

# ETSI TS 136 421 V11.1.0 (2013-01)



**LTE;  
Evolved Universal Terrestrial Radio  
Access Network (E-UTRAN);  
X2 layer 1  
(3GPP TS 36.421 version 11.1.0 Release 11)**



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**Reference**

RTS/TSGR-0336421vb10

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**Keywords**

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# Foreword

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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;
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- 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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# 1 Scope

The present document specifies the standards allowed to implement Layer 1 on the X2 interface.

The specification of transmission delay requirements and O&M requirements are not in the scope of the present document.

In the following "Layer 1" and "Physical Layer" are assumed to be synonymous.

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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.
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- 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] 3GPP TS 36.411: "Evolved Universal Terrestrial Radio Access Network (E-UTRAN); S1 layer 1".

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# 3 Definitions, symbols and abbreviations

## 3.1 Definitions

For the purposes of the present document, the definitions given in TS 36.411 [1] apply.

## 3.2 Symbols

For the purposes of the present document, the symbols given in TS 36.411 [1] apply.

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in TS 36.411 [1] apply.

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# 4 Introduction

The X2 Layer 1 shall comply with the requirements of clauses 4 through 6 in TS 36.411 [1].

## Annex A (informative): Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
2007-09	37	RP-070587			specification presented to TSG-RAN for information	0.0.1	1.0.0
2007-11	38	RP-070854			specification presented to TSG-RAN for approval	1.0.0	2.0.0
2007-12	38				specification approved at TSG-RAN and placed under change control	2.0.0	8.0.0
2009-12	46				Upgraded to Release 9	8.0.0	9.0.0
2010-02					History section updated	9.0.0	9.0.1
2010-12					Rel-10 created based on v. 9.0.1	9.0.1	10.0.0
2011-03	SP-49	SP-100629			Clarification on the use of References (TS 21.801 CR#0030)	10.0.0	10.0.1
2012-09					Update to Rel-11 version (MCC)	10.0.1	11.0.0
2012-12	58	RP-121737	2	1	Rapporteur editorial cleanup	11.0.0	11.1.0

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## History

<b>Document history</b>		
V11.0.0	October 2012	Publication
V11.1.0	January 2013	Publication