

**TSG RAN Meeting #22**  
**Maui, Hawaii, US, 9 - 12 December 2003**

**RP-030598**

**Title** CRs (Rel-5 and Rel-6 Category A) to TS 25.104, "Correction of the applicability of requirements in case of TX diversity"  
**Source** TSG RAN WG4  
**Agenda Item** 7.5.5

RAN4 Tdoc	Spec	CR	R	Cat	Rel	Curr Ver	Title	Work Item
R4-031073	25.104	208		F	Rel-5	5.7.0	Correction of the applicability of requirements in case of TX diversity	TEI5
R4-031074	25.104	209		A	Rel-6	6.3.0	Correction of the applicability of requirements in case of TX diversity	TEI5

## CHANGE REQUEST

⌘ **25.104 CR 208** ⌘ rev ⌘ Current version: **5.7.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘ Correction of the applicability of requirements in case of transmit diversity		
<b>Source:</b>	⌘ RAN WG4		
<b>Work item code:</b>	⌘ TEI5	<b>Date:</b>	⌘ 26/11/2003
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)	<b>R96</b> (Release 1996)	<b>2</b> (GSM Phase 2)
	<b>A</b> (corresponds to a correction in an earlier release)	<b>R97</b> (Release 1997)	
	<b>B</b> (addition of feature),	<b>R98</b> (Release 1998)	
	<b>C</b> (functional modification of feature)	<b>R99</b> (Release 1999)	
	<b>D</b> (editorial modification)	<b>Rel-4</b> (Release 4)	
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .	<b>Rel-5</b> (Release 5)	
		<b>Rel-6</b> (Release 6)	

<b>Reason for change:</b>	⌘ The definition of Node B transmit diversity in terms of NBAB information elements is not necessarily needed. The applicability of requirements in case of transmit diversity is ambiguous.
<b>Summary of change:</b>	⌘ The definition of "Node B transmit diversity mode" is removed, the applicability of requirements in case of transmit diversity is corrected
<b>Consequences if not approved:</b>	⌘ The applicability of requirements in case of transmit diversity will remain ambiguous. <b>Isolated impact analysis:</b> The CR has no impact on Node-B implementation.

<b>Clauses affected:</b>	⌘ 3, 6.1										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	⌘	X	⌘	X	⌘	X	Other core specifications	⌘
Y	N										
⌘	X										
⌘	X										
⌘	X										
		Test specifications									
		O&M Specifications									
<b>Other comments:</b>	⌘ Equivalent CRs in other Releases: CR209 cat. A to 25.104 v6.3.0										

**How to create CRs using this form:**

Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

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## 3 Definitions and abbreviations

### 3.1 Definitions

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

**Output power:** The mean power of one carrier of the base station, delivered to a load with resistance equal to the nominal load impedance of the transmitter.

**Rated output power:** Rated output power of the base station is the mean power level per carrier that the manufacturer has declared to be available at the antenna connector.

**Maximum output Power:** The mean power level per carrier of the base station measured at the antenna connector in a specified reference condition.

**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.

**Power control dynamic range:** The difference between the maximum and the minimum transmit output power of a code channel for a specified reference condition.

**RRC filtered mean power:** The mean power as measured through a root raised cosine filter with roll-off factor  $\alpha$  and a bandwidth equal to the chip rate of the radio access mode.

NOTE 1: The RRC filtered mean power of a perfectly modulated W-CDMA signal is 0.246 dB lower than the mean power of the same signal.

**Code domain power:** That part of the mean power which correlates with a particular (OVSF) code channel. The sum of all powers in the code domain equals the mean power in a bandwidth of  $(1 + \alpha)$  times the chip rate of the radio access mode.

**Total power dynamic range:** The difference between the maximum and the minimum total transmit output power for a specified reference condition.

NOTE 2: The roll-off factor  $\alpha$  is defined in section 6.8.1.

~~Node B Tx Diversity mode — A Node B is in transmit diversity mode when the CPICH transmit diversity indicator, P-CCPCH STTD indicator and the primary and secondary SCH TSTD indicators are enabled.~~

### 3.2 Abbreviations

--- next changed section ---

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## 6 Transmitter characteristics

### 6.1 General

~~Unless otherwise stated, the requirements in Section 6 assume that the transmitter is not equipped with diversity. For transmitters with diversity, the requirements apply to each antenna connector separately, with the other one terminated or disabled. The requirements are otherwise unchanged.~~ Unless otherwise stated, the requirements in Section 6 assume transmission without diversity. In case of transmit diversity the requirements apply to each antenna connector separately, with the other one terminated. Unless otherwise stated, the requirements are unchanged.

Unless otherwise stated, the transmitter characteristics are specified at the BS antenna connector (test port A) with a full complement of transceivers for the configuration in normal operating conditions. If any external apparatus such as a TX

amplifier, a filter or the combination of such devices is used, requirements apply at the far end antenna connector (port B).

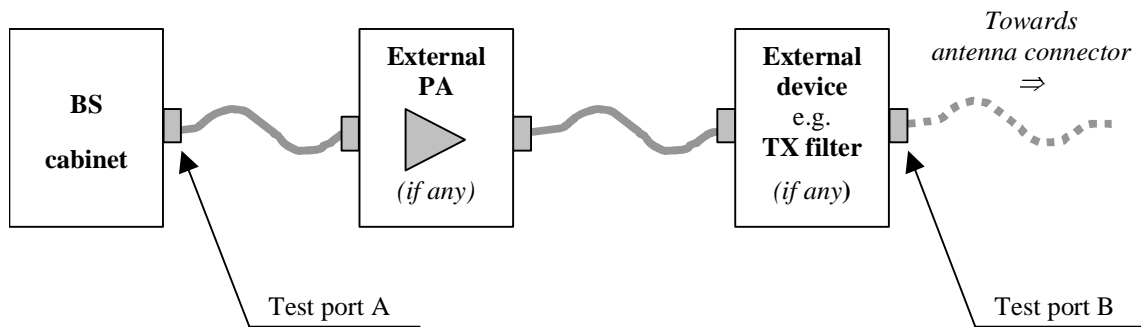


Figure 6.1: Transmitter test ports

## 6.2 Base station output power

## CHANGE REQUEST

⌘ **25.104 CR 209** ⌘ rev  ⌘ Current version: **6.3.0** ⌘

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<b>Work item code:</b>	⌘ TEI5	<b>Date:</b>	⌘ 26/11/2003
<b>Category:</b>	⌘ <b>A</b>	<b>Release:</b>	⌘ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
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<b>Clauses affected:</b>	⌘ 3.1, 6.1						
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<input type="checkbox"/>	<input checked="" type="checkbox"/>						
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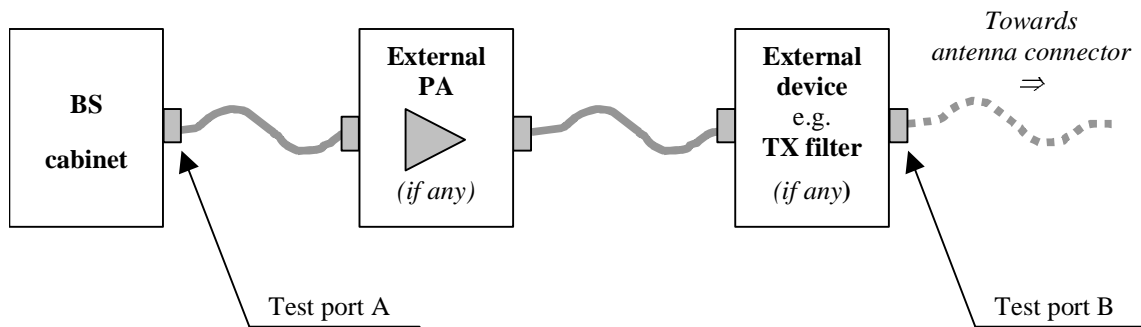


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