TSG-RAN Meeting #17 ***RP-020595***
Biarritz, France, 3 - 6 September 2002

Title: **Agreed CRs (Release '99 and Rel-4/Rel-5 category A) to TS 25.331**

Source: **TSG-RAN WG2**

Agenda item: **7.2.3**

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Versio	Versio
R2-022105	tech.end.	25.331	1517	1	R99	Unit at L3 filtering (proposal 2)	F	3.11.0	
R2-022106	tech.end.	25.331	1518	1	Rel-4	Unit at L3 filtering (proposal 2)	A	4.5.0	
R2-022107	tech.end.	25.331	1519	1	Rel-5	Unit at L3 filtering (proposal 2)	A	5.1.0	

3GPP TSG-RAN WG2 Meeting #31
Stockholm, Sweden, 19th - 23rd August 2002

Tdoc ⌘R2-022105

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1517** ⌘ **rev** **1** ⌘ 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: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Unit at L3 filtering (proposal 2)
Source:	⌘	Motorola (TSG-RAN WG2 technically endorsed)
Work item code:	⌘	TEI
Date:	⌘	12 August 2002
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)

Reason for change: ⌘

In section 8.6.7.2, Filtert Coefficient, it is not clear what unit on the Measurement quantity that shall be used in the Layer 3 filtering.

For CPICH RSCP, “dBm” is used in the MEASUREMENT REPORT, while “mW” is used in event evaluation equations.

For CPICH $E_c/N_{0,}$, “dB” is used in the MEASUREMENT REPORT, while “ratio” is used in event evaluation equations.

For other Measurement quantities, subject to Layer 3 filtering, the same unit is used in the MEASUREMENT REPORT as in the event evaluation equations.

Summary of change: ⌘

Revision 1:

In section 8.6.7.2, it is corrected so that the unit used for M_n (input in the filter formula) is the same unit as the unit used in the event evaluation.

Impact analysis: This CR is considered to have isolated impact. If the UE does not implement this CR, it may perform Layer 3 filtering using wrong unit for the Measurement quantity.

Consequences if not approved: ⌘

A UE implementation may use wrong unit in Layer 3 filtering.

Clauses affected: ⌘ 8.6.7.2

Other specs affected: ⌘

☐ Other core specifications ⌘
☐ Test specifications
☐ 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/3G_Specs/CRs.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

8.6.7.2 Filter coefficient

If the IE "Filter coefficient" is received the UE shall apply filtering of the measurements for that measurement quantity according to the formula below. This filtering shall be performed by the UE before UE event evaluation. The UE shall also filter the measurements reported in the IE "Measured results". The filtering shall not be performed for the measurements reported in the IE "Measured results on RACH" and for cell-reselection in connected or idle mode.

The filtering shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

$\boldsymbol{F_n}$ is the updated filtered measurement result

$\boldsymbol{F_{n-1}}$ is the old filtered measurement result

$\boldsymbol{M_n}$ is the latest received measurement result from physical layer measurements, the unit used for $\boldsymbol{M_n}$ is the same unit as the ~~reported unit in the MEASUREMENT REPORT message or the~~ unit used in the event evaluation.

$\boldsymbol{a} = 1/2^{(k/2)}$, where k is the parameter received in the IE "Filter coefficient".

NOTE: if $\boldsymbol{k}$ is set to 0 that will mean no layer 3 filtering.

In order to initialise the averaging filter, $\boldsymbol{F_0}$ is set to $\boldsymbol{M_1}$ when the first measurement result from the physical layer measurement is received.

The physical layer measurement results are sampled once every measurement period. The measurement period and the accuracy for a certain measurement is defined in [19] and [20].

The UE shall support 2 different layer 3 filters per measurement type defined in section 8.4.0 (i.e. the UE shall be capable to apply at least 2 different L3 filters to intra-frequency measurement results, at least 2 different L3 filters to inter-frequency measurement results etc). If a MEASUREMENT CONTROL message is received that would require the UE to configure more than 2 different layer 3 filters, the UE may:

1> set the variable CONFIGURATION_INCOMPLETE to TRUE.

3GPP TSG-RAN WG2 Meeting #31
Stockholm, Sweden, 19th - 23rd August 2002

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CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1518** ⌘ **rev** **1** ⌘ Current version: **4.5.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Unit at L3 filtering (proposal 2)
Source:	⌘	Motorola (TSG-RAN WG2 technically endorsed)
Work item code:	⌘	TEI
Date:	⌘	12 August 2002
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
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REL-4 (Release 4)
REL-5 (Release 5)

Reason for change: ⌘

In section 8.6.7.2, Filtert Coefficient, it is not clear what unit on the Measurement quantity that shall be used in the Layer 3 filtering.

For CPICH RSCP, “dBm” is used in the MEASUREMENT REPORT, while “mW” is used in event evaluation equations.

For CPICH E_c/N_0, , “dB” is used in the MEASUREMENT REPORT, while “ratio” is used in event evaluation equations.

For other Measurement quantities, subject to Layer 3 filtering, the same unit is used in the MEASUREMENT REPORT as in the event evaluation equations.

Summary of change: ⌘

Revision 1:

In section 8.6.7.2, it is corrected so that the unit used for M_n (input in the filter formula) is the same unit as the unit used in the event evaluation.

Impact analysis: This CR is considered to have isolated impact. If the UE does not implement this CR, it may perform Layer 3 filtering using wrong unit for the Measurement quantity.

Consequences if not approved: ⌘

A UE implementation may use wrong unit in Layer 3 filtering.

Clauses affected: ⌘ 8.6.7.2

Other specs affected: ⌘

☐ Other core specifications ⌘
☐ Test specifications
☐ O&M Specifications

Other comments: ⌘

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$\boldsymbol{a} = 1/2^{(k/2)}$, where k is the parameter received in the IE "Filter coefficient".

NOTE: if $\boldsymbol{k}$ is set to 0 that will mean no layer 3 filtering.

In order to initialise the averaging filter, $\boldsymbol{F_0}$ is set to $\boldsymbol{M_1}$ when the first measurement result from the physical layer measurement is received.

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CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1519** ⌘ **rev** **1** ⌘ Current version: **5.1.0** ⌘

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Work item code:	⌘	TEI
Date:	⌘	12 August 2002
Category:	⌘	**A**
Release:	⌘	Rel-5

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Clauses affected: ⌘ 8.6.7.2

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☐ Other core specifications ⌘
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Other comments: ⌘

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