3GPP TSG RAN Meeting #20   **RP-030270**
Hameenlinna, FINLAND, 3 - 6 June 2003

Title: **CRs (R'99 and Rel4/Rel5 category A) to TS 25.215**

Source: **TSG-RAN WG1**

Agenda item: **7.1.3**

1. *TS 25.215*   **(RP-030270)**

RP Tdoc #	WG Toc#	Spec	CR	Rev	Subject	Phase	Cat	Curre	New	Workitem	Remarks
RP-030270	R1-030601	25.215	140	-	Correction of transmitted carrier power definition in case of Tx diversity	R99	F	3.11.0	3.12.0		
RP-030270	R1-030601	25.215	141	-	Correction of transmitted carrier power definition in case of Tx diversity	Rel-4	A	4.6.0	4.7.0		
RP-030270	R1-030601	25.215	142	-	Correction of transmitted carrier power definition in case of Tx diversity	Rel-5	A	5.3.0	5.4.0		

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CHANGE REQUEST

| ⌘ | **25.215** CR **140** | ⌘**rev** | **-** | ⌘ Current version: | **3.11.0** | ⌘ |

*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 **X** Core Network ☐

Title: ⌘	Correction of transmitted carrier power definition in case of Tx diversity	
Source: ⌘	TSG RAN WG1	
Work item code:⌘		***Date:*** ⌘ 19/05/2003

Category: ⌘	**F**	***Release:*** ⌘	R99

Use <u>one</u> of the following categories:
  F *(correction)*
  A *(corresponds to a correction in an earlier release)*
  B *(addition of feature),*
  C *(functional modification of feature)*
  D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use <u>one</u> of the following releases:
  2   *(GSM Phase 2)*
  R96 *(Release 1996)*
  R97 *(Release 1997)*
  R98 *(Release 1998)*
  R99 *(Release 1999)*
  Rel-4 *(Release 4)*
  Rel-5 *(Release 5)*
  Rel-6 *(Release 6)*

Reason for change: ⌘	The current definition of the transmitted carrier power in case of Tx diversity cannot be used as a sensible physical layer measurement as a basis for an efficient reporting of the cell load or of any internal Node B limiting effect to the RNC. Moreoever several interpretations of the definition are possible which may lead to different implementations of the transmitted carrier power in case of Tx diversity and thus to inconsistent behaviours among different Node B manufacturers.
Summary of change:⌘	The transmitted carrier power in case of Tx diversity is corrected as being the ratio between the sum of the total transmitted powers of all branches and the maximum transmission power.
Consequences if not approved: ⌘	In case of TX diversity, the actual cell load cannot be reported to the RNC. Radio ressource management and call admission control algorithms would not work properly. **Isolated impact analysis:** The proposed correction impacts a Node B that would implement Tx diversity. A Node B that does not offer Tx diversity as a feature remains unaffected. Moreover it has no impact on other 3GPP specifications. The change does not effect UE-BS interworking.

Clauses affected: ⌘	5.2.4

	Y	N		⌘
Other specs ⌘		X	Other core specifications	⌘
affected:		X	Test specifications	
		X	O&M Specifications	

Other comments:	⌘	This correction has no impact on the definition of transmitted carrier power when Tx diversity is not used.

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.

5.2.4 Transmitted carrier power

Definition	Transmitted carrier power, is the ratio between the total transmitted power and the maximum transmission power. Total transmission power is the mean power [W] on one carrier from one UTRAN access point. Maximum transmission power is the mean power [W] on one carrier from one UTRAN access point when transmitting at the configured maximum power for the cell. Measurement shall be possible on any carrier transmitted from the UTRAN access point. The reference point for the transmitted carrier power measurement shall be the Tx antenna connector. In case of Tx diversity the transmitted carrier power is the ratio between the sum of the total transmitted powers of all branches and the maximum transmission power.for each branch shall be measured and the maximum of the two values shall be reported to higher layers, i.e. only one value will be reported to higher layers.

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CHANGE REQUEST

⌘	**25.215** CR **141**	⌘**rev**	**-**	⌘	Current version:	**4.6.0**	⌘

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

Title: ⌘	Correction of transmitted carrier power definition in case of Tx diversity	
Source: ⌘	TSG RAN WG1	
Work item code: ⌘		*Date:* ⌘ 19/05/2003
Category: ⌘ **A**		*Release:* ⌘ Rel-4

Use one of the following categories:
F (correction)
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B (addition of feature),
C (functional modification of feature)
D (editorial modification)
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Rel-6 *(Release 6)*

Reason for change: ⌘	The current definition of the transmitted carrier power in case of Tx diversity cannot be used as a sensible physical layer measurement as a basis for an efficient reporting of the cell load or of any internal Node B limiting effect to the RNC. Moreoever several interpretations of the definition are possible which may lead to different implementations of the transmitted carrier power in case of Tx diversity and thus to inconsistent behaviours among different Node B manufacturers.
Summary of change: ⌘	The transmitted carrier power in case of Tx diversity is corrected as being the ratio between the sum of the total transmitted powers of all branches and the maximum transmission power.
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Clauses affected: ⌘	5.2.4

	Y	N		
Other specs ⌘		X	Other core specifications	⌘
affected:		X	Test specifications	
		X	O&M Specifications	

| Other comments: | ⌘ | This correction has no impact on the definition of transmitted carrier power when Tx diversity is not used. |

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5.2.4   Transmitted carrier power

Definition	Transmitted carrier power, is the ratio between the total transmitted power on one DL carrier from one UTRAN access point, and the maximum transmission power possible to use on that DL carrier at this moment of time. Total transmission power is the mean power [W] on one carrier from one UTRAN access point. Maximum transmission power is the mean power [W] on one carrier from one UTRAN access point when transmitting at the configured maximum power for the cell. Measurement shall be possible on any carrier transmitted from the UTRAN access point. The reference point for the transmitted carrier power measurement shall be the Tx antenna connector. In case of Tx diversity the transmitted carrier power is the ratio between the sum of the total transmitted powers of all branches and the maximum transmission power.~~for each branch shall be measured and the maximum of the two values shall be reported to higher layers, i.e. only one value will be reported to higher layers.~~

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CHANGE REQUEST

⌘   **25.215** CR **142**   ⌘**rev**   **-**   ⌘ Current version: **5.3.0**   ⌘

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

Title: ⌘	Correction of transmitted carrier power definition in case of Tx diversity	
Source: ⌘	TSG RAN WG1	
Work item code:⌘		***Date:*** ⌘ 19/05/2003

Category: ⌘ **A**	***Release:*** ⌘ Rel-5

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Clauses affected: ⌘	5.2.4

	Y	N	
Other specs ⌘ ***affected:***		X	Other core specifications ⌘
		X	Test specifications
		X	O&M Specifications

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