLE WLAN/BLE	2017-09	RAN#77	R5-175189	0077	1	Test case applicability for WLAN and BLE	14.1.0	14.2.0
37.571-1 which was upgraded at RAN#78 to Rel-15 due to Rel-15 relevant CR(s) 15 re	2017-12	RAN#78	R5-177416	0081	1		14.2.0	14.3.0
2018-03 RAN#79 R5-180313 0084 - Applicability of feMTC OTDOA and ECID tests 15.0.0	2017-12	RAN#78	-	-	-	37.571-1 which was upgraded at RAN#78 to Rel-15 due to Rel-	14.3.0	15.0.0
2018-03 RAN#79 R5-180314 0085 - Applicability of NB-IOT OTDOA tests 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 R5-180586 0086 - 4Rx support for OTDOA 2CC - Applicability 15.0.0	2018-03	RAN#79	R5-180313	0084	-	Applicability of feMTC OTDOA and ECID tests	15.0.0	15.1.0
2018-03 RAN#79 R5-180587 0087 - 4Rx support for OTDOA 3CC - Applicability 15.0.0	2018-03	RAN#79	R5-180314	0085	-	Applicability of NB-IOT OTDOA tests	15.0.0	15.1.0
2018-03 RAN#79 R5-180878 0089 - Update Applicability for Rel-14 Sensor Positioning Protocol Tests 15.0.0 and Sub-Tests 15.1.0 2018-06 RAN#80 R5-182220 0090 - Applicability for new NB-IOT OTDOA tests 15.1.0 2018-06 RAN#80 R5-182281 0091 - New ECID Cat1bis tests - Applicability 15.1.0 2018-06 RAN#80 R5-183850 0092 1 Applicability statement for A-GNSS min perf test cases for Cat M1 2018-06 RAN#80 R5-183851 0094 1 Corrections to C03-Xur and C04-Xur applicabilities 15.1.0 2018-09 RAN#81 R5-184038 0096 - Addition of PICS for support of LPP message segmentation 15.2.0 2018-09 RAN#81 R5-184190 0098 - Editorial - Updates for GNSS Signal Capabilities 15.2.0 2018-09 RAN#81 R5-185359 0099 - Correction of the title for OTDOA IOT tests 15.2.0 2018-09 RAN#82 R5-186619 0100 - Addition of applicabilities for two missing Minimum Performance 15.3.0 triple-GNSS test cases 2018-12 RAN#82 R5-186621 0102 - Addition of Category NB2 information 15.3.0 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 E5A and GPS L5 signals 15.3.0 E5A and GPS L5 signals 15.3.0	2018-03	RAN#79	R5-180586	0086	-	4Rx support for OTDOA 2CC - Applicability	15.0.0	15.1.0
and Sub-Tests 2018-03 RAN#79 R5-181273 0088 1 Update Applicability for Rel-14 WLAN Positioning Protocol Tests 15.0.0 and Sub-Tests 2018-06 RAN#80 R5-182220 0090 - Applicability for new NB-IOT OTDOA tests 15.1.0 2018-06 RAN#80 R5-182281 0091 - New ECID Cat1bis tests - Applicability 15.1.0 2018-06 RAN#80 R5-183850 0092 1 Applicability statement for A-GNSS min perf test cases for Cat M1 2018-06 RAN#80 R5-183851 0094 1 Corrections to C03-Xur and C04-Xur applicabilities 15.1.0 2018-09 RAN#81 R5-184038 0096 - Addition of PICS for support of LPP message segmentation 15.2.0 2018-09 RAN#81 R5-184190 0098 - Editorial - Updates for GNSS Signal Capabilities 15.2.0 2018-09 RAN#81 R5-185359 0099 - Correction of the title for OTDOA IOT tests 15.2.0 2018-12 RAN#82 R5-186620 0101 - Correction to applicabilities of Modernized GPS for Minimum Performance test cases 2018-12 RAN#82 R5-186621 0102 - Addition of Category NB2 information 15.3.0 2018-12 RAN#82 R5-186622 0103 - Addition of PICS for support of Acquisition Assistance for Galileo 15.3.0 E5A and GPS L5 signals	2018-03	RAN#79	R5-180587	0087	-	4Rx support for OTDOA 3CC - Applicability	15.0.0	15.1.0
and Sub-Tests and Sub-Tests and Sub-Tests and Sub-Tests 2018-06 RAN#80 R5-182220 0090 - Applicability for new NB-IOT OTDOA tests 15.1.0 2018-06 RAN#80 R5-183281 0091 - New ECID Cat1bis tests - Applicability 15.1.0 2018-06 RAN#80 R5-183850 0092 1 Applicability statement for A-GNSS min perf test cases for Cat M1 M1 M1 M1 M1 M1 M1 M	2018-03	RAN#79	R5-180878	0089	-		15.0.0	15.1.0
2018-06 RAN#80 R5-182281 0091 - New ECID Cat1bis tests - Applicability 15.1.0 2018-06 RAN#80 R5-183850 0092 1 Applicability statement for A-GNSS min perf test cases for Cat M1 15.1.0 2018-06 RAN#80 R5-183851 0094 1 Corrections to C03-Xur and C04-Xur applicabilities 15.1.0 2018-09 RAN#81 R5-184038 0096 - Addition of PICS for support of LPP message segmentation 15.2.0 2018-09 RAN#81 R5-184190 0098 - Editorial - Updates for GNSS Signal Capabilities 15.2.0 2018-09 RAN#81 R5-185359 0099 - Correction of the title for OTDOA IOT tests 15.2.0 2018-12 RAN#82 R5-186619 0100 - Addition of applicabilities for two missing Minimum Performance triple-GNSS test cases 15.3.0 2018-12 RAN#82 R5-186620 0101 - Correction to applicabilities of Modernized GPS for Minimum Performance test cases 15.3.0 2018-12 RAN#82 R5-186621 0102 - Addition of Ca	2018-03	RAN#79	R5-181273	0088	1		15.0.0	15.1.0
2018-06 RAN#80 R5-183850 0092 1 Applicability statement for A-GNSS min perf test cases for Cat 15.1.0	2018-06	RAN#80	R5-182220	0090	-	Applicability for new NB-IOT OTDOA tests	15.1.0	15.2.0
M1 2018-06 RAN#80 R5-183851 0094 1 Corrections to C03-Xur and C04-Xur applicabilities 15.1.0	2018-06	RAN#80	R5-182281	0091	-	New ECID Cat1bis tests - Applicability	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 2018-09 RAN#81 R5-184190 0098 - Editorial - Updates for GNSS Signal Capabilities 15.2.0 2018-09 RAN#81 R5-185359 0099 - Correction of the title for OTDOA IOT tests 15.2.0 2018-12 RAN#82 R5-186619 0100 - Addition of applicabilities for two missing Minimum Performance triple-GNSS test cases 15.3.0 2018-12 RAN#82 R5-186620 0101 - Correction to applicabilities of Modernized GPS for Minimum Performance test cases 15.3.0 2018-12 RAN#82 R5-186621 0102 - Addition of Category NB2 information 15.3.0 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	2018-06	RAN#80	R5-183850	0092	1	1	15.1.0	15.2.0
2018-09 RAN#81 R5-184190 0098 - Editorial - Updates for GNSS Signal Capabilities 15.2.0 2018-09 RAN#81 R5-185359 0099 - Correction of the title for OTDOA IOT tests 15.2.0 2018-12 RAN#82 R5-186619 0100 - Addition of applicabilities for two missing Minimum Performance triple-GNSS test cases 2018-12 RAN#82 R5-186620 0101 - Correction to applicabilities of Modernized GPS for Minimum Performance test cases 2018-12 RAN#82 R5-186621 0102 - Addition of Category NB2 information 15.3.0 2018-12 RAN#82 R5-186622 0103 - Addition of PICs for support of Acquisition Assistance for Galileo E5A and GPS L5 signals	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 R5-185359 0099 - Correction of the title for OTDOA IOT tests 15.2.0 2018-12 RAN#82 R5-186619 0100 - Addition of applicabilities for two missing Minimum Performance triple-GNSS test cases 15.3.0 2018-12 RAN#82 R5-186620 0101 - Correction to applicabilities of Modernized GPS for Minimum Performance test cases 2018-12 RAN#82 R5-186621 0102 - Addition of Category NB2 information 15.3.0 2018-12 RAN#82 R5-186622 0103 - Addition of PICs for support of Acquisition Assistance for Galileo E5A and GPS L5 signals	2018-09	RAN#81	R5-184038	0096	-	Addition of PICS for support of LPP message segmentation	15.2.0	15.3.0
2018-12 RAN#82 R5-186619 0100 - Addition of applicabilities for two missing Minimum Performance 15.3.0 triple-GNSS test cases 2018-12 RAN#82 R5-186620 0101 - Correction to applicabilities of Modernized GPS for Minimum 15.3.0 Performance test cases 2018-12 RAN#82 R5-186621 0102 - Addition of Category NB2 information 15.3.0 2018-12 RAN#82 R5-186622 0103 - Addition of PICs for support of Acquisition Assistance for Galileo E5A and GPS L5 signals	2018-09	RAN#81	R5-184190	0098	-	Editorial - Updates for GNSS Signal Capabilities	15.2.0	15.3.0
triple-GNSS test cases 2018-12 RAN#82 R5-186620 0101 - Correction to applicabilities of Modernized GPS for Minimum 15.3.0 2018-12 RAN#82 R5-186621 0102 - Addition of Category NB2 information 15.3.0 2018-12 RAN#82 R5-186622 0103 - Addition of PICs for support of Acquisition Assistance for Galileo E5A and GPS L5 signals	2018-09	RAN#81	R5-185359	0099	-	Correction of the title for OTDOA IOT tests	15.2.0	15.3.0
Performance test cases 2018-12 RAN#82 R5-186621 0102 - Addition of Category NB2 information 15.3.0 2018-12 RAN#82 R5-186622 0103 - Addition of PICs for support of Acquisition Assistance for Galileo E5A and GPS L5 signals	2018-12	RAN#82	R5-186619	0100	-		15.3.0	15.4.0
2018-12 RAN#82 R5-186622 0103 - Addition of PICs for support of Acquisition Assistance for Galileo 15.3.0 E5A and GPS L5 signals	2018-12	RAN#82	R5-186620	0101	-		15.3.0	15.4.0
E5A and GPS L5 signals	2018-12	RAN#82	R5-186621	0102	-	Addition of Category NB2 information	15.3.0	15.4.0
2018-12 RAN#82 R5-186623 0104 - Addition of NR signalling background information 15.3.0	2018-12	RAN#82	R5-186622	0103	-		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

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
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History

	Document history									
V16.5.0	July 2020	Publication								
V16.6.0	January 2021	Publication								