TSG-RAN Meeting #16
Marco Island, FL, USA, 4 - 7 June 2002

RP-020334

Title: **Agreed CRs (Release '99 and Rel-4/Rel-5 category A) to TS 25.331 (5)**

Source: **TSG-RAN WG2**

Agenda item: **7.2.3**

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Version	Versio
R2-021351	agreed	25.331	1445		R99	Layer 3 retransmission of SIGNALLING CONNECTION RELEASE INDICATION	F	3.10.0	3.11.0
R2-021352	agreed	25.331	1446		Rel-4	Layer 3 retransmission of SIGNALLING CONNECTION RELEASE INDICATION	A	4.4.0	4.5.0
R2-021353	agreed	25.331	1447		Rel-5	Layer 3 retransmission of SIGNALLING CONNECTION RELEASE INDICATION	A	5.0.0	5.1.0
R2-021354	agreed	25.331	1448		R99	Alignment of tabular and ASN.1 for UTRAN GPS timing of cell frames resolution	F	3.10.0	3.11.0
R2-021355	agreed	25.331	1449		Rel-4	Alignment of tabular and ASN.1 for UTRAN GPS timing of cell frames resolution	A	4.4.0	4.5.0
R2-021356	agreed	25.331	1450		Rel-5	Alignment of tabular and ASN.1 for UTRAN GPS timing of cell frames resolution	A	5.0.0	5.1.0
R2-021357	agreed	25.331	1451		R99	Correction to Default Radio Configuration Timers	F	3.10.0	3.11.0
R2-021358	agreed	25.331	1452		Rel-4	Correction to Default Radio Configuration Timers	A	4.4.0	4.5.0
R2-021359	agreed	25.331	1453		Rel-5	Correction to Default Radio Configuration Timers	A	5.0.0	5.1.0
R2-021360	agreed	25.331	1454		R99	Clarification to number of L3 filters	F	3.10.0	3.11.0
R2-021361	agreed	25.331	1455		Rel-4	Clarification to number of L3 filters	A	4.4.0	4.5.0
R2-021362	agreed	25.331	1456		Rel-5	Clarification to number of L3 filters	A	5.0.0	5.1.0
R2-021474	agreed	25.331	1457	1	R99	Correction to 3G to 2G Inter-RAT handover for multi-domain RABs	F	3.10.0	3.11.0
R2-021475	agreed	25.331	1458	1	Rel-4	Correction to 3G to 2G Inter-RAT handover for multi-domain RABs	A	4.4.0	4.5.0
R2-021476	agreed	25.331	1459	1	Rel-5	Correction to 3G to 2G Inter-RAT handover for multi-domain RABs	A	5.0.0	5.1.0
R2-021369	agreed	25.331	1460		R99	DCH quality target	F	3.10.0	3.11.0
R2-021370	agreed	25.331	1461		Rel-4	DCH quality target	A	4.4.0	4.5.0
R2-021371	agreed	25.331	1462		Rel-5	DCH quality target	A	5.0.0	5.1.0

3GPP TSG-RAN2 Meeting #29
Kyeongju, Korea, 13-17 May, 2002

R2-021351

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1445** ⌘ **rev** **-** ⌘ Current version: **3.10.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Layer 3 retransmission of SIGNALLING CONNECTION RELEASE INDICATION
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	13 May 2002
Category:	⌘	**F**
Release:	⌘	R99

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

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

Reason for change:	⌘	The SIGNALLING CONNECTION RELEASE INDICATION message was introduced to avoid a deadlock in case the NAS on the UE side decides to abort the signalling connection with a particular CN domain. If the message is lost as a result of a RLC re-establishment or inter-RAT change, the deadlock will not be avoided.
Summary of change:	⌘	It is proposed to handle the SIGNALLING CONNECTION RELEASE INDICATION message similarly to the INITIAL DIRECT TRANSFER message, i.e. it is proposed to have Layer 3 retransmission in case of RLC re-establishment or inter-RAT change **Isolated Impact Change Analysis.** This change clarifies the SIGNALLING CONNECTION RELEASE INDICATION procedure. It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	If NAS on the UE side decides to abort the signalling connection, the UE may not be able to release RRC/RR until it is powered down.

Clauses affected:	⌘	8.1.14.2, 8.1.14.2a (new)		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v4.4.0, CR 1446 25.331 v5.0.0, CR 1447
Other comments:	⌘			

How to create CRs using this form:

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

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

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

[…]

8.1.14 Signalling connection release indication procedure

Figure 8.1.14-1: Signalling connection release indication procedure, normal case

8.1.14.1 General

The signalling connection release indication procedure is used by the UE to indicate to the UTRAN that one of its signalling connections has been released. The procedure may in turn initiate the RRC connection release procedure.

8.1.14.2 Initiation

The UE shall, on receiving a request to release (abort) the signalling connection from upper layers for a specific CN domain:

1> if a signalling connection in the variable ESTABLISHED_SIGNALLING_CONNECTIONS for the specific CN domain identified with the IE "CN domain identity" exists:

2> initiate the signalling connection release indication procedure.

1> otherwise:

2> abort any ongoing establishment of signalling connection for that specific CN domain as specified in 8.1.3.5a.

Upon initiation of the signalling connection release indication procedure in CELL_PCH or URA_PCH state, the UE shall:

1> perform a cell update procedure, according to subclause 8.3.1, using the cause "uplink data transmission";

1> when the cell update procedure completed successfully:

2> continue with the signalling connection release indication procedure as below.

The UE shall:

1> set the IE "CN Domain Identity" to the value indicated by the upper layers. The value of the IE indicates the CN domain whose associated signalling connection the upper layers are indicating to be released;

1> remove the signalling connection with the identity indicated by upper layers from the variable ESTABLISHED_SIGNALLING_CONNECTIONS;

1> transmit a SIGNALLING CONNECTION RELEASE INDICATION message on DCCH using AM RLC.

When the successful delivery of the SIGNALLING CONNECTION RELEASE INDICATION message has been confirmed by RLC ~~submitted to lower layers for transmission~~ the procedure ends.

8.1.14.2a RLC re-establishment or inter-RAT change

If a re-establishment of RLC on signalling radio bearer RB2 occurs before the successful delivery of the SIGNALLING CONNECTION RELEASE INDICATION message has been confirmed by RLC, the UE shall:

1> retransmit the SIGNALLING CONNECTION RELEASE INDICATION message on the uplink DCCH using AM RLC on signalling radio bearer RB2.

If an Inter-RAT handover from UTRAN procedure occurs before the successful delivery of the SIGNALLING CONNECTION RELEASE INDICATION message has been confirmed by RLC, the UE shall:

1> abort the signalling connection while in the new RAT.

8.1.14.3 Reception of SIGNALLING CONNECTION RELEASE INDICATION by the UTRAN

Upon reception of a SIGNALLING CONNECTION RELEASE INDICATION message, the UTRAN requests the release of the signalling connection from upper layers. Upper layers may then initiate the release of the signalling connection.

[…]

3GPP TSG-RAN2 Meeting #29
Kyeongju, Korea, 13-17 May, 2002

R2-021352

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1446** ⌘ **rev** **-** ⌘ Current version: **4.4.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Layer 3 retransmission of SIGNALLING CONNECTION RELEASE INDICATION
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	13 May 2002
Category:	⌘	**A**
Release:	⌘	REL-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
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R96 (Release 1996)
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R98 (Release 1998)
R99 (Release 1999)
REL-4 (Release 4)
REL-5 (Release 5)

Reason for change:	⌘	The SIGNALLING CONNECTION RELEASE INDICATION message was introduced to avoid a deadlock in case the NAS on the UE side decides to abort the signalling connection with a particular CN domain. If the message is lost as a result of a RLC re-establishment or inter-RAT change, the deadlock will not be avoided.
Summary of change:	⌘	It is proposed to handle the SIGNALLING CONNECTION RELEASE INDICATION message similarly to the INITIAL DIRECT TRANSFER message, i.e. it is proposed to have Layer 3 retransmission in case of RLC re-establishment or inter-RAT change **Isolated Impact Change Analysis.** This change clarifies the SIGNALLING CONNECTION RELEASE INDICATION procedure. It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	If NAS on the UE side decides to abort the signalling connection, the UE may not be able to release RRC/RR until it is powered down.

Clauses affected:	⌘	8.1.14.2, 8.1.14.2a (new)		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.10.0, CR 1445 25.331 v5.0.0, CR 1447
Other comments:	⌘			

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

[…]

8.1.14 Signalling connection release indication procedure

Figure 8.1.14-1: Signalling connection release indication procedure, normal case

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Upon initiation of the signalling connection release indication procedure in CELL_PCH or URA_PCH state, the UE shall:

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When the successful delivery of the SIGNALLING CONNECTION RELEASE INDICATION message has been confirmed by RLC ~~submitted to lower layers for transmission~~ the procedure ends.

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[…]

3GPP TSG-RAN2 Meeting #29
Kyeongju, Korea, 13-17 May, 2002

R2-021353

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1447** ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Layer 3 retransmission of SIGNALLING CONNECTION RELEASE INDICATION
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	13 May 2002
Category:	⌘	**A**
Release:	⌘	REL-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
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R99 (Release 1999)
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Summary of change:	⌘	It is proposed to handle the SIGNALLING CONNECTION RELEASE INDICATION message similarly to the INITIAL DIRECT TRANSFER message, i.e. it is proposed to have Layer 3 retransmission in case of RLC re-establishment or inter-RAT change **Isolated Impact Change Analysis.** This change clarifies the SIGNALLING CONNECTION RELEASE INDICATION procedure. It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	If NAS on the UE side decides to abort the signalling connection, the UE may not be able to release RRC/RR until it is powered down.

Clauses affected:	⌘	8.1.14.2, 8.1.14.2a (new)		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.10.0, CR 1445 25.331 v4.4.0, CR 1446
Other comments:	⌘			

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[…]

8.1.14 Signalling connection release indication procedure

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8.1.14.1 General

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8.1.14.3 Reception of SIGNALLING CONNECTION RELEASE INDICATION by the UTRAN

Upon reception of a SIGNALLING CONNECTION RELEASE INDICATION message, the UTRAN requests the release of the signalling connection from upper layers. Upper layers may then initiate the release of the signalling connection.

[…]

3GPP TSG-RAN2 Meeting #29 ***R2-021354***
Kyeongju, Korea, 13-17 May, 2002

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1448** ⌘ **rev** **-** ⌘ Current version: **3.10.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Alignment of tabular and ASN.1 for UTRAN GPS timing of cell frames resolution
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	13 May 2002
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
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A *(corresponds to a correction in an earlier release)*
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R98 *(Release 1998)*
R99 *(Release 1999)*
REL-4 *(Release 4)*
REL-5 *(Release 5)*

Reason for change: ⌘

1. In order to unambiguously span an entire week, the "UTRAN GPS timing of cell frames" component of IE "UE positioning GPS reference time" (10.3.7.96) must have an integer range of (0..2322431999999) and a resolution of 1 chip.

Note that:
(2322432000000 chips / 3840000 chips per sec) = 604800 sec = 1 week

This change enables the meaning of the "UTRAN GPS timing of cell frames" component to be consistently interpreted across the following portions of the specification:
- tabular description of 10.3.7.88
- tabular description of 10.3.7.96
- ASN.1 description of "UTRAN-GPSReferenceTime"

2. [From Tdoc 1261]
During RAN #15, from Tdoc RP-020074, CR-1342-R3 was approved for R99, and CR-1343 was approved for REL-4.

One of the purposes of these CRs was to remove the procedural significance of the IE "UE positioning GPS reference cell info" (10.3.7.95a). These CRs removed statements explaining how this IE would be used to help direct the UE in making "UE GPS timing of cell frames" measurements.

Since the significance (or usefulness) of this IE is now removed from the specfication, it makes sense to remove the remaining associated references to this IE.

3. [From Tdoc 1155]
During RAN #14, from Tdoc RP-010941, CR-1185-R4 was approved for R99, and CR-1186 was approved for REL-4. These CRs corrected the tabular description of the type and reference column for the "Whole GPS Chips" component of the IE "UE positioning GPS measured results" (10.3.7.93). The specified range was

	adjusted from (0..1023) to the correct range of (0..1022). Unfortunately, the range of the corresponding ASN.1 element was not adjusted at that time.This CR simply adjusts the "wholeGPS-Chips" component of the "GPS-MeasurementParam" ASN.1 information element to indicate the correct range of (0..1022). Note that the representation of this component remains to be a 10-bit integer.
Summary of change: ⌘	1. The semantics description for the "UTRAN GPS timing of cell frames" component of IE "UE positioning GPS reference time" (10.3.7.96) is changed to indicate 1 chip resolution instead of 1/16 chip resolution. 2. [From Tdoc 1261] All references to the unused IE "UE positioning GPS reference cell info" (10.3.7.95a) are removed. 3. [From Tdoc 1155] The "wholeGPS-Chips" component of the "GPS-MeasurementParam" ASN.1 information element is adjusted to indicate the correct range of (0..1022). **Isolated Impact Change Analysis.** 1. This change clarifies the resolution of the "UTRAN GPS timing of cell frames" component that may be used in providing UTRAN-GPS timing assistance to the UE. 2. [From Tdoc 1261] This change removes portions of the specification associated with the unused (and purposeless) IE "UE positioning GPS reference cell info" (10.3.7.95a). 3. [From Tdoc 1155] This change corrects the range of the "wholeGPS-Chips" component of the "GPS-MeasurementParam" ASN.1 element. It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved: ⌘	1. The tabular description of the "UTRAN GPS timing of cell frames" component of IE "UE positioning GPS reference time" (10.3.7.96) will conflict with the description of the same component of IE "UE positioning GPS acquisition assistance" (10.3.7.88) and the definition of the associated ASN.1 element "UTRAN-GPSReferenceTime". Consequently, it will be unclear how the UE is to interpret the intended resolution of this parameter. If a UE incorrectly interprets the resolution of this parameter, the search for GPS satellites may fail and the time-stamping value assigned to GPS measurements may cause gross errors in the resulting position computation. 2. [From Tdoc 1261] Useless references and ASN.1 code elements associated with this IE "UE positioning GPS reference cell info" will remain in the specification, possibly causing confusion with respect to the meaning of the term "reference cell". 3. [From Tdoc 1155] Since GPS codes are each composed of 1023 chips, if this range is not corrected to indicate (0..1022), then it will be unclear how the UTRAN is to interpret the value "wholeGPS-Chips"=1023. Two interpretations are possible: a) "1023" wraps around to equal "0"; or, b) "1023" extends 1023 chips beyond "0". If the UE and UTRAN do not share the same common interpretation of this value, then it is possible that such a GPS measurement could cause a large error in the final position computation.

Clauses affected: ⌘	8.6.7.19.6, 10.3.7.90, 10.3.7.95a, 10.3.7.96, 11.3, 13.4.28a

Other specs affected:	⌘	Other core specifications Test specifications O&M Specifications	⌘	25.331 v4.4.0, CR 1449 25.331 v5.0.0, CR 1450
Other comments:	⌘			

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*** NEXT MODIFIED SECTION ***

8.6.7.19.6 Void~~UE positioning GPS reference cell info~~

~~If IE "UE positioning GPS reference cell info" is received in the MEASUREMENT CONTROL message, the UE shall update the variable UE_POSITIONING_GPS_DATA accordingly. The UE shall:~~

~~1> store received reference cell information in the IE "UE positioning GPS reference cell info" in the variable UE_POSITIONING_GPS_DATA, overwriting any existing information.~~

*** NEXT REFERENCE SECTION ***

10.3.7.88 UE positioning GPS acquisition assistance

This IE contains parameters that enable fast acquisition of the GPS signals in UE-assisted GPS positioning.

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
GPS TOW msec	MP		Integer(0..6.048*10^8-1)	GPS Time of Week in milliseconds rounded down to the nearest millisecond unit.
UTRAN GPS reference time	OP			
>UTRAN GPS timing of cell frames	MP		Integer(0 ... 2322431999999)	GPS timing of cell frames in steps of 1 chip.
>CHOICE *mode*	OP			
>>FDD				
>>>Primary CPICH Info	MP		Primary CPICH Info 10.3.6.60	Identifies the reference cell for the GPS TOW-SFN relationship
>>TDD				
>>>cell parameters id	MP		Cell parameters id 10.3.6.9	Identifies the reference cell for the GPS TOW-SFN relationship
>SFN	MP		Integer(0..4095)	The SFN which the UTRAN GPS timing of cell frames time stamps.
Satellite information	MP	1 to <maxSat>		
>SatID	MP		Integer (0..63)	
>Doppler (0th order term)	MP		Real(-5120..5117.5 by step of 2.5)	Hz
>Extra Doppler	OP			
>>Doppler (1st order term)	MP		Real (-0.966..0.483 by step of 0.023)	Scaling factor 1/42
>>Doppler Uncertainty	MP		Enumerated (12.5,25,50, 100,200)	Hz. Three spare values are needed.
>Code Phase	MP		Integer(0..1022)	Chips, specifies the centre of the search window
>Integer Code Phase	MP		Integer(0..19)	1023 chip segments
>GPS Bit number	MP		Integer(0..3)	Specifies GPS bit number (20 1023 chip segments)
>Code Phase Search Window	MP		Integer(1023,1,2,3,4,6,8,12,16,24,32,48,64,96,128,	Specifies the width of the search window.

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
			192)	
>Azimuth and Elevation	OP			
>>Azimuth	MP		Real(0..348.75 by step of 11.25)	Degrees
>>Elevation	MP		Real(0..78.75 by step of 11.25)	Degrees

*** NEXT MODIFIED SECTION ***

10.3.7.90 UE positioning GPS assistance data

This IE contains GPS assistance data.

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
UE positioning GPS reference time	OP		UE positioning GPS reference time 10.3.7.96	
UE positioning GPS reference UE position	OP		Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8.4c	A priori knowledge of UE 3-D position.
UE positioning GPS DGPS corrections	OP		UE positioning GPS DGPS corrections 10.3.7.91	
UE positioning GPS navigation model	OP		UE positioning GPS navigation model 10.3.7.94	
UE positioning GPS ionospheric model	OP		UE positioning GPS ionospheric model 10.3.7.92	
UE positioning GPS UTC model	OP		UE positioning GPS UTC model 10.3.7.97	
UE positioning GPS almanac	OP		UE positioning GPS almanac 10.3.7.89	
UE positioning GPS acquisition assistance	OP		UE positioning GPS	

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
			acquisition assistance 10.3.7.88	
UE positioning GPS real-time integrity	OP		UE positioning GPS real-time integrity 10.3.7.95	
~~UE positioning GPS reference cell info~~	~~OP~~		~~UE positioning GPS reference cell info 10.3.7.95a~~	~~Identifies reference cell associated with request for UE GPS timing of cell frames measurement~~

***** *NEXT MODIFIED SECTION* *****

10.3.7.95a Void~~UE positioning GPS reference cell info~~

~~Information Element/Group name~~	~~Need~~	~~Multi~~	~~Type and Reference~~	~~Semantics description~~
~~CHOICE *mode*~~	~~MP~~			
~~>FDD~~				
~~>>Primary CPICH info~~	~~MP~~		~~Primary CPICH info 10.3.6.60~~	
~~>TDD~~				
~~>>cell parameters ID~~	~~MP~~		~~Cell parameters id 10.3.6.9~~	

***** *NEXT MODIFIED SECTION* *****

10.3.7.96 UE positioning GPS reference time

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
GPS Week	MP		Integer(0..1023)	
GPS TOW msec	MP		Integer(0..6.048*10^8-1)	GPS Time of Week in milliseconds (rounded down to the nearest millisecond unit).
UTRAN GPS reference time	OP			
>UTRAN GPS timing of cell frames	MP		Integer(0..2322431999999)	UTRAN GPS timing of cell frames in steps of 1~~/16~~th chip~~s~~
>CHOICE *mode*	OP			
>>FDD				
>>>Primary CPICH Info	MP		Primary CPICH Info 10.3.6.60	Identifies the reference cell for the GPS TOW-SFN relationship
>>TDD				
>>>cell parameters id	MP		Cell parameters id 10.3.6.9	Identifies the reference cell for the GPS TOW-SFN relationship
>SFN	MP		Integer(0..40	The SFN which the UTRAN

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
			95)	GPS timing of cell frames time stamps.
SFN-TOW Uncertainty	OP		Enumerated (lessThan10, moreThan10)	This field indicates the uncertainty of the relation GPS TOW/SFN. lessThan10 means the relation is accurate to at least 10 ms.
$T_{UTRAN-GPS}$ drift rate	OP		Integer (0, 1, 2, 5, 10, 15, 25, 50, -1, -2, -5, -10, -15, -25, -50)	in 1/256 chips per sec.
GPS TOW Assist	OP	1 to <maxSat>		
>SatID	MP		Enumerated(0..63)	
>TLM Message	MP		Bit string(14)	
>TLM Reserved	MP		Bit string(2)	
>Alert	MP		Boolean	
>Anti-Spoof	MP		Boolean	

*** NEXT REFERENCE SECTION ***

```
-- **************************************************
--
--     MEASUREMENT INFORMATION ELEMENTS (10.3.7)
--
-- **************************************************
```

*** NEXT MODIFIED SECTION ***

```
UE-Positioning-GPS-AcquisitionAssistance ::=    SEQUENCE {
    gps-ReferenceTime               INTEGER (0..604799999),
    utran-GPSReferenceTime              UTRAN-GPSReferenceTime          OPTIONAL,
    satelliteInformationList            AcquisitionSatInfoList
}

UE-Positioning-GPS-AdditionalAssistanceDataRequest ::=      SEQUENCE {
    almanacRequest                      BOOLEAN,
    utcModelRequest                     BOOLEAN,
    ionosphericModelRequest             BOOLEAN,
    navigationModelRequest              BOOLEAN,
    dgpsCorrectionsRequest              BOOLEAN,
    referenceLocationRequest            BOOLEAN,
    referenceTimeRequest                BOOLEAN,
    aquisitionAssistanceRequest         BOOLEAN,
    realTimeIntegrityRequest            BOOLEAN,
    navModelAddDataRequest              UE-Positioning-GPS-NavModelAddDataReq       OPTIONAL
}

UE-Positioning-GPS-Almanac ::=                  SEQUENCE {
    wn-a                                BIT STRING (SIZE (8)),
    almanacSatInfoList                  AlmanacSatInfoList,
    sv-GlobalHealth                     BIT STRING (SIZE (364))             OPTIONAL
}

UE-Positioning-GPS-AssistanceData ::=           SEQUENCE {
    ue-positioning-GPS-ReferenceTime                UE-Positioning-GPS-ReferenceTime
    OPTIONAL,
    ue-positioning-GPS-ReferenceLocation            ReferenceLocation               OPTIONAL,
    ue-positioning-GPS-DGPS-Corrections             UE-Positioning-GPS-DGPS-Corrections
    OPTIONAL,
    ue-positioning-GPS-NavigationModel              UE-Positioning-GPS-NavigationModel
    OPTIONAL,
    ue-positioning-GPS-IonosphericModel             UE-Positioning-GPS-IonosphericModel
    OPTIONAL,
    ue-positioning-GPS-UTC-Model                    UE-Positioning-GPS-UTC-Model
    OPTIONAL,
    ue-positioning-GPS-Almanac                      UE-Positioning-GPS-Almanac
    OPTIONAL,
    ue-positioning-GPS-AcquisitionAssistance        UE-Positioning-GPS-AcquisitionAssistance
    OPTIONAL,
    ue-positioning-GPS-Real-timeIntegrity           BadSatList                              OPTIONAL,
    -- dummy is not used in this version of specification and it should
    -- be ignored.
    ue-positioning-GPS-referenceCellInfodummy           UE-Positioning-GPS-ReferenceCellInfo
    OPTIONAL
}

UE-Positioning-GPS-DGPS-Corrections ::=     SEQUENCE {
    gps-TOW                             INTEGER (0..604799),
    statusHealth                        DiffCorrectionStatus,
    dgps-CorrectionSatInfoList          DGPS-CorrectionSatInfoList
}
```

*** NEXT MODIFIED SECTION ***

```
GPS-MeasurementParam ::=            SEQUENCE {
    satelliteID                         INTEGER (0..63),
    c-N0                                INTEGER (0..63),
    doppler                             INTEGER (-32768..32768),
    wholeGPS-Chips                      INTEGER (0..1022~~3~~),
    fractionalGPS-Chips                 INTEGER (0..1023),
```

```
    multipathIndicator                  MultipathIndicator,
    pseudorangeRMS-Error                INTEGER (0..63)
}

GPS-MeasurementParamList ::=        SEQUENCE (SIZE (1..maxSat)) OF
                                        GPS-MeasurementParam
```

****** NEXT MODIFIED SECTION ******

13.4.28a UE_POSITIONING_GPS_DATA

Information Element/Group name	Need	Multi	Type and reference	Semantics description
GPS Data ciphering info	OP		UE positioning Ciphering info 10.3.7.86	
GPS Deciphering Keys	OP			
>Current deciphering key	MP		Bit string(56)	
>Next deciphering key	MP		Bit string(56)	
UE positioning GPS reference time	OP		UE positioning GPS reference time 10.3.7.96	
UE positioning GPS reference UE position	OP		Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8.4c	A priori knowledge of UE 3-D position.
UE positioning GPS DGPS corrections	OP		UE positioning GPS DGPS corrections 10.3.7.91	
UE positioning GPS navigation model	OP	1 to <maxSat>		
>SatID	MP		Enumerated(0..63)	Satellite ID
>GPS Ephemeris and Clock Correction parameters	MP		UE positioning GPS Ephemeris and Clock Correction parameters 10.3.7.91a	
UE positioning GPS ionospheric model	OP		UE positioning GPS ionospheric model 10.3.7.92	
UE positioning GPS UTC model	OP		UE positioning GPS UTC model 10.3.7.97	
UE positioning GPS almanac	OP			
>SatID	MP	1 to <maxSat>		
>>WN_a	MP			
>>DataID	MP			Same as IE in 10.3.7.89
>>e	MP			Same as IE in 10.3.7.89

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>>t_{oa}	MP			Same as IE in 10.3.7.89
>>δI	MP			Same as IE in 10.3.7.89
>>OMEGADOT	MP			Same as IE in 10.3.7.89
>>SV Health	MP			Same as IE in 10.3.7.89
>>$A^{1/2}$	MP			Same as IE in 10.3.7.89
>>$OMEGA_0$	MP			Same as IE in 10.3.7.89
>>M_0	MP			Same as IE in 10.3.7.89
>>ω	MP			Same as IE in 10.3.7.89
>>af_0	MP			Same as IE in 10.3.7.89
>>af_1	MP			Same as IE in 10.3.7.89
>SV Global Health	OP			Same as IE in 10.3.7.89
UE positioning GPS acquisition assistance	OP		UE positioning GPS acquisition assistance 10.3.7.88	
UE positioning GPS real-time integrity	OP		UE positioning GPS real-time integrity 10.3.7.95	
~~UE positioning GPS reference cell info~~	~~OP~~		~~UE positioning GPS reference cell info 10.3.7.95a~~	

3GPP TSG-RAN2 Meeting #29 ***R2-021355***
Kyeongju, Korea, 13-17 May, 2002

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1449** ⌘ **rev** **-** ⌘ Current version: **4.4.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Alignment of tabular and ASN.1 for UTRAN GPS timing of cell frames resolution
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	13 May 2002
Category:	⌘	**A**
Release:	⌘	REL-4

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

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

Reason for change: ⌘

1. In order to unambiguously span an entire week, the "UTRAN GPS timing of cell frames" component of IE "UE positioning GPS reference time" (10.3.7.96) must have an integer range of (0..2322431999999) and a resolution of 1 chip.

Note that:
(2322432000000 chips / 3840000 chips per sec) = 604800 sec = 1 week

This change enables the meaning of the "UTRAN GPS timing of cell frames" component to be consistently interpreted across the following portions of the specification:
- tabular description of 10.3.7.88
- tabular description of 10.3.7.96
- ASN.1 description of "UTRAN-GPSReferenceTime"

2. [From Tdoc 1261]
During RAN #15, from Tdoc RP-020074, CR-1342-R3 was approved for R99, and CR-1343 was approved for REL-4.

One of the purposes of these CRs was to remove the procedural significance of the IE "UE positioning GPS reference cell info" (10.3.7.95a). These CRs removed statements explaining how this IE would be used to help direct the UE in making "UE GPS timing of cell frames" measurements.

Since the significance (or usefulness) of this IE is now removed from the specfication, it makes sense to remove the remaining associated references to this IE.

3. [From Tdoc 1155]
During RAN #14, from Tdoc RP-010941, CR-1185-R4 was approved for R99, and CR-1186 was approved for REL-4. These CRs corrected the tabular description of the type and reference column for the "Whole GPS Chips" component of the IE "UE positioning GPS measured results" (10.3.7.93). The specified range was

	adjusted from (0..1023) to the correct range of (0..1022). Unfortunately, the range of the corresponding ASN.1 element was not adjusted at that time.This CR simply adjusts the "wholeGPS-Chips" component of the "GPS-MeasurementParam" ASN.1 information element to indicate the correct range of (0..1022). Note that the representation of this component remains to be a 10-bit integer.
Summary of change: ⌘	1. The semantics description for the "UTRAN GPS timing of cell frames" component of IE "UE positioning GPS reference time" (10.3.7.96) is changed to indicate 1 chip resolution instead of 1/16 chip resolution. 2. [From Tdoc 1261] All references to the unused IE "UE positioning GPS reference cell info" (10.3.7.95a) are removed. 3. [From Tdoc 1155] The "wholeGPS-Chips" component of the "GPS-MeasurementParam" ASN.1 information element is adjusted to indicate the correct range of (0..1022). **Isolated Impact Change Analysis.** 1. This change clarifies the resolution of the "UTRAN GPS timing of cell frames" component that may be used in providing UTRAN-GPS timing assistance to the UE. 2. [From Tdoc 1261] This change removes portions of the specification associated with the unused (and purposeless) IE "UE positioning GPS reference cell info" (10.3.7.95a). 3. [From Tdoc 1155] This change corrects the range of the "wholeGPS-Chips" component of the "GPS-MeasurementParam" ASN.1 element. It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved: ⌘	1. The tabular description of the "UTRAN GPS timing of cell frames" component of IE "UE positioning GPS reference time" (10.3.7.96) will conflict with the description of the same component of IE "UE positioning GPS acquisition assistance" (10.3.7.88) and the definition of the associated ASN.1 element "UTRAN-GPSReferenceTime". Consequently, it will be unclear how the UE is to interpret the intended resolution of this parameter. If a UE incorrectly interprets the resolution of this parameter, the search for GPS satellites may fail and the time-stamping value assigned to GPS measurements may cause gross errors in the resulting position computation. 2. [From Tdoc 1261] Useless references and ASN.1 code elements associated with this IE "UE positioning GPS reference cell info" will remain in the specification, possibly causing confusion with respect to the meaning of the term "reference cell". 3. [From Tdoc 1155] Since GPS codes are each composed of 1023 chips, if this range is not corrected to indicate (0..1022), then it will be unclear how the UTRAN is to interpret the value "wholeGPS-Chips"=1023. Two interpretations are possible: a) "1023" wraps around to equal "0"; or, b) "1023" extends 1023 chips beyond "0". If the UE and UTRAN do not share the same common interpretation of this value, then it is possible that such a GPS measurement could cause a large error in the final position computation.

Clauses affected: ⌘	8.6.7.19.6, 10.3.7.90, 10.3.7.95a, 10.3.7.96, 11.3, 13.4.28a

Other specs affected:	⌘	Other core specifications Test specifications O&M Specifications	⌘	25.331 v3.10.0, CR 1448 25.331 v5.0.0, CR 1450
Other comments:	⌘			

How to create CRs using this form:

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

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

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

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

*** NEXT MODIFIED SECTION ***

8.6.7.19.6 Void~~UE positioning GPS reference cell info~~

~~If IE "UE positioning GPS reference cell info" is received in the MEASUREMENT CONTROL message, the UE shall update the variable UE_POSITIONING_GPS_DATA accordingly. The UE shall:~~

~~1> store received reference cell information in the IE "UE positioning GPS reference cell info" in the variable UE_POSITIONING_GPS_DATA, overwriting any existing information.~~

*** NEXT REFERENCE SECTION ***

10.3.7.88 UE positioning GPS acquisition assistance

This IE contains parameters that enable fast acquisition of the GPS signals in UE-assisted GPS positioning.

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
GPS TOW msec	MP		Integer(0..6.048*10^8-1)	GPS Time of Week in milliseconds rounded down to the nearest millisecond unit.
UTRAN GPS reference time	OP			
>UTRAN GPS timing of cell frames	MP		Integer(0 ... 2322431999999)	GPS timing of cell frames in steps of 1 chip.
>CHOICE *mode*	OP			
>>FDD				
>>>Primary CPICH Info	MP		Primary CPICH Info 10.3.6.60	Identifies the reference cell for the GPS TOW-SFN relationship
>>TDD				
>>>cell parameters id	MP		Cell parameters id 10.3.6.9	Identifies the reference cell for the GPS TOW-SFN relationship
>SFN	MP		Integer(0..4095)	The SFN which the UTRAN GPS timing of cell frames time stamps.
Satellite information	MP	1 to <maxSat>		
>SatID	MP		Integer (0..63)	
>Doppler (0th order term)	MP		Real(-5120..5117.5 by step of 2.5)	Hz
>Extra Doppler	OP			
>>Doppler (1st order term)	MP		Real (-0.966..0.483 by step of 0.023)	Scaling factor 1/42
>>Doppler Uncertainty	MP		Enumerated (12.5,25,50, 100,200)	Hz. Three spare values are needed.
>Code Phase	MP		Integer(0..1022)	Chips, specifies the centre of the search window
>Integer Code Phase	MP		Integer(0..19)	1023 chip segments
>GPS Bit number	MP		Integer(0..3)	Specifies GPS bit number (20 1023 chip segments)
>Code Phase Search Window	MP		Integer(1023,1,2,3,4,6,8,12,16,24,32,48,64,96,128,	Specifies the width of the search window.

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
			192)	
>Azimuth and Elevation	OP			
>>Azimuth	MP		Real(0..348.75 by step of 11.25)	Degrees
>>Elevation	MP		Real(0..78.75 by step of 11.25)	Degrees

*** NEXT MODIFIED SECTION ***

10.3.7.90 UE positioning GPS assistance data

This IE contains GPS assistance data.

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
UE positioning GPS reference time	OP		UE positioning GPS reference time 10.3.7.96	
UE positioning GPS reference UE position	OP		Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8.4c	A priori knowledge of UE 3-D position.
UE positioning GPS DGPS corrections	OP		UE positioning GPS DGPS corrections 10.3.7.91	
UE positioning GPS navigation model	OP		UE positioning GPS navigation model 10.3.7.94	
UE positioning GPS ionospheric model	OP		UE positioning GPS ionospheric model 10.3.7.92	
UE positioning GPS UTC model	OP		UE positioning GPS UTC model 10.3.7.97	
UE positioning GPS almanac	OP		UE positioning GPS almanac 10.3.7.89	
UE positioning GPS acquisition assistance	OP		UE positioning GPS	

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
			acquisition assistance 10.3.7.88	
UE positioning GPS real-time integrity	OP		UE positioning GPS real-time integrity 10.3.7.95	
~~UE positioning GPS reference cell info~~	~~OP~~		~~UE positioning GPS reference cell info 10.3.7.95a~~	~~Identifies reference cell associated with request for UE GPS timing of cell frames measurement~~

***** *NEXT MODIFIED SECTION* *****

10.3.7.95a Void~~UE positioning GPS reference cell info~~

~~Information Element/Group name~~	~~Need~~	~~Multi~~	~~Type and Reference~~	~~Semantics description~~
~~CHOICE *mode*~~	~~MP~~			
~~>FDD~~				
~~>>Primary CPICH info~~	~~MP~~		~~Primary CPICH info 10.3.6.60~~	
~~>TDD~~				
~~>>cell parameters ID~~	~~MP~~		~~Cell parameters id 10.3.6.9~~	

***** *NEXT MODIFIED SECTION* *****

10.3.7.96 UE positioning GPS reference time

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
GPS Week	MP		Integer(0..1023)	
GPS TOW msec	MP		Integer(0..6.048*10^8-1)	GPS Time of Week in milliseconds (rounded down to the nearest millisecond unit).
UTRAN GPS reference time	OP			
>UTRAN GPS timing of cell frames	MP		Integer(0..2322431999999)	UTRAN GPS timing of cell frames in steps of 1~~/16~~th chip~~s~~
>CHOICE *mode*	OP			
>>FDD				
>>>Primary CPICH Info	MP		Primary CPICH Info 10.3.6.60	Identifies the reference cell for the GPS TOW-SFN relationship
>>TDD				
>>>cell parameters id	MP		Cell parameters id 10.3.6.9	Identifies the reference cell for the GPS TOW-SFN relationship
>SFN	MP		Integer(0..40	The SFN which the UTRAN

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
			95)	GPS timing of cell frames time stamps.
SFN-TOW Uncertainty	OP		Enumerated (lessThan10, moreThan10)	This field indicates the uncertainty of the relation GPS TOW/SFN. lessThan10 means the relation is accurate to at least 10 ms.
$T_{UTRAN-GPS}$ drift rate	OP		Integer (0, 1, 2, 5, 10, 15, 25, 50, -1, -2, -5, -10, -15, -25, -50)	in 1/256 chips per sec.
GPS TOW Assist	OP	1 to <maxSat>		
>SatID	MP		Enumerated(0..63)	
>TLM Message	MP		Bit string(14)	
>TLM Reserved	MP		Bit string(2)	
>Alert	MP		Boolean	
>Anti-Spoof	MP		Boolean	

*** NEXT REFERENCE SECTION ***

```
-- **************************************************
--
--     MEASUREMENT INFORMATION ELEMENTS (10.3.7)
--
-- **************************************************
```

*** NEXT MODIFIED SECTION ***

```
UE-Positioning-GPS-AcquisitionAssistance ::=    SEQUENCE {
    gps-ReferenceTime               INTEGER (0..604799999),
    utran-GPSReferenceTime              UTRAN-GPSReferenceTime          OPTIONAL,
    satelliteInformationList            AcquisitionSatInfoList
}

UE-Positioning-GPS-AdditionalAssistanceDataRequest ::=      SEQUENCE {
    almanacRequest                      BOOLEAN,
    utcModelRequest                     BOOLEAN,
    ionosphericModelRequest             BOOLEAN,
    navigationModelRequest              BOOLEAN,
    dgpsCorrectionsRequest              BOOLEAN,
    referenceLocationRequest            BOOLEAN,
    referenceTimeRequest                BOOLEAN,
    aquisitionAssistanceRequest         BOOLEAN,
    realTimeIntegrityRequest            BOOLEAN,
    navModelAddDataRequest              UE-Positioning-GPS-NavModelAddDataReq       OPTIONAL
}

UE-Positioning-GPS-Almanac ::=                  SEQUENCE {
    wn-a                                BIT STRING (SIZE (8)),
    almanacSatInfoList                  AlmanacSatInfoList,
    sv-GlobalHealth                     BIT STRING (SIZE (364))             OPTIONAL
}

UE-Positioning-GPS-AssistanceData ::=           SEQUENCE {
    ue-positioning-GPS-ReferenceTime                UE-Positioning-GPS-ReferenceTime
    OPTIONAL,
    ue-positioning-GPS-ReferenceLocation            ReferenceLocation               OPTIONAL,
    ue-positioning-GPS-DGPS-Corrections             UE-Positioning-GPS-DGPS-Corrections
    OPTIONAL,
```

```
    ue-positioning-GPS-NavigationModel              UE-Positioning-GPS-NavigationModel
    OPTIONAL,
    ue-positioning-GPS-IonosphericModel             UE-Positioning-GPS-IonosphericModel
    OPTIONAL,
    ue-positioning-GPS-UTC-Model                    UE-Positioning-GPS-UTC-Model
    OPTIONAL,
    ue-positioning-GPS-Almanac                      UE-Positioning-GPS-Almanac
    OPTIONAL,
    ue-positioning-GPS-AcquisitionAssistance        UE-Positioning-GPS-AcquisitionAssistance
    OPTIONAL,
    ue-positioning-GPS-Real-timeIntegrity           BadSatList                              OPTIONAL,
    -- dummy is not used in this version of specification and it should
    -- be ignored.
    ue-positioning-GPS-referenceCellInfodummy       UE-Positioning-GPS-ReferenceCellInfo
    OPTIONAL
}

UE-Positioning-GPS-DGPS-Corrections ::=     SEQUENCE {
    gps-TOW                             INTEGER (0..604799),
    statusHealth                        DiffCorrectionStatus,
    dgps-CorrectionSatInfoList          DGPS-CorrectionSatInfoList
}
```

*** NEXT MODIFIED SECTION ***

```
GPS-MeasurementParam ::=            SEQUENCE {
    satelliteID                         INTEGER (0..63),
    c-N0                                INTEGER (0..63),
    doppler                             INTEGER (-32768..32768),
    wholeGPS-Chips                      INTEGER (0..10223),
    fractionalGPS-Chips                 INTEGER (0..1023),
    multipathIndicator                  MultipathIndicator,
    pseudorangeRMS-Error                INTEGER (0..63)
}

GPS-MeasurementParamList ::=        SEQUENCE (SIZE (1..maxSat)) OF
                                        GPS-MeasurementParam
```

*** NEXT MODIFIED SECTION ***

13.4.28a UE_POSITIONING_GPS_DATA

Information Element/Group name	Need	Multi	Type and reference	Semantics description
GPS Data ciphering info	OP		UE positioning Ciphering info 10.3.7.86	
GPS Deciphering Keys	OP			
>Current deciphering key	MP		Bit string(56)	
>Next deciphering key	MP		Bit string(56)	
UE positioning GPS reference time	OP		UE positioning GPS reference time 10.3.7.96	
UE positioning GPS reference UE position	OP		Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8.4c	A priori knowledge of UE 3-D position.
UE positioning GPS DGPS corrections	OP		UE positioning GPS DGPS corrections 10.3.7.91	
UE positioning GPS navigation	OP	1 to		

Information Element/Group name	Need	Multi	Type and reference	Semantics description
model		<maxSat>		
>SatID	MP		Enumerated(0..63)	Satellite ID
>GPS Ephemeris and Clock Correction parameters	MP		UE positioning GPS Ephemeris and Clock Correction parameters 10.3.7.91a	
UE positioning GPS ionospheric model	OP		UE positioning GPS ionospheric model 10.3.7.92	
UE positioning GPS UTC model	OP		UE positioning GPS UTC model 10.3.7.97	
UE positioning GPS almanac	OP			
>SatID	MP	1 to <maxSat>		
>>WN_a	MP			
>>DataID	MP			Same as IE in 10.3.7.89
>>e	MP			Same as IE in 10.3.7.89
>>t_{oa}	MP			Same as IE in 10.3.7.89
>>δI	MP			Same as IE in 10.3.7.89
>>OMEGADOT	MP			Same as IE in 10.3.7.89
>>SV Health	MP			Same as IE in 10.3.7.89
>>$A^{1/2}$	MP			Same as IE in 10.3.7.89
>>$OMEGA_0$	MP			Same as IE in 10.3.7.89
>>M_0	MP			Same as IE in 10.3.7.89
>>ω	MP			Same as IE in 10.3.7.89
>>af_0	MP			Same as IE in 10.3.7.89
>>af_1	MP			Same as IE in 10.3.7.89
>SV Global Health	OP			Same as IE in 10.3.7.89
UE positioning GPS acquisition assistance	OP		UE positioning GPS acquisition assistance 10.3.7.88	
UE positioning GPS real-time integrity	OP		UE positioning GPS real-time integrity 10.3.7.95	
~~UE positioning GPS reference cell info~~	~~OP~~		~~UE positioning GPS reference cell info 10.3.7.95a~~	

3GPP TSG-RAN2 Meeting #29 ***R2-021356***
Kyeongju, Korea, 13-17 May, 2002

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1450** ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: ⌘ (U)SIM [ ] ME/UE [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Alignment of tabular and ASN.1 for UTRAN GPS timing of cell frames resolution
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	13 May 2002
Category:	⌘	**A**
Release:	⌘	REL-5

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

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

Reason for change: ⌘

1. In order to unambiguously span an entire week, the "UTRAN GPS timing of cell frames" component of IE "UE positioning GPS reference time" (10.3.7.96) must have an integer range of (0..2322431999999) and a resolution of 1 chip.

Note that:
(2322432000000 chips / 3840000 chips per sec) = 604800 sec = 1 week

This change enables the meaning of the "UTRAN GPS timing of cell frames" component to be consistently interpreted across the following portions of the specification:
- tabular description of 10.3.7.88
- tabular description of 10.3.7.96
- ASN.1 description of "UTRAN-GPSReferenceTime"

2. [From Tdoc 1261]
During RAN #15, from Tdoc RP-020074, CR-1342-R3 was approved for R99, and CR-1343 was approved for REL-4.

One of the purposes of these CRs was to remove the procedural significance of the IE "UE positioning GPS reference cell info" (10.3.7.95a). These CRs removed statements explaining how this IE would be used to help direct the UE in making "UE GPS timing of cell frames" measurements.

Since the significance (or usefulness) of this IE is now removed from the specfication, it makes sense to remove the remaining associated references to this IE.

3. [From Tdoc 1155]
During RAN #14, from Tdoc RP-010941, CR-1185-R4 was approved for R99, and CR-1186 was approved for REL-4. These CRs corrected the tabular description of the type and reference column for the "Whole GPS Chips" component of the IE "UE positioning GPS measured results" (10.3.7.93). The specified range was

	adjusted from (0..1023) to the correct range of (0..1022). Unfortunately, the range of the corresponding ASN.1 element was not adjusted at that time.This CR simply adjusts the "wholeGPS-Chips" component of the "GPS-MeasurementParam" ASN.1 information element to indicate the correct range of (0..1022). Note that the representation of this component remains to be a 10-bit integer.
Summary of change: ⌘	1. The semantics description for the "UTRAN GPS timing of cell frames" component of IE "UE positioning GPS reference time" (10.3.7.96) is changed to indicate 1 chip resolution instead of 1/16 chip resolution. 2. [From Tdoc 1261] All references to the unused IE "UE positioning GPS reference cell info" (10.3.7.95a) are removed. 3. [From Tdoc 1155] The "wholeGPS-Chips" component of the "GPS-MeasurementParam" ASN.1 information element is adjusted to indicate the correct range of (0..1022). **Isolated Impact Change Analysis.** 1. This change clarifies the resolution of the "UTRAN GPS timing of cell frames" component that may be used in providing UTRAN-GPS timing assistance to the UE. 2. [From Tdoc 1261] This change removes portions of the specification associated with the unused (and purposeless) IE "UE positioning GPS reference cell info" (10.3.7.95a). 3. [From Tdoc 1155] This change corrects the range of the "wholeGPS-Chips" component of the "GPS-MeasurementParam" ASN.1 element. It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved: ⌘	1. The tabular description of the "UTRAN GPS timing of cell frames" component of IE "UE positioning GPS reference time" (10.3.7.96) will conflict with the description of the same component of IE "UE positioning GPS acquisition assistance" (10.3.7.88) and the definition of the associated ASN.1 element "UTRAN-GPSReferenceTime". Consequently, it will be unclear how the UE is to interpret the intended resolution of this parameter. If a UE incorrectly interprets the resolution of this parameter, the search for GPS satellites may fail and the time-stamping value assigned to GPS measurements may cause gross errors in the resulting position computation. 2. [From Tdoc 1261] Useless references and ASN.1 code elements associated with this IE "UE positioning GPS reference cell info" will remain in the specification, possibly causing confusion with respect to the meaning of the term "reference cell". 3. [From Tdoc 1155] Since GPS codes are each composed of 1023 chips, if this range is not corrected to indicate (0..1022), then it will be unclear how the UTRAN is to interpret the value "wholeGPS-Chips"=1023. Two interpretations are possible: a) "1023" wraps around to equal "0"; or, b) "1023" extends 1023 chips beyond "0". If the UE and UTRAN do not share the same common interpretation of this value, then it is possible that such a GPS measurement could cause a large error in the final position computation.

Clauses affected: ⌘	8.6.7.19.6, 10.3.7.90, 10.3.7.95a, 10.3.7.96, 11.3, 13.4.28a

Other specs affected:	⌘	Other core specifications Test specifications O&M Specifications	⌘	25.331 v3.10.0, CR 1448 25.331 v4.4.0, CR 1449
Other comments:	⌘			

How to create CRs using this form:

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

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

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

*** NEXT MODIFIED SECTION ***

8.6.7.19.6 Void~~UE positioning GPS reference cell info~~

~~If IE "UE positioning GPS reference cell info" is received in the MEASUREMENT CONTROL message, the UE shall update the variable UE_POSITIONING_GPS_DATA accordingly. The UE shall:~~

~~1> store received reference cell information in the IE "UE positioning GPS reference cell info" in the variable UE_POSITIONING_GPS_DATA, overwriting any existing information.~~

*** NEXT REFERENCE SECTION ***

10.3.7.88 UE positioning GPS acquisition assistance

This IE contains parameters that enable fast acquisition of the GPS signals in UE-assisted GPS positioning.

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
GPS TOW msec	MP		Integer(0..6.048*10^8-1)	GPS Time of Week in milliseconds rounded down to the nearest millisecond unit.
UTRAN GPS reference time	OP			
>UTRAN GPS timing of cell frames	MP		Integer(0 ... 2322431999999)	GPS timing of cell frames in steps of 1 chip.
>CHOICE *mode*	OP			
>>FDD				
>>>Primary CPICH Info	MP		Primary CPICH Info 10.3.6.60	Identifies the reference cell for the GPS TOW-SFN relationship
>>TDD				
>>>cell parameters id	MP		Cell parameters id 10.3.6.9	Identifies the reference cell for the GPS TOW-SFN relationship
>SFN	MP		Integer(0..4095)	The SFN which the UTRAN GPS timing of cell frames time stamps.
Satellite information	MP	1 to <maxSat>		
>SatID	MP		Integer (0..63)	
>Doppler (0th order term)	MP		Real(-5120..5117.5 by step of 2.5)	Hz
>Extra Doppler	OP			
>>Doppler (1st order term)	MP		Real (-0.966..0.483 by step of 0.023)	Scaling factor 1/42
>>Doppler Uncertainty	MP		Enumerated (12.5,25,50, 100,200)	Hz. Three spare values are needed.
>Code Phase	MP		Integer(0..1022)	Chips, specifies the centre of the search window
>Integer Code Phase	MP		Integer(0..19)	1023 chip segments
>GPS Bit number	MP		Integer(0..3)	Specifies GPS bit number (20 1023 chip segments)
>Code Phase Search Window	MP		Integer(1023,1,2,3,4,6,8,12,16,24,32,48,64,96,128,	Specifies the width of the search window.

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
			192)	
>Azimuth and Elevation	OP			
>>Azimuth	MP		Real(0..348.75 by step of 11.25)	Degrees
>>Elevation	MP		Real(0..78.75 by step of 11.25)	Degrees

*** NEXT MODIFIED SECTION ***

10.3.7.90 UE positioning GPS assistance data

This IE contains GPS assistance data.

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
UE positioning GPS reference time	OP		UE positioning GPS reference time 10.3.7.96	
UE positioning GPS reference UE position	OP		Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8.4c	A priori knowledge of UE 3-D position.
UE positioning GPS DGPS corrections	OP		UE positioning GPS DGPS corrections 10.3.7.91	
UE positioning GPS navigation model	OP		UE positioning GPS navigation model 10.3.7.94	
UE positioning GPS ionospheric model	OP		UE positioning GPS ionospheric model 10.3.7.92	
UE positioning GPS UTC model	OP		UE positioning GPS UTC model 10.3.7.97	
UE positioning GPS almanac	OP		UE positioning GPS almanac 10.3.7.89	
UE positioning GPS acquisition assistance	OP		UE positioning GPS	

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
			acquisition assistance 10.3.7.88	
UE positioning GPS real-time integrity	OP		UE positioning GPS real-time integrity 10.3.7.95	
~~UE positioning GPS reference cell info~~	~~OP~~		~~UE positioning GPS reference cell info 10.3.7.95a~~	~~Identifies reference cell associated with request for UE GPS timing of cell frames measurement~~

***** *NEXT MODIFIED SECTION* *****

10.3.7.95a Void~~UE positioning GPS reference cell info~~

~~Information Element/Group name~~	~~Need~~	~~Multi~~	~~Type and Reference~~	~~Semantics description~~
~~CHOICE *mode*~~	~~MP~~			
~~>FDD~~				
~~>>Primary CPICH info~~	~~MP~~		~~Primary CPICH info 10.3.6.60~~	
~~>TDD~~				
~~>>cell parameters ID~~	~~MP~~		~~Cell parameters id 10.3.6.9~~	

***** *NEXT MODIFIED SECTION* *****

10.3.7.96 UE positioning GPS reference time

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
GPS Week	MP		Integer(0..1023)	
GPS TOW msec	MP		Integer(0..6.048*10^8-1)	GPS Time of Week in milliseconds (rounded down to the nearest millisecond unit).
UTRAN GPS reference time	OP			
>UTRAN GPS timing of cell frames	MP		Integer(0..2322431999999)	UTRAN GPS timing of cell frames in steps of 1~~/16~~th chip~~s~~
>CHOICE *mode*	OP			
>>FDD				
>>>Primary CPICH Info	MP		Primary CPICH Info 10.3.6.60	Identifies the reference cell for the GPS TOW-SFN relationship
>>TDD				
>>>cell parameters id	MP		Cell parameters id 10.3.6.9	Identifies the reference cell for the GPS TOW-SFN relationship
>SFN	MP		Integer(0..40	The SFN which the UTRAN

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
			95)	GPS timing of cell frames time stamps.
SFN-TOW Uncertainty	OP		Enumerated (lessThan10, moreThan10)	This field indicates the uncertainty of the relation GPS TOW/SFN. lessThan10 means the relation is accurate to at least 10 ms.
$T_{UTRAN-GPS}$ drift rate	OP		Integer (0, 1, 2, 5, 10, 15, 25, 50, -1, -2, -5, -10, -15, -25, -50)	in 1/256 chips per sec.
GPS TOW Assist	OP	1 to <maxSat>		
>SatID	MP		Enumerated(0..63)	
>TLM Message	MP		Bit string(14)	
>TLM Reserved	MP		Bit string(2)	
>Alert	MP		Boolean	
>Anti-Spoof	MP		Boolean	

*** NEXT REFERENCE SECTION ***

```
-- **************************************************
--
--     MEASUREMENT INFORMATION ELEMENTS (10.3.7)
--
-- **************************************************
```

*** NEXT MODIFIED SECTION ***

```
UE-Positioning-GPS-AcquisitionAssistance ::=    SEQUENCE {
    gps-ReferenceTime               INTEGER (0..604799999),
    utran-GPSReferenceTime              UTRAN-GPSReferenceTime          OPTIONAL,
    satelliteInformationList            AcquisitionSatInfoList
}

UE-Positioning-GPS-AdditionalAssistanceDataRequest ::=      SEQUENCE {
    almanacRequest                      BOOLEAN,
    utcModelRequest                     BOOLEAN,
    ionosphericModelRequest             BOOLEAN,
    navigationModelRequest              BOOLEAN,
    dgpsCorrectionsRequest              BOOLEAN,
    referenceLocationRequest            BOOLEAN,
    referenceTimeRequest                BOOLEAN,
    aquisitionAssistanceRequest         BOOLEAN,
    realTimeIntegrityRequest            BOOLEAN,
    navModelAddDataRequest              UE-Positioning-GPS-NavModelAddDataReq       OPTIONAL
}

UE-Positioning-GPS-Almanac ::=                  SEQUENCE {
    wn-a                                BIT STRING (SIZE (8)),
    almanacSatInfoList                  AlmanacSatInfoList,
    sv-GlobalHealth                     BIT STRING (SIZE (364))             OPTIONAL
}

UE-Positioning-GPS-AssistanceData ::=           SEQUENCE {
    ue-positioning-GPS-ReferenceTime                UE-Positioning-GPS-ReferenceTime
    OPTIONAL,
    ue-positioning-GPS-ReferenceLocation            ReferenceLocation               OPTIONAL,
    ue-positioning-GPS-DGPS-Corrections             UE-Positioning-GPS-DGPS-Corrections
    OPTIONAL,
```

```
    ue-positioning-GPS-NavigationModel              UE-Positioning-GPS-NavigationModel
    OPTIONAL,
    ue-positioning-GPS-IonosphericModel             UE-Positioning-GPS-IonosphericModel
    OPTIONAL,
    ue-positioning-GPS-UTC-Model                    UE-Positioning-GPS-UTC-Model
    OPTIONAL,
    ue-positioning-GPS-Almanac                      UE-Positioning-GPS-Almanac
    OPTIONAL,
    ue-positioning-GPS-AcquisitionAssistance        UE-Positioning-GPS-AcquisitionAssistance
    OPTIONAL,
    ue-positioning-GPS-Real-timeIntegrity           BadSatList                              OPTIONAL,
    -- dummy is not used in this version of specification and it should
    -- be ignored.
    ue-positioning-GPS-referenceCellInfodummy       UE-Positioning-GPS-ReferenceCellInfo
    OPTIONAL
}

UE-Positioning-GPS-DGPS-Corrections ::=     SEQUENCE {
    gps-TOW                             INTEGER (0..604799),
    statusHealth                        DiffCorrectionStatus,
    dgps-CorrectionSatInfoList          DGPS-CorrectionSatInfoList
}
```

*** NEXT MODIFIED SECTION ***

```
GPS-MeasurementParam ::=            SEQUENCE {
    satelliteID                         INTEGER (0..63),
    c-N0                                INTEGER (0..63),
    doppler                             INTEGER (-32768..32768),
    wholeGPS-Chips                      INTEGER (0..10223),
    fractionalGPS-Chips                 INTEGER (0..1023),
    multipathIndicator                  MultipathIndicator,
    pseudorangeRMS-Error                INTEGER (0..63)
}

GPS-MeasurementParamList ::=        SEQUENCE (SIZE (1..maxSat)) OF
                                        GPS-MeasurementParam
```

*** NEXT MODIFIED SECTION ***

13.4.28a UE_POSITIONING_GPS_DATA

Information Element/Group name	Need	Multi	Type and reference	Semantics description
GPS Data ciphering info	OP		UE positioning Ciphering info 10.3.7.86	
GPS Deciphering Keys	OP			
>Current deciphering key	MP		Bit string(56)	
>Next deciphering key	MP		Bit string(56)	
UE positioning GPS reference time	OP		UE positioning GPS reference time 10.3.7.96	
UE positioning GPS reference UE position	OP		Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8.4c	A priori knowledge of UE 3-D position.
UE positioning GPS DGPS corrections	OP		UE positioning GPS DGPS corrections 10.3.7.91	
UE positioning GPS navigation	OP	1 to		

Information Element/Group name	Need	Multi	Type and reference	Semantics description
model		<maxSat>		
>SatID	MP		Enumerated(0..63)	Satellite ID
>GPS Ephemeris and Clock Correction parameters	MP		UE positioning GPS Ephemeris and Clock Correction parameters 10.3.7.91a	
UE positioning GPS ionospheric model	OP		UE positioning GPS ionospheric model 10.3.7.92	
UE positioning GPS UTC model	OP		UE positioning GPS UTC model 10.3.7.97	
UE positioning GPS almanac	OP			
>SatID	MP	1 to <maxSat>		
>>WN_a	MP			
>>DataID	MP			Same as IE in 10.3.7.89
>>e	MP			Same as IE in 10.3.7.89
>>t_{oa}	MP			Same as IE in 10.3.7.89
>>δI	MP			Same as IE in 10.3.7.89
>>OMEGADOT	MP			Same as IE in 10.3.7.89
>>SV Health	MP			Same as IE in 10.3.7.89
>>$A^{1/2}$	MP			Same as IE in 10.3.7.89
>>$OMEGA_0$	MP			Same as IE in 10.3.7.89
>>M_0	MP			Same as IE in 10.3.7.89
>>ω	MP			Same as IE in 10.3.7.89
>>af_0	MP			Same as IE in 10.3.7.89
>>af_1	MP			Same as IE in 10.3.7.89
>SV Global Health	OP			Same as IE in 10.3.7.89
UE positioning GPS acquisition assistance	OP		UE positioning GPS acquisition assistance 10.3.7.88	
UE positioning GPS real-time integrity	OP		UE positioning GPS real-time integrity 10.3.7.95	
~~UE positioning GPS reference cell info~~	~~OP~~		~~UE positioning GPS reference cell info 10.3.7.95a~~	

3GPP TSG-RAN WG2 Meeting #29
Gyeongju, Korea, 13-17.05.2002

Tdoc R2-021357

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1451** ⌘ **rev** **-** ⌘ Current version: **3.10.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Correction to Default Radio Configuration Timers.
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	07.05.2002
Category:	⌘	**F**
Release:	⌘	R99

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

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

Reason for change: ⌘

Clause 13.7 defines several default radio configurations which use 3.4 kbps signalling radio bearers. In all of these configurations the parameter timerStatusPeriodic has value 100ms for RB2 and RB3 (RLC AM), and the TTI associated with the signalling radio bearer transport channel has value 40ms.

Using this configuration, 2 STATUS PDUs will be transmitted every 100ms on a transport channel which has capacity for 25 RLC PDUs, and this could result in 80% of the available transport channel capacity being used for this overhead. This is an inefficient use of the available bandwidth.

Also, using this same configuration and then mapping a third AM signalling radio bearer onto the same transport channel could result in 120% transport channel capacity overhead. Furthermore, the inclusion of timerPollPeriodic polling, which also has value 100ms, with either of these previous examples will increase the transport channel capacity overhead even further.

It is proposed that the values of both timerStatusPeriodic and timerPollPeriodic are increased from 100ms to 300ms in all default radio configurations which use 3.4 kbps signalling radio bearers in clause 13.7 in order to significantly reduce the transport channel capacity overhead for these AM signalling radio bearers.

Summary of change: ⌘

The values of both timerStatusPeriodic and timerPollPeriodic have been increased from 100ms to 300ms in all default radio configurations which use 3.4 kbps signalling radio bearers in clause 13.7

Impact Analysis:

This is an isolated impact correction to the value for timerStatusPeriodic and timerPollPeriodic in the default radio configurations. No interworking problems are anticipated:

		UE implements/NW doesn't – UE will timeout slightly less frequently than the NW expects. NW implements/UE doesn't – UE will timeout slightly more frequently than the NW expects. In both cases the NW can reconfigure the UE if it wishes to change the timer values.
Consequences if not approved:	⌘	The default radio bearer configurations which use 3.4 kbps signalling radio bearers may not work.

Clauses affected:	⌘	13.7		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v4.4.0, CR 1452 25.331 v5.0.0, CR 1453
Other comments:	⌘			

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

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;
- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.

NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.

NOTE 3: For each default configuration, the value of both FDD and TDD parameters are specified. All parameters apply to both FDD and TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.

NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

Configuration	**3.4 kbps signalling**	**13.6 kbps signalling**	**7.95 kbps speech + 3.4 kbps signalling**	**12.2 kbps speech + 3.4 kbps signalling**
Ref 34.108	2	3	6	4
Default configuration identity	0	1	2	3
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5-RB6: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: 100	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5- RB6: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE RB5- RB6: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: 100	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured	RB1- RB3: configured	RB1- RB3: configured RB5- RB6: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>tf0/ tf0,1	TrCH1: (0x144, 1x144)	TrCH1: (0x144, 1x144)	TrCH1: (0x75) TrCH2: (0x 84 1x84) TrCH3: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103, 1x103) TrCH3: (0x 60, 1x60) TrCH4: (0x144, 1x144)
>>>>rlcSize	BitMode	BitMode	BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 75 TrCH2: type 1: 84 TrCH3: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one	TrCH1: Zero, one	TrCH1: Zero TrCH2-3: Zero, one	TrCH1: Zero TrCH2-4: Zero, one
>>>>logicalChannelList	All	All	All	All
>>>tf 1	N/A	N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One	TrCH1: One
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: 1: 39	TrCH1: 1: 39
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>>tf 2	N/A	N/A	TrCH1: (1x75) TrCH2- TrCH3: N/A	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: Zero	TrCH1: Zero
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75	TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>semistaticTF-Information				
>>>tti	TrCH1: 40	TrCH1: 10	TrCH1- TrCH2: 20 TrCH3: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	Convolutional	Convolutional	Convolutional	Convolutional
>>>>codingRate	TrCH1: Third	TrCH1: Third	TrCH1- TrCH2: Third TrCH3: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 160	TrCH1: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16	TrCH1: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Explicit <Only tf0 on TrCH1 is different and shown below>	Explicit <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS	DedicatedTransChTFS
>>>dynamicTF-information				

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>>tf0/ tf0,1			TrCH1: (1x0)	TrCH1: (1x0)
>>>>rlcSize			BitMode	bitMode
>>>>>sizeType			TrCH1: type 1: 0	TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			All	All
>>ULTrCH-Id	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $5x10^{-2}$	TrCH1: $5x10^{-2}$	TrCH1: $7x10^{-3}$ TrCH2- TrCH3: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0)	(TF0)	(TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1)	(TF1)	(TF1, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Signalled	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	11	11	N/A	N/A
>>>>>>>>βd	15	15	N/A	N/A
>>>>>>>>referenceTFCId	N/A	N/A	0	0
>>>>>>TFCS 3			(TF2, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc			5	11
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 4			(TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc			6	12
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>βc (FDD only)			N/A	N/A
>>>>>>>>βd			N/A	N/A
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 5			(TF1, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc			7	13
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 6			(TF2, TF1, TF1)	(TF2, TF1, TF1, TF1)

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>>>>>ctfc			11	23
>>>>>>>gainFactorInformation			Signalled	Signalled
>>>>>>>>βc (FDD only)			11	11
>>>>>>>>βd			15	15
>>>>>>>>referenceTFCId			0	0
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	1	1	1	0.88
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	256	128	128	128
>>pilotBits	4	4	4	4
>>positionFixed	N/A	N/A	Fixed	Fixed
PhyCH INFORMATION TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	-20	-20	-20	-20
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16
>>puncturingLimit	1	0.92	0.52	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.92	0.52	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
Ref 34.108	12	14	13	15
Default configuration identity	4	5	6	7
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
> Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 1x640) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 2x640) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576) TrCH2: (0x144, 1x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode
>>>>>sizeType	TrCH1: type 2, part1= 11, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero,1, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one TrCH2: Zero, one	TrCH1: Zero, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one, TrCH2: Zero, one
>>>>logicalChannelList	All	All	All	All
>>semiStaticTF-Information				
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 180 TrCH2: 160	TrCH1: 185 TrCH2: 160	TrCH1: 170 TrCH2: 160	TrCH1: 165 TrCH2: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>tfs-SignallingMode	SameAsUL	SameAsUL	SameAsUL	SameAsUL
>>transportFormatSet				
>>>dynamicTF-information				
>>>>tf0/ tf0,1				
>>>>rlcSize				

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>>sizeType				
>>>>numberOfTbSizeList				
>>>>logicalChannelList				
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF0, TF1)	(TF0, TF1)	(TF0, TF1)
>>>>>>>ctfc	2	2	2	2
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF1, TF1)	(TF1, TF1)	(TF1, TF1)
>>>>>>>ctfc	3	3	3	3
>>>>>>>gainFactorInformation	Computed	Signalled	Signalled	Signalled
>>>>>>>>βc (FDD only)	N/A	8	8	11
>>>>>>>>βd	N/A	15	15	15
>>>>>>>>referenceTFCId	N/A	N/A	N/A	N/A
>>>>>>TFCS 5	(TF1, TF1)	N/A	N/A	
>>>>>>>ctfc	4			
>>>>>>>gainFactorInformation	Computed			
>>>>>>>>referenceTFCId	8			
>>>>>>TFCS 6	(TF2, TF1)	N/A	N/A	
>>>>>>>ctfc	5			
>>>>>>>gainFactorInformation	Signalled			
>>>>>>>>βc (FDD only)	8			
>>>>>>>>βd	15			
>>>>>>>>referenceTFCId	N/A			
>>>>>>TFCS 7				
>>>>>>>ctfc				

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 8				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 9				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 10				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>βc (FDD only)				
>>>>>>>>βd				
>>>>>>>>referenceTFCId				
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	0.92	0.8	0.92	1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	64	64	32	128
>>pilotBits	8	8	8	8
>>positionFixed	Flexible	Flexible	Flexible	Flexible
PhyCH INFORMATION TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	-20	-20	-20	-20
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.44	0.8	0.56	0.8
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.44	0.64	0.56	0.8

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
Ref 34.108	16	17	1a
Default configuration identity	8	9	10
RB INFORMATION			
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
rb-MappingInfo			
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList			
>>Mapping option 1	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH			
UL-AddReconfTransChInfoList			
>Uplink transport channel type	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information			
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576, 2x576, 3x576, 4x576) TrCH2: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103 TrCH3: (0x 60) TrCH4: (0x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one, 2 TrCH2: Zero, one	TrCH1: Zero, one, 2, 3, 4 TrCH2: Zero, one	TrCH1-4: Zero
>>>>logicalChannelList	All	All	All
>>>tf 1			TrCH1: (1x39) TrCH2: (1x53) TrCH3: (1x60) TrCH4: (1x144)
>>>>numberOfTransportBlocks			TrCH1-3: One

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>>rlc-Size			TrCH1-3: BitMode
>>>>>sizeType			TrCH1: 1: 39 TrCH2: 1: 53 TrCH3: 1: 60
>>>>numberOfTbSizeList			TrCH1-3: One
>>>>logicalChannelList			TrCH1-3: all
>>>tf 2			TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 3			TrCH1: (1x55) TrCH2: (1x84) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: Zero
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 55 TrCH2: type 1: 84
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 4			TrCH1: (1x75) TrCH2: (1x103) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75 TrCH2: type 1: 103
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 5			TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			TrCH1: all
>>semiStaticTF-Information			
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 40 TrCH2: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 155 TrCH2: 160	TrCH1: 145 TrCH2: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
DL-AddReconfTransChInfoList			
>Downlink transport channel type	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Independent <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS
>>>dynamicTF-information			
>>>>tf0/ tf0,1			TrCH1: (1x0)
>>>>rlcSize			bitMode
>>>>>sizeType			TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			All
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget			
>>bler-QualityValue	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON			
ul-CommonTransChInfo			
>tfcs-ID (TDD only)	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete
>>>ctfcSize	Ctfc4Bit	Ctfc4Bit	Ctfc8Bit
>>>>TFCS representation	Addition	Addition	Addition
>>>>>TFCS list			
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF2, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	2	2	8
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>>>>TFCS 4	(TF0, TF1)	(TF3, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	3	3	15
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 5	(TF1, TF1)	(TF4, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	4	4	22
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 6	(TF2, TF1)	(TF0, TF1)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	5	5	59
>>>>>>>gainFactorInformation	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	8	N/A	N/A
>>>>>>>>βd	15	N/A	N/A
>>>>>>>>referenceTFCId	N/A	0	0
>>>>>>TFCS 7		(TF1, TF1)	(TF0,TF0,TF0,TF1)
>>>>>>>ctfc		6	60
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 8		(TF2, TF1)	(TF1,TF0,TF0,TF1)
>>>>>>>ctfc		7	61
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 9		(TF3, TF1)	(TF2,TF1,TF0,TF1)
>>>>>>>ctfc		8	68
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 10		(TF4, TF1)	(TF3,TF2,TF0,TF1)
>>>>>>>ctfc		9	75
>>>>>>>gainFactorInformation		Signalled	Computed
>>>>>>>>βc (FDD only)		8	N/A
>>>>>>>>βd		15	N/A
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 11			(TF4,TF3,TF0,TF1)
>>>>>>>ctfc			82
>>>>>>>gainFactorInformation			Computed
>>>>>>>>referenceTFCId			0
>>>>>>TFCS 12			(TF5,TF4,TF1,TF1)
>>>>>>>ctfc			119
>>>>>>>gainFactorInformation			Signalled
>>>>>>>>βc (FDD only)			11
>>>>>>>>βd			15
>>>>>>>>referenceTFCId			0
dl-CommonTransChInfo			
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD			

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE
>puncturingLimit	1	1	0.88
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>spreadingFactor	64	32	128
>>pilotBits	8	8	4
>>positionFixed	Flexible	Flexible	Fixed
PhyCH INFORMATION TDD			
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>dpch-ConstantValue	-20	-20	-20
>commonTimeslotInfo			
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	16	16
>>puncturingLimit	0.44	0.48	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.44	0.48	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

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CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1452** ⌘ **rev** **-** ⌘ Current version: **4.4.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Correction to Default Radio Configuration Timers.
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	07.05.2002
Category:	⌘	**A**
Release:	⌘	REL-4

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

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

Reason for change:	⌘	Clause 13.7 defines several default radio configurations which use 3.4 kbps signalling radio bearers. In all of these configurations the parameter timerStatusPeriodic has value 100ms for RB2 and RB3 (RLC AM), and the TTI associated with the signalling radio bearer transport channel has value 40ms. Using this configuration, 2 STATUS PDUs will be transmitted every 100ms on a transport channel which has capacity for 25 RLC PDUs, and this could result in 80% of the available transport channel capacity being used for this overhead. This is an inefficient use of the available bandwidth. Also, using this same configuration and then mapping a third AM signalling radio bearer onto the same transport channel could result in 120% transport channel capacity overhead. Furthermore, the inclusion of timerPollPeriodic polling, which also has value 100ms, with either of these previous examples will increase the transport channel capacity overhead even further. It is proposed that the values of both timerStatusPeriodic and timerPollPeriodic are increased from 100ms to 300ms in all default radio configurations which use 3.4 kbps signalling radio bearers in clause 13.7 in order to significantly reduce the transport channel capacity overhead for these AM signalling radio bearers.
Summary of change:	⌘	The values of both timerStatusPeriodic and timerPollPeriodic have been increased from 100ms to 300ms in all default radio configurations which use 3.4 kbps signalling radio bearers in clause 13.7
Consequences if not approved:	⌘	The default radio bearer configurations which use 3.4 kbps signalling radio bearers may not work.

Clauses affected:	⌘	13.7

Other specs	⌘	Other core specifications	⌘	25.331 v3.10.0, CR 1451 25.331 v5.0.0, CR 1453
affected:		Test specifications O&M Specifications		
Other comments:	⌘			

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

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

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

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

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;
- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.

NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.

NOTE 3: For each default configuration, the value of FDD, 3.84 Mcps TDD and 1.28 Mcps TDD parameters are specified. All parameters apply to FDD, 3.84 Mcps TDD and 1.28 Mcps TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.

NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

Configuration	**3.4 kbps signalling**	**13.6 kbps signalling**	**7.95 kbps speech + 3.4 kbps signalling**	**12.2 kbps speech + 3.4 kbps signalling**
Ref 34.108	2	3	6	4
Default configuration identity	0	1	2	3
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5-RB6: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: 100	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5- RB6: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE RB5- RB6: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: 100	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured	RB1- RB3: configured	RB1- RB3: configured RB5- RB6: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>tf0/ tf0,1	TrCH1: (0x144, 1x144)	TrCH1: (0x144, 1x144)	TrCH1: (0x75) TrCH2: (0x 84 1x84) TrCH3: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103, 1x103) TrCH3: (0x 60, 1x60) TrCH4: (0x144, 1x144)
>>>>rlcSize	BitMode	BitMode	BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 75 TrCH2: type 1: 84 TrCH3: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one	TrCH1: Zero, one	TrCH1: Zero TrCH2-3: Zero, one	TrCH1: Zero TrCH2-4: Zero, one
>>>>logicalChannelList	All	All	All	All
>>>tf 1	N/A	N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One	TrCH1: One
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: 1: 39	TrCH1: 1: 39
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>>tf 2	N/A	N/A	TrCH1: (1x75) TrCH2- TrCH3: N/A	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: Zero	TrCH1: Zero
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75	TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>semistaticTF-Information				
>>>tti	TrCH1: 40	TrCH1: 10	TrCH1- TrCH2: 20 TrCH3: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	Convolutional	Convolutional	Convolutional	Convolutional
>>>>codingRate	TrCH1: Third	TrCH1: Third	TrCH1- TrCH2: Third TrCH3: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 160	TrCH1: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16	TrCH1: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Explicit <Only tf0 on TrCH1 is different and shown below>	Explicit <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS	DedicatedTransChTFS
>>>dynamicTF-information				

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>>tf0/ tf0,1			TrCH1: (1x0)	TrCH1: (1x0)
>>>>rlcSize			BitMode	bitMode
>>>>>sizeType			TrCH1: type 1: 0	TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			All	All
>>ULTrCH-Id	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $5x10^{-2}$	TrCH1: $5x10^{-2}$	TrCH1: $7x10^{-3}$ TrCH2- TrCH3: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0)	(TF0)	(TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1)	(TF1)	(TF1, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Signalled	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	11	11	N/A	N/A
>>>>>>>>βd	15	15	N/A	N/A
>>>>>>>>referenceTFCId	N/A	N/A	0	0
>>>>>>TFCS 3			(TF2, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc			5	11
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 4			(TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc			6	12
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>βc (FDD only)			N/A	N/A
>>>>>>>>βd			N/A	N/A
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 5			(TF1, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc			7	13
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 6			(TF2, TF1, TF1)	(TF2, TF1, TF1, TF1)

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>>>>>ctfc			11	23
>>>>>>>gainFactorInformation			Signalled	Signalled
>>>>>>>>βc (FDD only)			11	11
>>>>>>>>βd			15	15
>>>>>>>>referenceTFCId			0	0
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	1	1	1	0.88
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	256	128	128	128
>>pilotBits	4	4	4	4
>>positionFixed	N/A	N/A	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	-20	-20	-20	-20
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16
>>puncturingLimit	1	0.92	0.52	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.92	0.52	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16
>>puncturingLimit	1	0.64	0.80	0.60
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.64	0.80	0.60
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
Ref 34.108	12	14	13	15
Default configuration identity	4	5	6	7
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 1x640) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 2x640) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576) TrCH2: (0x144, 1x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode
>>>>>sizeType	TrCH1: type 2, part1= 11, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero,1, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one TrCH2: Zero, one	TrCH1: Zero, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one, TrCH2: Zero, one
>>>>logicalChannelList	All	All	All	All
>>semiStaticTF-Information				
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 180 TrCH2: 160	TrCH1: 185 TrCH2: 160	TrCH1: 170 TrCH2: 160	TrCH1: 165 TrCH2: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>tfs-SignallingMode	SameAsUL	SameAsUL	SameAsUL	SameAsUL
>>transportFormatSet				
>>>dynamicTF-information				
>>>>tf0/ tf0,1				
>>>>rlcSize				
>>>>>sizeType				
>>>>numberOfTbSizeList				
>>>>logicalChannelList				
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF0, TF1)	(TF0, TF1)	(TF0, TF1)
>>>>>>>ctfc	2	2	2	2
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF1, TF1)	(TF1, TF1)	(TF1, TF1)
>>>>>>>ctfc	3	3	3	3
>>>>>>>gainFactorInformation	Computed	Signalled	Signalled	Signalled

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>>>>>βc (FDD only)	N/A	8	8	11
>>>>>>>>βd	N/A	15	15	15
>>>>>>>>referenceTFCId	N/A	N/A	N/A	N/A
>>>>>>TFCS 5	(TF1, TF1)	N/A	N/A	
>>>>>>>ctfc	4			
>>>>>>>gainFactorInformation	Computed			
>>>>>>>>referenceTFCId	8			
>>>>>>TFCS 6	(TF2, TF1)	N/A	N/A	
>>>>>>>ctfc	5			
>>>>>>>gainFactorInformation	Signalled			
>>>>>>>>βc (FDD only)	8			
>>>>>>>>βd	15			
>>>>>>>>referenceTFCId	N/A			
>>>>>>TFCS 7				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 8				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 9				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 10				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>βc (FDD only)				
>>>>>>>>βd				
>>>>>>>>referenceTFCId				
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	0.92	0.8	0.92	1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	64	64	32	128
>>pilotBits	8	8	8	8
>>positionFixed	Flexible	Flexible	Flexible	Flexible
PhyCH INFORMATION 3.84 Mcps TDD				
UL-DPCH-InfoPredef				

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	-20	-20	-20	-20
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.44	0.8	0.56	0.8
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.44	0.64	0.56	0.8
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.64	0.60	0.64	1
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.64	0.60	0.64	0.88
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
Ref 34.108	16	17	1a
Default configuration identity	8	9	10
RB INFORMATION			
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo			
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList			

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>Mapping option 1	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH			
UL-AddReconfTransChInfoList			
>Uplink transport channel type	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information			
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576, 2x576, 3x576, 4x576) TrCH2: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103 TrCH3: (0x 60) TrCH4: (0x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one, 2 TrCH2: Zero, one	TrCH1: Zero, one, 2, 3, 4 TrCH2: Zero, one	TrCH1-4: Zero
>>>>logicalChannelList	All	All	All
>>>tf 1			TrCH1: (1x39) TrCH2: (1x53) TrCH3: (1x60) TrCH4: (1x144)
>>>>numberOfTransportBlocks			TrCH1-3: One
>>>>rlc-Size			TrCH1-3: BitMode
>>>>>sizeType			TrCH1: 1: 39 TrCH2: 1: 53 TrCH3: 1: 60
>>>>numberOfTbSizeList			TrCH1-3: One
>>>>logicalChannelList			TrCH1-3: all
>>>tf 2			TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>tf 3			TrCH1: (1x55) TrCH2: (1x84) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: Zero
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 55 TrCH2: type 1: 84
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 4			TrCH1: (1x75) TrCH2: (1x103) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75 TrCH2: type 1: 103
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 5			TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			TrCH1: all
>>semiStaticTF-Information			
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 40 TrCH2: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 155 TrCH2: 160	TrCH1: 145 TrCH2: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList			
>Downlink transport channel type	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Independent <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS
>>>dynamicTF-information			

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>>tf0/ tf0,1			TrCH1: (1x0)
>>>>rlcSize			bitMode
>>>>>sizeType			TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			All
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget			
>>bler-QualityValue	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON			
ul-CommonTransChInfo			
>tfcs-ID (TDD only)	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete
>>>ctfcSize	Ctfc4Bit	Ctfc4Bit	Ctfc8Bit
>>>>TFCS representation	Addition	Addition	Addition
>>>>>TFCS list			
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF2, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	2	2	8
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF3, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	3	3	15
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 5	(TF1, TF1)	(TF4, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	4	4	22
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>>>>TFCS 6	(TF2, TF1)	(TF0, TF1)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	5	5	59
>>>>>>>gainFactorInformation	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	8	N/A	N/A
>>>>>>>>βd	15	N/A	N/A
>>>>>>>>referenceTFCId	N/A	0	0
>>>>>>TFCS 7		(TF1, TF1)	(TF0,TF0,TF0,TF1)
>>>>>>>ctfc		6	60
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 8		(TF2, TF1)	(TF1,TF0,TF0,TF1)
>>>>>>>ctfc		7	61
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 9		(TF3, TF1)	(TF2,TF1,TF0,TF1)
>>>>>>>ctfc		8	68
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 10		(TF4, TF1)	(TF3,TF2,TF0,TF1)
>>>>>>>ctfc		9	75
>>>>>>>gainFactorInformation		Signalled	Computed
>>>>>>>>βc (FDD only)		8	N/A
>>>>>>>>βd		15	N/A
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 11			(TF4,TF3,TF0,TF1)
>>>>>>>ctfc			82
>>>>>>>gainFactorInformation			Computed
>>>>>>>>referenceTFCId			0
>>>>>>TFCS 12			(TF5,TF4,TF1,TF1)
>>>>>>>ctfc			119
>>>>>>>gainFactorInformation			Signalled
>>>>>>>>βc (FDD only)			11
>>>>>>>>βd			15
>>>>>>>>referenceTFCId			0
dl-CommonTransChInfo			
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD			
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE
>puncturingLimit	1	1	0.88
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>spreadingFactor	64	32	128
>>pilotBits	8	8	4

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>positionFixed	Flexible	Flexible	Fixed
PhyCH INFORMATION 3.84 Mcps TDD			
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>dpch-ConstantValue	-20	-20	-20
>commonTimeslotInfo			
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	16	16
>>puncturingLimit	0.44	0.48	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.44	0.48	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD			
UL-DPCH-InfoPredef			
>commonTimeslotInfo			
>>secondInterleavingMode	frameRelated	frameRelated	
>>tfci-Coding	16	16	
>>puncturingLimit	0.64	0.72	
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.64	0.72	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	10.2/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling	7.4/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling
Ref 34.108	N/A	N/A
Default configuration identity	11	12
RB INFORMATION		
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6
rlc-InfoChoice	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5-RB7: TM	RB1: UM RB2- RB3: AM RB5-RB6: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5- RB7: N/A	RB1: N/A RB2- RB3: as below RB5- RB6: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5- RB7: FALSE	RB1- RB3: N/A RB5- RB6: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5- RB7: TM RB8: TM	RB1: UM RB2- RB3: AM RB5- RB6: TM RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5- RB8: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5- RB8: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5- RB7: N/A	RB1: N/A RB2- RB3: as below RB5- RB6: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5- RB7: FALSE	RB1- RB3: N/A RB5- RB6: FALSE
rb-MappingInfo		
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch

>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3,	RB1- RB3: 3 RB5: 1, RB6: 2
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A
>>rlc-SizeList	RB1- RB3: configured RB5- RB7: N/A	RB1- RB3: configured RB5- RB6: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5
>DL-logicalChannelMappingList		
>>Mapping option 1	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3, RB8: 5	RB1- RB3: 3 RB5: 1, RB6: 2, RB7:4
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB8: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH		
UL-AddReconfTransChInfoList		
>Uplink transport channel type	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4	TrCH1: 1, TrCH2: 2, TrCH3: 3
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information		
>>>tf0/ tf0,1	TrCH1: (0x65) TrCH2: (0x 99) TrCH3: (0x 40, 1x40) TrCH4: (0x144, 1x144)	TrCH1: (0x61) TrCH2: (0x 87) TrCH3: (0x 144, 1x144)
>>>>rlcSize	BitMode	BitMode
>>>>>sizeType	TrCH1: type 1: 65 TrCH2: type 1: 99 TrCH3: type 1: 40 TrCH4: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 61 TrCH2: type 1: 87 TrCH3: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1-2: Zero TrCH3-4: Zero, one	TrCH1-2: Zero TrCH3: Zero, one
>>>>logicalChannelList	All	All
>>>tf 1	TrCH1: (1x39) TrCH2: (1x 53) TrCH3- TrCH4: N/A	TrCH1: (1x39) TrCH2: (1x53) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>rlc-Size	TrCH1-2: BitMode	TrCH1-2: BitMode
>>>>>sizeType	TrCH1: 1: 39 TrCH2: 1: 53	TrCH1: 1: 39 TrCH1: 1: 53
>>>>numberOfTbSizeList	TrCH1-2: One	TrCH1-2: One
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>>tf 2	TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A	TrCH1: (1x42) TrCH2: (1x63) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode

>>>>>sizeType	TrCH1: type 1: 42 TrCH2: type 1: 63	TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 3	TrCH1: (1x55) TrCH2: (1x76) TrCH3- TrCH4: N/A	TrCH1: (1x55) TrCH2: (1x76) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 55 TrCH2: type 1: 76	TrCH1: type 1: 55 TrCH2: type 1: 76
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 4	TrCH1: (1x58) TrCH2: (1x99) TrCH3- TrCH4: N/A	TrCH1: (1x58) TrCH2: (1x87) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 58 TrCH2: type 1: 99	TrCH1: type 1: 58 TrCH2: type 1: 87
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 5	TrCH1: (1x65) TrCH2- TrCH4: N/A	TrCH1: (1x61) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks	TrCH1: One	TrCH1: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 42	TrCH1: type 1: 42
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>semistaticTF-Information		
>>>tti	TrCH1- TrCH3: 20 TrCH4: 40	TrCH1- TrCH2: 20 TrCH3: 40
>>>channelCodingType	Convolutional	Convolutional
>>>>codingRate	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third	TrCH1- TrCH2: Third TrCH3: Third
>>>rateMatchingAttribute	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160
>>>crc-Size	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16
DL-AddReconfTransChInfoList		
>Downlink transport channel type	dch	dch
>dl-TransportChannelIdentity		
>tfs-SignallingMode	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH5 are different and shown below>	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH4 are different and shown below>
>>transportFormatSet		
>>>dynamicTF-information		

>>>>tf0/ tf0,1	TrCH1: (1x0) TrCH5: (0x7, 1x7)	TrCH1: (1x0) TrCH4: (0x7, 1x7)
>>>>rlcSize	BitMode	bitMode
>>>>>sizeType	TrCH1: type 1: 0 TrCH5: type 1: 7	TrCH1: type 1: 0 TrCH4: type 1: 7
>>>>numberOfTbSizeList	TrCH1: One TrCH5: Zero, one	TrCH1: One TrCH4: Zero, one
>>>>logicalChannelList	All	All
>>>semistaticTF-Information	same as UL except for TrCH5	same as DL except for TrCH4
>>>>tti	TrCH5: 20	TrCH4: 20
>>>>channelCodingType	Convolutional	Convolutional
>>>>>codingRate	TrCH5: Third	TrCH4: Third
>>>>rateMatchingAttribute	TrCH5: 200	TrCH4: 200
>>>>crc-Size	TrCH5: 12	TrCH4: 12
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4,	TrCH1: 1, TrCH2: 2, TrCH3: 3
>dch-QualityTarget		
>>bler-QualityValue	TrCH1: $7x10^{-3}$ TrCH2- TrCH5: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON		
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFC list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0)	(TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0)	(TF1, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A
>>>>>>>>βd	N/A	N/A
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 3	(TF2, TF1, TF0, TF0)	(TF2, TF1, TF0)
>>>>>>>ctfc	8	8
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 4	(TF3, TF2, TF0, TF0)	(TF3, TF2, TF0)
>>>>>>>ctfc	15	15
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0

>>>>>>TFC 5	(TF4, TF3, TF0, TF0)	(TF4, TF3, TF0)
>>>>>>>ctfc	22	22
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 6	(TF5, TF4, TF1, TF0)	(TF5, TF4, TF0)
>>>>>>>ctfc	59	29
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 7	(TF0, TF0, TF0, TF1)	(TF0, TF0, TF1)
>>>>>>>ctfc	60	30
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 8	(TF1, TF0, TF0, TF1)	(TF1, TF0, TF1)
>>>>>>>ctfc	61	31
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 9	(TF2, TF1, TF0, TF1)	(TF2, TF1, TF1)
>>>>>>>ctfc	68	38
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId		
>>>>>>TFC 10	(TF3, TF2, TF0, TF1)	(TF3, TF2, TF1)
>>>>>>>ctfc	75	45
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 11	(TF4, TF3, TF0, TF1)	(TF4, TF3, TF1)
>>>>>>>ctfc	82	52
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId		
>>>>>>TFC 12	(TF5, TF4, TF1, TF1)	(TF5, TF4, TF1)
>>>>>>>ctfc	97	59
>>>>>>>gainFactorInformation	signalled	signalled
>>>>>>>>βc (FDD only)	11	11
>>>>>>>>βd	15	15
>>>>>>>>referenceTFCId		
> TFC subset list		
>>TFC subset 1	(speech rate 10.2)	(speech rate 7.4)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)
>>TFC subset 2	(speech rate 6.7)	(speech rate 6.7)

>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)
>>TFC subset 3	(speech rate 5.9)	(speech rate 5.9)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)
>>TFC subset 4	(speech rate 4.75)	(speech rate 4.75)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)
dl-CommonTransChInfo		
>tfcs-SignallingMode	Independent	Independent
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>dl-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFCS list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>TFC 3	(TF2, TF1, TF0, TF0, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	8	8
>>>>>>TFC 4	(TF3, TF2, TF0, TF0, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	15	15
>>>>>>TFC 5	(TF4, TF3, TF0, TF0, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	22	22
>>>>>>TFC 6	(TF5, TF4, TF1, TF0, TF0)	(TF5, TF4, TF0, TF0)
>>>>>>>ctfc	59	29
>>>>>>TFC 7	(TF0, TF0, TF0, TF1, TF0)	(TF0, TF0, TF1, TF0)
>>>>>>>ctfc	60	30
>>>>>>TFC 8	(TF1, TF0, TF0, TF1, TF0)	(TF1, TF0, TF1, TF0)
>>>>>>>ctfc	61	31
>>>>>>TFC 9	(TF2, TF1, TF0, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc	68	37
>>>>>>TFC 10	(TF3, TF2, TF0, TF1, TF0)	(TF3, TF2, TF1, TF0)
>>>>>>>ctfc	75	55
>>>>>>TFC 11	(TF4, TF3, TF0, TF1, TF0)	(TF4, TF3, TF1, TF0)
>>>>>>>ctfc	82	52
>>>>>>TFC 12	(TF5, TF4, TF1, TF1, TF0)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	119	59
>>>>>>TFC 13	(TF0, TF0, TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc	120	60

>>>>>>TFC 14	(TF1, TF0, TF0, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc	121	61
>>>>>>TFC 15	(TF2, TF1, TF0, TF0, TF1)	(TF2, TF1, TF0, TF1)
>>>>>>>ctfc	128	68
>>>>>>TFC 16	(TF3, TF2, TF0, TF0, TF1)	(TF3, TF2, TF0, TF1)
>>>>>>>ctfc	135	75
>>>>>>TFC 17	(TF4, TF3, TF0, TF0, TF1)	(TF4, TF3, TF0, TF1)
>>>>>>>ctfc	152	82
>>>>>>TFC 18	(TF5, TF4, TF1, TF0, TF1)	(TF5, TF4, TF0, TF1)
>>>>>>>ctfc	189	89
>>>>>>TFC 19	(TF0, TF0, TF0, TF1, TF1)	(TF0, TF0, TF1, TF1)
>>>>>>>ctfc	180	90
>>>>>>TFC 20	(TF1, TF0, TF0, TF1, TF1)	(TF1, TF0, TF1, TF1)
>>>>>>>ctfc	181	91
>>>>>>TFC 21	(TF2, TF1, TF0, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>>>ctfc	188	98
>>>>>>TFC 22	(TF3, TF2, TF0, TF1, TF1)	(TF3, TF2, TF1, TF1)
>>>>>>>ctfc	195	105
>>>>>>TFC 23	(TF4, TF3, TF0, TF1, TF1)	(TF4, TF3, TF1, TF1)
>>>>>>>ctfc	239	112
>>>>>>TFC 24	(TF5, TF4, TF1, TF1, TF1)	(TF5, TF4, TF1, TF1)
>>>>>>>ctfc	218	119
PhyCH INFORMATION FDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>powerControlAlgorithm	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1
>tfci-Existence	TRUE	TRUE
>puncturingLimit	0.88	0.88
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>spreadingFactor	128	128
>>pilotBits	4	4
>>positionFixed	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>dpch-ConstantValue	-20	-20
>commonTimeslotInfo		
>>secondInterleavingMode	frameRelated	frameRelated
>>tfci-Coding	16	16
>>puncturingLimit	0.60	0.60
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		

>>>secondInterleavingMode	frameRelated	frameRelated
>>>tfci-Coding	16	16
>>>puncturingLimit	0.60	0.60
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD		
UL-DPCH-InfoPredef		
>commonTimeslotInfo		
>>secondInterleavingMode	frame Related	frame Related
>>tfci-Coding	16	16
>>puncturingLimit	0.64	0.64
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMode	frame Related	frame Related
>>>tfci-Coding	16	16
>>>puncturingLimit	0.64	0.64
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1

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CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1453** ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Correction to Default Radio Configuration Timers.
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	07.05.2002
Category:	⌘	**A**
Release:	⌘	REL-5

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

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

Reason for change: ⌘

Clause 13.7 defines several default radio configurations which use 3.4 kbps signalling radio bearers. In all of these configurations the parameter timerStatusPeriodic has value 100ms for RB2 and RB3 (RLC AM), and the TTI associated with the signalling radio bearer transport channel has value 40ms.

Using this configuration, 2 STATUS PDUs will be transmitted every 100ms on a transport channel which has capacity for 25 RLC PDUs, and this could result in 80% of the available transport channel capacity being used for this overhead. This is an inefficient use of the available bandwidth.

Also, using this same configuration and then mapping a third AM signalling radio bearer onto the same transport channel could result in 120% transport channel capacity overhead. Furthermore, the inclusion of timerPollPeriodic polling, which also has value 100ms, with either of these previous examples will increase the transport channel capacity overhead even further.

It is proposed that the values of both timerStatusPeriodic and timerPollPeriodic are increased from 100ms to 300ms in all default radio configurations which use 3.4 kbps signalling radio bearers in clause 13.7 in order to significantly reduce the transport channel capacity overhead for these AM signalling radio bearers.

Summary of change: ⌘

The values of both timerStatusPeriodic and timerPollPeriodic have been increased from 100ms to 300ms in all default radio configurations which use 3.4 kbps signalling radio bearers in clause 13.7

Consequences if not approved: ⌘

The default radio bearer configurations which use 3.4 kbps signalling radio bearers may not work.

Clauses affected: ⌘ 13.7

Other specs affected:	⌘	Other core specifications Test specifications O&M Specifications	⌘	25.331 v3.10.0, CR 1451 25.331 v4.4.0, CR 1452
Other comments:	⌘			

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

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

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

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

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;
- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.

NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.

NOTE 3: For each default configuration, the value of FDD, 3.84 Mcps TDD and 1.28 Mcps TDD parameters are specified. All parameters apply to FDD, 3.84 Mcps TDD and 1.28 Mcps TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.

NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

Configuration	**3.4 kbps signalling**	**13.6 kbps signalling**	**7.95 kbps speech + 3.4 kbps signalling**	**12.2 kbps speech + 3.4 kbps signalling**
Ref 34.108	2	3	6	4
Default configuration identity	0	1	2	3
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5-RB6: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: 100	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5- RB6: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE RB5- RB6: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: 100	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured	RB1- RB3: configured	RB1- RB3: configured RB5- RB6: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>tf0/ tf0,1	TrCH1: (0x144, 1x144)	TrCH1: (0x144, 1x144)	TrCH1: (0x75) TrCH2: (0x 84 1x84) TrCH3: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103, 1x103) TrCH3: (0x 60, 1x60) TrCH4: (0x144, 1x144)
>>>>rlcSize	BitMode	BitMode	BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 75 TrCH2: type 1: 84 TrCH3: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one	TrCH1: Zero, one	TrCH1: Zero TrCH2-3: Zero, one	TrCH1: Zero TrCH2-4: Zero, one
>>>>logicalChannelList	All	All	All	All
>>>tf 1	N/A	N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One	TrCH1: One
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: 1: 39	TrCH1: 1: 39
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>>tf 2	N/A	N/A	TrCH1: (1x75) TrCH2- TrCH3: N/A	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: Zero	TrCH1: Zero
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75	TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>semistaticTF-Information				
>>>tti	TrCH1: 40	TrCH1: 10	TrCH1- TrCH2: 20 TrCH3: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	Convolutional	Convolutional	Convolutional	Convolutional
>>>>codingRate	TrCH1: Third	TrCH1: Third	TrCH1- TrCH2: Third TrCH3: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 160	TrCH1: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16	TrCH1: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Explicit <Only tf0 on TrCH1 is different and shown below>	Explicit <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS	DedicatedTransChTFS
>>>dynamicTF-information				

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>>tf0/ tf0,1			TrCH1: (1x0)	TrCH1: (1x0)
>>>>rlcSize			BitMode	bitMode
>>>>>sizeType			TrCH1: type 1: 0	TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			All	All
>>ULTrCH-Id	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $5x10^{-2}$	TrCH1: $5x10^{-2}$	TrCH1: $7x10^{-3}$ TrCH2- TrCH3: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0)	(TF0)	(TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1)	(TF1)	(TF1, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Signalled	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	11	11	N/A	N/A
>>>>>>>>βd	15	15	N/A	N/A
>>>>>>>>referenceTFCId	N/A	N/A	0	0
>>>>>>TFCS 3			(TF2, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc			5	11
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 4			(TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc			6	12
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>βc (FDD only)			N/A	N/A
>>>>>>>>βd			N/A	N/A
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 5			(TF1, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc			7	13
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 6			(TF2, TF1, TF1)	(TF2, TF1, TF1, TF1)

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>>>>>ctfc			11	23
>>>>>>>gainFactorInformation			Signalled	Signalled
>>>>>>>>βc (FDD only)			11	11
>>>>>>>>βd			15	15
>>>>>>>>referenceTFCId			0	0
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	1	1	1	0.88
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	256	128	128	128
>>pilotBits	4	4	4	4
>>positionFixed	N/A	N/A	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	-20	-20	-20	-20
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16
>>puncturingLimit	1	0.92	0.52	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.92	0.52	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16
>>puncturingLimit	1	0.64	0.80	0.60
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.64	0.80	0.60
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
Ref 34.108	12	14	13	15
Default configuration identity	4	5	6	7
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 1x640) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 2x640) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576) TrCH2: (0x144, 1x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode
>>>>>sizeType	TrCH1: type 2, part1= 11, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero,1, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one TrCH2: Zero, one	TrCH1: Zero, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one, TrCH2: Zero, one
>>>>logicalChannelList	All	All	All	All
>>semiStaticTF-Information				
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 180 TrCH2: 160	TrCH1: 185 TrCH2: 160	TrCH1: 170 TrCH2: 160	TrCH1: 165 TrCH2: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>tfs-SignallingMode	SameAsUL	SameAsUL	SameAsUL	SameAsUL
>>transportFormatSet				
>>>dynamicTF-information				
>>>>tf0/ tf0,1				
>>>>rlcSize				
>>>>>sizeType				
>>>>numberOfTbSizeList				
>>>>logicalChannelList				
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF0, TF1)	(TF0, TF1)	(TF0, TF1)
>>>>>>>ctfc	2	2	2	2
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF1, TF1)	(TF1, TF1)	(TF1, TF1)
>>>>>>>ctfc	3	3	3	3
>>>>>>>gainFactorInformation	Computed	Signalled	Signalled	Signalled

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>>>>>βc (FDD only)	N/A	8	8	11
>>>>>>>>βd	N/A	15	15	15
>>>>>>>>referenceTFCId	N/A	N/A	N/A	N/A
>>>>>>TFCS 5	(TF1, TF1)	N/A	N/A	
>>>>>>>ctfc	4			
>>>>>>>gainFactorInformation	Computed			
>>>>>>>>referenceTFCId	8			
>>>>>>TFCS 6	(TF2, TF1)	N/A	N/A	
>>>>>>>ctfc	5			
>>>>>>>gainFactorInformation	Signalled			
>>>>>>>>βc (FDD only)	8			
>>>>>>>>βd	15			
>>>>>>>>referenceTFCId	N/A			
>>>>>>TFCS 7				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 8				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 9				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 10				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>βc (FDD only)				
>>>>>>>>βd				
>>>>>>>>referenceTFCId				
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	0.92	0.8	0.92	1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	64	64	32	128
>>pilotBits	8	8	8	8
>>positionFixed	Flexible	Flexible	Flexible	Flexible
PhyCH INFORMATION 3.84 Mcps TDD				
UL-DPCH-InfoPredef				

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	-20	-20	-20	-20
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.44	0.8	0.56	0.8
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.44	0.64	0.56	0.8
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.64	0.60	0.64	1
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.64	0.60	0.64	0.88
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
Ref 34.108	16	17	1a
Default configuration identity	8	9	10
RB INFORMATION			
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo			
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList			

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>Mapping option 1	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH			
UL-AddReconfTransChInfoList			
>Uplink transport channel type	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information			
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576, 2x576, 3x576, 4x576) TrCH2: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103 TrCH3: (0x 60) TrCH4: (0x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one, 2 TrCH2: Zero, one	TrCH1: Zero, one, 2, 3, 4 TrCH2: Zero, one	TrCH1-4: Zero
>>>>logicalChannelList	All	All	All
>>>tf 1			TrCH1: (1x39) TrCH2: (1x53) TrCH3: (1x60) TrCH4: (1x144)
>>>>numberOfTransportBlocks			TrCH1-3: One
>>>>rlc-Size			TrCH1-3: BitMode
>>>>>sizeType			TrCH1: 1: 39 TrCH2: 1: 53 TrCH3: 1: 60
>>>>numberOfTbSizeList			TrCH1-3: One
>>>>logicalChannelList			TrCH1-3: all
>>>tf 2			TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>tf 3			TrCH1: (1x55) TrCH2: (1x84) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: Zero
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 55 TrCH2: type 1: 84
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 4			TrCH1: (1x75) TrCH2: (1x103) TrCH3- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1-2: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75 TrCH2: type 1: 103
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 5			TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One
>>>>rlc-Size			TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			TrCH1: all
>>semiStaticTF-Information			
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 40 TrCH2: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 155 TrCH2: 160	TrCH1: 145 TrCH2: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList			
>Downlink transport channel type	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Independent <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS
>>>dynamicTF-information			

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>>tf0/ tf0,1			TrCH1: (1x0)
>>>>rlcSize			bitMode
>>>>>sizeType			TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			All
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget			
>>bler-QualityValue	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON			
ul-CommonTransChInfo			
>tfcs-ID (TDD only)	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete
>>>ctfcSize	Ctfc4Bit	Ctfc4Bit	Ctfc8Bit
>>>>TFCS representation	Addition	Addition	Addition
>>>>>TFCS list			
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF2, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	2	2	8
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF3, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	3	3	15
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0
>>>>>>TFCS 5	(TF1, TF1)	(TF4, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	4	4	22
>>>>>>>gainFactorInformation	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>>>>TFCS 6	(TF2, TF1)	(TF0, TF1)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	5	5	59
>>>>>>>gainFactorInformation	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	8	N/A	N/A
>>>>>>>>βd	15	N/A	N/A
>>>>>>>>referenceTFCId	N/A	0	0
>>>>>>TFCS 7		(TF1, TF1)	(TF0,TF0,TF0,TF1)
>>>>>>>ctfc		6	60
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 8		(TF2, TF1)	(TF1,TF0,TF0,TF1)
>>>>>>>ctfc		7	61
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 9		(TF3, TF1)	(TF2,TF1,TF0,TF1)
>>>>>>>ctfc		8	68
>>>>>>>gainFactorInformation		Computed	Computed
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 10		(TF4, TF1)	(TF3,TF2,TF0,TF1)
>>>>>>>ctfc		9	75
>>>>>>>gainFactorInformation		Signalled	Computed
>>>>>>>>βc (FDD only)		8	N/A
>>>>>>>>βd		15	N/A
>>>>>>>>referenceTFCId		0	0
>>>>>>TFCS 11			(TF4,TF3,TF0,TF1)
>>>>>>>ctfc			82
>>>>>>>gainFactorInformation			Computed
>>>>>>>>referenceTFCId			0
>>>>>>TFCS 12			(TF5,TF4,TF1,TF1)
>>>>>>>ctfc			119
>>>>>>>gainFactorInformation			Signalled
>>>>>>>>βc (FDD only)			11
>>>>>>>>βd			15
>>>>>>>>referenceTFCId			0
dl-CommonTransChInfo			
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD			
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE
>puncturingLimit	1	1	0.88
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>spreadingFactor	64	32	128
>>pilotBits	8	8	4

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>positionFixed	Flexible	Flexible	Fixed
PhyCH INFORMATION 3.84 Mcps TDD			
UL-DPCH-InfoPredef			
>ul-DPCH-PowerControlInfo			
>>dpch-ConstantValue	-20	-20	-20
>commonTimeslotInfo			
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	16	16
>>puncturingLimit	0.44	0.48	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.44	0.48	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD			
UL-DPCH-InfoPredef			
>commonTimeslotInfo			
>>secondInterleavingMode	frameRelated	frameRelated	
>>tfci-Coding	16	16	
>>puncturingLimit	0.64	0.72	
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	
DL-CommonInformationPredef			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.64	0.72	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	10.2/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling	7.4/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling
Ref 34.108	N/A	N/A
Default configuration identity	11	12
RB INFORMATION		
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6
rlc-InfoChoice	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5-RB7: TM	RB1: UM RB2- RB3: AM RB5-RB6: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5- RB7: N/A	RB1: N/A RB2- RB3: as below RB5- RB6: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5- RB7: FALSE	RB1- RB3: N/A RB5- RB6: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5- RB7: TM RB8: TM	RB1: UM RB2- RB3: AM RB5- RB6: TM RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5- RB8: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5- RB8: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5- RB7: N/A	RB1: N/A RB2- RB3: as below RB5- RB6: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: ~~100~~300	RB2- RB3: ~~100~~300
>>segmentationIndication	RB1- RB3: N/A RB5- RB7: FALSE	RB1- RB3: N/A RB5- RB6: FALSE
rb-MappingInfo		
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch

>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3,	RB1- RB3: 3 RB5: 1, RB6: 2
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A
>>rlc-SizeList	RB1- RB3: configured RB5- RB7: N/A	RB1- RB3: configured RB5- RB6: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5
>DL-logicalChannelMappingList		
>>Mapping option 1	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3, RB8: 5	RB1- RB3: 3 RB5: 1, RB6: 2, RB7:4
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5- RB8: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH		
UL-AddReconfTransChInfoList		
>Uplink transport channel type	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4	TrCH1: 1, TrCH2: 2, TrCH3: 3
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information		
>>>tf0/ tf0,1	TrCH1: (0x65) TrCH2: (0x 99) TrCH3: (0x 40, 1x40) TrCH4: (0x144, 1x144)	TrCH1: (0x61) TrCH2: (0x 87) TrCH3: (0x 144, 1x144)
>>>>rlcSize	BitMode	BitMode
>>>>>sizeType	TrCH1: type 1: 65 TrCH2: type 1: 99 TrCH3: type 1: 40 TrCH4: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 61 TrCH2: type 1: 87 TrCH3: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1-2: Zero TrCH3-4: Zero, one	TrCH1-2: Zero TrCH3: Zero, one
>>>>logicalChannelList	All	All
>>>tf 1	TrCH1: (1x39) TrCH2: (1x 53) TrCH3- TrCH4: N/A	TrCH1: (1x39) TrCH2: (1x53) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>rlc-Size	TrCH1-2: BitMode	TrCH1-2: BitMode
>>>>>sizeType	TrCH1: 1: 39 TrCH2: 1: 53	TrCH1: 1: 39 TrCH1: 1: 53
>>>>numberOfTbSizeList	TrCH1-2: One	TrCH1-2: One
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>>tf 2	TrCH1: (1x42) TrCH2: (1x63) TrCH3- TrCH4: N/A	TrCH1: (1x42) TrCH2: (1x63) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode

>>>>>sizeType	TrCH1: type 1: 42 TrCH2: type 1: 63	TrCH1: type 1: 42 TrCH2: type 1: 63
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 3	TrCH1: (1x55) TrCH2: (1x76) TrCH3- TrCH4: N/A	TrCH1: (1x55) TrCH2: (1x76) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 55 TrCH2: type 1: 76	TrCH1: type 1: 55 TrCH2: type 1: 76
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 4	TrCH1: (1x58) TrCH2: (1x99) TrCH3- TrCH4: N/A	TrCH1: (1x58) TrCH2: (1x87) TrCH3: N/A
>>>>numberOfTransportBlocks	TrCH1: One TrCh2: One	TrCH1: One TrCh2: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 58 TrCH2: type 1: 99	TrCH1: type 1: 58 TrCH2: type 1: 87
>>>>numberOfTbSizeList	TrCH1: One TrCH2: One	TrCH1: One TrCH2: One
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1: all TrCH2: all
>>>tf 5	TrCH1: (1x65) TrCH2- TrCH4: N/A	TrCH1: (1x61) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks	TrCH1: One	TrCH1: One
>>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType	TrCH1: type 1: 42	TrCH1: type 1: 42
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>semistaticTF-Information		
>>>tti	TrCH1- TrCH3: 20 TrCH4: 40	TrCH1- TrCH2: 20 TrCH3: 40
>>>channelCodingType	Convolutional	Convolutional
>>>>codingRate	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third	TrCH1- TrCH2: Third TrCH3: Third
>>>rateMatchingAttribute	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160
>>>crc-Size	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16
DL-AddReconfTransChInfoList		
>Downlink transport channel type	dch	dch
>dl-TransportChannelIdentity		
>tfs-SignallingMode	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH5 are different and shown below>	Independent <Only tf0 on TrCH1 and tf0/tf1 on TrCH4 are different and shown below>
>>transportFormatSet		
>>>dynamicTF-information		

>>>>tf0/ tf0,1	TrCH1: (1x0) TrCH5: (0x7, 1x7)	TrCH1: (1x0) TrCH4: (0x7, 1x7)
>>>>rlcSize	BitMode	bitMode
>>>>>sizeType	TrCH1: type 1: 0 TrCH5: type 1: 7	TrCH1: type 1: 0 TrCH4: type 1: 7
>>>>numberOfTbSizeList	TrCH1: One TrCH5: Zero, one	TrCH1: One TrCH4: Zero, one
>>>>logicalChannelList	All	All
>>>semistaticTF-Information	same as UL except for TrCH5	same as DL except for TrCH4
>>>>tti	TrCH5: 20	TrCH4: 20
>>>>channelCodingType	Convolutional	Convolutional
>>>>>codingRate	TrCH5: Third	TrCH4: Third
>>>>rateMatchingAttribute	TrCH5: 200	TrCH4: 200
>>>>crc-Size	TrCH5: 12	TrCH4: 12
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4,	TrCH1: 1, TrCH2: 2, TrCH3: 3
>dch-QualityTarget		
>>bler-QualityValue	TrCH1: $7x10^{-3}$ TrCH2- TrCH5: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON		
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFC list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0)	(TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0)	(TF1, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A
>>>>>>>>βd	N/A	N/A
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 3	(TF2, TF1, TF0, TF0)	(TF2, TF1, TF0)
>>>>>>>ctfc	8	8
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 4	(TF3, TF2, TF0, TF0)	(TF3, TF2, TF0)
>>>>>>>ctfc	15	15
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0

>>>>>>TFC 5	(TF4, TF3, TF0, TF0)	(TF4, TF3, TF0)
>>>>>>>ctfc	22	22
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 6	(TF5, TF4, TF1, TF0)	(TF5, TF4, TF0)
>>>>>>>ctfc	59	29
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 7	(TF0, TF0, TF0, TF1)	(TF0, TF0, TF1)
>>>>>>>ctfc	60	30
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 8	(TF1, TF0, TF0, TF1)	(TF1, TF0, TF1)
>>>>>>>ctfc	61	31
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 9	(TF2, TF1, TF0, TF1)	(TF2, TF1, TF1)
>>>>>>>ctfc	68	38
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId		
>>>>>>TFC 10	(TF3, TF2, TF0, TF1)	(TF3, TF2, TF1)
>>>>>>>ctfc	75	45
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>βc (FDD only)		
>>>>>>>>βd		
>>>>>>>>referenceTFCId	0	0
>>>>>>TFC 11	(TF4, TF3, TF0, TF1)	(TF4, TF3, TF1)
>>>>>>>ctfc	82	52
>>>>>>>gainFactorInformation	computed	computed
>>>>>>>>referenceTFCId		
>>>>>>TFC 12	(TF5, TF4, TF1, TF1)	(TF5, TF4, TF1)
>>>>>>>ctfc	97	59
>>>>>>>gainFactorInformation	signalled	signalled
>>>>>>>>βc (FDD only)	11	11
>>>>>>>>βd	15	15
>>>>>>>>referenceTFCId		
> TFC subset list		
>>TFC subset 1	(speech rate 10.2)	(speech rate 7.4)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)	(TFC1, TFC2, TFC7, TFC8, TFC6, TFC12)
>>TFC subset 2	(speech rate 6.7)	(speech rate 6.7)

>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)	(TFC1, TFC2, TFC7, TFC8, TFC5, TFC11)
>>TFC subset 3	(speech rate 5.9)	(speech rate 5.9)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)	(TFC1, TFC2, TFC7, TFC8, TFC4, TFC10)
>>TFC subset 4	(speech rate 4.75)	(speech rate 4.75)
>>> Allowed transport format combination list	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)	(TFC1, TFC2, TFC7, TFC8, TFC3, TFC9)
dl-CommonTransChInfo		
>tfcs-SignallingMode	Independent	Independent
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>dl-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFCS list		
>>>>>>TFC 1	(TF0, TF0, TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>TFC 2	(TF1, TF0, TF0, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1
>>>>>>TFC 3	(TF2, TF1, TF0, TF0, TF0)	(TF2, TF1, TF0, TF0)
>>>>>>>ctfc	8	8
>>>>>>TFC 4	(TF3, TF2, TF0, TF0, TF0)	(TF3, TF2, TF0, TF0)
>>>>>>>ctfc	15	15
>>>>>>TFC 5	(TF4, TF3, TF0, TF0, TF0)	(TF4, TF3, TF0, TF0)
>>>>>>>ctfc	22	22
>>>>>>TFC 6	(TF5, TF4, TF1, TF0, TF0)	(TF5, TF4, TF0, TF0)
>>>>>>>ctfc	59	29
>>>>>>TFC 7	(TF0, TF0, TF0, TF1, TF0)	(TF0, TF0, TF1, TF0)
>>>>>>>ctfc	60	30
>>>>>>TFC 8	(TF1, TF0, TF0, TF1, TF0)	(TF1, TF0, TF1, TF0)
>>>>>>>ctfc	61	31
>>>>>>TFC 9	(TF2, TF1, TF0, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc	68	37
>>>>>>TFC 10	(TF3, TF2, TF0, TF1, TF0)	(TF3, TF2, TF1, TF0)
>>>>>>>ctfc	75	55
>>>>>>TFC 11	(TF4, TF3, TF0, TF1, TF0)	(TF4, TF3, TF1, TF0)
>>>>>>>ctfc	82	52
>>>>>>TFC 12	(TF5, TF4, TF1, TF1, TF0)	(TF5, TF4, TF1, TF0)
>>>>>>>ctfc	119	59
>>>>>>TFC 13	(TF0, TF0, TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc	120	60

>>>>>>TFC 14	(TF1, TF0, TF0, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc	121	61
>>>>>>TFC 15	(TF2, TF1, TF0, TF0, TF1)	(TF2, TF1, TF0, TF1)
>>>>>>>ctfc	128	68
>>>>>>TFC 16	(TF3, TF2, TF0, TF0, TF1)	(TF3, TF2, TF0, TF1)
>>>>>>>ctfc	135	75
>>>>>>TFC 17	(TF4, TF3, TF0, TF0, TF1)	(TF4, TF3, TF0, TF1)
>>>>>>>ctfc	152	82
>>>>>>TFC 18	(TF5, TF4, TF1, TF0, TF1)	(TF5, TF4, TF0, TF1)
>>>>>>>ctfc	189	89
>>>>>>TFC 19	(TF0, TF0, TF0, TF1, TF1)	(TF0, TF0, TF1, TF1)
>>>>>>>ctfc	180	90
>>>>>>TFC 20	(TF1, TF0, TF0, TF1, TF1)	(TF1, TF0, TF1, TF1)
>>>>>>>ctfc	181	91
>>>>>>TFC 21	(TF2, TF1, TF0, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>>>ctfc	188	98
>>>>>>TFC 22	(TF3, TF2, TF0, TF1, TF1)	(TF3, TF2, TF1, TF1)
>>>>>>>ctfc	195	105
>>>>>>TFC 23	(TF4, TF3, TF0, TF1, TF1)	(TF4, TF3, TF1, TF1)
>>>>>>>ctfc	239	112
>>>>>>TFC 24	(TF5, TF4, TF1, TF1, TF1)	(TF5, TF4, TF1, TF1)
>>>>>>>ctfc	218	119
PhyCH INFORMATION FDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>powerControlAlgorithm	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1
>tfci-Existence	TRUE	TRUE
>puncturingLimit	0.88	0.88
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>spreadingFactor	128	128
>>pilotBits	4	4
>>positionFixed	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>dpch-ConstantValue	-20	-20
>commonTimeslotInfo		
>>secondInterleavingMode	frameRelated	frameRelated
>>tfci-Coding	16	16
>>puncturingLimit	0.60	0.60
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		

>>>secondInterleavingMode	frameRelated	frameRelated
>>>tfci-Coding	16	16
>>>puncturingLimit	0.60	0.60
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD		
UL-DPCH-InfoPredef		
>commonTimeslotInfo		
>>secondInterleavingMode	frame Related	frame Related
>>tfci-Coding	16	16
>>puncturingLimit	0.64	0.64
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMode	frame Related	frame Related
>>>tfci-Coding	16	16
>>>puncturingLimit	0.64	0.64
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1

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Gyeongju, Korea, 13th – 17th May 2002

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CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1454** ⌘ **rev** **-** ⌘ Current version: **3.10.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Clarification to number of L3 filters
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	17.May 2002
Category:	⌘	**F**
Release:	⌘	R99

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

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

Reason for change: ⌘

A CR was approved during RAN2#29 (CR1361) that allows the UE to reject a MEASUREMENT CONTROL message that would require more than 2 L3 filters per measurement type. Objective was to define an upper limit for the UE memory requirements.

Currently the specification states the following:

"The UE shall support 2 different layer 3 filters per measurement type as indicated in the RRC signalling"

This definition is ambiguous because the term "measurement type" can be interpreted differently.

One possible interpretation would be that it refers to the IE "measurement type" in the MEASUREMENT CONTROL message. However, a message with IE "measurement type" set to "inter-frequency measurement" could still be used to configure a measurement on intra-frequencies (event 2F), or it could configure a measurement on inter-frequency neighbours which use intra-frequency evaluation criteria (events 1x) to maintain the virtual active set. Other combinations are possible as well. This a interpretation would not limit the memory consumption for storing L3 filtered measurement results, there could still be any number of filters attached to intra- and inter-frequency cells.

The other interpretation is that it refers to the type of measurement results that are filtered and to the definitions in section 8.4.0 which distinguishes more precisely between intra-frequency measurement, inter-frequency measurements and inter-RAT measurements. This interpretation makes more sense since it's the measurement result that is filtered.

It is assumed that the second interpretation reflects the original intention of the agreed CR1361 and the text is clarified accordingly.

Backward compatibility analysis:

If the UE does not implement the change would have to support a large number of L3 filters per measurement result. The UE might also reject valid

		MEASUREMENT CONTROL messages from the network, depending on the interpretation of the specification. If the network does not implement the change then it might configure too many filters, the MEASUREMENT CONTROL message might be rejected by a UE.
Summary of change:	⌘	Rewording in section 8.6.7.2 according to the second interpretation above
Consequences if not approved:	⌘	It remains unclear when a UE is allowed to reject a MEASUREMENT CONTROL message

Clauses affected:	⌘	8.6.7.2			
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v4.4.0, CR 1455 25.331 v5.0.0, CR 1456	
Other comments:	⌘				

8.6.7.2 Filter coefficient

If the IE "Filter coefficient" is received the UE shall apply filtering of the measurements for that measurement quantity according to the formula below. This filtering shall be performed by the UE before UE event evaluation. The UE shall also filter the measurements reported in the IE "Measured results". The filtering shall not be performed for the measurements reported in the IE "Measured results on RACH" and for cell-reselection in connected or idle mode.

The filtering shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

F_n is the updated filtered measurement result

F_{n-1} is the old filtered measurement result

M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the MEASUREMENT REPORT message or the unit used in the event evaluation.

$a = 1/2^{(k/2)}$, where k is the parameter received in the IE "Filter coefficient".

NOTE: if k is set to 0 that will mean no layer 3 filtering.

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

The physical layer measurement results are sampled once every measurement period. The measurement period and the accuracy for a certain measurement is defined in [19] and [20].

The UE shall support 2 different layer 3 filters per measurement type ~~as indicated in the RRC signalling~~ defined in section 8.4.0 (i.e. the UE shall be capable to apply at least 2 different L3 filters to intra-frequency measurement results, at least 2 different L3 filters to inter-frequency measurement results etc). If a MEASUREMENT CONTROL message is received that would require the UE to configure more than 2 different layer 3 filters, the UE may:

1> set the variable CONFIGURATION_INCOMPLETE to TRUE.

8.4.0 Measurement related definitions

[…]

The different types of measurements are:

- **Intra-frequency measurements**: measurements on downlink physical channels at the same frequency as the active set. A measurement object corresponds to one cell. Detailed description is found in subclause 14.1.

- **Inter-frequency measurements**: measurements on downlink physical channels at frequencies that differ from the frequency of the active set. A measurement object corresponds to one cell. Detailed description is found in subclause 14.2.

- **Inter-RAT measurements**: measurements on downlink physical channels belonging to another radio access technology than UTRAN, e.g. GSM. A measurement object corresponds to one cell. Detailed description is found in subclause 14.3.

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CHANGE REQUEST

⌘ **25.331** **CR** **1455** ⌘ **rev** **-** ⌘ Current version: **4.4.0** ⌘

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Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Clarification to number of L3 filters
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	17.May 2002
Category:	⌘	**A**
Release:	⌘	REL-4

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

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

Reason for change: ⌘

A CR was approved during RAN2#29 (CR1361) that allows the UE to reject a MEASUREMENT CONTROL message that would require more than 2 L3 filters per measurement type. Objective was to define an upper limit for the UE memory requirements.

Currently the specification states the following:

"The UE shall support 2 different layer 3 filters per measurement type as indicated in the RRC signalling"

This definition is ambiguous because the term "measurement type" can be interpreted differently.

One possible interpretation would be that it refers to the IE "measurement type" in the MEASUREMENT CONTROL message. However, a message with IE "measurement type" set to "inter-frequency measurement" could still be used to configure a measurement on intra-frequencies (event 2F), or it could configure a measurement on inter-frequency neighbours which use intra-frequency evaluation criteria (events 1x) to maintain the virtual active set. Other combinations are possible as well. This a interpretation would not limit the memory consumption for storing L3 filtered measurement results, there could still be any number of filters attached to intra- and inter-frequency cells.

The other interpretation is that it refers to the type of measurement results that are filtered and to the definitions in section 8.4.0 which distinguishes more precisely between intra-frequency measurement, inter-frequency measurements and inter-RAT measurements. This interpretation makes more sense since it's the measurement result that is filtered.

It is assumed that the second interpretation reflects the original intention of the agreed CR1361 and the text is clarified accordingly.

Backward compatibility analysis:

If the UE does not implement the change would have to support a large number of L3 filters per measurement result. The UE might also reject valid

		MEASUREMENT CONTROL messages from the network, depending on the interpretation of the specification. If the network does not implement the change then it might configure too many filters, the MEASUREMENT CONTROL message might be rejected by a UE.
Summary of change:	⌘	Rewording in section 8.6.7.2 according to the second interpretation above
Consequences if not approved:	⌘	It remains unclear when a UE is allowed to reject a MEASUREMENT CONTROL message

Clauses affected:	⌘	8.6.7.2			
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.10.0, CR 1454 25.331 v5.0.0, CR 1456	
Other comments:	⌘				

8.6.7.2 Filter coefficient

If the IE "Filter coefficient" is received the UE shall apply filtering of the measurements for that measurement quantity according to the formula below. This filtering shall be performed by the UE before UE event evaluation. The UE shall also filter the measurements reported in the IE "Measured results". The filtering shall not be performed for the measurements reported in the IE "Measured results on RACH" and for cell-reselection in connected or idle mode.

The filtering shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

F_n is the updated filtered measurement result

F_{n-1} is the old filtered measurement result

M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the MEASUREMENT REPORT message or the unit used in the event evaluation.

$a = 1/2^{(k/2)}$, where k is the parameter received in the IE "Filter coefficient".

NOTE: if k is set to 0 that will mean no layer 3 filtering.

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

The physical layer measurement results are sampled once every measurement period. The measurement period and the accuracy for a certain measurement is defined in [19] and [20].

The UE shall support 2 different layer 3 filters per measurement type ~~as indicated in the RRC signalling~~ defined in section 8.4.0 (i.e. the UE shall be capable to apply at least 2 different L3 filters to intra-frequency measurement results, at least 2 different L3 filters to inter-frequency measurement results etc). If a MEASUREMENT CONTROL message is received that would require the UE to configure more than 2 different layer 3 filters, the UE may:

1> set the variable CONFIGURATION_INCOMPLETE to TRUE.

8.4.0 Measurement related definitions

[…]

The different types of measurements are:

- **Intra-frequency measurements**: measurements on downlink physical channels at the same frequency as the active set. A measurement object corresponds to one cell. Detailed description is found in subclause 14.1.

- **Inter-frequency measurements**: measurements on downlink physical channels at frequencies that differ from the frequency of the active set. A measurement object corresponds to one cell. Detailed description is found in subclause 14.2.

- **Inter-RAT measurements**: measurements on downlink physical channels belonging to another radio access technology than UTRAN, e.g. GSM. A measurement object corresponds to one cell. Detailed description is found in subclause 14.3.

3GPP TSG-RAN2 Meeting #29
Gyeongju, Korea, 13th – 17th May 2002

Tdoc R2-021362

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1456** ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Clarification to number of L3 filters
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	17.May 2002
Category:	⌘	**A**
Release:	⌘	REL-5

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

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

Reason for change: ⌘

A CR was approved during RAN2#29 (CR1361) that allows the UE to reject a MEASUREMENT CONTROL message that would require more than 2 L3 filters per measurement type. Objective was to define an upper limit for the UE memory requirements.

Currently the specification states the following:

"The UE shall support 2 different layer 3 filters per measurement type as indicated in the RRC signalling"

This definition is ambiguous because the term "measurement type" can be interpreted differently.

One possible interpretation would be that it refers to the IE "measurement type" in the MEASUREMENT CONTROL message. However, a message with IE "measurement type" set to "inter-frequency measurement" could still be used to configure a measurement on intra-frequencies (event 2F), or it could configure a measurement on inter-frequency neighbours which use intra-frequency evaluation criteria (events 1x) to maintain the virtual active set. Other combinations are possible as well. This a interpretation would not limit the memory consumption for storing L3 filtered measurement results, there could still be any number of filters attached to intra- and inter-frequency cells.

The other interpretation is that it refers to the type of measurement results that are filtered and to the definitions in section 8.4.0 which distinguishes more precisely between intra-frequency measurement, inter-frequency measurements and inter-RAT measurements. This interpretation makes more sense since it's the measurement result that is filtered.

It is assumed that the second interpretation reflects the original intention of the agreed CR1361 and the text is clarified accordingly.

Backward compatibility analysis:

If the UE does not implement the change would have to support a large number of L3 filters per measurement result. The UE might also reject valid

		MEASUREMENT CONTROL messages from the network, depending on the interpretation of the specification. If the network does not implement the change then it might configure too many filters, the MEASUREMENT CONTROL message might be rejected by a UE.
Summary of change:	⌘	Rewording in section 8.6.7.2 according to the second interpretation above
Consequences if not approved:	⌘	It remains unclear when a UE is allowed to reject a MEASUREMENT CONTROL message

Clauses affected:	⌘	8.6.7.2			
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.10.0, CR 1454 25.331 v4.4.0, CR 1455	
Other comments:	⌘				

8.6.7.2 Filter coefficient

If the IE "Filter coefficient" is received the UE shall apply filtering of the measurements for that measurement quantity according to the formula below. This filtering shall be performed by the UE before UE event evaluation. The UE shall also filter the measurements reported in the IE "Measured results". The filtering shall not be performed for the measurements reported in the IE "Measured results on RACH" and for cell-reselection in connected or idle mode.

The filtering shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

F_n is the updated filtered measurement result

F_{n-1} is the old filtered measurement result

M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the MEASUREMENT REPORT message or the unit used in the event evaluation.

$a = 1/2^{(k/2)}$, where k is the parameter received in the IE "Filter coefficient".

NOTE: if k is set to 0 that will mean no layer 3 filtering.

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

The physical layer measurement results are sampled once every measurement period. The measurement period and the accuracy for a certain measurement is defined in [19] and [20].

The UE shall support 2 different layer 3 filters per measurement type ~~as indicated in the RRC signalling~~ defined in section 8.4.0 (i.e. the UE shall be capable to apply at least 2 different L3 filters to intra-frequency measurement results, at least 2 different L3 filters to inter-frequency measurement results etc). If a MEASUREMENT CONTROL message is received that would require the UE to configure more than 2 different layer 3 filters, the UE may:

1> set the variable CONFIGURATION_INCOMPLETE to TRUE.

8.4.0 Measurement related definitions

[…]

The different types of measurements are:

- **Intra-frequency measurements**: measurements on downlink physical channels at the same frequency as the active set. A measurement object corresponds to one cell. Detailed description is found in subclause 14.1.

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- **Inter-RAT measurements**: measurements on downlink physical channels belonging to another radio access technology than UTRAN, e.g. GSM. A measurement object corresponds to one cell. Detailed description is found in subclause 14.3.

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Gyeongju, Korea, 13th – 17th May 2002

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CR-Form-v5.1

CHANGE REQUEST

⌘ **25.331** **CR** **1457** ⌘ **rev** **r1** ⌘ Current version: **3.10.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Correction to 3G to 2G Inter-RAT handover for multi-domain RABs
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	13th- May 2002
Category:	⌘	**F**
Release:	⌘	R99

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

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

Reason for change: ⌘ Unclear specification of how the multi-domains RABs are handled in the Inter-RAT Handover from UTRAN procedure.

Summary of change: ⌘ It is clarified the Inter-RAT Handover from UTRAN procedure may be used in the case that no RABs are established or when only CS RABs are established or when both CS and PS RABs are established. In the HANDOVER FROM UTRAN COMMAND message only the CS RABs to be handed over are included.

It is clarified also that the Cell Change Order from UTRAN procedure is used only when no RABs are established or when only PS RABs are established. It is also clarified that the PS RABs are not listed in the CELL CHANGE ORDER FROM UTRAN message assuming that the UE will do the mapping between the PS RABs and the SAPI in the GSM/GPRS and therefore re-establish the PDP contexts.

Revision 1 of the CR adds a comment to ASN.1 to ensure that there is no misalignement between the tabular and the ASN.1. Since the IE "rab-InformationList" may be used in a later protocol version, it is proposed that it should not be changed into a dummy The addition is highlighted in yellow.

Isolated impact analysis:

Corrected functionality is Inter-RAT Handover from UTRAN and Cell Change Order from UTRAN with multi-domain RABs

- « Correction to a function where the specification was :
  - ambiguous or not sufficiently explicit.

Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

Consequences if not approved:	⌘	The UE behavior is not clearly specified

Clauses affected:	⌘	8.3.7.1, 8.3.7.3, 8.3.7.8, 8.3.11.1, 8.3.11.3, 8.3.11.4, 8.3.11.6, 10.2.5, 11.2		
Other specs affected:	⌘	Other core specifications Test specifications O&M Specifications	⌘	25.331 v4.4.0, CR 1458r1 25.331 v5.0.0, CR 1459r1
Other comments:	⌘			

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.3.7 Inter-RAT handover from UTRAN

Figure 8.3.7-1: Inter-RAT handover from UTRAN, successful case

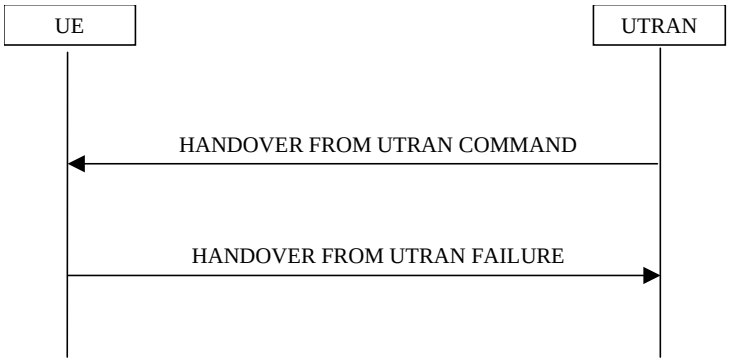

Figure 8.3.7-2: Inter-RAT handover from UTRAN, failure case

8.3.7.1 General

The purpose of the inter-RAT handover procedure is to, under the control of the network, transfer a connection between the UE and UTRAN to another radio access technology (e.g. GSM). This procedure may be used in CELL_DCH state. This procedure may be used when no RABs are established or when the established RABs are only from CS domain or when the established RABs are from both CS and PS domains.

~~NOTE: This procedure is applicable to CS domain service.~~

8.3.7.2 Initiation

The procedure is initiated when UTRAN orders a UE in CELL_DCH state, to make a handover to a radio access technology other than UTRAN, e.g. GSM.

To initiate the procedure, UTRAN sends a HANDOVER FROM UTRAN COMMAND message.

8.3.7.3 Reception of a HANDOVER FROM UTRAN COMMAND message by the UE

The UE shall be able to receive a HANDOVER FROM UTRAN COMMAND message and perform an inter-RAT handover, even if no prior UE measurements have been performed on the target cell.

The UE shall:

1> establish the connection to the target radio access technology, by using the contents of the IE "Inter-RAT message". This IE contains a message specified in another standard, as indicated by the IE "System type", and carries information about the candidate/ target cell identifier(s) and radio parameters relevant for the target radio access technology. The correspondence between the value of the IE "System type", the standard to apply and the message contained within IE "Inter RAT message" is shown in the following:

Value of the IE "System type"	Standard to apply	Inter RAT Message
GSM	GSM TS 04.18, version 8.5.0 or later	HANDOVER COMMAND
cdma2000	TIA/EIA/IS-2000 or later, TIA/EIA/IS-833 or later, TIA/EIQ/IS-834 or later	

1> if the IE "System type" has the value "GSM":

2> if the IE "Frequency band" has the value "GSM /DCS 1800 band used":

3> set the BAND_INDICATOR [45] to "ARFCN indicates 1800 band".

2> if the IE "Frequency band" has the value " GSM /PCS 1900 band used":

3> set the BAND_INDICATOR [45] to "ARFCN indicates 1900 band".

1> apply the "Inter RAT Message" according to the "standard to apply" in the table above.

1> if the IE "RAB information List" is included in the HANDOVER FROM UTRAN COMMAND message

2> if the IE "RAB information List" includes one IE "RAB Info" with the IE "CN domain Identity" set to "CS domain":

~~1> in case one or more IEs "RAB info" is included in the HANDOVER FROM UTRAN COMMAND message:~~

3~~2~~> connect upper layer entities corresponding to indicated CS domain RAB~~s~~ to the radio resources indicated in the inter-RAT message.

NOTE: In this version of the specification the maximum number of CS RABs which may be included in the IE "RAB information List" is limited to 1.~~.~~

NOTE: Requirements concerning the establishment of the radio connection towards the other radio access technology and the signalling procedure are outside the scope of this specification.

8.3.7.8 Unsupported configuration in HANDOVER FROM UTRAN COMMAND message

If

- -the UTRAN instructs the UE to perform a non-supported handover scenario, or
- the UTRAN instructs the UE~~, e.g. multiple RAB or~~ to use a non-supported configuration, or
- the IE "RAB information List" is included in the HANDOVER FROM UTRAN COMMAND message and this IE does not include any IE "RAB Info" with the IE "CN domain Identity" set to "CS domain"~~,~~

-the UE shall:

1> transmit a HANDOVER FROM UTRAN FAILURE message, setting the information elements as specified below:

2> include the IE "RRC transaction identifier"; and

2> set it to the value of "RRC transaction identifier" in the entry for the HANDOVER FROM UTRAN COMMAND message in the table "Accepted transactions" in the variable TRANSACTIONS; and

2> clear that entry;

2> set the IE "Inter-RAT handover failure" to "configuration unacceptable";

2> when the HANDOVER FROM UTRAN FAILURE message has been submitted to lower layers for transmission:

3> resume normal operation as if the invalid HANDOVER FROM UTRAN COMMAND message has not been received;

3> and the procedure ends.

8.3.11 Inter-RAT cell change order from UTRAN

Figure 8.3.11-1: Inter–RAT cell change order from UTRAN

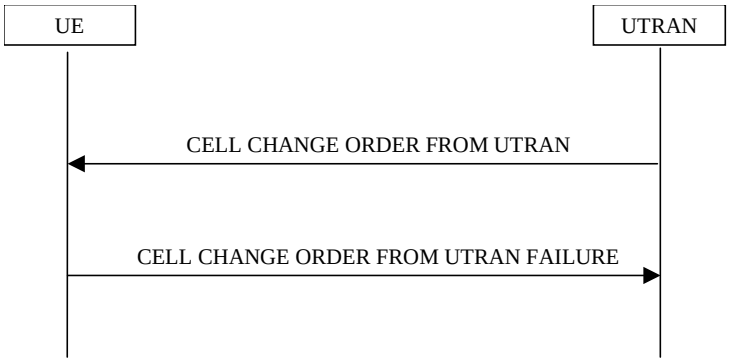

Figure 8.3.11-2: Inter-RAT cell change order from UTRAN, failure case

8.3.11.1 General

The purpose of the inter-RAT cell change order procedure is to transfer, under the control of the network, a connection between the UE and UTRAN to another radio access technology (e.g. GSM). This procedure may be used in CELL_DCH and CELL_FACH state. This procedure may be used when no RABs are established or when the established RABs are only from PS domain.

~~NOTE: This procedure is applicable for services in the PS domain.~~

8.3.11.2 Initiation

The procedure is initiated when UTRAN orders a UE in CELL_DCH or CELL_FACH state, to make a cell change to a radio access technology other than UTRAN, e.g. GSM.

To initiate the procedure, UTRAN sends a CELL CHANGE ORDER FROM UTRAN message.

8.3.11.3 Reception of an CELL CHANGE ORDER FROM UTRAN message by the UE

The UE shall be able to receive a CELL CHANGE ORDER FROM UTRAN message and perform a cell change order to another RAT, even if no prior UE measurements have been performed on the target cell.

The UE shall:

1> start timer T309; and

1> establish the connection to the other radio access technology, as specified within IE "Target cell description". This IE specifies the target cell identity, in accordance with the specifications for that other RAT. In case the target cell is a GSM/ GPRS cell, IE "Target cell description" may also include IE "NC mode", which specifies the cell selection mode to be applied in the target cell; and

1> if IE "NC mode" is not included in the CELL CHANGE ORDER FROM UTRAN:

2> retrieve it from the target cell as specified in [43];

2> act upon IE "NC mode" as specified in [43].

1> if the ~~one or more~~ IE~~s "RAB info"~~ "RAB Information List" is ~~are~~ included in the CELL CHANGE ORDER FROM UTRAN message:

2> ~~connect the upper layer entities corresponding to indicated RABs to the radio resources offered by the target RAT~~ignore the contents of the IE "RAB Information List".

NOTE: Requirements concerning the establishment of the radio connection towards the other radio access technology and the signalling procedure are outside the scope of this specification. In case of GSM/GPRS proceed according to the procedure Network control cell reselection procedure as specified in [44].

8.3.11.4 Successful completion of the cell change order

The UE regards the procedure as completed when it has received a successful response from the target RAT, e.g. in case of GSM when it received the response to a (PACKET) CHANNEL REQUEST in the new cell.

Upon successful completion of the cell change order, the UE shall:

1> stop timer T309;

1> clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4.

Upon indication of the UE having successfully completed the cell change order, UTRAN should:

1> release the radio connection; and

1> remove all context information for the concerned UE.

NOTE: The release of the UMTS radio resources is initiated from another RAT.

8.3.11.5 Expiry of timer T309 or UE fails to complete requested cell change order

If:

- timer T309 expires prior to the successful establishment of a connection to the target RAT; or
- if the establishment of the connection to the other RAT failed due to other reasons e.g. (random) access failure, rejection due to lack of resources:

the UE shall:

1> if it received the CELL CHANGE ORDER FROM UTRAN message in state CELL_DCH:

2> revert back to the UTRA configuration;

2> establish the UTRA physical channel(s) used at the time for reception of CELL CHANGE ORDER FROM UTRAN;

2> if the UE does not succeed in establishing the UTRA physical channel(s):

3> perform a cell update procedure according to subclause 8.3.1 with cause "Radio link failure";

3> when the cell update procedure has completed successfully:

4> proceed as below.

2> transmit the CELL CHANGE ORDER FROM UTRAN FAILURE message setting the information elements as specified below:

3> include the IE "RRC transaction identifier"; and

3> set it to the value of "RRC transaction identifier" in the entry for the received message in the table "Accepted transactions" in the variable TRANSACTIONS; and

3> clear that entry;

3> set the IE "Inter-RAT change failure" to "physical channel failure".

2> When the CELL CHANGE ORDER FROM UTRAN FAILURE message has been submitted to lower layer for transmission, the procedure ends.

1> if the UE receives the CELL CHANGE ORDER FROM UTRAN message in CELL_FACH state:

2> revert to the cell it was camped on at the reception of the CELL CHANGE ORDER FROM UTRAN message;

2> if the UE is unable to return to this cell:

3> select a suitable UTRA cell according to [4];

3> initiate the cell update procedure according to subclause 8.3.1 using the cause "cell re-selection";

3> when the cell update procedure completed successfully:

4> proceed as below.

2> transmit the CELL CHANGE ORDER FROM UTRAN FAILURE message setting the information elements as specified below:

3> include the IE "RRC transaction identifier"; and

3> set it to the value of "RRC transaction identifier" in the entry for the CELL CHANGE ORDER FROM UTRAN message in the table "Accepted transactions" in the variable TRANSACTIONS; and

3> clear that entry;

3> set the IE "Inter-RAT change failure" to "physical channel failure".

2> When the CELL CHANGE ORDER FROM UTRAN FAILURE message has been submitted to lower layer for transmission:

3> the procedure ends.

8.3.11.6 Unsupported configuration in CELL CHANGE ORDER FROM UTRAN message

If the UTRAN instructs the UE to perform a non-supported cell change order scenario ~~e.g. multiple RAB~~ or to use a non-supported configuration, the UE shall:

1> transmit a CELL CHANGE ORDER FROM UTRAN FAILURE message, setting the information elements as specified below:

2> include the IE "RRC transaction identifier"; and

2> set it to the value of "RRC transaction identifier" in the entry for the received message in the table "Accepted transactions" in the variable TRANSACTIONS; and

2> clear that entry;

2> set the IE "Inter-RAT change failure" to "configuration unacceptable";

2> when the CELL CHANGE ORDER FROM UTRAN FAILURE message has been submitted to lower layers for transmission:

3> resume normal operation as if the CELL CHANGE ORDER FROM UTRAN message has not been received;

3> and the procedure ends.

10.2.5 CELL CHANGE ORDER FROM UTRAN

This message is used to order a cell change from UTRA to another radio access technology, e.g., GSM.

RLC-SAP: AM

Logical channel: DCCH

Direction: UTRAN→UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message Type	
UE information elements				
RRC transaction identifier	MP		RRC transaction identifier 10.3.3.36	
Integrity check info	CH		Integrity check info 10.3.3.16	
Activation time	MD		Activation time 10.3.3.1	Default value is "now"
RB Information elements				
RAB information list	OP	1 to <maxRABsetup>		~~For each RAB to be handed over~~ This IE should not be included in this version of the protocol.
>RAB info	MP		RAB info 10.3.4.8	
Other information elements				
Target cell description	MP			
>CHOICE *Radio Access Technology*	MP			Two spare values are needed.
>>GSM				
>>>BSIC	MP		BSIC 10.3.8.2	
>>>Band Indicator	MP		Enumerated (DCS 1800 band used, PCS 1900 band used)	Indicates how to interpret the BCCH ARFCN
>>>BCCH ARFCN	MP		Integer (0..1023)	[45]
>>>NC mode	OP		Bit string(3)	[43]
>>IS-2000				

11.2 PDU definitions

…

```
-- **************************************************
--
-- CELL CHANGE ORDER FROM UTRAN
--
-- **************************************************

CellChangeOrderFromUTRAN ::= CHOICE {
    r3                              SEQUENCE {
        cellChangeOrderFromUTRAN-IEs        CellChangeOrderFromUTRAN-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

CellChangeOrderFromUTRAN-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        -- dummy is not used in this version of the specification, it should
        -- not be sent and if received it should be ignored.
        dummy                           IntegrityProtectionModeInfo         OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        -- the IE rab-InformationList is not used in this version of the specification, it should
        -- not be sent and if received it should be ignored. The IE may be used in a later
        -- version of the protocol and hence it is not changed into a dummy
        rab-InformationList             RAB-InformationList                 OPTIONAL,
        interRAT-TargetCellDescription  InterRAT-TargetCellDescription
}
```

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Gyeongju, Korea, 13th – 17th May 2002

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CR-Form-v5.1

CHANGE REQUEST

⌘ **25.331** **CR** **1458** ⌘ **rev** **r1** ⌘ Current version: **4.4.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Correction to 3G to 2G Inter-RAT handover for multi-domain RABs
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	13th- May 2002
Category:	⌘	**A**
Release:	⌘	REL-4

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

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

Reason for change:	⌘	Unclear specification of how the multi-domains RABs are handled in the Inter-RAT Handover from UTRAN procedure.
Summary of change:	⌘	It is clarified the Inter-RAT Handover from UTRAN procedure may be used in the case that no RABs are established or when only CS RABs are established or when both CS and PS RABs are established. In the HANDOVER FROM UTRAN COMMAND message only the CS RABs to be handed over are included. It is clarified also that the Cell Change Order from UTRAN procedure is used only when no RABs are established or when only PS RABs are established. It is also clarified that the PS RABs are not listed in the CELL CHANGE ORDER FROM UTRAN message assuming that the UE will do the mapping between the PS RABs and the SAPI in the GSM/GPRS and therefore re-establish the PDP contexts. Revision 1 of the CR adds a comment to ASN.1 to ensure that there is no misalignement between the tabular and the ASN.1. Since the IE "rab-InformationList" may be used in a later protocol version, it is proposed that it should not be changed into a dummy The addition is highlighted in yellow.
Consequences if not approved:	⌘	The UE behavior is not clearly specified

Clauses affected:	⌘	8.3.7.1, 8.3.7.3, 8.3.7.8, 8.3.11.1, 8.3.11.3, 8.3.11.4, 8.3.11.6, 10.2.5, 11.2		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.10.0, CR 1457r1 25.331 v5.0.0, CR 1459r1
Other comments:	⌘			

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

8.3.7 Inter-RAT handover from UTRAN

Figure 8.3.7-1: Inter-RAT handover from UTRAN, successful case

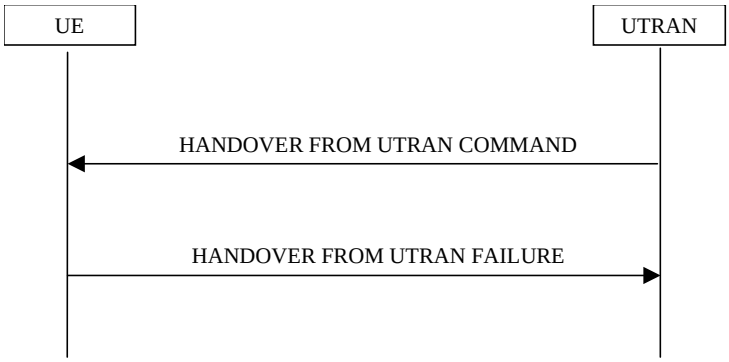

Figure 8.3.7-2: Inter-RAT handover from UTRAN, failure case

8.3.7.1 General

The purpose of the inter-RAT handover procedure is to, under the control of the network, transfer a connection between the UE and UTRAN to another radio access technology (e.g. GSM). This procedure may be used in CELL_DCH state. This procedure may be used when no RABs are established or when the established RABs are only from CS domain or when the established RABs are from both CS and PS domains.

~~NOTE: This procedure is applicable to CS domain service.~~

8.3.7.2 Initiation

The procedure is initiated when UTRAN orders a UE in CELL_DCH state, to make a handover to a radio access technology other than UTRAN, e.g. GSM.

To initiate the procedure, UTRAN sends a HANDOVER FROM UTRAN COMMAND message.

8.3.7.3 Reception of a HANDOVER FROM UTRAN COMMAND message by the UE

The UE shall be able to receive a HANDOVER FROM UTRAN COMMAND message and perform an inter-RAT handover, even if no prior UE measurements have been performed on the target cell.

The UE shall:

1> establish the connection to the target radio access technology, by using the contents of the IE "Inter-RAT message". This IE contains a message specified in another standard, as indicated by the IE "System type", and carries information about the candidate/ target cell identifier(s) and radio parameters relevant for the target radio access technology. The correspondence between the value of the IE "System type", the standard to apply and the message contained within IE "Inter RAT message" is shown in the following:

Value of the IE "System type"	Standard to apply	Inter RAT Message
GSM	GSM TS 04.18, version 8.5.0 or later	HANDOVER COMMAND
cdma2000	TIA/EIA/IS-2000 or later, TIA/EIA/IS-833 or later, TIA/EIQ/IS-834 or later	

1> if the IE "System type" has the value "GSM":

2> if the IE "Frequency band" has the value "GSM /DCS 1800 band used":

3> set the BAND_INDICATOR [45] to "ARFCN indicates 1800 band".

2> if the IE "Frequency band" has the value " GSM /PCS 1900 band used":

3> set the BAND_INDICATOR [45] to "ARFCN indicates 1900 band".

1> apply the "Inter RAT Message" according to the "standard to apply" in the table above.

1> if the IE "RAB information List" is included in the HANDOVER FROM UTRAN COMMAND message

2> if the IE "RAB information List" includes one IE "RAB Info" with the IE "CN domain Identity" set to "CS domain":

~~1> in case one or more IEs "RAB info" is included in the HANDOVER FROM UTRAN COMMAND message:~~

3~~2~~> connect upper layer entities corresponding to indicated CS domain RAB~~s~~ to the radio resources indicated in the inter-RAT message.

NOTE: In this version of the specification the maximum number of CS RABs which may be included in the IE "RAB information List" is limited to 1.

NOTE: Requirements concerning the establishment of the radio connection towards the other radio access technology and the signalling procedure are outside the scope of this specification.

8.3.7.8 Unsupported configuration in HANDOVER FROM UTRAN COMMAND message

If

- the UTRAN instructs the UE to perform a non-supported handover scenario, or~~e.g. multiple RAB or~~

- the UTRAN instructs the UE to use a non-supported configuration, or

- the IE "RAB information List" is included in the HANDOVER FROM UTRAN COMMAND message and this IE does not include any IE "RAB Info" with the IE "CN domain Identity" set to "CS domain",

the UE shall:

1> transmit a HANDOVER FROM UTRAN FAILURE message, setting the information elements as specified below:

2> include the IE "RRC transaction identifier"; and

2> set it to the value of "RRC transaction identifier" in the entry for the HANDOVER FROM UTRAN COMMAND message in the table "Accepted transactions" in the variable TRANSACTIONS; and

2> clear that entry;

2> set the IE "Inter-RAT handover failure" to "configuration unacceptable";

2> when the HANDOVER FROM UTRAN FAILURE message has been submitted to lower layers for transmission:

3> resume normal operation as if the invalid HANDOVER FROM UTRAN COMMAND message has not been received;

3> and the procedure ends.

8.3.11 Inter-RAT cell change order from UTRAN

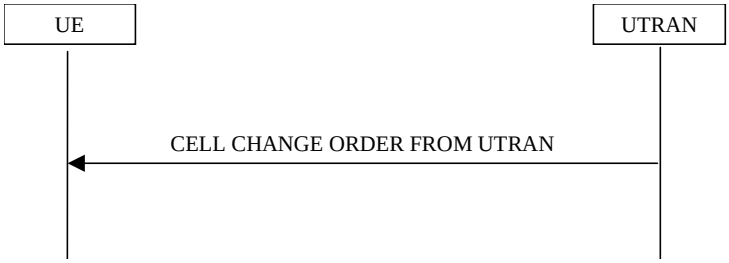

Figure 8.3.11-1: Inter–RAT cell change order from UTRAN

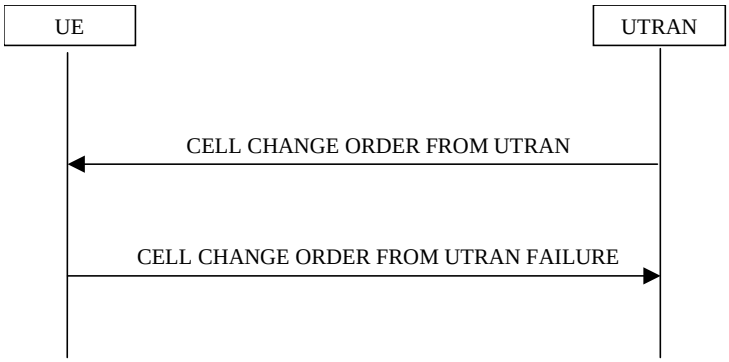

Figure 8.3.11-2: Inter-RAT cell change order from UTRAN, failure case

8.3.11.1 General

The purpose of the inter-RAT cell change order procedure is to transfer, under the control of the network, a connection between the UE and UTRAN to another radio access technology (e.g. GSM). This procedure may be used in CELL_DCH and CELL_FACH state. This procedure may be used when no RABs are established or when the established RABs are only from PS domain.

~~NOTE: This procedure is applicable for services in the PS domain.~~

8.3.11.2 Initiation

The procedure is initiated when UTRAN orders a UE in CELL_DCH or CELL_FACH state, to make a cell change to a radio access technology other than UTRAN, e.g. GSM.

To initiate the procedure, UTRAN sends a CELL CHANGE ORDER FROM UTRAN message.

8.3.11.3 Reception of an CELL CHANGE ORDER FROM UTRAN message by the UE

The UE shall be able to receive a CELL CHANGE ORDER FROM UTRAN message and perform a cell change order to another RAT, even if no prior UE measurements have been performed on the target cell.

The UE shall:

1> start timer T309; and

1> establish the connection to the other radio access technology, as specified within IE "Target cell description". This IE specifies the target cell identity, in accordance with the specifications for that other RAT. In case the target cell is a GSM/ GPRS cell, IE "Target cell description" may also include IE "NC mode", which specifies the cell selection mode to be applied in the target cell; and

1> if IE "NC mode" is not included in the CELL CHANGE ORDER FROM UTRAN:

2> retrieve it from the target cell as specified in [43];

2> act upon IE "NC mode" as specified in [43].

1> if the IE "RAB Information List" is ~~one or more IEs "RAB info" are~~ included in the CELL CHANGE ORDER FROM UTRAN message:

2> ignore the contents of the IE "RAB Information List".~~connect the upper layer entities corresponding to indicated RABs to the radio resources offered by the target RAT~~.

NOTE: Requirements concerning the establishment of the radio connection towards the other radio access technology and the signalling procedure are outside the scope of this specification. In case of GSM/GPRS proceed according to the procedure Network control cell reselection procedure as specified in [44].

8.3.11.4 Successful completion of the cell change order

The UE regards the procedure as completed when it has received a successful response from the target RAT, e.g. in case of GSM when it received the response to a (PACKET) CHANNEL REQUEST in the new cell.

Upon successful completion of the cell change order, the UE shall:

1> stop timer T309;

1> clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4.

Upon indication of the UE having successfully completed the cell change order, UTRAN should:

1> release the radio connection; and

1> remove all context information for the concerned UE.

NOTE: The release of the UMTS radio resources is initiated from another RAT.

8.3.11.5 Expiry of timer T309 or UE fails to complete requested cell change order

If:

- timer T309 expires prior to the successful establishment of a connection to the target RAT; or
- if the establishment of the connection to the other RAT failed due to other reasons e.g. (random) access failure, rejection due to lack of resources:

the UE shall:

1> if it received the CELL CHANGE ORDER FROM UTRAN message in state CELL_DCH:

2> revert back to the UTRA configuration;

2> establish the UTRA physical channel(s) used at the time for reception of CELL CHANGE ORDER FROM UTRAN;

2> if the UE does not succeed in establishing the UTRA physical channel(s):

3> perform a cell update procedure according to subclause 8.3.1 with cause "Radio link failure";

3> when the cell update procedure has completed successfully:

4> proceed as below.

2> transmit the CELL CHANGE ORDER FROM UTRAN FAILURE message setting the information elements as specified below:

3> include the IE "RRC transaction identifier"; and

3> set it to the value of "RRC transaction identifier" in the entry for the received message in the table "Accepted transactions" in the variable TRANSACTIONS; and

3> clear that entry;

3> set the IE "Inter-RAT change failure" to "physical channel failure".

2> When the CELL CHANGE ORDER FROM UTRAN FAILURE message has been submitted to lower layer for transmission, the procedure ends.

1> if the UE receives the CELL CHANGE ORDER FROM UTRAN message in CELL_FACH state:

2> revert to the cell it was camped on at the reception of the CELL CHANGE ORDER FROM UTRAN message;

2> if the UE is unable to return to this cell:

3> select a suitable UTRA cell according to [4];

3> initiate the cell update procedure according to subclause 8.3.1 using the cause "cell re-selection";

3> when the cell update procedure completed successfully:

4> proceed as below.

2> transmit the CELL CHANGE ORDER FROM UTRAN FAILURE message setting the information elements as specified below:

3> include the IE "RRC transaction identifier"; and

3> set it to the value of "RRC transaction identifier" in the entry for the CELL CHANGE ORDER FROM UTRAN message in the table "Accepted transactions" in the variable TRANSACTIONS; and

3> clear that entry;

3> set the IE "Inter-RAT change failure" to "physical channel failure".

2> When the CELL CHANGE ORDER FROM UTRAN FAILURE message has been submitted to lower layer for transmission:

3> the procedure ends.

8.3.11.6 Unsupported configuration in CELL CHANGE ORDER FROM UTRAN message

If the UTRAN instructs the UE to perform a non-supported cell change order scenario ~~e.g. multiple RAB~~ or to use a non-supported configuration, the UE shall:

1> transmit a CELL CHANGE ORDER FROM UTRAN FAILURE message, setting the information elements as specified below:

2> include the IE "RRC transaction identifier"; and

2> set it to the value of "RRC transaction identifier" in the entry for the received message in the table "Accepted transactions" in the variable TRANSACTIONS; and

2> clear that entry;

2> set the IE "Inter-RAT change failure" to "configuration unacceptable";

2> when the CELL CHANGE ORDER FROM UTRAN FAILURE message has been submitted to lower layers for transmission:

3> resume normal operation as if the CELL CHANGE ORDER FROM UTRAN message has not been received;

3> and the procedure ends.

10.2.5 CELL CHANGE ORDER FROM UTRAN

This message is used to order a cell change from UTRA to another radio access technology, e.g., GSM.

RLC-SAP: AM

Logical channel: DCCH

Direction: UTRAN→UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message Type	
UE information elements				
RRC transaction identifier	MP		RRC transaction identifier 10.3.3.36	
Integrity check info	CH		Integrity check info 10.3.3.16	
Activation time	MD		Activation time 10.3.3.1	Default value is "now"
RB Information elements				
RAB information list	OP	1 to <maxRABsetup>		~~For each RAB to be handed over~~This IE should not be included in this version of the protocol.
>RAB info	MP		RAB info 10.3.4.8	
Other information elements				
Target cell description	MP			
>CHOICE *Radio Access Technology*	MP			Two spare values are needed.
>>GSM				
>>>BSIC	MP		BSIC 10.3.8.2	
>>>Band Indicator	MP		Enumerated (DCS 1800 band used, PCS 1900 band used)	Indicates how to interpret the BCCH ARFCN
>>>BCCH ARFCN	MP		Integer (0..1023)	[45]
>>>NC mode	OP		Bit string(3)	[43]
>>IS-2000				

11.2 PDU definitions

…

```
-- **************************************************
--
-- CELL CHANGE ORDER FROM UTRAN
--
-- **************************************************

CellChangeOrderFromUTRAN ::= CHOICE {
    r3                              SEQUENCE {
        cellChangeOrderFromUTRAN-IEs        CellChangeOrderFromUTRAN-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

CellChangeOrderFromUTRAN-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        -- dummy is not used in this version of the specification, it should
        -- not be sent and if received it should be ignored.
        dummy                           IntegrityProtectionModeInfo         OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        -- the IE rab-InformationList is not used in this version of the specification, it should
        -- not be sent and if received it should be ignored. The IE may be used in a later
        -- version of the protocol and hence it is not changed into a dummy
        rab-InformationList             RAB-InformationList                 OPTIONAL,
        interRAT-TargetCellDescription  InterRAT-TargetCellDescription
}
```

3GPP TSG-RAN WG2 Meeting #29
Gyeongju, Korea, 13th – 17th May 2002

Tdoc R2-021476

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Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

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Source:	⌘	TSG-RAN WG2
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Other comments: ⌘	

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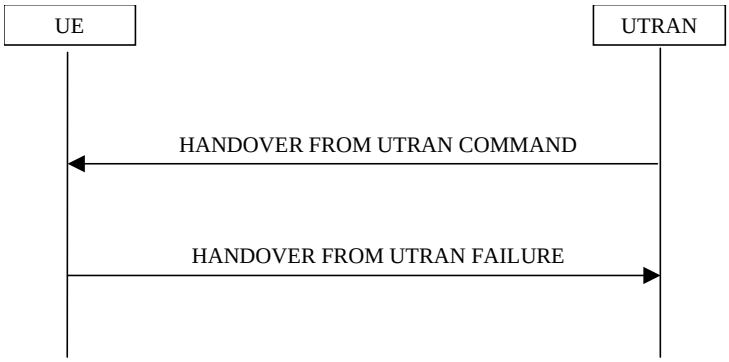
8.3.7 Inter-RAT handover from UTRAN

Figure 8.3.7-1: Inter-RAT handover from UTRAN, successful case



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8.3.7.2 Initiation

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The UE shall:

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1> if the IE "System type" has the value "GSM":

2> if the IE "Frequency band" has the value "GSM /DCS 1800 band used":

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8.3.7.8 Unsupported configuration in HANDOVER FROM UTRAN COMMAND message

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- the UTRAN instructs the UE to perform a non-supported handover scenario, or

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the UE shall:

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2> clear that entry;

2> set the IE "Inter-RAT handover failure" to "configuration unacceptable";

2> when the HANDOVER FROM UTRAN FAILURE message has been submitted to lower layers for transmission:

3> resume normal operation as if the invalid HANDOVER FROM UTRAN COMMAND message has not been received;

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8.3.11 Inter-RAT cell change order from UTRAN

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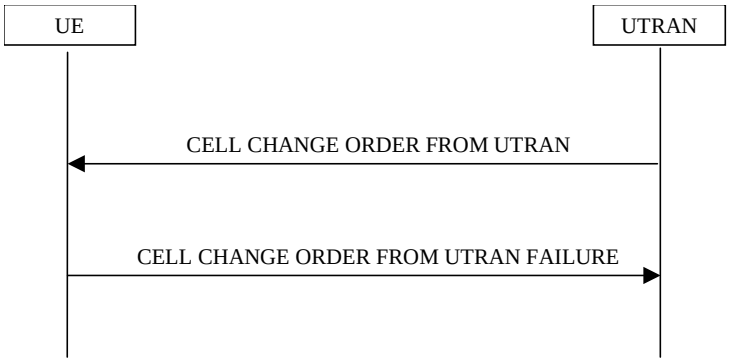

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1> if IE "NC mode" is not included in the CELL CHANGE ORDER FROM UTRAN:

2> retrieve it from the target cell as specified in [43];

2> act upon IE "NC mode" as specified in [43].

1> if the "RAB Information List" is ~~one or more IEs "RAB info" are~~ included in the CELL CHANGE ORDER FROM UTRAN message:

2> ignore the contents of the IE "RAB Information List"~~connect the upper layer entities corresponding to indicated RABs to the radio resources offered by the target RAT~~.

NOTE: Requirements concerning the establishment of the radio connection towards the other radio access technology and the signalling procedure are outside the scope of this specification. In case of GSM/GPRS proceed according to the procedure Network control cell reselection procedure as specified in [44].

8.3.11.4 Successful completion of the cell change order

The UE regards the procedure as completed when it has received a successful response from the target RAT, e.g. in case of GSM when it received the response to a (PACKET) CHANNEL REQUEST in the new cell.

Upon successful completion of the cell change order, the UE shall:

1> stop timer T309;

1> clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4.

Upon indication of the UE having successfully completed the cell change order, UTRAN should:

1> release the radio connection; and

1> remove all context information for the concerned UE.

NOTE: The release of the UMTS radio resources is initiated from another RAT.

8.3.11.6 Unsupported configuration in CELL CHANGE ORDER FROM UTRAN message

If the UTRAN instructs the UE to perform a non-supported cell change order scenario ~~e.g. multiple RAB~~ or to use a non-supported configuration, the UE shall:

1> transmit a CELL CHANGE ORDER FROM UTRAN FAILURE message, setting the information elements as specified below:

2> include the IE "RRC transaction identifier"; and

2> set it to the value of "RRC transaction identifier" in the entry for the received message in the table "Accepted transactions" in the variable TRANSACTIONS; and

2> clear that entry;

2> set the IE "Inter-RAT change failure" to "configuration unacceptable";

2> when the CELL CHANGE ORDER FROM UTRAN FAILURE message has been submitted to lower layers for transmission:

3> resume normal operation as if the CELL CHANGE ORDER FROM UTRAN message has not been received;

3> and the procedure ends.

10.2.5 CELL CHANGE ORDER FROM UTRAN

This message is used to order a cell change from UTRA to another radio access technology, e.g., GSM.

RLC-SAP: AM

Logical channel: DCCH

Direction: UTRAN→UE

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Message Type	MP		Message Type	
UE information elements				
RRC transaction identifier	MP		RRC transaction identifier 10.3.3.36	
Integrity check info	CH		Integrity check info 10.3.3.16	
Activation time	MD		Activation time 10.3.3.1	Default value is "now"
RB Information elements				
RAB information list	OP	1 to <maxRABsetup>		~~For each RAB to be handed over~~ This IE should not be included in this version of the protocol.
>RAB info	MP		RAB info 10.3.4.8	
Other information elements				
Target cell description	MP			
>CHOICE *Radio Access Technology*	MP			Two spare values are needed.
>>GSM				
>>>BSIC	MP		BSIC 10.3.8.2	
>>>Band Indicator	MP		Enumerated (DCS 1800 band used, PCS 1900 band used)	Indicates how to interpret the BCCH ARFCN
>>>BCCH ARFCN	MP		Integer (0..1023)	[45]
>>>NC mode	OP		Bit string(3)	[43]
>>IS-2000				

11.2 PDU definitions

…

```
-- **************************************************
--
-- CELL CHANGE ORDER FROM UTRAN
--
-- **************************************************

CellChangeOrderFromUTRAN ::= CHOICE {
    r3                              SEQUENCE {
        cellChangeOrderFromUTRAN-IEs        CellChangeOrderFromUTRAN-r3-IEs,
        nonCriticalExtensions           SEQUENCE {} OPTIONAL
    },
    later-than-r3                   SEQUENCE {
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        criticalExtensions              SEQUENCE {}
    }
}

CellChangeOrderFromUTRAN-r3-IEs ::= SEQUENCE {
    -- User equipment IEs
        rrc-TransactionIdentifier       RRC-TransactionIdentifier,
        -- dummy is not used in this version of the specification, it should
        -- not be sent and if received it should be ignored.
        dummy                           IntegrityProtectionModeInfo         OPTIONAL,
        activationTime                  ActivationTime                      OPTIONAL,
        -- the IE rab-InformationList is not used in this version of the specification, it should
        -- not be sent and if received it should be ignored. The IE may be used in a later
        -- version of the protocol and hence it is not changed into a dummy
        rab-InformationList             RAB-InformationList                 OPTIONAL,
        interRAT-TargetCellDescription  InterRAT-TargetCellDescription
}
```

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CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1460** ⌘ **rev** **-** ⌘ Current version: **3.10.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	DCH quality target
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	May 16, 2002
Category:	⌘	**F**
Release:	⌘	R99

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

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

Reason for change:	⌘	Confusion between BLER measurement and DCH quality target: DCH quality target is not always applicable when BLER measurement is applicable.
Summary of change:	⌘	Erroneous reference to applicability of BLER measurement is deleted from 8.6.5.4 It is clarified that, even though BLER measurement is in some cases possible when CRC exists in **at least one** transport format in downlink TFS, DCH quality target is only possible when CRC exists in **all** transport formats in downlink TFS. **Impact analysis:** This CR is considered to have isolated impact. If the UE does not implement this CR, it may wrongly apply the quality target for a DCH.
Consequences if not approved:	⌘	25.331 conflicts with 25.215.

Clauses affected:	⌘	8.6.5.4		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v4.4.0, CR 1461 25.331 v5.0.0, CR 1462
Other comments:	⌘			

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

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

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

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

8.6.5.4 DCH quality target

At physical channel establishment, the UE sets an initial downlink target SIR value based on the received IEs "DCH quality target". The IE "DCH quality target" for a given DCH shall be used by the UE to set the target SIR for the downlink power control in case ~~BLER measurement~~quality target can be set ~~is possible~~ for this DCH, i.e. CRC exists in all transport formats in downlink TFS for this DCH.

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Gyeongju, Korea, 13-17 May 2002

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CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1461** ⌘ **rev** **-** ⌘ Current version: **4.4.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	DCH quality target
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	May 16, 2002
Category:	⌘	**A**
Release:	⌘	REL-4

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

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

Reason for change:	⌘	Confusion between BLER measurement and DCH quality target: DCH quality target is not always applicable when BLER measurement is applicable.
Summary of change:	⌘	Erroneous reference to applicability of BLER measurement is deleted from 8.6.5.4 It is clarified that, even though BLER measurement is in some cases possible when CRC exists in **at least one** transport format in downlink TFS, DCH quality target is only possible when CRC exists in **all** transport formats in downlink TFS. **Impact analysis:** This CR is considered to have isolated impact. If the UE does not implement this CR, it may wrongly apply the quality target for a DCH.
Consequences if not approved:	⌘	25.331 conflicts with 25.215.

Clauses affected:	⌘	8.6.5.4		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.10.0, CR 1460 25.331 v5.0.0, CR 1462
Other comments:	⌘			

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

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Gyeongju, Korea, 13-17 May 2002

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CHANGE REQUEST

⌘ **25.331** **CR** **1462** ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	DCH quality target
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	May 16, 2002
Category:	⌘	**A**
Release:	⌘	REL-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
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R99 (Release 1999)
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REL-5 (Release 5)

Reason for change:	⌘	Confusion between BLER measurement and DCH quality target: DCH quality target is not always applicable when BLER measurement is applicable.
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Consequences if not approved:	⌘	25.331 conflicts with 25.215.

Clauses affected:	⌘	8.6.5.4		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.10.0, CR 1460 25.331 v4.4.0, CR 1461
Other comments:	⌘			

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