3GPP TSG RAN Meeting #19   **RP-030017**
Birmingham, UK, 11 - 14 March 2003

Title	**CRs (R'99 and Rel4/Rel5 category A) to TS 25.215 on " Correction of UTRAN SIR measurement definition "**
Source	**Ericsson, Nortel Networks**
Agenda Item	**8.1.2**

RAN1 Tdoc	Spec	CR	R	Cat	Rel	Curr Ver	Title	Work Item
-	25.215	135	4	F	R99	3.11.0	Correction of UTRAN SIR measurement definition	
-	25.215	136	2	A	Rel-4	4.6.0	Correction of UTRAN SIR measurement definition	
-	25.215	133	3	A	Rel-5	5.2.0	Correction of UTRAN SIR measurement definition	

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CHANGE REQUEST

| ✍ | **25.215** CR **135** | ✍ **rev** **4** ✍ | 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 UTRAN SIR measurement definition
Source:	✍	Ericsson, Nortel Networks
Work item code: ✍		*Date:* ✍ 03/03/2003
Category: ✍ **F**		*Release:* ✍ R99

Use one 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 one 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:	✍	SIR reporting when a radio link set contains more than one radio link and when Rx diversity is implemented in the Node B is not specified clearly enough. The standard leaves it open to the Node B implementation how to report SIR in case a radio link contains more than one radio link set and in case Rx diversity is deployed in the cells of a Node B.
Summary of change:	✍	It is specified that the SIR for a radio link shall be the linear summation of the SIR from each Rx antenna for that cell and that the reported SIR for the radio link set shall be the linear summation of the SIR from each radio link in the radio link set.
Consequences if not approved:	✍	A Node B implementation that is not in accordance to the correction in the CR would report a SIR measurement value that, depending on the individual implementation, would not correspond to the quality of the uplink, as seen in the Node B receiver. E.g., a Node B with 2 antennas might report a SIR value corresponding to the non-combined signal, i.e. a value that is about 3 dB too low. Similarly, a Node B being in softer handover might report a SIR value that does not correspond to the signal of the combined radio links. This could lead to interoperability problems between an RNC and Node Bs from different vendors following different implementations of the SIR measurement.

Isolated impact analysis:
The CR does not have impact on the UE behaviour.
A Node B implementation that is not in accordance to the correction in the CR would report a SIR measurement value that, depending on the individual implementation, would not correspond to the quality of the received uplink.
The CR does not affect functions other than UTRAN SIR measurement and has therefore isolated impact.

Clauses affected:	✍	5.2.2		

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

Other comments:	✍	

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.

5.2.2 SIR

Definition	Signal to Interference Ratio, is defined as: (RSCP/ISCP)?SF. Measurement shall be performed on the DPCCH of a Radio Link Set. In compressed mode the SIR shall not be measured in the transmission gap. The reference point for the SIR measurements shall be the Rx antenna connector. If the radio link set contains more than one radio link, the reported value shall be the linear summation of the SIR from each radio link of the radio link set. If Rx diversity is used in the Node B for a cell, the SIR for a radio link shall be the linear summation of the SIR from each Rx antenna for that radio link. where: RSCP = Received Signal Code Power, unbiased measurement of the received power on one code. ISCP = Interference Signal Code Power, the interference on the received signal. SF=The spreading factor used on the DPCCH.

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CHANGE REQUEST

✍ **25.215 CR 136** ✍ **rev 2** ✍ Current version: **4.6.0** ✍

*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: ✍	Clarification of UTRAN SIR measurement definition
Source: ✍	Ericsson, Nortel Networks

Work item code: ✍		**Date:** ✍	03/03/2003

Category: ✍ **A**

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.

Release: ✍ Rel-4

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: ✍	SIR reporting when a radio link set contains more than one radio link and when Rx diversity is implemented in the Node B is not specified clearly enough. The standard leaves it open to the Node B implementation how to report SIR in case a radio link contains more than one radio link set and in case Rx diversity is deployed in the cells of a Node B.
Summary of change: ✍	It is specified that the SIR for a radio link shall be the linear summation of the SIR from each Rx antenna for that cell and that the reported SIR for the radio link set shall be the linear summation of the SIR from each radio link in the radio link set.
Consequences if not approved: ✍	A Node B implementation that is not in accordance to the correction in the CR would report a SIR measurement value that, depending on the individual implementation, would not correspond to the quality of the uplink, as seen in the Node B receiver. E.g., a Node B with 2 antennas might report a SIR value corresponding to the non-combined signal, i.e. a value that is about 3 dB too low. Similarly, a Node B being in softer handover might report a SIR value that does not correspond to the signal of the combined radio links. This could lead to interoperability problems between an RNC and Node Bs from different vendors following different implementations of the SIR measurement. <u>**Isolated impact analysis:**</u> The CR does not have impact on the UE behaviour. A Node B implementation that is not in accordance to the correction in the CR would report a SIR measurement value that, depending on the individual implementation, would not correspond to the quality of the received uplink. The CR does not affect functions other than UTRAN SIR measurement and has therefore isolated impact.

Clauses affected:	✎	5.2.2		

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

Other comments:	✎	

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CHANGE REQUEST

✐	**25.215** CR **133**	✐ **rev** **3**	✐	Current version:	**5.2.0**	✐

*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 UTRAN SIR measurement definition

Source:	✐	Ericsson, Nortel Networks

Work item code: ✐		*Date:* ✐	03/03/2003

Category:	✐	**A**		*Release:* ✐	Rel-5

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Consequences if not approved:	✐	A Node B implementation that is not in accordance to the correction in the CR would report a SIR measurement value that, depending on the individual implementation, would not correspond to the quality of the uplink, as seen in the Node B receiver. E.g., a Node B with 2 antennas might report a SIR value corresponding to the non-combined signal, i.e. a value that is about 3 dB too low. Similarly, a Node B being in softer handover might report a SIR value that does not correspond to the signal of the combined radio links. This could lead to interoperability problems between an RNC and Node Bs from different vendors following different implementations of the SIR measurement.

Clauses affected:	✐	5.2.2

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

Other comments:	✐	

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5.2.2   SIR

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