TSG-RAN Meeting #9 *RP-000353*
Oahu, HI, USA, 20 – 22 September 2000

Title: **Agreed CRs to TS 25.302**

Source: **TSG-RAN WG2**

Agenda item: **5.2.3**

Doc-1st-	Status-	Spec	CR	Rev	Subject	Cat	Version	Versio
R2-001370	agreed	25.302	065		Filtering period in case of periodical reporting	F	3.5.0	3.6.0
R2-001427	agreed	25.302	066		UE simultaneous Physical and Transport channel combinations for PDSCH and DSCH	F	3.5.0	3.6.0
R2-001536	agreed	25.302	067		Inclusion of SIR ERROR measurement	F	3.5.0	3.6.0
R2-001728	agreed	25.302	068	1	Simultaneous reception of PCCPCH and SCCPCH	F	3.5.0	3.6.0
R2-001668	agreed	25.302	070		Removal of puncturing limit from the transport format definition	F	3.5.0	3.6.0
R2-001864	agreed	25.302	071		Clarification of the Timeslot ISCP Measurements	F	3.5.0	3.6.0

3GPP TSG RAN WG2 #14
Paris, France, 3rd – 7th July, 2000

Document R2-001370
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25.302	CR	065	Current Version:	3.5.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

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strategic [ ]
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Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 29.06.2000

Subject: Filtering period in case of periodical reporting

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	[X]
A	Corresponds to a correction in an earlier release	[ ]
B	Addition of feature	[ ]
C	Functional modification of feature	[ ]
D	Editorial modification	[ ]

Release:

Phase 2	[ ]
Release 96	[ ]
Release 97	[ ]
Release 98	[ ]
Release 99	[X]
Release 00	[ ]

Reason for change: This proposal clarifies the definition for the filtering of the measurement quantity in case of periodical reporting.

Clauses affected: 9.1

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

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9.1 Model of physical layer measurements

This subclause describes a model for how the physical layer measurements are performed. This model applies both to the UE and Node B measurements.

The measurement model for physical layer measurements is represented in the figure 7.

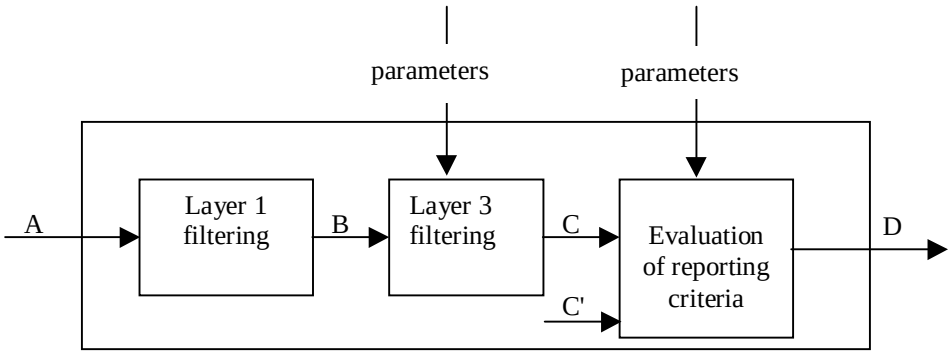

Figure 7: Measurement model

The model is described below:

- **A:** measurements (samples) internal to the physical layer in support to the measurements to be provided to higher layers;
- **Layer 1 filtering:** internal layer 1 filtering of the inputs measured at point A. Exact filtering is implementation dependant. How the measurements are actually executed in the physical layer by an implementation (inputs A and Layer 1 filtering) in not constrained by the standard i.e. the model does not state a specific sampling rate or even if the sampling is periodic or not. What the standard specifies is the performance objective and reporting rate at point B in the model. The performance objectives for the physical layer measurements are specified in [9] and [10];
- **B:** A measurement reported by layer 1 after layer 1 filtering. The reporting rate at point B is defined by the standard and is measurement type specific. It is chosen to be equal to the measurement period over which performance objectives are defined in [9] and [10]. As a consequence, by setting the layer 3 filtering to "no filtering", the performance of the layer 1 implementation can be tested. This means that the physical layer can organise its internal measurements between these reporting at point B to meet the performance requirements;
- **Layer 3 filtering:** Filtering performed on the measurements provided at point B. The Layer 3 filters are standardised and the configuration of the layer 3 filters is provided by RRC signalling (UE measurements) or NBAP signalling (Node B measurements);
- **C:** A measurement after processing in the layer 3 filter. The reporting rate is identical to the reporting rate at point B and is therefore also measurement type specific. Although this is not shown in the figure, one measurement can be used by a multiplicity of evaluation of reporting criteria;
- **Evaluation of reporting criteria:** This checks whether actual measurement reporting is necessary at point D i.e. whether a message need to be sent to higher layers on the radio interface or Iub interface. The evaluation can be based on more than one flow of measurements at reference point C e.g. to compare between different measurements. This is illustrated by input C, C', etc. The reporting criteria are standardised and the configuration is provided by RRC signalling (UE measurements) or NBAP signalling (Node B measurements). Examples are periodic reporting and event based reporting~~;~~ In case periodical reporting is in use and if the reporting interval is different from the filtering period defined by the layer 3 filter, the last measurement result filtered by the L3 filter is used as the value for reporting criteria evaluation and as the value of the reported result.
- **D:** a measurement report information (message) sent on the radio or Iub interface.

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25.302	CR	066	Current Version:	3.5.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN #9	for approval	X	strategic		(for SMG use only)
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Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*	(U)SIM		ME		UTRAN / Radio	X	Core Network	

Source: TSG-RAN WG2 **Date:** June 30th 2000

Subject: UE simultaneous Physical and Transport Channels combinations for PDSCH and DSCH

Work item:

Category: *(only one category Shall be marked With an X)*				**Release:**		
	F	Correction	X		Phase 2	
	A	Corresponds to a correction in an earlier release			Release 96	
	B	Addition of feature			Release 97	
	C	Functional modification of feature			Release 98	
	D	Editorial modification			Release 99	X
					Release 00	

Reason for change: The current UE simultaneous Physical and Transport Channels combinations related to PDSCH and DSCH for FDD Downlink are not consistent with other specs. The UE can receive multicode PDSCH, and also can receive multiple DSCHs which are coded into a single CCTrCH. Therefore, the current spec. of UE simultaneous Physical and Transport Channels combinations should be corrected.

Clauses affected: 8.2

Other specs Affected:			
Other 3G core specifications		→ List of CRs:	
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

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8 UE Simultaneous Physical Channels combinations

This clause describes the requirements from the UE to send and receive on multiple Transport Channels, which are mapped on different physical channels simultaneously depending on the service capabilities and requirements. The clause will describe the impacts on the support for multiple services (e.g. speech call and SMS-CB) depending on the UE capabilities.

8.1 FDD Uplink

The table describes the possible combinations of FDD physical channels that can be supported in the uplink by one UE at any one time.

Table 1: FDD Uplink

	Physical Channel Combination	Transport Channel Combination	Baseline Capability or Service dependent	Comment
1	PRACH	RACH	Baseline	The PRACH physical channel includes the preambles and the message.
2	PRACH	FAUSCH	Service dependent	
3	PCPCH consisting of one control and one data part during the message portion	CPCH	Service dependent	The PCPCH physical channel includes the preambles and the message. The maximum channel bit rate is dependant on UE Service Capability
4	PCPCH consisting of one control and more than one data part during the message portion	CPCH	Service dependent	The PCPCH physical channel includes the preambles and the message. The maximum channel bit rate is dependant on UE Service Capability
5	DPCCH+DPDCH	One or more DCH coded into a single CCTrCH	Service dependent	The maximum number of DCHs and the maximum channel bit rate are dependant on UE Service Capability
6	DPCCH+ more than one DPDCH	One or more DCH coded into a single CCTrCH	Service dependent	The maximum number of DCHs and the maximum channel bit rate are dependant on UE Service Capability

8.2 FDD Downlink

The table describes the possible combinations of FDD physical channels that can be supported in the downlink by one UE at any one time.

Table 2: FDD Downlink

	Physical Channel Combination	Transport Channel Combination	Baseline Capability or Service dependent	Comment
1	PCCPCH	BCH	Baseline	
2	SCCPCH	FACH + PCH	Baseline	The maximum channel bit rate that can be supported is dependent on the UE Service Capability
3	SCCPCH + AICH	FACH + PCH + RACH in uplink Or FACH + PCH + CPCH in uplink	Baseline	The maximum channel bit rate that can be supported is dependent on the UE Service Capability. This physical channel combination facilitates the preamble portion of the CPCH in the uplink
4	SCCPCH + DPCCH	FACH + PCH + CPCH in uplink	Service dependent	This physical channel combination facilitates the message portion of the CPCH in the uplink
5	More than one SCCPCH	More than one FACH + PCH	Service dependent	
6	PICH	N/A	Baseline	
7	DPCCH + DPDCH	One or more DCH coded into a single CCTrCH	Service dependant	The maximum number of DCHs and the maximum channel bit rate are dependent on UE Service Capability
8	DPCCH + more than one DPDCH	One or more DCH coded into a single CCTrCH	Service dependent	The maximum number of DCHs and the maximum channel bit rate are dependent on UE Service Capability
9	One or more PDSCH + DPCCH + one or more DPDCH	One or more DSCH coded into a single CCTrCH + one or more DCH coded into a single CCTrCH	Service dependent	The maximum number of DCHs and the maximum channel bit rate are dependent on UE Service Capability
10	SCCPCH + DPCCH + one or more DPDCH	FACH + one or more DCH coded into a single CCTrCH	Service dependent	The maximum number of DCHs and the maximum channel bit rate are dependent on UE Service Capability This combination of physical channels is used for DRAC control of an uplink DCH and for receiving services such as cell broadcast or multicast whilst in connected mode.
11	SCCPCH + one or more PDSCH + DPCCH + one or more DPDCH	FACH + one or more DSCH coded into a single CCTrCH + one or more DCH coded into a single CCTrCH	Service dependent	The maximum number of DCHs and the maximum channel bit rate are dependent on UE Service Capability This combination of physical channels is used for simultaneous DSCH and DRAC control of an uplink DCH.
12	One DPCCH + more than one DPDCH	More than one DCH coded into one or more CCTrCH	Service dependent	

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25.302	CR	067	Current Version:	3.5.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

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Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 2000-07-07

Subject: Inclusion of SIR ERROR measurement

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	[X]	**Release:**	Phase 2	[ ]
A	Corresponds to a correction in an earlier release	[ ]		Release 96	[ ]
B	Addition of feature	[ ]		Release 97	[ ]
C	Functional modification of feature	[ ]		Release 98	[ ]
D	Editorial modification	[ ]		Release 99	[X]
				Release 00	[ ]

Reason for change: In LS R3-00-1878, WG3 asks WG2 to include the UTRAN SIR_{error} measurement in TS-25.302 as it has been removed from WG3 specifications.

Clauses affected: 9.3.x (new section)

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:

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9.3.x SIR ERROR

Measurement	SIR ERROR
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered
Definition	Signal to Interference Ratio Error is defined as SIR – SIR_{target_ave}, where: SIR = the SIR measured by UTRAN. SIR_{target_ave} = the SIR_{target} averaged over the same time period as the SIR used in the SIR ERROR calculation.

3GPP TSG RAN WG2#15
Sophia Antipolis, France, August 21 - 25, 2000

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25.302	CR	068r1	Current Version:	3.5.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN #9	for approval	X	strategic		(for SMG use only)
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Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 2000-08-22

Subject: Simultaneous reception of PCCPCH and SCCPCH

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

- A requirement that the UE shall be able to receive PCCPCH and SCCPCH simultaneously (but not continuously) is needed for e.g. cell reselection.
–The different combinations of physical channels listed should only be valid for channels on the same frequency
- "Baseline" and "Service dependent" changed to "Mandatory" and "Depending on UE radio access capabilities" respectively.
- The physical channel combination "DPCCH + DPDCH" should be mandatory in uplink and downlink as it is required for the measurement channel defined by R4. This is also in accordance with the UE radio access capabilities defined in TR 25.926 and corresponding IE in TS 25.331.

Clauses affected: 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:


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8.1 FDD Uplink

The table describes the possible combinations of FDD physical channels that can be supported in the uplink on the same frequency by one UE at any one time.

Table 1: FDD Uplink

	Physical Channel Combination	Transport Channel Combination	~~Baseline Capability~~Mandatory or dependent on UE radio access capabilities~~Service dependent~~	Comment
1	PRACH	RACH	~~Baseline~~Mandatory	The PRACH physical channel includes the preambles and the message.
2	PRACH	FAUSCH	~~Service dependent~~Depending on UE radio access capabilities	
3	PCPCH consisting of one control and one data part during the message portion	CPCH	Depending on UE radio access capabilities~~Service dependent~~	The PCPCH physical channel includes the preambles and the message. The maximum channel bit rate is dependant on UE radio access capabilities~~Service Capability~~
4	PCPCH consisting of one control and more than one data part during the message portion	CPCH	Depending on UE radio access capabilities~~Service dependent~~	The PCPCH physical channel includes the preambles and the message. The maximum channel bit rate is dependant on UE radio access capabilities~~Service Capability~~
5	DPCCH+DPDCH	One or more DCH coded into a single CCTrCH	Mandatory~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependant on UE radio access capabilities~~Service Capability~~
6	DPCCH+ more than one DPDCH	One or more DCH coded into a single CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependant on UE radio access capabilities~~Service Capability~~

8.2 FDD Downlink

The table describes the possible combinations of FDD physical channels that can be supported in the downlink on the same frequency by one UE at any one time.

Table 2: FDD Downlink

	Physical Channel Combination	Transport Channel Combination	Mandatory~~Baseline Capability~~ dependent on UE radio access capabilities~~or Service dependent~~	Comment
1	PCCPCH	BCH	~~Baseline~~Mandatory	
2	SCCPCH	FACH + PCH	Mandatory~~Baseline~~	The maximum channel bit rate that can be supported is dependent on the UE radio access capabilities~~Service Capability~~
~~3~~	PCCPCH + SCCPCH	BCH + FACH + PCH	Mandatory~~Baseline~~	Simultaneous reception of PCCPCH and SCCPCH is only needed at occurrences when the UE needs to read system information on BCH while being in CELL_FACH state, i.e. continuous reception of both PCCPCH and SCCPCH at the same time is not required. The requirement holds for PCCPCH and SCCPCH sent in different cells or in the same cell.
~~3~~4	SCCPCH + AICH	FACH + PCH + RACH in uplink Or FACH + PCH + CPCH in uplink	Mandatory~~Baseline~~	The maximum channel bit rate that can be supported is dependent on the UE radio access capabilities~~Service Capability~~. This physical channel combination facilitates the preamble portion of the CPCH in the uplink
~~4~~5	SCCPCH + DPCCH	FACH + PCH + CPCH in uplink	Depending on UE radio access capabilities~~Service dependent~~	This physical channel combination facilitates the message portion of the CPCH in the uplink
~~5~~6	More than one SCCPCH	More than one FACH + PCH	Depending on UE radio access capabilities~~Service dependent~~	
~~6~~7	PICH	N/A	Mandatory~~Baseline~~	
~~7~~8	DPCCH + DPDCH	One or more DCH coded into a single CCTrCH	Mandatory~~Service dependant~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~
~~8~~9	DPCCH + more than one DPDCH	One or more DCH coded into a single CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~
~~9~~10	PDSCH + DPCCH + one or more DPDCH	DSCH + one or more DCH coded into a single CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~
~~10~~11	SCCPCH + DPCCH + one or more DPDCH	FACH + one or more DCH coded into a single CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~ This combination of physical channels is used for DRAC control of an uplink DCH and for receiving services such as cell broadcast or multicast whilst in connected mode.
~~11~~12	SCCPCH + PDSCH + DPCCH + one or more DPDCH	FACH + DSCH + one or more DCH coded into a single CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~ This combination of physical channels is used for simultaneous DSCH and DRAC control of an uplink DCH.
~~12~~13	One DPCCH + more than one DPDCH	More than one DCH coded into one or more CCTrCH	Depending on UE radio access capabilities ~~Service dependent~~	

8.3 TDD Uplink

The table describes the possible combinations of TDD physical channels that can be supported in the uplink by one UE in any one 10ms frame, where a TDD physical channel corresponds to one code, one timeslot, one frequency and is mapped to one resource unit (RU). This table addresses combinations of uplink physical channels in the same 10ms frame.

Table 3: TDD Uplink

	Physical Channel Combination	Transport Channel Combination	Mandatory or dependent on UE radio access capabilities~~Baseline Capability or Service Dependent~~	Comment
1	PRACH	RACH	~~Baseline~~Mandatory	One RACH transport channel maps to one PRACH physical channel.
2	One or more DPCH	One or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~.
3	PRACH + one or more DPCH	RACH + one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	One RACH transport channel maps to one PRACH physical channel The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~.
4	One or more PUSCH	One or more USCH coded onto one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	It is assumed here that a USCH transport channel may map to one or more PUSCH physical channels based on system configuration. USCH requires a control channel (RACH or DCH); however, it is not required to be in the same 10ms frame as the USCH.
5	PRACH + one or more PUSCH	RACH + One or more USCH coded on to one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	One RACH transport channel maps to one PRACH physical channel. It is assumed here that a USCH transport channel may map to one or more PUSCH physical channels based on system configuration.
6	One or more PUSCH + one or more DPCH	One or more USCH coded onto one or more CCTrCH + one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~. It is assumed here that a USCH transport channel may map to one or more PUSCH physical channels based on system configuration.
7	PRACH + one or more PUSCH + one or more DPCH	RACH + one or more USCH coded onto one or more CCTrCH + one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	One RACH transport channel maps to one PRACH physical channel. The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~. It is assumed here that a USCH transport channel may map to one or more PUSCH physical channels based on system configuration.

8.4 TDD Downlink

The table describes the possible combinations of TDD physical channels that can be supported in the downlink by one UE in any one 10ms frame, where a TDD physical channel corresponds to one code, one timeslot, one frequency and is mapped to one resource unit (RU). This table addresses combinations of downlink physical channels in the same 10ms frame.

Table 4: TDD Downlink

	Physical Channel Combination	Transport Channel Combination	Mandatory or dependent on UE radio access capabilities~~Baseline Capability or Service dependent~~	Comment
1	P-CCPCH and/or One or more S-CCPCH + PICH	BCH and/or PCH and/or one or more FACH	Mandatory~~Baseline~~	BCH maps to the P-CCPCH in a frame. FACH can map to multiple S-CCPCH in a frame. PCH can map to multiple S-CCPCH in a frame. PICH substitutes one or more paging sub-channels that are mapped on an S-CCPCH assigned for the PCH transport channel.
2	One or more DPCH	One or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~
3	P-CCPCH and/or One or more S-CCPCH + PICH + one or more DPCH	BCH and/or PCH and/or one or more FACH + one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The number of DCHs and the maximum channel bit rate are dependent on the UE ~~Service Capability~~radio access capabilities. BCH maps to the P-CCPCH in a frame. FACH can map to multiple S-CCPCH in a frame. PICH substitutes one or more paging sub-channels that are mapped on an S-CCPCH assigned for the PCH transport channel.
4	One or more PDSCH	One or more DSCH coded onto one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	It is assumed here that a DSCH transport channel may map to one or more PDSCH physical channels based on system configuration. DSCH requires a control channel (FACH or DCH); however, it is not required to be in the same 10ms frame as the DSCH.
5	One or more PDSCH + P-CCPCH and/or one or more S-CCPCH + PICH	BCH and/or PCH and/or one or more FACH + one or more DSCH coded onto one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	BCH maps to the P-CCPCH in a frame. Each FACH can map to multiple S-CCPCH in a frame. PICH substitutes one or more paging sub-channels that are mapped on an S-CCPCH assigned for the PCH transport channel. It is assumed here that a DSCH transport channel may map to one or more PDSCH physical channels based on system configuration. For the case of DSCH + BCH, DSCH requires a control channel (FACH or DCH); however, it is not required to be in the same 10ms frame as the DSCH.
6	One or more PDSCH + one or more DPCH	One or more DSCH coded onto one or more CCTrCH + one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~ It is assumed here that a DSCH transport channel may map to one or more PDSCH physical channels based on system configuration.

	Physical Channel Combination	Transport Channel Combination	Mandatory or dependent on UE radio access capabilities~~Baseline Capability or Service dependent~~	Comment
7	One or more PDSCH + P-CCPCH and/or one or more S-CCPCH + PICH + one or more DPCH	BCH and/or PCH and/or one or more FACH + one or more DSCH coded onto one or more CCTrCH + one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	BCH maps to the P-CCPCH in a frame. Each FACH can map to multiple S-CCPCH in a frame. PICH substitutes one or more paging sub-channels that are mapped on an S-CCPCH assigned for the PCH transport channel. The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~ It is assumed here that a DSCH transport channel may map to one or more PDSCH physical channels based on system configuration.
NOTE: Reference: TS 25.221: Physical Channels and Mapping of Transport Channels Onto Physical Channels (TDD).				

8.5 TDD UE Uplink and Downlink Combinations (within 10 ms air frames)

This table describes the possible uplink and downlink physical channel combinations that can be supported by a UE in TDD mode.

Table 5: TDD UE Uplink and Downlink Combinations (within 10 ms airframes)

	DL Physical Channel Combination	DL Transport Channel Combination	UL Physical Channel Combination	UL Transport Channel Combination	Mandatory or dependent on UE radio access capabilities ~~Baseline Capability or Service Dependent~~	Comment
1	P-CCPCH		PRACH	RACH	Mandatory~~Baseline~~	One RACH transport channel maps to one PRACH physical channel. P-CCPCH is used for reference power to determine path loss for RACH transmit power calculation.
2	P-CCPCH and/or one or more S-CCPCH + PICH	BCH and/or PCH and/or one or more FACH			Mandatory~~Baseline~~	BCH maps to the P-CCPCH in a frame. FACH or PCH can map to multiple S-CCPCH in a frame.

	DL Physical Channel Combination	DL Transport Channel Combination	UL Physical Channel Combination	UL Transport Channel Combination	Mandatory or dependent on UE radio access capabilities ~~Baseline Capability or Service Dependent~~	Comment
3	P-CCPCH and/or one or more S-CCPCH + PICH	BCH and/or PCH and/or one or more FACH	PRACH	RACH	Mandatory~~Baseline~~	One RACH transport channel maps to one PRACH physical channel BCH maps to the P-CCPCH in a frame. FACH or PCH can map to multiple SCCPCH in a frame. P-CCPCH is used for reference power to determine path loss for RACH transmit power calculation.
4	P-CCPCH and/or one or more S-CCPCH + PICH	BCH and/or PCH and/or one or more FACH	PRACH and one or more DPCH	RACH and one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service Dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~. BCH maps to P-CCPCH in a frame. FACH or PCH can map to multiple S-CCPCH in a frame. P-CCPCH is used for reference power to determine path loss for RACH and UL- DPCH transmit power calculations.
5	P-CCPCH and/or one or more S-CCPCH + PICH and one or more DPCH	BCH and/or PCH and/or one or more FACH and one or more DCH coded onto one or more CCTrCH	PRACH and one or more DPCH	RACH and one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~. See note. BCH maps to P-CCPCH in a frame. FACH or PCH can map to multiple S-CCPCH in a frame. P-CCPCH is used for reference power to determine path loss for RACH and UL- DPCH transmit power calculations.

	DL Physical Channel Combination	DL Transport Channel Combination	UL Physical Channel Combination	UL Transport Channel Combination	Mandatory or dependent on UE radio access capabilities ~~Baseline Capability or Service Dependent~~	Comment
6	P-CCPCH		One or more DPCH	One or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~. P-CCPCH is used for reference power to determine path loss for UL- DPCH transmit power calculations.
7	P-CCPCH and one or more DPCH	One or more DCH coded onto one or more CCTrCH	One or more DPCH	One or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE radio access capabilities~~Service Capability~~. P-CCPCH is used for reference power to determine path loss for UL- DPCH transmit power calculations. See note.
NOTE: The requirement for an UL DPCH to exist in every 10 ms frame for DL Power Control, Transmit Diversity, and Joint Pre-distortion is FFS.						

8.6 TDD UE Uplink Timeslot Combinations

This table describes possible uplink physical channels that can be supported by a UE within a specific time slot.

Table 6: TDD UE Uplink Timeslot Combinations

	Physical Channel Combination	Transport Channel Combination	Mandatory or dependent on UE radio access capabilities~~Baseline Capability or Service Dependent~~	Comment
1	PRACH	RACH	Mandatory~~Baseline~~	Time slots supporting RACH do not support other channel types. One RACH transport channel maps to one PRACH physical channel.
2	One or more DPCH	One or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on radio access capabilities~~UE Service Capability~~.
3	One or more PUSCH	One or more USCH coded onto one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	It is assumed here that a USCH transport channel may map to one or more PUSCH physical channels based on system configuration. USCH requires a control channel (RACH/FACH or DCH); however, it is not required to be in the same 10 ms frame as the USCH.
4	One or more PUSCH + one or more DPCH	One or more USCH coded onto one or more CCTrCH + one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE ~~Service Capability~~Radio access capabilities. It is assumed here that a USCH transport channel may map to one or more PUSCH physical channels based on system configuration.

8.7 TDD UE Downlink Timeslot Combinations

This table describes possible downlink physical channels that can be supported by a UE within a specific time slot.

Table 7: TDD UE Downlink Timeslot Combinations

	Physical Channel Combination	Transport Channel Combination	Mandatory or dependent on UE radio access capabilities~~Baseline Capability or Service dependent~~	Comment
1	P-CCPCH and/or one or more S-CCPCH+ PICH	BCH and/or PCH and/or one or more FACH	Mandatory~~Baseline~~	BCH maps to the P-CCPCH in a frame. FACH can map to multiple S-CCPCH in a frame. PCH can map to multiple S-CCPCH in a frame. PICH substitutes one or more paging sub-channels that are mapped on an S-CCPCH assigned for the PCH transport channel.
2	One or more DPCH	One or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependant~~	The maximum number of DCHs and the maximum channel bit rate are dependent on radio access capabilities~~UE Service Capability~~
3	P-CCPCH and/or one or more S-CCPCH+ PICH + one or more DPCH	BCH and/or PCH and/or one or more FACH and one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The number of DCHs and the maximum channel bit rate are dependent on the UE radio access capabilities~~Service Capability~~. BCH maps to the P-CCPCH in a frame. FACH can map to multiple S-CCPCH in a frame. PICH substitutes one or more paging sub-channels that are mapped on an S-CCPCH assigned for the PCH transport channel.
4	One or more PDSCH	One or more DSCH coded onto one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	It is assumed here that a DSCH transport channel may map to one or more PDSCH physical channels based on system configuration. DSCH requires a control channel (FACH or DCH); however, it is not required to be in the same 10ms frame as the DSCH.
5	P-CCPCH and/or one or more PDSCH + one or more S-CCPCH+ PICH	BCH and/or PCH and/or one or more FACH and one or more DSCH coded onto one or more CCTrCH	Depending on UE radio access capabilities~~Service dependant~~	BCH maps to the P-CCPCH in a frame. Each FACH can map to multiple S-CCPCH in a frame. PICH substitutes one or more paging sub-channels that are mapped on an S-CCPCH assigned for the PCH transport channel. It is assumed here that a DSCH transport channel may map to one or more PDSCH physical channels based on system configuration. For the case of DSCH + BCH, DSCH requires a control channel (FACH or DCH); however, it is not required to be in the same 10ms frame as the DSCH.
6	One or more PDSCH + one or more DPCH	One or more DSCH coded onto one or more CCTrCH + one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	The maximum number of DCHs and the maximum channel bit rate are dependent on UE ~~Service Capability~~radio access capabilities. It is assumed here that a DSCH transport channel may map to one or more PDSCH physical channels based on system configuration.

	Physical Channel Combination	Transport Channel Combination	Mandatory or dependent on UE radio access capabilities~~Baseline Capability or Service dependent~~	Comment
7	One or more PDSCH + P-CCPCH and/or one or more S-CCPCH+ PICH+ one or more DPCH	BCH and/or PCH and/or one or more FACH and one or more DSCH coded onto one or more CCTrCH and one or more DCH coded into one or more CCTrCH	Depending on UE radio access capabilities~~Service dependent~~	BCH maps to the P-CCPCH in a frame. Each FACH can map to multiple S-CCPCH in a frame. PICH substitutes one or more paging sub-channels that are mapped on an S-CCPCH assigned for the PCH transport channel. The maximum number of DCHs and the maximum channel bit rate are dependent on UE ~~Service Capability~~radio access capabilities. It is assumed here that a DSCH transport channel may map to one or more PDSCH physical channels based on system configuration.
NOTE: Reference: TS25.221: Physical Channels and Mapping of Transport Channels Onto Physical Channels (TDD).				

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Sophia Antipolis, France, August 21- 25, 2000

Document R2-001668
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.302	CR	070	Current Version:	3.5.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN #9	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)*	(U)SIM		ME	X	UTRAN / Radio	X	Core Network	

Source: TSG-RAN WG2 **Date:** 2000-08-21

Subject: Removal of puncturing limit from the transport format definition

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: According to R1 specifications “Puncturing limit” is coupled to a physical channel and not to a transport channel. Hence, “Puncturing limit” should not be part of the definition of “Transport format”.

Clauses affected: 7.1.6

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

7.1.6 Transport Format

This is defined as a format offered by L1 to MAC (and vice versa) for the delivery of a Transport Block Set during a Transmission Time Interval on a Transport Channel. The Transport Format constitutes of two parts – one *dynamic* part and one *semi-static* part.

Attributes of the dynamic part are:

- Transport Block Size;
- Transport Block Set Size;
- Transmission Time Interval (optional dynamic attribute for TDD only);

Attributes of the semi-static part are:

- Transmission Time Interval (mandatory for FDD, optional for the dynamic part of TDD NRT bearers);
- error protection scheme to apply:
  - type of error protection, turbo code, convolutional code or no channel coding;
  - coding rate;
  - static rate matching parameter;
  - ~~puncturing limit (FDD: for uplink only).~~
- size of CRC.

In the following example, the Transmission Time Interval is seen as a semi-static part.

EXAMPLE: Dynamic part: {320 bits, 640 bits}, Semi-static part: {10ms, convolutional coding only, static rate matching parameter = 1}.

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Sophia Antipolis, August 21-25, 2000

Document R2-001864
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.302	CR	071	Current Version:	3.5.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN #9	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*	(U)SIM		ME	X	UTRAN / Radio	X	Core Network	

Source: TSG-RAN WG2 **Date:** 25.8.2000

Subject: Clarification of the Timeslot ISCP measurements

Work item:

Category: *(only one category shall be marked with an X)*			**Release:**	
F	Correction	X	Phase 2	
A	Corresponds to a correction in an earlier release		Release 96	
B	Addition of feature		Release 97	
C	Functional modification of feature		Release 98	
D	Editorial modification		Release 99	X
			Release 00	

Reason for change:
This CR is to align TS 25.302 with TS 25.225.
Timeslot ISCP is a measurement to evaluate the interference situation in a specific timeslot for DCA. To avoid that in case of Joint Detection the Joint Detector must be started to determine Timeslot ISCP this CR proposes to measure Timeslot ISCP on the midamble.

Clauses affected: 9.2.7, 9.3.8

Other specs affected:			
Other 3G core specifications		→ List of CRs:	
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:


help.doc

<--------- double-click here for help and instructions on how to create a CR.

9.2 UE Measurements

9.2.7 Timeslot ISCP

This measure is mandatory for the UE.

Measurement	Timeslot ISCP
Source	L1(UE)
Destination	RRC (UE, RNC)
Reporting Trigger	periodic or event triggered
Definition	Interference Signal Code Power is the interference on the received signal~~-~~ in a specified timeslot measured on the midamble. ~~after despreading. Only the non-orthogonal part of the interference is included.~~ This measurement is applicable for TDD only. ~~It is measured in specified timeslots.~~

9.3 UTRAN Measurements

9.3.8 Timeslot ISCP

Measurement	Timeslot ISCP
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	periodic or event triggered
Definition	Interference on Signal Code Power, is the interference on the received signal in a specified timeslot measured on the midamble ~~after despreading in specified timeslots. Only the non-orthogonal part of the interference is included.~~ This measurement is applicable for TDD cells only.