TSG RAN Meeting #21 Frankfurt, Germany, 16 - 19 September 2003

RP-030415

Title CRs (R'99 and Rel-4/Rel-5/Rel-6 Category A) to TS 25.101

Source TSG RAN WG4

Agenda Item 7.5.3

RAN4 Tdoc	Spec	CR	R	Cat	Rel	Curr Ver	Title	Work Item
R4-020840	25.101	261	1	F	R99	3.14.0	Problems with "Out of sync" in Initial Convergence test	TEI
R4-020841	25.101	262	1	Α	Rel-4	4.8.0	Problems with "Out of sync" in Initial Convergence test	TEI
R4-020842	25.101	263	1	Α	Rel-5	5.7.0	Problems with "Out of sync" in Initial Convergence test	TEI
R4-020843	25.101	264	1	Α	Rel-6	6.1.0	Problems with "Out of sync" in Initial Convergence test	TEI

R4-030840

	CHANGE REQUEST	CR-Form-v7
	25.101 CR 261	3.14.0 [*]
For <u>HELP</u> on u	sing this form, see bottom of this page or look at th	ne pop-up text over the % symbols.
Proposed change	affects: UICC apps ж ME X Radio A	Access Network Core Network
Title: %	Problems with "Out of sync" in Initial Convergence	ce test
Source: #	RAN WG4	
Work item code: ₩	TEI	Date: 第 08/09/2003
Reason for change	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. EX Last RAN4 meeting the tdocs R4-030382 to R4-04 were approved. They limited the initial power rare Otherwise the downlink channel would not be insured by a clarified as when the DPDCH is considered establishment procedure and the decreased when the test starts. Therefore there we tdocs R4-030382 to R4-030385.	R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) 030385, regarding initial power control, age in order to establish the DPCH. sync and therefore the uplink DPCH will be identified. The start of the test has been olished and the first frame is transmitted. In the lower range, such that the level is en the downlink DPCH power is
	Isolated Impact: This CR will not have an imparonly change the testcase in order to make it relevant	
Summary of chang	e: # Change the lowest initial power settings from _25.9 and _22.8	1 –18 dB back to the former values at
Consequences if not approved:	# The test will not be covering a low initial povering a low initial	wer as intended.
Clauses affected: Other specs affected:	 # 8.8.2 Y N X Test specifications X O&M Specifications 	121

Other comments: %

Equivalent CRs in other Releases: CR262r1 cat. A to 25.101 v4.8.0, CR263r1 cat. A to 25.101 v5.7.0, CR264r1 cat. A to 25.101 v6.1.0

How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked \(\mathbb{H} \) 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.

This requirement verifies that DL power control works properly during the first seconds after DPCH connection is established

8.8.2.1 Minimum requirements

For the parameters specified in Table 8.31 the downlink DPCH_Ec/Ior power ratio measured values, which are averaged over 50 ms, shall be within the range specified in Table 8.32 more than 90% of the time. T1 equals to 500 ms and it starts 10 ms after the uplink DPDCH uplink DPDCH physical channel is considered established eonnection is initiated. T2 equals to 500 ms and it starts when T1 has expired. Power control is ON during the test.

Parameter Unit Test 1 Test 2 Test 3 Test 4 Target quality value **BLFR** 0.01 0.01 0.1 0.1 on DTCH Initial DPCH_Ec/lor dB -5.9 -1825.9 -3 -1822.8 Information Data 12.2 kbps 12.2 64 64 Rate \hat{I}_{or}/I_{oc} dΒ -1 dBm/3.84 I_{oc} -60 MHz Propagation condition Static Maximum DL Power dB Minimum DL Power dB -18 **DL Power Control** dΒ 1 step size, Δ_{TPC} Limited Power "Not used" Increase

Table 8.31: Test parameters for downlink power control

Table 8.32: Requirements in downlink power control

Parameter	Unit	Test 1 and Test 2	Test 3 and Test 4		
$\frac{DPCH \ _E_c}{I_{or}}$ during T1	dB	-18.9 ≤ DPCH_Ec/lor ≤ -11.9	-15.1 ≤ DPCH_Ec/lor ≤ -8.1		
$\frac{DPCH _E_c}{I_{or}} \text{ during T2}$	dB	-18.9 ≤ DPCH_Ec/lor ≤ -14.9	-15.1 ≤ DPCH_Ec/lor ≤ -11.1		

R4-030841

			СН	IANGE	REQ	UE	ST	•			CR-Form-v7
*	25	.101	CR 26	2	жrev	1	æ	Current vei	rsion:	4.8.0	*
For <mark>HELP</mark> on u	sing	this for	m, see bo	ttom of this	s page or	look a	at th	e pop-up tex	ct over t	he % syr	nbols.
Proposed change	affec	<i>ts:</i> (JICC apps	s# <u> </u>	ME X	Rac	dio A	ccess Netwo	ork	Core Ne	etwork
Title: %	Pro	blems	with "Out	of sync" in	Initial Co	nver	genc	e test			
Source: #	RA	N WG	4								
Work item code: 第	TE							Date: 8	€ 08/0	9/2003	
Category:	<i>Use</i> Deta	F (cori A (cor B (add C (fun D (edi iled exp	rection) responds to dition of fea ctional mod torial modifi	lification of t ication) of the above	on in an ea		elease	Release: 8 Use <u>one</u> 0 2 e) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	of the foll (GSM (Relea (Relea (Relea	owing rele Phase 2) se 1996) se 1997) se 1998) se 1999) se 4) se 5)	ases:
Reason for change	e: #	were a Otherwnever larified Then i higher decrea tdocs I	pproved. To vise the down to be activated as when the tis possible during the sed when the tis possible during the sed when the	hey limited whilink chan I. Now, and the DPDCH to test init establishment to R4-0303	the initial anel would wher solution is considered in the considered in the constant of the constant in the constant of the constant in the co	not be on has ered e gence ure an ire ther	e insystements been bestable from d the e was	30385, regardinge in order to ync and there in identified. This hed and the athelower rate in the downlings no reason to the ton the UE of the and reflect	establish fore the The start first frange, such hk DPCF be limit the or the net	th the DPC uplink DF of the tes me is tran that the last H power is e power last work behaves	CH. CCH will t has been smitted. evel is evels in
Summary of chang	ø: ₩		ge the low and –22.8		ower sett	ings f	rom	–18 dB bac	k to the	former v	alues at
Consequences if not approved:	*	The	test will no	t be cover	ing a low	initial	pow	ver as intend	led.		
Clauses affected:	ж	8.8.2)								
Other specs affected:	¥	Y N X X	Test spe	re specifica cifications ecifications		æ	34.1	121			

Other comments:

ж

Equivalent CRs in other Releases: CR261r1 cat. F to 25.101 v3.14.0, CR263r1 cat. A to 25.101 v5.7.0, CR264r1 cat. A to 25.101 v6.1.0

How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked \(\mathbb{H} \) contain pop-up help information about the field that they are closest to.
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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.

This requirement verifies that DL power control works properly during the first seconds after DPCH connection is established.

8.8.2.1 Minimum requirements

For the parameters specified in Table 8.31 the downlink DPCH_Ec/Ior power ratio measured values, which are averaged over 50 ms, shall be within the range specified in Table 8.32 more than 90% of the time. T1 equals to 500 ms and it starts 10 ms after the uplink DPDCH initiated. T2 equals to 500 ms and it starts when T1 has expired. Power control is ON during the test.

Parameter Unit Test 1 Test 2 Test 3 Test 4 Target quality value **BLFR** 0.01 0.01 0.1 0.1 on DTCH Initial DPCH_Ec/lor dB -5.9 -25.9-18 -3 -22.8-18 Information Data 12.2 kbps 12.2 64 64 Rate \hat{I}_{or}/I_{oc} dΒ -1 dBm/3.84 I_{oc} -60 MHz Propagation condition Static Maximum DL Power dB Minimum DL Power dB -18 **DL Power Control** dΒ 1 step size, Δ_{TPC} Limited Power "Not used" Increase

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R4-030842

	CHANGE REQUEST	n-v7
*	25.101 CR 263	
For <u>HELP</u> on u	ng this form, see bottom of this page or look at the pop-up text over the 発 symbols.	
Proposed change	fects: UICC apps ■ ME X Radio Access Network Core Network	
Title: #	Problems with "Out of sync" in Initial Convergence test	
Source: #	RAN WG4	
Work item code: ₩	TEI Date: # 08/09/2003	
Category:	Release: Release: Rel-5 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) P (editorial modification) Release 1998) D (editorial modification) Release 1999) Retailed explanations of the above categories can e found in 3GPP TR 21.900. Release 1999 Release 1999) Release 5) Rel-6 (Release 6)	
	** Last RAN4 meeting the tdocs R4-030382 to R4-030385, regarding initial power control were approved. They limited the initial power range in order to establish the DPCH. Otherwise the downlink channel would not be insync and therefore the uplink DPCH with never be activated. Now, another solution has been identified. The start of the test has be clarified as when the DPDCH is considered established and the first frame is transmitted. Then it is possible to test initial convergence from the lower range, such that the level is higher during the establishment procedure and then the downlink DPCH power is decreased when the test starts. Therefore there was no reason to limit the power levels in tdocs R4-030382 to R4-030385. Isolated Impact: This CR will not have an impact on the UE or the network behaviour, only change the testcase in order to make it relevant and reflecting the core spec.	ill een d. s
	-25.9 and -22.8	a.
Consequences if not approved:	The test will not be covering a low initial power as intended.	
Clauses affected:	₩ 8.8.2	
Other specs affected:	Y N X Other core specifications Test specifications O&M Specifications 34.121	

Other comments:

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Equivalent CRs in other Releases: CR261r1 cat. F to 25.101 v3.14.0, CR262r1 cat. A to 25.101 v4.8.0, CR264r1 cat. A to 25.101 v6.1.0

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Parameter Unit Test 1 Test 2 Test 3 Test 4 Target quality value **BLFR** 0.01 0.01 0.1 0.1 on DTCH Initial DPCH_Ec/lor dB -5.9 -25.9-18 -3 -22.818 Information Data 12.2 kbps 12.2 64 64 Rate \hat{I}_{or}/I_{oc} dΒ -1 dBm/3.84 I_{oc} -60 MHz Propagation condition Static Maximum DL Power dB Minimum DL Power dB -18 **DL Power Control** dΒ 1 step size, Δ_{TPC} Limited Power "Not used" Increase

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R4-030843

			CH	ANGE	REQ	UE	ST				CR-Form-v7
*	25	.101	CR 264	ļ	жrev	1	ж	Current vers	sion:	5.1.0	*
For <u>HELP</u> on u	sing	this forr	n, see botte	om of this	page or	look a	at the	e pop-up text	t over th	ne Ж syr	nbols.
Proposed change	affec	<i>ts:</i> U	IICC apps ≇	8	ME X	Rad	io A	ccess Netwo	rk	Core Ne	etwork
Title: #	Pro	blems	with "Out o	f sync" in I	nitial Co	nverg	ence	e test			
Source: #	RA	N WG4	ļ								
Work item code: ₩	TE	l						Date: #	08/09	9/2003	
Category:	<i>Use</i> Deta	F (corred) A (corred) B (add) C (function D (edited)	he following ection) esponds to a ition of featutional modifications of lanations of SGPP TR 21	a correction re), ication of fe ation) the above o	in an ear ature)		lease	Release: #8 Use <u>one</u> of 2 e) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	the follo (GSM I (Releas (Releas (Releas	wing rele Phase 2) se 1996) se 1997) se 1998) se 1999) se 4) se 5)	vases:
Reason for change	e: #	Were ap Otherw never b clarified Then it higher d decrease tdocs R	oproved. The rise the down be activated. d as when the is possible to during the essed when the 4-030382 to d Impact: T	ey limited the plink chann Now, another DPDCH to test initial stablishment test starts. PR4-03038	he initial el would her solution is considerate convergent procedu. Therefore 5.	power not be on has ered es gence f are and e there	range insy been stablifrom I there was	30385, regarding in order to early and therefore identified. The shed and the state lower range in the downlines in oreason to the the transport of the transpo	establish ore the u he start of first fran ge, such k DPCH limit the	the DPC uplink DF of the tes ne is tran that the l power is power le work behave	CH. CCH will t has been smitted. evel is evels in
Summary of chang	ge: ₩		e the lowes and -22.8	st initial po	wer setti	ngs fi	rom -	–18 dB back	to the f	ormer v	alues at
Consequences if not approved:	ж	The to	est will not	be coverir	ig a low i	initial	pow	er as intende	ed.		
Clauses affected:	ж	8.8.2									
Other specs affected:	ж	Y N X X	Other core Test speci O&M Speci	fications	tions	æ	34.1	21			

Other comments:

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Equivalent CRs in other Releases: CR261r1 cat. F to 25.101 v3.14.0, CR262r1 cat. A to 25.101 v4.8.0, CR263r1 cat. A to 25.101 v5.7.0

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Parameter Unit Test 1 Test 2 Test 3 Test 4 Target quality value **BLER** 0.01 0.01 0.1 0.1 on DTCH Initial DPCH_Ec/lor dB -5.9 -25.9-18 -3 -22.8-18 Information Data kbps 12.2 12.2 64 64 Rate \hat{I}_{or}/I_{oc} dB -1 dBm/3.84 I_{oc} -60 MHz Propagation condition Static Maximum_DL_Power dB 7 Minimum DL Power -18 dΒ **DL Power Control** dB 1 step size, Δ_{TPC} Limited Power "Not used" Increase

Table 8.31: Test parameters for downlink power control

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Parameter	Unit	Test 1 and Test 2	Test 3 and Test 4		
$\frac{DPCH \ _E_c}{I_{or}}$ during T1	dB	-18.9 ≤ DPCH_Ec/lor ≤ -11.9	-15.1 ≤ DPCH_Ec/lor ≤ -8.1		
$\frac{DPCH_{-}E_{c}}{I_{or}}$ during T2	dB	-18.9 ≤ DPCH_Ec/lor ≤ -14.9	-15.1 ≤ DPCH_Ec/lor ≤ -11.1		