3GPP TSG RAN WG1 Meeting #14
Oulu, Finland, 04-07 July 2000

***Document* R1-00-0885**
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.

25.225	CR	013	Current Version:	3.3.0

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

For submission to:	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: (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]
(at least one should be marked with an X)

Source: Siemens AG **Date:** 28.06.2000

Subject: Alignment of TDD measurements with FDD: SFN-CFN observed time difference

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: Following CR 058r1 to TS 25.302 (R2-00-1151) approved on RAN #8 (RP-00-0215) this CR proposes to include the 'SFN-CFN observed time difference' (which is already present in 25.215 v.3.3.0 for FDD) also in the TDD specification 25.225.

Clauses affected:

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.

5.1.9 UE transmitted power

Definition	The total UE transmitted power on one carrier measured in a timeslot. The reference point for the UE transmitted power shall be the UE antenna connector.
Applicable for	connected mode (intra-frequency).

5.1.10 SFN-SFN observed time difference

Definition	SFN-SFN observed time difference is the time difference of the reception times of frames from two cells (serving and target) measured in the UE and expressed in chips. It is distinguished in two types. Type 2 applies if the serving and the target cell have the same frame timing. **Type 1:** SFN-SFN observed time difference = OFF×38400+ T_m in chips, where: T_m= T_{RxSFNi} - T_{RxSFNk}, given in chip units with the range [0, 1, …, 38399] chips T_{RxSFNi} : time of start of the received frame SFN_i of the serving TDD cell i. T_{RxSFNk} : time of start of the received frame SFN_k of the target UTRA cell k received most recent in time before the time instant T_{RxSFNi} in the UE. If this frame SFN_k of the target UTRA cell is received exactly at T_{RxSFNi} then T_{RxSFNk}= T_{RxSFNi} (which leads to T_m=0). OFF=(SFN_i- SFN_k) mod 256, given in number of frames with the range [0, 1, …, 255] frames SFNi : system frame number for downlink frame from serving TDD cell i in the UE at the time T_{RxSFNi}. SFNk : system frame number for downlink frame from target UTRA cell k received in the UE at the time T_{RxSFNk}.(for FDD: the P-CCPCH frame) **Type 2:** SFN-SFN observed time difference = T_{RxTSk} - T_{RxTSi}, in chips, where T_{RxTSi} : time of start of a timeslot received of the serving TDD cell i. T_{RxTSk} : time of start of a timeslot received from the target UTRA cell k that is closest in time to the start of the timeslot of the serving TDD cell i.
Applicable for	idle mode, connected mode (intra-frequency), connected mode (inter-frequency)

5.1.9 SFN-CFN observed time difference

Definition	The SFN-CFN observed time difference is defined as: OFF×38400+ T_m for an FDD neighbour cell (i.e. the value is reported in chips), OFF for a TDD neighbour cell (i.e the value is reported in frames), where: T_m= T_{UETx} - T_{RxSFN}, given in chip units with the range [0, 1, …, 38399] chips. T_{UETx} is the time at the beginning of the frame with the connection frame number CFN_{TX} considering the transmission from the UE in the serving TDD cell. T_{RxSFN} is the time at the beginning of the frame with the system frame number SFN (for FDD neighbour cells: P-CCPCH frame is considered) received at the UE from a neighbour cell T_{RxSFN} is the time instant most recent in time before the time instant T_{UETx} OFF=(SFN-CFN_{TX}) mod 256, given in number of frames with the range [0, 1, …, 255] frames CFN_{Tx} is the connection frame number for the UE transmission. SFN is the system frame number for the neighbouring cell frame (for FDD neighbour cells: P-CCPCH frame) received in the UE at the time instant T_{RxSFN}. For FDD neighbour cells: In the case of an inter-frequency measurement, the value for the parameter OFF is always reported to be 0. In case that the SFN measurement indicator indicates that the UE does not need to read SFN of the target neighbour cell, the value of the parameter OFF is always be set to 0.
Applicable for	connected mode (inter-frequency), connected mode (intra-frequency)

5.1.11 Observed time difference to GSM cell

Definition	Observed time difference to GSM cell is the time difference T_m in ms, where $T_m = T_{RxGSMk} - T_{RxSFN0i}$ $T_{RxSFN0i}$: time of start of the received frame SFN=0 of the serving TDD cell i $T_{RxGSMk.}$: time of start of the GSM BCCH 51-multiframe of the considered target GSM frequency k received closest in time after the time $T_{RxSFN0i.}$ If the next GSM BCCH 51-multiframe is received exactly at $T_{RxSFN0i}$ then $T_{RxGSMk} = T_{RxSFN0i}$ (which leads to T_m=0). The beginning of the GSM BCCH 51-multiframe is defined as the beginning of the first tail bit of the frequency correction burst in the first TDMA-frame of the GSM BCCH 51-multiframe, i.e. the TDMA-frame following the IDLE-frame.
Applicable for	Idle mode, connected mode (inter-frequency)