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

RP-020564

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
R2-021706	tech.end.	25.331	1517		R99	Unit at L3 filtering (proposal 1)	F	3.11.0	
R2-021599	tech.end.	25.331	1518		Rel-4	Unit at L3 filtering (proposal 1)	A	4.5.0	
R2-021600	tech.end.	25.331	1519		Rel-5	Unit at L3 filtering (proposal 1)	A	5.1.0	

3GPP TSG-RAN WG2 Meeting #30
Turin, Italy, 24-27 June 2002

Tdoc R2-021706

CR-Form-v5

CHANGE REQUEST

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

Title: ⌘	Unit at L3 filtering (proposal 1)	
Source: ⌘	Ericsson (TSG-RAN WG2 technically endorsed)	
Work item code: ⌘	TEI	***Date:*** ⌘ June 25, 2002
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)*

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: ⌘ 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 reported unit in the MEASUREMENT REPORT message.

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 ⌘ A UE implementation may use wrong unit in Layer 3 filtering.
not approved:

Clauses affected: ⌘ 8.6.7.2

Other specs ⌘ ☐ Other core specifications ⌘
affected: ☐ Test specifications
  ☐ O&M Specifications

Other comments: ⌘

How to create CRs using this form:

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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:

F_n is the updated filtered measurement result

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

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

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

NOTE:	if k is set to 0 that will mean no layer 3 filtering.

In order to initialise the averaging filter, F_0 is set to 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 #30
Turin, Italy, 24-27 June 2002

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CHANGE REQUEST

| ⌘ | **25.331** CR **1518** | ⌘ **rev** | **-** | ⌘ | Current version: | **4.5.0** | ⌘ |

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

Title: ⌘	Unit at L3 filtering (proposal 1)	
Source: ⌘	Ericsson (TSG-RAN WG2 technically endorsed)	
Work item code: ⌘	TEI	***Date:*** ⌘ June 25, 2002

Category: ⌘ **A**   ***Release:*** ⌘ REL-4

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REL-4 (Release 4)
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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: ⌘	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 reported unit in the MEASUREMENT REPORT message.
	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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8.6.7.2 Filter coefficient

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3GPP TSG-RAN WG2 Meeting #30　　　　　　　　　　　　*Tdoc R2-021600*
Turin, Italy, 24-27 June 2002

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CHANGE REQUEST

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

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

Title: ⌘	Unit at L3 filtering (proposal 1)

Source: ⌘	Ericsson (TSG-RAN WG2 technically endorsed)

Work item code: ⌘	TEI	***Date:*** ⌘	June 25, 2002

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

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Clauses affected: ⌘	8.6.7.2

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Other comments: ⌘	

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