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Universal Mobile Telecommunications System (UMTS); Location Measurement Unit (LMU) performance specification; User Equipment (UE) positioning in UTRAN (3GPP TS 25.111 version 13.0.0 Release 13)



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## Contents

Intel	llectual Property Rights	2
Fore	eword	2
Mod	dal verbs terminology	2
	<del></del>	
Fore	eword	4
Intro	oduction	4
1	Scope	5
2	References	5
3	Definitions and abbreviations	5
3.1	Definitions	
3.2	Abbreviations	
4	General	
4.1	Main concepts	
4.2	LMU Classes	
4.3	U-TDOA architecture	
5	LMU radio characteristics	
5.1	Frequency bands	7
5.2	Channel arrangement	
5.3	Reference sensitivity level	
5.4	Dynamic range	8
5.5	Adjacent Channel Selectivity (ACS)	
5.6	Blocking characteristics	
5.7	Intermodulation characteristics	
5.8	Spurious emissions	14
6	LMU measurement requirements	15
6.1	General	
6.2	RRC States supported	
6.3	Maximum response times	15
6.4	Nominal time accuracy	15
6.5	Multipath scenarios	16
6.6	Moving scenario	
6.7	Cross correlation	16
Ann	nex A (informative): Change history	17
Hieta	COPY	15

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## Introduction

In order to ensure correctness and consistency of the specifications (i.e., technical specifications and technical reports) under responsibility of the Technical Specification Groups (TSG) of the 3<sup>rd</sup> Generation Partnership Project (3GPP), clear, manageable and efficient mechanisms are necessary to handle version control, change control, document updating, distribution and management.

Also, the fact that the specifications are/will be implemented by industry almost in parallel with the writing of them requires strict and fast procedures for handling of changes to the specifications.

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The 3GPP TSGs, and their sub-groups together with the Support Team are responsible for the technical content and consistency of the specifications whilst the Support Team alone is responsible for the proper management of the entire documentation, including specifications, meeting documents, administrative information and information exchange with other bodies.

## 1 Scope

The present document establishes the Location Measurement Unit (LMU) minimum RF characteristics of the FDD mode of UTRA.

## 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 25.104: 'Base Station (BS) radio transmission and reception (FDD)'.
- [2] 3GPP TS 45.004: 'Modulation'.
- [3] 3GPP TS 25.141: 'Base Station (BS) conformance testing (FDD)'.
- [4] 3GPP TR 25.942: 'Radio Frequency (RF) system scenarios'.
- [5] 3GPP TR 21.905: 'Vocabulary for 3GPP Specifications'.

## 3 Definitions and abbreviations

#### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in TR 21.905 [5] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in TR 21.905 [5].

**Mean power:** When applied to a W-CDMA modulated signal this is the power (transmitted or received) in a bandwidth of at least  $(1+\alpha)$  times the chip rate of the radio access mode. The period of measurement shall be at least one timeslot unless otherwise stated.

NOTE: The roll-off factor  $\alpha$  is defined in clause 6.8.1 of [1].

## 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [5] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [5].

ACS Adjacent Channel Selectivity

BS Base Station
BER Bit Error Ratio
BLER Block Error Ratio

CW Continuous Wave (unmodulated signal)

DL Down Link (forward link)
FDD Frequency Division Duplexing

GSM Global System for Mobile Communications