3GPP TS 34.171 V9.4.0 (2012-03)

Technical Specification

**3rd Generation Partnership Project;
Technical Specification Group Radio Access Network;
Terminal conformance specification;
Assisted Global Positioning System (A-GPS);
Frequency Division Duplex (FDD)
(Release 9)**

Keywords
testing, UMTS, LTE

3GPP

Postal address

3GPP support office address
650 Route des Lucioles - Sophia Antipolis
Valbonne - FRANCE
Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Internet
http://www.3gpp.org

Contents

Foreword

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

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

Version x.y.z

where:

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.

1 Scope

The present document specifies the measurement procedures for the conformance test of the minimum performance requirements for FDD mode of UTRA user equipment (UE) where the only Assisted Global Navigation Satellite System (A-GNSS) supported is Assisted Global Positioning System (A-GPS) L1 C/A. The procedures for UEs that support other or additional A-GNSSs are specified in 3GPP TS 34.172 [18].

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 "*definition and applicability*" part of the test.

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*.

  - For a Release 1999 UE, references to 3GPP documents are to version 3.x.y.

  - For a Release 4 UE, references to 3GPP documents are to version 4.x.y.

  - For a Release 5 UE, references to 3GPP documents are to version 5.x.y.

  - For a Release 6 UE, references to 3GPP documents are to version 6.x.y.

  - For a Release 7 UE, references to 3GPP documents are to version 7.x.y.

  - For a Release 8 UE, references to 3GPP documents are to version 8.x.y.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TR 25.990: "Vocabulary for UTRAN".

[3] to [17] Void

[18] 3GPP TS 34.172: "Terminal conformance specification; Assisted Global Navigation Satellite Systems (A-GNSS); Frequency Division Duplex (FDD)".

[19] Void

[20] 3GPP TS 37.571-1: "User Equipment (UE) conformance specification for UE positioning; Part 1: Conformance test specification".

[21] 3GPP TS 37.571-3: "User Equipment (UE) conformance specification for UE positioning; Part 3: Implementation Conformance Statement (ICS)".

3 Definitions, symbols, abbreviations and equations

3.1 Definitions

For the purpose of the present document, the terms and definitions given in 3GPP TR 21.905 [1], 3GPP TR 25.990 [2] and the following apply:

L1: L band GPS transmission frequency of 1575.42 MHz.

3.2 Symbols

Void

3.3 Abbreviations

For the purpose of the present document, the abbreviations given in 3GPP TR 21.905 [1], 3GPP TR 25.990 [2] and the following apply:

A-GPS	Assisted - Global Positioning System
A-GNSS	Assisted Global Navigation Satellite System
C/A	Coarse/Acquisition
GPS	Global Positioning System
GNSS	Global Navigation Satellite System

4 General

The technical content (except for Annex G) of the present document is provided in 3GPP TS 37.571-1 [20].

The mapping of the technical content of the test cases provided in the previous version of the present document to the test cases currently provided in 3GPP TS 37.571-1 [20] is given in table 4.1.

Table 4.1: Mapping of the test cases from TS 34.171 to TS 37.571-1

Test Case Name	Clause number in TS 34.171	Clause number in TS 37.571-1
Sensitivity Coarse Time Assistance	5.2.1	5.2.1
Sensitivity Fine Time Assistance	5.2.2	5.2.2
Nominal Accuracy	5.3	5.3
Dynamic Range	5.4	5.4
Multi-path Performance	5.5	5.5
Moving Scenario and Periodic Update Performance	5.6	5.6

The technical content of Annex G (Test case applicability and ICS proforma) of the present document is provided in 3GPP TS 37.571-3 [21].

5 Void

Annex A to G: Void

Annex H (informative): Change history

Meeting	Document	CR	Rev	Subject	Cat	Version - old	Version - new	WG Document
RP-28	RP-050264	-	-	Approved to go under change control	-	2.0.0	6.0.0	R5-050832
RP-29	RP-050512	0001	-	Addition of test tolerances to TS 34.171	F	6.0.0	6.1.0	R5-051075
RP-29	RP-050512	0002	-	Addition of maximum permitted test time to test 5.6	F	6.0.0	6.1.0	R5-051290
RP-29	RP-050512	0003	-	Statistical testing in A-GPS	F	6.0.0	6.1.0	R5-051435
RP-29	RP-050512	0004	-	Change to method of selecting satellites in tests 5.4 and 5.5	F	6.0.0	6.1.0	R5-051437
RP-30	RP-050720	0005	-	Changes to test procedure in Test Case 5.6	F	6.1.0	6.2.0	R5-052322
RP-31	RP-060166	0006	-	Correction of SIBs to be broadcast	F	6.2.0	6.3.0	R5-060006
RP-31	RP-060166	0007	-	Correction of "5.6 Moving scenario and periodic updating" concerning statistics	F	6.2.0	6.3.0	R5-060589
RP-32	RP-060331	0008	-	Correction to allowable GPS Simulator Positioning Uncertainty	F	6.3.0	6.4.0	R5-061229
RP-32	RP-060331	0009	-	Horizontal accuracy IE change for nominal accuracy test	F	6.3.0	6.4.0	R5-061230
RP-33	RP-060560	0010	-	Implementation change for Moving Scenario and Periodic Update Performance Test	F	6.4.0	6.5.0	R5-062028
RP-33	RP-060560	0011	-	Test procedure change to A-GPS Minimum Performance TTFF test cases	F	6.4.0	6.5.0	R5-062029
RP-33	RP-060560	0012	-	Change to UE Simulated Altitude	F	6.4.0	6.5.0	R5-062093
RP-36	RP-070354	0013	-	Change to Pass/Fail criteria for Moving Scenario test case 5.6	F	6.5.0	6.6.0	R5-071344
-	-	-	-	Without change in technical content the spec has been upgraded to Release-7 (v7.0.0)		6.6.0	7.0.0	-
-	-	-	-	Completion of previous entry in history table		7.0.0	7.0.1	-
RP-39	RP-080098	0014	-	Addition of test case applicability and ICS proforma to TS 34.171	F	7.0.1	7.1.0	R5-080400
RP-40	RP-080363	0015	-	Deletion of PICS 'Support of UE assisted Network Assisted GPS' from 34.171	F	7.1.0	7.2.0	R5-081347
RP-43	RP-090205	0016	-	Update of TS 34.171 from Rel-7 to Rel-8	F	7.2.0	8.0.0	R5-090762
-	-	-	-	Update without change to 8.1.0		8.0.0	8.1.0	-
RP-47	-	-	-	Update without change to 9.0.0	-	8.1.0	9.0.0	-
RP-51	RP-110173	0017	-	Clarification of Scope and ICS	F	9.0.0	9.1.0	R5-110126
RP-52	RP-110652	0018	-	Removal of lower humidity limit	F	9.1.0	9.2.0	R5-112143
RP-53	RP-111152	0019	-	Transfer of A-GPS Assistance Data to TS 37.571-5	F	9.2.0	9.3.0	R5-113146
RP-54	RP-120184	0020	-	Void technical contents	F	9.3.0	9.4.0	R5-120083