# ETSI TR 134 926 V12.0.0 (2014-10)



Universal Mobile Telecommunications System (UMTS); LTE;

Electromagnetic compatibility (EMC);
Table of international requirements for mobile terminals and ancillary equipment
(3GPP TR 34.926 version 12.0.0 Release 12)



Reference
RTR/TSGR-0434926vc00

Keywords
LTE, UMTS

#### **ETSI**

650 Route des Lucioles F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C Association à but non lucratif enregistrée à la Sous-Préfecture de Grasse (06) N° 7803/88

#### Important notice

The present document can be downloaded from: http://www.etsi.org

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the only prevailing document is the print of the Portable Document Format (PDF) version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status.

Information on the current status of this and other ETSI documents is available at

<a href="http://portal.etsi.org/tb/status/status.asp">http://portal.etsi.org/tb/status/status.asp</a></a>

If you find errors in the present document, please send your comment to one of the following services: http://portal.etsi.org/chaircor/ETSI\_support.asp

#### **Copyright Notification**

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2014.
All rights reserved.

**DECT**<sup>TM</sup>, **PLUGTESTS**<sup>TM</sup>, **UMTS**<sup>TM</sup> and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members. **3GPP**<sup>TM</sup> and **LTE**<sup>TM</sup> are Trade Marks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

GSM® and the GSM logo are Trade Marks registered and owned by the GSM Association.

# Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (http://ipr.etsi.org).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

#### **Foreword**

This Technical Report (TR) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under <a href="http://webapp.etsi.org/key/queryform.asp">http://webapp.etsi.org/key/queryform.asp</a>.

# Modal verbs terminology

In the present document "shall", "shall not", "should", "should not", "may", "may not", "need", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the <a href="ETSI Drafting Rules">ETSI Drafting Rules</a> (Verbal forms for the expression of provisions).

"must" and "must not" are NOT allowed in ETSI deliverables except when used in direct citation.

# Contents

Intel	llectual Property Rights	2
	eword	
	lal verbs terminology	
	eword	
	oduction	
	Scope	
	References	
3 3.1	Definitions and abbreviations Definitions	6 6
4	Table of International EMC Requirements for Mobile terminals and ancillary equipment	8
Ann	ex A (informative): Change history	11
	History	

### **Foreword**

This Technical Report has been produced by the 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 this TR, 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 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

This Technical Report is a living document and will continuously be upgraded as standards and regulations change. Sections will be added for new regions or nations, which enter the 3GPP and have different requirements. It is the intention to reference global standards but where it is known that none exist then alternative standards mandated by the regional and or national requirements will be quoted.

The sole purpose of the document is as a reference to the current status at time of publication. When new versions are published they will supersede the previous ones.

## 1 Scope

[13]

The present document shows in tabular form most of the current regulatory and voluntary requirements by region or nation, and is for information purposes only.

### 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.
- [1] IEC 61000-6-1 (1997): "Electromagnetic compatibility (EMC) – Part 6: Generic standards -Section 1: Immunity standard for residential, commercial and light-industrial environments". [2] IEC 61000-6-3 (1996): "Electromagnetic compatibility (EMC) - Part 6: Generic standards -Section 3: Emission standard for residential, commercial and light-industrial environments. ISO 7637-1 (1990): "Road vehicles - Electrical disturbance by conduction and coupling - Part 1: [3] Passenger cars and light commercial vehicles with nominal 12 V supply voltage - Electrical transient conduction along supply lines only". [4] ISO 7637-2 (1990): "Road vehicles - Electrical disturbance by conduction and coupling - Part 2: Commercial vehicles with nominal 24 V supply voltage - Electrical transient conduction along supply lines only". RECOMMENDATION ITU-R SM.329 "Unwanted emissions in the spurious domain " [5] IEC CISPR publication 22; 3<sup>rd</sup> edition (1997-11); "Information technology equipment; Radio [6] disturbance characteristics - Limits and methods of measurement" IEC CISPR publication 16-1; (1993); Radio disturbance and immunity measuring apparatus"; [7] Am.1 (1997); "Specification for radio disturbance and immunity measuring apparatus and methods" [8] IEC 61000-3-2; (1995-03); "Electromagnetic compatibility; Part 3 - Limits; section 2 - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)"; Am.1 (1997-09) [9] IEC 61000-3-3; (1994-12); "Electromagnetic compatibility; Part 3 - Limits; section 2 - Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current ≤ 16 A" [10] IEC 61000-4-2; "Electromagnetic compatibility (EMC) – Part 4: Testing and measurement techniques – section 2: Electrostatic discharge immunity test – Basic EMC publication" IEC 61000-4-3; "Electromagnetic compatibility (EMC) - Part 4: Testing and measurement [11] techniques – section 3: Radiated, radio-frequency electromagnetic field immunity test" [12] IEC 61000-4-4; "Electromagnetic compatibility (EMC) - Part 4: Testing and measurement techniques – section 4: Electrical fast transient/burst immunity test – Basic EMC publication"

techniques – section 5: Surge immunity test"

IEC 61000-4-5; "Electromagnetic compatibility (EMC) - Part 4: Testing and measurement