# TSG-RAN Meeting #27 Tokyo, Japan, 09-11 March 2005

RP-050065 Agenda item 8.3.4

Source: TSG-RAN WG2

Title: CRs to 25.306 Rel-4 (onwards) on the support of DSCH

Spec	CR	Rev	Phase	Subject	Cat	<b>Version-Current</b>	Version-New	Doc-2nd-Level	Workitem
25.306	099	-	Rel-4	Support of DSCH	F	4.9.0	4.10.0	R2-050256	TEI4
25.306	100	-	Rel-5	Support of DSCH	Α	5.9.0	5.10.0	R2-050257	TEI4
25.306	101	-	Rel-6	Support of DSCH	Α	6.3.0	6.4.0	R2-050258	TEI4

### **3GPP TSG-RAN2 Meeting #45bis** Sophia Antepolis, France, 10-14 January 2005

			СН	ANGE	REQ	UE	ST				CR-Form-v7
×	25.	306	CR 09	9	∺rev	-	Ħ	Current ver	sion:	4.9.0	¥
For <u>HELP</u> on t	using t	his for	m, see bot	tom of this	s page or	look	at the	e pop-up tex	t over	the ♯ syr	nbols.
Proposed change	affect	s: L	JICC apps	ж <mark></mark>	ME	<mark>(</mark> Rad	dio A	ccess Netwo	ork	Core Ne	etwork
Title:	Sup	port o	f DSCH								
Source:	RAN	N WG2	2								
Work item code: ₩	TEI	4						Date: 3	£ 10/	01/2005	
Category: #	I I O Detai	F (corr A (corr B (add C (fund D (edit led exp	the following rection) responds to lition of featu ctional modific orial modific blanations of 3GPP TR 2	a correctio ure), fication of t cation) f the above	n in an ea eature)			2	f the for (GSN) (Relea (Relea (Relea (Relea (Relea	I-4 bllowing rel A Phase 2) ease 1996) ease 1998) ease 1999) ease 4) ease 5) ease 6)	eases:
Reason for change		in DL With shoul The s	the introduld be remo	ops class a action of H ved. PDSCH is	and highe	er mai Relea	ndate ase 5	Radio Acces the support , it is forese onal for 384	t of PC en tha	SCH.	irement
Consequences if not approved:	Ж	Isola	omplexity voted impactions on the impaction of the impact	t analysis	s:			·			
Clauses affected:	ж										
Other specs affected:	ж	Y N X X	Other core Test spec O&M Spe	ifications		¥					
Other comments:	$\mathbb{H}$										

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

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

## 5.2.2 Combinations of UE Radio Access Parameters for DL

Table 5.2.2.1: UE radio access capability parameter combinations, DL parameters

Reference combination of UE Radio	12 kbps	32 kbps	64 kbps	128 kbps	384 kbps	768 kbps	2048 kbps
Access capability parameters in DL	class	class	class	class	class	class	class
Transport channel parameters							
Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant	640 (FDD) 1280(TDD)	1280	3840	3840	6400	10240	20480
Maximum sum of number of bits of all convolutionally coded transport blocks being received at an arbitrary time instant	640	640	640	640	640	640	640
Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant	NA (FDD) 1280(TDD)	1280	3840	3840	6400	10240	20480(1) 10240(2) NOTE 5
Maximum number of simultaneous transport channels	4	8 NOTE 4	8 NOTE 4	8 NOTE 4	8 NOTE 4	8 NOTE 4	16 NOTE 4
Maximum number of simultaneous CCTrCH (FDD)	1	1 NOTE 3	2/1 NOTE 2 NOTE 3	2/1 NOTE 2 NOTE 3	2 <u>/1</u> <u>NOTE 2</u> NOTE 3	2 <u>/1</u> <u>NOTE 2</u> NOTE 3	2 <u>/1</u> <u>NOTE 2</u> NOTE 3
Maximum number of simultaneous CCTrCH (TDD)	1 NOTE 3	2 NOTE 3	3 NOTE 3	3 NOTE 3	3 NOTE 3	4 NOTE 3	4 NOTE 3
Maximum total number of transport blocks received within TTIs that end at the same time	4	8	8	16	32	64	96
Maximum number of TFC	16	32	48	96	128	256	1024
Maximum number of TF	32	32	64	64	64	128	256
Support for turbo decoding	No (FDD) Yes (TDD)	Yes	Yes	Yes	Yes	Yes	Yes
Physical channel parameters (FDD)							
Maximum number of DPCH/PDSCH codes to be simultaneously received	1	1	2/1 NOTE 2	2/1 NOTE 2	3	3	3
Maximum number of physical channel bits received in any 10 ms interval (DPCH, PDSCH, S-CCPCH).	1200	1200	3600/2400 NOTE2	7200/4800 NOTE2	19200	28800	57600
Support for SF 512 for DPCH NOTE 6	No	No	No	No	No	No	No
Support of PDSCH	No	No	Yes/No NOTE 1	Yes/No NOTE 1	Yes <u>/No</u> NOTE 1	Yes <u>/No</u> NOTE 1	Yes/No NOTE 1
Maximum number of simultaneous S- CCPCH radio links	1	1	1	1	1	1	1
Support of dedicated pilots for channel estimation	Yes/No NOTE 1	Yes/No NOTE 1	Yes/No NOTE 1	Yes/No NOTE 1	Yes/No NOTE 1	Yes/No NOTE 1	Yes/No NOTE 1
Physical channel parameters (TDD 3.84 Mcps)							
Maximum number of timeslots per frame	1	1	2	4	5	10	12
Maximum number of physical channels per frame	5	8	9	14	28	64	136
Minimum SF	16	16	16	16	1/16 NOTE 1	1/16 NOTE 1	1/16 NOTE 1
Support of PDSCH	No	Yes/No NOTE 1	Yes	Yes	Yes	Yes	Yes
Maximum number of physical channels per timeslot	5	8	9	9	9	9	13
Physical channel parameters (TDD 1.28 Mcps)							
Maximum number of timeslots per subframe	1	1	2	3	4	6	6
Maximum number of physical channels per subframe	5	8	12	18	43	77	77
Minimum SF	16	16	16	16	1/16 NOTE 1	1/16 NOTE 1	1

Reference combination of UE Radio Access capability parameters in DL	•	32 kbps class	64 kbps class	128 kbps class	384 kbps class	768 kbps class	2048 kbps class
Support of PDSCH	No	Yes/no NOTE 1	Yes	Yes	Yes	Yes	Yes
Maximum number of physical channels per timeslot	5	8	11	14	14	14	14
Support of 8PSK	No	No	No	No	No	No	Yes

- NOTE 1: Options represent different combinations that should be supported with conformance tests.
- NOTE 2: Options depend on the support of PDSCH. The highest value is required if PDSCH is supported.
- NOTE 3: The given number does not contain the BCH CCTrCH of the current cell nor of the neighbour cells.
- NOTE 4: The given number does not contain the BCH of the neighbour cell.
- NOTE 5: (1) For FDD and 3.84 Mcps TDD (2) For 1.28 Mcps TDD.
- NOTE 6: This UE capability does not relate to the support of CPCH in the uplink for which SF 512 is needed.

### **3GPP TSG-RAN2 Meeting #45bis** Sophia Antepolis, France, 10-14 January 2005

			С	HANG	EREC	QUE	ST				CR-Form-v7
*	2	<b>5.306</b>	CR 1	00	<b>≋rev</b>	-	¥	Current vers	sion:	5.9.0	¥
For <u>HEL</u>	P on usin	g this fo	m, see k	oottom of th	nis page o	r look	at the	e pop-up text	over	the % syr	mbols.
Proposed cl	hange affe	ects:	JICC ap <sub>l</sub>	os# <mark> </mark>	ME	<mark>∢</mark> Rad	dio Ad	ccess Netwo	rk	Core Ne	etwork
Title:	жS	upport c	f DSCH								
Source:	₩ <mark>R</mark>	AN WG	2								
Work item c	ode: Ж ⊤	El4						Date: ∺	10/0	01/2005	
Category:	De	e <u>one</u> of F (core A (core B (add C (fun D (edi etailed exp	rection) responds dition of fe ctional mo torial mod	odification o lification) s of the abov	tion in an e f feature)			Release: # Use <u>one</u> of 2 e) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	the for (GSM (Rele (Rele (Rele (Rele (Rele (Rele	•	
Reason for o	change: S	With show	the intro ld be rer support of kbps Ul	duction of noved.  of PDSCH classes.	s and high	er mar Relea	ndate ase 5 e optio	Radio Access the support , it is foresee onal for 384 I	of PD en that	SCH.	iirement
Consequence not approve		Isola	ited imp	y will be in act analys implement	sis:						
Clauses affe	ected:	H .									
Other specs affected: Other comm		Y N X X	Test sp	ore specifi ecifications pecification	S	X					

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

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

## 5.2.2 Combinations of UE Radio Access Parameters for DL

Table 5.2.2.1: UE radio access capability parameter combinations, DL parameters

Radio Access capability parameters in DL   Transport channel parameters   Maximum of number of bits of all transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant   Maximum number of simultaneous   Mote   M	Reference combination of UE	12 kbps	32 kbps	64 kbps	128 kbps	384 kbps	768 kbps	2048 kbps
Transport channel parameters	Radio Access capability	-	-	-	•	•	•	-
Maximum sum of number of bits of all transport blocks being received by the provision of all convolutionally coded transport blocks being received transport blocks being received transport blocks being received at an arbitrary time instant waximum sum of number of bits of all convolutionally coded transport blocks being received at an arbitrary time instant waximum number of simultaneous 1280(TDD) being received at an arbitrary time instant waximum number of simultaneous 1280(TDD) being received at an arbitrary time instant waximum number of simultaneous 1 2/20(TDD) being received at an arbitrary time instant waximum number of simultaneous 1 1 2/1 2/1 2/1 NOTE 2 NOTE 3 N								
All transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all convolutionally coded transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant   Maximum number of bits of all turbo coded transport blocks being received at an arbitrary time instant   Maximum number of simultaneous control transport blocks being received at an arbitrary time instant   Maximum number of simultaneous control transport blocks received within tTis that end at the same time   NOTE 4   NOTE 5   NOTE 3		( )						
at an arbitrary time instant Maximum sum of number of bits of all convolutionally coded transport blocks being received at an arbitrary time instant Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant Maximum number of simultaneous transport channels Maximum number of simultaneous 1			1280	3840	3840	6400	10240	20480
all convolutionally coded transport blocks being received at an arbitrary time instant   NA (FDD)   1280   3840   3840   6400   10240   20480(1)   10240(2)   NOTE 5   1280(TDD)   1280   3840   3840   6400   10240   20480(1)   10240(2)   NOTE 5   1280(TDD)   1280   1280(TDD)   1280   1280(TDD)   1280   1280(TDD)   1280   1280(TDD)   1280   1280(TDD)   1280   1280(TDD)   1280(TDD)   1280   1280(TDD)	at an arbitrary time instant	` ,						
		640	640	640	640	640	640	640
time instant Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant Maximum number of simultaneous 4 8 8 8 8 8 8 9 8 16 MOTE 4 MOTE 2 MOTE 2 MOTE 2 MOTE 2 MOTE 2 MOTE 3 MO								
Maximum sum of number of bits of all turbo code transport blocks being received at an arbitrary time instant								
All turbo coded transport blocks being received at an arbitrary time instant		NA (FDD)	1280	3840	3840	6400	10240	20//80(1)
Deing received at an arbitrary time Instant   Maximum number of simultaneous   4			1200	3040	3040	0400	10240	
Instant		.200(.22)						
NOTE 4   NOTE 2   NOTE 2   NOTE 2   NOTE 3   NOTE 3   NOTE 3   NOTE 2   NOTE 2   NOTE 3								
Maximum number of simultaneous   1		4						
NOTE 2   NOTE 2   NOTE 3   NOTE 2   NOTE 3   NOTE 2   NOTE 3   N	transport channels		NOTE 4					
NOTE 3		1	1					
Maximum number of simultaneous CCTrCH (TDD)         1         2         3         3         3         4         4           CCTrCH (TDD)         NOTE 3         NOTE 4         4         4         4         4         96         128         256         1024	CCTrCH (FDD)		NOTE 2					
NOTE 3   N	Maximum number of simultaneous	1						
Maximum total number of transport   4			<del>-</del>	•		-	•	-
blocks received within TTIs that end at the same time   Maximum number of TFC   16   32   48   96   128   256   1024								
Maximum number of TFC         16         32         48         96         128         256         1024           Maximum number of TF         32         32         64         64         64         128         256           Support for turbo decoding         No (FDD)         Yes         Yes <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
Maximum number of TF   32   32   64   64   64   128   256								
Support for turbo decoding	Maximum number of TFC	16	32	48	96	128	256	1024
Support for turbo decoding	Maximum number of TF	32	32	64	64	64	128	256
Physical channel parameters (FDD)								
Physical channel parameters (FDD)	Cupport for tarbo accounty		103	103	103	103	103	103
Maximum number of DPCH/PDSCH codes to be simultaneously received         1         1         2/1 NOTE 2 NOTE 2         3         3         3           Maximum number of physical channel bits received in any 10 ms interval (DPCH, PDSCH, S-CCPCH).         1200         1200         3600/2400         7200/4800         19200         28800         57600           Support for SF 512 for DPCH Support for SF 512 for DPCH NOTE 6         No	Physical channel parameters							
Maximum number of physical channel sits received in any 10 ms interval (DPCH, PDSCH, S-CCPCH).								
Maximum number of physical channel bits received in any 10 ms interval (DPCH, PDSCH, S-CCPCH).         1200         3600/2400 NOTE2         7200/4800 NOTE2         19200         28800         57600           support for SF 512 for DPCH NOTE 6         No         No<			1			3	3	3
Channel bits received in any 10 ms interval (DPCH, PDSCH, S-CCPCH).   No			1200			10200	20000	F7600
Interval (DPCH, PDSCH, S-CCPCH).   Support for SF 512 for DPCH   No   No   No   No   No   No   No   N		1200	1200			19200	20000	57600
CCPCH).         Support for SF 512 for DPCH         No         Yes/No         Yes/No <td></td> <td></td> <td></td> <td>NOTEZ</td> <td>NOTEZ</td> <td></td> <td></td> <td></td>				NOTEZ	NOTEZ			
Support for SF 512 for DPCH								
Support of PDSCH	Support for SF 512 for DPCH	No	No	No	No	No	No	No
NOTE 1   NOTE 1   NOTE 1   NOTE 1   NOTE 1   NOTE 1								
Support of HS-PDSCH	Support of PDSCH	No	No					
NOTE 1   NOTE 1   NOTE 1   NOTE 1   NOTE 1   NOTE 1	Command of LIC DDCCLL	Nia	NI-					
Maximum number of simultaneous         1         2         2         4         5         1         1         1         2         4         5         1         1         1         2         4         5         1         1 <th< td=""><td>Support of HS-PDSCH</td><td>INO</td><td>INO</td><td></td><td></td><td></td><td></td><td></td></th<>	Support of HS-PDSCH	INO	INO					
S-CCPCH radio links         Yes         NOTE 1         NOTE 1         NOTE 1         NOTE 1         NOTE 7         NOTE 1	Maximum number of simultaneous	1	1	1		1	1	
Support of dedicated pilots for channel estimation         Yes NOTE 1 NOTE 7 NOTE 1 NOTE		•	•			•	•	•
channel estimation         NOTE 1 NOTE 7         NOTE 1 NOTE 1         NOTE 1 NOTE 1 NOTE 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Support of dedicated pilots for channel estimation of HS-DSCH         Yes/No NOTE 1         Yes/NoTE 1         Ye		NOTE 1	NOTE 1		NOTE 1			
Channel estimation of HS-DSCH         NOTE 1         NOTE 1 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Physical channel parameters (TDD 3.84 Mcps)           Maximum number of timeslots per frame         1         1         2         4         5         10         12           Maximum number of physical frame         5         8         9         14         28         64         136           Minimum SF         16         16         16         16         1/16         1/16         NOTE 1         NOTE 1         NOTE 1           Support of PDSCH         No         Yes/No         Yes         Yes         Yes         Yes         Yes								
(TDD 3.84 Mcps)         Maximum number of timeslots per frame         1         1         2         4         5         10         12           Maximum number of physical channels per frame         5         8         9         14         28         64         136           Minimum SF         16         16         16         16         1/16         1/16         NOTE 1         NOTE 1         NOTE 1           Support of PDSCH         No         Yes/No         Yes         Yes         Yes         Yes		NOTE 1	NOTE 1	NOTE 1	NOTE 1	NOTE 1	NOTE 1	NOTE 1
Maximum number of timeslots per frame         1         1         2         4         5         10         12           Maximum number of physical channels per frame         5         8         9         14         28         64         136           Minimum SF         16         16         16         16         1/16         1/16         1/16           Support of PDSCH         No         Yes/No         Yes         Yes         Yes         Yes								
frame         Maximum number of physical channels per frame         5         8         9         14         28         64         136 channels per frame           Minimum SF         16         16         16         16         1/16 note 1         1/16 note 1         1/16 note 1         NOTE 1 note 1         NOTE 1         NOTE 1         NOTE 1         NOTE 1         NOTE 1         Note 1         Note 1         Note 2         Yes         Yes <td< td=""><td></td><td>1</td><td>1</td><td>2</td><td>4</td><td>5</td><td>10</td><td>12</td></td<>		1	1	2	4	5	10	12
Maximum number of physical channels per frame         5         8         9         14         28         64         136           Minimum SF         16         16         16         16         1/16         1/16         1/16         1/16         NOTE 1         NOTE 1         NOTE 1         NOTE 1         Support of PDSCH         No         Yes	1 - ·	'	•	_	'			12
Channels per frame         Image: Ch		5	8	9	14	28	64	136
Support of PDSCH         No         Yes/No         Yes         Yes         Yes         Yes         Yes	channels per frame							
Support of PDSCH No Yes/No Yes Yes Yes Yes Yes	Minimum SF	16	16	16	16			
	Support of BDSCH	No	Voo/No	Voc	Voc			
	Support of FDSCH	INO	Yes/No NOTE 1	res	168	res	res	res

Reference combination of UE	12 kbps	32 kbps	64 kbps	128 kbps	384 kbps	768 kbps	2048 kbps
Radio Access capability	class	class	class	class	class	class	class
parameters in DL							
Support of HS-PDSCH	No	No	Yes/No NOTE 1				
Maximum number of physical channels per timeslot	5	8	9	9	9	9	13
Physical channel parameters (TDD 1.28 Mcps)							
Maximum number of timeslots per subframe	1	1	2	3	4	6	6
Maximum number of physical channels per subframe	5	8	12	18	43	77	77
Minimum SF	16	16	16	16	1/16 NOTE 1	1/16 NOTE 1	1
Support of PDSCH	No	Yes/No NOTE 1	Yes	Yes	Yes	Yes	Yes
Support of HS-PDSCH	No	No	Yes/No NOTE 1				
Maximum number of physical channels per timeslot	5	8	11	14	14	14	14
Support of 8PSK	No	No	No	No	No	No	Yes

- NOTE 1: Options represent different combinations that should be supported with conformance tests.
- NOTE 2: Options depend on the support of PDSCH. The highest value is required if PDSCH is supported.
- NOTE 3: The given number does not contain the BCH CCTrCH of the current cell nor of the neighbour cells.
- NOTE 4: The given number does not contain the BCH of the neighbour cell.
- NOTE 5: (1) For FDD and 3.84 Mcps TDD (2) For 1.28 Mcps TDD.
- NOTE 6: This UE capability does not relate to the support of CPCH in the uplink for which SF 512 is needed
- NOTE 7: A UE conforming to this release of the specification shall set the support of channel estimation based on dedicated pilot bits to TRUE.

The reference combinations for HS-DSCH capabilities are shown in tables 5.2.2.2, 5.2.2.3 and 5.2.2.4. These tables are subject to further discussions in TSG-RAN WG1 and TSG-RAN WG2.

Table 5.2.2.2: FDD UE radio access capability parameter combinations, DL HS-DSCH parameters

Reference combination	1.2 Mbps class	3.6 Mbps class	7 Mbps class	10 Mbps class
FDD HS-DSCH category	Category 1	Category 5	Category 7	Category 9

Table 5.2.2.3: 1.28 Mcps TDD UE radio access capability parameter combinations, DL HS-DSCH parameters

Reference combination	1.4 Mbps class	2.0 Mbps class	2.8 Mbps class
1.28 Mcps TDD HS-DSCH Category	Category 1	Category 7	Category 13

Table 5.2.2.4: 3.84 Mcps TDD UE radio access capability parameter combinations, DL HS-DSCH parameters

Reference combination	1.2 Mbps	2.4 Mbps	3.6 Mbps	7.3 Mbps	10.2 Mbps
	class	class	class	class	class
3.84Mcps TDD HS-DSCH category	Category 1	Category 3	Category 5	Category 8	Category 9

### **3GPP TSG-RAN2 Meeting #45bis** Sophia Antepolis, France, 10-14 January 2005

	CHANGE REQUEST	CR-Form-v7
*	25.306 CR 101 # rev - # Curr	ent version: 6.3.0 <sup>#</sup>
For <u>HELP</u> on u	sing this form, see bottom of this page or look at the pop-	-up text over the % symbols.
Proposed change a	nffects: UICC apps光 ME X Radio Access	Network Core Network
Title: 第	Support of DSCH	
Source: #	RAN WG2	
Work item code: ₩	TEI4	Date: 第 <mark>10/01/2005</mark>
Category: 米	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.	ease: # Rel-6 e one of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)
Reason for change Summary of change	in DL for 384 kbps class and higher mandate the s With the introduction of HSDPA in Release 5, it is should be removed.	foreseen that this requirement
	2048 kbps UE classes.	or our hape, roe hape and
Consequences if not approved:	# UE complexity will be increased un-necessarily.  Isolated impact analysis:  UE does not implement the change: no impact.	
Clauses affected:	<b>*</b>	
Other specs affected:	Y N	
Other comments:	<b></b> ₩	

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

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

## 5.2.2 Combinations of UE Radio Access Parameters for DL

Table 5.2.2.1: UE radio access capability parameter combinations, DL parameters

Radio Access capability parameters in DL   Transport channel parameters   Maximum of number of bits of all transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant   Maximum number of simultaneous   Mote   M	Reference combination of UE	12 kbps	32 kbps	64 kbps	128 kbps	384 kbps	768 kbps	2048 kbps
Transport channel parameters	Radio Access capability	-	-	-	•	•	•	-
Maximum sum of number of bits of all transport blocks being received by the provision of all convolutionally coded transport blocks being received transport blocks being received transport blocks being received at an arbitrary time instant waximum sum of number of bits of all convolutionally coded transport blocks being received at an arbitrary time instant waximum number of simultaneous 1280(TDD) being received at an arbitrary time instant waximum number of simultaneous 1280(TDD) being received at an arbitrary time instant waximum number of simultaneous 1 2/20(TDD) being received at an arbitrary time instant waximum number of simultaneous 1 1 2/1 2/1 2/1 NOTE 2 NOTE 3 N								
All transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all convolutionally coded transport blocks being received at an arbitrary time instant   Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant   Maximum number of bits of all turbo coded transport blocks being received at an arbitrary time instant   Maximum number of simultaneous control transport blocks being received at an arbitrary time instant   Maximum number of simultaneous control transport blocks received within tTis that end at the same time   NOTE 4   NOTE 5   NOTE 3		( )						
at an arbitrary time instant Maximum sum of number of bits of all convolutionally coded transport blocks being received at an arbitrary time instant Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant Maximum number of simultaneous transport channels Maximum number of simultaneous 1			1280	3840	3840	6400	10240	20480
all convolutionally coded transport blocks being received at an arbitrary time instant   NA (FDD)   1280   3840   3840   6400   10240   20480(1)   10240(2)   NOTE 5   1280(TDD)   1280   3840   3840   6400   10240   20480(1)   10240(2)   NOTE 5   1280(TDD)   1280   1280(TDD)   1280   1280(TDD)   1280   1280(TDD)   1280   1280(TDD)   1280   1280(TDD)   1280   1280(TDD)   1280(TDD)   1280   1280(TDD)	at an arbitrary time instant	` ,						
		640	640	640	640	640	640	640
time instant Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant Maximum number of simultaneous 4 8 8 8 8 8 8 9 8 16 MOTE 4 MOTE 2 MOTE 2 MOTE 2 MOTE 2 MOTE 2 MOTE 3 MO								
Maximum sum of number of bits of all turbo code transport blocks being received at an arbitrary time instant								
All turbo coded transport blocks being received at an arbitrary time instant		NA (FDD)	1280	3840	3840	6400	10240	20//80(1)
Deing received at an arbitrary time Instant   Maximum number of simultaneous   4			1200	3040	3040	0400	10240	
Instant		.200(.22)						
NOTE 4   NOTE 2   NOTE 2   NOTE 2   NOTE 3   NOTE 3   NOTE 3   NOTE 2   NOTE 2   NOTE 3								
Maximum number of simultaneous   1		4						
NOTE 2   NOTE 2   NOTE 3   NOTE 2   NOTE 3   NOTE 2   NOTE 3   N	transport channels		NOTE 4					
NOTE 3		1	1					
Maximum number of simultaneous CCTrCH (TDD)         1         2         3         3         3         4         4           CCTrCH (TDD)         NOTE 3         NOTE 4         4         4         4         4         96         128         256         1024	CCTrCH (FDD)		NOTE 2					
NOTE 3   N	Maximum number of simultaneous	1						
Maximum total number of transport   4			<del>-</del>	•		-	•	-
blocks received within TTIs that end at the same time   Maximum number of TFC   16   32   48   96   128   256   1024								
Maximum number of TFC         16         32         48         96         128         256         1024           Maximum number of TF         32         32         64         64         64         128         256           Support for turbo decoding         No (FDD)         Yes         Yes <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
Maximum number of TF   32   32   64   64   64   128   256								
Support for turbo decoding	Maximum number of TFC	16	32	48	96	128	256	1024
Support for turbo decoding	Maximum number of TF	32	32	64	64	64	128	256
Physical channel parameters (FDD)								
Physical channel parameters (FDD)	Cupport for tarbo accounty		103	103	103	103	103	103
Maximum number of DPCH/PDSCH codes to be simultaneously received         1         1         2/1 NOTE 2 NOTE 2         3         3         3           Maximum number of physical channel bits received in any 10 ms interval (DPCH, PDSCH, S-CCPCH).         1200         1200         3600/2400         7200/4800         19200         28800         57600           Support for SF 512 for DPCH Support for SF 512 for DPCH NOTE 6         No	Physical channel parameters							
Maximum number of physical channel sits received in any 10 ms interval (DPCH, PDSCH, S-CCPCH).								
Maximum number of physical channel bits received in any 10 ms interval (DPCH, PDSCH, S-CCPCH).         1200         3600/2400 NOTE2         7200/4800 NOTE2         19200         28800         57600           support for SF 512 for DPCH NOTE 6         No         No<			1			3	3	3
Channel bits received in any 10 ms interval (DPCH, PDSCH, S-CCPCH).   No			1200			10200	20000	F7600
Interval (DPCH, PDSCH, S-CCPCH).   Support for SF 512 for DPCH   No   No   No   No   No   No   No   N		1200	1200			19200	20000	57600
CCPCH).         Support for SF 512 for DPCH         No         Yes/No         Yes/No <td></td> <td></td> <td></td> <td>NOTEZ</td> <td>NOTEZ</td> <td></td> <td></td> <td></td>				NOTEZ	NOTEZ			
Support for SF 512 for DPCH								
Support of PDSCH	Support for SF 512 for DPCH	No	No	No	No	No	No	No
NOTE 1   NOTE 1   NOTE 1   NOTE 1   NOTE 1   NOTE 1								
Support of HS-PDSCH	Support of PDSCH	No	No					
NOTE 1   NOTE 1   NOTE 1   NOTE 1   NOTE 1   NOTE 1	Command of LIC DDCCLL	Nia	NI-					
Maximum number of simultaneous         1         2         2         4         5         1         1         1         2         4         5         1         1         1         2         4         5         1         1 <th< td=""><td>Support of HS-PDSCH</td><td>INO</td><td>INO</td><td></td><td></td><td></td><td></td><td></td></th<>	Support of HS-PDSCH	INO	INO					
S-CCPCH radio links         Yes         NOTE 1         NOTE 1         NOTE 1         NOTE 1         NOTE 7         NOTE 1	Maximum number of simultaneous	1	1	1		1	1	
Support of dedicated pilots for channel estimation         Yes NOTE 1 NOTE 7 NOTE 1 NOTE		•	•			•	•	
channel estimation         NOTE 1 NOTE 7         NOTE 1 NOTE 1         NOTE 1 NOTE 1 NOTE 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Support of dedicated pilots for channel estimation of HS-DSCH         Yes/No NOTE 1         Yes/NoTE 1         Ye		NOTE 1	NOTE 1		NOTE 1			
Channel estimation of HS-DSCH         NOTE 1         NOTE 1 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Physical channel parameters (TDD 3.84 Mcps)           Maximum number of timeslots per frame         1         1         2         4         5         10         12           Maximum number of physical frame         5         8         9         14         28         64         136           Minimum SF         16         16         16         16         1/16         1/16         NOTE 1         NOTE 1         NOTE 1           Support of PDSCH         No         Yes/No         Yes         Yes         Yes         Yes         Yes								
(TDD 3.84 Mcps)         Maximum number of timeslots per frame         1         1         2         4         5         10         12           Maximum number of physical channels per frame         5         8         9         14         28         64         136           Minimum SF         16         16         16         16         1/16         1/16         NOTE 1         NOTE 1         NOTE 1           Support of PDSCH         No         Yes/No         Yes         Yes         Yes         Yes		NOTE 1	NOTE 1	NOTE 1	NOTE 1	NOTE 1	NOTE 1	NOTE 1
Maximum number of timeslots per frame         1         1         2         4         5         10         12           Maximum number of physical channels per frame         5         8         9         14         28         64         136           Minimum SF         16         16         16         16         1/16         1/16         1/16           Support of PDSCH         No         Yes/No         Yes         Yes         Yes         Yes								
frame         Maximum number of physical channels per frame         5         8         9         14         28         64         136 channels per frame           Minimum SF         16         16         16         16         1/16 note 1         1/16 note 1         1/16 note 1         NOTE 1 note 1         NOTE 1         NOTE 1         NOTE 1         NOTE 1         NOTE 1         Note 1         Note 1         Note 2         Yes         Yes <td< td=""><td></td><td>1</td><td>1</td><td>2</td><td>4</td><td>5</td><td>10</td><td>12</td></td<>		1	1	2	4	5	10	12
Maximum number of physical channels per frame         5         8         9         14         28         64         136           Minimum SF         16         16         16         16         1/16         1/16         1/16         1/16         NOTE 1         NOTE 1         NOTE 1         NOTE 1         Support of PDSCH         No         Yes	1 - ·	'	•	_	'			12
Channels per frame         Image: Ch		5	8	9	14	28	64	136
Support of PDSCH         No         Yes/No         Yes         Yes         Yes         Yes         Yes	channels per frame							
Support of PDSCH No Yes/No Yes Yes Yes Yes Yes	Minimum SF	16	16	16	16			
	Support of BDSCH	No	Voo/No	Voc	Voc			
	Support of FDSCH	INO	Yes/No NOTE 1	res	168	res	res	res

Reference combination of UE	12 kbps	32 kbps	64 kbps	128 kbps	384 kbps	768 kbps	2048 kbps
Radio Access capability	class	class	class	class	class	class	class
parameters in DL							
Support of HS-PDSCH	No	No	Yes/No NOTE 1				
Maximum number of physical channels per timeslot	5	8	9	9	9	9	13
Physical channel parameters (TDD 1.28 Mcps)							
Maximum number of timeslots per subframe	1	1	2	3	4	6	6
Maximum number of physical channels per subframe	5	8	12	18	43	77	77
Minimum SF	16	16	16	16	1/16 NOTE 1	1/16 NOTE 1	1
Support of PDSCH	No	Yes/No NOTE 1	Yes	Yes	Yes	Yes	Yes
Support of HS-PDSCH	No	No	Yes/No NOTE 1				
Maximum number of physical channels per timeslot	5	8	11	14	14	14	14
Support of 8PSK	No	No	No	No	No	No	Yes

- NOTE 1: Options represent different combinations that should be supported with conformance tests.
- NOTE 2: Options depend on the support of PDSCH. The highest value is required if PDSCH is supported.
- NOTE 3: The given number does not contain the BCH CCTrCH of the current cell nor of the neighbour cells.
- NOTE 4: The given number does not contain the BCH of the neighbour cell.
- NOTE 5: (1) For FDD and 3.84 Mcps TDD (2) For 1.28 Mcps TDD.
- NOTE 6: This UE capability does not relate to the support of CPCH in the uplink for which SF 512 is needed
- NOTE 7: A UE conforming to this release of the specification shall set the support of channel estimation based on dedicated pilot bits to TRUE.

The reference combinations for HS-DSCH capabilities are shown in tables 5.2.2.2, 5.2.2.3 and 5.2.2.4. These tables are subject to further discussions in TSG-RAN WG1 and TSG-RAN WG2.

Table 5.2.2.2: FDD UE radio access capability parameter combinations, DL HS-DSCH parameters

Reference combination	1.2 Mbps class	3.6 Mbps class	7 Mbps class	10 Mbps class
FDD HS-DSCH category	Category 1	Category 5	Category 7	Category 9

Table 5.2.2.3: 1.28 Mcps TDD UE radio access capability parameter combinations, DL HS-DSCH parameters

Reference combination	1.4 Mbps class	2.0 Mbps class	2.8 Mbps class
1.28 Mcps TDD HS-DSCH Category	Category 1	Category 7	Category 13

Table 5.2.2.4: 3.84 Mcps TDD UE radio access capability parameter combinations, DL HS-DSCH parameters

Reference combination	1.2 Mbps	2.4 Mbps	3.6 Mbps	7.3 Mbps	10.2 Mbps
	class	class	class	class	class
3.84Mcps TDD HS-DSCH category	Category 1	Category 3	Category 5	Category 8	Category 9