Technical Specification Group Services and System Aspects **TSGS#13(01)0453**
Meeting #13, Beijing, China, 24-27 September 2001

Source: **TSG-SA WG4**

Title: CRs to TS 26.131 Introduction of ANR tolerance of 3 dB (R99, Release 4 and Release 5)

Document for: **Approval**

Agenda Item: **7.4.3**

The following CRs, agreed at the TSG-SA WG4 meeting #18, are presented to TSG SA #13 for approval.

Spec	CR	Rev	Phase	Subject	Cat	Vers	WG	Meeting	S4 doc
26.131	007	1	R99	Introduction of ANR tolerance of 3 dB	F	3.2.0	S4	TSG-SA WG4#18	S4-010543
26.131	008		REL-4	Introduction of ANR tolerance of 3 dB	A	4.0.0	S4	TSG-SA WG4#18	S4-010544
26.131	009		REL-5	Introduction of ANR tolerance of 3 dB	A	5.0.0	S4	TSG-SA WG4#18	S4-010545

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CHANGE REQUEST

| ⌘ | **26.131** CR **007** | ⌘ | rev | **1** | ⌘ | Current version: | **3.2.0** | ⌘ |

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

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

Title:	⌘	Introduction of ANR tolerance of 3dB
Source:	⌘	TSG SA WG4

Work item code: ⌘	TEI		***Date:*** ⌘	24-Sep-2001	
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:	⌘	Current ANR requirement unrealistic.
Summary of change:	⌘	As per recent experience on measurement accuracy a tolerance of 3 dB from the nominal value of ANR requirement, as per §7.9 of TS 26.131 v3.2.0 is requested to be allowed.
Consequences if not approved:	⌘	Current ANR requirements may be met only by handsets unacceptably large from the perspective of market requirements, or by voice processing which produces a net reduction in speech intelligibility. Based on recent experience, introduction of 3dB tolerance to the nominal ANR requirement permits a more optimal trade-off in voice processing and between terminal size and shape than does the nominal value.

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

5.9   Ambient Noise Rejection

Handset and Headset UE:

The nature of mobile telephony is such that the UE will typically be operated in high ambient acoustic noise. Due to the adverse interaction of noise signals with speech codecs operating at lower rates, for example 8kbit/s or less, a minimum noise rejection specification is required.

The UE ambient noise rejection ANR, calculated as a Single Figure DELSM (SFDELSM) shall be greater than or equal to the nominal value of 0~~0~~ dB. ~~For good performance, it is recommended that a figure of +3 dB should be achieved.~~~~The UE ambient noise rejection ANR, calculated as a Single Figure DELSM (SFDELSM) shall be greater than or equal to 3 dB.~~ Due to the uncertainty inherent in the measurement method for ANR, a 3~~2~~dB tolerance is allowed on the nominal value~~in this figure.~~

For good performance, it is recommended that a figure of +3 dB should be achieved.

Compliance shall be checked by the relevant test described in 3GPP TS 26.132.

Hands-free UE (all categories):

For further study.

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CHANGE REQUEST

| ⌘ | **26.131** CR **008** | ⌘ rev | ⌘ Current version: | **4.0.0** ⌘ |

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

Title: ⌘	Introduction of ANR tolerance of 3dB
Source: ⌘	TSG SA WG4
Work item code: ⌘ TEI4	*Date:* ⌘ 24-Sep-2001
Category: ⌘ **A**	*Release:* ⌘ Rel4

	Use one of the following categories:	*Use one of the following releases:*
	F (correction)	2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)
	B (Addition of feature),	R97 (Release 1997)
	C (Functional modification of feature)	R98 (Release 1998)
	D (Editorial modification)	R99 (Release 1999)
	Detailed explanations of the above categories can	REL-4 (Release 4)
	be found in 3GPP TR 21.900.	REL-5 (Release 5)

Reason for change: ⌘	Current ANR requirement unrealistic.
Summary of change: ⌘	As per recent experience on measurement accuracy a tolerance of 3 dB from the nominal value of ANR requirement, as per §7.9 of TS 26.131 v4.0.0 is requested to be allowed.
Consequences if not approved: ⌘	Current ANR requirements may be met only by handsets unacceptably large from the perspective of market requirements, or by voice processing which produces a net reduction in speech intelligibility. Based on recent experience, introduction of 3dB tolerance to the nominal ANR requirement permits a more optimal trade-off in voice processing and between terminal size and shape than does the nominal value.

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

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Compliance shall be checked by the relevant test described in 3GPP TS 26.132.

Hands-free UE (all categories):

For further study.

CR-Form-v3

CHANGE REQUEST

| ⌘ | **26.131** CR **009** | ⌘ | rev | ⌘ | Current version: | **5.0.0** | ⌘ |

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

Title:	⌘	Introduction of ANR tolerance of 3dB
Source:	⌘	TSG SA WG4
Work item code: ⌘	TEI5	***Date:*** ⌘ 24-Sep-2001
Category: ⌘	**A**	***Release:*** ⌘ Rel5

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:	⌘	Current ANR requirement unrealistic.
Summary of change: ⌘		As per recent experience on measurement accuracy a tolerance of 3 dB from the nominal value of ANR requirement, as per §7.9 of TS 26.131 v5.0.0 is requested to be allowed.
Consequences if not approved:	⌘	Current ANR requirements may be met only by handsets unacceptably large from the perspective of market requirements, or by voice processing which produces a net reduction in speech intelligibility. Based on recent experience, introduction of 3dB tolerance to the nominal ANR requirement permits a more optimal trade-off in voice processing and between terminal size and shape than does the nominal value.

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

5.9   Ambient Noise Rejection

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Hands-free UE (all categories):

For further study.