Source: T1

Title: CR's to TS 34.122 v4.7.0 for approval

Agenda item: 5.1.3

**Document for: Approval** 

This document contains 6 CRs to TS 34.122 v4.7.0. These CRs have been agreed by T1 and are put forward to TSG T for approval.

# CRs related to Low Chip Rate TDD:

Spec	CR	Rev	Release	Subject	Cat	Version	Version	Doc-2nd-	Work
						Current	-New	Level	item
34.122	167	-	Rel-4	Addition LCR cell re-selection in Cell_PCH, single cell test	F	4.7.0	4.8.0	T1-030329	LCRT DD
34.122	168	-	Rel-4	Addition LCR cell re-selection in PCH, multi-cell test	F	4.7.0	4.8.0	T1-030330	LCRT DD
34.122	169	-	Rel-4	Addition LCR cell re-selection in URA_PCH, single cell test	F	4.7.0	4.8.0	T1-030331	LCRT DD
34.122	170	-	Rel-4	Addition LCR cell re-selection in URA_PCH, multi-cell test	F	4.7.0	4.8.0	T1-030332	LCRT DD
34.122	171	-	Rel-4	Addition LCR cell re-selection in Cell_Fach, multi-cell test	F	4.7.0	4.8.0	T1-030346	LCRT DD
34.122	172	-	Rel-4	Addition LCR cell re-selection in Cell_Fach, single cell test	F	4.7.0	4.8.0	T1-030352	LCRT DD

# 3GPP TSG -T1 Meeting 19 Seoul, Korea 12<sup>th</sup> to 16<sup>th</sup> March 2003

			СН	ANGE	REQ	UE	ST			CR-Form-v7
*	34	.122	CR 16	7	жrev	-	ж	Current vers	sion: 4.	. <mark>7.0</mark> **
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Proposed change	affec	<i>ts:</i> (	JICC apps	<b>#</b>	ME	Rad	dio A	ccess Netwo	ork C	ore Network
Title:	€ Ad	dition I	CR cell re	e-selection	in Cell_F	PCH,	singl	e cell test		
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Work item code:	€ LC	RTDD						Date: ₩	30/04/2	2003
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Reason for chang	je: ж	Upaa	ites to refl	ect latest v	ersion co	ore sp	ести	cation		
Summary of chan	ge: ૠ	Addit	ion of LCF	R single ce	ell reselcti	on ce	II-PC	H test case		
Consequences if not approved:	*	Incor	nplete test	ing, not re	eflecting la	atest	core	specification		
Clauses affected:	<b>#</b>	8.3.5	1							
Clauses affecteu.	- Ф	0.5.5	. 1							
Other specs Affected:	¥	YN	Test spec	e specifications		*				
Other comments:	æ	Base	d on core	spec 25.1	23 clause	es cla	<u>uses</u>	5.5.2 and A	.5.5.1.	

### How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> 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.

# 8.3.5 Cell Re-selection in CELL\_PCH

## 8.3.5.1 Scenario 1: TDD/TDD cell re-selection single carrier case

# 8.3.5.1.1 Definition and applicability

#### 8.3.5.1.1.1 3,84 Mcps TDD option

The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell , and starts to send the CELL UPDATE message with cause value "cell reselection" in the new cell.

The requirements and this test apply to the 3,84 Mcps TDD UE.

## 8.3.5.1.1.2 1,28 Mcps TDD option

Void. The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell, and starts to send SYNCH-UL sequence in the UpPTS for sending the RRC CONNECTION REQUEST to perform a CELL UPDATE with cause value "cell reselection".

The requirements and this test apply to the 1,28 Mcps TDD UE.

## 8.3.5.1.2 Minimum requirement

#### 8.3.5.1.2.1 3,84 Mcps TDD option

The cell re-selection delay shall be less than 8 s.

NOTE:

The cell re-selection delay can be expressed as:  $T_{evaluateTDD} + T_{SI}$ , where:

T<sub>evaluateTDD</sub> A DRX cycle length of 1280ms is assumed for this test case, this leads to a T<sub>evaluateTDD</sub> of 6.4s

according to TS 25.123 [2] table 4.1 in clause 4.2.2.7.

T<sub>SI</sub> Maximum repetition period of relevant system info blocks that needs to be received by the UE to

camp on a cell. 1280 ms is assumed in this test case.

This gives a total of 7.68 s, allow 8s in the test case.

The normative reference for this requirement is TS 25.123 [2] clauses 5.5 and A.5.5.1.

#### 8.3.5.1.2.2 1,28 Mcps TDD option

Void. The cell re-selection delay shall be less than 8 s.

# NOTE:

The cell re-selection delay can be expressed as:  $T_{evaluateNTDD} + T_{SI}$ , where:

 $\underline{T_{evaluate NTDD}}$  A DRX cycle length of 1280ms is assumed for this test case, this leads to a  $\underline{T_{evaluate TDD}}$  of 6.4s

according to TS 25.123 [2] table 4.1a in clause 4.2.2.

<u>T<sub>SI</sub></u> <u>Time required for receiving all the relevant system information data according to the reception</u>

procedure and the RRC procedure delay of system information blocks defined in 25.331 for a

UTRAN cell (ms). 1280 ms is assumed in this test case.

This gives a total of 7.68 s, allowing 8s in the test case.

The normative reference for this requirement is TS 25.123 [2] clauses 5.5.2.2 and A.5.5.1.

# 8.3.5.1.3 Test purpose

This test verifies that the UE meets the minimum requirement for the cell re-selection delay in CELL\_PCH for the single carrier case

# 8.3.5.1.4 Method of test

8.3.5.1.4.1 3,84 Mcps TDD option

# 8.3.5.1.4.1.1 Initial conditions

This scenario contains 6 cells operating on the same carrier frequency. The test parameters are given in Tables 8.3.5.1.1.1, and 8.3.5.1.1.2.

Table 8.3.5.1.1.1: General test parameters for Cell Re-selection single carrier multi-cell case

I	Parameter	Unit	Value	Comment
Initial	Active cell		Cell1	
condition	Neighbour cells		Cell2, Cell3,Cell4, Cell5, Cell6	
Final condition	Active cell		Cell2	
	HCS		Not used	
UE_TX	UE_TXPWR_MAX_RACH		21	The value shall be used for all cells in the test.
	Qrxlevmin		-102	The value shall be used for all cells in the test.
Access Service Class (ASC#0) - Persistence value			1	Selected so that no additional delay is caused by the random access procedure. The value shall be used for all cells in the test.
	T <sub>SI</sub>		1.28	The value shall be used for all cells in the test.
DR	DRX cycle length		1.28	The value shall be used for all cells in the test.
	T1		15	
	T2	S	15	

Table 8.3.5.1.1.2: Cell re-selection single carrier multi-cell case

Parameter	Unit		Ce	II 1			Ce	II 2			Се	II 3		
Timeslot Number		0	)	8	3	(	)		3	(	0	3	В	
		T1	T2	T1	T2	T1	T2	T2 T1 T2			T2	T1	T2	
UTRA RF Channel Number			Chan	nel 1		Channel 1				Channel 1				
PCCPCH_Ec/lor	dB	-3	-3			-3   -3			-3   -3					
SCH_Ec/lor	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	
SCH_t <sub>offset</sub>		0	0	0	0	5	5	5	5	10	10	10	10	
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3	
OCNS_Ec/lor	dB	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	
$\hat{I}_{or}/I_{oc}$	dB	9	7	9	7	7	9	7	9	-1	-1	-1	-1	
PCCPCH RSCP	dBm	-64	-66			-66	-64			-74	-74			
Qoffset1 <sub>s,n</sub>	dB		1, C2: 0; C1, C3:0; C1,C4:0											
Qhyst1 <sub>s</sub>	dB		0 0 0									)		
Treselection	S		0 0								(	0		
Sintrasearch	dB		not	sent			not sent				not	sent		
		Cell 4 Cell 5 Cell 6							II 6					
Timeslot		C	)	8			)		3		0 8			
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	
UTRA RF Channel Number			Chan	nel 1			Char	nnel 1			Char	nel 1		
PCCPCH_Ec/lor	dB	-3	-3			-3	-3			-3	-3			
SCH_Ec/lor	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	
SCH_t <sub>offset</sub>		15	15	15	15	20	20	20	20	25	25	25	25	
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3	
OCNS_Ec/lor	dB	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	
$\hat{I}_{or}/I_{oc}$	dB	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
PCCPCH RSCP	dBm	-74	-74			-74	-74			-74	-74			
Qoffset1 <sub>s,n</sub>	dB			C4, C2:05:0; C4,				C2:0; C5; C6:			1: 0; C6, C6, C4:0;			
Qhyst1 <sub>s</sub>	dB	0 0 0												
Treselection	S		(	)			(	0			(	)		
Sintrasearch	dB		not	sent			not	sent			not	sent		
$I_{oc}$	dBm/3, 84 MHz		-70											
Propagation Condition			AWGN											

#### 8.3.5.1.4.1.2 Procedure

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the test procedure specified in TS 34.108 [3] subclause 7.4.2.7.1 to place the UE in the CELL\_PCH state on Cell 1 and then the SS waits for this process to complete.
- d) After 15 s from the completion of step c) or the beginning of T1, the parameters are changed as described for T2.
- e) If the UE responds on Cell 2 with a PRACH (CELL UPDATE message cause "cell reselection") within 8s, then a success is recorded, the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure moves to step g).
- f) Since the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T2 and if no response is received, the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues with step g).
- g) After a total of 15 s from the beginning of T2, the parameters are changed as described for T1.

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- h) If the UE responds on Cell 1 with a PRACH (CELL UPDATE message cause "cell reselection") within 8s, then a success is recorded and the procedure moves to step j).
- i) Since the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T1 and if no response is received the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues with step j).
- j) Repeat steps d) to i) [TBD] times.

NOTE: The time required for receiving all the relevant system information data according to the reception procedure and the RRC procedure delay of system information blocks defined in 25.331 for a UTRAN cell. Since the maximum repetition period of the relevant system info blocks that needs to be received by the UE to camp on a cell is 1280ms and the maximum RRC procedure delay for reception system information block is 100ms, 1380 ms is assumed in this test case. Therefore this gives a total of 7.78s(Minimum requirement + 100ms), allow 8s in the test case.

#### Specific Message Contents

All messages indicated above shall use the same content as described in the default message content in clause 9 of 34.108 [3], with the following exceptions:

### RADIO BEARER SETUP (Step 3)

Information Element	Value/remark
RRC State Indicator	CELL PCH
UTRAN DRX cycle length coefficient	7

#### 8.3.5.1.4.2 1,28 Mcps TDD option

Void. 8.3.5.1.4.2.1 Initial conditions

This scenario contains 6 cells operating on the same carrier frequency. The test parameters are given in Tables 8.3.5.1.4.2.1, and 8.3.5.1.4.2.2.

<u>Table 8.3.5.1.4.2.1: General test parameters for 1.28Mcps Cell Re-selection single carrier multi-cell case</u>

<u>Pa</u>	<u>rameter</u>	<u>Unit</u>	<u>Value</u>	Comment
Initial condition	Active cell		Cell1	
	Neighbour cells		Cell2, Cell3, Cell4, Cell5,	
			Cell6	
Final condition	Active cell		Cell2	
	<u>HCS</u>		Not used	
UE_TXPWR_MAX_RACH		<u>dBm</u>	<u>21</u>	The value shall be used for all cells in the test.
<u>Qrxlevmin</u>		<u>dBm</u>	<u>-103</u>	The value shall be used for all cells in the test.
	ce Class (ASC#0)		<u>1</u>	Selected so that no additional
Peisi	stence value			delay is caused by the random
				access procedure. The value shall
			1.00	be used for all cells in the test.
	<u>T</u> si	<u>s</u>	<u>1.28</u>	The value shall be used for all cells in
			1.00	the test.
DRX o	cycle length	<u>s</u>	<u>1.28</u>	The value shall be used for all cells in
				the test.
	<u>T1</u>	<u>s</u>	<u>15</u>	
	<u>T2</u>	<u>s</u>	<u>15</u>	

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Table 8.3.5.1.4.2.2: 1.28Mcps Cell re-selection single carrier multi-cell case

Parameter	Unit		Ce	<u>II 1</u>			Ce	II 2			Ce	II 3	
Timeslot Number		(	)	DW	PTS	(	)	DW	<u>PTS</u>		0	DW	PTS
		<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>
UTRA RF Channel Number			Channel 1			<u>Channel 1</u>				<u>Channel 1</u>			
PCCPCH_Ec/lor	dB	-3	-3	-3 -3 -3 -3 -3									
DwPCH_Ec/lor	dB			0	0							0	0
OCNS_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>		_	<u>-3</u>	<u>-3</u>		_	<u>-3</u>	<u>-3</u>		
$\hat{I}_{or}/I_{oc}$	<u>dB</u>	9	<u>7</u>	9	<u>7</u>	<u>7</u>	9	<u>7</u>	9	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>
PCCPCH RSCP	dBm	-64	-66			-66	-64			-74	-74		
Qoffset1 <sub>s,n</sub>	<u>dB</u>	C1, C	2: 0; C1,	C3:0; C <sup>2</sup> ; C1,C6:		C2, C1: 0; C2, C3:0; C2,C4:0 C2, C5: 0; C2, C6:0				C3, C1: 0; C3, C2:0; C3,C4:0 C3, C5: 0; C3, C6:0			
Qhyst1 <sub>s</sub>	dB			)				0				)	
Treselection	<u>s</u>			0		0				0			
<u>Sintrasearch</u>	<u>dB</u>		not sent				<u>not sent</u>				not	sent	
		Cell 4				Cell 5					<u>Ce</u>	<u>II 6</u>	
<u>Timeslot</u>			)	DW	PTS	0 <u>DWPTS</u>					0	DW	<u>PTS</u>
		<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>
UTRA RF Channel Number			Char	nel 1		Channel 1					Chan	nel 1	
PCCPCH_Ec/lor	dB	-3	-3			-3	-3			<u>-3</u>	<u>-3</u>		
DwPCH_Ec/lor	<u>dB</u>			<u>0</u>	<u>0</u>			<u>0</u>	<u>0</u>			<u>0</u>	<u>0</u>
OCNS_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>		
$\hat{I}_{or}/I_{oc}$	<u>dB</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>
PCCPCH RSCP	<u>dBm</u>	<u>-74</u>	<u>-74</u>			<u>-74</u>	<u>-74</u>			<u>-74</u>	<u>-74</u>		
Qoffset1 <sub>s,n</sub>	<u>dB</u>	C4, C1: 0; C4, C2:0; C4,C3:0 C4, C5:0; C4, C6:0						C2:0; C			1: 0; C6, C6, C4:0;		
Qhyst1 <sub>s</sub>	<u>dB</u>			<u>)</u>				<u>0</u>			(	<u>)</u>	
Treselection	<u>s</u>			0		<u> </u>				<u> </u>			
<u>\$intrasearch</u>	<u>dB</u>		not	<u>sent</u>		not sent					not:	<u>sent</u>	
<u>I<sub>oc</sub></u>	<u>dBm/1.</u> 28 MHz		<u>-70</u>										
Propagation Condition			<u>AWGN</u>										

#### 8.3.5.1.4.2.2 Procedure

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the test procedure specified in TS 34.108 [3] subclause 7.4.2.7.1 to place the UE in the CELL\_PCH state on Cell 1 and then the SS waits for this process to complete.
- d) After 15 s from the completion of step c) or the beginning of T1, the parameters are changed as described for T2.
- e) If the UE responds on Cell 2 with a CELL UPDATE message cause "cell reselection" within 8s, then a success is recorded, the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure moves to step g).
- f) If the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T2 and if no response is received, the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues with step g).
- g) After a total of 15 s from the beginning of T2, the parameters are changed as described for T1.
- h) If the UE responds on Cell 1 with a CELL UPDATE message cause "cell reselection" within 8s, then a success is recorded and the procedure moves to step j).

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- i) If the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T1 and if no response is received the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues with step j).
- j) Repeat steps d) to i) [TBD] times.

NOTE: The time required for receiving all the relevant system information data according to the reception procedure and the RRC procedure delay of system information blocks defined in 25.331 for a UTRAN cell. Since the maximum repetition period of the relevant system info blocks that needs to be received by the UE to camp on a cell is 1280ms and the maximum RRC procedure delay for reception system information block is 100ms, 1380 ms is assumed in this test case. Therefore this gives a total of 7.78s(Minimum requirement + 100ms), so allow 8s in the test case.

#### Specific Message Contents

All messages indicated above shall use the same content as described in the default message content in clause 9 of 34.108 [3], with the following exceptions:

#### RADIO BEARER SETUP (Step 3)

Information Element	<u>Value/remark</u>
RRC State Indicator	CELL PCH
UTRAN DRX cycle length coefficient	7

### 8.3.5.1.5 Test Requirements

# 8.3.5.1.5.1 3,84 Mcps TDD option

For the test to pass, the total number of successful attempts shall be more than 90% with a confidence level of [FFS]% of the cases.

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

#### 8.3.5.1.5.2 1,28 Mcps TDD option

#### **Void**

For the test to pass, the total number of successful attempts shall be more than 90% with a confidence level of [FFS]% of the cases.

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

# 3GPP TSG -T1 Meeting 19 Seoul, Korea 12<sup>th</sup> to 16<sup>th</sup> March 2003

		(	CHANG	E REQ	UES	T			CR-Form-v7
*	34.12	22 CR	168	⊭rev	<b>-</b> 3	€ Cur	rent vers	ion: <b>4.7</b>	<b>1.0</b> #
For <u>HELP</u> on u	sing this	form, see	bottom of th	nis page or	look at	the po	p-up text	over the #	ß symbols.
Proposed change a	affects:	UICC a	pps#	ME	Radio	Acces	s Networ	k Cor	e Network
Title: 第	Additio	on LCR c	ell re-selection	on in PCH,	multi-ce	ell test			
Source: #	Sieme	ns AG							
Work item code: ₩	LCRT	DD					Date: ₩	30/04/20	003
Category:	F ( A   B   C   D   Detailed	correction) correspondaddition of functional ceditorial m	ds to a correct feature), modification o odification) ns of the abou	tion in an ear f feature)		Ü	2 R96 R97 R98 R99 Rel-4	Rel-4 the following (GSM Phase (Release 1: (Release 1: (Release 1: (Release 4: (Release 5; (Release 6)	se 2) 996) 997) 998) 999) )
Reason for change	e: # U	pdates to	reflect latest	version co	re spec	cificatio	n		
Summary of chang	je: 郑 <mark> A</mark>	ddition of	LCR multi-ce	ell reselctio	n cell-P	CH tes	st case		
Consequences if not approved:	₩ Ir	ncomplete	testing, not	reflecting la	itest co	re spec	cification.		
Clauses affected:	₩ 8	.3.5.2							
	Υ	N							
Other specs Affected:	*	Test	core specifi specifications Specification	S	*				
Other comments:	ЖB	ased on c	ore spec 25.	123 clause	s claus	es 5.6.	2.2 and <i>A</i>	A.5.5.2.2	

### How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> 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.

#### 8.3.5.2 Scenario 2: TDD/TDD cell re-selection multi carrier case

# 8.3.5.2.1 Definition and applicability

#### 8.3.5.2.1.1 3,84 Mcps TDD option

The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell , and starts to send the CELL UPDATE message with cause value "cell reselection" in the new cell.

The requirements and this test apply to the 3,84 Mcps option TDD UE.

# 8.3.5.2.1.2 1,28 Mcps TDD option

Void. The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell, and starts to send SYNCH-UL sequence in the UpPTS for sending the RRC CONNECTION REQUEST to perform a CELL UPDATE with cause value "cell reselection".

The requirements and this test apply to the 1,28 Mcps TDD UE.

#### 8.3.5.2.2 Minimum requirement

# 8.3.5.2.2.1 3,84 Mcps TDD option

The cell re-selection delay shall be less than 8 s.

NOTE:

The cell re-selection delay can be expressed as:  $T_{evaluateTDD} + T_{SI}$ , where:

 $T_{evaluateTDD}$  A DRX cycle length of 1280ms is assumed for this test case, this leads to a  $T_{evaluateTDD}$  of 6.4s

according to TS 25.123 [2] table 4.1 in clause 4.2.2.7.

T<sub>SI</sub> Maximum repetition period of relevant system info blocks that needs to be received by the UE to

camp on a cell. 1280 ms is assumed in this test case.

This gives a total of 7.68 s, allow 8s in the test case.

The normative reference for this requirement is TS 25.123 [2] clauses 5.5 and A.5.5.2.

### 8.3.5.2.2.2 3,841,28 Mcps TDD option

Void. The cell re-selection delay shall be less than 8 s.

# NOTE:

The cell re-selection delay can be expressed as: T<sub>evaluateNTDD</sub> + T<sub>SI</sub>, where:

<u>T<sub>evaluateNTDD</sub></u> <u>A DRX cycle length of 1280ms is assumed for this test case, this leads to a T<sub>evaluate TDD</sub> of 6.4s</u>

according to TS 25.123 [2] table 4.1a in clause 4.2.2.

<u>T<sub>SI</sub></u> <u>Time required for receiving all the relevant system information data according to the reception</u>

procedure and the RRC procedure delay of system information blocks defined in 25.331 for a

UTRAN cell (ms). 1280 ms is assumed in this test case.

This gives a total of 7.68 s, allowing 8s in the test case.

The normative reference for this requirement is TS 25.123 [2] clauses 5.5.2 and A.5.5.2.2.

# 8.3.5.2.3 Test purpose

This test verifies that the UE meets the requirement for the cell re-selection delay in CELL\_PCH for the multi carrier case.

8.3.5.2.4 Method of test

8.3.5.2.4.1 3,84 Mcps TDD option

8.3.5.2.4.1.1 Initial conditions

This scenario contains 6 cells and 2 carrier frequencies. The test parameters are given in Tables 8.3.5.2.1.1 and 8.3.5.2.1.2.

Table 8.3.5.2.1.1: General test parameters for Cell Re-selection in Multi carrier case

	Parameter	Unit	Value	Comment
Initial	Active cell		Cell1	
condition	Neighbour cells		Cell2, Cell3,Cell4, Cell5, Cell6	
Final condition	Active cell		Cell2	
HCS			Not used	
UE_TXPWR_MAX_RACH		dBm	21	The value shall be used for all cells in the test.
	Qrxlevmin	dBm	-102	The value shall be used for all cells in the test.
Access Service Class (ASC#0) - Persistence value			1	Selected so that no additional delay is caused by the random access procedure. The value shall be used for all cells in the test.
T <sub>SI</sub>		S	1.28	The value shall be used for all cells in the test.
D	RX cycle length	S	1.28	The value shall be used for all cells in the test.
	T1		30	
	T2	S	15	

Table 8.3.5.2.1.2: Cell re-selection multi carrier multi cell case

Parameter	Unit		Ce	II 1			Се	II 2		Cell 3				
Timeslot Number		C	)	8	3	0 8				(	0		8	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	
UTRA RF Channel Number			Channel 1				Channel 2				Channel 1			
PCCPCH_Ec/lor	dB	-3	-3			-3	-3			-3	-3			
SCH_Ec/Ior	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	
SCH_t <sub>offset</sub>		0	0	0	0	5	5	5	5	10	10	10	10	
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3	
OCNS_Ec/lor	dB	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	
$\hat{I}_{or}/I_{oc}$	dB	6	0	6	0	0	6	0	6	-3	-3	-3	-3	
PCCPCH RSCP	dBm	-67	-73			-73	-67			-76	-76			
Qoffset1 <sub>s,n</sub>	dB			C1, C3:05:0; C1,				C2, C3: 5:0; C2,			1: 0; C3, C3, C5:0;			
Qhyst1 <sub>s</sub>	dB			0			(	)				0		
Treselection	S		(	0			(	)				0		
Sintrasearch	dB		not	sent			not	sent			not	sent		
Sintersearch	dB		not	sent		not sent					not	sent		
			Ce	II 4		Cell 5					Ce	II 6		
Timeslot		0	)	3	3	(	)		В	(	0		8	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	
UTRA RF Channel Number			Char	nel 1		Channel 2			Channel 2					
PCCPCH_Ec/lor	dB	-3	-3			-3 -3				-3	-3			
SCH Ec/lor	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	
SCH_t <sub>offset</sub>		15	15	15	15	20	20	20	20	25	25	25	25	
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3	
OCNS_Ec/lor	dB	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	
$\hat{I}_{or}/I_{oc}$	dB	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	
PCCPCH RSCP	dBm	-76	-76			-76	-76			-76	-76			
Qoffset1 <sub>s,n</sub>	dB	C4, C1: 0; C4, C2:0; C4,C3:0 C4, C5:0; C4, C6:0						C2:0; C5			1: 0; C6, C6, C4:0:			
Qhyst1 <sub>s</sub>	dB			)				)				0	-	
Treselection	S		(	)			(	)				0		
Sintrasearch	dB		not	sent		not sent				not sent				
Sintersearch	dB			sent				sent		İ		sent		
$I_{oc}$	dBm/3, 84 MHz		-70											
Propagation Condition			AWGN											

# 8.3.5.2.4.1.2 Procedure

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the test procedure specified in TS 34.108 [3] subclause 7.4.2.7.1 to place the UE in the CELL\_PCH state on Cell 1 and then the SS waits for this process to complete.
- d) After 15 s from the completion of step c) or the beginning of T1, the parameters are changed as described for T2.
- e) If the UE responds on Cell 2 with a PRACH (CELL UPDATE message cause "cell reselection") within 8s, then a success is recorded, the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure moves to step g).
- f) Since the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T2 and if no response is received, the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues with step g).

- g) After a total of 15 s from the beginning of T2, the parameters are changed as described for T1.
- h) If the UE responds on Cell 1 with a PRACH (CELL UPDATE message cause "cell reselection") within 8s, then a success is recorded and the procedure moves to step j).
- i) Since the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T1 and if no response is received the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues with step j).
- j) Repeat steps d) to i) [TBD] times.
- NOTE 1: T1 is initially 30 s to allow enough time for the UE to search for cells as it has no prior knowledge of these.
- NOTE 2: The time required for receiving all the relevant system information data according to the reception procedure and the RRC procedure delay of system information blocks defined in 25.331 for a UTRAN cell. Since the maximum repetition period of the relevant system info blocks that needs to be received by the UE to camp on a cell is 1280ms and the maximum RRC procedure delay for reception system information block is 100ms, 1380 ms is assumed in this test case. Therefore this gives a total of 7.78s(Minimum requirement + 100ms), allow 8s in the test case.

## RADIO BEARER SETUP (Step 3)

Information Element	Value/remark
RRC State Indicator	CELL PCH
UTRAN DRX cycle length coefficient	7

8.3.5.2.4.2 1,28 Mcps TDD option

8.3.5.2.4.2.1 Initial conditions

Void. This scenario contains 6 cells and 2 carrier frequencies. The test parameters are given in Tables 8.3.5.2.4.2.1 and 8.3.5.2.4.2.2.

Table 8.3.5.2.4.2.1: General test parameters for 1.28Mcps Cell Re-selection in Multi carrier case

Pai	<u>Parameter</u>		<u>Value</u>	Comment
Initial condition	Active cell		<u>Cell1</u>	
	Neighbour cells		Cell2, Cell3, Cell4, Cell5,	
			Cell6	
Final condition	Active cell		Cell2	
	<u>HCS</u>		Not used	
UE_TXPW	R_MAX_RACH	<u>dBm</u>	<u>21</u>	The value shall be used for all cells in
				the test.
<u>Q</u> r	<u>xlevmin</u>	<u>dBm</u>	<u>-103</u>	The value shall be used for all cells in
				the test.
Access Servi	Access Service Class (ASC#0)		<u>1</u>	Selected so that no additional delay is
- Persis	stence value			caused by the random access
				procedure. The value shall be used for
				all cells in the test.
	<u>T<sub>SI</sub></u>	<u>s</u>	<u>1.28</u>	The value shall be used for all cells in
				the test.
DRX o	DRX cycle length		<u>1.28</u>	The value shall be used for all cells in
				the test.
	<u>T1</u>	<u>s</u>	<u>30</u>	
	<u>T2</u>	<u>s</u>	<u>15</u>	

Table 8.3.5.2.4.2.2: Cell re-selection 1.28Mcps multi carrier multi cell case

Parameter	Unit		Ce	<u>II 1</u>			Ce	II 2		Cell 3			
Timeslot Number		(	<u>)</u>	DW	PTS	(	)	DW	PTS	<u>0</u>		DW	PTS
		<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>
UTRA RF Channel			Channel 1			Channel 2			Channel 1				
<u>Number</u>							IIICI Z				<u>IIICI I</u>		
PCCPCH_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>		
DwPCH_Ec/lor	<u>dB</u>			<u>0</u>	<u>0</u>			<u>0</u>	<u>0</u>			<u>0</u>	<u>0</u>
OCNS_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>		
$\hat{I}_{or}/I_{oc}$	<u>dB</u>	<u>10</u>	<u>7</u>	<u>10</u>	<u>7</u>	<u>7</u>	<u>10</u>	<u>7</u>	<u>10</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>
PCCPCH RSCP	<u>dBm</u>	<u>-63</u>	<u>-66</u>			<u>-66</u>	<u>-63</u>			<u>-74</u>	<u>-74</u>		
Qoffset1 <sub>s,n</sub>	dB			C3:0; C			2, C1: 0;				1: 0; C3,		
		<u>(</u>	C1, C5:0:	; C1, C6:	<u>0</u>	<u>C2,C</u>	4:0C2, C	5:0; C2,	C6:0	(	C3, C5:0;	C3, C6:	<u>0</u>
Qhyst1 <sub>s</sub>	<u>dB</u>			<u>0</u>			(	<u>)</u>				<u> </u>	
Treselection	<u>s</u>			<u>0</u>		0						<u> </u>	
<u>Sintrasearch</u>	<u>dB</u>		not	sent		<u>not sent</u>				<u>not sent</u>			
<u>Sintersearch</u>	<u>dB</u>		<u>not sent</u>				<u>not</u>			not sent			
			Cell 4					<u>II 5</u>				<u>II 6</u>	
Timeslot			<u>)</u>	DW		0 DWPTS			<u>0</u> <u>DWPTS</u>				
		<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>
UTRA RF Channel Number			<u>Cha</u>	<u>ınnel</u>		Channel 2			<u>Channel</u>				
PCCPCH_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>		
DwPCH_Ec/lor	<u>dB</u>			<u>0</u>	<u>0</u>			<u>0</u>	<u>0</u>			<u>0</u>	<u>0</u>
OCNS_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>		
$\hat{I}_{or}/I_{oc}$	<u>dB</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>
PCCPCH RSCP	<u>dBm</u>	-74	-74			-74	-74			-74	-74		
Doffoot1		C4, C	1: 0; C4,	C2:0; C4	4,C3:0	C5, C	1: 0; C5,	C2:0; C	5,C3:0	C6, C	1: 0; C6,	C2:0; C	6,C3:0
Qoffset1 <sub>s,n</sub>	<u>dB</u>		C4, C5:0:	C4, C6:	<u>0</u>	(	C5, C4:0;	C5, C6:	<u>0</u>	<u>(</u>	C6, C4:0;	C6, C5:	0
Qhyst1 <sub>s</sub>	<u>dB</u>			<u>0</u>			<u>(</u>	<u>)</u>			(	<u>)</u>	
<u>Treselection</u>	<u>s</u>	<u>0</u>					(	<u>)</u>			(	<u>)</u>	
<u>Sintrasearch</u>	<u>dB</u>	not sent					not				not	<u>sent</u>	
<u>Sintersearch</u>	<u>dB</u>		not	<u>sent</u>			not	<u>sent</u>			not	<u>sent</u>	
$I_{oc}$	<u>dBm/</u> 1.28 MHz		<u>-70</u>										
Propagation Condition			AWGN										

#### 8.3.5.2.4.2.2 Procedure

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the test procedure specified in TS 34.108 [3] subclause 7.4.2.7.1 to place the UE in the CELL PCH state on Cell 1 and then the SS waits for this process to complete.
- d) After 15 s from the completion of step c) or the beginning of T1, the parameters are changed as described for T2.
- e) If the UE responds on Cell 2 with a CELL UPDATE message cause "cell reselection" within 8s, then a success is recorded, the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure moves to step g).
- f) If the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T2 and if no response is received, the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues with step g).
- g) After a total of 15 s from the beginning of T2, the parameters are changed as described for T1.

- h) If the UE responds on Cell 1 with a CELL UPDATE message cause "cell reselection" within 8s, then a success is recorded and the procedure moves to step j).
- i) If the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T1 and if no response is received the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues with step j).
- j) Repeat steps d) to i) [TBD] times.
- NOTE 1: T1 should initially be 30 s to allow enough time for the UE to search for cells as it has no prior knowledge of these.
- NOTE 2: The time required for receiving all the relevant system information data according to the reception procedure and the RRC procedure delay of system information blocks defined in 25.331 for a UTRAN cell. Since the maximum repetition period of the relevant system info blocks that needs to be received by the UE to camp on a cell is 1280ms and the maximum RRC procedure delay for reception system information block is 100ms, 1380 ms is assumed in this test case. Therefore this gives a total of 7.78s(Minimum requirement + 100ms), allow 8s in the test case.

#### **RADIO BEARER SETUP (Step 3)**

Information Element	<u>Value/remark</u>
RRC State Indicator	CELL PCH
UTRAN DRX cycle length coefficient	7

#### 8.3.5.2.5 Test Requirements

# 8.3.5.2.5.1 3,84 Mcps TDD option

For the test to pass, the total number of successful attempts shall be more than 90% with a confidence level of [FFS]% of the cases.

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

#### 8.3.5.2.5.2 1,28 Mcps TDD option

Void. For the test to pass, the total number of successful attempts shall be more than 90% with a confidence level of [FFS]% of the cases.

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

# 3GPP TSG -T1 Meeting 19 Seoul, Korea 12<sup>th</sup> to 16<sup>th</sup> March 2003

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ж	34.122	CR 169	жrev	<b>-</b> # (	Current versio	n: <b>4.7.0</b>	æ		
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the \mathbb{H} symbols.  Proposed change affects: UICC apps\mathbb{H} ME Radio Access Network Core Network									
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Summary of chan	<i>ge:</i>	lition of LCR singl	le cell reselction	n URA PC	H test case				
Consequences if not approved:	₩ Inco	omplete testing, n	ot reflecting late	est core sp	pecification.				
Clauses affected:	₩ 8.3.	6							
Other specs Affected:	Y N	_	ons	×					
Other comments:	₩ Bas	sed on core spec 2	25.123 clauses	clauses 5	.6.2 and A.5.6	ô			

### How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> 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.

# 8.3.6 Cell Re-selection in URA\_PCH

# 8.3.6.1 Scenario 1: TDD/TDD cell re-selection single carrier case

# 8.3.6.1.1 Definition and applicability

#### 8.3.6.1.1.1 3,84 Mcps TDD option

The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell , and starts to send the URA UPDATE message with cause value "change of URA" in the new cell.

The requirements and this test apply to the 3,84 Mcps TDD UE.

## 8.3.6.1.1.2 1,28 Mcps TDD option

Void. The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell, and starts to send the URA UPDATE message with cause value "change of URA" in the new cell.

The requirements and this test apply to the 1,28 Mcps TDD UE. The two cells shall belong to different UTRAN Registration Areas (URAs)

#### 8.3.6.1.2 Minimum requirement

#### 8.3.6.1.2.1 3,84 Mcps TDD option

The cell re-selection delay shall be less than 8 s.

#### NOTE:

The cell re-selection delay can be expressed as:  $T_{evaluateTDD} + T_{SI}$ , where:

T<sub>evaluateTDD</sub> A DRX cycle length of 1280ms is assumed for this test case, this leads to a T<sub>evaluateTDD</sub> of 6.4s

according to TS25.123 [2] table 4.1 in clause 4.2.2.7.

T<sub>SI</sub> Maximum repetition period of relevant system info blocks that needs to be received by the UE to

camp on a cell. 1280 ms is assumed in this test case.

This gives a total of 7.68 s, allow 8s in the test case.

The normative reference for this requirement is TS 25.123 [2] clauses 5.6 and A.5.6.1.

### 8.3.6.1.2.2 1,28 Mcps TDD option

#### Void.

The cell re-selection delay shall be less than 8 s.

#### **NOTE:**

The cell re-selection delay can be expressed as: T<sub>evaluateNTDD</sub> + T<sub>SI</sub>, where:

TevaluateNTDD	A DRX cycle length of 1280ms is assumed for this test case, this leads to a T <sub>evaluate TDD</sub> of 6.4s

according to TS 25.123 [2] table 4.1a in clause 4.2.2.

T<sub>SI</sub> Time required for receiving all the relevant system information data according to the reception procedure and the RRC procedure delay of system information blocks defined in 25.331 for a

UTRAN cell (ms). 1280 ms is assumed in this test case.

This gives a total of 7.68 s, allowing 8s in the test case.

The normative reference for this requirement is TS 25.123 [2] clauses 5.6 and A.5.6.1.

# 8.3.6.1.3 Test purpose

This test verifies that the UE meets the minimum requirement for the cell re-selection delay in URA\_PCH for the single carrier case.

# 8.3.6.1.4 Method of test

8.3.6.1.4.1 3,84 Mcps TDD option

# 8.3.6.1.4.1.1 Initial conditions

This scenario contains 6 cells operating on the same carrier frequency. The test parameters are given in Tables 8.3.6.1.1.1, and 8.3.6.1.1.2.

Table 8.3.6.1.1.1: General test parameters for Cell Re-selection single carrier multi-cell case

	Parameter		Value	Comment		
Initial	Active cell		Cell1			
condition	Neighbour cells		Cell2, Cell3,Cell4, Cell5, Cell6			
Final condition	Active cell		Cell2			
	HCS		Not used			
UE_TX	PWR_MAX_RACH	ACH dBm 21		The value shall be used for all cells in the test.		
	Qrxlevmin	dBm	-102	The value shall be used for all cells in the test.		
	Access Service Class (ASC#0) - Persistence value		1	Selected so that no additional delay is caused by the random access procedure. The value shall be used for all cells in the test.		
	T <sub>SI</sub>		1.28	The value shall be used for all cells in the test.		
DRX cycle length				The value shall be used for all cells in the test.		
	T1	S	15			
	T2	S	15			

Table 8.3.6.1.1.2: Cell re-selection single carrier multi-cell case

Parameter	Unit		Се	II 1			Се	II 2		Cell 3			
Timeslot Number		0	)	8	3	(	)		3	0		3	3
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
UTRA RF Channel Number		Channel 1			Channel 1			Channel 1					
PCCPCH_Ec/lor	dB	-3	-3			-3	-3			-3	-3		
SCH_Ec/Ior	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9
SCH_t <sub>offset</sub>		0	0	0	0	5	5	5	5	10	10	10	10
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3
OCNS_Ec/lor	dB	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12
$\hat{I}_{or}/I_{oc}$	dB	9	7	9	7	7	9	7	9	-1	-1	-1	-1
PCCPCH RSCP	dBm	-64	-66			-66	-64			-74	-74		
Qoffset1 <sub>s,n</sub>	dB			C3:0; C1; C1,C6:0				C3:0; C2; C2; C2, C6:				C2:0; C3; C3; C4;	
Qhyst1 <sub>s</sub>	dB		(	)			(	)			(	)	
Treselection	S		0				0			0			
Sintrasearch	dB		not	sent		not sent			not sent				
			Ce	II 4			Ce	II 5		Cell 6			
Timeslot			)		3	0 8			0 8				
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
UTRA RF Channel Number			Chan	nel 1		Channel 1			Channel 1				
PCCPCH_Ec/lor	dB	-3	-3			-3	-3			-3	-3		
SCH_Ec/lor	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9
SCH_t <sub>offset</sub>		15	15	15	15	20	20	20	20	25	25	25	25
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3
OCNS_Ec/lor	dB	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12
$\hat{I}_{or}/I_{oc}$	dB	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
PCCPCH RSCP	dBm	-74	-74			-74	-74			-74	-74		
Qoffset1 <sub>s,n</sub>	dB			C4, C2:05:0; C4,				C2:0; C5 C5, C6:				C2:0; C6	
Qhyst1 <sub>s</sub>	dB		(	)		0					(	)	
Treselection	S	0					(	)			(	)	
Sintrasearch	dB		not	sent			not	sent			not	sent	
$I_{oc}$	dBm/3, 84 MHz		-70										
Propagation Condition							AW	'GN					

#### 8.3.6.1.4.1.2 Procedure

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the test procedure specified in TS 34.108 [3] subclause 7.4.2.7.2 to place the UE in the URA\_PCH state on Cell 1 and then the SS waits for this process to complete.
- d) After 15 s from the completion of step c) or the beginning of T1, the parameters are changed as described for T2.
- e) If the UE responds on Cell 1 with a PRACH (URA UPDATE message cause "change of URA") within 8s, then a success is recorded, the SS shall transmit a URA UPDATE CONFIRM message and then the procedure moves to step g).
- f) Since the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T2 and if no response is received, the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a URA UPDATE CONFIRM message and then the procedure continues with step g).
- g) After a total of 15 s from the beginning of T2, the parameters are changed as described for T1.

- h) If the UE responds on Cell 1 with a PRACH (URA UPDATE message cause "change of URA") within 8s, then a success is recorded and the procedure moves to step j).
- i) Since the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T1 and if no response is received the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a URA UPDATE CONFIRM message and then the procedure continues with step j).
- j) Repeat steps d) to i) [TBD] times.

NOTE: The time required for receiving all the relevant system information data according to the reception procedure and the RRC procedure delay of system information blocks defined in 25.331 for a UTRAN cell. Since the maximum repetition period of the relevant system info blocks that needs to be received by the UE to camp on a cell is 1280ms and the maximum RRC procedure delay for reception system information block is 100ms, 1380 ms is assumed in this test case. Therefore this gives a total of 7.78s(Minimum requirement + 100ms), allow 8s in the test case.

## RADIO BEARER SETUP (Step 3)

Information Element	Value/remark
RRC State Indicator	URA PCH
UTRAN DRX cycle length coefficient	7

8.3.6.1.4.2 1,28 Mcps TDD option

Void.

8.3.6.1.4.2.1 Initial conditions

This scenario contains 6 cells operating on the same carrier frequency. The test parameters are given in Tables 8.3.6.1.4.2.1, and 8.3.6.1.4.2.2. Cell 1 and Cell 2 shall belong to different UTRAN Registration Areas (URAs).

Table 8.3.6.1.4.2.1: General test parameters for Cell Re-selection single carrier multi-cell case

Pai	rameter	<u>Unit</u>	<u>Value</u>	Comment
Initial condition	Active cell		Cell1	
	Neighbour cells		Cell2, Cell3, Cell4, Cell5,	
			Cell6	
Final condition	Active cell		Cell2	
	<u>HCS</u>		Not used	
<u>UE_TXPW</u>	<u> 'R_MAX_RACH</u>	<u>dBm</u>	<u>21</u>	The value shall be used for all cells in
				the test.
<u>Q</u> r	<u>xlevmin</u>	<u>dBm</u>	<u>-103</u>	The value shall be used for all cells in
				the test.
Access Servi	ce Class (ASC#0)			Selected so that no additional
Persi	stence value		<u>1</u>	delay is caused by the random
				access procedure. The value shall
				be used for all cells in the test.
	T <sub>SI</sub>	<u>s</u>	<u>1.28</u>	The value shall be used for all cells in
				the test.
DRX	cycle length	<u>s</u>	<u>1.28</u>	The value shall be used for all cells in
				the test.
	<u>T1</u>	<u>s</u>	<u>15</u>	
	<u>T2</u>	<u>s</u>	<u>15</u>	

Parameter	Unit		Се	<u>II 1</u>			Се	II 2		Cell 3			
Timeslot Number			0	DW	PTS	(	0 DWPTS			<u>0</u>		DW	PTS
		<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>
UTRA RF Channel Number			Channel 1			Channel 1			<u>Channel 1</u>				
PCCPCH_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	-3			<u>-3</u>	<u>-3</u>		
DwPCH_Ec/lor	dB			<u>0</u>	0			<u>0</u>	0			<u>0</u>	<u>0</u>
OCNS_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>		
$\hat{I}_{or}/I_{oc}$	<u>dB</u>	<u>9</u>	<u>7</u>	<u>9</u>	<u>7</u>	<u>7</u>	<u>9</u>	<u>7</u>	<u>9</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>
PCCPCH RSCP	<u>dBm</u>	<u>-64</u>	<u>-66</u>			<u>-66</u>	<u>-64</u>			<u>-74</u>	<u>-74</u>		
Qoffset1 <sub>s,n</sub>	<u>dB</u>			C3:0; C <sup>2</sup> ); C1,C6:				C3:0; C2; C6;		C3, C1: 0; C3, C2:0; C3,C4:0 C3, C5: 0; C3, C6:0			
Qhyst1 <sub>s</sub>	dB	_		0				0				)	
Treselection	S		0			0				<u>0</u>			
<u>Sintrasearch</u>	<u>dB</u>		<u>not</u>	<u>sent</u>		<u>not sent</u>				not sent			
			Cell 4			Cell 5				Cell 6			
<u>Timeslot</u>			<u>0</u>	DW		0 DWPTS			0 DWPTS				
		<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>
UTRA RF Channel Number			Char	nnel 1		Channel 1			Channel 1				
PCCPCH_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>		
DwPCH_Ec/lor	<u>dB</u>			<u>0</u>	<u>0</u>			<u>0</u>	<u>0</u>			<u>0</u>	<u>0</u>
OCNS_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>		
$\hat{I}_{or}/I_{oc}$	<u>dB</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>
PCCPCH RSCP	<u>dBm</u>	<u>-74</u>	<u>-74</u>			<u>-74</u>	<u>-74</u>			<u>-74</u>	<u>-74</u>		
Qoffset1 <sub>s.n</sub>	<u>dB</u>			C2:0; C4; C4, C6:				C2:0; C5; C6;			1: 0; <mark>C6,</mark> C6, C4:0;		
Qhyst1 <sub>s</sub>	<u>dB</u>		(	<u>0</u>			(	<u>0</u>			(	<u>)</u>	
Treselection	<u>s</u>	<u></u>						<u>0</u>	·			<u>)</u>	
<u>Sintrasearch</u>	<u>dB</u>		not	<u>sent</u>			not	<u>sent</u>			not	<u>sent</u>	
$I_{oc}$	<u>dBm/1.28</u> <u>MHz</u>							<u>70</u>					
Propagation Condition							AW	/GN					

Table 8.3.6.1.4.2.2: Cell re-selection single carrier multi-cell case

#### 8.3.6.1.4.2.2 Procedure

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the test procedure specified in TS 34.108 [3] subclause 7.4.2.7.2 to place the UE in the URA PCH state on Cell 1 and then the SS waits for this process to complete.
- d) After 15 s from the completion of step c) or the beginning of T1, the parameters are changed as described for T2.
- e) If the UE responds on Cell 1 with an URA UPDATE message cause "change of URA" within 8s, then a success is recorded, the SS shall transmit a URA UPDATE CONFIRM message and then the procedure moves to step g).
- f) If the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T2 and if no response is received, the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a URA UPDATE CONFIRM message and then the procedure continues with step g).
- g) After a total of 15 s from the beginning of T2, the parameters are changed as described for T1.
- h) If the UE responds on Cell 1 with a "change of URA" message within 8s, then a success is recorded and the procedure moves to step j).
- i) If the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T1 and if no response is received the UE shall be switched

off and the procedure returns to step a). Otherwise the SS shall transmit a URA UPDATE CONFIRM message and then the procedure continues with step j).

#### j) Repeat steps d) to i) [TBD] times.

NOTE: The time required for receiving all the relevant system information data according to the reception procedure and the RRC procedure delay of system information blocks defined in 25.331 for a UTRAN cell. Since the maximum repetition period of the relevant system info blocks that needs to be received by the UE to camp on a cell is 1280ms and the maximum RRC procedure delay for reception system information block is 100ms, 1380 ms is assumed in this test case. Therefore this gives a total of 7.78s(Minimum requirement + 100ms), allow 8s in the test case.

#### **RADIO BEARER SETUP (Step 3)**

Information Element	<u>Value/remark</u>
RRC State Indicator	<u>URA PCH</u>
UTRAN DRX cycle length coefficient	7

#### 8.3.6.1.5 Test Requirements

#### 8.3.6.1.5.1 3,84 Mcps TDD option

For the test to pass, the total number of successful attempts shall be more than 90% with a confidence level of [FFS]% of the cases.

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

#### 8.3.6.1.5.2 1,28 Mcps TDD option

For the test to pass, the total number of successful attempts shall be more than 90% with a confidence level of [FFS]% of the cases.

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

Void.

# 3GPP TSG -T1 Meeting 19 Seoul, Korea 12<sup>th</sup> to 16<sup>th</sup> March 2003

		CHAN	GE REQ	UEST	•	CR-Form-v7			
*	34.122	CR 170	жrev	#	Current vers	ion: 4.7.0 <sup>ж</sup>			
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the <b>%</b> symbols.									
Proposed change a	affects:	UICC apps第	ME	Radio A	ccess Networ	k Core Network			
Title: ∺	Addition	LCR cell re-sele	ection in URA_I	PCH, mul	ti-cell test				
Source: #	Siemens	AG							
Work item code: ₩	LCRTDD				Date: ₩	30/04/2003			
Category: 米	F (co. A (co B (ad C (fur D (ed Detailed ex	the following cate rection) rresponds to a cordition of feature), actional modification planations of the a 3GPP TR 21.900	rrection in an ear on of feature) ) above categories		2	Rel-4 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)			
Reason for change	: Ж Upd	ates to reflect la	test version co	re specific	cation				
Summary of chang	re:   ## Add	ition of LCR mul	ti cell reselction	uRA_P	CH test case				
Consequences if not approved:	₩ Inco	mplete testing, r	not reflecting la	test core	specification.				
Clauses affected:	₩ 8.3.	6.2							
Other specs Affected:	¥ N	Other core spe Test specificat O&M Specifica	ions	*					
Other comments:	₩ Bas	ed on core spec	25.123 clause	s clauses	5.6.2 and A.5	5.6.2.			

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Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> 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.

#### 8.3.6.2 Scenario 2: TDD/TDD cell re-selection multi carrier case

#### 8.3.6.2.1 Definition and applicability

#### 8.3.6.2.1.1 3,84 Mcps TDD option

The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell , and starts to send the URA UPDATE message with cause value "change of URA" in the new cell.

The requirements and this test apply to the 3,84 Mcps TDD UE.

# 8.3.6.2.1.2 1,28 Mcps TDD option

Void. The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell, and starts to send the URA UPDATE message with cause value "change of URA" in the new cell.

The requirements and this test apply to the 1,28 Mcps TDD UE. The cells shall belong to different UTRAN Registration Areas (URAs)

## 8.3.6.2.2 Minimum requirement

### 8.3.6.2.2.1 3,84 Mcps TDD option

The cell re-selection delay shall be less than 8 s.

NOTE:

The cell re-selection delay can be expressed as:  $T_{evaluateTDD} + T_{SI}$ , where:

T<sub>evaluateTDD</sub> A DRX cycle length of 1280ms is assumed for this test case, this leads to a T<sub>evaluateTDD</sub> of 6.4s

according to TS25.123 [2] table 4.1 in clause 4.2.2.7.

T<sub>SI</sub> Maximum repetition period of relevant system info blocks that needs to be received by the UE to

camp on a cell. 1280 ms is assumed in this test case.

This gives a total of 7.68 s, allow 8s in the test case.

The normative reference for this requirement is TS 25.123 [2] clauses 5.6 and A.5.6.1.

#### 8.3.6.2.2.2 1,28 Mcps TDD option

Void. The cell re-selection delay shall be less than 8 s.

#### NOTE:

The cell re-selection delay can be expressed as: T<sub>evaluateNTDD</sub> + T<sub>SI</sub>, where:

TevaluateNTDD A DRX cycle length of 1280ms is assumed for this test case, this leads to a Tevaluate TDD of 6.4s

according to TS 25.123 [2] table 4.1a in clause 4.2.2.

T<sub>SI</sub> Time required for receiving all the relevant system information data according to the reception

procedure and the RRC procedure delay of system information blocks defined in 25.331 for a

UTRAN cell (ms). 1280 ms is assumed in this test case.

This gives a total of 7.68 s, allowing 8s in the test case.

The normative reference for this requirement is TS 25.123 [2] clauses 5.6.2 and A.5.6.2.1.2

# 8.3.6.2.3 Test purpose

This test verifies that the UE meets the minimum requirement for the cell re-selection delay in URA\_PCH for the  $\frac{\text{single}}{\text{Multiple}}$  carrier case

8.3.6.2.4 Method of test

8.3.6.2.4.1 3,84 Mcps TDD option

8.3.6.2.4.1.1 Initial conditions

This scenario contains 6 cells operating on the same carrier frequency. The test parameters are given in Tables 8.3.6.2.1.1, and 8.3.6.2.1.2.

Table 8.3.6.2.1.1: General test parameters for Cell Re-selection single carrier multi-cell case

F	Parameter	Unit	Value	Comment
Initial	Active cell		Cell1	
condition	Neighbour cells		Cell2, Cell3,Cell4, Cell5, Cell6	
Final condition	Active cell		Cell2	
	HCS		Not used	
UE_TXF	PWR_MAX_RACH	dBm	21	The value shall be used for all cells in the test.
	Qrxlevmin	dBm	-102	The value shall be used for all cells in the test.
Access Service Class (ASC#0) - Persistence value			1	Selected so that no additional delay is caused by the random access procedure. The value shall be used for all cells in the test.
	T <sub>SI</sub>	S	1.28	The value shall be used for all cells in the test.
DRX cycle length		S	1.28	The value shall be used for all cells in the test.
T1		S	15	
	T2	S	15	

Table 8.3.6.2.1.2: Cell re-selection single carrier multi-cell case

Parameter	Unit		Се	II 1		Cell 2				Cell 3				
Timeslot Number		0	)	8	3	(	)		3	0		3	3	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	
UTRA RF Channel Number		Channel 1			Channel 1			Channel 1						
PCCPCH_Ec/lor	dB	-3	-3			-3	-3			-3	-3			
SCH_Ec/Ior	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	
SCH_t <sub>offset</sub>		0	0	0	0	5	5	5	5	10	10	10	10	
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3	
OCNS_Ec/lor	dB	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	
$\hat{I}_{or}/I_{oc}$	dB	9	7	9	7	7	9	7	9	-1	-1	-1	-1	
PCCPCH RSCP	dBm	-64	-66			-66	-64			-74	-74			
Qoffset1 <sub>s,n</sub>	dB			C3:0; C1; C1,C6:0				C3:0; C2; C2; C2, C6:		C3, C1: 0; C3, C2:0; C3,C4:0 C3, C5: 0; C3, C6:0				
Qhyst1 <sub>s</sub>	dB		(	)		0				0				
Treselection	S		0				0				0			
Sintrasearch	dB		not	sent			not	sent		not sent				
			Ce	II 4		Cell 5					Ce	II 6		
Timeslot			)		3	0 8			0 8					
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	
UTRA RF Channel Number			Chan	nel 1		Channel 1			Channel 1					
PCCPCH_Ec/lor	dB	-3	-3			-3	-3			-3	-3			
SCH_Ec/lor	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	
SCH_t <sub>offset</sub>		15	15	15	15	20	20	20	20	25	25	25	25	
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3	
OCNS_Ec/lor	dB	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	-3,12	
$\hat{I}_{or}/I_{oc}$	dB	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
PCCPCH RSCP	dBm	-74	-74			-74	-74			-74	-74			
Qoffset1 <sub>s,n</sub>	dB			C4, C2:05:0; C4,				C2:0; C5 C5, C6:				C2:0; C6		
Qhyst1 <sub>s</sub>	dB	0				0				0				
Treselection	S		(	)		0				(	)			
Sintrasearch	dB		not	sent			not	sent			not	sent		
$I_{oc}$	dBm/3, 84 MHz	-70												
Propagation Condition			AWGN											

#### 8.3.6.2.4.1.2 Procedure

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the test procedure specified in TS 34.108 [3] subclause 7.4.2.7.2 to place the UE in the URA\_PCH state on Cell 1 and then the SS waits for this process to complete.
- d) After 15 s from the completion of step c) or the beginning of T1, the parameters are changed as described for T2.
- e) If the UE responds on Cell 1 with a PRACH (URA UPDATE message cause "change of URA") within 8s, then a success is recorded, the SS shall transmit a URA UPDATE CONFIRM message and then the procedure moves to step g).
- f) Since the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T2 and if no response is received, the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a URA UPDATE CONFIRM message and then the procedure continues with step g).
- g) After a total of 15 s from the beginning of T2, the parameters are changed as described for T1.

- h) If the UE responds on Cell 1 with a PRACH (URA UPDATE message cause "change of URA") within 8s, then a success is recorded and the procedure moves to step j).
- i) Since the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T1 and if no response is received the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a URA UPDATE CONFIRM message and then the procedure continues with step j).
- j) Repeat steps d) to i) [TBD] times.

NOTE: The time required for receiving all the relevant system information data according to the reception procedure and the RRC procedure delay of system information blocks defined in 25.331 for a UTRAN cell. Since the maximum repetition period of the relevant system info blocks that needs to be received by the UE to camp on a cell is 1280ms and the maximum RRC procedure delay for reception system information block is 100ms, 1380 ms is assumed in this test case. Therefore this gives a total of 7.78s (Minimum requirement + 100ms), allow 8s in the test case.

## RADIO BEARER SETUP (Step 3)

Information Element	Value/remark
RRC State Indicator	URA PCH
UTRAN DRX cycle length coefficient	7

# 8.3.6.2.4.2 1,28 Mcps TDD option

Void. 8.3.6.2.4.2.1 Initial conditions

This scenario contains 6 cells operating on the same carrier frequency. The test parameters are given in Tables 8.3.6.2.4.2.1, and 8.3.6.2.4.2.2.

Cell1 and Cell2 shall belong to different UTRAN Registration Areas (URA).

Table A.5.6.7: General test parameters for 1.28Mcps Cell Re-selection in Multi carrier case

Pai	<u>rameter</u>	<u>Unit</u>	<u>Value</u>	Comment
Initial condition	Active cell		<u>Cell1</u>	
	Neighbour cells		Cell2, Cell3, Cell4, Cell5,	
			Cell6	
Final condition	Active cell		Cell2	
	<u>HCS</u>		Not used	
<u>UE_TXPW</u>	<u>'R MAX RACH</u>	<u>dBm</u>	<u>21</u>	The value shall be used for all cells in
				the test.
<u>Qr</u>	<u>xlevmin</u>	<u>dBm</u>	<u>-103</u>	The value shall be used for all cells in
				the test.
Access Servi	ce Class (ASC#0)			Selected so that no additional delay is
- Persis	stence value		<u>1</u>	caused by the random access
				procedure. The value shall be used for
				all cells in the test.
	<u>T<sub>SI</sub></u>	<u>s</u>	<u>1.28</u>	The value shall be used for all cells in
				the test.
DRX o	cycle length	<u>s</u>	<u>1.28</u>	The value shall be used for all cells in
				the test.
	<u>T1</u>	<u>s</u>	<u>30</u>	
	<u>T2</u>	<u>s</u>	<u>15</u>	

0

-1

0

-1

Cell 2 **Parameter** Unit Cell 1 Cell 3 **Timeslot Number DWPTS** 0 **DWPTS** 0 **DWPTS T1** T2 T1 T1 T2 T1 T2 **T2** T1 **T2** T1 T2 UTRA RF Channel Channel 2 Channel 1 Channel 1 Number PCCPCH\_Ec/lor DwPCH\_Ec/lor <u>dB</u> 0 0 0 OCNS\_Ec/lor -3 dB -3 -3 -3 -3 -3  $\hat{I}_{or}/I_{oc}$ dB <u>10</u> 7 <u>10</u> 7 <u>10</u> 7 <u>-1</u> <u>-1</u> <u>-1</u> <u>-1</u> 7 <u>10</u> PCCPCH RSCP dBm <u>-66</u> -66 <del>-63</del> -74 <del>-74</del> <del>-63</del> C3, C1: 0; C3, C2:0; C3,C4:0 C1, C2: 0; C1, C3:0; C1, C4:0 C2, C1: 0; C2, C3:0; Qoffset1<sub>s,n</sub> dB C1, C5:0; C1, C6:0 C2,C4:0C2, C5:0; C2, C6:0 C3, C5:0; C3, C6:0 Qhyst1s dB Treselection 0 0 dB Sintrasearch not sent not sent not sent Sintersearch dB not sent not sent not sent Cell 6 Cell 4 Cell 5 Timeslot **DWPTS DWPTS DWPTS** T1 T1 T1 T2 T1 T2 **T2** T1 T2 T2 UTRA RF Channel Channel Channel 2 Channel Number PCCPCH\_Ec/lor <u>dB</u> <u>-3</u> <u>-3</u> -3 <u>-3</u> <u>-3</u> <u>-3</u>

0

-1

<u>-3</u>

-1

-74

<u>-3</u>

-1

-74

C5, C1: 0; C5, C2:0; C5, C3:0

C5, C4:0; C5, C6:0

0

0

not sent

not sent

-70

**AWGN** 

0

-1

0

-1

-3

-1

-74

-3

-1

-74

C6, C1: 0; C6, C2:0; C6, C3:0

C6, C4:0; C6, C5:0

0

0

not sent

not sent

0

-1

Table A.5.6.8: Cell re-selection 1.28Mcps multi carrier multi cell case

#### 8.3.6.2.4.2.2 Procedure

dB

dB

dB

dBm

dΒ

dB

<u>S</u>

dBm/1.28

MHz

<u>-3</u>

-1

-74

<u>-3</u>

-1

-74

C4, C1: 0; C4, C2:0; C4, C3:0

C4, C5:0; C4, C6:0

0

0

not sent

not sent

DwPCH\_Ec/lor

OCNS\_Ec/lor

 $I_{or}/I_{oc}$ 

PCCPCH RSCP

Qoffset1<sub>s.n</sub>

Qhyst1s

Treselection

Sintrasearch

Sintersearch

 $I_{oc}$ 

**Propagation** 

Condition

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the test procedure specified in TS 34.108 [3] subclause 7.4.2.7.2 to place the UE in the URA PCH state on Cell 1 and then the SS waits for this process to complete.
- d) After 15 s from the completion of step c) or the beginning of T1, the parameters are changed as described for T2.
- e) If the UE responds on Cell 1 with a URA UPDATE message cause "change of URA" within 8s, then a success is recorded, the SS shall transmit a URA UPDATE CONFIRM message and then the procedure moves to step g).
- f) If the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T2 and if no response is received, the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a URA UPDATE CONFIRM message and then the procedure continues with step g).
- g) After a total of 15 s from the beginning of T2, the parameters are changed as described for T1.
- h) If the UE responds on Cell 1 with a URA UPDATE message cause "change of URA" within 8s, then a success is recorded and the procedure moves to step j).

- i) Since the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s from the beginning of T1 and if no response is received the UE shall be switched off and the procedure returns to step a). Otherwise the SS shall transmit a URA UPDATE CONFIRM message and then the procedure continues with step j).
- j) Repeat steps d) to i) [TBD] times.

NOTE: The time required for receiving all the relevant system information data according to the reception procedure and the RRC procedure delay of system information blocks defined in 25.331 for a UTRAN cell. Since the maximum repetition period of the relevant system info blocks that needs to be received by the UE to camp on a cell is 1280ms and the maximum RRC procedure delay for reception system information block is 100ms, 1380 ms is assumed in this test case. Therefore this gives a total of 7.78s (Minimum requirement + 100ms), allow 8s in the test case.

## RADIO BEARER SETUP (Step 3)

Information Element	<u>Value/remark</u>					
RRC State Indicator	URA PCH					
UTRAN DRX cycle length coefficient	7					

# 8.3.6.2.5 Test Requirements

#### 8.3.6.2.5.1 3,84 Mcps TDD option

For the test to pass, the total number of successful attempts shall be more than 90% with a confidence level of [FFS]% of the cases.

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

#### 8.3.6.2.5.2 1,28 Mcps TDD option

#### Void.

For the test to pass, the total number of successful attempts shall be more than 90% with a confidence level of [FFS]% of the cases.

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

# 3GPP TSG -T1 Meeting 19 Seoul, Korea 12<sup>th</sup> to 16<sup>th</sup> May 2003

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								Rel-6	(Release	6)
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Clauses affect	ted:	第 8.3.	4.2							
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Affected:			Test specifi							
			O&M Speci	ncauons						
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### How to create CRs using this form:

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

- 1) Fill out the above form. The symbols above marked \( \mathcal{H} \) 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> 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.

## 8.3.4.2 Scenario 2: TDD/TDD cell re-selection multi carrier case

## 8.3.4.2.1 Definition and applicability

#### 8.3.4.2.1.1 3,84 Mcps TDD option

The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell , and starts to send the CELL UPDATE message with cause value "cell reselection" in the new cell.

The requirements and this test apply to the <u>3.84 Mcps</u> TDD UE.

#### 8.3.4.2.1.2 1,28 Mcps TDD option

Void. The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell, and starts to send SYNCH-UL sequence in the UpPTS for sending the RRC CONNECTION REQUEST to perform a CELL UPDATE with cause value "cell reselection".

The requirements and this test apply to the 1.28 Mcps TDD UE

#### 8.3.4.2.2 Minimum requirement

## 8.3.4.2.2.1 3,84 Mcps TDD option

The cell re-selection delay shall be less than 3 s. The rate of correct cell re-selections observed during repeated tests shall be at least 90%.

The normative reference for this requirement is TS 25.123 [2] clauses 5.4.2 and A.5.4.2.

#### 8.3.4.2.2.2 1,28 Mcps TDD option

Void. The cell re-selection delay shall be less than 2 s. The rate of correct cell re-selections observed during repeated tests shall be at least 90%.

The normative reference for this requirement is TS 25.123 [2] clauses 5.4.3 and A.5.4.2.2.

# 8.3.4.2.3 Test purpose

This test verifies that the UE meets the requirement for the cell re-selection delay in CELL\_FACH for the multi carrier case.

## 8.3.4.2.4 Method of test

#### 8.3.4.2.4.1 3,84 Mcps TDD option

#### 8.3.4.2.4.1.1 Initial conditions

This scenario contains 6 cells and 2 carrier frequencies. The test parameters are given in Tables 8.3.4.2.1.1, 8.3.4.2.1.2, 8.3.4.2.1.3, and 8.3.4.2.1.4.

Table 8.3.4.2.1.1: General test parameters for Cell Re-selection in CELL\_FACH

F	Parameter	Unit	Value	Comment			
Initial	Active cell		Cell1				
condition	Neighbour cells		Cell2, Cell3,Cell4, Cell5, Cell6				
Final condition	Active cell		Cell2				
	HCS		Not used				
UE_TXI	PWR_MAX_RACH	dBm	21	The value shall be used for all cells in the test.			
	Qrxlevmin	dBm	-102	The value shall be used for all cells in the test.			
	Access Service Class (ASC#0) - Persistence value		1	Selected so that no additional delay is caused by the random access procedure. The value shall be used for all cells in the test.			
	T <sub>SI</sub>		1,28	The value shall be used for all cells in the test.			
T1		S	15				
T2		S	15				

Table 8.3.4.2.1.2: Physical channel parameters for S-CCPCH.

Parameter	Unit	Level
Channel bit rate	Kbps	24,4
Channel symbol rate	Ksps	12,2
Slot Format #	-	0
Frame allocation	-	Continuous frame allocation
Midamble allocation	-	Default Midamble

Table 8.3.4.2.1.3: Transport channel parameters for S-CCPCH

Parameter	FACH
Transport Channel Number	1
Transport Block Size	240
Transport Block Set Size	240
Transmission Time Interval	20 ms
Type of Error Protection	Convolutional Coding
Coding Rate	1/2
Rate Matching attribute	256
Size of CRC	16

Table 8.3.4.2.1.4: Cell specific test parameters for Cell Re-selection in CELL\_FACH

Parameter	Unit		Се	II 1		Cell 2				Cell 3				
Timeslot Number		(	)	8	8		0		8		0		8	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	
UTRA RF Channel Number			Channel 1			Channel 2				Channel 1				
PCCPCH_Ec/lor	dB	-3	-3			-3	-3			-3	-3			
SCH_Ec/lor	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	
SCH_t <sub>offset</sub>		0	0	0	0	5	5	5	5	10	10	10	10	
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3	
OCNS_Ec/lor	dB	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	
$\hat{I}_{or}/I_{oc}$	dB	9	3	9	3	3	9	3	9	-1	-1	-1	-1	
PCCPCH RSCP	dBm	-64	-70			-70	-64			-74	-74			
Qoffset1 <sub>s,n</sub>	dB			C3:0; C <sup>2</sup> ); C1,C6		C2, C1: 0; C2, C3:0; C2,C4:0 C2, C5: 0; C2, C6:0				C3, C1: 0; C3, C2:0; C3,C4:0 C3, C5: 0; C3, C6:0				
Qhyst1 <sub>s</sub>	dB		(	0			(	0			(	0		
Treselection		0			0			0						
Sintrasearch	dB		not sent			not sent			not sent					
Sintersearch	dB		not	sent			not	sent		not sent				

FACH measurement			not	sent			not	sent			not	sent		
occasion info			not sent				not sent				HOU	3 <del>0</del> 111		
Inter-frequency TDD														
measurement			TRUE				TR	UE		TRUE				
indicator														
$I_{oc}$	dBm/3, 84 MHz						-	70						
Propagation Condition							ΑW	/GN						
			Ce	II 4			Ce	II 5			Ce	II 6		
Timeslot		(	)		3	(	0		3	(	0	8	8	
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	
UTRA RF Channel			Char	nel 1	l .		Char	nnel 2			Char	nel 2		
Number														
PCCPCH_Ec/lor	dB	-3	-3			-3	-3			-3	-3			
SCH_Ec/lor	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	
SCH_t <sub>offset</sub>		15	15	15	15	20	20	20	20	25	25	25	25	
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3	
OCNS_Ec/lor	dB	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	
$\hat{I}_{or}/I_{oc}$	dB	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
PCCPCH RSCP	dBm	-74	-74			-74	-74			-74	-74			
Qoffset1 <sub>s,n</sub>	dB			C2:0; C4 C4, C6:		C5, C1: 0; C5, C2:0; C5,C3:0 C5, C4:0; C5, C6:0				C6, C1: 0; C6, C2:0; C6,C3:0 C6, C4:0; C6, C5:0				
Qhyst1 <sub>s</sub>	dB			)		0				0				
Treselection			(	)		0					(	)		
Sintrasearch	dB		not	sent		not sent					not	sent		
Sintersearch	dB		not	sent		not sent				not sent				
FACH measurement														
occasion info			not sent				not sent				not sent			
Inter-frequency TDD														
measurement		TRUE				TRUE				TRUE				
indicator														
$I_{oc}$	dBm/3, 84 MHz		-70											
Propagation Condition							AW	/GN						

NOTE: S-CCPCH shall not be located in TS0.

#### 8.3.4.2.4.1.2 Procedure

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the generic set-up procedure specified in TS 34.108 [3] subclauses 7.3.3 and 7.4.2 to place the UE in CELL\_FACH. If the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s and if no response is received the UE shall be switched off and the procedure returns to step 1. Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues
- d) After 15 s, the parameters are changed as described for T2.
- e) The SS waits for CELL UPDATE message with cause value "cell reselection" from the UE.
- f) After another 15 s, the parameters are changed as described for T1. If the UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s and if no response is received the UE shall be switched off and the procedure returns to step 1. Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues
- g) The SS waits for CELL UPDATE message with cause value "cell reselection" from the UE.
- h) Repeat steps d) to g) [TBD] times.

## 8.3.4.2.4.2 1,28 Mcps TDD option

## Void. 8.3.4.2.4.2.1 Initial conditions

This scenario contains 6 cells and 2 carrier frequencies. The test parameters are given in Tables 8.3.4.2.4.2.1, 8.3.4.2.4.2.2, 8.3.4.2.4.2.3, and 8.3.4.2.4.2.4.

Table 8.3.4.2.4.2.1 General test parameters for 1.28Mcps Cell Re-selection in CELL FACH

Para	ameter_	<u>Unit</u>	<u>Value</u>	Comment
initial Active	<u>cell</u>		Cell1	
condition Neighborn	bour cells		Cell2, Cell3,Cell4, Cell5, Cell6	
final Active condition	cell		Cell2	
	<u>ICS</u>		Not used	
<u>UE_TXPWF</u>	R MAX RACH	<u>DBm</u>	<u>21</u>	The value shall be used for all cells in the test.
Qrx	<u>levmin</u>	<u>DBm</u>	<u>-103</u>	The value shall be used for all cells in the test.
Access Service Class (ASC#0) - Persistence value			1	Selected so that no additional delay is caused by the random access procedure. The value shall be used for all cells in the test.
<u>T<sub>SI</sub></u>		<u>S</u>	<u>1.28</u>	The value shall be used for all cells in the test.
	<u>T1</u>	<u>S</u>	<u>15</u>	
	<u>T2</u>	<u>S</u>	<u>15</u>	

# Table 8.3.4.2.4.2.2Physical channel parameters for S-CCPCH.

<u>Parameter</u>	<u>Unit</u>	<u>Level</u>
Channel bit rate	<u>kbps</u>	<u>35.2</u>
Channel symbol rate	<u>ksps</u>	<u>17.6</u>
Slot Format #	=	0; 2
Frame allocation	=	Continuous frame allocation
Midamble allocation	=	Common Midamble

Table 8.3.4.2.4.2.3 Transport channel parameters for S-CCPCH

<u>Parameter</u>	FACH
Transport Channel Number	<u>1</u>
Transport Block Size	240
Transport Block Set Size	<u>240</u>
Transmission Time Interval	20 ms
Type of Error Protection	Convolution Coding
Coding Rate	1/2
Rate Matching attribute	<u>256</u>
Size of CRC	16

Table 8.3.4.2.4: Cell specific test parameters for 1.28Mcps Cell re-selection in CELL\_FACH state

	Parameter	Unit		Ce	II 1		Cell 2				Cell 3			
Tin	neslot Number		(	)		PTS	0 DWPTS				(	)		PTS
			T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
UTI	RA RF Channel			Channel 1										
	Number			<u>Channel 1</u>			<u>Channel 2</u>			<u>Channel 1</u>				
PC	CPCH_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>		
D	wPCH_Ec/lor	<u>dB</u>			<u>0</u>	<u>0</u>			<u>0</u>	0			0	0
<u>C</u>	CNS_Ec/lor	<u>dB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>		
	$\hat{I}_{or}/I_{oc}$	dB	<u>10</u>	<u>4</u>	10	<u>4</u>	<u>4</u>	10	<u>4</u>	10	<u>-1</u>	<u>-1</u>	-1	<u>-1</u>
					<u> </u>	<u> </u>			<u> </u>					
<u> PC</u>	CPCH RSCP	<u>dBm</u>	<u>-63</u>	<u>-69</u>			<u>-69</u>	<u>-63</u>			<u>-74</u>	<u>-74</u>	C2 0 C	2.04.0
	Qoffset1 <sub>s,n</sub>	<u>dB</u>		2: 0; C1, C1, C5:0;			<u>C2, C1</u>	: 0; C2, C C2, C5: 0	C3:0; C2	<u>,C4:0</u>		1: 0; C3,		
						<u>U</u>				<u> </u>	(	<u>C3, C5: 0</u>		<u>0</u>
	Qhyst1 <sub>s</sub>	<u>dBm</u>		(				_	<u>)</u>				<u>)</u>	
	<u>Freselection</u>	<u>s</u>		<u>(</u>	_			<u>(</u>				_	<u>)</u>	
	Sintrasearch	<u>dB</u>		not :				not :				<u>not</u>		
	Sintersearch	<u>dB</u>		<u>not</u> :	sent			<u>not</u> :	sent			<u>not</u>	sent	
	H measurement ccasion info			not :	<u>sent</u>			not :	<u>sent</u>			<u>not</u> :	<u>sent</u>	
	H measurement sion cycle length				<u>4</u>			4	1				<u>4</u>	
	-frequency TDD													
	<u>leasurement</u>			TR	<u>UE</u>			TR	<u>UE</u>			<u>TR</u>	<u>UE</u>	
Intor	indicator -frequency FDD													
	neasurement			FAL	QE.		EALOE				FALCE			
_ <u> </u>	indicator			FAL	<u> </u>		<u>FALSE</u>				<u>FALSE</u>			
	<u>indicator</u>			Ce	II 4		Cell 5				Cell 6			
	Timeslot		(	) <u>Ce</u>	DW	PTS	-	) <u>ce</u>		PTS		<u>0e</u>	DW	PTS
	<u> </u>		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
UTI	RA RF Channel													
	Number			Cha	<u>nnel</u>		<u>Channel 2</u>			<u>Channel</u>				
DC	CPCH_Ec/lor	<u>dB</u>	-3	-3			-3	<u>-3</u>			<u>-3</u>	-3		
		<u>5</u>												
D	wPCH_Ec/lor	dB dB			<u>0</u>	<u>0</u>			<u>0</u>	<u>0</u>			<u>0</u>	<u>0</u>
D			<u>-3</u>	<u>-3</u>	<u>0</u>	<u>0</u>	<u>-3</u>	<u>-3</u>	<u>0</u>	<u>0</u>	<u>-3</u>	<u>-3</u>	<u>0</u>	<u>0</u>
D	wPCH_Ec/lor	<u>dB</u>			<u>0</u> <u>-1</u>	<u>0</u> <u>-1</u>		<u>-3</u>	<u>0</u> -1	<u>0</u> <u>-1</u>	<u>-3</u>		<u>0</u> <u>-1</u>	<u>0</u> <u>-1</u>
<u>D</u>	wPCH_Ec/lor CNS_Ec/lor	dB dB	<u>-3</u>	<u>-3</u>		_	<u>-3</u>		_			<u>-3</u>	_	_
<u>D</u>	wPCH_Ec/lor $\hat{I}_{or}/I_{oc}$ $\hat{C}$ CPCH_RSCP	dB dB dB dBm	-3 -1 -74	-3 -1 -74	<u>-1</u>	<u>-1</u>	<u>-3</u> <u>-1</u> <u>-74</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u> <u>-74</u>	<u>-3</u> <u>-1</u> <u>-74</u>	<u>-1</u>	<u>-1</u>
<u>D</u>	WPCH_Ec/lor CNS_Ec/lor $\hat{I}_{or}/I_{oc}$	<u>dB</u> <u>dB</u> <u>dB</u>	-3 -1 -74	-3 -1 -74 4, C1: 0;	<u>-1</u>	<u>-1</u> 0;	-3 -1 -74 C5, C	<u>-1</u> <u>-74</u> 1: 0; C5,	- <u>1</u>	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, 0	<u>-1</u> C2:0; C6	- <u>1</u> ,C3:0
<u>D</u>	wPCH Ec/lor $\hat{I}_{or}/I_{oc}$ CPCH RSCP  Qoffset1 <sub>s.n</sub>	dB dB dB dBm	-3 -1 -74	-3 -1 -74 -4, C1: 0; 23:0C4, C	<u>-1</u> C4, C2:05:0; C4:	<u>-1</u> 0;	-3 -1 -74 C5, C	<u>-1</u> <u>-74</u> 1: 0; C5, C5, C4:0	- <u>1</u> C2:0; C:	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C6	- <u>1</u> C2:0; C6	- <u>1</u> ,C3:0
<u>D</u>	wPCH_Ec/lor $\hat{I}_{or}/I_{oc}$ $\hat{c}_{CPCH}$ RSCP Qoffset1 <sub>s.n</sub>	dB         dB           dB         dB           dBm         dB	-3 -1 -74	-3 -1 -74 4, C1: 0; 3:0C4, 0	<u>-1</u> C4, C2: C5:0; C4:	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:0	- <u>1</u> C2:0; C: ; C5:C6:0	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C6, C4:0	- <u>1</u> C2:0; C6 ; C6:C5:0	- <u>1</u> ,C3:0
<u>D</u> <u>C</u>	wPCH Ec/lor $\hat{I}_{or}/I_{oc}$ $\hat{C}$ CPCH RSCP  Qoffset1 <sub>s.n</sub> Qhyst1 <sub>s</sub> Treselection	dB         dB           dB         dB           dBm         dB           dB         dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; 3:0C4, C	-1 C4, C2:: C5:0; C4:	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:0	- <u>1</u> C2:0; C: C5:C6:(0)	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0	- <u>1</u> C2:0; C6 ; C6:C5:0	- <u>1</u> ,C3:0
<u>D</u> (C	wPCH Ec/lor $\hat{I}_{or}/I_{oc}$ CPCH RSCP  Qoffset1 <sub>s.n</sub> Qhyst1 <sub>s</sub> Treselection Sintrasearch	dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; 3:0C4, 0	-1 C4, C2: C5:0; C4: D Sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:0; ( not:	-1 C2:0; C: ; C5:C6:0 ) ) sent	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0	-1 C2:0; C6 ; C6:C5:0	- <u>1</u> ,C3:0
PC	wPCH Ec/lor $\hat{I}_{or}/I_{oc}$ CPCH RSCP  Qoffset1 <sub>s.n</sub> Qhyst1 <sub>s</sub> Treselection Sintrasearch Sintersearch	dB         dB           dB         dB           dBm         dB           dB         dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; -3:0C4, C	-1 C4, C2: C5:0; C4: 0 0 sent sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:0: ( ( not:	-1 C2:0; C: ; C5:C6:(0) ) sent sent	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, G C6, C4:0	-1 C2:0; C6 ; C6:C5:0 ) ) sent sent	- <u>1</u> ,C3:0
PC PC	wPCH Ec/lor  CNS Ec/lor $\hat{I}_{or}/I_{oc}$ CPCH RSCP  Qoffset1 <sub>s.n</sub> Qhyst1 <sub>s</sub> Treselection Sintrasearch Sintersearch H measurement ccasion info	dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; 3:0C4, 0	-1 C4, C2: C5:0; C4: 0 0 sent sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:0; ( not:	-1 C2:0; C: ; C5:C6:(0) ) sent sent	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0	-1 C2:0; C6 ; C6:C5:0 ) ) sent sent	- <u>1</u> ,C3:0
PC PC FAC	wPCH Ec/lor  CNS Ec/lor $\hat{I}_{or}/I_{oc}$ CPCH RSCP  Qoffset1 <sub>s.n</sub> Qhyst1 <sub>s</sub> Treselection Sintrasearch H measurement ccasion info H measurement	dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; -3:0C4, C 	-1 C4, C2:( C5:0; C4: 0 0 sent sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:00 ( not:	-1 C2:0; C: C5:C6:0 0 0 sent sent	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C6, C6, C4:0 (C6, C4:0) (C6, C4:0)	-1 C2:0; C6 ; C6:C5:0 D Sent Sent	- <u>1</u> ,C3:0
PC P	wPCH Ec/lor  CNS Ec/lor  \hat{I}_{or}/I_{oc}  CPCH RSCP  Qoffset1_s.n  Qhyst1_s  Treselection Sintrasearch Sintersearch H measurement ccasion info H measurement sion cycle length	dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; -3:0C4, C 	-1 C4, C2: C5:0; C4: 0 0 sent sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:00 ( not:	-1 C2:0; C: ; C5:C6:(0) ) sent sent	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C6, C6, C4:0 (C6, C4:0) (C6, C4:0)	-1 C2:0; C6 ; C6:C5:0 ) ) sent sent	- <u>1</u> ,C3:0
PC P	wPCH Ec/lor  CNS Ec/lor $\hat{I}_{or}/I_{oc}$ CPCH RSCP  Qoffset1 <sub>s.n</sub> Qhyst1 <sub>s</sub> Treselection Sintrasearch Sintersearch H measurement ccasion info H measurement sion cycle length -frequency TDD	dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; -3:0C4, C 	-1 C4, C2: C5:0; C4: D Sent Sent Sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:0: (0 not:	-1 C2:0; C: C5:C6:0 D Sent Sent	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0 (0 not not not not not not not not not not	-1 C2:0; C6 ; C6:C5:0 D Sent Sent Sent	- <u>1</u> ,C3:0
PC P	wPCH Ec/lor  CNS Ec/lor  \hat{I}_{or}/I_{oc}  CPCH RSCP  Qoffset1_s.n  Qhyst1_s  Treselection Sintrasearch Sintersearch H measurement ccasion info H measurement sion cycle length frequency TDD leasurement	dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; -3:0C4, C 	-1 C4, C2: C5:0; C4: D Sent Sent Sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:00 ( not:	-1 C2:0; C: C5:C6:0 D Sent Sent	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C6, C6, C4:0 (C6, C4:0) (C6, C4:0)	-1 C2:0; C6 ; C6:C5:0 D Sent Sent Sent	- <u>1</u> ,C3:0
PC P	wPCH Ec/lor  CNS Ec/lor  \hat{I}_{or}/I_{oc}  CPCH RSCP  Qoffset1_s.n  Qhyst1_s  Treselection Sintrasearch H measurement ccasion info H measurement sion cycle length frequency TDD measurement indicator	dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; -3:0C4, C 	-1 C4, C2: C5:0; C4: D Sent Sent Sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:0: (0 not:	-1 C2:0; C: C5:C6:0 D Sent Sent	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0 (0 not not not not not not not not not not	-1 C2:0; C6 ; C6:C5:0 D Sent Sent Sent	- <u>1</u> ,C3:0
PC  PC  FAC  Occa  Inter  Inter	wPCH Ec/lor  CNS Ec/lor  \hat{I}_{or}/I_{oc}  CPCH RSCP  Qoffset1_s.n  Qhyst1_s  Treselection Sintrasearch Sintersearch H measurement ccasion info H measurement sion cycle length -frequency TDD neasurement indicator -frequency FDD	dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; 3:0C4, 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-1 C4, C2: C5:0; C4: D Sent Sent Sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:0: (0) not: not:	-1 C2:0; C: C5:C6:0 ) ) sent sent 4 UE	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0 ( not : not :	-1 C2:0; C6 ; C6:C5:0 D sent sent sent	- <u>1</u> ,C3:0
PC  PC  FAC  Occa  Inter  Inter	wPCH Ec/lor  CNS Ec/lor  \hat{I}_{or}/I_{oc}  CPCH RSCP  Qoffset1_s.n  Qhyst1_s  Treselection Sintrasearch Sintersearch H measurement ccasion info H measurement sion cycle length -frequency TDD neasurement indicator -frequency FDD neasurement	dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; -3:0C4, C 	-1 C4, C2: C5:0; C4: D Sent Sent Sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:0: (0 not:	-1 C2:0; C: C5:C6:0 ) ) sent sent 4	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0 ( not : not :	-1 C2:0; C6 ; C6:C5:0 D Sent Sent Sent	- <u>1</u> ,C3:0
PC  PC  FAC  Occa  Inter  Inter	wPCH_Ec/lor  CNS_Ec/lor  \hat{I}_{or}/I_{oc}  CPCH_RSCP  Qoffset1_s.n  Qhyst1_s  Treselection Sintrasearch Sintersearch H measurement ccasion info H measurement sion cycle length -frequency TDD measurement indicator -frequency FDD measurement indicator -frequency FDD measurement indicator measurement indicator	dB dB dB dB s dB dB dB dB dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; 3:0C4, 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-1 C4, C2: C5:0; C4: D Sent Sent Sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:00 (C5, C5, C4:00 (C5, C5, C4:00 (C5, C4:0	-1 C2:0; C: C5:C6:0 D Sent Sent UE UE	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0 ( not : not :	-1 C2:0; C6 ; C6:C5:0 D sent sent sent	- <u>1</u> ,C3:0
PC  PC  FAC  occa  Inter  Inter	wPCH Ec/lor  CNS Ec/lor  \hat{I}_{or}/I_{oc}  CPCH RSCP  Qoffset1_s.n  Qhyst1_s  Treselection Sintrasearch Sintersearch H measurement ccasion info H measurement sion cycle length -frequency TDD neasurement indicator -frequency FDD neasurement	dB   dB   dB   dB   dB   dB   dB   dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; 3:0C4, C 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-1 C4, C2: C5:0; C4: D Sent Sent Sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:00 (C5, C5, C4:00 (C5, C5, C4:00 (C5, C4:0	-1 C2:0; C: C5:C6:0 ) ) sent sent 4	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0 ( not : not :	-1 C2:0; C6 ; C6:C5:0 D sent sent sent	- <u>1</u> ,C3:0
PC  PC  FAC  occa  Inter  Inter	wPCH_Ec/lor  CNS_Ec/lor  \$\hat{I}_{or}/I_{oc}\$  CPCH_RSCP  Qoffset1_s.n  Qhyst1_s  Treselection Sintrasearch Sintersearch H measurement ccasion info H measurement sion cycle length -frequency TDD neasurement indicator -frequency FDD neasurement indicator	dB dB dB dB s dB dB dB dB dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; 3:0C4, C 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-1 C4, C2: C5:0; C4: D Sent Sent Sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:00 (C5, C5, C4:00 (C5, C5, C4:00 (C5, C4:0	-1 C2:0; C: C5:C6:0 D Sent Sent UE UE	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0 ( not : not :	-1 C2:0; C6 ; C6:C5:0 D sent sent sent	- <u>1</u> ,C3:0
PC  PC  FAC  occa  Inter  Inter	wPCH_Ec/lor  CNS_Ec/lor  \hat{I}_{or}/I_{oc}  CPCH_RSCP  Qoffset1_s.n  Qhyst1_s  Treselection Sintrasearch Sintersearch H measurement ocasion info H measurement sion cycle length -frequency TDD neasurement indicator -frequency FDD neasurement indicator  I_{oc}  Propagation	dB   dB   dB   dB   dB   dB   dB   dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; 3:0C4, C 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-1 C4, C2: C5:0; C4: D Sent Sent Sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:00 (C5, C5, C4:00 (C5, C5, C4:00 (C5, C4:0	-1 C2:0; C: C5:C6:0 D Sent Sent Sent UE	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0 ( not : not :	-1 C2:0; C6 ; C6:C5:0 D sent sent sent	- <u>1</u> ,C3:0
PC  PC  FAC  occa  Inter  Inter	wPCH_Ec/lor  CNS_Ec/lor  \$\hat{I}_{or}/I_{oc}\$  CPCH_RSCP  Qoffset1_s.n  Qhyst1_s  Treselection Sintrasearch Sintersearch H measurement ccasion info H measurement sion cycle length -frequency TDD neasurement indicator -frequency FDD neasurement indicator	dB   dB   dB   dB   dB   dB   dB   dB	-3 -1 -74	-3 -1 -74 -4, C1: 0; 3:0C4, C 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-1 C4, C2: C5:0; C4: D Sent Sent Sent	<u>-1</u> 0;	-3 -1 -74 C5, C	-1 -74 1: 0; C5, C5, C4:0: G not: not: TR FAL	-1 C2:0; C: C5:C6:0 D Sent Sent Sent UE	- <u>1</u> 5,C3:0	- <u>1</u> - <u>74</u> <u>C6, C1</u>	-3 -1 -74 : 0; C6, C C6, C4:0 ( not : not :	-1 C2:0; C6 ; C6:C5:0 D sent sent sent	- <u>1</u> ,C3:0

Note: S-CCPCH is located in an other downlink TS than TS0...

#### 8.3.4.2.4.2.2 Procedure

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the generic set-up procedure specified in TS 34.108 [3] subclauses 7.3.3 7.4.2 to place the UE in CELL\_FACH.
- d) After 15 s, the parameters are changed as described for T2.
- e) The SS waits for CELL UPDATE message with cause value "cell reselection" from the UE. If the
- <u>UE</u> has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of
- 15s and if no response is received the UE shall be switched off and the procedure returns to step 1. Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues
- f) After another 15 s, the parameters are changed as described for T1.
- g) The SS waits for CELL UPDATE message with cause value "cell reselection" from the UE. If the
- UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s and if no response is received the UE shall be switched off and the procedure returns to step 1. Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues
- h) Repeat steps d) to g) [TBD] times.

#### 8.3.4.2.5 Test Requirements

# 8.3.4.2.5.1 3,84 Mcps TDD option

- 1) In step d), after the UE has responded on cell 1, it shall not respond on any other cell (cell selection).
- 2) In step e), the UE shall respond on cell 1 within 3 s.
- 3) In step g), the UE shall respond on cell 2 within 3 s.

For the test to pass, the total number of fulfilled test requirements 2) and 3) shall be more than [FFS]% of the cases.

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

# 8.3.4.2.5.2 1,28 Mcps TDD option

- Void.1) In step d), after the UE has responded on cell 1, it shall not respond on any other cell (cell selection).
- 2) In step e), the UE shall respond on cell 1 within 2 s.
- 3) In step g), the UE shall respond on cell 2 within 2 s.

For the test to pass, the total number of fulfilled test requirements 2) and 3) shall be more than [FFS]% of the cases.

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

# 3GPP TSG -T1 Meeting 19 Seoul, Korea 12<sup>th</sup> to 16<sup>th</sup> May 2003

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### How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <a href="http://www.3gpp.org/specs/CR.htm">http://www.3gpp.org/specs/CR.htm</a>. 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 <a href="ftp://ftp.3gpp.org/specs/">ftp://ftp.3gpp.org/specs/</a> 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.

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# 8.3.4 Cell Re-selection in CELL\_FACH

## 8.3.4.1 Scenario 1: TDD/TDD cell re-selection single carrier case

### 8.3.4.1.1 Definition and applicability

#### 8.3.4.1.1.1 3,84 Mcps TDD option

The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell , and starts to send the CELL UPDATE message with cause value "cell reselection" in the new cell.

The requirements and this test apply to the 3,84 Mcps TDD UE.

#### 8.3.4.1.1.2 1,28 Mcps TDD option

Void. The cell re-selection delay is defined as the time from a change of cell levels to the moment when this change causes the UE to camp on a new cell, and starts to send SYNCH-UL sequence in the UpPTS for sending the RRC CONNECTION REQUEST to perform a CELL UPDATE with cause value "cell reselection".

The requirements and this test apply to the 1.28 Mcps TDD UE.

### 8.3.4.1.2 Minimum requirement

### 8.3.4.1.2.1 3,84 Mcps TDD option

The cell re-selection delay shall be less than 2.5 s. The rate of correct cell re-selections observed during repeated tests shall be at least 90%.

The normative reference for this requirement is TS 25.123 [2] clauses 5.4.2 and A.5.4.1.

### 8.3.4.1.2.2 1,28 Mcps TDD option

Void. The cell re-selection delay shall be less than 1.6s. The rate of correct cell re-selections observed during repeated tests shall be at least 90%.

The normative reference for this requirement is TS 25.123 [2] clauses 5.4.3 and A.5.4.2.

## 8.3.4.1.3 Test purpose

This test verifies that the UE meets the minimum requirement for the cell re-selection delay in CELL\_FACH for the single carrier case

#### 8.3.4.1.4 Method of test

#### 8.3.4.1.4.1 3,84 Mcps TDD option

#### 8.3.4.1.4.1.1 Initial conditions

This scenario contains 6 cells operating on the same carrier frequency. The test parameters are given in Tables 8.3.4.1.1.1, 8.3.4.1.1.2, 8.3.4.1.1.3, and 8.3.4.1.1.4.

Table 8.3.4.1.1.1: General test parameters for Cell Re-selection in CELL\_FACH

	Parameter	Unit	Value	Comment
Initial	Active cell		Cell1	
condition	Neighbour cells		Cell2, Cell3,Cell4, Cell5, Cell6	
Final condition	Active cell		Cell2	
	HCS		Not used	
UE_TX	PWR_MAX_RACH	dBm	21	The value shall be used for all cells in the test.
	Qrxlevmin	dBm	-102	The value shall be used for all cells in the test.
	Access Service Class (ASC#0) - Persistence value		1	Selected so that no additional delay is caused by the random access procedure. The value shall be used for all cells in the test.
	T <sub>SI</sub>	S	1,28	The value shall be used for all cells in the test.
	T1	S	15	
	T2	S	15	

Table 8.3.4.1.1.2: Physical channel parameters for S-CCPCH.

Parameter	Unit	Level
Channel bit rate	Kbps	24,4
Channel symbol rate	Ksps	12,2
Slot Format #	-	0
Frame allocation	-	Continuous frame allocation
Midamble allocation	-	Default Midamble

Table 8.3.4.1.1.3: Transport channel parameters for S-CCPCH

Parameter	FACH
Transport Channel Number	1
Transport Block Size	240
Transport Block Set Size	240
Transmission Time Interval	20 ms
Type of Error Protection	Convolutional Coding
Coding Rate	1/2
Rate Matching attribute	256
Size of CRC	16

Table 8.3.4.1.1.4: Cell specific test parameters for Cell Re-selection in CELL\_FACH

Parameter	Unit		Cell 1				Cell 2			Cell 3			
Timeslot Number		(	)	8	3	(	0		3	(	0	8	3
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
UTRA RF Channel Number			Channel 1		Channel 1			Channel 1					
PCCPCH_Ec/lor	dB	-3	-3			-3	-3			-3	-3		
SCH_Ec/lor	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9
SCH_t <sub>offset</sub>		0	0	0	0	5	5	5	5	10	10	10	10
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3
OCNS_Ec/lor	dB	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28
$\hat{I}_{or}/I_{oc}$	dB	9	7	9	7	7	9	7	9	-1	-1	-1	-1
PCCPCH RSCP	dBm	-64	-66			-66	-64			-74	-74		
Qoffset1 <sub>s,n</sub>	dB		C1, C2: 0; C1, C3:0; C1,C4:0 C1, C5:0; C1,C6:0			C2, C1: 0; C2, C3:0; C2,C4:0 C2, C5: 0; C2, C6:0				C3, C1: 0; C3, C2:0; C3,C4:0 C3, C5: 0; C3, C6:0			
Qhyst1 <sub>s</sub>	dB		0				(	0		0			
Treselection			0			0			0				
Sintrasearch	dB		not	sent			not	sent		not sent			

FACH measurement occasion info			not sent				not sent				not sent		
$I_{oc}$	dBm/3, 84 MHz		-70										
Propagation Condition							AW	/GN					
			Ce	II 4			Ce	ell 5			Ce	II 6	
Timeslot		(	0		3	(	0		В	(	0		В
		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
UTRA RF Channel Number			Char	nel 1			Char	nnel 1			Char	nnel 1	
PCCPCH Ec/lor	dB	-3	-3			-3	-3			-3	-3		
SCH Ec/lor	dB	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9
SCH_t <sub>offset</sub>		15	15	15	15	20	20	20	20	25	25	25	25
PICH_Ec/lor	dB			-3	-3			-3	-3			-3	-3
OCNS_Ec/lor	dB	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28	-4,28
$\hat{I}_{or}/I_{oc}$	dB	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
PCCPCH RSCP	dBm	-74	-74			-74	-74			-74	-74		
Qoffset1 <sub>s,n</sub>	dB		1: 0; C4, C4, C5:0;			C5, C1: 0; C5, C2:0; C5,C3:0 C5, C4:0; C5, C6:0			C6, C1: 0; C6, C2:0; C6,C3:0 C6, C4:0; C6, C5:0				
Qhyst1 <sub>s</sub>	dB		(	)			(	0			(	0	
Treselection			(	)			(	0			(	0	
Sintrasearch	dB		not	sent			not	sent			not	sent	
FACH measurement occasion info		not sent not sent not sent											
$I_{oc}$	dBm/3, 84 MHz		-70										
Propagation Condition							AW	/GN					

Note: S-CCPCH shall not be located in TS0.

### 8.3.4.1.4.1.2 Procedure

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the generic set-up procedure specified in TS 34.108 [3] subclauses 7.3.3 and 7.4.2 to place the UE in CELL FACH.
- d) After 15 s, the parameters are changed as described for T2.
- e) The SS waits for CELL UPDATE message with cause value "cell reselection" from the UE. If the

UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15 s and if no response is received the UE shall be switched off and the procedure returns to step 1. Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues

- f) After another 15 s, the parameters are changed as described for T1.
- g) The SS waits for CELL UPDATE message with cause value "cell reselection" from the UE. If the

<u>UE has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15 s and if no response is received the UE shall be switched off and the procedure returns to step 1. Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues</u>

h) Repeat steps d) to g) [TBD] times.

8.3.4.1.4.2 1,28 Mcps TDD option

8.3.4.1.4.2.1 Initial conditions

This scenario contains 6 cells operating on the same carrier frequency. The test parameters are given in Tables 8.3.4.1.4.2.1, 8.3.4.1.4.2.2, 8.3.4.1.4.2.3, and 8.3.4.1.4.2.4.

Table 8.3.4.1.4.2.1: General test parameters for 1.28 Mcps Cell Re-selection in CELL\_FACH

	Parameter	Unit	Value	Comment
<u>initial</u>	Active cell		Cell1	
condition	Neighbour cells		Cell2, Cell3,Cell4, Cell5, Cell6	
final condition	Active cell		Cell2	
	<u>HCS</u>		Not used	
<u>UE_</u>	TXPWR MAX RACH	<u>dBm</u>	<u>21</u>	The value shall be used for all cells in the test.
	<u>Qrxlevmin</u>	<u>dBm</u>	<u>-103</u>	The value shall be used for all cells in the test.
	s Service Class (ASC#0) Persistence value		1	Selected so that no additional delay is caused by the random access procedure. The value shall be used for all cells in the test.
	<u>Tsı</u>	<u>s</u>	1.28	The value shall be used for all cells in the test.
	<u>T1</u>	<u>s</u>	<u>15</u>	
	<u>T2</u>	<u>s</u>	<u>15</u>	

Table 8.3.4.1.4.2.2: Physical channel parameters for S-CCPCH.

<u>Parameter</u>	<u>Unit</u>	<u>Level</u>
Channel bit rate	<u>kbps</u>	<u>35.2</u>
Channel symbol rate	<u>ksps</u>	<u>17.6</u>
Slot Format #	_	0; 2
Frame allocation	=	Continuous frame allocation
Midamble allocation	_	Common Midamble

Table 8.3.4.1.4.2.3: Transport channel parameters for S-CCPCH

Parameter	FACH
Transport Channel Number	<u>1</u>
Transport Block Size	<u>240</u>
Transport Block Set Size	<u>240</u>
Transmission Time Interval	<u>20 ms</u>
Type of Error Protection	Convolution Coding
Coding Rate	1/2
Rate Matching attribute	<u>256</u>
Size of CRC	<u>16</u>

Table 8.3.4.1.4.2.4: Cell specific test parameters for 1.28 Mcps Cell Re-selection in CELL\_FACH

Parameter	<u>Unit</u>	nit Cell 1					Cell 2				Cell 3			
<u>Timeslot Numbe</u>	<u>er</u>	<u>0</u> <u>DWPTS</u>		<u>0</u> <u>DWPTS</u>			<u>0</u> <u>DWPTS</u>							
		<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	<u>T1</u>	<u>T2</u>	
UTRA RF Chann Number		Channel 1				Channel 1				Channel 1				
PCCPCH_Ec/lo		<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			
DwPCH_Ec/lor	<u>DB</u>			<u>0</u>	<u>0</u>			0	<u>0</u>			<u>0</u>	<u>0</u>	
OCNS_Ec/lor	<u>DB</u>	<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			<u>-3</u>	<u>-3</u>			
$\hat{I}_{or}/I_{oc}$	<u>DB</u>	<u>9</u>	<u>7</u>	<u>9</u>	<u>7</u>	<u>7</u>	<u>9</u>	<u>7</u>	<u>9</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	
PCCPCH RSCF	<u>DBm</u>	<u>-64</u>	<u>-66</u>			<u>-66</u>	<u>-64</u>			<u>-74</u>	<u>-74</u>			
Qoffset1 <sub>s,n</sub>	<u>DB</u>	<u>C1, C2: 0; C1, C3:0; C1,C4:0</u> <u>C1, C5:0; C1,C6:0</u>				C2, C1: 0; C2, C3:0; C2, C4:0 C2, C5: 0; C2, C6:0				C3, C1: 0; C3, C2:0; C3,C4:0 C3, C5: 0; C3, C6:0				
Qhyst1 <sub>s</sub>	DB	0				0				0				
Treselection		0				0				0				
Sintrasearch	DB	DB not sent				not sent				not sent				
FACH measurement occasion info	ent	not sent				not sent				not sent				
<u>occasion inio</u>		Cell 4				Cell 5				Cell 6				
Timeslot		0 DWPTS			0 DWPTS				0 DWPTS					
Timodot		T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	
UTRA RF Chann Number	<u>el</u>	Channel 1			Channel 1				Channel 1					
PCCPCH Ec/lo	r DB	-3	-3			-3	-3			-3	-3			
DwPCH_Ec/lor				0	0			0	0			0	0	
OCNS_Ec/lor	DB	-3	<u>-3</u>	_		<u>-3</u>	<u>-3</u>		_	-3	-3	_	_	
$\hat{I}_{or}/I_{oc}$	DB	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	<u>-1</u>	
PCCPCH RSCF	DBm	-74	-74			-74	-74			-74	-74			
Qoffset1 <sub>s,n</sub>	DB	DB C4, C1: 0; C4, C2:0; C4,C3:0 C4, C5:0; C4, C6:0			C5, C1: 0; C5, C2:0; C5,C3:0 C5, C4:0; C5, C6:0				C6, C1: 0; C6, C2:0; C6,C3:0 C6, C4:0; C6, C5:0					
Qhyst1 <sub>s</sub>	<u>DB</u>	<u>0</u>				<u>0</u>				<u>0</u>				
Treselection		<u>0</u>			<u>0</u>				<u>0</u>					
<u>\$intrasearch</u>		DB <u>not sent</u>				<u>not sent</u>				not sent				
FACH measurement occasion info	<u>ent</u>	not sent			not sent				<u>not sent</u>					
$I_{oc}$	DBm/1. 28 MHz	<u>-70</u>												
Propagation Condition		AWGN												

Note: S-CCPCH is located in an other downlink TS than TS0. Void.

# 8.3.4.1.4.2.2 Procedure

- a) The SS activates cell 1-6 with T1 defined parameters.
- b) The UE is switched on.
- c) A call is set up according to the generic set-up procedure specified in TS 34.108 [3] subclause s 7.3.3 and 7.4.2 to place the UE in CELL\_FACH.
- d) After 15 s, the parameters are changed as described for T2.
- e) The SS waits for CELL UPDATE message with cause value "cell reselection" from the UE. If the

<u>UE</u> has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15s and if no response is received the UE shall be switched off and the procedure returns to step 1. Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues

f) After another 15 s, the parameters are changed as described for T1.

f) g) The SS waits for CELL UPDATE message with cause value "cell reselection" from the UE. If the

<u>UE</u> has failed to respond with the correct message within the allowed time, a failure is recorded. The SS shall then wait for a total of 15 s and if no response is received the UE shall be switched off and the procedure returns to step 1. Otherwise the SS shall transmit a CELL UPDATE CONFIRM message and then the procedure continues

h) Repeat steps d) to g) [TBD] times.

# 8.3.4.1.5 Test Requirements

# 8.3.4.1.5.1 3,84 Mcps TDD option

- 1) In step d), after the UE has responded on cell 1, it shall not respond on any other cell (cell selection).
- 2) In step e), the UE shall respond on cell 2 within 2.5 s.
- 3) In step g), the UE shall respond on cell 1 within 2.5 s.

For the test to pass, the total number of fulfilled test requirements 2) and 3) shall be more than [FFS]% of the cases.

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.

#### 8.3.4.1.5.2 1,28 Mcps TDD option

#### Void.

- 1) In step d), after the UE has responded on cell 1, it shall not respond on any other cell (cell selection).
- 2) In step e), the UE shall respond on cell 2 within 1.6 s.
- 3) In step g), the UE shall respond on cell 1 within 1.6 s.

For the test to pass, the total number of fulfilled test requirements 2) and 3) shall be more than [FFS]% of the cases,

NOTE: If the above Test Requirement differs from the Minimum Requirement then the Test Tolerance applied for this test is non-zero. The Test Tolerance for this test is defined in clause F.2 and the explanation of how the Minimum Requirement has been relaxed by the Test Tolerance is given in clause F.4.