

**Source:** TSG-RAN WG2.

**Title:** CR to 25.308 Rel-5 (and Rel-6)

The following CRs are in RP-040515:

<b>Spec</b>	<b>CR</b>	<b>Rev</b>	<b>Phase</b>	<b>Subject</b>	<b>Cat</b>	<b>Version-Current</b>	<b>Version-New</b>	<b>Doc-2nd-Level</b>	<b>Workitem</b>
25.308	011	-	Rel-5	Removal of sentences into brackets	F	5.10.0	5.11.0	R2-042597	HSDPA-L23
25.308	012	-	Rel-6	Removal of sentences into brackets	A	6.3.0	6.4.0	R2-042598	HSDPA-L23

## 5.5 CRs to 25.321 Rel-5 (and Rel-6)

The following CRs are in RP-040480:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.321	197	-	Rel-5	MAC-hs header extension	F	5.9.0	5.10.0	R2-042258	HSDPA-L23
25.321	198	-	Rel-6	MAC-hs header extension	A	6.2.0	6.3.0	R2-042259	HSDPA-L23
25.321	199	-	Rel-5	Clarification on the C/T field use in the HSDPA Mac-d header	F	5.9.0	5.10.0	R2-042603	HSDPA-L23
25.321	200	-	Rel-6	Clarification on the C/T field use in the HSDPA Mac-d header	A	6.2.0	6.3.0	R2-042604	HSDPA-L23

## 5.6 CRs to 25.322 Rel-5 (and Rel-6)

The following CRs are in RP-040504:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.322	261	1	Rel-5	Correction of MRW SUFI content setting rule	F	5.8.0	5.9.0	R2-042251	TEI5
25.322	262	1	Rel-6	Correction of MRW SUFI content setting rule	A	6.1.0	6.2.0	R2-042252	TEI5
25.322	263	1	Rel-5	Correction of Poll Prohibit function	F	5.8.0	5.9.0	R2-042255	TEI5
25.322	264	1	Rel-6	Correction of Poll Prohibit function	A	6.1.0	6.2.0	R2-042256	TEI5

## 5.7 CRs to 25.331 Rel-5 (1) (and Rel-6)

The following CRs are in RP-040481:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.331	2433	-	Rel-5	Correction to measured results on RACH	F	5.10.0	5.11.0	R2-042214	TEI5
25.331	2434	-	Rel-6	Correction to measured results on RACH	A	6.3.0	6.4.0	R2-042215	TEI5
25.331	2435	-	Rel-5	T305 handling upon a state transition	F	5.10.0	5.11.0	R2-042253	TEI5
25.331	2436	-	Rel-6	T305 handling upon a state transition	A	6.3.0	6.4.0	R2-042254	TEI5
25.331	2437	-	Rel-5	Handling of pending AM RLC unrecoverable errors signalled by cell update	F	5.9.0	5.10.0	R2-042268	TEI5
25.331	2438	-	Rel-6	Handling of pending AM RLC unrecoverable errors signalled by cell update	A	6.3.0	6.4.0	R2-042269	TEI5
25.331	2443	-	Rel-5	TPC step size in default configurations	F	5.10.0	5.11.0	R2-042585	TEI5
25.331	2444	-	Rel-6	TPC step size in default configurations	A	6.3.0	6.4.0	R2-042586	TEI5
25.331	2452	-	Rel-5	Correction to HS-DSCH reception conditions	F	5.10.0	5.11.0	R2-042595	HSDPA-L23
25.331	2453	-	Rel-6	Correction to HS-DSCH reception conditions	A	6.3.0	6.4.0	R2-042596	HSDPA-L23
25.331	2454	1	Rel-5	MAC-hs Reset procedure	F	5.10.0	5.11.0	R2-042685	HSDPA-L23
25.331	2455	1	Rel-6	MAC-hs Reset procedure	A	6.3.0	6.4.0	R2-042686	HSDPA-L23

## 5.8 CRs to 25.331 Rel-5 (2) (and Rel-6)

The following CRs are in RP-040482:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.331	2456	1	Rel-5	Correction to cell selection and reselection parameters	F	5.10.0	5.11.0	R2-042634	TEI5
25.331	2457	1	Rel-6	Correction to cell selection and reselection parameters	A	6.3.0	6.4.0	R2-042635	TEI5
25.331	2458	1	Rel-5	Clarification the PDCP capability- Max HC context space	F	5.10.0	5.11.0	R2-042683	TEI5
25.331	2459	1	Rel-6	Clarification the PDCP capability- Max HC context space	A	6.3.0	6.4.0	R2-042684	TEI5
25.331	2460	-	Rel-5	Corrections to IE "WAIT TIME" = 0	F	5.10.0	5.11.0	R2-042624	TEI5
25.331	2461	-	Rel-6	Corrections to IE "WAIT TIME" = 0	A	6.3.0	6.4.0	R2-042625	TEI5
25.331	2462	1	Rel-5	RRC transaction identifier in the MEASUREMENT CONTROL message	F	5.10.0	5.11.0	R2-042699	TEI5
25.331	2463	1	Rel-6	RRC transaction identifier in the MEASUREMENT CONTROL message	A	6.3.0	6.4.0	R2-042690	TEI5
25.331	2464	-	Rel-5	Correction to intra-frequency measurement handling in SIB11	F	5.10.0	5.11.0	R2-042628	TEI5
25.331	2465	-	Rel-6	Correction to intra-frequency measurement handling in SIB11	A	6.3.0	6.4.0	R2-042629	TEI5
25.331	2469	1	Rel-5	Clarification of Radio Bearer Downlink Ciphering Activation Time Info	F	5.10.0	5.11.0	R2-042721	TEI5
25.331	2470	2	Rel-6	Clarification of Radio Bearer Downlink Ciphering Activation Time Info	F	6.3.0	6.4.0	R2-042727	TEI6
25.331	2471	1	Rel-5	TFC Subset Variable Usage and Application of Transport Format Combination Subset	F	5.10.0	5.11.0	R2-042696	TEI5
25.331	2472	1	Rel-6	TFC Subset Variable Usage and Application of Transport Format Combination Subset	A	6.3.0	6.4.0	R2-042697	TEI5

## 5.9 CRs to 25.331 Rel-5 (3) (and Rel-6)

The following CRs are in RP-040505:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.331	2473	-	Rel-5	Use of preconfiguration in the RADIO BEARER RECONFIGURATION message	F	5.10.0	5.11.0	R2-042642	TE15
25.331	2474	-	Rel-6	Use of preconfiguration in the RADIO BEARER RECONFIGURATION message	A	6.3.0	6.4.0	R2-042643	TE15
25.331	2475	-	Rel-5	UTRAN setting of ciphering activation time for SRB2	F	5.10.0	5.11.0	R2-042644	TE15
25.331	2476	-	Rel-6	UTRAN setting of ciphering activation time for SRB2	A	6.3.0	6.4.0	R2-042645	TE15
25.331	2477	-	Rel-5	Correction to ASN1 IE "srb-SpecificIntegrityProtInfo"	F	5.10.0	5.11.0	R2-042647	TE15
25.331	2478	-	Rel-6	Correction to ASN1 IE "srb-SpecificIntegrityProtInfo"	A	6.3.0	6.4.0	R2-042648	TE15
25.331	2479	1	Rel-5	Criteria for initiating cell update on receiving "Frequency info" IE in CELL UPDATE CONFIRM message	F	5.10.0	5.11.0	R2-042691	TE15
25.331	2480	1	Rel-6	Criteria for initiating cell update on receiving "Frequency info" IE in CELL UPDATE CONFIRM message	A	6.3.0	6.4.0	R2-042692	TE15
25.331	2481	-	Rel-5	Traffic volume measurements in PCH states	F	5.10.0	5.11.0	R2-042655	TE15
25.331	2482	-	Rel-6	Traffic volume measurements in PCH states	A	6.3.0	6.4.0	R2-042656	TE15
25.331	2483	-	Rel-5	Failure cause indication on Cell Update	F	5.10.0	5.11.0	R2-042657	TE15
25.331	2484	-	Rel-6	Failure cause indication on Cell Update	A	6.3.0	6.4.0	R2-042658	TE15
25.331	2492	-	Rel-5	Inter-RAT measurement control information used	F	5.10.0	5.11.0	R2-042687	TE15
25.331	2493	-	Rel-6	Inter-RAT measurement control information used	A	6.3.0	6.4.0	R2-042688	TE15

## 5.10 CR to 25.993 (Rel-5 affected, Rel-6 version)

The following CR is in RP-040483:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.993	031	3	Rel-6	Additions of HSDPA RABs	F	6.7.0	6.8.0	R2-042599	TE16

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## 6 RAN Improvement Feature (agenda item 8.2)

### 6.1 RAB Support enhancement: HS-DPCCH ACK/NACK enhancement (agenda item 8.2.1.3)

The following CR is in RP-040493:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.331	2496	1	Rel-6	Preamble and Postamble to reduce HS-DPCCH transmit power	B	6.3.0	6.4.0	R2-042724	RANimp-RABSE-ACKNACK

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## 7 Introduction of the MBMS in RAN (agenda item 8.4)

### 7.1 CRs to 25.304

The following CRs are in RP-040488:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.304	126	-	Rel-6	TS 25.304 Introduction of MBMS	B	6.3.0	6.4.0	R2-042710	MBMS-RAN
25.304	127	-	Rel-6	Addition of MBMS Frequency Layer Convergence to 25.304	B	6.3.0	6.4.0	R2-042711	MBMS-RAN

### 7.2 CRs to 25.321

The following CRs are in RP-040489:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.321	201	1	Rel-6	Introduction of MBMS MAC header	B	6.2.0	6.3.0	R2-042740	MBMS-RAN
25.321	202	-	Rel-6	Introduction of MBMS	B	6.2.0	6.3.0	R2-042713	MBMS-RAN

### 7.3 CRs to 25.322

The following CRs are in RP-040490:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.322	265	1	Rel-6	Inclusion of out of sequence SDU delivery	B	6.1.0	6.2.0	R2-042737	MBMS-RAN
25.322	266	-	Rel-6	Addition of MBMS Logical Channels and UM functionality for 'duplicate avoidance and reordering'.	B	6.1.0	6.2.0	R2-042712	MBMS-RAN

### 7.3 CRs to 25.331

The following CRs are in RP-040491:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.331	2494	-	Rel-6	ASN.1 update for the introduction of MBMS	B	6.3.0	6.4.0	R2-042707	MBMS-RAN
25.331	2495	1	Rel-6	Introduction of MBMS	B	6.3.0	6.4.0	R2-042709	MBMS-RAN

### 7.4 CRs to 25.346

The following CRs are in RP-040492:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.346	006	1	Rel-6	Actions due to MBMS session repetition and MBMS service prioritisation	F	6.2.0	6.3.0	R2-042700	MBMS-RAN
25.346	007	1	Rel-6	Introduction of MSCH and soft combining and other general corrections	F	6.2.0	6.3.0	R2-042701	MBMS-RAN
25.346	008	-	Rel-6	Corrections to UE Linking, Session Start and addition of URA Linking and Information Exchange procedure	F	6.2.0	6.3.0	R2-042702	MBMS-RAN
25.346	009	-	Rel-6	Update of Annex B	F	6.2.0	6.3.0	R2-042703	MBMS-RAN



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## 8 Enhancement of the support of network sharing in the UTRAN (agenda item 8.6)

### 8.1 CR to 25.304

The following CR is in RP-040494:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.304	124	-	Rel-6	Network Sharing and multiple PLMN identities	B	6.3.0	6.4.0	R2-042665	NTShar-UTRANEnh

### 8.2 CR to 25.331

The following CR is in RP-040495:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.331	2487	1	Rel-6	Network Sharing and multiple PLMN identities	B	6.3.0	6.4.0	R2-042736	NTShar-UTRANEnh

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## 9 FDD Enhanced Uplink (agenda item 8.7)

### 9.1 CR to 25.301

The following CR is in RP-040484:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.301	071	-	Rel-6	Introduction of Enhanced Uplink	B	6.0.0	6.1.0	R2-042735	EDCH-L23

### 9.2 CR to 25.302

The following CR is in RP-040485:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.302	146	-	Rel-6	Introduction of Enhanced Uplink	B	6.0.0	6.1.0	R2-042545	EDCH-L23

### 9.3 CR to 25.321

The following CR is in RP-040497:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.321	203	-	Rel-6	Introduction of EUL in MAC specification	B	6.2.0	6.3.0	R2-042739	EDCH-L23

### 9.4 CR to 25.331

The following CR is in RP-040507:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.331	2497	-	Rel-6	Introduction of E-DCH	B	6.3.0	6.4.0	R2-042717	EDCH-L23

## CHANGE REQUEST

⌘ **25.308 CR 011** ⌘ rev **-** ⌘ Current version: **5.6.0** ⌘

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

**Proposed change affects:** UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	⌘ Removal of sentences into brackets	
<b>Source:</b>	⌘ RAN WG2	
<b>Work item code:</b>	⌘ HSDPA-L23	<b>Date:</b> ⌘ 15/Nov/2004
<b>Category:</b>	⌘ <b>F</b> Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .	<b>Release:</b> ⌘ Rel-5 Use <u>one</u> 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)

<b>Reason for change:</b>	⌘ There are still two sentences into brackets left in the HSDPA Stage 2.
<b>Summary of change:</b>	⌘ The sentences into brackets have been removed or reworded according to the final decisions.  <u>In section 5.2.2.1:</u>  The following sentence is removed: <i>[The HS-DSCH carries a UE identity that identifies the UE so that erroneous delivery of MAC-PDUs to MAC-d is avoided.]</i>  <u>In section 10:</u>  <i>[The CRNC configures the Node B with the list of HS-SCCH that can be use in the cell. The list of HS-SCCH sets are decided by the Node B.]</i>  The sentence is modified as follow:  <i>The HS-SCCH set are decided by the Node B.</i>
<b>Consequences if not approved:</b>	⌘ Out of date options would remain in the Stage 2 specification.  <b>Impact on test specifications:</b> No impact.

**Clauses affected:** ⌘ 5.2.2.1, 10

<b>Other specs affected:</b>		<b>Y</b>	<b>N</b>		
	⌘		<b>X</b>	Other core specifications	⌘
			<b>X</b>	Test specifications	
			<b>X</b>	O&M Specifications	
<b>Other comments:</b>	⌘				

**How to create CRs using this form:**

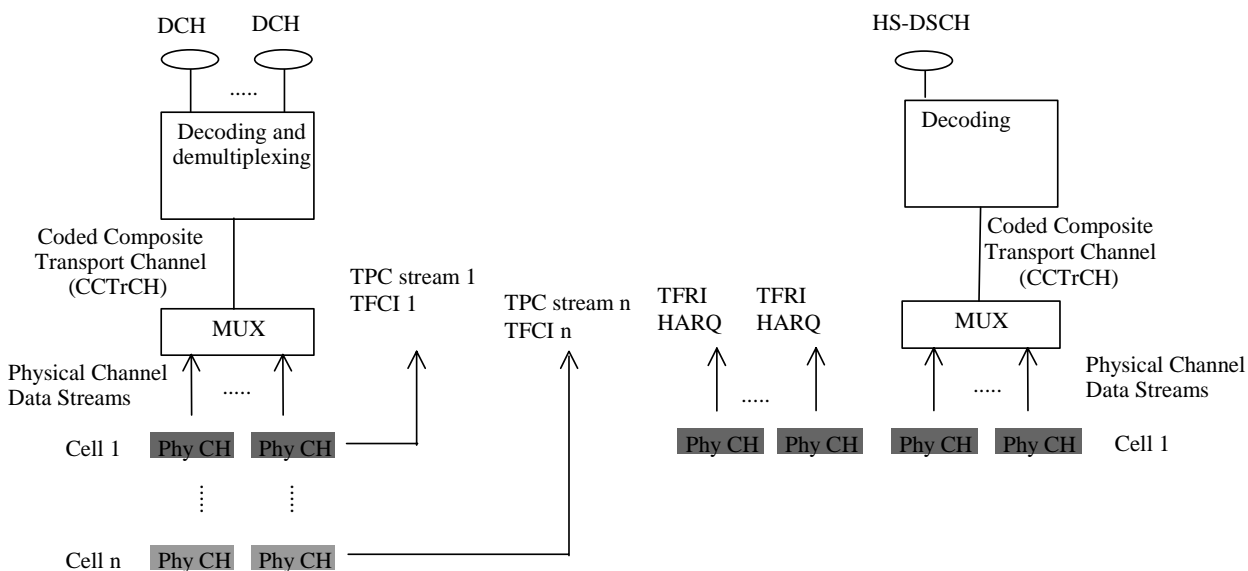
Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>. Below is a brief summary:

- 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.

## 5.2.2 DL HS-DSCH Physical layer model

### 5.2.2.1 FDD Downlink Physical layer Model

DCH model with HS-DSCH



**Figure 5.2.2.1-1: Model of the UE's Downlink physical layer - HS-PDSCH with associated DPCH. HS-PDSCH is transmitted from cell 1 in this figure**

The basic downlink channel configuration consists of one or several HS-PDSCHs along with an associated DPCH combined with a number of separate shared physical control channels, HS-SCCHs. The set of shared physical control channels allocated to the UE at a given time is called an HS-SCCH set. The UTRAN may use more than one HS-SCCH set in one given cell. There is a fixed time offset between the start of the HS-SCCH information and the start of the corresponding HS-PDSCH subframe.

The UE is provided one HS-SCCH set on HS-PDSCH configuration/re-configuration via RRC signalling.

The number of HS-SCCHs in a HS-SCCH set as seen from the UE's point-of-view can range from a minimum of one HS-SCCH to a maximum of four HS-SCCHs. The UE shall monitor continuously all the HS-SCCHs in the allocated set.

A two-step signalling approach is used for indicating which UE has been scheduled and for signalling the necessary information required for the UE to decode the HS-PDSCHs.

For each HS-DSCH TTI, each Shared Control Channel (HS-SCCH) carries HS-DSCH-related downlink signalling for one UE. The following information is carried on the HS-SCCH:

- Transport Format and Resource Indicator (TFRI):  
The TFRI includes information about the dynamic part of the HS-DSCH transport format, including transport block set size and modulation scheme. The TFRI also includes information about the set of physical channels (channelisation codes) onto which HS-DSCH is mapped in the corresponding HS-DSCH TTI.
- Hybrid-ARQ-related Information (HARQ information):  
This includes the HARQ protocol related information for the corresponding HS-DSCH TTI (subclause 7.1.2.1) and information about the redundancy version.

The HS-SCCH carries a UE identity (via a UE-specific CRC) that identifies the UE for which it is carrying the information necessary for decoding the HS-PDSCH.

The HS-PDSCH channelisation codes that are used in a given cell are not sent to the UE using RRC signalling. The HS-SCCH signals the set of HS-PDSCH channelisation codes which are allocated to a UE for a given TTI.

The first part of the HS-SCCH contains the channelisation code set and the modulation scheme for the HS-DSCH allocation with the second part containing the transport block size and H-ARQ related information. One CRC is calculated over both parts and the UE id, and attached to the HS-SCCH information.

In case of HS-DSCH transmission to the same UE in consecutive HS-DSCH TTIs, the same HS-SCCH should be used for the corresponding associated downlink signalling.

The upper layer signalling on the DCCH can be mapped to the DCH mapped to the associated DPCH or the HS-DSCH.

~~{The HS-DSCH carries a UE identity that identifies the UE so that erroneous delivery of MAC PDUs to MAC-d is avoided.}~~

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## 10 Resource management

For HS-DSCH, the resources at a cell level shall be:

- Channelisation Codes and timeslots (TDD) that can be used for the mapping of HS-PDSCH and the HS-SCCH physical channels.
- Power that can be used for HS-DSCH, i.e. for HS-DSCHs and HS-SCCHs.

The HS-DSCH resources are assigned by the CRNC to a Node B on a cell basis.

~~{The CRNC configures the Node B with the list of HS-SCCH that can be use in the cell. The list of HS-SCCH sets are decided by the Node B.}~~  
The HS-SCCH set for a given UE is decided by the Node B.

## CHANGE REQUEST

# 25.308 CR 012 # rev - # Current version: 6.2.0 #

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

Proposed change affects: UICC apps  ME  Radio Access Network  Core Network

<b>Title:</b>	# Removal of sentences into brackets
<b>Source:</b>	# RAN WG2
<b>Work item code:</b>	# HSDPA-L23
<b>Date:</b>	# 15/Nov/2004
<b>Category:</b>	# <b>A</b>
	Use <u>one</u> of the following categories:
	<b>F</b> (correction)
	<b>A</b> (corresponds to a correction in an earlier release)
	<b>B</b> (addition of feature),
	<b>C</b> (functional modification of feature)
	<b>D</b> (editorial modification)
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .
<b>Release:</b>	# Rel-6
	Use <u>one</u> 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)

<b>Reason for change:</b>	# There are still two sentences into brackets left in the HSDPA Stage 2.
<b>Summary of change:</b>	# The sentences into brackets have been removed or reworded according to the final decisions.  <u>In section 5.2.2.1:</u>  The following sentence is removed: <i>[The HS-DSCH carries a UE identity that identifies the UE so that erroneous delivery of MAC-PDUs to MAC-d is avoided.]</i>  <u>In section 10:</u>  <i>[The CRNC configures the Node B with the list of HS-SCCH that can be use in the cell. The list of HS-SCCH sets are decided by the Node B.]</i>  The sentence is modified as follow:  <i>The HS-SCCH set are decided by the Node B.</i>
<b>Consequences if not approved:</b>	# Out of date options would remain in the Stage 2 specification.  <b>Impact on test specifications:</b> No impact.

**Clauses affected:** # 5.2.2.1, 10

<b>Other specs affected:</b>		<b>Y</b>	<b>N</b>		
	⌘		<b>X</b>	Other core specifications	⌘
			<b>X</b>	Test specifications	
			<b>X</b>	O&M Specifications	
<b>Other comments:</b>	⌘				

**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:

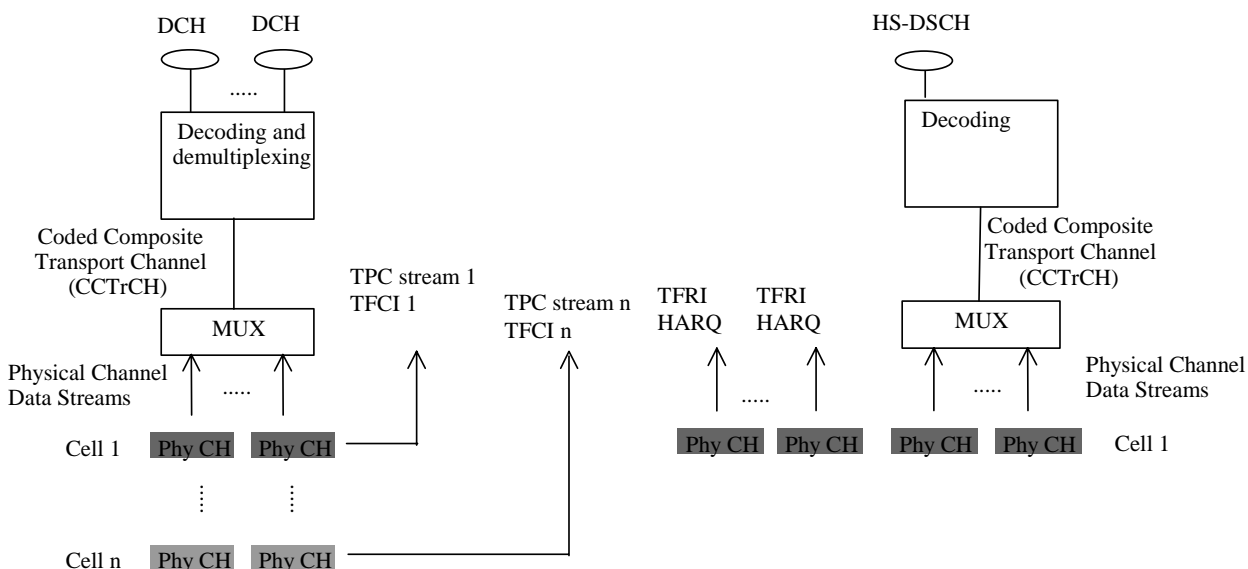
- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") 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.



## 5.2.2 DL HS-DSCH Physical layer model

### 5.2.2.1 FDD Downlink Physical layer Model

DCH model with HS-DSCH



**Figure 5.2.2.1-1: Model of the UE's Downlink physical layer - HS-PDSCH with associated DPCH. HS-PDSCH is transmitted from cell 1 in this figure**

The basic downlink channel configuration consists of one or several HS-PDSCHs along with an associated DPCH combined with a number of separate shared physical control channels, HS-SCCHs. The set of shared physical control channels allocated to the UE at a given time is called an HS-SCCH set. The UTRAN may use more than one HS-SCCH set in one given cell. There is a fixed time offset between the start of the HS-SCCH information and the start of the corresponding HS-PDSCH subframe.

The UE is provided one HS-SCCH set on HS-PDSCH configuration/re-configuration via RRC signalling.

The number of HS-SCCHs in a HS-SCCH set as seen from the UE's point-of-view can range from a minimum of one HS-SCCH to a maximum of four HS-SCCHs. The UE shall monitor continuously all the HS-SCCHs in the allocated set.

A two-step signalling approach is used for indicating which UE has been scheduled and for signalling the necessary information required for the UE to decode the HS-PDSCHs.

For each HS-DSCH TTI, each Shared Control Channel (HS-SCCH) carries HS-DSCH-related downlink signalling for one UE. The following information is carried on the HS-SCCH:

- Transport Format and Resource Indicator (TFRI):  
The TFRI includes information about the dynamic part of the HS-DSCH transport format, including transport block set size and modulation scheme. The TFRI also includes information about the set of physical channels (channelisation codes) onto which HS-DSCH is mapped in the corresponding HS-DSCH TTI.
- Hybrid-ARQ-related Information (HARQ information):  
This includes the HARQ protocol related information for the corresponding HS-DSCH TTI (subclause 7.1.2.1) and information about the redundancy version.

The HS-SCCH carries a UE identity (via a UE-specific CRC) that identifies the UE for which it is carrying the information necessary for decoding the HS-PDSCH.

The HS-PDSCH channelisation codes that are used in a given cell are not sent to the UE using RRC signalling. The HS-SCCH signals the set of HS-PDSCH channelisation codes which are allocated to a UE for a given TTI.

The first part of the HS-SCCH contains the channelisation code set and the modulation scheme for the HS-DSCH allocation with the second part containing the transport block size and H-ARQ related information. One CRC is calculated over both parts and the UE id, and attached to the HS-SCCH information.

In case of HS-DSCH transmission to the same UE in consecutive HS-DSCH TTIs, the same HS-SCCH should be used for the corresponding associated downlink signalling.

The upper layer signalling on the DCCH can be mapped to the DCH mapped to the associated DPCH or the HS-DSCH.

~~{The HS-DSCH carries a UE identity that identifies the UE so that erroneous delivery of MAC PDUs to MAC-d is avoided.}~~

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## 10 Resource management

For HS-DSCH, the resources at a cell level shall be:

- Channelisation Codes and timeslots (TDD) that can be used for the mapping of HS-PDSCH and the HS-SCCH physical channels.
- Power that can be used for HS-DSCH, i.e. for HS-DSCHs and HS-SCCHs.

The HS-DSCH resources are assigned by the CRNC to a Node B on a cell basis.

~~{The CRNC configures the Node B with the list of HS-SCCH that can be use in the cell. The list of HS-SCCH sets are decided by the Node B.}~~  
The HS-SCCH set for a given UE is decided by the Node B.