

**TSG-RAN Meeting #12**  
**Stockholm, Sweden, 12-15, June, 2001**

**RP-010338**

**Title:** Agreed CRs (R99 and Rel-4 Category A) to TS 25.224

**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	25.224	054	2	R1-01-0630	Addition to the abbreviation list	R99	F	TEI	3.6.0	3.7.0
2	25.224	059	-	R1-01-0630	Addition to the abbreviation list	REL-4	A	TEI4	4.0.0	4.1.0
3	25.224	056	-	R1-01-0474	Correction of Timing Advance section for 3.84 Mcps TDD	R99	F	TEI	3.6.0	3.7.0
4	25.224	057	-	R1-01-0494	Correction of Timing Advance section for 3.84 Mcps TDD	REL-4	A	TEI4	4.0.0	4.1.0

## CHANGE REQUEST

⌘ **25.224 CR 054** ⌘ rev **2** ⌘ Current version: **3.6.0** ⌘

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

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

<b>Title:</b>	⌘ Addition to the abbreviation list		
<b>Source:</b>	⌘ TSG RAN WG1		
<b>Work item code:</b>	⌘ TEI	<b>Date:</b>	⌘ May 22, 2001
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ R99
Use <u>one</u> of the following categories: <b>F</b> (essential 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 TR 21.900.		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)	

<b>Reason for change:</b>	⌘ Acronyms are used but not defined.		
<b>Summary of change:</b>	⌘ Definitions of acronyms are added to the abbreviation list.		
<b>Consequences if not approved:</b>	⌘ Incomplete abbreviation list.		

<b>Clauses affected:</b>	⌘ 3.		
<b>Other specs affected:</b>	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
<b>Other comments:</b>	⌘		

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### 3 Abbreviations

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

ASC	Access Service Class
BCCH	Broadcast Control Channel
BCH	Broadcast Channel
CCTrCH	Coded Composite Transport Channel
<u>CDMA</u>	<u>Code Division Multiple Access</u>
<u>CRC</u>	<u>Cyclic Redundancy Check</u>
DCA	Dynamic Channel Allocation
<u>DL</u>	<u>Downlink</u>
DPCH	Dedicated Physical Channel
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<u>ISCP</u>	<u>Interference Signal Code Power</u>
<u>MAC</u>	<u>Medium Access Control</u>
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P-CCPCH	Primary Common Control Physical Channel
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PRACH	Physical Random Access Channel
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RACH	Random Access Channel
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<u>RRC</u>	<u>Radio Resource Control</u>
<u>RSCP</u>	<u>Received Signal Code Power</u>
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SSCH	Secondary Synchronisation Channel
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TA	Timing Advance
<u>TDD</u>	<u>Time Division Duplex</u>
<u>TF</u>	<u>Transport Format</u>
<u>TFC</u>	<u>Transport Format Combination</u>
<u>TFCI</u>	<u>Transport Format Combination Indicator</u>
<u>TFCS</u>	<u>Transport Format Combination Set</u>
TPC	Transmit Power Control
TSTD	Time Switched Transmit Diversity
<u>TTI</u>	<u>Transmission Time Interval</u>
TxAA	Transmit Adaptive Antennas
UE	User Equipment
<u>UL</u>	<u>Uplink</u>
<u>UMTS</u>	<u>Universal Mobile Telecommunications System</u>
<u>UTRAN</u>	<u>UMTS Radio Access Network</u>
VBR	Variable Bit Rate

CR-Form-v4

## CHANGE REQUEST

⌘ **25.224 CR 056** ⌘ rev **-** ⌘ Current version: **3.6.0** ⌘

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

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

<b>Title:</b>	⌘ Correction of Timing Advance section for 3.84 Mcps TDD		
<b>Source:</b>	⌘ TSG RAN WG1		
<b>Work item code:</b>	⌘ TEI	<b>Date:</b>	⌘ 15.05.2001
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ R99
	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 TR 21.900.		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)

<b>Reason for change:</b>	⌘ misalignment between WG1 and WG2 specs
<b>Summary of change:</b>	⌘ Removal of section for Timing Advance with UL Synchronization for 3.84 Mcps TDD, since not supported by higher layers
<b>Consequences if not approved:</b>	⌘ misalignment between WG1 and WG2 specs

<b>Clauses affected:</b>	⌘ 4.3.1 removed		
<b>Other specs affected:</b>	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
<b>Other comments:</b>	⌘		

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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.

## 4.3 Timing Advance

UTRAN may adjust the UE transmission timing with timing advance. The initial value for timing advance ( $TA_{\text{phys}}$ ) will be determined in the UTRAN by measurement of the timing of the PRACH. The required timing advance will be represented as an 6 bit number (0-63) 'UL Timing Advance'  $TA_{\text{ul}}$ , being the multiplier of 4 chips which is nearest to the required timing advance (i.e.  $TA_{\text{phys}} = TA_{\text{ul}} \times 4$  chips).

When Timing Advance is used the UTRAN will continuously measure the timing of a transmission from the UE and send the necessary timing advance value. On receipt of this value the UE shall adjust the timing of its transmissions accordingly in steps of  $\pm 4$  chips. The transmission of TA values is done by means of higher layer messages. Upon receiving the TA command the UE shall adjust its transmission timing according to the timing advance command at the frame number specified by higher layer signaling. The UE is signaled the TA value in advance of the specified frame activation time to allow for local processing of the command and application of the TA adjustment on the specified frame. Node-B is also signaled the TA value and radio frame number that the TA adjustment is expected to take place.

If TA is enabled by higher layers, after handover the UE shall transmit in the new cell with timing advance TA adjusted by the relative timing difference  $\Delta t$  between the new and the old cell:

$$TA_{\text{new}} = TA_{\text{old}} + 2\Delta t.$$

### 4.3.1 ~~Timing advance with UL Synchronization~~

~~If UL Synchronization is used, the timing advance is sub-chip granular and with high accuracy in order to enable synchronous CDMA in the UL. The required timing advance will be represented as a multiple of 1/4 chips.~~

~~The UTRAN will continuously measure the timing of a transmission from the UE and send the necessary timing advance value. On receipt of this value the UE will adjust the timing of its transmissions accordingly in steps of  $\pm 1/4$  chips.~~

~~Support of UL synchronisation is optional for the UE.~~

CR-Form-v4

## CHANGE REQUEST

⌘ **25.224 CR 057** ⌘ rev **-** ⌘ Current version: **4.0.0** ⌘

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

<b>Title:</b>	⌘ Correction of Timing Advance section for 3.84 Mcps TDD		
<b>Source:</b>	⌘ TSG RAN WG1		
<b>Work item code:</b>	⌘ TEI4	<b>Date:</b>	⌘ 15.05.2001
<b>Category:</b>	⌘ <b>A</b>	<b>Release:</b>	⌘ REL-4
	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 TR 21.900.		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)

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<b>Summary of change:</b>	⌘ Removal of section for Timing Advance with UL Synchronization for 3.84 Mcps TDD, since not supported by higher layers
<b>Consequences if not approved:</b>	⌘ misalignment between WG1 and WG2 specs

<b>Clauses affected:</b>	⌘ 4.3.1 removed		
<b>Other specs affected:</b>	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
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~~Support of UL synchronisation is optional for the UE.~~

CR-Form-v3

## CHANGE REQUEST

⌘ **25.224 CR 059** ⌘ rev **-** ⌘ Current version: **4.0.0** ⌘

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

<b>Title:</b>	⌘ Addition to the abbreviation list		
<b>Source:</b>	⌘ TSG RAN WG1		
<b>Work item code:</b>	⌘ TEI4	<b>Date:</b>	⌘ May 22, 2001
<b>Category:</b>	⌘ <b>A</b>	<b>Release:</b>	⌘ REL-4
Use <u>one</u> of the following categories: <b>F</b> (essential 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 TR 21.900.		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)	

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