TSG-RAN Meeting #14
Kyoto, Japan, 11 – 14, December, 2001

RP-010743

Title: **Agreed CRs (R99 and Rel-4 Category A) to TS 25.225**

Source: **TSG-RAN WG1**

Agenda item: **8.1.3**

No.	Spec	CR	Rev	R1 T-doc	Subject	Release	Cat	W/I Code	V_old	V_new
1	25.225	035	1	R1-01-1273	Removal of references to Block STTD	R99	F	TEI	3.8.0	3.9.0
2	25.225	036	1	R1-01-1273	Removal of references to Block STTD	Rel-4	A	TEI	4.2.0	4.3.0
3	25.225	039	-	R1-01-1080	Correction of measurement definition for UTRA Carrier RSSI and CPICH_Ec/No	R99	F	TEI	3.8.0	3.9.0
4	25.225	040	-	R1-01-1080	Correction of measurement definition for UTRA Carrier RSSI and CPICH_Ec/No	Rel-4	A	TEI	4.2.0	4.3.0

3GPP TSG RAN Meeting #14
Kyoto, Japan, 11th-14th, December, 2001

R1-01-1273

CR-Form-v3

CHANGE REQUEST

⌘ **25.225** **CR** **035** ⌘ rev **1** ⌘ Current version: **3.8.0** ⌘

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

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

Title:	⌘	Removal of references to Block STTD
Source:	⌘	TSG RAN WG1
Work item code:	⌘	TEI
Date:	⌘	November 15, 2001
Category:	⌘	**F**
Release:	⌘	R99

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

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

Reason for change:	⌘	Block STTD is no longer applied to P-CCPCH it is replaced by Space Code Trasmit Diversity (SCTD)
Summary of change:	⌘	References to Block STTD are removed.
Consequences if not approved:	⌘	Inconsistancy between specifications Isolated impact analysis: effects only WG1 specifications. Editorial correction only.

Clauses affected:	⌘	3, 5.1		
Other specs affected:	⌘	**X** Other core specifications	⌘	25.221, 25.224, 25.102, 25.331, 25.423, 25.433
		☐ Test specifications		
		☐ O&M Specifications		
Other comments:	⌘			

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

3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

BCH	Broadcast Channel
BCCH	Broadcast Control Channel (GSM)
BER	Bit Error Rate
BLER	Block Error Rate
CFN	Connection Frame Number
CPICH	Common Pilot Channel (FDD)
CRC	Cyclic Redundancy Check
DCA	Dynamic Channel Allocation
DCH	Dedicated Channel
DPCH	Dedicated Physical Channel
Ec/No	Received energy per chip divided by the power density in the band
FACH	Forward Access Channel
FCCH	Frequency Correction Channel (GSM)
FDD	Frequency Division Duplex
GSM	Global System for Mobile Communication
GPS	Global Positioning System
ISCP	Interference Signal Code Power
P-CCPCH	Primary Common Control Physical Channel
PCH	Paging Channel
PLMN	Public Land Mobile Network
PRACH	Physical Random Access Channel
PDSCH	Physical Downlink Shared Channel
PUSCH	Physical Uplink Shared Channel
RACH	Random Access Channel
RSCP	Received Signal Code Power
RSSI	Received Signal Strength Indicator
S-CCPCH	Secondary Common Control Physical Channel
SCH	Synchronisation Channel
SCTD	Space Code Transmit Diversity
SF	Spreading Factor
SFN	System Frame Number
SIR	Signal-to-Interference Ratio
~~STTD~~	~~Space Time Transmit Diversity~~
TDD	Time Division Duplex
TDMA	Time Division Multiple Access
TrCH	Transport Channel
TTI	Transmission Time Interval
UE	User Equipment
UMTS	Universal Mobile Telecommunications System
USCH	Uplink Shared Channel
UTRA	UMTS Terrestrial Radio Access
UTRAN	UMTS Terrestrial Radio Access Network

5.1 UE measurement abilities

NOTE 1: Measurements for TDD which are specified on the Primary CCPCH (P-CCPCH) are carried out on the P-CCPCH or on any other beacon channel, see [6].

NOTE 2: For the beacon channels [6], the received power measurements shall be based on the received power for midamble $m^{(1)}$ if no Space Code Transmit Diversity (SCTD) ~~Block-STTD~~ is applied to the P-CCPCH and on the sum of the received powers for midambles $m^{(1)}$ and $m^{(2)}$ if SCTD ~~Block-STTD~~ is applied to the P-CCPCH.

NOTE 3: The UTRAN has to take into account the UE capabilities when specifying the timeslots to be measured in the measurement control message.

NOTE 4: The line 'applicable for' indicates whether the measurement is applicable for inter-frequency and/or intra-frequency and furthermore for idle and/or connected mode.

NOTE 5: The Interference part of the SIR measurement will be dependent on the receiver implementation, and will normally be different from the Timeslot ISCP measurement.

NOTE 6: The measurement 'Timeslot ISCP' is only a measure of the intercell interference.

NOTE 7: The term "antenna connector of the UE" used in this sub-clause to define the reference point for the UE measurements is defined in [17].

3GPP TSG RAN Meeting #14
Kyoto, Japan, 11th-14th, December, 2001

R1-01-1273

CR-Form-v3

CHANGE REQUEST

⌘ **25.225** **CR** **036** ⌘ rev **1** ⌘ Current version: **4.2.0** ⌘

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

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

Title:	⌘	Removal of references to Block STTD
Source:	⌘	TSG RAN WG1
Work item code:	⌘	TEI
Date:	⌘	November 15, 2001
Category:	⌘	**A**
Release:	⌘	REL-4

Use one of the following categories:
F *(essential correction)*
A *(corresponds to a correction in an earlier release)*
B *(Addition of feature),*
C *(Functional modification of feature)*
D *(Editorial modification)*
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Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
REL-4	*(Release 4)*
REL-5	*(Release 5)*

Reason for change:	⌘	Block STTD is no longer applied to P-CCPCH it is replaced by Space Code Trasmit Diversity (SCTD)
Summary of change:	⌘	References to Block STTD are removed.
Consequences if not approved:	⌘	Inconsistancy between specifications Isolated impact analysis: effects only WG1 specifications. Editorial correction only.

Clauses affected:	⌘	3, 5.1		
Other specs affected:	⌘	**X** Other core specifications	⌘	25.221, 25.224, 25.102, 25.331, 25.423, 25.433
		☐ Test specifications		
		☐ O&M Specifications		
Other comments:	⌘			

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5.1 UE measurement abilities

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NOTE 2: For the beacon channels [6], the received power measurements shall be based on the received power for midamble $m^{(1)}$ if no Space Code Transmit Diversity (SCTD) ~~Block-STTD~~ is applied to the P-CCPCH and on the sum of the received powers for midambles $m^{(1)}$ and $m^{(2)}$ if SCTD ~~Block-STTD~~ is applied to the P-CCPCH.

NOTE 3: The UTRAN has to take into account the UE capabilities when specifying the timeslots to be measured in the measurement control message.

NOTE 4: The line 'applicable for' indicates whether the measurement is applicable for inter-frequency and/or intra-frequency and furthermore for idle and/or connected mode.

NOTE 5: The Interference part of the SIR measurement will be dependent on the receiver implementation, and will normally be different from the Timeslot ISCP measurement.

NOTE 6: The measurement 'Timeslot ISCP' is only a measure of the intercell interference.

NOTE 7: The term "antenna connector of the UE" used in this sub-clause to define the reference point for the UE measurements is defined in [17].

3GPP TSG RAN Meeting #14
Kyoto, Japan, 11th-14th, December, 2001

R1-01-1080

CR-Form-v4

CHANGE REQUEST

⌘ **25.225** **CR** **039** ⌘ rev **-** ⌘ Current version: **3.8.0** ⌘

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

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

Title:	⌘	Correction of measurement definition for UTRA Carrier RSSI and CPICH_Ec/No
Source:	⌘	TSG RAN WG1
Work item code:	⌘	TEI
Date:	⌘	1.11.2001
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
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Use one of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
REL-4 (Release 4)
REL-5 (Release 5)

Reason for change:	⌘	The definition of the measurements is currently slightly different between WG1 and WG4. The assumption of WG4 has been, that these UE measurements include thermal noise and noise, generated in the receiver. By using this assumption, WG4 has already defined accuracy requirements cf. LS in R1-01-1005
Summary of change:	⌘	Definition of UTRA Carrier RSSI and CPICH Ec/No has been slightly revised accordingly.
Consequences if not approved:	⌘	Inconsistency between WG4 assumptions for the accuracy requirements and the definition of the measurement in WG1.

Clauses affected:	⌘	
Other specs affected:	⌘	[ ] Other core specifications ⌘ [ ] Test specifications [ ] O&M Specifications
Other comments:	⌘	

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

5.1 UE measurement abilities

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NOTE 3: The UTRAN has to take into account the UE capabilities when specifying the timeslots to be measured in the measurement control message.

NOTE 4: The line 'applicable for' indicates whether the measurement is applicable for inter-frequency and/or intra-frequency and furthermore for idle and/or connected mode.

NOTE 5: The Interference part of the SIR measurement will be dependent on the receiver implementation, and will normally be different from the Timeslot ISCP measurement.

NOTE 6: The measurement 'Timeslot ISCP' is only a measure of the intercell interference.

NOTE 7: The term "antenna connector of the UE" used in this sub-clause to define the reference point for the UE measurements is defined in [17].

5.1.1 P-CCPCH RSCP

Definition	Received Signal Code Power, the received power on P-CCPCH of own or neighbour cell. The reference point for the RSCP shall be the antenna connector of the UE.
Applicable for	idle mode, connected mode (intra-frequency & inter-frequency)

5.1.2 CPICH RSCP

Definition	Received Signal Code Power, the received power on one code measured on the Primary CPICH. The reference point for the RSCP shall be the antenna connector of the UE. (This measurement is used in TDD for monitoring FDD cells while camping on a TDD cell). If Tx diversity is applied on the Primary CPICH the received code power from each antenna shall be separately measured and summed together in [W] to a total received code power on the Primary CPICH.
Applicable for	idle mode, connected mode (inter-frequency)

5.1.3 Timeslot ISCP

Definition	Interference Signal Code Power, the interference on the received signal in a specified timeslot measured on the midamble. The reference point for the ISCP shall be the antenna connector of the UE.
Applicable for	connected mode (intra-frequency).

5.1.4 UTRA carrier RSSI

Definition	The received wide band power, including thermal noise and noise generated in the receiver, within the bandwidth defined by the receiver pulse shaping filter, for TDD within a specified timeslot.~~Received Signal Strength Indicator, the wide-band received power within the relevant channel bandwidth in a specified timeslot. Measurement shall be performed on a UTRAN DL carrier~~ The reference point for the ~~RSSI~~ measurement shall be the antenna connector of the UE.
Applicable for	idle mode, connected mode (intra- & inter-frequency)

5.1.5 GSM carrier RSSI

Definition	Received Signal Strength Indicator, the wide-band received power within the relevant channel bandwidth Measurement shall be performed on a GSM BCCH carrier. The reference point for the RSSI shall be the antenna connector of the UE.
Applicable for	idle mode, connected mode (inter-frequency)

5.1.6 SIR

Definition	Signal to Interference Ratio, defined as: (RSCP/Interference)xSF. Where: RSCP = Received Signal Code Power, the received power on the code of a specified DPCH or PDSCH. Interference = The interference on the received signal in the same timeslot which can't be eliminated by the receiver. SF = The used spreading factor. The reference point for the SIR shall be the antenna connector of the UE.
Applicable for	connected mode (intra-frequency)

5.1.7 CPICH Ec/No

Definition	The received energy per chip divided by the power density in the band. The CPICH Ec/No is identical to CPICH RSCP/ UTRA Carrier RSSI. The m~~M~~easurement shall be performed on the Primary CPICH. The reference point for the CPICH Ec/No shall be the antenna connector of the UE. (This measurement is used in TDD for monitoring FDD cells while camping on a TDD cell) If Tx diversity is applied on the Primary CPICH the received energy per chip (Ec) from each antenna shall be separately measured and summed together in [Ws] to a total received chip energy per chip on the Primary CPICH, before calculating the Ec/No.
Applicable for	idle mode, connected mode (inter-frequency)

3GPP TSG RAN Meeting #14
Kyoto, Japan, 11th-14th, December, 2001

R1-01-1080

CR-Form-v4

CHANGE REQUEST

⌘ **25.225** **CR** **040** ⌘ rev **-** ⌘ Current version: **4.2.0** ⌘

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

Title:	⌘	Correction of measurement definition for UTRA Carrier RSSI and CPICH_Ec/No
Source:	⌘	TSG RAN WG1
Work item code:	⌘	TEI
Date:	⌘	1.11.2001
Category:	⌘	**A**
Release:	⌘	REL-4

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F *(correction)*
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D *(editorial modification)*
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Summary of change:	⌘	Definition of UTRA Carrier RSSI and CPICH Ec/No has been slightly revised accordingly.
Consequences if not approved:	⌘	Inconsistency between WG4 assumptions for the accuracy requirements and the definition of the measurement in WG1.

Clauses affected:	⌘	
Other specs affected:	⌘	[ ] Other core specifications ⌘ [ ] Test specifications [ ] O&M Specifications
Other comments:	⌘	

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NOTE 2: For the beacon channels [6], the received power measurements shall be based on the received power for midamble $m^{(1)}$ if no Block-STTD is applied to the P-CCPCH and on the sum of the received powers for midambles $m^{(1)}$ and $m^{(2)}$ if Block-STTD is applied to the P-CCPCH.

NOTE 3: The UTRAN has to take into account the UE capabilities when specifying the timeslots to be measured in the measurement control message.

NOTE 4: The line 'applicable for' indicates whether the measurement is applicable for inter-frequency and/or intra-frequency and furthermore for idle and/or connected mode.

NOTE 5: The Interference part of the SIR measurement will be dependent on the receiver implementation, and will normally be different from the Timeslot ISCP measurement.

NOTE 6: The measurement 'Timeslot ISCP' is only a measure of the intercell interference.

NOTE 7: The term "antenna connector of the UE" used in this sub-clause to define the reference point for the UE measurements is defined in [17].

5.1.1 P-CCPCH RSCP

Definition	Received Signal Code Power, the received power on P-CCPCH of own or neighbour cell. The reference point for the RSCP shall be the antenna connector of the UE.
Applicable for	idle mode, connected mode (intra-frequency & inter-frequency)

5.1.2 CPICH RSCP

Definition	Received Signal Code Power, the received power on one code measured on the Primary CPICH. The reference point for the RSCP shall be the antenna connector of the UE. (This measurement is used in TDD for monitoring FDD cells while camping on a TDD cell). If Tx diversity is applied on the Primary CPICH the received code power from each antenna shall be separately measured and summed together in [W] to a total received code power on the Primary CPICH.
Applicable for	idle mode, connected mode (inter-frequency)

5.1.3 Timeslot ISCP

Definition	Interference Signal Code Power, the interference on the received signal in a specified timeslot measured on the midamble. The reference point for the ISCP shall be the antenna connector of the UE.
Applicable for	connected mode (intra-frequency).

5.1.4 UTRA carrier RSSI

Definition	The received wide band power, including thermal noise and noise generated in the receiver, within the bandwidth defined by the receiver pulse shaping filter, for TDD within a specified timeslot.~~Received Signal Strength Indicator, the wide-band received power within the relevant channel bandwidth in a specified timeslot. Measurement shall be performed on a UTRAN DL carrier.~~ The reference point for the ~~RSSI~~ measurement shall be the antenna connector of the UE.
Applicable for	idle mode, connected mode (intra- & inter-frequency)

5.1.5 GSM carrier RSSI

Definition	Received Signal Strength Indicator, the wide-band received power within the relevant channel bandwidth Measurement shall be performed on a GSM BCCH carrier. The reference point for the RSSI shall be the antenna connector of the UE.
Applicable for	idle mode, connected mode (inter-frequency)

5.1.6 SIR

Definition	Signal to Interference Ratio, defined as: (RSCP/Interference)xSF. Where: RSCP = Received Signal Code Power, the received power on the code of a specified DPCH or PDSCH. Interference = The interference on the received signal in the same timeslot which can't be eliminated by the receiver. SF = The used spreading factor. The reference point for the SIR shall be the antenna connector of the UE.
Applicable for	connected mode (intra-frequency)

5.1.7 CPICH Ec/No

Definition	The received energy per chip divided by the power density in the band. The CPICH Ec/No is identical to CPICH RSCP/ UTRA Carrier RSSI. The m~~M~~easurement shall be performed on the Primary CPICH. The reference point for the CPICH Ec/No shall be the antenna connector of the UE. (This measurement is used in TDD for monitoring FDD cells while camping on a TDD cell) If Tx diversity is applied on the Primary CPICH the received energy per chip (Ec) from each antenna shall be separately measured and summed together in [Ws] to a total received chip energy per chip on the Primary CPICH, before calculating the Ec/No.
Applicable for	idle mode, connected mode (inter-frequency)