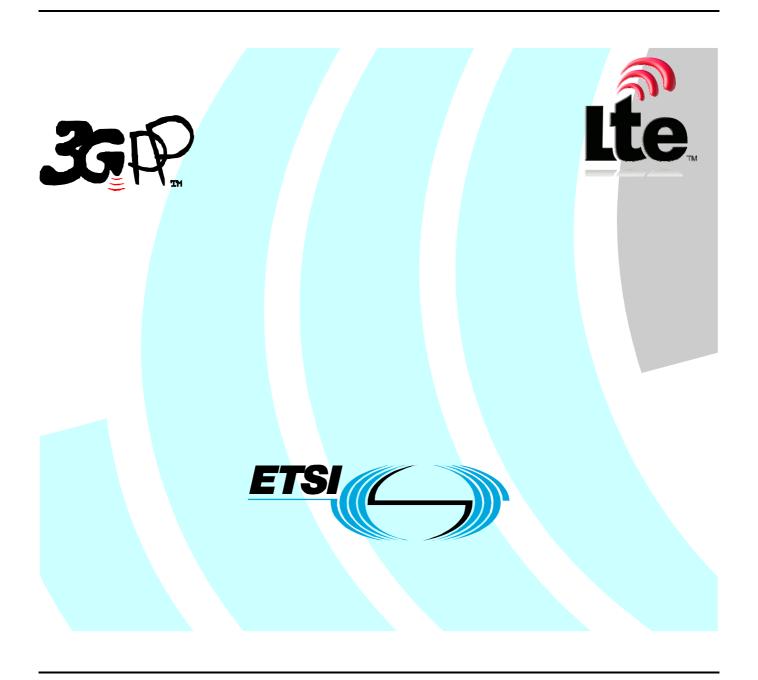# ETSI TS 134 114 V8.4.0 (2010-06)

Technical Specification

**Digital cellular telecommunications system (Phase 2+);
Universal Mobile Telecommunications System (UMTS);
LTE;
User Equipment (UE) / Mobile Station (MS)
Over The Air (OTA) antenna performance;
Conformance testing
(3GPP TS 34.114 version 8.4.0 Release 8)**

Reference

RTS/TSGR-0534114v840

Keywords

GSM, LTE, UMTS

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Contents

Foreword

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

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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 describes the test procedure for the radiated performances measurements of the 3G/2G user equipment/mobile stations (UE/MS) in active mode in both the up- and the downlink. The FDD UE test procedure is based on the test method developed as a result of COST 273 Sub-Working Group (SWG) 2.2 members' contributions. Background work has also been made in the former COST259 project. The TDD UE test procedure is based on the test method developed as a result of CCSA TC9 WG1 members' contributions. Background work has been made in the former CCSA TC9 project.

The measurement procedure explained in this document applies to UE/MS used under the "speech mode" conditions that correspond to predefined positions for voice application when the handset is held close to the user's head. This method is also applicable to free space measurements and for testing data applications.

The testing methodology applies to any single or multi-mode (GSM / UMTS / TD-SCDMA) terminals.

The radio tests considered here are:

1. The measurement of the Total Radiated Power (TRP)

2. The measurement of the Total Radiated Sensitivity (TRS)

The test procedure described in this document measures the performance of the transmitter and the receiver, including the antenna and also the effects of the user.

The major parts of this test procedure are based on the 3-D pattern measurement method. It has been considered necessary to define some items and components in the test procedure in detail, such as test channels and phantom set-ups, in order to make the testing in different laboratories harmonized. The procedure is, however, not limited to some specific antenna chambers or positioners.

# 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.

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[1] to [13]	(void)

[14]	3GPP TS 34.114: "User Equipment (UE) / Mobile Station (MS) Over The Air (OTA) antenna performance;Conformance testing".

# 3	Definitions, symbols, abbreviations and equations

Void

# 4	General

The requirements of the present document are provided in 3GPP TS 34.114 Release 9 [14].

5 to 6 Void

Annex A to I: Void

Annex J (informative):
Change history

Meeting-1st-Level	Doc-1st-Level	CR	Rev	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level
RP-37	RP-070665	-	-	TS 34.114 for information	-	-	1.0.0	R5-072420
RP-41	RP-080612	-	-	New version of 34.114	-	1.0.0	7.0.0	R5-083817
RP-43	RP-090203	0001	-	Update of TS 34.114 from Rel-7 to Rel-8		7.0.0	8.0.0	R5-090761
RP-43	RP-090203	0002	-	Addition of Band V,VI and VIII minimum & test requirements to 34.114		8.0.0	8.1.0	R5-090412
RP-45	RP-090813	0003	-	TDD UE over the Air conformance testing methodology	-	8.1.0	8.2.0	R5-094961
RP-46	RP-091119	0004	-	Over The Air antenna performance: New informative Annex for Recommended performance	-	8.2.0	8.3.0	R5-096254
RP-48	RP-100511	0005	-	Removal of technical content in 34.114 v8.3.0 and substitution with pointer to the next Release	-	8.3.0	8.4.0	R5-103229

History

Document history		
V8.0.0	January 2009	Publication
V8.1.0	April 2009	Publication
V8.2.0	October 2009	Publication
V8.3.0	February 2010	Publication
V8.4.0	June 2010	Publication