TSG RAN Meeting #21 **RP-030415**
Frankfurt, Germany, 16 - 19 September 2003

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	A	Rel-4	4.8.0	Problems with "Out of sync" in Initial Convergence test	TEI
R4-020842	25.101	263	1	A	Rel-5	5.7.0	Problems with "Out of sync" in Initial Convergence test	TEI
R4-020843	25.101	264	1	A	Rel-6	6.1.0	Problems with "Out of sync" in Initial Convergence test	TEI

3GPP TSG RAN WG4 (Radio) Meeting #28 **R4-030840**

Sophia Antipolis, France 18 - 22 August 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.101** **CR** **261** ⌘ **rev** **1** ⌘ **3.14.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Problems with “Out of sync” in Initial Convergence test
Source:	⌘	RAN WG4
Work item code:	⌘	TEI
Date:	⌘	08/09/2003
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change:	⌘	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 will never be activated. Now, another solution has been identified. The start of the test has been 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, it only change the testcase in order to make it relevant and reflecting the core spec.
Summary of change:	⌘	Change the lowest initial power settings from –18 dB back to the former values at –25.9 and –22.8
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		
		X		Test specifications		34.121
			X	O&M Specifications		

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:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.8.2 Power control in the downlink, initial convergence

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 physical channel is considered established ~~connection is initiated~~. T2 equals to 500 ms and it starts when T1 has expired. Power control is ON during the test.

The first 10 ms shall not be used for averaging, ie the first sample to be input to the averaging filter is at the beginning of T1. The averaging shall be performed with a sliding rectangular window averaging filter. The window size of the averaging filter is linearly increased from 0 up to 50 ms during the first 50 ms of T1, and then kept equal to 50ms.

Table 8.31: Test parameters for downlink power control

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

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/Ior ≤ -11.9	-15.1 ≤ DPCH_Ec/Ior ≤ -8.1
$\frac{DPCH\_E_c}{I_{or}}$ during T2	dB	-18.9 ≤ DPCH_Ec/Ior ≤ -14.9	-15.1 ≤ DPCH_Ec/Ior ≤ -11.1

3GPP TSG RAN WG4 (Radio) Meeting #28 **R4-030841**

Sophia Antipolis, France 18 - 22 August 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.101** **CR** **262** ⌘ **rev** **1** ⌘ Current version: **4.8.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ 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:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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 will never be activated. Now, another solution has been identified. The start of the test has been 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, it only change the testcase in order to make it relevant and reflecting the core spec.
Summary of change:	⌘	Change the lowest initial power settings from –18 dB back to the former values at –25.9 and –22.8
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		
		X		Test specifications		34.121
			X	O&M Specifications		

Other comments:	⌘	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:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.8.2 Power control in the downlink, initial convergence

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 physical channel is considered established ~~connection is initiated~~. T2 equals to 500 ms and it starts when T1 has expired. Power control is ON during the test.

The first 10 ms shall not be used for averaging, ie the first sample to be input to the averaging filter is at the beginning of T1. The averaging shall be performed with a sliding rectangular window averaging filter. The window size of the averaging filter is linearly increased from 0 up to 50 ms during the first 50 ms of T1, and then kept equal to 50ms.

Table 8.31: Test parameters for downlink power control

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

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/Ior ≤ -11.9	-15.1 ≤ DPCH_Ec/Ior ≤ -8.1
$\frac{DPCH\_E_c}{I_{or}}$ during T2	dB	-18.9 ≤ DPCH_Ec/Ior ≤ -14.9	-15.1 ≤ DPCH_Ec/Ior ≤ -11.1

3GPP TSG RAN WG4 (Radio) Meeting #28 **R4-030842**

Sophia Antipolis, France 18 - 22 August 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.101** **CR** **263** ⌘ **rev** **1** ⌘ Current version: **5.7.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Problems with “Out of sync” in Initial Convergence test
Source:	⌘	RAN WG4
Work item code:	⌘	TEI
Date:	⌘	08/09/2003
Category:	⌘	**A**
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)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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 will never be activated. Now, another solution has been identified. The start of the test has been 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, it only change the testcase in order to make it relevant and reflecting the core spec.
Summary of change:	⌘	Change the lowest initial power settings from –18 dB back to the former values at –25.9 and –22.8
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		
		X		Test specifications		34.121
			X	O&M Specifications		

Other comments:	⌘	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

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.8.2 Power control in the downlink, initial convergence

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 physical channel is considered ~~connection is initiated~~. T2 equals to 500 ms and it starts when T1 has expired. Power control is ON during the test.

The first 10 ms shall not be used for averaging, ie the first sample to be input to the averaging filter is at the beginning of T1. The averaging shall be performed with a sliding rectangular window averaging filter. The window size of the averaging filter is linearly increased from 0 up to 50 ms during the first 50 ms of T1, and then kept equal to 50ms.

Table 8.31: Test parameters for downlink power control

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

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/Ior ≤ -11.9	-15.1 ≤ DPCH_Ec/Ior ≤ -8.1
$\frac{DPCH\_E_c}{I_{or}}$ during T2	dB	-18.9 ≤ DPCH_Ec/Ior ≤ -14.9	-15.1 ≤ DPCH_Ec/Ior ≤ -11.1

3GPP TSG RAN WG4 (Radio) Meeting #28 **R4-030843**

Sophia Antipolis, France 18 - 22 August 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.101** **CR** **264** ⌘ **rev** **1** ⌘ Current version: **6.1.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Problems with “Out of sync” in Initial Convergence test
Source:	⌘	RAN WG4
Work item code:	⌘	TEI
Date:	⌘	08/09/2003
Category:	⌘	**A**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	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 will never be activated. Now, another solution has been identified. The start of the test has been 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, it only change the testcase in order to make it relevant and reflecting the core spec.
Summary of change:	⌘	Change the lowest initial power settings from –18 dB back to the former values at –25.9 and –22.8
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		
		X		Test specifications		34.121
			X	O&M Specifications		

Other comments:	⌘	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

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.8.2 Power control in the downlink, initial convergence

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 DPDCH physical channel is considered established and the first uplink frame is transmitted~~connection is initiated~~. T2 equals to 500 ms and it starts when T1 has expired. Power control is ON during the test.

The first 10 ms shall not be used for averaging, ie the first sample to be input to the averaging filter is at the beginning of T1. The averaging shall be performed with a sliding rectangular window averaging filter. The window size of the averaging filter is linearly increased from 0 up to 50 ms during the first 50 ms of T1, and then kept equal to 50ms.

Table 8.31: Test parameters for downlink power control

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

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/Ior ≤ -11.9	-15.1 ≤ DPCH_Ec/Ior ≤ -8.1
$\frac{DPCH\_E_c}{I_{or}}$ during T2	dB	-18.9 ≤ DPCH_Ec/Ior ≤ -14.9	-15.1 ≤ DPCH_Ec/Ior ≤ -11.1