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Title: **TR 25.882: 1.28 Mcps TDD option BS classification**

Agenda Item: **9.1.2.3**

Presentation of Specification to TSG or WG

Presentation to:	**TSG-RAN Meeting #13**
Document for presentation:	**TR 25.882 Version 1.0.0**
Presented for:	**Information**

Abstract of document:

This technical report documents the work performed in WG4 on the new work item on Base Station Classification for 1.28 Mcps TDD option. This TR contains the RF system scenarios, criteria for BS classification, and the derivation of new requirements to be incorporated into the core specifications 25.105 and 25.123.

Changes since last presentation to TSG-RAN Meeting:

This technical report is presented to TSG RAN for the first time, after approval of the corresponding work item at RAN #12.

Outstanding Issues:

Further study required with respect to the parameters

- ACLR

- ACS

- Blocking characteristics in case of co-location with GSM 900 and/or DCS 1800.

Contentious Issues:

None.

3GPP TR 25.882 V1.0.0 (2001-09)

Technical Report

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Contents

Foreword

This Technical Report has been produced by the 3rd 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.

1 Scope

The present document is a Technical Report on Release 5 work item "Base Station Classification for 1,28 Mcps TDD option.

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 25.105: "UTRA (BS) TDD; Radio transmission and Reception".

[2] 3GPP TS 25.123: "Requirements for Support of Radio Resources Management (TDD)".

[3] 3GPP TS 25.142: "Base station conformance testing (TDD)"

[4] 3GPP TR 25.942: "RF System Scenarios"

[5] UMTS 30.03 / TR 101 112: "Selection procedures for the choice of radio transmission technologies of the UMTS"

3 Definitions, symbols and abbreviations

Delete from the above heading those words which are not applicable.

Subclause numbering depends on applicability and should be renumbered accordingly.

3.1 Definitions

For the purposes of the present document, the [following] terms and definitions [given in ... and the following] apply.

Definition format

<defined term>: <definition>.

example: text used to clarify abstract rules by applying them literally.

3.2 Symbols

For the purposes of the present document, the following symbols apply:

Symbol format

<symbol> <Explanation>

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

Abbreviation format

    <ACRONYM>   <Explanation>

4 General

Current TSG RAN WG4 specifications have been done according to the requirements for the macrocell base stations (NodeBs). For the UTRA evolution requirement specifications for other types of base stations are needed as well to take into account different use scenarios and radio environments. In this technical report, base station classification is described and requirements for each base station class are derived.

5 System scenarios

This section describes the system scenarios for UTRA operation that are considered when defining base station classes. It also includes typical radio parameters that are used to derive requirements.

5.1 Indoor Environment

5.1.1 Path Loss Model

The indoor path loss model expressed in dB is in the following form, which is derived from the COST 231 indoor model:

$$L = 37 + 20 \, \mathrm{Log}_{10}(R) + \Sigma \, k_{wi} \, L_{wi} + 18{,}3 \, n^{((n+2)/(n+1)-0{,}46)}$$

where:

    R = transmitter-receiver separation given in metres

    k_{wi} = number of penetrated walls of type i

    $L_{wi\,=}$ loss of wall type i

    n = number of penetrated floors

Two types of internal walls are considered. Light internal walls with a loss factor of 3,4 dB and regular internal walls with a loss factor of 6,9 dB.

If internal walls are not modelled individually, the indoor path loss model is represented by the following formula:

$$L = 37 + 30 \, \mathrm{Log}_{10}(R) + 18{,}3 \, n^{((n+2)/(n+1)-0{,}46)}$$

where:

    R = transmitter-receiver separation given in metres;

    n = number of penetrated floors

Slow fading deviation in pico environment is assumed to be 6 dB.

5.2 Mixed Indoor – Outdoor Environment

5.2.1 Propagation Model

Distance attenuation inside a building is a pico cell model as defined in Chapter 5.1.1. In outdoors UMTS 30.03 model is used [5].

Attenuation from outdoors to indoors is sketched in Figure 5.1 below. In the figure star denotes receiving object and circle transmitting object. Receivers are projected to virtual positions. Attenuation is calculated using micro propagation model between transmitter and each virtual position. Indoor attenuation is calculated between virtual transmitters and the receiver. Finally, lowest pathloss is selected for further calculations. Only one floor is considered.

The total pathloss between outdoor transmitter and indoor receiver is calculated as

$$L = L_{micro} + L_{OW} + \Sigma \, k_{wi} \, L_{wi} + a * R \ ,$$

where:

L_{micro} = Micro cell pathloss according UMTS 30.03 Outdoor to Indoor and Pedestrian Test Environment pathloss model

L_{OW} = outdoor wall penetration loss [dB]

R = is the virtual transmitter-receiver separation given in metres;

k_{wi} = number of penetrated walls of type i;

L_{wi} = loss of wall type i;

a = 0,8 attenuation [dB/m]

<Editor Note: a reference to the source of the formula is required>

Slow fading deviation in mixed pico-micro environment shall be 6 dB.

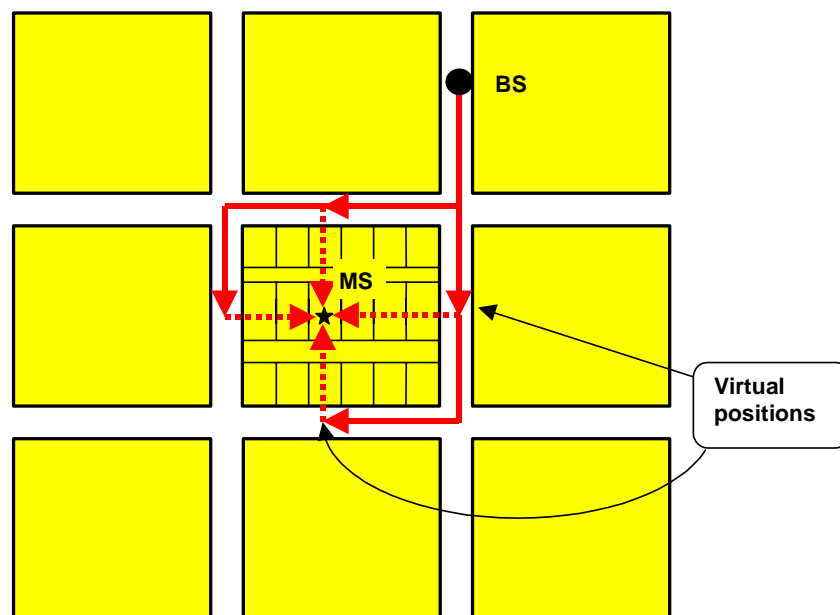Propagation from indoors to outdoors would be symmetrical with above models.

Figure 5.1: Simulation scenario and propagation model.

Parameters related to propagation models are summarised in Table 5.1.

Table 5.1: Parameters related to mixed indoor - outdoor propagation model

Parameter	Value
Inside wall loss	6,9 dB
Outside wall loss	10 dB
Slow fading deviation in indoors	6 dB
Slow fading deviation in outdoors	6 dB
Building size	110 x 110 meters
Street size	110 x 15 meters
Room size	22 x 25 meters
Number of rooms	5 rooms in 4 rows
Corridor size	110 x 5 meters
Number of corridors	2
Size of entrance point	5 meters
Number of base stations	4 .. 6
BS coordinates	tba

5.3 Minimum coupling loss (MCL)

Minimum Coupling Loss (MCL) is defined as the minimum distance loss including antenna gain measured between antenna connectors.

5.3.1 MCL for Local Area scenario

The minimum coupling loss between UEs is independent of the scenario, therefore the same minimum coupling loss is assumed for all environments.

Local area BSs are usually mounted under the ceiling, on wall or some other exposed position. In [4] chapter 4.1.1.2 a minimal separation of 2 metres between UE and indoor BS is assumed. Free space path loss is defined in [4] as:

$$\text{Path loss [dB]} = 38,25 + 20 \log10(d \text{ [m]})$$

Taking into account 0 dBi antenna gain for Local area BS and UE and a body loss of 1 dB at the terminal, a MCL of 45,27 dB is obtained. The additional 2 dB cable loss at the BS as proposed in TR 25.942 is not considered.

The assumed MCL values are summarised in Table 5.2.

Table 5.2: Minimum Coupling Losses

	MCL
MS $\leftrightarrow$ MS	40 dB
Local area BS $\leftrightarrow$ MS	45 dB
Local area BS $\leftrightarrow$ Local area BS	45 dB

5.4 Propagation conditions for local area base stations

The demodulation of DCH in multipath fading conditions in TS 25.105 considers three different test environments:

Case 1: Typical indoor environment delay spread, low terminal speed

Case 2: Large delay spread (12 µs), low terminal speed

Case 3: Typical vehicular environment delay spread, high terminal speed (120 km/h)

The local area BS is intended for small cells as can be usually found in indoor environments or outdoor hot spot areas. The large delay spread in Case 2 and the high terminal speed in Case 3 are not typical for these scenarios. Therefore, requirements defined for Case 2 and Case 3 shall not be applied to the local area BS. The Case 1 propagation condition shall apply for both the local area and wide area BS.

6 Base station classes

This section describes how the base station classes are defined.

6.1 Base station class criteria

Different sets of requirements are derived from calculations based on Minimum Coupling Loss between BS and UE. Each set of requirements corresponds to a base station class used as criteria for classification. Two classes are defined: Wide Area BS class and Local Area BS class.

Wide Area BS class assumes relatively high MCL, as is typically found in outdoor macro and outdoor micro environments, where the BS antennas are located off masts, roof tops or high above street level. Existing requirements are used, as they are in [1], for the Wide Area BS class. Requirements have been derived assuming 53 dB and 70 dB MCL for micro and macro scenarios, respectively.

Local Area BS class assumes relatively low MCL, as is typically found indoors (offices, subway stations etc) where antennas are located on the ceilings or walls or possibly built-in in the BS on the wall. Low-CL can also be found outdoors on hot spot areas like market place, high street or railway station. New requirements, as defined in this TR, are set for the Local Area BS class. Requirements have been derived assuming 40 dB MCL.

7 Changes with respect to Release 4

7.1 Changes in 25.105

This section describes the considered changes to requirements on BS minimum RF characteristics, with respect to Release 4 requirements in TS 25.105.

7.1.1 New text for base station classes

The requirements in this specification apply to both Wide Area Base Stations and Local Area Base Stations, unless otherwise stated.

Wide Area Base Stations are characterised by requirements based on BS to UE coupling losses equal to or higher than 53 dB.

Local Area Base Stations are characterised by requirements based on BS to UE coupling losses less than 53 dB.

7.1.2 Frequency stability

7.1.2.1 New requirement

In the present system, the mobile has to be designed to work with a Doppler shift caused by speeds up to 250 km/h at 2100 MHz. This corresponds to a frequency offset of:

[Doppler shift, Hz] = [UE velocity, m/s] * [Carrier frequency, Hz] / [speed of light, m/s]

$$= (250 * 1000/3600) * 2,1 * 10^9 / (3 * 10^8) \text{ Hz}$$

$$\approx 486 \text{ Hz}$$

At present, the BS requirement is 0,05 ppm, corresponding to 105 Hz at 2100 MHz.

In this case, the mobile must be able to successfully decode signals with offset of:

[present UE decode offset, Hz] = [frequency error, Hz] + [max. Doppler shift, Hz]

$$= 486 \text{ Hz} + 105 \text{ Hz}$$

$$= 591 \text{ Hz}$$

The frequency error requirement for local area BS class is proposed to be relaxed to 0,1 ppm.

[frequency error, ppm] = 0,1 ppm

This corresponds to a maximum UE speed of 155 km/h.

[max. new Doppler shift] = [present UE decode offset] - [frequency error, Hz]

$$= 591 \text{ Hz} - 210 \text{ Hz}$$

$$= 301 \text{ Hz}$$

[UE velocity, km/h] = [speed of light, km/h] * [Doppler shift, Hz] / [Carrier frequency, Hz]

$$= (3 * 10^8 * 301 * 3600) / (2,1 * 10^9 * 1000)$$

$$= 155 \text{ km/h}$$

7.1.2.2   New text for frequency stability

The modulated carrier frequency is observed over a period of one power control group (timeslot). The frequency error shall be within the accuracy range given in Table 7.1.

Table 7.1: Frequency error minimum requirement

BS class	accuracy
Wide area BS	±0,05 ppm
Local area BS	±0,1 ppm

7.1.3   Adjacent Channel Leakage power Ratio (ACLR)

7.1.4   Reference sensitivity level

The reference sensitivity is the minimum receiver input power measured at the antenna connector at which the Bit Error Ratio (BER) does not exceed the specific value indicated in section 7.1.4.1.

7.1.4.1   Minimum Requirement

For the measurement channel specified in Annex A of TS 25.105, the reference sensitivity level and performance of the BS shall be as specified in table 7.xx below.

Table 7.xx: BS reference sensitivity levels

BS class	Data rate	BS reference sensitivity level (dBm)	BER
Wide area BS	12,2 kbps	-110 dBm	BER shall not exceed 0,001
Local area BS	12,2 kbps	-96 dBm	BER shall not exceed 0,001

7.1.5   Adjacent Channel Selectivity (ACS)

7.1.6   Blocking and Intermodulation Characteristics

7.1.6.1   Blocking characteristics

The blocking characteristics is a measure of the receiver ability to receive a wanted signal at its assigned channel frequency in the presence of an unwanted interferer on frequencies other than those of the adjacent channels. The

blocking performance requirement applies to interfering signals with center frequency within the ranges specified in the tables below, using a 1 MHz step size.

7.1.6.1.0 Minimum requirement

The static reference performance as specified in clause 7.2.1 shall be met with a wanted and an interfering signal coupled to the BS antenna input using the following parameters.

Table 7.x(a): Blocking requirements for operating bands defined in 5.2(a)

Center Frequency of Interfering Signal	Interfering Signal Level	Wanted Signal Level	Minimum Offset of Interfering Signal	Type of Interfering Signal
1900 – 1920 MHz, 2010 – 2025 MHz	-30 dBm	<REFSENS> + 6 dB	3.2MHz	Narrow band CDMA signal with one code
1880 – 1900 MHz, 1990 – 2010 MHz, 2025 – 2045 MHz	-30dBm	<REFSENS> + 6 dB	3.2MHz	Narrow band CDMA signal with one code
1920 – 1980 MHz	-30dBm	<REFSENS> + 6 dB	3.2MHz	Narrow band CDMA signal with one code
1 – 1880 MHz, 1980 – 1990 MHz, 2045 – 12750 MHz	-15dBm	<REFSENS> + 6 dB	—	CW carrier

Table 7.x(b): Blocking requirements for operating bands defined in 5.2(b)

Center Frequency of Interfering Signal	Interfering Signal Level	Wanted Signal Level	Minimum Offset of Interfering Signal	Type of Interfering Signal
1850 – 1990 MHz	-30dBm	<REFSENS> + 6 dB	3.2MHz	Narrow band CDMA signal with one code
1830 – 1850 MHz, 1990 – 2010 MHz	-30 dBm	<REFSENS> + 6 dB	3.2MHz	Narrow band CDMA signal with one code
1 – 1830 MHz, 2010 – 12750 MHz	-15 dBm	<REFSENS> + 6 dB	—	CW carrier

Table 7.x(c): Blocking requirements for operating bands defined in 5.2(c)

Center Frequency of Interfering Signal	Interfering Signal Level	Wanted Signal Level	Minimum Offset of Interfering Signal	Type of Interfering Signal
1910 – 1930 MHz	-30dBm	<REFSENS> + 6 dB	3.2MHz	Narrow band CDMA signal with one code
1890 – 1910 MHz, 1930 – 1950 MHz	-30dBm	<REFSENS> + 6 dB	3.2 MHz	Narrow band CDMA signal with one code
1 – 1890 MHz, 1950 – 12750 MHz	-15 dBm	<REFSENS> + 6 dB	—	CW carrier

7.1.6.1.1 Co-location with GSM900 and/or DCS 1800

<Rapporteur's Note: Further study needed to define the receiver blocking requirements of the Local Area BS in case of co-location with GSM 900 and/or DCS 1800

7.1.6.2 Intermodulation characteristics

Third and higher order mixing of the two interfering RF signals can produce an interfering signal in the band of the desired channel. Intermodulation response rejection is a measure of the capability of the receiver to receiver a wanted

signal on its assigned channel frequency in the presence of two or more interfering signals which have a specific frequency relationship to the wanted signal.

7.1.6.2.1 Minimum requirement

The static reference performance as specified in clause 7.2.1 should be met when the following signals are coupled to BS antenna input.

- A wanted signal at the assigned channel frequency, 6 dB above the static reference level.

- Two interfering signals with the following parameters.

Table 7.5A: Intermodulation requirement

Interfering Signal Level	Offset	Type of Interfering Signal
- 38 dBm	3,2 MHz	CW signal
- 38 dBm	6,4 MHz	1,28 Mcps TDD Option signal with one code

7.1.7 Demodulation in static propagation conditions

7.1.7.1 Demodulation of DCH

The performance requirement of DCH in static propagation conditions is determined by the maximum Block Error Rate (BLER) allowed when the receiver input signal is at a specified $\hat{I}_{or}/I_{oc}$ limit. The BLER is calculated for each of the measurement channels supported by the base station.

This performance requirement shall be applied to both Wide Area BS and Local Area BS.

7.1.7.1.1 Minimum requirement

For the parameters specified in Table 7.a for the Wide Area BS and the Local Area BS, respectively, the BLER should not exceed the piece-wise linear BLER curve specified in Table 7.b. These requirements are applicable for TFCS size 16.

Table 7.a: Parameters in static propagation conditions

Parameters		Unit	Test 1	Test 2	Test 3	Test 4
Number of $DPCH_o$			4	1	1	0
Spread factor of $DPCH_o$			8	8	8	-
$\dfrac{DPCH_o \_ E_c}{I_{or}}$		dB	-7	-7	-7	0
I_{oc}	Wide Area BS	dBm/1,28MHz	-91			
	Local Area BS	dBm/1,28MHz	-77			
Information Data Rate		kbps	12,2	64	144	384

Table 7.b: Performance requirements in AWGN channel.

Test Number	$\dfrac{\hat{I}_{or}}{I_{oc}}$ [dB]	BLER Required E_b/N_0
1	0.6	10^{-2}
2	-0.9	10^{-1}
	-0.4	10^{-2}
3	-0.3	10^{-1}
	-0.1	10^{-2}
4	0.5	10^{-1}
	0.6	10^{-2}

7.1.8 Demodulation of DCH in multipath fading conditions

7.1.8.1 Multipath fading Case 1

The performance requirement of DCH in multipath fading Case 1 is determined by the maximum Block Error Rate (BLER) allowed when the receiver input signal is at a specified $\hat{I}_{or}/I_{oc}$ limit. The BLER is calculated for each of the measurement channels supported by the base station.

This performance requirement shall be applied to both Wide Area BS and Local Area BS.

7.1.8.1.1 Minimum requirement

For the parameters specified in Table 7.c for the Wide Area BS and the Local Area BS, respectively, the BLER should not exceed the piece-wise linear BLER curve specified in Table 7.d. These requirements are applicable for TFCS size 16.

Table 7.c: Parameters in multipath Case 1 channel

Parameters		Unit	Test 1	Test 2	Test 3	Test 4
Number of $DPCH_o$			4	1	1	0
Spread factor of $DPCH_o$			8	8	8	-
$\dfrac{DPCH_o\_E_c}{I_{or}}$		DB	-7	-7	-7	0
I_{oc}	Wide Area BS	dBm/1,28 MHz	-91			
	Local Area BS	dBm/1,28 MHz	-77			
Information Data Rate		kbps	12,2	64	144	384

Table 7.d: Performance requirements in multipath Case 1 channel.

Test Number	$\dfrac{\hat{I}_{or}}{I_{oc}}$ [dB]	BLER
1	10,4	10^{-2}
2	5,3	10^{-1}
	9,4	10^{-2}
3	5,7	10^{-1}
	10,1	10^{-2}
4	6,0	10^{-1}
	10,0	10^{-2}

7.1.8.2 Multipath fading Case 2

The performance requirement of DCH in multipath fading Case 2 is determined by the maximum Block Error Rate (BLER) allowed when the receiver input signal is at a specified $\hat{I}_{or}/I_{oc}$ limit. The BLER is calculated for each of the measurement channels supported by the base station.

This performance requirement shall not be applied to Local Area BS.

7.1.8.3 Multipath fading Case 3

The performance requirement of DCH in multipath fading Case 3 is determined by the maximum Block Error Rate (BLER) allowed when the receiver input signal is at a specified $\hat{I}_{or}/I_{oc}$ limit. The BLER is calculated for each of the measurement channels supported by the base station.

This performance requirement shall not be applied to Local Area BS.

7.1.9   Receiver dynamic range

Receiver dynamic range is the receiver ability to handle a rise of interference in the reception frequency channel. The receiver shall fulfil a specified BER requirement for a specified sensitivity degradation of the wanted signal in the presence of an interfering AWGN signal in the same reception frequency channel.

7.1.9.1   Minimum requirement

The BER shall not exceed 0,001 for the parameters specified in Table7.x

Table 7.x: Dynamic Range

Parameter		Level	Unit
Data rate		12.2	kbps
Wanted signal		<REFSENS> + 30 dB	dBm
Interfering AWGN signal	Wide Area BS	-76	dBm/1.28 MHz
	Local Area BS	-62	dBm/1.28 MHz

7.2   Changes in 25.123

7.2.1   New text for performance for UTRAN measurements in uplink (Rx)

7.2.1.1   RSCP

The measurement period shall be 100 ms.

7.2.1.1.1   Absolute accuracy requirements

Table 7.a: RSCP absolute accuracy

Parameter	Unit	Accuracy [dB]		Conditions	BS class
		Normal conditions	Extreme conditions	Io [dBm]	
RSCP	dB	± 6	± 9	-105..-74	Wide Area BS
RSCP	dB	± 6	± 9	-91..-60	Local Area BS

7.2.1.1.2   Relative accuracy requirements

The relative accuracy of RSCP in inter frequency case is defined as the RSCP measured from one UE compared to the RSCP measured from another UE.

Table 7.b: RSCP relative accuracy

Parameter	Unit	Accuracy [dB]	Conditions	BS class
			Io [dBm]	
RSCP	dB	± 3 for intra-frequency	-105..-74	Wide Area BS
RSCP	dB	± 3 for intra-frequency	-91..-60	Local Area BS

7.2.1.1.3   Range/mapping

The reporting range for *RSCP* is from -120 ...-57 dBm.

In table 7.c mapping of the measured quantity is defined. Signalling range may be larger than the guaranteed accuracy range.

Table 7.c

Reported value	Measured quantity value	Unit
RSCP_LEV _00	RSCP <−120,0	dBm
RSCP_LEV _01	-120,0 ≤ RSCP < −119,5	dBm
RSCP_LEV _02	-119,5 ≤ RSCP < −119,0	dBm
…	…	…
RSCP_LEV _125	-58,0 ≤ RSCP < -57,5	dBm
RSCP_LEV _126	-57,5 ≤ RSCP < -57,0	dBm
RSCP_LEV _127	-57,0 ≤ RSCP	dBm

7.2.1.2 Timeslot ISCP

The measurement period shall be 100 ms.

7.2.1.2.1 Absolute accuracy requirements

Table 7.d: Timeslot ISCP Intra frequency absolute accuracy

Parameter	Unit	Accuracy [dB]		Conditions	BS class
		Normal conditions	Extreme conditions	Io [dBm]	
Timeslot ISCP	dB	± 6	± 9	-105..-74	Wide Area BS
Timeslot ISCP	dB	± 6	± 9	-91..-60	Local Area BS

7.2.1.2.2 Range/mapping

The reporting range for *Timeslot ISCP* is from -120...-57 dBm.

In table 7.e mapping of the measured quantity is defined. Signalling range may be larger than the guaranteed accuracy range.

Table 7.e

Reported value	Measured quantity value	Unit
UTRAN_TS_ISCP_LEV_00	Timeslot_ISCP < −120,0	dBm
UTRAN_TS_ISCP_LEV_01	-120,0 ≤ Timeslot_ISCP < −119,5	dBm
UTRAN_TS_ISCP_LEV_02	-119,5 ≤ Timeslot_ISCP < −119,0	dBm
…	…	…
UTRAN_TS_ISCP_LEV_125	-58,0 ≤ Timeslot_ISCP < -57,5	dBm
UTRAN_TS_ISCP_LEV_126	-57,5 ≤ Timeslot_ISCP < -57,0	dBm
UTRAN_TS_ISCP_LEV_127	-57,0 ≤ Timeslot_ISCP	dBm

7.2.1.3 Received total wide band power

The measurement period shall be 100 ms.

7.2.1.3.1 Absolute accuracy requirements

Table 7.f: RECEIVED TOTAL WIDE BAND POWER Intra frequency absolute accuracy

Parameter	Unit	Accuracy [dB]	Conditions	BS class
			Io [dBm]	
RECEIVED TOTAL WIDE BAND POWER	dB	± 4	-105..-74	Wide Area BS
RECEIVED TOTAL WIDE BAND POWER	dB	± 4	-91..-60	Local Area BS

7.2.1.3.2 Range/mapping

The reporting range for *RECEIVED TOTAL WIDE BAND POWER* is from -112 ... -50 dBm.

In table 7.g mapping of the measured quantity is defined. Signalling range may be larger than the guaranteed accuracy range.

Table 7.g

Reported value	Measured quantity value	Unit
RECEIVED TOTAL WIDE BAND POWER_LEV _000	RECEIVED TOTAL WIDE BAND POWER < −112,0	dBm
RECEIVED TOTAL WIDE BAND POWER_LEV _001	-112,0 ≤ RECEIVED TOTAL WIDE BAND POWER < −111,9	dBm
RECEIVED TOTAL WIDE BAND POWER_LEV _002	-111,9 ≤ RECEIVED TOTAL WIDE BAND POWER < −111,8	dBm
…	…	…
RECEIVED TOTAL WIDE BAND POWER_LEV _619	-50,2 ≤ RECEIVED TOTAL WIDE BAND POWER < -50,1	dBm
RECEIVED TOTAL WIDE BAND POWER_LEV _620	-50,1 ≤ RECEIVED TOTAL WIDE BAND POWER < -50,0	dBm
RECEIVED TOTAL WIDE BAND POWER_LEV _621	-50,0 ≤ RECEIVED TOTAL WIDE BAND POWER	dBm

7.3 Changes in 25.142

All changes of parameter values in 25.105 that are necessary to cover the requirements of the Local Area BS have to be reflected in TS 25.142 also. These changes, however, have already been reported in subclause 7.1 of this TR and are not repeated here. The present subclause lists only those changes to 25.142 which are related to conformance test procedures or are otherwise specific to conformance testing.

8 Impacts on other WGs

8.1 WG 1

8.2 WG 2

8.3 WG 3

9 Backward compatibility

Annex A:
Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New