



LTE;
Evolved Universal Terrestrial Radio Access (E-UTRA);
User Equipment (UE) conformance specification;
Radio transmission and reception;
Part 1: Conformance testing
(3GPP TS 36.521-1 version 15.6.0 Release 15)



Reference

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Keywords

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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.

Introduction

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

3GPP TS 36.521-1: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception; Part 1: Conformance Testing.

3GPP TS 36.521-2 [11]: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception; Part 2: Implementation Conformance Statement (ICS).

3GPP TS 36.521-3 [12]: Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification Radio transmission and reception; Part 3: Radio Resource Management (RRM) conformance testing.

1 Scope

The present document specifies the measurement procedures for the conformance test of the user equipment (UE) that contain transmitting characteristics, receiving characteristics and performance requirements as part of the 3G Long Term Evolution (3G LTE). Conformance test for the support of RRM (Radio Resource Management) are specified in TS 36.521-3 [12].

The requirements are listed in different clauses only if the corresponding parameters deviate. More generally, 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.

For example only Release 8 and later UE declared to support LTE shall be tested for this functionality. In the event that for some tests different conditions apply for different releases, this is indicated within the text of the test itself.

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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 [22] (void)

- [23] 3GPP TS 36.521-1 Release 16: "Evolved Universal Terrestrial Radio Access (E-UTRA); User Equipment (UE) conformance specification; Radio transmission and reception; Part 1: Conformance Testing"

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3 Definitions, symbols and abbreviations

Void

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4 General

The requirements of the present document are provided in 3GPP TS 36.521-1 Release 16 [23].

5 to 14 Void

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Annex A to K: Void

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Annex L (informative):
Change history

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Change history							
Date	TSG #	TSG Doc.	CR	R ev	Subject/Comment	Old	New
2007-08	RAN5 #36	R5-072185			Skeleton proposed for RAN5#36Athens		0.0.1
2007-08	RAN5 #36	R5-072419			Update the skeleton base on R4-071234_TR36.803.0.4.0.doc	0.0.1	0.0.2
2007-08	RAN5 #36	R5-072424			Update with editorial changes	0.0.2	0.0.3
2007-11	RAN5 #37	R5-073043			Update document with some info as following: Section 5: Frequency band information Section 6.2: Maximum output power Section 6.5: Output RF spectrum emissions Section 6.5.1: Occupied bandwidth Section 6.5.2: Out of band emission Section 6.5.3: Spurious emissions	0.0.3	0.0.4
2007-11	RAN5 #37	R5-073360			Editorial change to split MOP and UE Power classes	0.0.4	0.0.5
2008-03	RAN5 #38	R5-080069			Editorial changes to sync up with 36.101 v1.0.0 as much as feasible for the moment: Update definitions, symbols and abbreviations Update frequency bands, channel bandwidth, channel numbers information. Restructure document to move "frequency error" sub-section inside Transmit signal quality. Add "additional spectrum Emission Mask" sub-test (mask A,B,C) section to address the regulatory requirements that are not met with the general mask (OOB and spurious emission). Add "Additional ACLR requirements" to address additional requirements that the network might indicate to the UE via signalling for a specific deployment scenario (in terms of additional requirements for UTRA/ACLR2 Restructure "Spurious Emission" to indicate we need to have 3 test cases to address: "E-UTRA Spurious Emission" requirements, "Spurious Emission band UE co-existence" requirements, and "Additional spurious emissions" requirements Separate wide band and narrow band intermodulation in the intermodulation characteristics	0.0.5	0.0.6
2008-03	RAN5 #38	R5-080408			LTE Reference Sensitivity test Text proposal		0.0.7
2008-03	RAN5 #38	R5-080409			LTE Maximum Rx input level test Text proposal		0.0.7
2008-03	RAN5 #38	R5-080410			LTE Adjacent Channel Selectivity test Text proposal		0.0.7
2008-03	RAN5 #38	R5-080064			LTE RF Receiver tests, General section Text proposal		0.0.7
2008-03	RAN5 #38	R5-080412			LTE RF: transmission modulation initial EVM test proposal		0.0.7
2008-03	RAN5 Workshop- UE LTE Test (9-11 April)	R5w0800027			Modify styles and formats of tables and others according to drafting rules. Add some definitions and abbreviations Modified section 6.2 structure to be aligned with 36.101 v8.1.0 Modify tables of requirements to remove 1.6 MHz and 3.2MHz channel bandwidth according to new requirements 36.101 v8.1.0		0.0.9
2008-03	RAN5 Workshop- UE LTE Test (9-11 April)	R5w0800028			Following TPs have been included: R5w080013r1 R5w080014r1 R5w080008r2 R5w080009r2 R5w080040r1 R5w080015r1 R5w080016r1 R5w080017r1 R5w080018r2	0.0.9	0.1.0
2008-05	RAN5#39	R5-081046			36-521-1 alignment of measurement state for test cases	0.1.0	0.1.1

2008-05	RAN5#39	R5-081042		<p>Following approved TPs have been included:</p> <p>R5-081040 36.521-1 after April LTE-RF workshop</p> <p>R5-081415 36-521-1 alignment of measurement state for test cases – also the measurement state for each test cases has been updated according to R5-081404</p> <p>R5-081416 Cover for LTE E-UTRAN RRC_IDLE State Mobility text proposal</p> <p>R5-081417 Cover for LTE E-UTRAN RRC_CONNECTED State Mobility text proposal</p> <p>R5-081404 LTE Rx Intermodulation test case text proposal</p> <p>R5-081409 Annex structure for Measurement uncertainty & Test Tools</p> <p>R5-081405 Text Proposal for TS 36.521-1 TC7.6 Blocking Characteristics</p> <p>R5-081406 Text Proposal for TS 36.521-1 TC7.7 Spurious Response</p> <p>R5-081403 Text Proposal for TS 36.521-1 TC7.9 Spurious Emissions</p> <p>R5-081410 Uncertainties and Test Tools for subset of UE tests</p> <p>R5-081331 Clarification of diversity characteristics section for multiple UE antennas</p> <p>R5-081335 36-521-1 update of nominal and additional channel bandwidths</p>	0.1.1	0.2.0
2008-06	RAN5 #39bis	R5-082029		<p>Following approved TPs have been included:</p> <p>R5-082129: Restructure of TS 36.521-1 and RRM proposal (Split of RRM from 36.521-1 v0.2.0 in its own specification 36.521-3.)</p> <p>R5-082166: Text Proposal for Annex C Downlink Physical Channels</p> <p>R5-082130: Text Proposal for Chan bandwidths in TS 36.521-1</p> <p>R5-082155: Text Proposal for LTE Tx Minimum Output Power</p> <p>R5-082027: Text Proposal for Occupied bandwidth in TS 36.521-1</p> <p>R5-082171: Text Proposal for LTE Adjacent Channel Leakage power Ratio</p> <p>R5-082134: Text Proposal for LTE Tx Spurious Emissions</p> <p>R5-082135: Text Proposal for LTE UE Maximum Output Power</p> <p>R5-082136: Text Proposal for LTE Spectrum Emission Mask</p> <p>R5-082138: UE Spurious Emissions Measurement uncertainty & Test Tolerances</p> <p>R5-082169: LTE Spectrum Emission Mask test uncertainties and TTs</p> <p>R5-082151: LTE UE Max Power and ACLR tests uncertainties and TTs</p> <p>R5-082152: Text proposal for LTE Transmit OFF Power</p> <p>R5-082153: LTE UE Max Rx Input and ACS test cases update</p> <p>R5-082082: LTE Rx Intermodulation test case uncertainties and TTs</p> <p>R5-082093: Text Proposal for TS 36.521-1 TC7.6 Blocking Characteristics</p> <p>R5-082154: Text Proposal for TS 36.521-1 TC7.7 Spurious Response</p> <p>R5-082167: OBW Measurement uncertainty & Test Tolerances</p> <p>R5-082158: Cover for LTE Performance Requirement text proposal</p> <p>R5-082159: Text Proposal for LTE Demodulation of PCFICH/PDCCH and PHICH</p> <p>R5-082156: Text proposal for LTE Tx Minimum Output Power Uncertainty</p> <p>R5-082157: Text proposal for LTE Tx Minimum Output Power Tolerance</p> <p>R5-082164: Statistical testing of receiver characteristics</p> <p>R5-082170: Cover for LTE Propagation Conditions Text Proposal</p> <p>Editorial changes to align tables and figures numbering with R5-082025</p>	0.2.0	0.3.0