



TECHNICAL SPECIFICATION

**Universal Mobile Telecommunications System (UMTS);  
LTE;**

**Universal Terrestrial Radio Access (UTRA)  
and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC);  
User Equipment (UE) conformance specification  
for UE positioning;**

**Part 1: Conformance test specification  
(3GPP TS 37.571-1 version 15.6.0 Release 15)**



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## Foreword

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

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

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## Introduction

The present document is part 1 of a multi-parts TS:

**3GPP TS 37.571-1: Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification.**

3GPP TS 37.571-2: Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 2: Protocol conformance.

3GPP TS 37.571-3: Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS).

3GPP TS 37.571-4: Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 4: Test suites.

3GPP TS 37.571-5: Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 5: Test scenarios and assistance data.

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# 1 Scope

The present document specifies the procedures for the conformance test of the measurement requirements for FDD or TDD mode of UTRA and FDD or TDD mode of E-UTRA, NB-IOT and NR for the User Equipment (UE) that supports one or more of the defined positioning methods. These positioning methods are:

- for UTRA: Assisted Global Positioning System (A-GPS), Assisted Global Navigation Satellite Systems (A-GNSS),
- for E-UTRA: Assisted Global Navigation Satellite System (A-GNSS), Observed Time Difference of Arrival (OTDOA), Enhanced Cell ID (ECID), Metropolitan Beacon System (MBS), Wireless Local Area Network (WLAN), Bluetooth Low Energy (BLE),
- for NB-IOT: Observed Time Difference of Arrival (OTDOA), [others FFS], and
- for NR: Assisted Global Navigation Satellite System (A-GNSS), Observed Time Difference of Arrival (OTDOA), Enhanced Cell ID (ECID), Metropolitan Beacon System (MBS), Wireless Local Area Network (WLAN), Bluetooth Low Energy (BLE).

Tests are only applicable to those mobiles that are intended to support the appropriate functionality. To indicate the circumstances in which tests apply, this is noted in the "Test applicability" part of the test.

The Implementation Conformance Statement (ICS) pro-forma could be found in the 3<sup>rd</sup> part of the present document.

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# 2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document in the same Release as the present document unless the context in which the reference is made suggests a different Release is relevant (information on the applicable release in a particular context can be found in e.g. test case title, description or applicability, message description or content).

[1] to [46] (void)

[47] 3GPP TS 37.571-1 Release 16: "Universal Terrestrial Radio Access (UTRA) and Evolved UTRA (E-UTRA) and Evolved Packet Core (EPC); User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification"

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# 3 Definitions, symbols and abbreviations

Void

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# 4 General test conditions

The requirements of the present document are provided in 3GPP TS 37.571-1 Release 16 [47].

## 5 to 16Void

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# Annex A to H: Void

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## Annex I (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment TS 36.571-1	Old	New
2010-08	RAN5#48	R5-104316			Initial draft TS 36.571-1 created		0.0.0
2010-11	RAN5#49	R5-106613			V1.0.0 created for presentation to RAN Plenary	0.0.0	1.0.0
2011-02	RAN5#50	R5-110124			Various values and corrections added	1.0.0	1.1.0
2011-08	RAN5#52	R5-113133			Text changes from R5-112139, R5-112386, R5-112837, R5-112838, R5-112839 added	1.1.0	1.2.0
2011-08	RAN5#53				Text changes from R5-113135, R5-113150, R5-114066, R5-113587 added	1.2.0	-
2011-11	RAN5#53	R5-115206			Initial draft TS 37.571-1 created from TS 36.571-1, TS 34.171 and TS 34.172	-	1.0.0
2011-11	RAN5#53	R5-115207			V2.0.0 created for presentation to RAN Plenary with additions from R5-115246, R5-115247, R5-115248, R5-115809	1.0.0	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	R5-120087	0001	-	Modify OTDOA connection diagrams	9.0.0	9.1.0
2012-03	RAN#55	R5-120089	0002	-	OTDOA parameter corrections	9.0.0	9.1.0
2012-03	RAN#55	R5-120414	0003	-	Adding ECID test cases to Annexes in TS 37.571-1	9.0.0	9.1.0
2012-03	RAN#55	R5-120822	0004	-	Correct A-GNSS signalling	9.0.0	9.1.0
2012-03	RAN#55	R5-120823	0005	-	ECID procedure modifications	9.0.0	9.1.0
2012-03	RAN#55	R5-120893	0006	-	OTDOA procedure updates	9.0.0	9.1.0
2012-06	RAN#56	R5-121126	0007	-	Update to Figure 9.1.1.3-1	9.1.0	9.2.0
2012-06	RAN#56	R5-121127	0008	-	Clarification to notes in tests 9.1.3 & 9.1.4	9.1.0	9.2.0
2012-06	RAN#56	R5-121128	0009	-	Clarifications to frequencies and bandwidths to be used	9.1.0	9.2.0
2012-06	RAN#56	R5-121129	0010	-	Setting responseTime in ECID test cases	9.1.0	9.2.0
2012-06	RAN#56	R5-121130	0011	-	Modifications to signalling used in OTDOA test cases	9.1.0	9.2.0
2012-06	RAN#56	R5-121908	0012	-	Adding operating band 26 to TS 37.571-1	9.1.0	9.2.0
2012-06	RAN#56	-	-	-	Added missing contents from R5-121126, R5-121127, R5-121128	9.2.0	9.2.1
2012-06	RAN#56	-	-	-	Upgraded to v10.0.0 with no change.	9.2.1	10.0.0
2012-09	RAN#57	R5-123066	0013	-	Correction to RSTD Measurement Accuracy Tests 9.1.3 and 9.1.4	10.0.0	10.1.0
2012-09	RAN#57	R5-123913	0014	-	Addition of RRM Test Case 9.8.4 TDD inter-frequency RSTD Accuracy	10.0.0	10.1.0
2012-12	RAN#58	R5-125136	0015	-	Corrections to references	10.1.0	10.2.0
2012-12	RAN#58	R5-125188	0016	-	Correction to LPP Message Content for GNSS Moving Scenario Test	10.1.0	10.2.0
2012-12	RAN#58	R5-125806	0018	-	New test case 10.1 FDD RSTD Measurement Reporting Delay for Carrier Aggregation	10.1.0	10.2.0
2012-12	RAN#58	R5-125807	0019	-	New test case 10.2 TDD RSTD Measurement Reporting Delay for Carrier Aggregation	10.1.0	10.2.0
2012-12	RAN#58	R5-125808	0020	-	New test case 10.3 FDD RSTD Measurement Accuracy for Carrier Aggregation	10.1.0	10.2.0
2012-12	RAN#58	R5-125809	0021	-	New test case 10.4 TDD RSTD Measurement Accuracy for Carrier Aggregation	10.1.0	10.2.0
2012-12	RAN#58	R5-125831	0022	-	Adding bands 28 and 44 to TS 37.571-1	10.1.0	10.2.0
2012-12	RAN#58	R5-125847	0023	-	Corrections to procedures for RSTD tests	10.1.0	10.2.0
2012-12	RAN#58	R5-125848	0024	-	Correction of OCNG Patterns for UE Rx - Tx Time Difference Test Cases	10.1.0	10.2.0
2012-12	RAN#58	R5-125916	0025	-	Add editor's note for value of lprs for test case 9.1.4	10.1.0	10.2.0
2012-12	RAN#58	R5-124120	0026	-	New common text for test cases 10.1 - 10.4 for RSTD for Carrier Aggregation	10.1.0	10.2.0
2013-03	RAN#59	R5-130959	0027	-	LBS Perf: Corrections to TCs 8.1.1 and 8.1.2	10.2.0	10.3.0
2013-06	RAN#60	R5-131097	0028	-	Removal of Note 1 from OTDOA parameter tables	10.3.0	10.4.0
2013-06	RAN#60	R5-131176	0029	-	Clarification to RSTD Delay Test procedures	10.3.0	10.4.0
2013-06	RAN#60	R5-131943	0030	-	New Test Case for FDD-FDD inter-frequency RSTD Accuracy	10.3.0	10.4.0
2013-06	RAN#60	R5-131944	0031	-	New Test Case for FDD-FDD inter-frequency RSTD measurement reporting delay	10.3.0	10.4.0
2013-06	RAN#60	R5-131945	0032	-	OTDOA test case alignment with RAN 4	10.3.0	10.4.0
2013-06	RAN#60	R5-131946	0033	-	Corrections to ECID and OTDOA tests Note: same contents as R5-131945 was submitted by accident.	10.3.0	10.4.0
2013-06	RAN#60	R5-131947	0034	-	RSTD test parameter updates	10.3.0	10.4.0
2013-06	RAN#60	R5-131993	0035	-	Test Description for TDD inter-frequency accuracy test case	10.3.0	10.4.0
2013-06	RAN#60	R5-131994	0036	-	New test case for TDD inter-frequency RSTD reporting delay 9.2.2	10.3.0	10.4.0
2013-09	RAN#61	R5-133173	0037	-	Tidy up of Table 9.2.1.4.1-1	10.4.0	10.5.0
2013-09	RAN#61	R5-133174	0038	-	Corrections to ECID and OTDOA tests	10.4.0	10.5.0