

**TS-3GA-36.421(Rel12)v12.0.0**  
**Evolved Universal Terrestrial Radio**  
**Access Network (E-UTRAN); X2**  
**layer 1**

2015年3月5日制定

一般社団法人  
情報通信技術委員会

THE TELECOMMUNICATION TECHNOLOGY COMMITTEE

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<参考> [Remarks]

1. 英文記述の適用レベル [Application level of English description]

適用レベル [Application level] : E2

本標準の本文、付属資料および付録の文章および図に英文記述を含んでいる。

[English description is included in the text and figures of main body, annexes and appendices.]

2. 国際勧告等の関連 [Relationship with international recommendations and standards]

本標準は、3GPP で承認された Technical Specification 36.421 (Version 12.0.0) に準拠している。

[This standard is standardized based on the Technical Specification 36.421 (Version 12.0.0) approved by 3GPP.]

3. 上記国際勧告等に対する追加項目等 [Departures from international recommendations]

原標準に対する変更項目 [Changes to original standard]

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5. 作成専門委員会 [Working Group]

3GPP 専門委員会 [3GPP Working Group]

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*Technical Specification*

**3rd Generation Partnership Project;  
Technical Specification Group Radio Access Network;  
Evolved Universal Terrestrial Radio Access Network  
(E-UTRAN);  
X2 layer 1  
(Release 12)**



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**Keywords**

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**UMTS, RADIO, ACCESS, LAYER 1, STAGE 3**

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## Foreword

This Technical Specification has been produced by the 3<sup>rd</sup> 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.

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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.
- 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] 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
2014-09					Update to Rel-12 version (MCC)	11.1.0	12.0.0