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LTE;
Base Station (BS)
requirements and conformance tests
for shared spectrum channel access
(3GPP TS 37.107 version 15.0.0 Release 15)

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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

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Contents

Foreword

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- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The present document specifies the minimum Radio Frequency (RF) characteristics, minimum performance requirements, and the RF test methods and conformance requirements for E-UTRA with LAA Base Stations (BS).

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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[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 36.141: "Evolved Universal Terrestrial Radio Access (E-UTRA); Base Station (BS) conformance testing".

[3] ITU-R Recommendation M.1545: "Measurement uncertainty as it applies to test limits for the terrestrial component of International Mobile Telecommunications-2000".

[4] 3GPP TR 36.213: "Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TR 21.905 [1] and the following apply. A term defined in the present document takes precedence over the definition of the same term, if any, in 3GPP TR 21.905 [1].

3.2 Symbols

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in 3GPP TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in 3GPP TR 21.905 [1].

LBT	Listen-Before-Talk
PDSCH	Physical Downlink Shared Channel
RF	Radio Frequency

4 General

4.1 Relationship between minimum requirements and test requirements

The Minimum Requirements given in this specification make no allowance for measurement uncertainty. The test specification TS 36.141 [2] Annex G defines Test Tolerances. These Test Tolerances are individually calculated for each test. The Test Tolerances are used to relax the Minimum Requirements in this specification to create Test Requirements.

The measurement results returned by the Test System are compared - without any modification - against the Test Requirements as defined by the shared risk principle.

The Shared Risk principle is defined in ITU-R M.1545 [3].

5 Channel access procedures (core part)

5.1 Downlink channel access procedure

For downlink operation in Band 46 and Band 49, a channel access procedure for PDSCH transmission as described in TS 36.213 [4], Clause 15.1.1 is specified.

5.1.1 Channel access parameters

Channel access related parameters for PDSCH are listed in Table 5.1.1-1.

Table 5.1.1-1: Channel access parameters for PDSCH

Parameter	Unit	Value
LBT measurement bandwidth	MHz	10, 20
Energy detection threshold	dBm/20MHz dBm/10MHz	-72 -75
Maximum channel occupancy time	ms	8

5.1.2 Minimum requirement

The Base Station shall be able to assess whether the medium is busy or idle with at least 90% probability, using a channel access procedure with the parameters in Table 5.1.1-1.

6 Channel access procedures (performance part)

Annex A (informative): Change history

Change history							
Date	**Meeting**	**TDoc**	**CR**	**Rev**	**Cat**	**Subject/Comment**	**New version**
2018-03	RAN4#86	R4-1802453				TS skeleton created from 3GPP TS template.	0.0.1
2018-05	RAN4#87	R4-1807758				Updated TS draft for 37.107 with core part and corrections	0.1.0
2018-06	RAN#80	RP-181132				v1.0.0 submitted for plenary approval	1.0.0
2018-06	RAN#80					Approved by plenary – Rel-15 spec under change control	15.0.0

History

Document history		
V15.0.0	July 2018	Publication