TSG-RAN Meeting #18 New-Orleans, USA, 03 - 06 December 2002

RP-020729

Title: CRs (Rel-4 and Rel-5 category A) to TS 25.306

Source: TSG-RAN WG2

Agenda item: 7.2.4

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Version-	Version
R2-023173	Agreed	25.306	050	-	R99	UE capability for RFC3095	F	4.5.0	4.6.0
R2-023174	Agreed	25.306	051	-	Rel-4	UE capability for RFC3095	Α	5.2.0	5.3.0

3GPP TSG-RAN WG2 #33 Sophia Antipolis, France, 12nd-15th November 2002

			С	HANG	EREQ	UE	ST				CR-Form-v7
*	25	306	CR	50	≋ rev	-	¥	Current vers	sion:	4.5.0	¥
For <u>HELP</u> on Proposed change	For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the \mathbb{X} symbols. Proposed change affects: UICC apps\mathbb{X} Radio Access Network Core Network										
7.4	A 115		114 . f	DE02005							
Title:		·	•	RFC3095							
Source:	€ LG	Electro	onics In	C.							
Work item code: ₽	€ TEI	4						Date: ♯	14/1	1/2002	
Category: ३	Deta	F (corr A (corr B (add C (fund D (edit	rection) responds lition of fe ctional m forial mod blanation	eature), odification o dification)	tion in an ea		lease _,	Release: ₩ Use <u>one</u> of 2) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	the foll (GSM (Relea (Relea (Relea	owing rele Phase 2) se 1996) se 1997) se 1998) se 1999) se 4) se 5)	eases:
Reason for chang	10· ¥	PDC	P canah	vility related	to REC30	95 wa	e mie	ssing of the	enecific	eation 25	306
Summary of chan		PDC - N	P capab Maximur	pility param n number (ed to Fontext	RFC3	095 have be			.000.
Consequences if not approved:	Ж	The I		apability pa	arameters r	elated	to R	RFC3095 will	not be	correct	у
Clauses affected:	ж	4.1, 5	5.1, 5.2.	1							
Other specs affected:	*	Y N X X	Test sp	core specif pecification Specificatio	IS	*					
Other comments:	ж										

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 (the clause containing the first piece of changed text. Del the change request.	(use CTRL-A to select it) into the specification just in front of ete those parts of the specification which are not relevant to

4.1 PDCP parameters

Support for RFC 2507

This parameter defines whether the UE supports header compression according to RFC 2507 as defined in [1] or not.

Support for RFC 3095

This parameter defines whether the UE supports header compression according to RFC 3095 as defined in [1] or not.

Support for loss-less SRNS relocation

Defines whether the UE supports loss-less SRNS relocation as defined in [1] or not.

Maximum header compression context space

This parameter is only applicable if the UE supports header compression according to RFC 2507. It is defined as the maximum header compression context size supported by the UE.

Maximum number of ROHC context sessions

This parameter is only applicable if the UE supports header compression according to RFC3095. It is defined as the maximum number of header compression context sessions supported by the UE.

Support for Reverse Decompression

This parameter determines whether reverse decompression is supported or not and the maximum number of packets that can be rereverse decompressed by the decompressor in the UE.

5.1 Value ranges

Table 5.1: UE radio access capability parameter value ranges

		UE radio access capability	Value range
DD 0D		parameter	V (b)
PDCP parameters		Support for RFC 2507	Yes/No
		Support for RFC 3095	Yes/No
		Support for loss-less SRNS relocation	Yes/No
		Maximum header compression context space	512, 1024, 2048, 4096, 8192 bytes
		Maximum number of ROHC context	2, 4, 8, 12, 16, 24, 32, 48, 64, 128,
		<u>sessions</u>	<u>256, 512, 1024, 16384</u>
		Support for Reverse Decompression	Not supported, 165535
RLC parameters		Total RLC AM buffer size	2, 10, 50, 100, 150, 500, 1000 kBytes
5107	T	Maximum number of AM entities	3, 4, 5, 6, 8, 16, 30
PHY parameters	Transport	Maximum sum of number of bits of all	640, 1280, 2560, 3840, 5120, 6400,
	channel	transport blocks being received at an	7680, 8960, 10240, 20480, 40960,
	parameters in downlink	arbitrary time instant	81920, 163840
	downlink	Maximum sum of number of bits of all convolutionally coded transport blocks being received at an arbitrary time instant	640, 1280, 2560, 3840, 5120, 6400, 7680, 8960, 10240, 20480, 40960, 81920, 163840
		Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant	640, 1280, 2560, 3840, 5120, 6400, 7680, 8960, 10240, 20480, 40960, 81920, 163840
		Maximum number of simultaneous transport channels	4, 8, 16, 32
		Maximum number of simultaneous CCTrCH	1, 2, 3, 4, 5, 6, 7, 8
		Maximum total number of transport blocks received within TTIs that end within the same 10 ms interval	4, 8, 16, 32, 48, 64, 96, 128, 256, 512
		Maximum number of TFC	16, 32, 48, 64, 96, 128, 256, 512, 1024
		Maximum number of TF	32, 64, 128, 256, 512, 1024
		Support for turbo decoding	Yes/No
	Transport channel	Maximum sum of number of bits of all transport blocks being transmitted at	640, 1280, 2560, 3840, 5120, 6400, 7680, 8960, 10240, 20480, 40960,
	parameters in uplink	an arbitrary time instant Maximum sum of number of bits of all	81920, 163840 640, 1280, 2560, 3840, 5120, 6400,
	ирши	convolutionally coded transport blocks being transmitted at an arbitrary time instant	7680, 8960, 10240, 20480, 40960, 81920, 163840
		Maximum sum of number of bits of all turbo coded transport blocks being transmitted at an arbitrary time instant	640, 1280, 2560, 3840, 5120, 6400, 7680, 8960, 10240, 20480, 40960, 81920, 163840
		Maximum number of simultaneous transport channels	2, 4, 8, 16, 32
		Maximum number of simultaneous CCTrCH of DCH type (TDD only)	1, 2, 3, 4, 5, 6, 7, 8
		Maximum total number of transport blocks transmitted within TTIs that start at the same time	2, 4, 8, 16, 32, 48, 64, 96, 128, 256, 512
		Maximum number of TFC	4, 8, 16, 32, 48, 64, 96, 128, 256, 512, 1024
		Maximum number of TF	32, 64, 128, 256, 512, 1024
		Support for turbo encoding	Yes/No
	FDD Physical channel	Maximum number of DPCH/PDSCH codes to be simultaneously received	1, 2, 3, 4, 5, 6, 7, 8
	parameters in downlink	Maximum number of physical channel bits received in any 10 ms interval (DPCH, PDSCH, S-CCPCH)	600, 1200, 2400, 3600, 4800, 7200, 9600, 14400, 19200, 28800, 38400, 48000, 57600, 67200, 76800
		Support for SF 512	Yes/No
		Support of PDSCH	Yes/No

		UE radio access capability parameter	Value range
		Simultaneous reception of SCCPCH and DPCH	Yes/No
		Simultaneous reception of SCCPCH, DPCH and PDSCH	Yes/No
		Maximum number of simultaneous S-CCPCH radio links	1 NOTE: Only the value 1 is part of this release of the specification
		Support of dedicated pilots for channel estimation	Yes/No
	FDD Physical channel	Maximum number of DPDCH bits transmitted per 10 ms	600, 1200, 2400, 4800, 9600, 19200, 28800, 38400, 48000, 57600
	parameters in uplink	Support of PCPCH	Yes/No
	TDD 3.84 Mcps physical channel	Maximum number of timeslots per frame	114
	parameters in downlink	Maximum number of physical channels per frame	1, 2, 3224
		Minimum SF	16, 1
		Support of PDSCH	Yes/No
		Maximum number of physical channels per timeslot	116
	TDD 3.84 Mcps physical channel	Maximum Number of timeslots per frame	114
	parameters in uplink	Maximum number of physical channels per timeslot	1, 2
		Minimum SF	16, 8, 4, 2, 1
		Support of PUSCH	Yes/No
	TDD 1.28 Mcps physical channel	Maximum number of timeslots per subframe	16
	parameters in downlink	Maximum number of physical channels per subframe	1, 2, 3,, 96
		Minimum SF	16, 1
		Support of PDSCH Maximum number of physical	Yes/No 116
		channels per timeslot Support 8PSK	Yes/No
	TDD 1.28 Mcps physical channel	Maximum number of timeslots per subframe	16
	parameters in uplink	Maximum number of physical channels per timeslot	1, 2
		Minimum SF	16, 8, 4, 2, 1
		Support of 8PSK	Yes/No
		Support of PUSCH	Yes/No
RF parameters	FDD RF parameters	UE power class	3, 4 NOTE: Only power classes 3 and 4 are part of this release of the specification
		Tx/Rx frequency separation	190 MHz 174.8 MHz to 205.2 MHz 134.8 MHz to 245.2 MHz
RF parameters	TDD 3.84 Mcps RF parameters	UE power class	2, 3 NOTE: Only power classes 2 and 3 are part of this release of the specification
		Radio frequency bands	a), b), c), a+b), a+c), b+c), a+b+c)
	TDD 1.28 Mcps	UE power class	2, 3
	RF parameters	Radio frequency bands	a), b), c), a+b), a+c), b+c), a+b+c)
Multi-mode related	parameters	Support of UTRA FDD	Yes/No
		Support of UTRA TDD 3.84 Mcps	Yes/No
		Support of UTRA TDD 1.28 Mcps	Yes/No
Multi-RAT related	parameters	Support of GSM	Yes/No (per GSM frequency band)
		Support of multi-carrier	Yes/No
		Support of ciphering algorithm UEA0	

	UE radio access capability parameter	Value range
	Support of ciphering algorithm UEA1	Yes
	Support of integrity protection algorithm UIA1	Yes
UE positioning related parameters	Standalone location method(s) supported	Yes/No
	Network assisted GPS support	Network based / UE based / Both/ None
	GPS reference time capable	Yes/No
	Support for IPDL	Yes/No
	Support for OTDOA UE based method	Yes/No
	Support for Rx-Tx time difference type 2 measurement	Yes/No
	Support for UE Positioning measurement validity in CELL_PCH and URA_PCH RRC states	Yes/No
Measurement related capabilities	Need for downlink compressed mode	Yes/No (per frequency band, UTRA mode and RAT)
	Need for uplink compressed mode	Yes/No (per frequency band, UTRA mode and RAT)
General capabilities	Access Stratum release indicator	R99, REL-4

5.2.1 Combinations of common UE Radio Access Parameters for UL and DL

NOTE: Measurement-related capabilities are not included in the combinations. These capabilities are independent from the supported RABs.

Table 5.2.1.1: UE radio access capability parameter combinations, parameters common for UL and DL

Reference combination of UE Radio Access capability parameters	32 kbps class	64 kbps class	128 kbps class	384 kbps class	768 kbps class	2048 kbps class	
common for UL and DL			Class	Class	Class	Class	
PDCP parameters							
Support for RFC 2507	No	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	
Support for RFC 3095	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	
Support for loss-less SRNS relocation			No/ NO	Yes			
Maximum header compression context space		Not a	applicable for c		esting		
Maximum number of ROHC context sessions		Not a	applicable for c	onformance te	esting		
Support for Reverse Decompression			<u>No/</u> NO	<u>Yes</u> ГЕ 1			
RLC parameters							
Total RLC AM buffer size (kbytes)	10	10	50	50	100	500	
Maximum number of AM entities	4	4	5	6	8	8	
Multi-mode related parameters		•					
Support of UTRA FDD			Yes NO	i/No ΓΕ 1			
Support of UTRA TDD 3.84 Mcps				/No			
Support of UTRA TDD 1.28 Mcps	Yes/No NOTE 1						
Multi-RAT related parameters							
Support of GSM			Yes NO				
Support of multi-carrier			Yes NO	i/No ΓΕ 1			
Security parameters							
Support of ciphering algorithm UEA0			Ye	es			
Support of ciphering algorithm UEA1			Ye	es			
Support of integrity protection algorithm UIA1			Yo	es			
UE positioning related parameters							
Standalone location method(s) supported			Yes NO	s/No ΓΕ 1			
Network assisted GPS support		Netwo	ork based / UE NO	based / Both/ ΓΕ 1	None		
GPS reference time capable			Yes NO	s/No ΓΕ 1			
Support for IPDL	Yes/No NOTE 1						
Support for OTDOA UE based method			Yes NO	/No			
Support for Rx-Tx time difference type 2 measurement			Yes NO				
Support for UE Positioning measurement validity in CELL_PCH and URA_PCH RRC states	Yes/No NOTE 1						
RF parameters for FDD UE power class			3 NO	/ 4 ГЕ 1			

Reference combination of UE Radio Access capability parameters common for UL and DL	32 kbps class	64 kbps class	128 kbps class	384 kbps class	768 kbps class	2048 kbps class	
Tx/Rx frequency separation	190 MHz						
RF parameters for TDD 3.84 Mcps							
Radio frequency bands	A/b/c/a+b/a+c/b+c/a+b+c						
			NO				
UE power class			2.	/ 3			
	NOTE 1						
RF parameters for TDD 1.28 Mcps							
Radio frequency bands	A / b / c / a+b / a+c / b+c/ a+b+c						
	NOTE 1						
UE power class	2/3						
•	NOTE 1						

NOTE 1: Options represent different combinations that should be supported with Conformance Tests.

3GPP TSG-RAN WG2 #33 Sophia Antipolis, France, 12nd-15th November 2002

	CHANGE REQUEST						
×	25.306 CR 51						
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the \mathbb{X} symbols. Proposed change affects: UICC apps\mathbb{X} ME X Radio Access Network Core Network							
Title: ૠ	UE capability for RFC3095						
Source: #	LG Electronics Inc.						
Work item code:₩	TEI Date: # 14/11/2002						
Category: अ	Category: # A Use one of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) P (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900. Release: # Rel-5 Use one of the following releases: Use one of the following releases: R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)						
Reason for change		j.					
Summary of chang	Summary of change: # PDCP capability parameters related to RFC3095 have been added. - Maximum number of ROHC context sessions - Reverse decompression depth						
Consequences if not approved:	The PDCP capability parameters related to RFC3095 will not be correctly defined.						
Clauses affected:	% 4.1, 5.1, 5.2.1						
Other specs affected:	Y N X Other core specifications X Test specifications O&M Specifications						
Other comments:	*						

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4.1 PDCP parameters

Support for RFC 2507

This parameter defines whether the UE supports header compression according to RFC 2507 as defined in [1] or not.

Support for RFC 3095

This parameter defines whether the UE supports header compression according to RFC 3095 as defined in [1] or not.

Support for RFC 3095 context relocation

This parameter defines whether the UE supports RFC 3095 context relocation as defined in [1] or not.

Support for loss-less SRNS relocation

Defines whether the UE supports loss-less SRNS relocation as defined in [1] or not.

Maximum header compression context space

This parameter is only applicable if the UE supports header compression according to RFC 2507. It is defined as the maximum header compression context size supported by the UE.

Maximum number of ROHC context sessions

This parameter is only applicable if the UE supports header compression according to RFC3095. It is defined as the maximum number of header compression context sessions supported by the UE.

Support for Reverse Decompression

This parameter determines whether reverse decompression is supported or not and the maximum number of packets that can be rereverse decompressed by the decompressor in the UE.

5.1 Value ranges

Table 5.1: UE radio access capability parameter value ranges

		UE radio access capability	Value range
		parameter	
PDCP parameters		Support for RFC 2507	Yes/No
		Support for RFC 3095	Yes/No
		Support for RFC 3095 context	Yes/No
		relocation	
		Support for loss-less SRNS relocation	Yes/No
		Maximum header compression	512, 1024, 2048, 4096, 8192 bytes
		context space	·
		Maximum number of ROHC context	2, 4, 8, 12, 16, 24, 32, 48, 64, 128,
		<u>sessions</u>	<u>256, 512, 1024, 16384</u>
		Support for Reverse Decompression	Not supported, 165535
RLC and MAC-hs	parameters	Total RLC AM and MAC-hs buffer	2, 10, 50, 100, 150, 500, 1000 kBytes
	•	size	
		Maximum number of AM entities	3, 4, 5, 6, 8, 16, 30
PHY parameters	Transport	Maximum sum of number of bits of all	640, 1280, 2560, 3840, 5120, 6400,
·	channel	transport blocks being received at an	7680, 8960, 10240, 20480, 40960,
	parameters in	arbitrary time instant	81920, 163840
	downlink	Maximum sum of number of bits of all	640, 1280, 2560, 3840, 5120, 6400,
		convolutionally coded transport blocks	7680, 8960, 10240, 20480, 40960,
		being received at an arbitrary time	81920, 163840
		instant	0.020, 1000.10
		Maximum sum of number of bits of all	640, 1280, 2560, 3840, 5120, 6400,
		turbo coded transport blocks being	7680, 8960, 10240, 20480, 40960,
		received at an arbitrary time instant	81920, 163840
		Maximum number of simultaneous	4, 8, 16, 32
		transport channels	1, 2, 12, 2
		Maximum number of simultaneous	1, 2, 3, 4, 5, 6, 7, 8
		CCTrCH	
		Maximum total number of transport	4, 8, 16, 32, 48, 64, 96, 128, 256, 512
		blocks received within TTIs that end	
		within the same 10 ms interval	
		Maximum number of TFC	16, 32, 48, 64, 96, 128, 256, 512,
			1024
		Maximum number of TF	32, 64, 128, 256, 512, 1024
		Support for turbo decoding	Yes/No
	Transport	Maximum sum of number of bits of all	640, 1280, 2560, 3840, 5120, 6400,
	channel	transport blocks being transmitted at	7680, 8960, 10240, 20480, 40960,
	parameters in	an arbitrary time instant	81920, 163840
	uplink	Maximum sum of number of bits of all	640, 1280, 2560, 3840, 5120, 6400,
	'	convolutionally coded transport blocks	7680, 8960, 10240, 20480, 40960,
		being transmitted at an arbitrary time	81920, 163840
		instant	
		Maximum sum of number of bits of all	640, 1280, 2560, 3840, 5120, 6400,
		turbo coded transport blocks being	7680, 8960, 10240, 20480, 40960,
		transmitted at an arbitrary time instant	81920, 163840
		Maximum number of simultaneous	2, 4, 8, 16, 32
		transport channels	
		Maximum number of simultaneous	1, 2, 3, 4, 5, 6, 7, 8
		CCTrCH of DCH type (TDD only)	0.4.0.40.00.40.04.00.400.070
		Maximum total number of transport	2, 4, 8, 16, 32, 48, 64, 96, 128, 256,
		blocks transmitted within TTIs that	512
		start at the same time	4 0 40 00 40 04 00 100 070
		Maximum number of TFC	4, 8, 16, 32, 48, 64, 96, 128, 256,
		Maximum number of TE	512, 1024
		Maximum number of TF	32, 64, 128, 256, 512, 1024
		Support for turbo encoding	Yes/No

		UE radio access capability parameter	Value range
	FDD Physical	Maximum number of DPCH/PDSCH	1, 2, 3, 4, 5, 6, 7, 8
	channel	codes to be simultaneously received	1, 2, 3, 1, 5, 5, 7, 5
	parameters in	Maximum number of physical channel	600, 1200, 2400, 3600, 4800, 7200,
	downlink	bits received in any 10 ms interval	9600, 14400, 19200, 28800, 38400,
		(DPCH, PDSCH, Š-CCPCH)	48000, 57600, 67200, 76800
		Support for SF 512	Yes/No
		Support of PDSCH	Yes/No
		Support of HS-PDSCH	Yes/No
		Simultaneous reception of SCCPCH and DPCH	Yes/No
		Simultaneous reception of SCCPCH, DPCH and PDSCH	Yes/No
		Maximum number of simultaneous S-CCPCH radio links	1 NOTE: Only the value 1 is part of this release of the specification
		Support of dedicated pilots for channel estimation	Yes
	FDD Physical channel	Maximum number of DPDCH bits transmitted per 10 ms	600, 1200, 2400, 4800, 9600, 19200, 28800, 38400, 48000, 57600
	parameters in uplink	Support of PCPCH	Yes/No
	TDD 3.84 Mcps physical channel	Maximum number of timeslots per frame	114
	parameters in downlink	Maximum number of physical channels per frame	1, 2, 3224
		Minimum SF	16, 1
		Support of PDSCH	Yes/No
		Support of HS-PDSCH	Yes/No
		Maximum number of physical channels per timeslot	116
	TDD 3.84 Mcps physical channel	Maximum Number of timeslots per frame	114
	parameters in uplink	Maximum number of physical channels per timeslot	1, 2
		Minimum SF	16, 8, 4, 2, 1
		Support of PUSCH	Yes/No
	TDD 1.28 Mcps physical channel	Maximum number of timeslots per subframe	16
	parameters in downlink	Maximum number of physical channels per subframe	1, 2, 3,, 96
		Minimum SF	16, 1
		Support of PDSCH	Yes/No
		Support of HS-PDSCH	Yes/No
		Maximum number of physical channels per timeslot	116
		Support 8PSK	Yes/No
	TDD 1.28 Mcps physical channel	Maximum number of timeslots per subframe	16
	parameters in	Maximum number of physical	1, 2
	uplink	channels per timeslot	, -
		Minimum SF	16, 8, 4, 2, 1
		Support of 8PSK	Yes/No
		Support of PUSCH	Yes/No
RF parameters	FDD RF parameters	UE power class	NOTE: Only power classes 3 and 4 are part of this release of
		Tx/Rx frequency separation	the specification 190 MHz 174.8 MHz to 205.2 MHz 134.8 MHz to 245.2 MHz

		UE radio access capability	Value range		
		parameter			
RF parameters	TDD 3.84 Mcps RF parameters	UE power class	2, 3 NOTE: Only power classes 2 and 3 are part of this release of the specification		
		Radio frequency bands	a), b), c), a+b), a+c), b+c), a+b+c)		
	TDD 1.28 Mcps	UE power class	2, 3		
	RF parameters	Radio frequency bands	a), b), c), a+b), a+c), b+c), a+b+c)		
Multi-mode related parameters		Support of UTRA FDD	Yes/No		
		Support of UTRA TDD 3.84 Mcps	Yes/No		
		Support of UTRA TDD 1.28 Mcps	Yes/No		
Multi-RAT related parameters		Support of GSM	Yes/No (per GSM frequency band)		
		Support of multi-carrier	Yes/No		
Security parameters		Support of ciphering algorithm UEA0	Yes		
		Support of ciphering algorithm UEA1	Yes		
		Support of integrity protection algorithm UIA1	Yes		
UE positioning related parameters		Standalone location method(s) supported	Yes/No		
		Network assisted GPS support	Network based / UE based / Both/ None		
		GPS reference time capable	Yes/No		
		Support for IPDL	Yes/No		
		Support for OTDOA UE based method	Yes/No		
		Support for Rx-Tx time difference type 2 measurement	Yes/No		
		Support for UE Positioning measurement validity in CELL_PCH and URA_PCH RRC states	Yes/No		
Measurement related capabilities		Need for downlink compressed mode	Yes/No (per frequency band, UTRA mode and RAT)		
		Need for uplink compressed mode	Yes/No (per frequency band, UTRA mode and RAT)		
General capabilitie		Access Stratum release indicator	R99, REL-4		
DL capabilities with DSCH	n simultaneous HS-	DL capability with simultaneous HS- DSCH configuration	32 kbps, 64 kbps, 128 kbps, 384 kbps		

5.2.1 Combinations of common UE Radio Access Parameters for UL and DL

NOTE: Measurement-related capabilities are not included in the combinations. These capabilities are independent from the supported RABs.

Table 5.2.1.1: UE radio access capability parameter combinations, parameters common for UL and DL

Reference combination of UE Radio	32 kbps	64 kbps	128 kbps	384 kbps	768 kbps	2048 kbps	
Access capability parameters common for UL and DL	class	class	class	class	class	class	
PDCP parameters							
Support for RFC 2507	No	No/Yes NOTE 1					
Support for RFC 3095	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	No/Yes NOTE 1	
Support for RFC 3095 context relocation	No/Yes NOTE 1						
Support for loss-less SRNS relocation	No/Yes NOTE 1						
Maximum header compression context space	Not applicable for conformance testing						
Maximum number of ROHC context sessions	Not applicable for conformance testing						
Support for Reverse decompression	No/Yes NOTE 1						
RLC parameters							
Total RLC AM buffer size (kbytes) Maximum number of AM entities	10 4	10 4	50 5	50 6	100 8	500 8	
Multi-mode related parameters							
Support of UTRA FDD	Yes/No						
Support of UTRA TDD 3.84 Mcps	NOTE 1 Yes/No NOTE 1						
Support of UTRA TDD 1.28 Mcps	Yes/No NOTE 1						
Multi-RAT related parameters							
Support of GSM	Yes/No NOTE 1						
Support of multi-carrier	Yes/No NOTE 1						
Security parameters							
Support of ciphering algorithm UEA0	Yes						
Support of ciphering algorithm UEA1	Yes						
Support of integrity protection algorithm UIA1	Yes						
UE positioning related parameters							
Standalone location method(s) supported	Yes/No NOTE 1						
Network assisted GPS support	Network based / UE based / Both/ None NOTE 1						
GPS reference time capable	Yes/No NOTE 1						
Support for IPDL	Yes/No NOTE 1						
Support for OTDOA UE based method	NOTE 1						
Support for Rx-Tx time difference type 2 measurement	Yes/No NOTE 1						
Support for UE Positioning measurement validity in CELL_PCH and URA_PCH RRC states	Yes/No NOTE 1						
RF parameters for FDD							

Reference combination of UE Radio Access capability parameters common for UL and DL	32 kbps class	64 kbps class	128 kbps class	384 kbps class	768 kbps class	2048 kbps class
UE power class	3 / 4 NOTE 1					
Tx/Rx frequency separation	190 MHz					
RF parameters for TDD 3.84 Mcps						
Radio frequency bands	A / b / c / a+b / a+c / b+c / a+b+c NOTE 1					
UE power class	2 / 3 NOTE 1					
RF parameters for TDD 1.28 Mcps						
Radio frequency bands	A / b / c / a+b / a+c / b+c/ a+b+c NOTE 1					
UE power class	2 / 3 NOTE 1					

NOTE 1: Options represent different combinations that should be supported with Conformance Tests.