

**TSG RAN Meeting #28**

Quebec, Canada, 01 - 03 June 2005

Title

CRs (Rel-6 cat. D and cat.F) to TS25.461 and TS 25.463

RP-050237

Source

TSG RAN WG3

Agenda Item

8.12

RAN3 Tdoc	Spec	CR	Rev	Cat	curr. Vers.	new Vers.	Rel	Work item	Title
R3-050412	25.463	31		F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	Antenna Set Device Data
R3-050413	25.463	32		D	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	Editorial Corrections to 25.463
R3-050416	25.463	35		F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	Clarification of Tilt
R3-050417	25.463	36		F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	Definition of "empty string"
R3-050418	25.463	37		F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	Improvement of Annex B
R3-050669	25.463	48		F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	Forward and backward compatibility clarification
R3-050710	25.461	13	1	F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	DC power on sequence
R3-050766	25.463	43	3	F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	Parallel procedure handling
R3-050776	25.463	39	2	F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	Set Tilt Correction
R3-050777	25.461	15		F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	BS Modem and RET Modem Filtering
R3-050778	25.461	16		F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	BS Modem and RET modem spectrum emission mode
R3-050779	25.461	17		F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	BS modem and RET modem return loss at modem frequency
R3-050780	25.461	18		F	6.2.0	6.3.0	Rel-6	RANimp-TiltAnt	Time delay clarification

CR-Form-v7.1

## CHANGE REQUEST

№ **25.461 CR 013** № rev **1** № Current version: **6.2.0** №

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  Core Network

<b>Title:</b>	№ DC power on sequence		
<b>Source:</b>	№ RAN3		
<b>Work item code:</b>	№ RANimp-TiltAnt	<b>Date:</b>	№ 10/05/2005
<b>Category:</b>	№ <b>F</b>	<b>Release:</b>	№ Rel-6
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: Ph2 (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) Rel-7 (Release 7)

<b>Reason for change:</b>	№ DC power-up characteristics are not described.		
<b>Summary of change:</b>	№ A start-up period is defined. Power consumption characteristics during the power start-up period is determined.		
<b>Consequences if not approved:</b>	№ DC power-on characteristics are not described. The dimensioning of primary device DC source is complicated.		

<b>Clauses affected:</b>	№ 4.4										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications    № Test specifications O&M Specifications	Y	N	#	X	#	X	#	X		
Y	N										
#	X										
#	X										
#	X										
<b>Other comments:</b>	№										

**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.

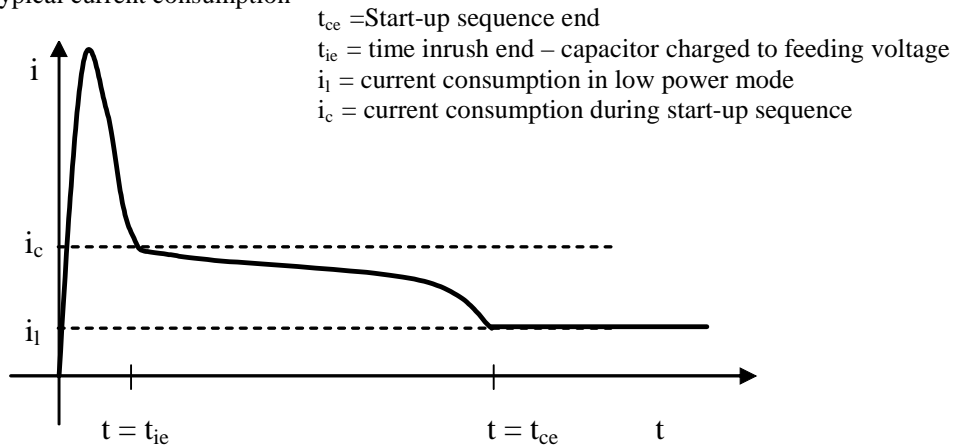
### 4.4.n Power-up characteristics

A BS modem, RET modem or RET control unit shall have a power-up period of 3 s.

During the power-up period a BS modem, RET modem or a RET control unit shall exhibit the circuit equivalent of a DC power consumer with a current consumption of maximum 400 mA in parallel with a capacitor of maximum 0.5  $\mu$ F.

After the power-up period, the RET unit shall be fully functional and the power consumption requirement as described in subclause 4.4.1 applies.

Typical current consumption



**Figure 4.4.n.1 Typical current consumption during the power-up period.**

## CHANGE REQUEST

# 25.461 CR 015 # rev - # Current version: 6.2.0 #

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  Core Network

<b>Title:</b>	# BS Modem and RET Modem filtering		
<b>Source:</b>	# RAN3		
<b>Work item code:</b>	# RANimp-TiltAnt	<b>Date:</b>	# 12/5/2005
<b>Category:</b>	# <b>F</b>	<b>Release:</b>	# Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> 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 be found in 3GPP <a href="#">TR 21.900</a> .	Rel-4	(Release 4)
		Rel-5	(Release 5)
		Rel-6	(Release 6)

<b>Reason for change:</b>	# The required attenuation of the external BS and RET modems shall be refined to a level that is required from system performance.
<b>Summary of change:</b>	# The modem attenuation is specified as a function of frequency for the range 9 kHz to 30 MHz instead of having a fixed value of 41 dB between 9 kHz and 400 MHz.
<b>Consequences if not approved:</b>	# The specification will require more attenuation than needed in the modems which will require unnecessary filtering that will drive cost and size.

<b>Clauses affected:</b>	# 4.3.1.2								
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications # Test specifications # O&M Specifications #	Y	N	#	X	#	X	#	X
Y	N								
#	X								
#	X								
#	X								
<b>Other comments:</b>	# Chapter 4.3.1.2 shall be marked as under RAN4 mandate.								

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### 4.3.1.2 Modem isolation and modem emissions

The external BS modem shall provide ~~at least 41 dB minimum~~ attenuation according to figure X.X for frequencies below 400 MHz between reference point 2 and reference point 1 to protect the base station from emissions of the RET modem.

External BS modem emissions at reference point 1 shall be attenuated at least according to the modem attenuation in figure X.X for frequencies below 400 MHz shall be at least 41 dB below the levels specified for the modem spectrum emission mask in subclause 4.3.5 to protect the base station from emissions of the BS modem.

The RET modem shall provide ~~at least 41 dB minimum~~ attenuation according to figure X.X for frequencies below 400 MHz between reference point 3 and reference point 4 to protect other radio systems from emission of the BS modem.

RET modem emissions at reference point 4 shall be attenuated at least according to the modem attenuation in figure X.X for frequencies below 400 MHz shall be at least 41 dB below the levels specified for the modem spectrum emission mask in subclause 4.4.5 to protect other radio systems from emission of the RET modem.

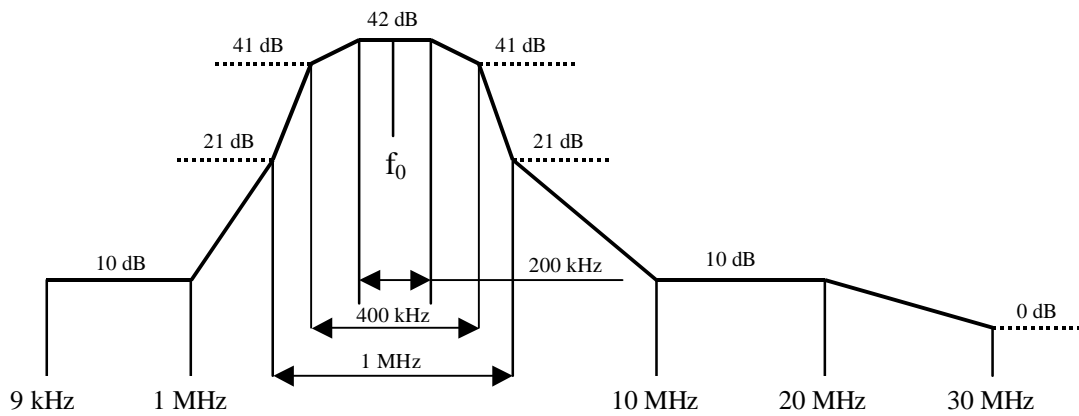


Figure X.X Modem attenuation

## CHANGE REQUEST

⌘ **25.461 CR 016** ⌘ rev **-** ⌘ Current version: **6.2.0** ⌘

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  Core Network

<b>Title:</b>	⌘ BS Modem and RET Modem Spectrum emission mask		
<b>Source:</b>	⌘ RAN3		
<b>Work item code:</b>	⌘ RANimp-TiltAnt	<b>Date:</b>	⌘ 12/5/2005
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)		2 (GSM Phase 2)
	<b>A</b> (corresponds to a correction in an earlier release)		R96 (Release 1996)
	<b>B</b> (addition of feature),		R97 (Release 1997)
	<b>C</b> (functional modification of feature)		R98 (Release 1998)
	<b>D</b> (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

<b>Reason for change:</b>	⌘ The spectrum emission mask needs to be corrected and optimized
<b>Summary of change:</b>	⌘ A 20 dB error was introduced in the spectrum mask when entered into 25.461. The spectrum emission mask also needs to be correlated to the optimized filtering requirement for the RET. The optimized filtering is calculated to be a cost efficient design of the performance that is needed from system characteristics.
<b>Consequences if not approved:</b>	⌘ The RET will degrade sensitivity for UL operating bands below 1 GHz. The spectrum emission mask will drive the filtering requirements, which will increase the size and cost of the RET.

<b>Clauses affected:</b>	⌘ 4.3.4.2						
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	⌘
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<input checked="" type="checkbox"/>	Test specifications					
	<input checked="" type="checkbox"/>	O&M Specifications					
<b>Other comments:</b>	⌘ Chapter 4.3.4.2 shall be marked as under RAN4 mandate.						

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### 4.3.4.2 Spectrum emission mask

The modem spectrum emission mask is specified in figure 4.3.4.2.1. Intermediate values may be obtained by linear interpolation between the points shown. The corresponding measurement bandwidths are specified in table 4.3.4.2.1. For modem configurations according to figure 4.3.1 the BS modem emissions shall ~~meet~~ not exceed the limits of the spectrum emission mask at reference point 2. For modem configurations according to figure 4.3.2 the BS with integrated BS modem emissions shall ~~meet~~ not exceed the limits of the spectrum emission mask at reference point 2 only for frequencies below 20.400 MHz. RET modems emissions shall ~~meet~~ not exceed the limits of the spectrum emission mask at reference point 3.

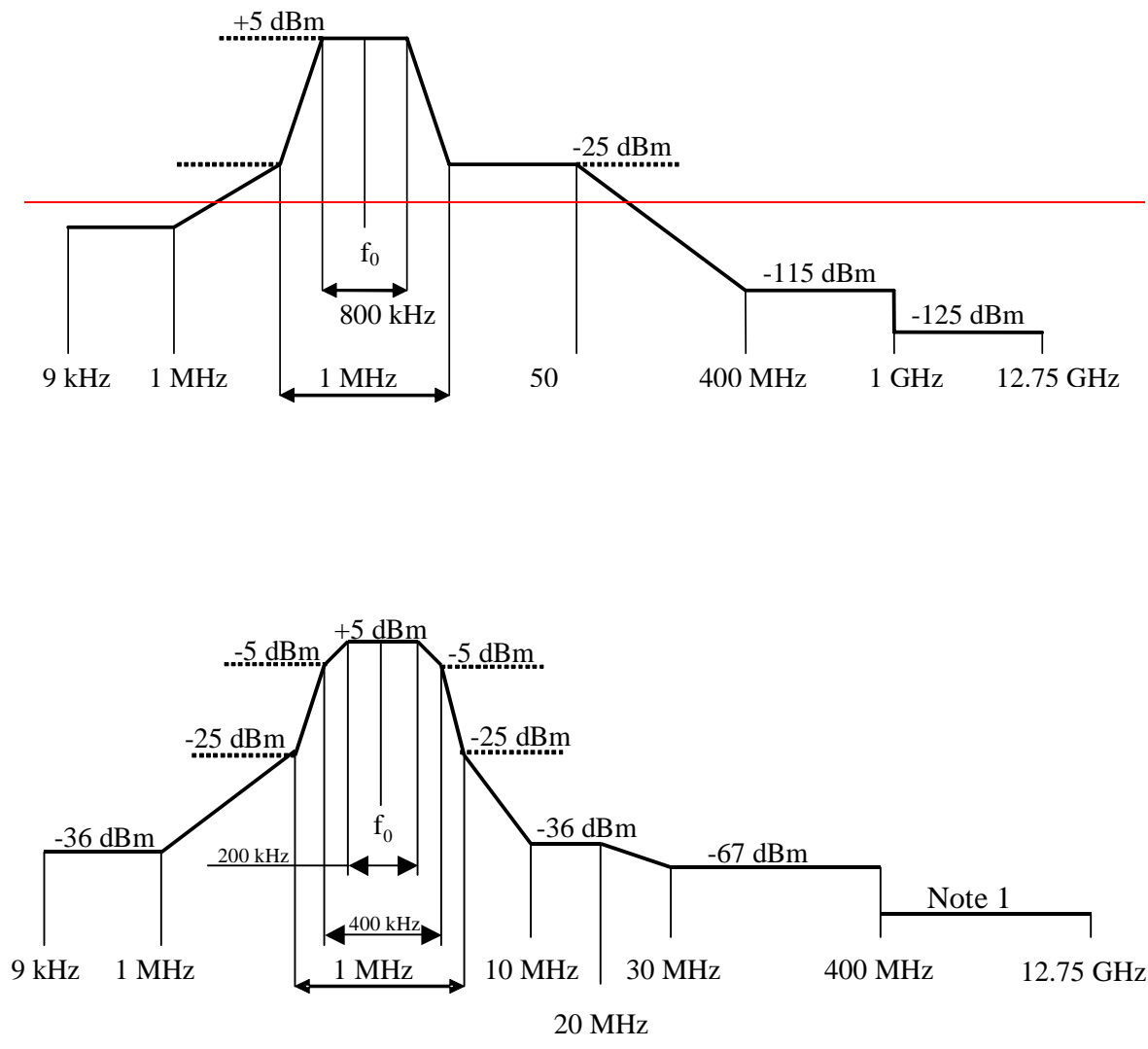


Figure 4.3.4.2.1: Modem spectrum emission mask.

Note 1: For frequencies <1GHz the general emission limit is -108dBm, except modem operating band UL frequencies where the emission limit is -135 dBm.  
For frequencies ≥1GHz the general emission limit is -98dBm, except modem operating band UL frequencies where the emission limit is -125 dBm.

**Table 4.3.4.2.1: Modem spectrum emission mask measurement bandwidth**

<b>Band</b>	<b>Measurement Bandwidth</b>
9 kHz - 150 kHz	1 kHz
150 kHz - 30 MHz	10 kHz
30 MHz - 1 GHz	100 kHz
1 GHz - 12.75 GHz	1 MHz

## CHANGE REQUEST

# **25.461 CR 017** # rev **-** # Current version: **6.2.0** #

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  Core Network

<b>Title:</b>	# BS Modem and RET Modem return loss at modem carrier frequency		
<b>Source:</b>	# RAN3		
<b>Work item code:</b>	# RANimp-TiltAnt	<b>Date:</b>	# 12/5/2005
<b>Category:</b>	# <b>F</b>	<b>Release:</b>	# Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)		2 (GSM Phase 2)
	<b>A</b> (corresponds to a correction in an earlier release)		R96 (Release 1996)
	<b>B</b> (addition of feature),		R97 (Release 1997)
	<b>C</b> (functional modification of feature)		R98 (Release 1998)
	<b>D</b> (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

<b>Reason for change:</b>	# The required attenuation of the external BS and RET modems can be more optimized assuming a more realistic value of the return loss at the modem carrier frequency.
<b>Summary of change:</b>	# The return loss at the modem carrier frequency is changed from 6 dB to 10 dB.
<b>Consequences if not approved:</b>	# The specification will require more attenuation of the external BS and RET modems at the modem carrier frequency.

<b>Clauses affected:</b>	# 4.3.3								
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications # <input type="checkbox"/> Test specifications # <input type="checkbox"/> O&M Specifications # <input type="checkbox"/>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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<b>Other comments:</b>	# Chapter 4.3.3 shall be marked as under RAN4 mandate.								

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### 4.3.3 Impedance

The modem transceiver shall provide constant impedance in both transmitting and receiving modes:

- Nominal impedance  $Z_0$ : 50  $\Omega$ ;
- Return loss at ~~nominal~~ modem carrier frequency  $\pm 0.1$  MHz > ~~6~~10 dB;
- Return loss in external BS and RET modem operating bands > 20 dB.

CR-Form-v7.1

## CHANGE REQUEST

# 25.461 CR 018 # rev - # Current version: 6.2.0 #

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  Core Network

<b>Title:</b>	# Time delay clarification				
<b>Source:</b>	# RAN3				
<b>Work item code:</b>	# RANimp-TiltAnt	<b>Date:</b>	# 12/05/2005		
<b>Category:</b>	# <b>F</b>	<b>Release:</b>	# Rel-6		
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:		
	<b>F</b> (correction)		Ph2 (GSM Phase 2)		
	<b>A</b> (corresponds to a correction in an earlier release)		R96 (Release 1996)		
	<b>B</b> (addition of feature),		R97 (Release 1997)		
	<b>C</b> (functional modification of feature)		R98 (Release 1998)		
	<b>D</b> (editorial modification)		R99 (Release 1999)		
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Rel-4 (Release 4)		
			Rel-5 (Release 5)		
			Rel-6 (Release 6)		
			Rel-7 (Release 7)		

<b>Reason for change:</b>	# Time delay should be defined only for operating bands				
<b>Summary of change:</b>	# Clarification of time delay definition				
<b>Consequences if not approved:</b>	# Risk for misunderstanding				

<b>Clauses affected:</b>	# Section 4.4.1.												
<b>Other specs affected:</b>	#	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	#	X	#	X	#	X	Other core specifications	#	
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		Test specifications	#										
		O&M Specifications	#										
<b>Other comments:</b>	# -												

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### 4.3.8 Time delay and accuracy

The time delay [in the operating bands](#) shall be declared by the manufacturer with  $\pm 1$  ns accuracy. The time delay shall not exceed [30] ns. This requirement is only applicable to external BS and RET modems.

## CHANGE REQUEST

# 25.463 CR 031 # rev - # Current version: 6.2.0 #

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  Core Network

<b>Title:</b>	# Antenna Set Device Data		
<b>Source:</b>	# RAN3		
<b>Work item code:</b>	# RANimp-TiltAnt	<b>Date:</b>	# 25/04/2005
<b>Category:</b>	# <b>F</b>	<b>Release:</b>	# Rel-6
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: Ph2 (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) Rel-7 (Release 7)

<b>Reason for change:</b>	# Incorrect Description		
<b>Summary of change:</b>	# Correction of Description		
<b>Consequences if not approved:</b>	# Fault in Description of the command Antenna Set Device Data, actual text is not correct.		

<b>Clauses affected:</b>	# Section 6.7.4										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications # Test specifications # O&M Specifications #	Y	N	#	X	#	X	#	X		
Y	N										
#	X										
#	X										
#	X										
<b>Other comments:</b>	# -										

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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.

## 6.7.4 Antenna Set Device Data

**Table 6.7.4.1: Elementary procedure Antenna Set Device Data**

Name: <b>AntennaSetDeviceData</b>				
Code: <b>0x83</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>Low</b>

**Table 6.7.4.2: Initiating message parameters and format for Antenna Set Device Data**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>Unsigned integer</b>	Antenna number
<b>2</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Field number; see annex B</b>
<b>3</b>	<b>See annex B</b>	<b>See annex B</b>	<b>Data to write</b>

**Table 6.7.4.3: Response message parameters and format for Antenna Set Device Data**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Antenna number</b>
<b>2</b>	<b>1 octet</b>	<b>ReturnCode</b>	<b>Return code OK</b>

### Description:

On receipt of the initiating message the secondary device shall write the provided data for the antenna addressed by the antenna number into the fields optionally provided for configuration data and listed in annex B of this TS. If an attempt is made to write to fields which are ~~not supported by a particular device~~ designated as read only for the addressed antenna ~~no error is returned but~~ the return code ReadOnly is returned and the data for those fields is ignored. If an attempt is made to write to fields which are not supported for the addressed antenna the return code UnknownParameter is returned and the data for those fields is ignored.

**Table 6.7.4.4: Return codes for Antenna Set Device Data**

OK	FAIL	Comment
	<b>FormatError</b> <b>Busy</b> <b>HardwareError</b> <b>WorkingSoftwareMissing</b> <b>ReadOnly</b> <b>UnknownParameter</b> <b>UnsupportedProcedure</b>	<b>If the addressed antenna is not existing, FormatError is returned.</b>

## CHANGE REQUEST

⌘ **25.463 CR 032** ⌘ rev **-** ⌘ Current version: **6.2.0** ⌘

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  Core Network

<b>Title:</b>	⌘ Editorial changes to 25.463		
<b>Source:</b>	⌘ RAN3		
<b>Work item code:</b>	⌘ RANimp-TiltAnt	<b>Date:</b>	⌘ 11/04/2005
<b>Category:</b>	⌘ <b>D</b>	<b>Release:</b>	⌘ Rel-6
	<i>Use one of the following categories:</i> <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		<i>Use one of the following releases:</i> <b>Ph2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>Rel-4</b> (Release 4) <b>Rel-5</b> (Release 5) <b>Rel-6</b> (Release 6) <b>Rel-7</b> (Release 7)

<b>Reason for change:</b>	⌘ Text format of some tables is not in line with the format of the other tables.		
<b>Summary of change:</b>	⌘ Text format in some tables changed from normal to bold. Alignment of description for the alarm code parameter in tables 6.5.2.3 and 6.7.8.3		
<b>Consequences if not approved:</b>	⌘		

<b>Clauses affected:</b>	⌘ 6.6.5, 6.6.7, 6.7.5, 6.7.8										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications Test specifications O&M Specifications	Y	N		X		X		X	⌘	
Y	N										
	X										
	X										
	X										
<b>Other comments:</b>	⌘										

**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.

## 6.6.5 Alarm Indication

**Table 6.6.5.1: Elementary procedure Alarm Indication**

Name: <b>AlarmIndication</b>				
Code: <b>0x07</b>	Issued by: <b>Secondary device</b>	Procedure class: <b>2</b>	DownloadMode state: <b>No</b>	Power mode: <b>Low</b>

**Table 6.6.5.2: Initiating message parameters and format for Alarm Indication**

Number	Length	Type	Description
<b>2 i – 1</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<del>Return code i; see annex A</del> <del>Return code i; see annex A</del>
<b>2 i</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>State flag i</b>

**i = 1 ... N**

### Description:

The secondary device uses this procedure to report alarm state changes to the primary device. This procedure shall only be performed if the secondary has performed an AlarmSubscribe procedure since its latest reset.

For each alarm, the current alarm state and alarm code shall be reported if and only if any change in its state has occurred during the period of time since the last reported state. An AlarmIndication procedure shall be performed if at least one alarm shall be reported. The first AlarmIndication procedure after the AlarmSubscribe procedure shall report the active alarms.

Alarm state changes are considered as reported at the time the message is passed to the transport layer.

State flag = 0 represents alarm state *cleared*.

State flag = 1 represents alarm state *raised*.

\*\*\*\*\* Unchanged Parts omitted \*\*\*\*\*

## 6.6.7 Get Device Data

**Table 6.6.7.1: Elementary procedure Get Device Data**

Name: <b>GetDeviceData</b>				
Code: <b>0x0F</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>Low</b>

**Table 6.6.7.2: Initiating message parameters and format for Get Device Data**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<del>Field number; see annex B</del> <del>Field number; see annex B</del> <b>B</b>

**Table 6.6.7.3: Response message parameters and format for Get Device Data**

Number	Length	Type	Description
1	1 octet	ReturnCode	Return code OK
2	See annex B	See annex B	Field value

**Description:**

In this procedure the secondary device shall return the data stored in the field for configuration data specified by the field number in the procedure and listed in annex B of this TS.

**Table 6.6.7.4: Return codes for Get Device Data**

OK	FAIL	Comment
	<b>FormatError</b> <b>Busy</b> <b>WorkingSoftwareMissing</b> <b>UnknownParameter</b>	

\*\*\*\*\* Unchanged Parts omitted \*\*\*\*\*

## 6.7.5 Antenna Get Device Data

**Table 6.7.5.1: Elementary procedure Antenna Get Device Data**

Name: <b>AntennaGetDeviceData</b>				
Code: <b>0x84</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>Low</b>

**Table 6.7.5.2: Initiating message parameters and format for Antenna Get Device Data**

Number	Length	Type	Description
1	1 octet	Unsigned integer	Antenna number
2	1 octet	Unsigned integer	Field number to read; see annex B Field number to read; see annex B

**Table 6.7.5.3: Response message parameters and format for Antenna Get Device Data**

Number	Length	Type	Description
1	1 octet	Unsigned integer	Antenna number
2	1 octet	ReturnCode	Return code OK
3	See annex B	See annex B	Field value

**Description:**

On receipt of the initiating message the secondary device shall return the data stored for the addressed antenna in the field for configuration data specified by the field number in the initiating message and listed in annex B of this TS.



**Table 6.7.5.4: Return codes for Antenna Get Device Data**

OK	FAIL	Comment
	<b>FormatError</b> <b>Busy</b> <b>WorkingSoftwareMissing</b> <b>UnsupportedProcedure</b> <b>UnknownParameter</b>	<b>If the addressed antenna is not existing, FormatError is returned.</b>

\*\*\*\*\* Unchanged Parts omitted \*\*\*\*\*

## 6.7.8 Antenna Get Alarm Status

**Table 6.7.8.1: Elementary procedure Antenna Get Alarm Status**

Name: <b>AntennaGetAlarmStatus</b>				
Code: <b>0x87</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>Low</b>

**Table 6.7.8.2: Initiating message parameters and format for Antenna Get Alarm Status**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Antenna number</b>

**Table 6.7.8.3: Response message parameters and format for Antenna Get Alarm Status**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Antenna number</b>
<b>2</b>	<b>1 octet</b>	<b>ReturnCode</b>	<b>Return code OK</b>
<b>i + 2</b>	<b>1 octet</b>	<b>AlarmCode</b>	<b><del>Alarm code for</del>Active alarm number i</b>

i = 1 ... N

### Description:

On receipt of the initiating message the secondary device shall report the alarm codes of the active alarms for the addressed antenna.

**Table 6.7.8.4: Return codes for Antenna Get Alarm Status**

OK	FAIL	Comment
<b>All return codes marked as used for alarms in Annex A</b>	<b>FormatError</b> <b>Busy</b> <b>WorkingSoftwareMissing</b> <b>UnsupportedProcedure</b>	<b>If the addressed antenna is not existing, FormatError is returned.</b>

\*\*\*\*\* End of Changes \*\*\*\*\*

## CHANGE REQUEST

№ **25.463 CR 035** № rev **-** № Current version: **6.2.0** №

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  Core Network

<b>Title:</b>	№ Clarification of Tilt		
<b>Source:</b>	№ RAN3		
<b>Work item code:</b>	№ RANimp-TiltAnt	<b>Date:</b>	№ 25/04/2005
<b>Category:</b>	№ <b>F</b>	<b>Release:</b>	№ Rel-6
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: Ph2 (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) Rel-7 (Release 7)

<b>Reason for change:</b>	№ Clean-up to use one Tilt value definition.		
<b>Summary of change:</b>	№ References to the definition in subclause 3.1 are added to the procedures Set Tilt and Antenna Set Tilt and redundant text is removed.		
<b>Consequences if not approved:</b>	№ Inconsistent specification		

<b>Clauses affected:</b>	№ 6.6.3 and 6.7.2										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications    № Test specifications O&M Specifications	Y	N		X		X		X		
Y	N										
	X										
	X										
	X										
<b>Other comments:</b>	№										

**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.

## 6.6.3 Set Tilt

**Table 6.6.3.1: Elementary procedure Set Tilt**

Name: <b>SetTilt</b>				
Code: <b>0x33</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>High</b>

**Table 6.6.3.2: Initiating message parameters and format for Set Tilt**

Number	Length	Type	Description
<b>1</b>	<b>2 octets</b>	Signed integer	<b>Tilt value</b>

**Table 6.6.3.3: Response message parameters and format for Set Tilt**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>ReturnCode</b>	<b>Return code OK</b>

### Description:

On receipt of the initiating message the secondary device shall set the electrical tilt in increments of 0.1°. ~~The electrical tilt value describes the elevation angle between the direction orthogonal to the antenna element axis and the maximum of its main beam in the elevation plane. A positive electrical tilt angle means that the antenna beam is directed below the direction orthogonal to the antenna axis.~~

The secondary device shall respond to the initiating message in less than 2 minutes.

The actual tilt angle shall not go outside of the range between the current tilt and the requested tilt value during this operation by more than 0.5°.

~~The value of parameter 1 is 10 times the tilt in degrees as described in subclause 3.1. The format of the value of parameter 1 is given in subclause 3.1.~~

**Table 6.6.3.4: Return codes for Set Tilt**

OK	FAIL	Comment
	<b>FormatError</b> <b>Busy</b> <b>HardwareError</b> <b>WorkingSoftwareMissing</b> <b>MotorJam</b> <b>ActuatorJam</b> <b>NotConfigured</b> <b>NotCalibrated</b> <b>OutOfRange</b> <b>UnsupportedProcedure</b>	

## 6.7.2 Antenna Set Tilt

**Table 6.7.2.1: Elementary procedure Antenna Set Tilt**

Name: <b>AntennaSetTilt</b>				
Code: <b>0x81</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>High</b>

**Table 6.7.2.2: Initiating message parameters and format for Antenna Set Tilt**

Number	Length	Type	Description
1	1 octet	Unsigned integer	Antenna number
2	2 octets	Signed integer	Tilt value

**Table 6.7.2.3: Response message parameters and format for Antenna Set Tilt**

Number	Length	Type	Description
1	1 octet	Unsigned integer	Antenna number
2	1 octet	ReturnCode	Return code OK

**Description:**

On receipt of the initiating message the secondary device shall set the electrical tilt of the antenna addressed by the antenna number in increments of 0.1°. ~~The electrical tilt value describes the elevation angle between the direction orthogonal to the antenna element axis and the maximum of its main beam in the elevation plane. A positive electrical tilt angle means that the antenna beam is directed below the direction orthogonal to the antenna axis.~~

The secondary device shall respond to the initiating message in less than 2 minutes.

The actual tilt angle shall not go outside of the range between the current tilt and the requested tilt value during this operation by more than 0.5°.

The format of the value of parameter 2 is given in subclause 3.1.

**Table 6.7.2.4: Return codes for Antenna Set Tilt**

OK	FAIL	Comment
	FormatError Busy HardwareError WorkingSoftwareMissing MotorJam ActuatorJam NotConfigured NotCalibrated OutOfRange UnsupportedProcedure	If the addressed antenna is not existing, FormatError is returned.

**End of Changes**

## CHANGE REQUEST

№ **25.463 CR 036** № rev **-** № Current version: **6.2.0** №

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  Core Network

<b>Title:</b>	№ Definition of 'empty string'		
<b>Source:</b>	№ RAN3		
<b>Work item code:</b>	№ RANimp-TiltAnt	<b>Date:</b>	№ 25/04/2005
<b>Category:</b>	№ <b>F</b>	<b>Release:</b>	№ Rel-6
	<i>Use one of the following categories:</i> <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		<i>Use one of the following releases:</i> <b>Ph2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>Rel-4</b> (Release 4) <b>Rel-5</b> (Release 5) <b>Rel-6</b> (Release 6) <b>Rel-7</b> (Release 7)

<b>Reason for change:</b>	№ The representation of an 'empty string' is missing.
<b>Summary of change:</b>	№ Added definition to 'empty string' in the procedure Get Information.
<b>Consequences if not approved:</b>	№ Inconsistent specification

<b>Clauses affected:</b>	№ 6.5.3										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications    № Test specifications O&M Specifications	Y	N	#	X	#	X	#	X		
Y	N										
#	X										
#	X										
#	X										
<b>Other comments:</b>	№										

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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.

## 6.5.3 Get Information

**Table 6.5.3.1: Elementary procedure Get Information**

Name: <b>GetInformation</b>				
Code: <b>0x05</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>Yes</b>	Power mode: <b>Low</b>

**Table 6.5.3.2: Initiating message parameters and format for Get Information**

Number	Length	Type	Description
<b>None</b>	<b>0 octets</b>	<b>None</b>	<b>No data carried</b>

**Table 6.5.3.3: Response message parameters and format for Get Information**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>ReturnCode</b>	<b>Return code OK</b>
<b>2</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Length of parameter 3 in number of octets</b>
<b>3</b>		<b>TextString</b>	<b>Product number</b>
<b>4</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Length of parameter 5 in number of octets</b>
<b>5</b>		<b>TextString</b>	<b>Serial number</b>
<b>6</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Length of parameter 7 in number of octets</b>
<b>7</b>		<b>TextString</b>	<b>Hardware Version</b>
<b>8</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Length of parameter 9 in number of octets</b>
<b>9</b>		<b>TextString</b>	<b>Software Version</b>

### Description:

On receipt of the initiating message the secondary device shall return the product number ProdNr and the serial number SerNr of the secondary device. If known, also the hardware version and the software version may be returned. The software version should indicate the version number of the currently executed software.

The parameters HWVersion and SWVersion in the response message refer to the version designators of the hardware and installed software of the secondary device. If the application is missing or no [HW or SW](#) version number is found, then an empty string shall be returned as the [HW or SW](#) version number. [The empty string is represented as a length field equals 0 and no octets in the TextString field.](#)

The response message length shall be less than or equal to the minimum SecondaryPayloadTransmitLength as given in subclause 4.8.1 in [3].

**Table 6.5.3.4: Return codes for Get Information**

OK	FAIL	Comment
	<b>FormatError</b> <b>Busy</b>	

**End of Changes**



## CHANGE REQUEST

# **25.463 CR 037** # rev **-** # Current version: **6.2.0** #

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  Core Network

<b>Title:</b>	# Improvements to Annex B		
<b>Source:</b>	# RAN3		
<b>Work item code:</b>	# RANimp-TiltAnt	<b>Date:</b>	# 26/04/2005
<b>Category:</b>	# <b>F</b>	<b>Release:</b>	# Rel-6
	<p>Use <u>one</u> of the following categories:</p> <p><b>F</b> (correction)</p> <p><b>A</b> (corresponds to a correction in an earlier release)</p> <p><b>B</b> (addition of feature),</p> <p><b>C</b> (functional modification of feature)</p> <p><b>D</b> (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a>.</p>		<p>Use <u>one</u> of the following releases:</p> <p>Ph2 (GSM Phase 2)</p> <p>R96 (Release 1996)</p> <p>R97 (Release 1997)</p> <p>R98 (Release 1998)</p> <p>R99 (Release 1999)</p> <p>Rel-4 (Release 4)</p> <p>Rel-5 (Release 5)</p> <p>Rel-6 (Release 6)</p> <p>Rel-7 (Release 7)</p>

<b>Reason for change:</b>	# The coding for antenna frequency bands in Table B.2 are defined in MHz (800, 900, 1500, 1800, 1900, and 2100) but in TS 25.461 the frequency bands are not numerated in MHz but with roman numbers (I, II, III, IV, V, and VI) as they are defined in RAN WG4 specs (e.g. 25.104). There is no relation between the frequency band definition in TS 25.461 and the frequency bands in MHz. The coding of frequency band is ambiguous (bitnumber in 16 bit unsigned is unspecified). Bit numbering from 1..16 is considered as unnatural. Omniantennas can not be described with current specification in Table B.1. Beamwidth and Gain field size is considered as not future proof. Scaling and sort for gain erroneous. Base station ID and Sector ID is considered by some operators as too short. Superfluous note.
<b>Summary of change:</b>	# The frequency bands in Table B.2 is updated according to the definition in TS 25.461. The examples of the frequency bands are updated. A note is added referring to 25.461 for the definition of the frequency bands. Bit numbering added for Table B.2. Bit numbering changed to 0..15. Beamwidth and Gain field coding are enlarged in Table B.1 Scaling for gain corrected and dB changed to dBi. Note regarding multi antenna device is deleted.
<b>Consequences if not approved:</b>	# Erroneous, inconsistent, incomplete and less future proof specification.

<b>Clauses affected:</b>	⌘	Annex B			
<b>Other specs affected:</b>	⌘	<table border="1"><tr><td>Y</td><td>N</td></tr></table>	Y	N	
		Y	N		
		<table border="1"><tr><td></td><td>X</td></tr></table>		X	Other core specifications
			X		
<table border="1"><tr><td></td><td>X</td></tr></table>		X	Test specifications		
	X				
<table border="1"><tr><td></td><td>X</td></tr></table>		X	O&M Specifications		
	X				
<b>Other comments:</b>	⌘				

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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.

## Annex B (normative): Assigned fields for additional data

The following standard fields have no operational impact and are used by the procedures SetDeviceData, GetDeviceData, AntennaSetDeviceData and AntennaGetDeviceData. Little endian order is used for storage of multiple-octet numbers. Where ASCII variables are shorter than the assigned field lengths the characters are right aligned and leading blanks are filled with null characters (0x00).

**Table B.1: Assigned fields for additional data**

Field No.	Length (octets)	Format	Description
0x01	15	ASCII	Antenna model number
0x02	17	ASCII	Antenna serial number
0x03	2	16-bit unsigned	Antenna <a href="#">frequency-operating</a> band(s): see below
0x04	<del>4</del> 8	<del>4</del> x 8-bit unsigned	Beamwidth for each <a href="#">operating</a> band in <a href="#">frequency-band</a> order (deg) (example <del>800/900-MHz</del> width for band I, <del>1800/1900-</del> width for band <del>III-MHz, 2100-MHz,</del> )
0x05	<del>4</del> 8	<del>4</del> x 8-bit unsigned	Gain for each <a href="#">operating</a> band in <a href="#">frequency-band</a> order (dBi * /10) (example <del>800/900-gain</del> for band I-MHz, <del>1800/1900</del> gain for band <del>III-MHz, 2100-MHz,</del> )
0x06	2	16-bit signed	Maximum supported tilt (degrees * 10), format as in subclause 3.1
0x07	2	16-bit signed	Minimum supported tilt (degrees * 10), format as in subclause 3.1
0x21	6	ASCII	Installation date
0x22	5	ASCII	Installer's ID
0x23	<del>3</del> 4	ASCII	Base station ID
0x24	<del>3</del> 4	ASCII	Sector ID
0x25	2	16-bit unsigned	Antenna bearing
0x26	2	16-bit signed	Installed mechanical tilt (degrees * 10), format as in subclause 3.1

**Table B.2: Coding for [antenna frequency-operating](#) bands in field 0x03**

		Field 0x03						
		Frequency-band (MHz)						
		1	2	3	4	5	6	
		800	900	1500	1800	1900	2100	
		7 to 16	Reserved					
Bit no	15..6	5	4	3	2	1	0	
Operating band	Spare	I	II	III	IV	V	VI	

[The operating bands are defined in subclause 4.3.7 in \[4\].](#)

[Bits are numbered from 0 to 15, bit no 0 set=1 represents the value 0x0001.](#)

[Bit set=1 represents operating band is supported.](#)

[Bit set=0 represents operating band is not supported.](#)

[Spare bits shall be set=0.](#)

[Unused Beamwidth and Gain octets shall be set to 0x0000.](#)

Examples of ~~frequency~~ operating bands: 0000 0000 0001 0000 = Operating band II ~~1900 MHz~~

0000 0000 0011 1000 = Operating band~~1800, 1900~~ I, II and ~~2100 MHz~~ III

~~NOTE: Field numbers 0x01, 0x02, and 0x21 to 0x26 in Table B.1 are common for multi-antenna device antennas. These fields may be addressed through any antenna number procedure.~~

<b>End of Changes</b>
-----------------------

## CHANGE REQUEST

№ **25.463 CR 39** № rev **2** № Current version: **6.2.0** №

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  Core Network

<b>Title:</b>	№ Set Tilt Correction		
<b>Source:</b>	№ RAN3		
<b>Work item code:</b>	№ RANimp-TiltAnt	<b>Date:</b>	№ 08/05/2005
<b>Category:</b>	№ <b>F</b>	<b>Release:</b>	№ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)	<b>Ph2</b> (GSM Phase 2)	
	<b>A</b> (corresponds to a correction in an earlier release)	<b>R96</b> (Release 1996)	
	<b>B</b> (addition of feature),	<b>R97</b> (Release 1997)	
	<b>C</b> (functional modification of feature)	<b>R98</b> (Release 1998)	
	<b>D</b> (editorial modification)	<b>R99</b> (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		<b>Rel-4</b> (Release 4)
			<b>Rel-5</b> (Release 5)
			<b>Rel-6</b> (Release 6)
			<b>Rel-7</b> (Release 7)

<b>Reason for change:</b>	№ Current text says that we should not go beyond 0.5 degrees of the range between current and requested tilt values, but tilt values are ten times tilt angles, so it should be either changed to 5 as the integer parameter or change tilt value into tilt angle.
<b>Summary of change:</b>	№ The requirement on the allowed overshoot for a tilt change is specified in terms of tilt value instead of tilt angles.
<b>Consequences if not approved:</b>	№ If misinterpreted, risk of high interference of communications during the self tilt operations.

<b>Clauses affected:</b>	№ Section 6.6.3, 6.7.2						
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	№
	Y	N					
	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/>	Test specifications						
<input checked="" type="checkbox"/>	O&M Specifications						
<b>Other comments:</b>	№ -						

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- 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.

## 6.6.3 Set Tilt

**Table 6.6.3.1: Elementary procedure Set Tilt**

Name: <b>SetTilt</b>				
Code: <b>0x33</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>High</b>

**Table 6.6.3.2: Initiating message parameters and format for Set Tilt**

Number	Length	Type	Description
<b>1</b>	<b>2 octets</b>	Signed integer	<b>Tilt value</b>

**Table 6.6.3.3: Response message parameters and format for Set Tilt**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>ReturnCode</b>	<b>Return code OK</b>

### Description:

On receipt of the initiating message the secondary device shall set the electrical tilt in increments of 0.1°. The electrical tilt value describes the elevation angle between the direction orthogonal to the antenna element axis and the maximum of its main beam in the elevation plane. A positive electrical tilt angle means that the antenna beam is directed below the direction orthogonal to the antenna axis.

The secondary device shall respond to the initiating message in less than 2 minutes.

The [tilt value corresponding to the](#) actual tilt angle shall not go outside of the range between the [tilt value corresponding to the](#) current tilt [angle](#) and the [tilt value corresponding to the](#) requested tilt ~~value~~ [angle by more than 5](#) during this operation ~~by more than 0.5°~~.

The value of parameter 1 is 10 times the tilt in degrees as described in subclause 3.1.

**Table 6.6.3.4: Return codes for Set Tilt**

OK	FAIL	Comment
	<b>FormatError</b> <b>Busy</b> <b>HardwareError</b> <b>WorkingSoftwareMissing</b> <b>MotorJam</b> <b>ActuatorJam</b> <b>NotConfigured</b> <b>NotCalibrated</b> <b>OutOfRange</b> <b>UnsupportedProcedure</b>	

## 6.7.2 Antenna Set Tilt

**Table 6.7.2.1: Elementary procedure Antenna Set Tilt**

Name: <b>AntennaSetTilt</b>				
Code: <b>0x81</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>High</b>

**Table 6.7.2.2: Initiating message parameters and format for Antenna Set Tilt**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Antenna number</b>
<b>2</b>	<b>2 octets</b>	Signed integer	<b>Tilt value</b>

**Table 6.7.2.3: Response message parameters and format for Antenna Set Tilt**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Antenna number</b>
<b>2</b>	<b>1 octet</b>	<b>ReturnCode</b>	<b>Return code OK</b>

### Description:

On receipt of the initiating message the secondary device shall set the electrical tilt of the antenna addressed by the antenna number in increments of 0.1°. The electrical tilt value describes the elevation angle between the direction orthogonal to the antenna element axis and the maximum of its main beam in the elevation plane. A positive electrical tilt angle means that the antenna beam is directed below the direction orthogonal to the antenna axis.

The secondary device shall respond to the initiating message in less than 2 minutes.

The [tilt value corresponding to the](#) actual tilt angle shall not go outside of the range between the [tilt value corresponding to the](#) current tilt angle and the [tilt value corresponding to the](#) requested tilt ~~value~~ angle by more than 5 during this operation ~~by more than 0.5°~~.

The format of the value of parameter 2 is given in subclause 3.1.

**Table 6.7.2.4: Return codes for Antenna Set Tilt**

OK	FAIL	Comment
	<b>FormatError</b> <b>Busy</b> <b>HardwareError</b> <b>WorkingSoftwareMissing</b> <b>MotorJam</b> <b>ActuatorJam</b> <b>NotConfigured</b> <b>NotCalibrated</b> <b>OutOfRange</b> <b>UnsupportedProcedure</b>	<b>If the addressed antenna is not existing, FormatError is returned.</b>



## CHANGE REQUEST

# **25.463 CR 043** # rev **3** # Current version: **6.2.0** #

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  Core Network

<b>Title:</b>	# Parallel procedure handling		
<b>Source:</b>	# RAN3		
<b>Work item code:</b>	# RANimp-TiltAnt	<b>Date:</b>	# 12/05/2005
<b>Category:</b>	# <b>F</b>	<b>Release:</b>	# Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)		<b>Ph2</b> (GSM Phase 2)
	<b>A</b> (corresponds to a correction in an earlier release)		<b>R96</b> (Release 1996)
	<b>B</b> (addition of feature),		<b>R97</b> (Release 1997)
	<b>C</b> (functional modification of feature)		<b>R98</b> (Release 1998)
	<b>D</b> (editorial modification)		<b>R99</b> (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		<b>Rel-4</b> (Release 4)
			<b>Rel-5</b> (Release 5)
			<b>Rel-6</b> (Release 6)
			<b>Rel-7</b> (Release 7)

<b>Reason for change:</b>	# Current specification isn't precise whether parallel procedures have to be executed in the secondary device or not. During the RET Adhoc meeting in Stockholm, parallel procedure handling was discussed and it was agreed that having some parallel handling of clearly identified non-time consuming elementary procedures, and describing it in a tabular way, is a agreeable way forward. This CR proposes to take that agreement into account in RAN3 RETAP specification.
<b>Summary of change:</b>	# The CR proposes a minimum set of parallel procedures in an exact manner, which non-time consuming procedures are processed in parallel in the secondary device, if received during time consuming procedures (TCP). This CR includes the modifications made during the discussion on revision 2 of this CR at RAN3#47.
<b>Consequences if not approved:</b>	# Parallel procedure handling text is unclear. IOT problems may occur.

<b>Clauses affected:</b>	# 3.2, 6.2, 6.2.n (new), 6.5.2, 6.5.3, 6.5.9, 6.7.8 and 6.7.9												
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">#</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	#	#	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	#
Y	N												
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<input type="checkbox"/>	<input checked="" type="checkbox"/>												
<input type="checkbox"/>	<input checked="" type="checkbox"/>												
		Test specifications											
		O&M Specifications											
<b>Other comments:</b>	#												

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## 3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

EP	Elementary Procedure
HDLC	High-Level Data Link Control
RET	Remote Electrical Tilting
RETAP	Remote Electrical Tilting Application Part
<u>TCP</u>	<u>Time-Consuming Procedure</u>

----- unchanged section omitted -----

## 6.2 General procedure handling

~~All procedures are blocking i.e. no new initiation messages will have to be executed before a response message has been delivered as result of the previously initiated procedure.~~

~~The ResetSoftware procedure shall always be handled in all states and never be blocked.~~

### 6.2.n Parallel procedure handling

The secondary device shall support parallel execution of in maximum one additional EP only in parallel to one of the~~during~~ Time-Consuming Procedures defined in~~according to~~ table 6.2.n.1:

**Table 6.2.n.1: Definition of TCPs and the execution of procedures in parallel to a TCP**

<u>Elementary Procedure</u>	<u>TCP</u>	<u>Execution in parallel to a TCP</u>
<u>Common Procedure Set</u>		
<u>(Reserved)</u>		
<u>Reset Software</u>	<u>no</u>	<u>mandatory</u>
<u>Get Alarm Status</u>	<u>no</u>	<u>mandatory</u>
<u>Get Information</u>	<u>no</u>	<u>mandatory</u>
<u>Clear Active Alarms</u>	<u>no</u>	<u>disallowed</u>
<u>Read User Data</u>	<u>no</u>	<u>optional</u>
<u>Write User Data</u>	<u>no</u>	<u>optional</u>
<u>Alarm Subscribe</u>	<u>no</u>	<u>optional</u>
<u>Self Test</u>	<u>yes</u>	<u>disallowed</u>
<u>Download Start</u>	<u>no</u>	<u>disallowed</u>
<u>Download Application</u>	<u>no</u>	<u>disallowed</u>
<u>Download End</u>	<u>no</u>	<u>disallowed</u>
<u>Single-Antenna Procedure Set</u>		
<u>Set Device Data</u>	<u>no</u>	<u>optional</u>
<u>Get Device Data</u>	<u>no</u>	<u>optional</u>
<u>Calibrate</u>	<u>yes</u>	<u>disallowed</u>
<u>Send Configuration Data</u>	<u>no</u>	<u>disallowed</u>
<u>Set Tilt</u>	<u>yes</u>	<u>disallowed</u>
<u>Get Tilt</u>	<u>no</u>	<u>optional</u>
<u>Alarm Indication</u>	<u>no</u>	<u>optional</u>
<u>Multi-Antenna Procedure Set</u>		
<u>Antenna Calibrate</u>	<u>yes</u>	<u>optional</u>
<u>Antenna Send Configuration Data</u>	<u>no</u>	<u>disallowed</u>
<u>Antenna Set Tilt</u>	<u>yes</u>	<u>optional</u>
<u>Antenna Get Tilt</u>	<u>no</u>	<u>optional</u>
<u>Antenna Set Device Data</u>	<u>no</u>	<u>optional</u>
<u>Antenna Get Device Data</u>	<u>no</u>	<u>optional</u>
<u>Antenna Alarm Indication</u>	<u>no</u>	<u>optional</u>
<u>Antenna Clear Active Alarms</u>	<u>no</u>	<u>disallowed</u>
<u>Antenna Get Alarm Status</u>	<u>no</u>	<u>mandatory</u>
<u>Antenna Get Number of Antennas</u>	<u>no</u>	<u>mandatory</u>

“yes” in the “TCP” column indicates that the procedure is a TCP, “no” in the “TCP” column indicates that the procedure is not a TCP. “mandatory” in the “Execution in parallel to a TCP” column indicates that the procedure shall be executed in parallel to an ongoing TCP. “optional” in this column indicates, that the support of the execution of the procedure in parallel to an ongoing TCP is optional and “disallowed” indicates that the procedure shall not be executed in parallel to a TCP.

If a secondary device receives an initiating message for an EP which cannot be executed due to the ongoing execution of other EPs, the secondary device shall respond with a failure message stating “Busy” as the cause of failure.

Parallel execution of one TCP marked “optional” in the “Execution in parallel to a TCP” column in table 6.2.n.1 may be supported for each antenna by the secondary device. The EPs AntennaSetTilt and AntennaCalibrate shall be executed in parallel only for different antenna numbers. If more than one TCP is executed, ResetSoftware shall be executed anyway and never be responded with “Busy”.

If the EPs Get Tilt and Antenna GetTilt are executed in parallel with a TCP, their response message shall deliver a tilt value sampled during their execution.

## 6.2.1 Alarms

When a fault is detected, the corresponding alarm state shall be changed to state *raised* by the secondary device. When the fault no longer exists, the corresponding alarm state shall be changed to state *cleared* by the secondary device. Alarm changes are reported through the AlarmIndication or AntennaAlarmIndication elementary procedures. Whenever

an AlarmIndication or AntennaAlarmIndication elementary procedure message is transmitted, it shall contain all the alarm states changed that have not yet been reported as described in subclauses 6.6.5 and 6.7.6.

All alarm states shall be cleared by any type of reset.

### 6.2.2 Procedure message interpretation

The following message interpretation rules apply in the order mentioned:

- Any message shorter than 3 octets shall be disregarded;
- If a message has a length inconsistent with its “Number of data octets” field value it shall be responded with a failure message stating “FormatError” as the cause of failure. The response message shall be to the initiating message identified by the procedure code;
- If a secondary device in the OperatingMode state is receiving a procedure message of an optional procedure not supported or if the procedure is inapplicable to the device type, it shall respond with a failure message stating “UnsupportedProcedure” as the cause of failure;
- If a secondary device receives a procedure message, part of the software download procedure sequence described in Annex C, without having received the previous procedure messages in that sequence it shall respond with a failure message stating “InvalidProcedureSequence” as the cause of failure;
- If a secondary device in the DownloadMode state is receiving a procedure message not supported in that state it shall respond with a failure message stating “WorkingSoftwareMissing” as the cause of failure;
- If a secondary device in the OperatingMode state is receiving a correct procedure message with a procedure code not known it shall respond with a failure message stating “UnknownProcedure” as the cause of failure;
- If a message has a length inconsistent with the defined message length in the procedure definition it shall be responded with a failure message stating “FormatError” as the cause of failure. The response message shall be to the initiating message identified by the procedure code.

----- unchanged section omitted -----

### 6.5.2 Get Alarm Status

**Table 6.5.2.1: Elementary procedure Get Alarm Status**

Name: <b>GetAlarmStatus</b>				
Code: <b>0x04</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>Low</b>

**Table 6.5.2.2: Initiating message parameters and format for Get Alarm Status**

Number	Length	Type	Description
<b>None</b>	<b>0 octets</b>	<b>None</b>	<b>No data carried</b>

**Table 6.5.2.3: Response message parameters and format for Get Alarm Status**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>ReturnCode</b>	<b>Return code OK</b>
<b>i + 1</b>	<b>1 octet</b>	<b>AlarmCode</b>	<b>Active alarm number i</b>

i = 1 ... N

**Description:**

On receipt of the initiating message the secondary device reports the alarm codes of the active alarms.

**Table 6.5.2.4: Return codes for Get Alarm Status**

OK	FAIL	Comment
All return codes marked as used for alarms in Annex A.	FormatError Busy WorkingSoftwareMissing	

### 6.5.3 Get Information

**Table 6.5.3.1: Elementary procedure Get Information**

Name: <b>GetInformation</b>				
Code: <b>0x05</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>Yes</b>	Power mode: <b>Low</b>

**Table 6.5.3.2: Initiating message parameters and format for Get Information**

Number	Length	Type	Description
<b>None</b>	<b>0 octets</b>	<b>None</b>	<b>No data carried</b>

**Table 6.5.3.3: Response message parameters and format for Get Information**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>ReturnCode</b>	<b>Return code OK</b>
<b>2</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Length of parameter 3 in number of octets</b>
<b>3</b>		<b>TextString</b>	<b>Product number</b>
<b>4</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Length of parameter 5 in number of octets</b>
<b>5</b>		<b>TextString</b>	<b>Serial number</b>
<b>6</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Length of parameter 7 in number of octets</b>
<b>7</b>		<b>TextString</b>	<b>Hardware Version</b>
<b>8</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Length of parameter 9 in number of octets</b>
<b>9</b>		<b>TextString</b>	<b>Software Version</b>

#### Description:

On receipt of the initiating message the secondary device shall return the product number ProdNr and the serial number SerNr of the secondary device. If known, also the hardware version and the software version may be returned. The software version should indicate the version number of the currently executed software.

The parameters HWVersion and SWVersion in the response message refer to the version designators of the hardware and installed software of the secondary device. If the application is missing or no version number is found, then an empty string shall be returned as the version number.

The response message length shall be less than or equal to the minimum SecondaryPayloadTransmitLength as given in subclause 4.8.1 in [3].

**Table 6.5.3.4: Return codes for Get Information**

OK	FAIL	Comment
	FormatError <b>Busy</b>	

-----unchanged clauses omitted-----

### 6.5.9 Read User Data

**Table 6.5.9.1: Elementary procedure Read User Data**

Name: <b>ReadUserData</b>				
Code: <b>0x10</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>Low</b>

**Table 6.5.9.2: Initiating message parameters and format for Read User Data**

Number	Length	Type	Description
<b>1</b>	<b>2 octets</b>	<b>Unsigned integer</b>	<b>Memory offset</b>
<b>2</b>	<b>1 octet</b>	<b>Unsigned integer</b>	Number of octets to read

NOTE: Number of octets to read shall be less than, or equal to MaxDataTransmit Length minus 1.

**Table 6.5.9.3: Response message parameters and format for Read User Data**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>ReturnCode</b>	<b>Return code OK</b>
<b>2</b>	<b>Number of octets given by parameter 2 of the initiating message</b>	<b>User specific</b>	<b>User data</b>

**Description:**

On receipt of the initiating message the secondary device shall send back user specific data stored in a user data area to the primary device.

The user data area is intended for storage of user defined data, e.g. inventory information.

**Table 6.5.9.4: Return codes for Read User Data**

OK	FAIL	Comment
	FormatError <b>Busy</b> WorkingSoftwareMissing OutOfRange	The return code OutOfRange is used, if the given memory address range is outside the valid address space.

-----unchanged clauses omitted-----

## 6.7.8 Antenna Get Alarm Status

**Table 6.7.8.1: Elementary procedure Antenna Get Alarm Status**

Name: <b>AntennaGetAlarmStatus</b>				
Code: <b>0x87</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>Low</b>

**Table 6.7.8.2: Initiating message parameters and format for Antenna Get Alarm Status**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Antenna number</b>

**Table 6.7.8.3: Response message parameters and format for Antenna Get Alarm Status**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Antenna number</b>
<b>2</b>	<b>1 octet</b>	<b>ReturnCode</b>	<b>Return code OK</b>
<b>i + 2</b>	<b>1 octet</b>	<b>AlarmCode</b>	<b>Alarm code for alarm number i</b>

**i = 1 ... N**

### Description:

On receipt of the initiating message the secondary device shall report the alarm codes of the active alarms for the addressed antenna.

**Table 6.7.8.4: Return codes for Antenna Get Alarm Status**

OK	FAIL	Comment
<b>All return codes marked as used for alarms in Annex A</b>	<b>FormatError</b> <b>Busy</b> <b>WorkingSoftwareMissing</b> <b>UnsupportedProcedure</b>	<b>If the addressed antenna is not existing, FormatError is returned.</b>

## 6.7.9 Antenna Get Number Of Antennas

**Table 6.7.9.1: Elementary procedure Antenna Get Number Of Antennas**

Name: <b>AntennaGetNumberOfAntennas</b>				
Code: <b>0x88</b>	Issued by: <b>Primary device</b>	Procedure class: <b>1</b>	DownloadMode state: <b>No</b>	Power mode: <b>Low</b>

**Table 6.7.9.2: Initiating message parameters and format for Antenna Get Number Of Antennas**

Number	Length	Type	Description
<b>None</b>	<b>0 octets</b>	<b>None</b>	<b>No data carried</b>

**Table 6.7.9.3: Response message parameters and format for Antenna Get Number Of Antennas**

Number	Length	Type	Description
<b>1</b>	<b>1 octet</b>	<b>ReturnCode</b>	<b>Return code OK</b>
<b>2</b>	<b>1 octet</b>	<b>Unsigned integer</b>	<b>Number of antennas</b>

### Description:



On receipt of the initiating message the secondary device shall return the number of antennas it controls.

**Table 6.7.9.4: Return codes for Antenna Get Number Of Antennas**

OK	FAIL	Comment
	<b>FormatError</b> <b>Busy</b> <b>WorkingSoftwareMissing</b> <b>UnsupportedProcedure</b>	

**3GPP TSG-RAN WG3 Meeting #47**  
**Athens, Greece, 9<sup>th</sup> – 13<sup>th</sup> of May 2005**

**Tdoc #R3-050669**

CR-Form-v7.1
<b>CHANGE REQUEST</b>
⌘ <b>25.463 CR 048</b> ⌘ rev <b>-</b> ⌘ Current version: <b>6.2.0</b> ⌘

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  Core Network

<b>Title:</b>	⌘ Forward and backward compatibility clarification	
<b>Source:</b>	⌘ RAN3	
<b>Work item code:</b>	⌘ RANimp-TiltAnt	<b>Date:</b> ⌘ 03/05/2005
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b> ⌘ Rel-6
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .	Use <u>one</u> of the following releases: <b>Ph2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>Rel-4</b> (Release 4) <b>Rel-5</b> (Release 5) <b>Rel-6</b> (Release 6) <b>Rel-7</b> (Release 7)

<b>Reason for change:</b>	⌘ Current specification isn't precise how forward and backward compatibility is secured in the future.
<b>Summary of change:</b>	⌘ It is mentioned that forward and backward compatibility is kept in the future by not adding new parameters in the existing messages, but by introducing new procedures. Thus the existing messages are in the future as they are today, and the current implementations can rely that eg. message lengths are not changed in the future.
<b>Consequences if not approved:</b>	⌘ It is not clear how new features are added into the specification

<b>Clauses affected:</b>	⌘ Section 4.2					
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px 5px;">Y</td> <td style="padding: 2px 5px;">N</td> </tr> <tr> <td style="text-align: center; padding: 2px 5px;"><input type="checkbox"/></td> <td style="text-align: center; padding: 2px 5px;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications ⌘
	Y	N				
	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/>	Test specifications					
<input checked="" type="checkbox"/>	O&M Specifications					
<b>Other comments:</b>	⌘					

**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.

## 4.2 Forwards and backwards compatibility

The forwards and backwards compatibility of all versions of the protocol shall be assured by a mechanism in which all current and further messages will not be changed in the future. These parts can always be decoded regardless of the standard version.

[New functionalities are added into the specification by introducing new procedures and thus the existing messages are not changed in the future.](#)