RP-030592

Title CRs (R'99 and Rel-4/Rel-5/Rel-6 Category A) to TS 25.133

Source TSG RAN WG4

Agenda Item 7.5.3

RAN4 Tdoc	Spec	CR	R	Cat	Rel	Curr Ver	Title	Work Item
R4-031062	25.133	619	1	F	R99	3.15.0	GSM test case on correct reporting of GSM neighbors	TEI
R4-031063	25.133	620	1	Α	Rel-4	4.10.0	GSM test case on correct reporting of GSM neighbors	TEI
R4-031064	25.133	621	1	Α	Rel-5	5.8.0	GSM test case on correct reporting of GSM neighbors	TEI
R4-031065	25.133	622	1	Α	Rel-6	6.3.0	GSM test case on correct reporting of GSM neighbors	TEI
R4-030990	25.133	632		F	R99	3.15.0	Correction to Random Access test case	TEI
R4-030991	25.133	633		Α	Rel-4	4.10.0	Correction to Random Access test case	TEI
R4-030992	25.133	634		Α	Rel-5	5.8.0	Correction to Random Access test case	TEI
R4-030993	25.133	635		Α	Rel-6	6.3.0	Correction to Random Access test case	TEI
R4-031112	25.133	637	1	F	R99	3.15.0	CPICH Ec/lo relative accuracy	TEI
R4-031113	25.133	638	1	Α	Rel-4	4.10.0	CPICH Ec/lo relative accuracy	TEI
R4-031114	25.133	639	1	Α	Rel-5	5.8.0	CPICH Ec/lo relative accuracy	TEI
R4-031115	25.133	640	1	Α	Rel-6	6.3.0	CPICH Ec/lo relative accuracy	TEI

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		CHAN	GE REQ	UE	ST	7		CR-Form-v7
*	25.133	CR <mark>619</mark>	жrev	1	ж	Current version:	3.15.0	*
For <u>HEL</u>	P on using this for	m, see bottom o	of this page or	look	at th	ne pop-up text over	r the % syn	nbols.

*	25.133 CR 619
For <u>HELP</u> on us	sing this form, see bottom of this page or look at the pop-up text over the % symbols.
Proposed change a	
Title:	Correction of GSM measurement testcase.
Source: #	RAN WG4
Work item code: ₩	TEI 26/11/2003
Category: 署	F 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. Release: R99 Clease (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)
Reason for change Summary of change	dBm. This level should be –infinity to simulate the detection time. Without this change the GSM cell identification is not tested. A second test is also added in order to test the identification time when BSIC verification is not required. Remove the received signal from the GSM cell in the GSM measurement during
	the initial phase. (Received level is –infinity) Decrease the time T1 from 20 s to 5 s since it is only an initialisation phase, and increase the time T2 from 5 to 7s since 6.24 s is required to identify a GSM cell in these compressed mode gaps. Add a test 2 similar to test 1 but with BSIC verification is not required. Isolated impact: There is no impact on a standard compliant UE. Only a testcase for the full cell identification is added.
Consequences if not approved:	There will not be any performance requirements on a full GSM cell identification with BSIC verified.
Clauses affected:	₩ A 8.4
Other specs affected:	Y N X Other core specifications Test specifications O&M Specifications 34.121
Other comments:	# Fquivalent CPs in other Paleases: CP620r1 cat. A to 25 133 v4 10 0. CP621r1

Clauses affected: Other specs affected:	 X X<
Other comments:	# Equivalent CRs in other Releases: CR620r1 cat. A to 25.133 v4.10.0, CR621r1

cat. A to 25.133 v5.8.0, CR622r1 cat. A to 25.133 v6.3.0

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:

- 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.

A.8.4 GSM measurements

A.8.4.1 Correct reporting of GSM neighbours in AWGN propagation condition

A.8.4.1.1 Test Purpose and Environment

The purpose of these tests is to verify that the UE makes correct reporting of an event when doing inter-RAT GSM measurements. The test will partly verify the requirements in section 8.1.2.5. The requirements are also applicable for a UE not requiring compressed mode, in which case no compressed mode pattern should be sent for the parameters specified in table A8.15.

The tests consists of three successive time periods, with a time duration T1, T2 and T3. The test parameters are given in tables A.8.15, A.8.16 and A.8.17 below. In the measurement control information it is indicated to the UE that event-triggered reporting with Event 3B and 3C shall be used.

A.8.4.1.1.1 Test 1. With BSIC verification required

Table A.8.15: General test parameters for Correct reporting of GSM neighbours in AWGN propagation condition, <u>Test 1</u>

Parameter	Unit	Value	Comment
DCH parameters		DL Reference Measurement Channel	As specified in TS 25.101 section A.3.1
		12.2 kbps	
Power Control		On	
Target quality value on DTCH	BLER	0.01	
Compressed mode			Only applicable for UE requiring
patterns			compressed mode patterns
- GSM carrier RSSI			
measurement		DL Compressed mode reference pattern 2 in Set 2	As specified in table A.22 TS 25.101 section A.5
- GSM Initial BSIC			
identification		Pattern 2	As specified in section 8.1.2.5.2.1 table 8.7.
- GSM BSIC re-			
confirmation		Pattern 2	As specified in section 8.1.2.5.2.2 table 8.8.
Active cell		Cell 1	
Inter-RAT measurement		GSM Carrier RSSI	
quantity			
BSIC verification		required	
required			
Threshold other system	dBm	-80	Absolute GSM carrier RSSI threshold
			for event 3B and 3C.
Hysteresis	dB	0	
Time to Trigger	ms	0	
Filter coefficient		0	
Monitored cell list size		24 FDD neighbours on Channel 1 6 GSM neighbours including ARFCN 1	Measurement control information is sent before the compressed mode patterns starts.
N Identify abort		6 <u>6</u> 5	Taken from table 8.7.
T Reconfirm abort		5.0	Taken from table 8.8.
T1	S	20 5	
T2	S	<u>7</u> 5	
T3	S	5	

Table A.8.16: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 1)

Parameter	Unit	Cell 1
		T1, T2, T3
UTRA RF Channel		Channel 1
Number		
CPICH_Ec/lor	dB	-10
PCCPCH_Ec/lor	dB	-12
SCH_Ec/lor	dB	-12
PICH_Ec/Ior	dB	-15
DPCH_Ec/lor	dB	Note 1
OCNS		Note 2
\hat{I}_{or}/I_{oc}	dB	0
I_{oc}	dBm/ 3.84	-85
	MHz	
CPICH_Ec/lo	dB	-13
Propagation		AWGN
Condition		

Note 1: The DPCH level is controlled by the power control loop.

Note 2: The power of the OCNS channel that is added shall make the total power from the cell to be equal to I_{or}.

Table A.8.17: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 2)

Parameter	Unit	Cell 2				
Farailletei	Offic	T1	T2	Т3		
Absolute RF Channel Number		А	RFCN 1	I		
RXLEV	dBm	- 85 <u>Infinit</u> V	-75	-85		

A.8.4.1.1.2 Test 2: Without BSIC verification required

Table A.8.X: General test parameters for Correct reporting of GSM neighbours in AWGN propagation condition, Test 24

<u>Unit</u>	<u>Value</u>	Comment
	DL Reference Measurement Channel	As specified in TS 25.101 section A.3.1
	12.2 kbps	
	<u>On</u>	
BLER	<u>0.01</u>	
		Only applicable for UE requiring
		compressed mode patterns
		As specified in table A.22 TS 25.101
		section A.5
	GSM Carrier RSSI	
	not required	
<u>dBm</u>	<u>-80</u>	Absolute GSM carrier RSSI threshold
		for event 3B and 3C.
	_	
<u>ms</u>		
		Measurement control information is
	6 GSM neighbours including ARFCN 1	sent before the compressed mode
		patterns starts.
S	5	
S	<u>5</u>	
	BLER dBm dB ms	DL Reference Measurement Channel 12.2 kbps On BLER

Table A.8.Y: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 1)

<u>Unit</u>	<u>Cell 1</u>
	<u>T1, T2, T3</u>
	Channel 1
<u>dB</u>	<u>-10</u>
<u>dB</u>	<u>-10</u> - <u>12</u>
<u>dB</u>	<u>-12</u>
<u>dB</u>	<u>-15</u>
<u>dB</u>	Note 1
	Note 2
<u>dB</u>	<u>0</u>
dBm/ 3.84	<u>-85</u>
<u>MHz</u>	
<u>dB</u>	<u>-13</u>
	<u>AWGN</u>
	dB dB dB dB dB dB

Note 1: The DPCH level is controlled by the power control loop.

Note 2: The power of the OCNS channel that is added shall make the total power from the cell to be equal to I

Table A.8.Z: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 2)

Parameter	Unit	Cell 2				
<u>rarameter</u>	Oille	<u>T1</u>	<u>T2</u>	<u>T3</u>		
Absolute RF Channel		ARFCN 1				
<u>Number</u>			KECINI	_		
RXLEV	<u>dBm</u>	-Infinity	<u>-75</u>	<u>-85</u>		

A.8.4.1.2 Test Requirements

A.8.4.1.2.1 TEST 1 With BSIC verification required

The UE shall send one Event 3C triggered measurement report for Cell2, with a measurement reporting delay less than $\frac{9606.24}{100}$ ms from the beginning of time period T2.

The UE shall send one Event 3B triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T3.

The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled.

The rate of correct events observed during repeated tests shall be at least 90%.

A.8.4.1.2.2 TEST 2 Without BSIC verification required

The UE shall send one Event 3C triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T2.

The UE shall send one Event 3B triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T3.

The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled.

The rate of correct events observed during repeated tests shall be at least 90%.

R4-031063

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	CHANG	E REQ	UE	ST	CR-Form-v7
ж	25.133 CR 620	жrev	1	æ	Current version: 4.10.0 **

ж	25.133 CR 620
For <u>HELP</u> on u	using this form, see bottom of this page or look at the pop-up text over the % symbols.
Proposed change	affects: UICC apps ■ ME X Radio Access Network Core Network
Title: #	Correction of GSM measurement testcase.
Source: #	RAN WG4
Work item code: ₩	TEI Date: 26/11/2003
Reason for change	dBm. This level should be –infinity to simulate the detection time. Without this change the GSM cell identification is not tested. A second test is also added in order to test the identification time when BSIC verification is not required.
Summary of chang	Remove the received signal from the GSM cell in the GSM measurement during the initial phase. (Received level is –infinity) Decrease the time T1 from 20 s to 5 s since it is only an initialisation phase, and increase the time T2 from 5 to 7s since 6.24 s is required to identify a GSM cell in these compressed mode gaps. Add a test 2 similar to test 1 but with BSIC verification is not required. Isolated impact: There is no impact on a standard compliant UE. Only a testcase for the full cell identification is added.
Consequences if not approved:	There will not be any performance requirements on a full GSM cell identification with BSIC verified.
Clauses affected:	₩ A 8.4
Other specs affected:	Y N X Other core specifications Test specifications O&M Specifications 34.121
Other comments:	# Equivalent CPs in other Polesses: CP610r1 cat. F to 25 133 v3 15 0. CP621r1

Clauses affected:	₩ A 8.4
Other specs affected:	Y N X Other core specifications Test specifications O&M Specifications 34.121
Other comments:	# Equivalent CRs in other Releases: CR619r1 cat. F to 25.133 v3.15.0, CR621r1

cat. A to 25.133 v5.8.0, CR622r1 cat. A to 25.133 v6.3.0

How to create CRs using this form:

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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.

A.8.4 GSM measurements

A.8.4.1 Correct reporting of GSM neighbours in AWGN propagation condition

A.8.4.1.1 Test Purpose and Environment

The purpose of these tests is to verify that the UE makes correct reporting of an event when doing inter-RAT GSM measurements. The test will partly verify the requirements in section 8.1.2.5. The requirements are also applicable for a UE not requiring compressed mode, in which case no compresed mode pattern should be sent for the parameters specified in table A8.15.

The test consists of three successive time periods, with a time duration T1, T2 and T3. The test parameters are given in tables A.8.15, A.8.16 and A.8.17 below. In the measurement control information it is indicated to the UE that event-triggered reporting with Event 3B and 3C shall be used.

A.8.4.1.1.1 Test 1. With BSIC verification required

Table A.8.15: General test parameters for Correct reporting of GSM neighbours in AWGN propagation condition, <u>Test 1</u>

Parameter	Unit	Value	Comment
DCH parameters		DL Reference Measurement Channel	As specified in TS 25.101 section A.3.1
		12.2 kbps	
Power Control		On	
Target quality value on DTCH	BLER	0.01	
Compressed mode patterns			Only applicable only for UE requiring compressed mode patterns
- GSM carrier RSSI measurement		DL Compressed mode reference pattern 2 in Set 2	As specified in table A.22 TS 25.101 section A.5
- GSM Initial BSIC identification		Pattern 2	As specified in section 8.1.2.5.2.1 table 8.7.
-GSM BSIC re- confirmation		Pattern 2	As specified in section 8.1.2.5.2.2 table 8.8.
Active cell		Cell 1	0.0.
Inter-RAT measurement		GSM Carrier RSSI	
quantity		Com camer reco	
BSIC verification		required	
required		·	
Threshold other system	dBm	-80	Absolute GSM carrier RSSI threshold for event 3B and 3C.
Hysteresis	dB	0	
Time to Trigger	ms	0	
Filter coefficient		0	
Monitored cell list size		24 FDD neighbours on Channel 1 6 GSM neighbours including ARFCN 1	Measurement control information is sent before the compressed mode patterns starts.
N Identify abort		6 <u>6</u> 5	Taken from table 8.7.
T Reconfirm abort		5.0	Taken from table 8.8.
T1	S	<u>5</u> 20	
T2	S	<u>57</u>	
T3	S	5	

Table A.8.16: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 1)

	T1, T2, T3
	Channel 1
dB	-10
dB	-12
dB	-12
dB	-15
dB	Note 1
	Note 2
dB	0
dBm/	-85
3.84	
MHz	
dB	-13
	AWGN
	dB dB dB dB dB MB dBm/ 3.84 MHz

Note 1: The DPCH level is controlled by the power control loop.

Note 2: The power of the OCNS channel that is added shall make the total power from the cell to be equal to I_{or}.

Table A.8.17: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 2)

Parameter	Unit	Cell 2		
raiailletei		T1	T2	T3
Absolute RF Channel Number			ARFCN 1	I
RXLEV	dBm	Infinity 85	-75	-85

A.8.4.1.1.2 Test 2: Without BSIC verification required

Table A.8.X: General test parameters for Correct reporting of GSM neighbours in AWGN propagation condition, Test 24

<u>Unit</u>	<u>Value</u>	Comment
	DL Reference Measurement Channel	As specified in TS 25.101 section A.3.1
	12.2 kbps	
	<u>On</u>	
BLER	<u>0.01</u>	
		Only applicable for UE requiring
		compressed mode patterns
		As specified in table A.22 TS 25.101
		section A.5
	GSM Carrier RSSI	
	not required	
<u>dBm</u>	<u>-80</u>	Absolute GSM carrier RSSI threshold
		for event 3B and 3C.
	_	
<u>ms</u>		
		Measurement control information is
	6 GSM neighbours including ARFCN 1	sent before the compressed mode
		patterns starts.
S	5	
S	<u>5</u>	
	BLER dBm dB ms	DL Reference Measurement Channel 12.2 kbps On BLER

Table A.8.Y: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 1)

<u>Unit</u>	<u>Cell 1</u>
	<u>T1, T2, T3</u>
	Channel 1
<u>dB</u>	<u>-10</u>
<u>dB</u>	<u>-10</u> - <u>12</u>
<u>dB</u>	<u>-12</u>
<u>dB</u>	<u>-15</u>
<u>dB</u>	Note 1
	Note 2
<u>dB</u>	<u>0</u>
dBm/ 3.84	<u>-85</u>
<u>MHz</u>	
<u>dB</u>	<u>-13</u>
	<u>AWGN</u>
	dB dB dB dB dB dB

Note 1: The DPCH level is controlled by the power control loop.

Note 2: The power of the OCNS channel that is added shall make the total power from the cell to be equal to I

Table A.8.Z: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 2)

Parameter	Unit	Cell 2		
<u>rafameter</u>	OIIIL	<u>T1</u>	<u>T2</u>	<u>T3</u>
Absolute RF Channel	ADECNIA		1	
<u>Number</u>		ARFCN 1		<u>L</u> .
RXLEV	<u>dBm</u>	-Infinity	<u>-75</u>	<u>-85</u>

A.8.4.1.2 Test Requirements

A.8.4.1.2.1 TEST 1 With BSIC verification required

The UE shall send one Event 3C triggered measurement report for Cell2, with a measurement reporting delay less than 6.24 960 ms from the beginning of time period T2.

The UE shall send one Event 3B triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T3.

The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled.

The rate of correct events observed during repeated tests shall be at least 90%.

A.8.4.1.2.2 TEST 2 Without BSIC verification required

The UE shall send one Event 3C triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T2.

The UE shall send one Event 3B triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T3.

The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled.

The rate of correct events observed during repeated tests shall be at least 90%.

R4-031064

3GPP TSG RAN WG4 (Radio) Meeting #29

San Diego, USA 17 - 21 November 2003

Diogo, oc	A 17 - 21 November 2003	00.5
	CHANGE REQUEST	CR-Form-vi
*	25.133 CR 621 #rev 1 # C	Current version: 5.8.0 #
For <u>HELP</u> on use	ing this form, see bottom of this page or look at the page of look	cess Network Core Network
Title: ₩	Correction of GSM measurement testcase.	
Source: #	RAN WG4	
Work item code: 第	TEI	Date: # 26/11/2003
Category: #	Wese 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.	Release: # Rel-5 Use one of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)
Reason for change	dBm. This level should be –infinity to simulate change the GSM cell identification is not tested. A second test is also added in order to test the verification is not required.	the detection time. Without this d. e identification time when BSIC I in the GSM measurement during is only an initialisation phase, and is required to identify a GSM cell ification is not required.
Consequences if not approved: Clauses affected:	# There will not be any performance requiremen with BSIC verified. # A 8.4	ts on a full GSM cell identification
Other specs affected:	 Y N X Other core specifications X Test specifications X O&M Specifications 	1

Equivalent CRs in other Releases: CR619r1 cat. F to 25.133 v3.15.0, CR620r1

Other comments:

cat. A to 25.133 v4.10.0, CR622r1 cat. A to 25.133 v6.3.0

How to create CRs using this form:

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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.

A.8.4 GSM measurements

A.8.4.1 Correct reporting of GSM neighbours in AWGN propagation condition

A.8.4.1.1 Test Purpose and Environment

The purpose of these tests is to verify that the UE makes correct reporting of an event when doing inter-RAT GSM measurements. The test will partly verify the requirements in section 8.1.2.5. The requirements are also applicable for a UE not requiring compressed mode, in which case no compresed mode pattern should be sent for the parameters specified in table A8.15.

The test consists of three successive time periods, with a time duration T1, T2 and T3. The test parameters are given in tables A.8.15, A.8.16 and A.8.17 below. In the measurement control information it is indicated to the UE that event-triggered reporting with Event 3B and 3C shall be used.

A.8.4.1.1.1 Test 1. With BSIC verification required

Table A.8.15: General test parameters for Correct reporting of GSM neighbours in AWGN propagation condition, <u>Test 1</u>

Parameter	Unit	Value	Comment
DCH parameters		DL Reference Measurement Channel	As specified in TS 25.101 section A.3.1
		12.2 kbps	
Power Control		On	
Target quality value on DTCH	BLER	0.01	
Compressed mode patterns			Only applicable for UE requiring compressed mode patterns
- GSM carrier RSSI measurement		DL Compressed mode reference pattern 2 in Set 2	As specified in table A.22 TS 25.101 section A.5
- GSM Initial BSIC identification		Pattern 2	As specified in section 8.1.2.5.2.1 table 8.7.
-GSM-BSIC re- confirmation		Pattern 2	As specified in section 8.1.2.5.2.2 table 8.8.
Active cell		Cell 1	0.0.
Inter-RAT measurement		GSM Carrier RSSI	
quantity			
BSIC verification		Required	
required			
Threshold other system	dBm	-80	Absolute GSM carrier RSSI threshold for event 3B and 3C.
Hysteresis	dB	0	
Time to Trigger	ms	0	
Filter coefficient		0	
Monitored cell list size		24 FDD neighbours on Channel 1 6 GSM neighbours including ARFCN 1	Measurement control information is sent before the compressed mode patterns starts.
N Identify abort		65 <u>66</u>	Taken from table 8.7.
T Reconfirm abort		5.0	Taken from table 8.8.
T1	S	<u>5</u> 20	
T2	S	<u>57</u>	
T3	S	5	

Table A.8.16: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 1)

Parameter	Unit	Cell 1
		T1, T2, T3
UTRA RF Channel		Channel 1
Number		
CPICH_Ec/lor	dB	-10
PCCPCH_Ec/lor	dB	-12
SCH_Ec/lor	dB	-12
PICH_Ec/lor	dB	-15
DPCH_Ec/lor	dB	Note 1
OCNS		Note 2
\hat{I}_{or}/I_{oc}	dB	0
I_{oc}	dBm/	-85
00	3.84	
	MHz	
CPICH_Ec/lo	dB	-13
Propagation Condition		AWGN
11 . 4 TI DDG111 11		11 0

Note 1: The DPCH level is controlled by the power control loop.

Note 2: The power of the OCNS channel that is added shall make the total power from the cell to be equal to I_{or}.

Table A.8.17: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 2)

Parameter	Unit	Cell 2		
Farameter		T1	T2	T3
Absolute RF Channel Number			ARFCN ²	I
RXLEV	dBm	- 85 <u>infini</u> ty	-75	-85

A.8.4.1.1.2 Test 2: Without BSIC verification required

Table A.8.X: General test parameters for Correct reporting of GSM neighbours in AWGN propagation condition, Test 24

<u>Parameter</u>	<u>Unit</u>	<u>Value</u>	Comment
DCH parameters		DL Reference Measurement Channel	As specified in TS 25.101 section A.3.1
		12.2 kbps	
Power Control		<u>On</u>	
Target quality value on DTCH	<u>BLER</u>	0.01	
Compressed mode			Only applicable for UE requiring
patterns			compressed mode patterns
- GSM carrier RSSI			
measurement		DL Compressed mode reference	As specified in table A.22 TS 25.101
		pattern 2 in Set 2	section A.5
Active cell		Cell 1	
Inter-RAT measurement		GSM Carrier RSSI	
quantity			
BSIC verification		not required	
required			
Threshold other system	<u>dBm</u>	<u>-80</u>	Absolute GSM carrier RSSI threshold
			for event 3B and 3C.
<u>Hysteresis</u>	<u>dB</u>	<u>0</u>	
Time to Trigger	<u>ms</u>	<u>0</u>	
Filter coefficient		<u>0</u>	
Monitored cell list size		24 FDD neighbours on Channel 1	Measurement control information is
		6 GSM neighbours including ARFCN 1	sent before the compressed mode
			patterns starts.
<u>T1</u>	<u>s</u>	<u>5</u>	
<u>T2</u>	<u>s</u>	<u>2</u>	
<u>T3</u>	<u>s</u>	<u>5</u>	

Table A.8.Y: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 1)

<u>Unit</u>	Cell 1
	<u>T1, T2, T3</u>
	Channel 1
<u>dB</u>	<u>-10</u>
<u>dB</u>	<u>-12</u>
<u>dB</u>	<u>-12</u>
<u>dB</u>	<u>-15</u>
<u>dB</u>	Note 1
	Note 2
<u>dB</u>	<u>0</u>
dBm/ 3.84	<u>-85</u>
<u>MHz</u>	
<u>dB</u>	<u>-13</u>
	<u>AWGN</u>
	dB dB dB dB dB dB dB dB

Note 1: The DPCH level is controlled by the power control loop.

Note 2: The power of the OCNS channel that is added shall make the total power from the cell to be equal to I

Table A.8.Z: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 2)

Parameter	Unit		Cell 2				
<u>rarameter</u>	OIIIL	<u>T1</u>	<u>T2</u>	<u>T3</u>			
Absolute RF Channel		ARFCN 1					
Number							
RXLEV	<u>dBm</u>	-Infinity -75 -85					

A.8.4.1.2 Test Requirements

A.8.4.1.2.1 TEST 1 With BSIC verification required

The UE shall send one Event 3C triggered measurement report for Cell2, with a measurement reporting delay less than 960-6.24 ms from the beginning of time period T2.

The UE shall send one Event 3B triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T3.

The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled.

The rate of correct events observed during repeated tests shall be at least 90%.

A.8.4.1.2.2 TEST 2 Without BSIC verification required

The UE shall send one Event 3C triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T2.

The UE shall send one Event 3B triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T3.

The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled.

The rate of correct events observed during repeated tests shall be at least 90%.

R4-031065

3GPP TSG RAN WG4 (Radio) Meeting #29

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	CHANGE REQUEST									
*	25.133	CR	622	жrev	1	æ	Current version: 6.3	3.0 *		
For <u>HELP</u> 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 X Radio Access Network Core Network										
Title: 第	Correction	n of GS	SM measurem	ent testca	ise.					
Source: #	RAN WG	4								
Work item code: 第	TEI						<i>Date:</i>	003		
	F (corr A (corr B (add C (fund D (edit	rection) respond lition of ctional in torial m olanatio	owing categorieds to a correction feature), modification of codification of the above TR 21.900.	on in an ear feature)		ease	Release: % Rel-6 Use one of the followin 2 (GSM Pha e) R96 (Release R97 (Release R98 (Release R99 (Release Rel-4 (Release Rel-5 (Release Rel-6 (Release	ise 2) 1996) 1997) 1998) 1999) 4)		
Reason for change: In the GSM measurement the GSM RxLev level at the initialisation stage is –85 dBm. This level should be –infinity to simulate the detection time. Without this change the GSM cell identification is not tested. A second test is also added in order to test the identification time when BSIC verification is not required. Summary of change: Remove the received signal from the GSM cell in the GSM measurement during the initial phase. (Received level is –infinity) Decrease the time T1 from 20 s to 5 s since it is only an initialisation phase, and increase the time T2 from 5 to 7s since 6.24 s is required to identify a GSM cell in these compressed mode gaps. Add a test 2 similar to test 1 but with BSIC verification is not required. Isolated impact: There is no impact on a standard compliant UE. Only a testcase for the full cell identification is added.										
Consequences if not approved:		e will n		formance	requir	eme	ents on a full GSM cell	identification		

Clauses affected: Other specs affected:	* A 8.4 Y N X Other core specifications Test specifications 34.121
Other comments:	X O&M Specifications # Equivalent CRs in other Releases: CR619r1 cat. F to 25.133 v3.15.0, CR620r1

cat. A to 25.133 v4.10.0, CR621r1 cat. A to 25.133 v5.8.0

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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.

A.8.4 GSM measurements

A.8.4.1 Correct reporting of GSM neighbours in AWGN propagation condition

A.8.4.1.1 Test Purpose and Environment

The purpose of these tests to verify that the UE makes correct reporting of an event when doing inter-RAT GSM measurements. The test will partly verify the requirements in section 8.1.2.5. The requirements are also applicable for a UE not requiring compressed mode, in which case no compresed mode pattern should be sent for the parameters specified in table A8.15.

The test consists of three successive time periods, with a time duration T1, T2 and T3. The test parameters are given in tables A.8.15, A.8.16 and A.8.17 below. In the measurement control information it is indicated to the UE that event-triggered reporting with Event 3B and 3C shall be used.

A.8.4.1.1.1 Test 1. With BSIC verification required

Table A.8.15: General test parameters for Correct reporting of GSM neighbours in AWGN propagation condition, <u>Test 1</u>

Parameter	Unit	Value	Comment
DCH parameters		DL Reference Measurement Channel 12.2 kbps	As specified in TS 25.101 section A.3.1
Power Control		On	
Target quality value on DTCH	BLER	0.01	
Compressed mode patterns			Only applicable for UE requiring compressed mode patterns
- GSM carrier RSSI measurement		DL Compressed mode reference pattern 2 in Set 2	As specified in table A.22 TS 25.101 section A.5
- GSM Initial BSIC identification		Pattern 2	As specified in section 8.1.2.5.2.1 table 8.7.
- GSM BSIC re- confirmation		Pattern 2	As specified in section 8.1.2.5.2.2 table 8.8.
Active cell		Cell 1	
Inter-RAT measurement quantity		GSM Carrier RSSI	
BSIC verification required		required	
Threshold other system	dBm	-80	Absolute GSM carrier RSSI threshold for event 3B and 3C.
Hysteresis	dB	0	
Time to Trigger	ms	0	
Filter coefficient		0	
Monitored cell list size		24 FDD neighbours on Channel 1 6 GSM neighbours including ARFCN 1	Measurement control information is sent before the compressed mode patterns starts.
N Identify abort		6 <u>6</u> 5	Taken from table 8.7.
T Reconfirm abort		5.0	Taken from table 8.8.
T1	S	<u>205</u>	
T2	S	<u>7</u> 5	
T3	S	5	

Table A.8.16: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 1)

Parameter	Unit	Cell 1
		T1, T2, T3
UTRA RF Channel		Channel 1
Number		
CPICH_Ec/lor	dB	-10
PCCPCH_Ec/lor	dB	-12
SCH_Ec/lor	dB	-12
PICH_Ec/lor	dB	-15
DPCH_Ec/lor	dB	Note 1
OCNS		Note 2
\hat{I}_{or}/I_{oc}	dB	0
I_{oc}	dBm/	-85
OC .	3.84	
	MHz	
CPICH_Ec/lo	dB	-13
Propagation Condition		AWGN

Note 1: The DPCH level is controlled by the power control loop.

Note 2: The power of the OCNS channel that is added shall make the total power from the cell to be equal to I_{or}.

Table A.8.17: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 2)

Parameter	Unit	Cell 2					
rarameter	5111	T1	T2	T3			
Absolute RF Channel Number		ARFCN 1					
RXLEV	dBm	- 85 <u>Infini</u> t <u>y</u>	-75	-85			

A.8.4.1.1.2 Test 2: Without BSIC verification required

Table A.8.X: General test parameters for Correct reporting of GSM neighbours in AWGN propagation condition, Test 2

<u>Parameter</u>	<u>Unit</u>	<u>Value</u>	Comment
DCH parameters		DL Reference Measurement Channel	As specified in TS 25.101 section A.3.1
		12.2 kbps	
Power Control		<u>On</u>	
Target quality value on DTCH	<u>BLER</u>	0.01	
Compressed mode			Only applicable for UE requiring
patterns			compressed mode patterns
- GSM carrier RSSI			
measurement		DL Compressed mode reference	As specified in table A.22 TS 25.101
		pattern 2 in Set 2	section A.5
Active cell		Cell 1	
Inter-RAT measurement		GSM Carrier RSSI	
quantity			
BSIC verification		not required	
required			
Threshold other system	<u>dBm</u>	<u>-80</u>	Absolute GSM carrier RSSI threshold
			for event 3B and 3C.
<u>Hysteresis</u>	<u>dB</u>	<u>0</u>	
Time to Trigger	<u>ms</u>	<u>0</u>	
Filter coefficient		<u>0</u>	
Monitored cell list size		24 FDD neighbours on Channel 1	Measurement control information is
		6 GSM neighbours including ARFCN 1	sent before the compressed mode
			patterns starts.
<u>T1</u>	<u>s</u>	<u>5</u>	
<u>T2</u>	<u>s</u>	<u>2</u>	
<u>T3</u>	<u>s</u>	<u>5</u>	

Table A.8.Y: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 1)

<u>Unit</u>	<u>Cell 1</u>
	<u>T1, T2, T3</u>
	Channel 1
<u>dB</u>	<u>-10</u>
<u>dB</u>	<u>-10</u> - <u>12</u>
<u>dB</u>	<u>-12</u>
<u>dB</u>	<u>-15</u>
<u>dB</u>	Note 1
	Note 2
<u>dB</u>	<u>0</u>
dBm/ 3.84	<u>-85</u>
<u>MHz</u>	
<u>dB</u>	<u>-13</u>
	<u>AWGN</u>
	dB dB dB dB dB dB

Note 1: The DPCH level is controlled by the power control loop.

Note 2: The power of the OCNS channel that is added shall make the total power from the cell to be equal to I

Table A.8.Z: Cell specific test parameters for Correct reporting of GSM neighbours in AWGN propagation condition (cell 2)

Parameter	Unit	Cell 2					
<u>rarameter</u>	OIIIL	<u>T1</u>	<u>T2</u>	<u>T3</u>			
Absolute RF Channel		ADEONA					
<u>Number</u>		ARFCN 1					
RXLEV	<u>dBm</u>	-Infinity	<u>-75</u>	<u>-85</u>			

A.8.4.1.2 Test Requirements

A.8.4.1.2.1 TEST 1 With BSIC verification required

The UE shall send one Event 3C triggered measurement report for Cell2, with a measurement reporting delay less than $\frac{960 \text{ m}_{6.24}}{\text{s}}$ from the beginning of time period T2.

The UE shall send one Event 3B triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T3.

The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled.

The rate of correct events observed during repeated tests shall be at least 90%.

A.8.4.1.2.2 TEST 2 Without BSIC verification required

The UE shall send one Event 3C triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T2.

The UE shall send one Event 3B triggered measurement report for Cell2, with a measurement reporting delay less than 960 ms from the beginning of time period T3.

The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled.

The rate of correct events observed during repeated tests shall be at least 90%.

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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.

A.6.2 Random Access

A.6.2.1 Test Purpose and Environment

The purpose of these tests are to verify that the behaviour of the random access procedure is according to the requirements and that the PRACH power settings are within specified limits. This tests will verify the requirements in section 6.3.2.

Table A.6.5: RF Parameters for Random Access test

Parameter	Unit	Cell 1		
UTRA RF Channel Number		Channel 1		
CPICH_Ec/lor	dB	-10		
PCCPCH_Ec/Ior	dB	-12		
SCH_Ec/lor	dB	-12		
Number of other transmitted Acquisition Indicators	-	0		
AICH_Ec/lor	dB	-10		
PICH_Ec/lor	dB	-15		
OCNS_Ec/lor when an AI is not transmitted	dB	-0.941		
OCNS_Ec/lor when an Al is transmitted	dB	-1.516		
\hat{I}_{or}/I_{oc}	dB	0		
I_{oc}	dBm/3.84 MHz	-70		
CPICH_Ec/Io	dB	-13		
Propagation Condition		AWGN		

The test parameters "System Information Block (SIB) type 5 (ASC #0)" defined in section 6.1 of TS34.108, shall be used in all random access tests. Crucial parameters for the test requirements are repeated in Table A.6.6 and A.6.7 and these overrule the parameters defined in SIB type 5.

Table A.6.6: UE parameters for Random Access test

Parameter	Unit	Value
Access Service Class (ASC#0)		
- Persistence value	01	1
Maximum number of preamble ramping cycles (M _{max}).		2
Maximum number of preambles in one preamble ramping cycle (Preamble Retrans Max)		12
The backoff time T _{B01} $N_{B01min=}N_{B01max}$	ms #TTI	N/A 10
Power step when no acquisition indicator is received (Power offset P0)	dB	3
Power offset between the last transmitted preamble and the control part of the message (Power offset P p-m)	dB	0
Maximum allowed UL TX power	dBm	0 21

Table A.6.7: UTRAN parameters for Random Access test

Parameter	Unit	Value
Primary CPICH DL TX power	dBm	-8
UL interference	dBm	-92
SIR in open loop power	dB	-10
control (Constant value)		
AICH Power Offset	dB	0

A.6.2.2 Test Requirements

A.6.2.2.1 Correct behaviour when receiving an ACK

The UE shall stop transmitting preambles upon a ACK on the AICH has been received and then transmit a message. An ACK shall be transmitted after 10 preambles have been received by the UTRAN.

The absolute power applied to the first preamble shall be -30 dBm with an accuracy as specified in section 6.4.1.1 of TS 25.101 [3]. The relative power applied to additional preambles shall have an accuracy as specified in section 6.5.2.1 of TS 25.101 [3].

The UE shall transmit 10 preambles and 1 message.

A.6.2.2.2 Correct behaviour when receiving an NACK

The UE shall stop transmitting preambles upon a NACK on the AICH has been received and then repeat the ramping procedure when the back off timer T_{B01} expires. The NACK shall be transmitted after the 10 preambles have been received by the UTRAN.

The UE shall transmit 10 preambles in the first ramping cycle and no transmission shall be done by the UE within 100 ms after the NACK has been transmitted by the UTRAN. Then the UE shall start the second preamble ramping cycle.

A.6.2.2.3 Correct behaviour at Time-out

The UE shall stop transmit preambles when reaching the maximum number of preambles allowed in a cycle. The UE shall then repeat the ramping procedure until the maximum number of preamble ramping cycles are reached. No ACK/NACK shall be sent by UTRAN during this test.

The UE shall transmit 2 preambles cycles, consisting of 12 preambles in each preamble cycle.

Table A.6.7A: Specific UE parameter for Correct behaviour at Time-out test

Parameter Parameter	Unit	Value
Maximum allowed UL TX power	dBm	21

A.6.2.2.4 Correct behaviour when reaching maximum transmit power

The UE shall not exceed the maximum allowed UL TX power configured by the UTRAN. No ACK/NACK shall be sent by UTRAN during this test.

The absolute power of any preambles belonging to the first or second preamble cycle shall not exceed 0 dBm with more than the tolerance given in section 6.5.

Table A.6.7A: Specific UE parameter for correct behaviour when reaching maximum transmit power

<u>Parameter</u>	<u>Unit</u>	<u>Value</u>
Maximum allowed UL TX power	<u>dBm</u>	<u>0</u>

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CR-Form-v7 CHANGE REQUEST æ Current version: 4.10.0 % 25.133 CR 633 **rev For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the **%** symbols. ME X Radio Access Network X Core Network Proposed change affects: UICC apps₩ Title: Correction to the Random Access test case Source: **# RAN WG4** Date: # 26/11/2003 ₩ A Release: # Rel-4 Category: Use one of the following categories: Use one of the following releases: F (correction) (GSM Phase 2) 2 A (corresponds to a correction in an earlier release) R96 (Release 1996) R97 (Release 1997) **B** (addition of feature), **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) Rel-6 (Release 6) Reason for change: # The UE transmit power may reach 0dBm limit defined by "Maximum allowed UL TX power" parameter before completing the preamble cycle and could cause a good UE not to test correctly. Summary of change: # The value of "Maximum allowed UL TX power" is changed from 0dBm to +21dBm. Changed Table A.6.7A to the correct behaviour when reaching maximum transmit power. Consequences if # A good UE may not test correctly and could fail the test. not approved: Clauses affected: **第 A.6.2** Other specs æ Other core specifications affected: Test specifications TS34.121 **O&M Specifications** Other comments: ж Equivalent CRs in other Releases: CR632 cat. F to 25.133 v3.15.0, CR634 cat. A to 25.133 v5.8.0, CR635 cat. A to 25.133 v6.3.0

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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.

A.6.2 Random Access

A.6.2.1 Test Purpose and Environment

The purpose of these tests are to verify that the behaviour of the random access procedure is according to the requirements and that the PRACH power settings are within specified limits. This tests will verify the requirements in section 6.3.2.

Table A.6.5: RF Parameters for Random Access test

Parameter	Unit	Cell 1
UTRA RF Channel Number		Channel 1
CPICH_Ec/lor	dB	-10
PCCPCH_Ec/lor	dB	-12
SCH_Ec/lor	dB	-12
Number of other transmitted Acquisition Indicators	-	0
AICH_Ec/lor	dB	-10
PICH_Ec/lor	dB	-15
OCNS_Ec/lor when an AI is not transmitted	dB	-0.941
OCNS_Ec/lor when an Al is transmitted	dB	-1.516
\hat{I}_{or}/I_{oc}	dB	0
I_{oc}	dBm/3.84 MHz	-70
CPICH_Ec/Io	dB	-13
Propagation Condition		AWGN

The test parameters "System Information Block (SIB) type 5 (ASC #0)" defined in section 6.1 of TS34.108, shall be used in all random access tests. Crucial parameters for the test requirements are repeated in Table A.6.6 and A.6.7 and these overrule the parameters defined in SIB type 5.

Table A.6.6: UE parameters for Random Access test

Parameter	Unit	Value
Access Service Class (ASC#0)		
- Persistence value	01	1
Maximum number of preamble ramping cycles (M _{max}).		2
Maximum number of preambles in one preamble ramping cycle (Preamble Retrans Max)		12
The backoff time T _{B01} $N_{B01min=}N_{B01max}$	ms #TTI	N/A 10
Power step when no acquisition indicator is received (Power offset P0)	dB	3
Power offset between the last transmitted preamble and the control part of the message (Power offset P p-m)	dB	0
Maximum allowed UL TX power	dBm	0 21

Table A.6.7: UTRAN parameters for Random Access test

Parameter	Unit	Value
Primary CPICH DL TX power	dBm	-8
UL interference	dBm	-92
SIR in open loop power	dB	-10
control (Constant value)		
AICH Power Offset	dB	0

A.6.2.2 Test Requirements

A.6.2.2.1 Correct behaviour when receiving an ACK

The UE shall stop transmitting preambles upon a ACK on the AICH has been received and then transmit a message. An ACK shall be transmitted after 10 preambles have been received by the UTRAN.

The absolute power applied to the first preamble shall be -30 dBm with an accuracy as specified in section 6.4.1.1 of TS 25.101 [3]. The relative power applied to additional preambles shall have an accuracy as specified in section 6.5.2.1 of TS 25.101 [3].

The UE shall transmit 10 preambles and 1 message.

A.6.2.2.2 Correct behaviour when receiving an NACK

The UE shall stop transmitting preambles upon a NACK on the AICH has been received and then repeat the ramping procedure when the back off timer T_{B01} expires. The NACK shall be transmitted after the 10 preambles have been received by the UTRAN.

The UE shall transmit 10 preambles in the first ramping cycle and no transmission shall be done by the UE within 100 ms after the NACK has been transmitted by the UTRAN. Then the UE shall start the second preamble ramping cycle.

A.6.2.2.3 Correct behaviour at Time-out

The UE shall stop transmit preambles when reaching the maximum number of preambles allowed in a cycle. The UE shall then repeat the ramping procedure until the maximum number of preamble ramping cycles are reached. No ACK/NACK shall be sent by UTRAN during this test.

The UE shall transmit 2 preambles cycles, consisting of 12 preambles in each preamble cycle.

Table A.6.7A: Specific UE parameter for Correct behaviour at Time-out test

Parameter Parameter	Unit	Value
Maximum allowed UL TX power	dBm	21

A.6.2.2.4 Correct behaviour when reaching maximum transmit power

The UE shall not exceed the maximum allowed UL TX power configured by the UTRAN. No ACK/NACK shall be sent by UTRAN during this test.

The absolute power of any preambles belonging to the first or second preamble cycle shall not exceed 0 dBm with more than the tolerance given in section 6.5.

Table A.6.7A: Specific UE parameter for correct behaviour when reaching maximum transmit power

<u>Parameter</u>	<u>Unit</u>	<u>Value</u>
Maximum allowed UL TX power	<u>dBm</u>	<u>0</u>

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CR-Form-v7 CHANGE REQUEST Current version: 5.8.0 ж 25,133 CR 634 # rev For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the **%** symbols. ME X Radio Access Network X Core Network Proposed change affects: UICC apps₩ Title: Correction to the Random Access test case Source: **# RAN WG4** Date: # 26/11/2003 **≋** A Release: % Rel-5 Category: Use one of the following categories: Use one of the following releases: F (correction) (GSM Phase 2) 2 A (corresponds to a correction in an earlier release) R96 (Release 1996) R97 (Release 1997) **B** (addition of feature), **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) (Release 5) be found in 3GPP TR 21.900. Rel-5 Rel-6 (Release 6)

Reason for change: %	The UE transmit power may reach 0dBm limit defined by "Maximum allowed UL TX power" parameter before completing the preamble cycle and could cause a good UE not to test correctly.
Summary of change: ₩	The value of "Maximum allowed UL TX power" is changed from 0dBm to +21dBm. Changed Table A.6.7A to the correct behaviour when reaching maximum transmit power.
Consequences if # mot approved:	A good UE may not test correctly and could fail the test.

Clauses affected:	ж A.6.2
Other specs affected:	Y N X Other core specifications Test specifications O&M Specifications TS34.121
Other comments:	# Equivalent CRs in other Releases: CR632 cat. F to 25.133 v3.15.0, CR633 cat. A to 25.133 v4.10.0, CR635 cat. A to 25.133 v6.3.0

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 \$\mathbb{X}\$ 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.

A.6.2 Random Access

A.6.2.1 Test Purpose and Environment

The purpose of these tests are to verify that the behaviour of the random access procedure is according to the requirements and that the PRACH power settings are within specified limits. This tests will verify the requirements in section 6.3.2.

Table A.6.5: RF Parameters for Random Access test

Parameter	Unit	Cell 1
UTRA RF Channel Number		Channel 1
CPICH_Ec/lor	dB	-10
PCCPCH_Ec/lor	dB	-12
SCH_Ec/lor	dB	-12
Number of other transmitted Acquisition Indicators	-	0
AICH_Ec/lor	dB	-10
PICH_Ec/lor	dB	-15
OCNS_Ec/lor when an Al is not transmitted	dB	-0.941
OCNS_Ec/lor when an Al is transmitted	dB	-1.516
\hat{I}_{or}/I_{oc}	dB	0
I_{oc}	dBm/3.84 MHz	-70
CPICH_Ec/Io	dB	-13
Propagation Condition		AWGN

The test parameters "System Information Block (SIB) type 5 (ASC #0)" defined in section 6.1 of TS34.108, shall be used in all random access tests. Crucial parameters for the test requirements are repeated in Table A.6.6 and A.6.7 and these overrule the parameters defined in SIB type 5.

Table A.6.6: UE parameters for Random Access test

Parameter	Unit	Value
Access Service Class (ASC#0)		
- Persistence value	01	1
Maximum number of preamble ramping cycles (M _{max}).		2
Maximum number of preambles in one preamble ramping cycle (Preamble Retrans Max)		12
The backoff time T _{B01} N _{B01min=} N _{B01max}	ms #TTI	N/A 10
Power step when no acquisition indicator is received (Power offset P0)	dB	3
Power offset between the last transmitted preamble and the control part of the message (Power offset P p-m)	dB	0
Maximum allowed UL TX power	dBm	0 21

Table A.6.7: UTRAN parameters for Random Access test

Parameter	Unit	Value
Primary CPICH DL TX power	dBm	-8
UL interference	dBm	-92
SIR in open loop power	dB	-10
control (Constant value)		
AICH Power Offset	dB	0

A.6.2.2 Test Requirements

A.6.2.2.1 Correct behaviour when receiving an ACK

The UE shall stop transmitting preambles upon a ACK on the AICH has been received and then transmit a message. An ACK shall be transmitted after 10 preambles have been received by the UTRAN.

The absolute power applied to the first preamble shall be -30 dBm with an accuracy as specified in section 6.4.1.1 of TS 25.101 [3]. The relative power applied to additional preambles shall have an accuracy as specified in section 6.5.2.1 of TS 25.101 [3].

The UE shall transmit 10 preambles and 1 message.

A.6.2.2.2 Correct behaviour when receiving an NACK

The UE shall stop transmitting preambles upon a NACK on the AICH has been received and then repeat the ramping procedure when the back off timer T_{B01} expires. The NACK shall be transmitted after the 10 preambles have been received by the UTRAN.

The UE shall transmit 10 preambles in the first ramping cycle and no transmission shall be done by the UE within 100 ms after the NACK has been transmitted by the UTRAN. Then the UE shall start the second preamble ramping cycle.

A.6.2.2.3 Correct behaviour at Time-out

The UE shall stop transmit preambles when reaching the maximum number of preambles allowed in a cycle. The UE shall then repeat the ramping procedure until the maximum number of preamble ramping cycles are reached. No ACK/NACK shall be sent by UTRAN during this test.

The UE shall transmit 2 preambles cycles, consisting of 12 preambles in each preamble cycle.

Table A.6.7A: Specific UE parameter for Correct behaviour at Time-out test

Parameter Parameter	Unit	Value
Maximum allowed UL TX power	dBm	21

A.6.2.2.4 Correct behaviour when reaching maximum transmit power

The UE shall not exceed the maximum allowed UL TX power configured by the UTRAN. No ACK/NACK shall be sent by UTRAN during this test.

The absolute power of any preambles belonging to the first or second preamble cycle shall not exceed 0 dBm with more than the tolerance given in section 6.5.

Table A.6.7A: Specific UE parameter for correct behaviour when reaching maximum transmit power

<u>Parameter</u>	<u>Unit</u>	<u>Value</u>
Maximum allowed UL TX power	<u>dBm</u>	<u>0</u>

San Diego, USA 17 - 21 November 2003

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Other comments:	ж			CRs in o						.133	v3.1	5.0, CR6	33 cat. A

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.

A.6.2 Random Access

A.6.2.1 Test Purpose and Environment

The purpose of these tests are to verify that the behaviour of the random access procedure is according to the requirements and that the PRACH power settings are within specified limits. This tests will verify the requirements in section 6.3.2.

Table A.6.5: RF Parameters for Random Access test

Parameter	Unit	Cell 1
UTRA RF Channel Number		Channel 1
CPICH_Ec/lor	dB	-10
PCCPCH_Ec/lor	dB	-12
SCH_Ec/lor	dB	-12
Number of other transmitted Acquisition Indicators	-	0
AICH_Ec/lor	dB	-10
PICH_Ec/lor	dB	-15
OCNS_Ec/lor when an AI is not transmitted	dB	-0.941
OCNS_Ec/lor when an Al is transmitted	dB	-1.516
\hat{I}_{or}/I_{oc}	dB	0
I_{oc}	dBm/3.84 MHz	-70
CPICH_Ec/Io	dB	-13
Propagation Condition		AWGN

The test parameters "System Information Block (SIB) type 5 (ASC #0)" defined in section 6.1 of TS34.108, shall be used in all random access tests. Crucial parameters for the test requirements are repeated in Table A.6.6 and A.6.7 and these overrule the parameters defined in SIB type 5.

Table A.6.6: UE parameters for Random Access test

Parameter	Unit	Value
Access Service Class (ASC#0)		
- Persistence value	01	1
Maximum number of preamble ramping cycles (M _{max}).		2
Maximum number of preambles in one preamble ramping cycle (Preamble Retrans Max)		12
The backoff time T _{B01} $N_{B01min=}N_{B01max}$	ms #TTI	N/A 10
Power step when no acquisition indicator is received (Power offset P0)	dB	3
Power offset between the last transmitted preamble and the control part of the message (Power offset P p-m)	dB	0
Maximum allowed UL TX power	dBm	0 21

Table A.6.7: UTRAN parameters for Random Access test

Parameter	Unit	Value
Primary CPICH DL TX power	dBm	-8
UL interference	dBm	-92
SIR in open loop power	dB	-10
control (Constant value)		
AICH Power Offset	dB	0

A.6.2.2 Test Requirements

A.6.2.2.1 Correct behaviour when receiving an ACK

The UE shall stop transmitting preambles upon a ACK on the AICH has been received and then transmit a message. An ACK shall be transmitted after 10 preambles have been received by the UTRAN.

The absolute power applied to the first preamble shall be -30 dBm with an accuracy as specified in section 6.4.1.1 of TS 25.101 [3]. The relative power applied to additional preambles shall have an accuracy as specified in section 6.5.2.1 of TS 25.101 [3].

The UE shall transmit 10 preambles and 1 message.

A.6.2.2.2 Correct behaviour when receiving an NACK

The UE shall stop transmitting preambles upon a NACK on the AICH has been received and then repeat the ramping procedure when the back off timer T_{B01} expires. The NACK shall be transmitted after the 10 preambles have been received by the UTRAN.

The UE shall transmit 10 preambles in the first ramping cycle and no transmission shall be done by the UE within 100 ms after the NACK has been transmitted by the UTRAN. Then the UE shall start the second preamble ramping cycle.

A.6.2.2.3 Correct behaviour at Time-out

The UE shall stop transmit preambles when reaching the maximum number of preambles allowed in a cycle. The UE shall then repeat the ramping procedure until the maximum number of preamble ramping cycles are reached. No ACK/NACK shall be sent by UTRAN during this test.

The UE shall transmit 2 preambles cycles, consisting of 12 preambles in each preamble cycle.

Table A.6.7A: Specific UE parameter for Correct behaviour at Time-out test

Parameter Parameter	Unit	Value
Maximum allowed UL TX power	dBm	21

A.6.2.2.4 Correct behaviour when reaching maximum transmit power

The UE shall not exceed the maximum allowed UL TX power configured by the UTRAN. No ACK/NACK shall be sent by UTRAN during this test.

The absolute power of any preambles belonging to the first or second preamble cycle shall not exceed 0 dBm with more than the tolerance given in section 6.5.

Table A.6.7A: Specific UE parameter for correct behaviour when reaching maximum transmit power

<u>Parameter</u>	<u>Unit</u>	<u>Value</u>
Maximum allowed UL TX power	<u>dBm</u>	<u>0</u>

Core Network

3GPP TSG RAN WG4 (Radio) Meeting #29 San Diego, USA 17 - 21 November 2003

Proposed change affects:

CHANGE REQUEST

25.133 CR 637 # rev 1 # Current version: 3.15.0

For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the **%** symbols.

Title: ★ CPICH Ec/lo relative accuracy Source: **# RAN WG4** Date: # 26/11/2003 ₩ F Release: # R99 Category: Use one of the following categories: Use one of the following releases: F (correction) (GSM Phase 2) 2 A (corresponds to a correction in an earlier release) R96 (Release 1996) (Release 1997) B (addition of feature), R97 **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: X As is pointed out by LS from T1 in R4-031019:

UICC apps₩

A) TS 25.133 clause 9.1.2.1.2 states:

The relative accuracy of CPICH Ec/lo in the inter frequency case is defined as the CPICH Ec/lo measured from one cell compared to the CPICH Ec/lo measured from another cell on a different frequency.

Rel-6

(Release 6)

ME X Radio Access Network

(Note:it is an unsigned difference. It does not state: cell1 minus cell2 or cell2 minus cell1)

B) TS 25.133 clause A.9.1.2.2. Table A.9.4.A states:

CPICH_Ec/lo relative accuracy: +3, -4.2 dB (assymmetric, due to receiver noise.)

The combination of (A) and (B) is a contradiction:

Summary of change: ** The margins in table A.9.4.A for interfrequency relative accuracy testcase are changed to

be symmetric ± 2.7 dB, ± 3.2 dB and ± 4.2 dB instead of -2.7...1.5 dB, -3.2...2 dB and -

4.2...3 dB respectively.

Isolated impact: There is no impact on a UE, only change of test requirements.

Consequences if not approved:

The test requirements for inter frequency relative accuracy requirements can not be used in a real test since the relative accuracy is not symmetric.

Clauses affected: # A.9.1.2.2

Other specs affected:	ж	N X Other core specifications	
Other comments:	ж	Equivalent CRs in other Releases: CR638r1 cat. A to 25.133 v4.10.0, CR639r1 cat. A to 25.133 v5.8.0, CR640r1 cat. A to 25.133 v6.3.0	

- 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.

In this case both cells are in different frequency and compressed mode is applied. The gap length is 7, detailed definition is in TS 25.101 annex A.5, Set 1 of Table A.22. CPICH Ec/Io inter frequency relative accuracy requirements are tested by using test parameters in Table A.9.4.

Table A.9.4: CPICH Ec/lo Inter frequency tests parameters

Parameter	Unit	Tes	st 1	Tes	st 2	Test 3	
Faranietei	Oilit	Cell 1	Cell 2	Cell 1	Cell 2	Cell 1	Cell 2
UTRA RF Channel number		Channel 1	Channel 2	Channel 1	Channel 2	Channel 1	Channel 2
CPICH_Ec/lor	dB	-1	10	-1	0	-1	0
PCCPCH_Ec/lor	dB	-1	12	-1	2	-1	2
SCH_Ec/lor	dB	-1	12	-1	2	-12	
PICH_Ec/Ior	dB	-1	15	-15		-15	
DPCH_Ec/lor	dB	-15	-	-6	-	-6	-
OCNS_Ec/lor	dB	-1.11	-0.94	-2.56	-0.94	-2.56	-0.94
loc	dBm/ 3.84 MHz	-52.22	-52.22	-87.27	-87.27	-94.46	-94.46
Îor/loc	dB	-1.75	-1.75	-4.7	-4.7	-9.54	-9.54
CPICH Ec/Io, Note 1	dBm	-14.0	-14.0	-16.0	-16.0	-20.0	-20.0
Io, Note 1	dBm/3.84 MHz	-50	-50	-86	-86	-94	-94
Propagation condition	-	AW	AWGN AWGN		AW	AWGN	

NOTE 1: CPICH Ec/lo and lo levels have been calculated from other parameters for information purposes. They are not settable parameters themselves.

Tests shall be done sequentially. Test 1 shall be done first. After test 1 has been executed test parameters for tests 2 and 3 shall be set within 5 seconds so that UE does not loose the Cell 2 in between the tests.

A.9.1.2.2 Test Requirements

The CPICH Ec/Io measurement accuracy shall meet the requirements in section 9.1.2. In case of the <u>absolute intrafrequency CPICH_Ec/Io measurement and</u> relative inter-frequency CPICH_Ec/Io measurement accuracy test cases the effect of assumed thermal noise and noise generated in the receiver (–99 dBm) shall be added into the required accuracy. The test requirements for the absolute intrafrequency CPICH_Ec/Io measurement are defined in Section 9.1.2 as shown in Table A.9.4A. The test requirements for the relative inter-frequency CPICH_Ec/Io measurement are defined in Section 9.1.2 as shown in Table A.9.4B.

Table A.9.4A: CPICH_Ec/lo Intra-frequency absolute accuracy and CPICH_Ec/lo Inter frequency relative accuracy

		Accuracy [dB]		Conditions
Parameter	Unit	Normal condition	Extreme condition	lo [dBm]
CPICH Ec/lo	dB	-2.71.5 for -14 ≤ CPICH Ec/lo -3.22 for -16 ≤ CPICH Ec/lo < -14 -4.23 for -20 ≤ CPICH Ec/lo < -16	-4.23	-9487
CFIGIT_EC/IO	ЦБ	± 1.5 for -14 ≤ CPICH Ec/lo ± 2 for -16 ≤ CPICH Ec/lo < -14 ± 3 for -20 ≤ CPICH Ec/lo < -16	± 3	-8750

		Accuracy [dB]	<u>Conditions</u>	
<u>Parameter</u>	<u>Unit</u>	Normal condition	Extreme condition	<u>lo [dBm]</u>
CPICH Ec/lo	dB	± 2.7 for -14 \leq CPICH Ec/lo ± 3.2 for -16 \leq CPICH Ec/lo $<$ -14 ± 4.2 for -20 \leq CPICH Ec/lo $<$ -16	<u>± 4.2</u>	<u>-9487</u>
<u>CHIOH_Edilo</u>	<u>ub</u>		<u>± 3</u>	<u>-8750</u>

R4-031113

3GPP TSG RAN WG4 (Radio) Meeting #29

San Diego, USA 17 - 21 November 2003

CR-Form-v7

CHANGE REQUEST

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25.133 CR 638

#rev

1 % Current version: 4.10.0 %

Rel-6

(Release 6)

For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the **%** symbols.

ME X Radio Access Network Proposed change affects: UICC apps₩ Core Network

Title: ★ CPICH Ec/lo relative accuracy Source: **# RAN WG4** Date: # 26/11/2003 ₩ A Release: # Rel-4 Category: Use one of the following categories: Use one of the following releases: F (correction) (GSM Phase 2) 2 A (corresponds to a correction in an earlier release) R96 (Release 1996) R97 (Release 1997) **B** (addition of feature), **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: % A) TS 25.133 clause 9.1.2.1.2 states:

The relative accuracy of CPICH Ec/lo in the inter frequency case is defined as the CPICH Ec/lo measured from one cell compared to the CPICH Ec/lo measured from another cell on a different frequency.

(Note:it is an unsigned difference. It does not state: cell1 minus cell2 or cell2 minus cell1)

B) TS 25.133 clause A.9.1.2.2. Table A.9.4.A states:

CPICH Ec/lo relative accuracy: +3, -4.2 dB (assymmetric, due to receiver noise.)

The combination of (A) and (B) is a contradiction:

Summary of change: * The margins in table A.9.4.A for interfrequency relative accuracy testcase are changed to be symmetric ±2.7 dB, ±3.2 dB and ±4.2 dB instead of -2.7...1.5 dB, -3.2...2 dB and -4.2...3 dB respectively.

Isolated impact: There is no impact on a UE, only change of test requirements.

Consequences if not approved:

The test requirements for inter frequency relative accuracy requirements can not be used in a real test since the relative accuracy is not symmetric.

Clauses affected: **%** A.9.1.2.2

YN

Other specs	ж		X	Other core specifications #	
affected:		X		Test specifications	34.121
			X	O&M Specifications	
	'			•	
Other comments:	\mathbf{lpha}				
			•	valent CRs in other Releases: CR A to 25,133 v5.8.0, CR640r1 cat.	R637r1 cat. F to 25.133 v3.15.0, CR639r1 A to 25.133 v6.3.0

- 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.

In this case both cells are in different frequency and compressed mode is applied. The gap length is 7, detailed definition is in TS 25.101 annex A.5, Set 1 of Table A.22. CPICH Ec/Io inter frequency relative accuracy requirements are tested by using test parameters in Table A.9.4.

Table A.9.4: CPICH Ec/lo Inter frequency tests parameters

Parameter	Unit	Tes	st 1	Tes	st 2	Tes	st 3
Farameter	Oilit	Cell 1	Cell 2	Cell 1	Cell 2	Cell 1	Cell 2
UTRA RF Channel number		Channel 1	Channel 2	Channel 1	Channel 2	Channel 1	Channel 2
CPICH_Ec/lor	dB	-1	10	-1	10	-1	10
PCCPCH_Ec/lor	dB	-1	12	-1	12	-1	12
SCH_Ec/lor	dB	-1	12	-1	12	-1	12
PICH_Ec/Ior	dB	-15		-1	15	-15	
DPCH_Ec/lor	dB	-15	-	-6	-	-6	-
OCNS_Ec/lor	dB	-1.11	-0.94	-2.56	-0.94	-2.56	-0.94
loc	dBm/ 3.84 MHz	-52.22	-52.22	-87.27	-87.27	-94.46	-94.46
Îor/loc	dB	-1.75	-1.75	-4.7	-4.7	-9.54	-9.54
CPICH Ec/Io, Note 1	dBm	-14.0	-14.0	-16.0	-16.0	-20.0	-20.0
Io, Note 1	dBm/3.84 MHz	-50	-50	-86	-86	-94	-94
Propagation condition	-	AW	'GN	AW	GN	AW	'GN

NOTE 1: CPICH Ec/lo and lo levels have been calculated from other parameters for information purposes. They are not settable parameters themselves.

Tests shall be done sequentially. Test 1 shall be done first. After test 1 has been executed test parameters for tests 2 and 3 shall be set within 5 seconds so that UE does not loose the Cell 2 in between the tests.

A.9.1.2.2 Test Requirements

The CPICH Ec/Io measurement accuracy shall meet the requirements in section 9.1.2. In case of the absolute intrafrequency CPICH_Ec/Io measurement and relative inter-frequency CPICH_Ec/Io measurement accuracy test cases the effect of assumed thermal noise and noise generated in the receiver (–99 dBm) shall be added into the required accuracy. The test requirements for the absolute intra-frequency CPICH_Ec/Io measurement are defined in Section 9.1.2 as shown in Table A.9.4A. The test requirements for the relative inter-frequency CPICH_Ec/Io measurement are defined in Section 9.1.2 as shown in Table A.9.4B.

Table A.9.4A: CPICH_Ec/lo Intra-frequency absolute accuracy and CPICH_Ec/lo Inter frequency relative accuracy

		Accuracy [dB]	Conditions	
Parameter	Unit	Normal condition	Extreme condition	lo [dBm/3.84 MHz]
CPICH Ec/lo	dB	-2.71.5 for -14 ≤ CPICH Ec/lo -3.22 for -16 ≤ CPICH Ec/lo < -14 -4.23 for -20 ≤ CPICH Ec/lo < -16	-4.23	-9487
GFIGIT_EU/IU	UB	± 1.5 for -14 ≤ CPICH Ec/lo ± 2 for -16 ≤ CPICH Ec/lo < -14 ± 3 for -20 ≤ CPICH Ec/lo < -16	± 3	-8750

		Accuracy [dB]	Conditions	
<u>Parameter</u>	<u>Unit</u>	Normal condition	Extreme condition	<u>lo [dBm]</u>
CPICH Ec/lo	dB	± 2.7 for -14 \leq CPICH Ec/lo ± 3.2 for -16 \leq CPICH Ec/lo $<$ -14 ± 4.2 for -20 \leq CPICH Ec/lo $<$ -16	± 4.2	<u>-9487</u>
<u>CFICIT_EC/IO</u>	<u>ub</u>		<u>± 3</u>	<u>-8750</u>

R4-031114

3GPP TSG RAN WG4 (Radio) Meeting #29 San Diego, USA 17 - 21 November 2003

		CHAN	GE REQI	JE	ST	-		CR-Form-v7
ж	25.133	CR <mark>639</mark>	≋rev	1	¥	Current version:	5.8.0	*

For HELP on using this form, see bottom of this page or look at the pop-up text over the % symbols.										
Proposed change	e a	ffects:	UICC a _l	ops #	М	E 🗶 Radio Ac	cess Netw	ork	Core N	etwork
Title:	æ	CPIC	HEc/Io rela	ative accuracy	/					
Source:	ж	RAN	VG4							
14/	00	T E.					D-1-	00	00/44/0000	
Work item code:	ж	TEI					Date:	#	26/11/2003	
Category:	ľ	F A B C D	correction) (correspond (addition of (functional ri (editorial mo	feature), nodification of i odification) ns of the above	on in a featur	n earlier release) e)	2	of th (((((Rel-5 the following religion Phase 2, (Release 1996); (Release 1997); (Release 1999); (Release 4); (Release 5); (Release 6)	

Reason for change: # A) TS 25.133 clause 9.1.2.1.2 states:

The relative accuracy of CPICH Ec/lo in the inter frequency case is defined as the CPICH Ec/lo measured from one cell compared to the CPICH Ec/lo measured from another cell on a different frequency.

(Note:it is an unsigned difference. It does not state: cell1 minus cell2 or cell2 minus cell1)

B) TS 25.133 clause A.9.1.2.2. Table A.9.4.A states:

CPICH Ec/lo relative accuracy: +3, -4.2 dB (assymmetric, due to receiver noise.)

The combination of (A) and (B) is a contradiction:

Summary of change: * The margins in table A.9.4.A for interfrequency relative accuracy testcase are changed to be symmetric ±2.7 dB, ±3.2 dB and ±4.2 dB instead of -2.7...1.5 dB, -3.2...2 dB and -4.2...3 dB respectively.

Isolated impact: There is no impact on a UE, only change of test requirements.

Consequences if not approved:

The test requirements for inter frequency relative accuracy requirements can not be used in a real test since the relative accuracy is not symmetric.

Clauses affected: **¥** A.9.1.2.2 YN

Other specs	ж		X	Other core specifications #	
affected:		X		Test specifications	34.121
			X	O&M Specifications	
	•			•	
Other comments:	Ж				
				valent CRs in other Releases: CR A to 25,133 v4,10,0, CR640r1 cat	637r1 cat. F to 25.133 v3.15.0, CR638r1 . A to 25.133 v6.3.0

- 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.

In this case both cells are in different frequency and compressed mode is applied. The gap length is 7, detailed definition is in TS 25.101 annex A.5, Set 1 of Table A.22. CPICH Ec/Io inter frequency relative accuracy requirements are tested by using test parameters in Table A.9.4.

Table A.9.4: CPICH Ec/lo Inter frequency tests parameters

Parameter	Unit	Tes	st 1	Tes	st 2	Tes	st 3	
Farameter	Oilit	Cell 1	Cell 2	Cell 1	Cell 2	Cell 1	Cell 2	
UTRA RF Channel number		Channel 1	Channel 2	Channel 1	Channel 2	Channel 1	Channel 2	
CPICH_Ec/lor	dB	-1	10	-1	0	-1	0	
PCCPCH_Ec/lor	dB	-1	12	-1	12	-1	12	
SCH_Ec/lor	dB	-1	12	-1	12	-1	-12	
PICH_Ec/Ior	dB	-15 -15		15	-15			
DPCH_Ec/lor	dB	-15	-	-6	-	-6	-	
OCNS_Ec/lor	dB	-1.11	-0.94	-2.56	-0.94	-2.56	-0.94	
loc	dBm/ 3.84 MHz	-52.22	-52.22	-87.27	-87.27	-94.46	-94.46	
Îor/loc	dB	-1.75	-1.75	-4.7	-4.7	-9.54	-9.54	
CPICH Ec/Io, Note 1	dBm	-14.0	-14.0	-16.0	-16.0	-20.0	-20.0	
Io, Note 1	dBm/3.84 MHz	-50	-50	-86	-86	-94	-94	
Propagation condition	-	AW	'GN	AW	'GN	AW	'GN	

NOTE 1: CPICH Ec/lo and lo levels have been calculated from other parameters for information purposes. They are not settable parameters themselves.

Tests shall be done sequentially. Test 1 shall be done first. After test 1 has been executed test parameters for tests 2 and 3 shall be set within 5 seconds so that UE does not loose the Cell 2 in between the tests.

A.9.1.2.2 Test Requirements

The CPICH Ec/Io measurement accuracy shall meet the requirements in section 9.1.2. In case of the <u>absolute intrafrequency CPICH_Ec/Io measurement and</u> relative inter-frequency CPICH_Ec/Io measurement accuracy test cases the effect of assumed thermal noise and noise generated in the receiver (–99 dBm) shall be added into the required accuracy. The test requirements for the absolute intra-frequency CPICH_Ec/Io measurement are defined in Section 9.1.2 as shown in Table A.9.4A. . The test requirements for the relative inter-frequency CPICH_Ec/Io measurement are defined in Section 9.1.2 as shown in Table A.9.4B.

Table A.9.4A: CPICH_Ec/lo Intra-frequency absolute accuracy and CPICH_Ec/lo Inter frequency relative accuracy

		Accuracy [dB]	Conditions	
Parameter	Unit	Normal condition	Extreme condition	lo [dBm/3.84 MHz]
ODIOLI 5-//-	dB	-2.71.5 for -14 ≤ CPICH Ec/lo -3.22 for -16 ≤ CPICH Ec/lo < -14 -4.23 for -20 ≤ CPICH Ec/lo < -16	-4.23	-9487
CPICH_Ec/lo	ЦБ	± 1.5 for -14 ≤ CPICH Ec/lo ± 2 for -16 ≤ CPICH Ec/lo < -14 ± 3 for -20 ≤ CPICH Ec/lo < -16	± 3	-8750

		Accuracy [dB]	Conditions	
<u>Parameter</u>	<u>Unit</u>	Normal condition	Extreme condition	<u>lo [dBm]</u>
CPICH Ec/lo	dB	± 2.7 for -14 \leq CPICH Ec/lo ± 3.2 for -16 \leq CPICH Ec/lo $<$ -14 ± 4.2 for -20 \leq CPICH Ec/lo $<$ -16	± 4.2	<u>-9487</u>
<u>CFICIT_EC/IO</u>	<u>ub</u>		<u>± 3</u>	<u>-8750</u>

R4-031115

3GPP TSG RAN WG4 (Radio) Meeting #29 San Diego, USA 17 - 21 November 2003

CHANGE REQUEST									
*	25.133 CR 6	<mark>40</mark>	ev	1	æ	Current version:	6.3.0	ж	

*	25.133	CR <mark>640</mark>	жrev	1	¥	Current vers	sion:	6.3.0	*
For <u>HELP</u> on usir	ng this form	n, see bottom of this	s page or i	look a	t the	pop-up text	t over	the ૠ syn	nbols.
Proposed change aff	f ects: ∪	ICC apps ж	ME X	Radi	o Ad	ccess Netwo	rk	Core Ne	twork
Title: 第 (CPICH Ec	/lo relative accuracy	'						
Source: #	RAN WG4								
Work item code: 第	TEI					Date: %	26/	11/2003	
D	Ise one of the F (correct A (correct B (addict C (funct D (editoret Explosers)	the following categories ection) esponds to a correction of feature), tional modification of forial modification) lanations of the above GPP TR 21.900.	n in an ear eature)		ease	Release: % Use <u>one</u> of 2) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	the for (GSM (Relea (Relea (Relea (Relea (Relea	-	ases:
Reason for change: A) TS 25.133 clause 9.1.2.1.2 states: The relative accuracy of CPICH Ec/lo in the inter frequency case is defined as the CPICH Ec/lo measured from one cell compared to the CPICH Ec/lo measured from another cell on a different frequency. (Note:it is an unsigned difference. It does not state: cell1 minus cell2 or cell2 minus cell1) B) TS 25.133 clause A.9.1.2.2. Table A.9.4.A states: CPICH_Ec/lo relative accuracy: +3, -4.2 dB (assymmetric, due to receiver noise.)					ured ell2				
	The cor	mbination of (A) and ((B) is a con	tradict	tion:				,
Summary of change:	be symi 4.23	rgins in table A.9.4.A metric ±2.7 dB, ±3.2 dB respectively.	lB and ±4.2	2 dB ir	istea	d of -2.71.	5 dB,	-3.22 dB	

Consequences if not approved: The test requirements for inter frequency relative accuracy requirements can not be used in a real test since the relative accuracy is not symmetric.

¥ A.9.1.2.2 Clauses affected: YN

Other specs	Ж		X	Other core specifications #					
affected:		X		Test specifications	34.121				
			X	O&M Specifications					
			•	•					
Other comments:	Ж								
				uivalent CRs in other Releases: CR637r1 cat. F to 25.133 v3.15.0, CR638r1 . A to 25.133 v4.10.0, CR639r1 cat. A to 25.133 v5.8.0					

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In this case both cells are in different frequency and compressed mode is applied. The gap length is 7, detailed definition is in TS 25.101 annex A.5, Set 1 of Table A.22. CPICH Ec/Io inter frequency relative accuracy requirements are tested by using test parameters in Table A.9.4.

Table A.9.4: CPICH Ec/lo Inter frequency tests parameters

Parameter	Unit	Test 1		Test 2		Test 3	
i arameter	Onit	Cell 1	Cell 2	Cell 1	Cell 2	Cell 1	Cell 2
UTRA RF Channel number		Channel 1	Channel 2	Channel 1	Channel 2	Channel 1	Channel 2
CPICH_Ec/lor	dB	-10		-10		-10	
PCCPCH_Ec/lor	dB	-1	12	-1	2	-1	12
SCH_Ec/lor	dB	-12 -12		-12			
PICH_Ec/Ior	dB	-15		-15		-15	
DPCH_Ec/lor	dB	-15	-	-6	ı	-6	-
OCNS_Ec/lor	dB	-1.11	-0.94	-2.56	-0.94	-2.56	-0.94
loc	dBm/ 3.84 MHz	-52.22	-52.22	-87.27	-87.27	-94.46	-94.46
Îor/loc	dB	-1.75	-1.75	-4.7	-4.7	-9.54	-9.54
CPICH Ec/Io, Note 1	dBm	-14.0	-14.0	-16.0	-16.0	-20.0	-20.0
Io, Note 1	dBm/3.84 MHz	-50	-50	-86	-86	-94	-94
Propagation condition	-	- AWGN AWGN			GN	AW	GN

NOTE 1: CPICH Ec/lo and lo levels have been calculated from other parameters for information purposes. They are not settable parameters themselves.

Tests shall be done sequentially. Test 1 shall be done first. After test 1 has been executed test parameters for tests 2 and 3 shall be set within 5 seconds so that UE does not loose the Cell 2 in between the tests.

A.9.1.2.2 Test Requirements

The CPICH Ec/Io measurement accuracy shall meet the requirements in section 9.1.2. In case of the <u>absolute intra</u> <u>frequency CPICH_Ec/Io measurement and</u> relative inter-frequency CPICH_Ec/Io measurement accuracy test cases the effect of assumed thermal noise and noise generated in the receiver (–99 dBm) shall be added into the required accuracy. The test requirements for the absolute intra <u>-frequency CPICH_Ec/Io measurement are</u> defined in Section 9.1.2 as shown in Table A.9.4A. The test requirements for the relative inter-frequency CPICH_Ec/Io measurement are defined in Section 9.1.2 as shown in Table A.9.4B.

Table A.9.4A: CPICH_Ec/lo Intra-frequency absolute accuracy and CPICH_Ec/lo Inter frequency relative accuracy

	Unit	Accuracy [dB]	Conditions	
Parameter		Normal condition	Extreme condition	lo [dBm/3.84 MHz]
CPICH_Ec/lo	dB	-2.71.5 for -14 ≤ CPICH Ec/lo -3.22 for -16 ≤ CPICH Ec/lo < -14 -4.23 for -20 ≤ CPICH Ec/lo < -16	-4.23	-9487
		± 1.5 for -14 ≤ CPICH Ec/lo ± 2 for -16 ≤ CPICH Ec/lo < -14 ± 3 for -20 ≤ CPICH Ec/lo < -16	± 3	-8750

	<u>Unit</u>	Accuracy [dB]	Conditions	
<u>Parameter</u>		Normal condition	Extreme condition	<u>lo [dBm]</u>
CPICH_Ec/lo	<u>dB</u>	± 2.7 for -14 \leq CPICH Ec/lo ± 3.2 for -16 \leq CPICH Ec/lo $<$ -14 ± 4.2 for -20 \leq CPICH Ec/lo $<$ -16	± 4.2	<u>-9487</u>
			<u>± 3</u>	<u>-8750</u>