TSG RAN Meeting #25   **RP-040283**
Palm Springs, US, 7 - 9 September 2004

Title   **CRs (R99 and Rel-4/Rel-5/Rel-6 Category A) to TS25.133**
Source   **TSG RAN WG4**
Agenda Item   **7.5.3**

RAN4 Tdoc	Spec	CR	R	Cat	Rel	Curr Ver	Title	Work Item
R4-040390	25.133	676		F	R99	3.18.0	Redrafting of alignment of the activation time definition between TS 25.133 and TS 25.331	TEI
R4-040391	25.133	677		A	Rel-4	4.12.0	Redrafting of alignment of the activation time definition between TS 25.133 and TS 25.331	TEI
R4-040392	25.133	678		A	Rel-5	5.11.0	Redrafting of alignment of the activation time definition between TS 25.133 and TS 25.331	TEI
R4-040393	25.133	679		A	Rel-6	6.6.0	Redrafting of alignment of the activation time definition between TS 25.133 and TS 25.331	TEI
R4-040441	25.133	682		F	R99	3.18.0	Removal of Cell_FACH requirements for GSM observed time difference measurement	TEI
R4-040442	25.133	683		A	Rel-4	4.12.0	Removal of Cell_FACH requirements for GSM observed time difference measurement	TEI
R4-040443	25.133	684		A	Rel-5	5.11.0	Removal of Cell_FACH requirements for GSM observed time difference measurement	TEI
R4-040444	25.133	685		A	Rel-6	6.6.0	Removal of Cell_FACH requirements for GSM observed time difference measurement	TEI
R4-040455	25.133	690		F	R99	3.18.0	Change of test parameter for event triggered reporting with event 1B	TEI

CR-Form-v7

CHANGE REQUEST

⌘   **25.133 CR 676**   ⌘**rev**   ⌘ Current version: **3.18.0** ⌘

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

Proposed change affects: ⌘ ☐   ME **X** Radio Access Network ☐   Core Network ☐

Title: ⌘	Redrafting of alignment of the activation time defination between TS 25.133 and TS 25.331
Source: ⌘	RAN WG4
Work item code: ⌘	TEI *Date:* ⌘ 30/08/2004

Category: ⌘ **F**	*Release:* ⌘ R99

Use <u>one</u> 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)*
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)
Rel-6   (Release 6)

Reason for change: ⌘	In the RAN2 specifications at the activation time, the UE releases the previous physical channel configuration and initiates the establishment of the new physical channel configuration. In the RAN4 specifications, the activation time seems primarily to be defined as the time at which the UE shall be ready to transmit on the new channel. So there is misalignment between RAN2 and RAN4 specifications on the definition of activation time. This is expressed for the FDD/GSM handover (25.133, section 5.4), FDD/FDD handover (25.133, section 5.2) as well as the FDD/TDD handover (25.133, section 5.3).
Summary of change: ⌘	Align the defination of activation time in RAN4 specifications to RAN2 specifications
Consequences if not approved: ⌘	RAN4 specification will still be misaligned with RAN2 specificaion. Not accepting will remain the contradiction between RAN2 and RAN4 R99 specifications.

Clauses affected: ⌘	5.5.2, 5.5.3, 5.5.4

	Y	N		
Other specs ⌘		X	Other core specifications	⌘
Affected:	X		Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

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.

5.2.2.1 Hard handover delay

Procedure delay for all procedures, that can command a hard handover, are specified in TS25.331 section 13.5.2.

When the UE receives a RRC message implying hard handover with the activation time "now" or earlier than than ~~$D_{handover}$~~RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCCH within $D_{handover}$ seconds from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than ~~$D_{handover}$~~ RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCCH at the designated activation time + interruption time.

where:

$D_{handover}$ equals the RRC procedure delay defined in TS25.331 Section 13.5.2 plus the interruption time stated in section 5.2.2.2.

5.2.2.2 Interruption time

The interruption time, i.e. the time between the last TTI containing a transport block on the old DPDCH and the time the UE starts transmission of the new uplink DPCCH, is depending on whether the target cell is known for the UE or not.

If intra-frequency hard handover is commanded or inter-frequency hard handover is commanded when the UE does not need compressed mode to perform inter-frequency measurements, the interruption time shall be less than $T_{interrupt1}$

$$T_{interrupt1} = T_{IU} + 40 + 20*KC + 150*OC + 10*F_{max} \text{ ms}$$

where

T_{IU} is the interruption uncertainty when changing the timing from the old to the new cell. T_{IU} can be up to one frame (10 ms).

KC is the number of known target cells in the message, and

OC is the number of target cells that are not known in the message.

F_{max} denotes the maximum number of radio frames within the transmission time intervals of all transport channels that are multiplexed into the same CCTrCH.

NOTE: The figure 40 ms is the time required for measuring the downlink DPCCH channel as stated in TS 25.214 section 4.3.1.2.

In the interruption requirement $T_{interrupt1}$ a cell is known if either or both of the following conditions are true:

- the UE has had radio links connected to the cell in the previous (old) active set

- the cell has been measured by the UE during the last 5 seconds and the SFN of the cell has been decoded by the UE.

If inter-frequency hard handover is commanded and the UE needs compressed mode to perform inter-frequency measurements, the interruption time shall be less than $T_{interrupt2}$

$$T_{interrupt2} = T_{IU} + 40 + 50*KC + 150*OC + 10*F_{max} \text{ ms}$$

In the interruption requirement $T_{interrupt2}$ a cell is known if:

- the cell has been measured by the UE during the last 5 seconds.

The phase reference is the primary CPICH.

The requirements in this section assume that N312 has the smallest possible value i.e. only one insync is required.

5.3 FDD/TDD Handover

5.3.1 Introduction

The purpose of FDD/TDD handover is to change the radio access mode from FDD to TDD. The FDD/TDD handover procedure is initiated from UTRAN with a RRC message that implies a hard handover as described in [16].

5.3.2 Requirements

The requirements in this section shall apply to UE supporting FDD and TDD.

5.3.2.1 FDD/TDD handover delay

RRC procedure performance values for all RRC procedures that can command a hard handover are specified [16]

When the UE receives a RRC message implying FDD/TDD handover with the activation time "now" or earlier than ~~D_{handover}~~ RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCH within $D_{handover}$ seconds from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than ~~D_{handover}~~ RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCH at the designated activation time+interruption time.

where:

$D_{handover}$ equals the RRC procedure performance value as defined in [16] plus the interruption time stated in section 5.3.2.2.

5.3.2.2 Interruption time

The interruption time, i.e. the time between the end of the last TTI containing a transport block on the old DPDCH and the time the UE starts transmission of the new uplink DPCH, is dependent on whether the target cell is known for the UE or not.

If FDD/TDD handover is commanded, the interruption time shall be less than,

$$T_{interrupt}= T_{offset}+T_{UL}+30*F_{SFN}+20*KC+180*UC+10*F_{max} \text{ ms}$$

where,

T_{offset}	Equal to 10 ms, the frame timing uncertainty between the old cell and the target cell and the time that can elapse until the appearance of a Beacon channel
T_{UL}	Equal to 10 ms, the time that can elapse until the appearance of the UL timeslot in the target cell
F_{SFN}	Equal to 1 if SFN decoding is required and equal to 0 otherwise
KC	Equal to 1 if a known target cell is indicated in the RRC message implying FDD/TDD handover and equal to 0 otherwise
UC	Equal to 1 if an unknown target cell is indicated in the RRC message implying FDD/TDD handover and equal to 0 otherwise
F_{max}	denotes the maximum number of radio frames within the transmission time intervals of all transport channels that are multiplexed into the same CCTrCH.

An inter-frequency TDD target cell shall be considered known by the UE, if the target cell has been measured by the UE during the last 5 seconds.

The interruption time requirements for an unknown target cell shall apply only if the signal quality of the unknown target cell is sufficient for successful synchronisation with one attempt.

5.4 FDD/GSM Handover

5.4.1 Introduction

The purpose of inter-RAT handover from UTRAN FDD to GSM is to transfer a connection between the UE and UTRAN FDD to GSM. The handover procedure is initiated from UTRAN with a RRC message (HANDOVER FROM UTRAN COMMAND). The procedure is described in TS25.331 section 8.3.7.

Compressed mode according to the UE Capability may be used to be able to make measurements on GSM.

5.4.2 Requirements

The requirements in this section shall apply to UE supporting FDD and GSM.

The requirements given below in Tables 5.2 and 5.3 for the case where the UE has not synchronised to the GSM cell before receiving the HANDOVER FROM UTRAN COMMAND are valid when the signal quality of the GSM cell is sufficient for successful synchronisation with one attempt. If the UE is unable to synchronise to the GSM cell on the first attempt, it shall continue to search for synchronisation information for up to 800 ms. If after 800 ms the UE has not synchronised to the GSM cell it shall follow the handover failure procedure specified in [16].

5.4.2.1 Handover delay

When the UE receives a RRC HANDOVER FROM UTRAN COMMAND with the activation time "now" or earlier than the value in table 5.2RRC procedure delay (see below)from the end of the last TTI containing the RRC command, the UE shall be ready to transmit (as specified in GSM 05.10) on the channel of the new RAT within the value in table 5.2 from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than the value in table 5.2RRC procedure delay from the end of the last TTI containing the RRC command, the UE shall be ready to transmit (as specified in GSM 05.10) on the channel of the new RAT at the designated activation time+interruption time.

The UE shall process the RRC procedures for the RRC HANDOVER FROM UTRAN COMMAND within 50 ms, which is noted as RRC procedure delay. If the activation time is used, it corresponds to the CFN of the UTRAN channel.

Table 5.2: FDD/GSM handover –handover delay

UE synchronisation status	handover delay [ms]
The UE has synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	90
The UE has not synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	190

5.4.2.2 Interruption time

The interruption time, i.e. the time between the end of the last TTI containing a transport block on the old channel and the time the UE is ready to transmit on the new channel, shall be less than The value in table 5.3.

Table 5.3: FDD/GSM handover - interruption time

Synchronisation status	Interruption time [ms]
The UE has synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	40
The UE has not synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	140

CR-Form-v7

CHANGE REQUEST

⌘ **25.133** CR **677** ⌘**rev** ⌘ Current version: **4.12.0** ⌘

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

Proposed change affects: ⌘☐   ME **X** Radio Access Network ☐ Core Network ☐

Title: ⌘	Redrafting of alignment of the activation time defination between TS 25.133 and TS 25.331
Source: ⌘	RAN WG4
Work item code: ⌘	TEI **Date:** ⌘ 30/08/2004

Category: ⌘ **A**   **Release:** ⌘ Rel-4

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)*
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)*
Rel-6 *(Release 6)*

Reason for change: ⌘	In the RAN2 specifications at the activation time, the UE releases the previous physical channel configuration and initiates the establishment of the new physical channel configuration. In the RAN4 specifications, the activation time seems primarily to be defined as the time at which the UE shall be ready to transmit on the new channel. So there is misalignment between RAN2 and RAN4 specifications on the definition of activation time. This is expressed for the FDD/GSM handover (25.133, section 5.4), FDD/FDD handover (25.133, section 5.2) as well as the FDD/TDD handover (25.133, section 5.3).
Summary of change: ⌘	Align the defination of activation time in RAN4 specifications to RAN2 specifications
Consequences if not approved: ⌘	RAN4 specification will still be misaligned with RAN2 specificaion. Not accepting will remain the contradiction between RAN2 and RAN4 Rel-4 specifications.

Clauses affected: ⌘	5.5.2, 5.5.3, 5.5.4

	Y	N		
Other specs ⌘		X	Other core specifications ⌘	
Affected:	X		Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

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.

5.2.2.1 Hard handover delay

Procedure delay for all procedures, that can command a hard handover, are specified in TS25.331 section 13.5.2.

When the UE receives a RRC message implying hard handover with the activation time "now" or earlier than than ~~$D_{handover}$~~RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCCH within $D_{handover}$ seconds from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than ~~$D_{handover}$~~ RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCCH at the designated activation time + interruption time.

where:

$D_{handover}$ equals the RRC procedure delay defined in TS25.331 Section 13.5.2 plus the interruption time stated in section 5.2.2.2.

5.2.2.2 Interruption time

The interruption time, i.e. the time between the last TTI containing a transport block on the old DPDCH and the time the UE starts transmission of the new uplink DPCCH, is depending on whether the target cell is known for the UE or not.

If intra-frequency hard handover is commanded or inter-frequency hard handover is commanded when the UE does not need compressed mode to perform inter-frequency measurements, the interruption time shall be less than $T_{interrupt1}$

$$T_{interrupt1} = T_{IU} + 40 + 20*KC + 150*OC + 10*F_{max} \text{ ms}$$

where

T_{IU} is the interruption uncertainty when changing the timing from the old to the new cell. T_{IU} can be up to one frame (10 ms).

KC is the number of known target cells in the message, and

OC is the number of target cells that are not known in the message.

F_{max} denotes the maximum number of radio frames within the transmission time intervals of all transport channels that are multiplexed into the same CCTrCH.

NOTE: The figure 40 ms is the time required for measuring the downlink DPCCH channel as stated in TS 25.214 section 4.3.1.2.

In the interruption requirement $T_{interrupt1}$ a cell is known if either or both of the following conditions are true:

- the UE has had radio links connected to the cell in the previous (old) active set

- the cell has been measured by the UE during the last 5 seconds and the SFN of the cell has been decoded by the UE.

If inter-frequency hard handover is commanded and the UE needs compressed mode to perform inter-frequency measurements, the interruption time shall be less than $T_{interrupt2}$

$$T_{interrupt2} = T_{IU} + 40 + 50*KC + 150*OC + 10*F_{max} \text{ ms}$$

In the interruption requirement $T_{interrupt2}$ a cell is known if:

- the cell has been measured by the UE during the last 5 seconds.

The phase reference is the primary CPICH.

The requirements in this section assume that N312 has the smallest possible value i.e. only one insync is required.

5.3 FDD/TDD Handover

5.3.1 Introduction

The purpose of FDD/TDD handover is to change the radio access mode from FDD to TDD. The FDD/TDD handover procedure is initiated from UTRAN with a RRC message that implies a hard handover as described in [16].

5.3.2 Requirements

The requirements in this section shall apply to UE supporting FDD and TDD.

5.3.2.1 FDD/TDD handover delay

RRC procedure performance values for all RRC procedures that can command a hard handover are specified [16]

When the UE receives a RRC message implying FDD/TDD handover with the activation time "now" or earlier than ~~D$_{handover}$~~ RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCH within D$_{handover}$ seconds from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than ~~D$_{handover}$~~ RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCH at the designated activation time+interruption time.

where:

D$_{handover}$ equals the RRC procedure performance value as defined in [16] plus the interruption time stated in section 5.3.2.2.

5.3.2.2 Interruption time

The interruption time, i.e. the time between the end of the last TTI containing a transport block on the old DPDCH and the time the UE starts transmission of the new uplink DPCH, is dependent on whether the target cell is known for the UE or not.

If FDD/TDD handover is commanded, the interruption time shall be less than,

$$T_{interrupt}= T_{offset}+T_{UL}+30*F_{SFN}+20*KC+180*UC+10*F_{max} \text{ ms}$$

where,

T$_{offset}$	Equal to 10 ms, the frame timing uncertainty between the old cell and the target cell and the time that can elapse until the appearance of a Beacon channel
T$_{UL}$	Equal to 10 ms, the time that can elapse until the appearance of the UL timeslot in the target cell
F$_{SFN}$	Equal to 1 if SFN decoding is required and equal to 0 otherwise
KC	Equal to 1 if a known target cell is indicated in the RRC message implying FDD/TDD handover and equal to 0 otherwise
UC	Equal to 1 if an unknown target cell is indicated in the RRC message implying FDD/TDD handover and equal to 0 otherwise
F$_{max}$	denotes the maximum number of radio frames within the transmission time intervals of all transport channels that are multiplexed into the same CCTrCH.

An inter-frequency TDD target cell shall be considered known by the UE, if the target cell has been measured by the UE during the last 5 seconds.

The interruption time requirements for an unknown target cell shall apply only if the signal quality of the unknown target cell is sufficient for successful synchronisation with one attempt.

5.4 FDD/GSM Handover

5.4.1 Introduction

The purpose of inter-RAT handover from UTRAN FDD to GSM is to transfer a connection between the UE and UTRAN FDD to GSM. The handover procedure is initiated from UTRAN with a RRC message (HANDOVER FROM UTRAN COMMAND). The procedure is described in TS25.331 section 8.3.7.

Compressed mode according to the UE Capability may be used to be able to make measurements on GSM.

5.4.2 Requirements

The requirements in this section shall apply to UE supporting FDD and GSM.

The requirements given below in Tables 5.2 and 5.3 for the case where the UE has not synchronised to the GSM cell before receiving the HANDOVER FROM UTRAN COMMAND are valid when the signal quality of the GSM cell is sufficient for successful synchronisation with one attempt. If the UE is unable to synchronise to the GSM cell on the first attempt, it shall continue to search for synchronisation information for up to 800 ms. If after 800 ms the UE has not synchronised to the GSM cell it shall follow the handover failure procedure specified in [16].

5.4.2.1 Handover delay

When the UE receives a RRC HANDOVER FROM UTRAN COMMAND with the activation time "now" or earlier than the value in table 5.2RRC procedure delay (see below)from the end of the last TTI containing the RRC command, the UE shall be ready to transmit (as specified in GSM 05.10) on the channel of the new RAT within the value in table 5.2 from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than the value in table 5.2RRC procedure delay from the end of the last TTI containing the RRC command, the UE shall be ready to transmit (as specified in GSM 05.10) on the channel of the new RAT at the designated activation time+interruption time.

The UE shall process the RRC procedures for the RRC HANDOVER FROM UTRAN COMMAND within 50 ms, which is noted as RRC procedure delay. If the activation time is used, it corresponds to the CFN of the UTRAN channel.

Table 5.2: FDD/GSM handover –handover delay

UE synchronisation status	handover delay [ms]
The UE has synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	90
The UE has not synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	190

5.4.2.2 Interruption time

The interruption time, i.e. the time between the end of the last TTI containing a transport block on the old channel and the time the UE is ready to transmit on the new channel, shall be less than The value in table 5.3.

Table 5.3: FDD/GSM handover - interruption time

Synchronisation status	Interruption time [ms]
The UE has synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	40
The UE has not synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	140

CR-Form-v7

CHANGE REQUEST

⌘	**25.133** CR **678**	⌘**rev**		⌘	Current version: **5.11.0** ⌘

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

Proposed change affects: ⌘ ☐   ME **X** Radio Access Network ☐   Core Network ☐

Title:	⌘	Redrafting of alignment of the activation time defination between TS 25.133 and TS 25.331
Source:	⌘	RAN WG4
Work item code: ⌘	TEI	**Date:** ⌘ 30/08/2004
Category:	⌘ **A**	**Release:** ⌘ Rel-5

Use <u>one</u> 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)
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)
    Rel-6 (Release 6)

Reason for change:	⌘	In the RAN2 specifications at the activation time, the UE releases the previous physical channel configuration and initiates the establishment of the new physical channel configuration. In the RAN4 specifications, the activation time seems primarily to be defined as the time at which the UE shall be ready to transmit on the new channel. So there is misalignment between RAN2 and RAN4 specifications on the definition of activation time. This is expressed for the FDD/GSM handover (25.133, section 5.4), FDD/FDD handover (25.133, section 5.2) as well as the FDD/TDD handover (25.133, section 5.3).
Summary of change: ⌘		Align the defination of activation time in RAN4 specifications to RAN2 specifications
Consequences if not approved:	⌘	RAN4 specification will still be misaligned with RAN2 specificaion.Not accepting will remain the contradiction between RAN2 and RAN4 Rel-5 specifications.

Clauses affected:	⌘	5.5.2, 5.5.3, 5.5.4

		Y	N		
Other specs	⌘		X	Other core specifications	⌘
Affected:		X		Test specifications	
			X	O&M Specifications	

Other comments:	⌘	

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.

5.2.2.1 Hard handover delay

Procedure delay for all procedures, that can command a hard handover, are specified in TS25.331 section 13.5.2.

When the UE receives a RRC message implying hard handover with the activation time "now" or earlier than than ~~D~~_{handover}RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCCH within $D_{handover}$ seconds from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than ~~D~~_{handover} RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCCH at the designated activation time + interruption time.

where:

$D_{handover}$ equals the RRC procedure delay defined in TS25.331 Section 13.5.2 plus the interruption time stated in section 5.2.2.2.

5.2.2.2 Interruption time

The interruption time, i.e. the time between the last TTI containing a transport block on the old DPDCH and the time the UE starts transmission of the new uplink DPCCH, is depending on whether the target cell is known for the UE or not.

If intra-frequency hard handover is commanded or inter-frequency hard handover is commanded when the UE does not need compressed mode to perform inter-frequency measurements, the interruption time shall be less than $T_{interrupt1}$

$$T_{interrupt1} = T_{IU} + 40 + 20*KC + 150*OC + 10*F_{max} \text{ ms}$$

where

T_{IU} is the interruption uncertainty when changing the timing from the old to the new cell. T_{IU} can be up to one frame (10 ms).

KC is the number of known target cells in the message, and

OC is the number of target cells that are not known in the message.

F_{max} denotes the maximum number of radio frames within the transmission time intervals of all transport channels that are multiplexed into the same CCTrCH.

NOTE: The figure 40 ms is the time required for measuring the downlink DPCCH channel as stated in TS 25.214 section 4.3.1.2.

In the interruption requirement $T_{interrupt1}$ a cell is known if either or both of the following conditions are true:

- the UE has had radio links connected to the cell in the previous (old) active set

- the cell has been measured by the UE during the last 5 seconds and the SFN of the cell has been decoded by the UE.

If inter-frequency hard handover is commanded and the UE needs compressed mode to perform inter-frequency measurements, the interruption time shall be less than $T_{interrupt2}$

$$T_{interrupt2} = T_{IU} + 40 + 50*KC + 150*OC + 10*F_{max} \text{ ms}$$

In the interruption requirement $T_{interrupt2}$ a cell is known if:

- the cell has been measured by the UE during the last 5 seconds.

The phase reference is the primary CPICH.

The requirements in this section assume that N312 has the smallest possible value i.e. only one insync is required.

5.3 FDD/TDD Handover

5.3.1 Introduction

The purpose of FDD/TDD handover is to change the radio access mode from FDD to TDD. The FDD/TDD handover procedure is initiated from UTRAN with a RRC message that implies a hard handover as described in [16].

5.3.2 Requirements

The requirements in this section shall apply to UE supporting FDD and TDD.

5.3.2.1 FDD/TDD handover delay

RRC procedure performance values for all RRC procedures that can command a hard handover are specified [16]

When the UE receives a RRC message implying FDD/TDD handover with the activation time "now" or earlier than $D_{handover}$ RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCH within $D_{handover}$ seconds from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than $D_{handover}$ RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCH at the designated activation time+interruption time.

where:

$D_{handover}$ equals the RRC procedure performance value as defined in [16] plus the interruption time stated in section 5.3.2.2.

5.3.2.2 Interruption time

The interruption time, i.e. the time between the end of the last TTI containing a transport block on the old DPDCH and the time the UE starts transmission of the new uplink DPCH, is dependent on whether the target cell is known for the UE or not.

If FDD/TDD handover is commanded, the interruption time shall be less than,

$$T_{interrupt} = T_{offset} + T_{UL} + 30*F_{SFN} + 20*KC + 180*UC + 10*F_{max} \text{ ms}$$

where,

T_{offset}	Equal to 10 ms, the frame timing uncertainty between the old cell and the target cell and the time that can elapse until the appearance of a Beacon channel
T_{UL}	Equal to 10 ms, the time that can elapse until the appearance of the UL timeslot in the target cell
F_{SFN}	Equal to 1 if SFN decoding is required and equal to 0 otherwise
KC	Equal to 1 if a known target cell is indicated in the RRC message implying FDD/TDD handover and equal to 0 otherwise
UC	Equal to 1 if an unknown target cell is indicated in the RRC message implying FDD/TDD handover and equal to 0 otherwise
F_{max}	denotes the maximum number of radio frames within the transmission time intervals of all transport channels that are multiplexed into the same CCTrCH.

An inter-frequency TDD target cell shall be considered known by the UE, if the target cell has been measured by the UE during the last 5 seconds.

The interruption time requirements for an unknown target cell shall apply only if the signal quality of the unknown target cell is sufficient for successful synchronisation with one attempt.

5.4 FDD/GSM Handover

5.4.1 Introduction

The purpose of inter-RAT handover from UTRAN FDD to GSM is to transfer a connection between the UE and UTRAN FDD to GSM. The handover procedure is initiated from UTRAN with a RRC message (HANDOVER FROM UTRAN COMMAND). The procedure is described in TS25.331 section 8.3.7.

Compressed mode according to the UE Capability may be used to be able to make measurements on GSM.

5.4.2 Requirements

The requirements in this section shall apply to UE supporting FDD and GSM.

The requirements given below in Tables 5.2 and 5.3 for the case where the UE has not synchronised to the GSM cell before receiving the HANDOVER FROM UTRAN COMMAND are valid when the signal quality of the GSM cell is sufficient for successful synchronisation with one attempt.   If the UE is unable to synchronise to the GSM cell on the first attempt, it shall continue to search for synchronisation information for up to 800 ms. If after 800 ms the UE has not synchronised to the GSM cell it shall follow the handover failure procedure specified in [16].

5.4.2.1 Handover delay

When the UE receives a RRC HANDOVER FROM UTRAN COMMAND with the activation time "now" or earlier than ~~the value in table 5.2~~RRC procedure delay (see below)from the end of the last TTI containing the RRC command, the UE shall be ready to transmit (as specified in GSM 05.10) on the channel of the new RAT within the value in table 5.2 from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than ~~the value in table 5.2~~RRC procedure delay from the end of the last TTI containing the RRC command, the UE shall be ready to transmit (as specified in GSM 05.10) on the channel of the new RAT at the designated activation time+interruption time.

The UE shall process the RRC procedures for the RRC HANDOVER FROM UTRAN COMMAND within 50 ms, which is noted as RRC procedure delay. If the activation time is used, it corresponds to the CFN of the UTRAN channel.

Table 5.2: FDD/GSM handover –handover delay

UE synchronisation status	handover delay [ms]
The UE has synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	90
The UE has not synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	190

5.4.2.2 Interruption time

The interruption time, i.e. the time between the end of the last TTI containing a transport block on the old channel and the time the UE is ready to transmit on the new channel, shall be less than The value in table 5.3.

Table 5.3: FDD/GSM handover - interruption time

Synchronisation status	Interruption time [ms]
The UE has synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	40
The UE has not synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	140

CR-Form-v7

CHANGE REQUEST

⌘   **25.133** CR **679**   ⌘**rev** ☐   ⌘ Current version: **6.6.0** ⌘

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

Proposed change affects: ⌘ ☐   ME **X** Radio Access Network ☐   Core Network ☐

Title: ⌘	Redrafting of alignment of the activation time defination between TS 25.133 and TS 25.331
Source: ⌘	RAN WG4
Work item code: ⌘	TEI *Date:* ⌘ 30/08/2004
Category: ⌘	**A** *Release:* ⌘ Rel-6

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)*
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)*
   Rel-6 *(Release 6)*

Reason for change: ⌘	In the RAN2 specifications at the activation time, the UE releases the previous physical channel configuration and initiates the establishment of the new physical channel configuration. In the RAN4 specifications, the activation time seems primarily to be defined as the time at which the UE shall be ready to transmit on the new channel. So there is misalignment between RAN2 and RAN4 specifications on the definition of activation time. This is expressed for the FDD/GSM handover (25.133, section 5.4), FDD/FDD handover (25.133, section 5.2) as well as the FDD/TDD handover (25.133, section 5.3).
Summary of change: ⌘	Align the defination of activation time in RAN4 specifications to RAN2 specifications
Consequences if not approved: ⌘	RAN4 specification will still be misaligned with RAN2 specificaion. Not accepting will remain the contradiction between RAN2 and RAN4 Rel-6 specifications.

Clauses affected: ⌘	5.5.2, 5.5.3, 5.5.4

	Y	N		
Other specs Affected: ⌘		X	Other core specifications	⌘
	X		Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

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.

5.2.2.1 Hard handover delay

Procedure delay for all procedures, that can command a hard handover, are specified in TS25.331 section 13.5.2.

When the UE receives a RRC message implying hard handover with the activation time "now" or earlier than than ~~D~~_{handover}RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCCH within $D_{handover}$ seconds from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than ~~D~~_{handover} RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCCH at the designated activation time + interruption time.

where:

$D_{handover}$ equals the RRC procedure delay defined in TS25.331 Section 13.5.2 plus the interruption time stated in section 5.2.2.2.

5.2.2.2 Interruption time

The interruption time, i.e. the time between the last TTI containing a transport block on the old DPDCH and the time the UE starts transmission of the new uplink DPCCH, is depending on whether the target cell is known for the UE or not.

If intra-frequency hard handover is commanded or inter-frequency hard handover is commanded when the UE does not need compressed mode to perform inter-frequency measurements, the interruption time shall be less than $T_{interrupt1}$

$$T_{interrupt1} = T_{IU} + 40 + 20*KC + 150*OC + 10*F_{max} \text{ ms}$$

where

T_{IU} is the interruption uncertainty when changing the timing from the old to the new cell. T_{IU} can be up to one frame (10 ms).

KC is the number of known target cells in the message, and

OC is the number of target cells that are not known in the message.

F_{max} denotes the maximum number of radio frames within the transmission time intervals of all transport channels that are multiplexed into the same CCTrCH.

NOTE: The figure 40 ms is the time required for measuring the downlink DPCCH channel as stated in TS 25.214 section 4.3.1.2.

In the interruption requirement $T_{interrupt1}$ a cell is known if either or both of the following conditions are true:

- the UE has had radio links connected to the cell in the previous (old) active set

- the cell has been measured by the UE during the last 5 seconds and the SFN of the cell has been decoded by the UE.

If inter-frequency hard handover is commanded and the UE needs compressed mode to perform inter-frequency measurements, the interruption time shall be less than $T_{interrupt2}$

$$T_{interrupt2} = T_{IU} + 40 + 50*KC + 150*OC + 10*F_{max} \text{ ms}$$

In the interruption requirement $T_{interrupt2}$ a cell is known if:

- the cell has been measured by the UE during the last 5 seconds.

The phase reference is the primary CPICH.

The requirements in this section assume that N312 has the smallest possible value i.e. only one insync is required.

5.3 FDD/TDD Handover

5.3.1 Introduction

The purpose of FDD/TDD handover is to change the radio access mode from FDD to TDD. The FDD/TDD handover procedure is initiated from UTRAN with a RRC message that implies a hard handover as described in [16].

5.3.2 Requirements

The requirements in this section shall apply to UE supporting FDD and TDD.

5.3.2.1 FDD/TDD handover delay

RRC procedure performance values for all RRC procedures that can command a hard handover are specified [16]

When the UE receives a RRC message implying FDD/TDD handover with the activation time "now" or earlier than ~~D$_{handover}$~~ RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCH within D$_{handover}$ seconds from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than ~~D$_{handover}$~~ RRC procedure delay seconds from the end of the last TTI containing the RRC command, the UE shall be ready to start the transmission of the new uplink DPCH at the designated activation time+interruption time.

where:

D$_{handover}$ equals the RRC procedure performance value as defined in [16] plus the interruption time stated in section 5.3.2.2.

5.3.2.2 Interruption time

The interruption time, i.e. the time between the end of the last TTI containing a transport block on the old DPDCH and the time the UE starts transmission of the new uplink DPCH, is dependent on whether the target cell is known for the UE or not.

If FDD/TDD handover is commanded, the interruption time shall be less than,

$$T_{interrupt}= T_{offset}+T_{UL}+30*F_{SFN}+20*KC+180*UC+10*F_{max} \text{ ms}$$

where,

T$_{offset}$	Equal to 10 ms, the frame timing uncertainty between the old cell and the target cell and the time that can elapse until the appearance of a Beacon channel
T$_{UL}$	Equal to 10 ms, the time that can elapse until the appearance of the UL timeslot in the target cell
F$_{SFN}$	Equal to 1 if SFN decoding is required and equal to 0 otherwise
KC	Equal to 1 if a known target cell is indicated in the RRC message implying FDD/TDD handover and equal to 0 otherwise
UC	Equal to 1 if an unknown target cell is indicated in the RRC message implying FDD/TDD handover and equal to 0 otherwise
F$_{max}$	denotes the maximum number of radio frames within the transmission time intervals of all transport channels that are multiplexed into the same CCTrCH.

An inter-frequency TDD target cell shall be considered known by the UE, if the target cell has been measured by the UE during the last 5 seconds.

The interruption time requirements for an unknown target cell shall apply only if the signal quality of the unknown target cell is sufficient for successful synchronisation with one attempt.

5.4   FDD/GSM Handover

5.4.1   Introduction

The purpose of inter-RAT handover from UTRAN FDD to GSM is to transfer a connection between the UE and UTRAN FDD to GSM. The handover procedure is initiated from UTRAN with a RRC message (HANDOVER FROM UTRAN COMMAND). The procedure is described in TS25.331 section 8.3.7.

Compressed mode according to the UE Capability may be used to be able to make measurements on GSM.

5.4.2   Requirements

The requirements in this section shall apply to UE supporting FDD and GSM.

The requirements given below in Tables 5.2 and 5.3 for the case where the UE has not synchronised to the GSM cell before receiving the HANDOVER FROM UTRAN COMMAND are valid when the signal quality of the GSM cell is sufficient for successful synchronisation with one attempt.   If the UE is unable to synchronise to the GSM cell on the first attempt, it shall continue to search for synchronisation information for up to 800 ms. If after 800 ms the UE has not synchronised to the GSM cell it shall follow the handover failure procedure specified in [16].

5.4.2.1   Handover delay

When the UE receives a RRC HANDOVER FROM UTRAN COMMAND with the activation time "now" or earlier than ~~the value in table 5.2~~RRC procedure delay (see below)from the end of the last TTI containing the RRC command, the UE shall be ready to transmit (as specified in GSM 05.10) on the channel of the new RAT within the value in table 5.2 from the end of the last TTI containing the RRC command.

If the access is delayed to an indicated activation time later than ~~the value in table 5.2~~RRC procedure delay from the end of the last TTI containing the RRC command, the UE shall be ready to transmit (as specified in GSM 05.10) on the channel of the new RAT at the designated activation time+interruption time.

The UE shall process the RRC procedures for the RRC HANDOVER FROM UTRAN COMMAND within 50 ms, which is noted as RRC procedure delay. If the activation time is used, it corresponds to the CFN of the UTRAN channel.

Table 5.2: FDD/GSM handover –handover delay

UE synchronisation status	handover delay [ms]
The UE has synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	90
The UE has not synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	190

5.4.2.2   Interruption time

The interruption time, i.e. the time between the end of the last TTI containing a transport block on the old channel and the time the UE is ready to transmit on the new channel, shall be less than The value in table 5.3.

Table 5.3: FDD/GSM handover - interruption time

Synchronisation status	Interruption time [ms]
The UE has synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	40
The UE has not synchronised to the GSM cell before the HANDOVER FROM UTRAN COMMAND is received	140

							CR-Form-v7.1

CHANGE REQUEST

⌘	**25.133** CR **682**	⌘ **rev**		⌘	Current version:	**3.18.0**	⌘

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 **X** Radio Access Network ☐   Core Network ☐

Title: ⌘	Removal of Cell_FACH requirements for GSM observed time difference measurement	
Source: ⌘	RAN WG4	
Work item code: ⌘	TEI	***Date:*** ⌘ 30/08/2004
Category: ⌘	**F**	***Release:*** ⌘ R99

Use <u>one</u> *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)*
Detailed explanations of the above categories can
be found in 3GPP TR 21.900.

Use <u>one</u> *of the following releases:*
   Ph2   *(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)*
   Rel-7   *(Release 7)*

Reason for change: ⌘	From the following clause extracted from TS25.215, observed time difference to GSM cell is not applicable to Cell_FACH state. However TS25.133 currently defines some requirements for this measurement. Since the measurement is not required in Cell_FACH state by RAN1, the Cell_FACH requirements in RAN4 are deleted by this CR.

5.1.11   Observed time difference to GSM cell

Definition
……..
……..
……..
Applicable for   *Idle, URA_PCH*
inter-RAT, CELL_PCH inter-RAT, CELL_DCH inter-RAT

Summary of change: ⌘	Reference to GSM observed time difference in CELL_FACH state is deleted. <u>Isolated Impact Analyses:</u> Since it is already defined in TS25.215 that the observed time difference to GSM cell is not applicable for CELL_FACH state, the CR should have no impact on a UE or UTRAN.

Consequences if not approved:	⌘	TS25.133 is inconsistent with TS25.215. This could make T1 to start developing a test case for CELL_FACH state, which is not supported by a specification and therefore a UE fulfilling all the core requirements could fail the test.

Clauses affected:	⌘	9.1.10.1

		Y	N			
Other specs affected:	⌘		X	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		

Other comments:	⌘	
		Equivalent CRs in other Releases: CR683 cat. A to 25.133 Rel-4, CR684 cat. A to 25.133 Rel-5, CR685 cat. A to 25.133 Rel-6

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.

9.1.10   Observed time difference to GSM cell

NOTE: This measurement is used to determine the system time difference between UTRAN and GSM cells.

The requirements in this section are valid for terminals supporting UTRA and GSM.

9.1.10.1   Measurement requirement

The measurement period for CELL_DCH state is equal to the maximum time between two successive BSIC re-confirmations for one particular GSM cell according to sub clause 8.1.2.5.2. The measurement period for CELL_FACH state is equal to the maximum time between two successive BSIC re-confirmations according to sub clause 8.4.2.5.2.

NOTE: The conditions for which the accuracy requirement in table 9.29 is valid are FFS.

Table 9.29

Parameter	Unit	Accuracy [chip]	Conditions
Observed time difference to GSM cell	ms	± 20	

						CR-Form-v7.1

CHANGE REQUEST

⌘   **25.133** CR **683**   ⌘**rev**   ⌘   Current version: **4.12.0** ⌘

*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 **X** Radio Access Network ☐   Core Network ☐

Title: ⌘	Removal of Cell_FACH requirements for GSM observed time difference measurement
Source: ⌘	RAN WG4
Work item code: ⌘ TEI	**Date:** ⌘ 30/08/2004

Category: ⌘ **A**   **Release:** ⌘ Rel-4

Use one of the following categories:	*Use one of the following releases:*
F *(correction)*	*Ph2* *(GSM Phase 2)*
A *(corresponds to a correction in an earlier release)*	*R96* *(Release 1996)*
B *(addition of feature),*	*R97* *(Release 1997)*
C *(functional modification of feature)*	*R98* *(Release 1998)*
D *(editorial modification)*	*R99* *(Release 1999)*
Detailed explanations of the above categories can	*Rel-4* *(Release 4)*
be found in 3GPP TR 21.900.	*Rel-5* *(Release 5)*
	Rel-6 *(Release 6)*
	Rel-7 *(Release 7)*

Reason for change: ⌘ From the following clause extracted from TS25.215, observed time difference to GSM cell is not applicable to Cell_FACH state. However TS25.133 currently defines some requirements for this measurement. Since the measurement is not required in Cell_FACH state by RAN1, the Cell_FACH requirements in RAN4 are deleted by this CR.

5.1.11   Observed time difference to GSM cell

Definition
……..
……..
……..
Applicable for   *Idle, URA_PCH*
inter-RAT, CELL_PCH inter-RAT, CELL_DCH inter-RAT

Summary of change: ⌘ Reference to GSM observed time difference in CELL_FACH state is deleted.

Isolated Impact Analyses:
Since it is already defined in TS25.215 that the observed time difference to GSM cell is not applicable for CELL_FACH state, the CR should have no impact on a UE or UTRAN.

Consequences if *not approved:*	⌘	TS25.133 is inconsistent with TS25.215. This could make T1 to start developing a test case for CELL_FACH state, which is not supported by a specification and therefore a UE fulfilling all the core requirements could fail the test.

Clauses affected:	⌘	9.1.10.1

			Y	N		
Other specs *affected:*	⌘			X	Other core specifications	⌘
				X	Test specifications	
				X	O&M Specifications	

Other comments:	⌘	
		Equivalent CRs in other Releases: CR682 cat. F to 25.133 R99, CR684 cat. A to 25.133 Rel-5, CR685 cat. A to 25.133 Rel-6

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.

9.1.10   Observed time difference to GSM cell

NOTE: This measurement is used to determine the system time difference between UTRAN and GSM cells.

The requirements in this section are valid for terminals supporting UTRA and GSM.

9.1.10.1   Measurement requirement

The measurement period for CELL_DCH state is equal to the maximum time between two successive BSIC re-confirmations for one particular GSM cell according to sub clause 8.1.2.5.2. ~~The measurement period for CELL_FACH state is equal to the maximum time between two successive BSIC re-confirmations according to sub clause 8.4.2.5.2.~~

NOTE: The conditions for which the accuracy requirement in table 9.29 is valid are FFS.

Table 9.29

Parameter	Unit	Accuracy [chip]	Conditions
Observed time difference to GSM cell	ms	± 20	

CR-Form-v7.1

CHANGE REQUEST

⌘   **25.133** CR **684**   ⌘**rev**   ⌘   Current version: **5.11.0** ⌘

*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 **X** Radio Access Network ☐   Core Network ☐

Title: ⌘	Removal of Cell_FACH requirements for GSM observed time difference measurement
Source: ⌘	RAN WG4
Work item code:⌘	TEI ***Date:*** ⌘ 30/08/2004

Category: ⌘ **A**   ***Release:*** ⌘ Rel-5

Use <u>one</u> of the following categories:	Use <u>one</u> of the following releases:
F *(correction)*	*Ph2* *(GSM Phase 2)*
A *(corresponds to a correction in an earlier release)*	*R96* *(Release 1996)*
B *(addition of feature),*	*R97* *(Release 1997)*
C *(functional modification of feature)*	*R98* *(Release 1998)*
D *(editorial modification)*	*R99* *(Release 1999)*
Detailed explanations of the above categories can	*Rel-4* *(Release 4)*
be found in 3GPP TR 21.900.	*Rel-5* *(Release 5)*
	Rel-6 *(Release 6)*
	Rel-7 *(Release 7)*

Reason for change: ⌘	From the following clause extracted from TS25.215, observed time difference to GSM cell is not applicable to Cell_FACH state. However TS25.133 currently defines some requirements for this measurement. Since the measurement is not required in Cell_FACH state by RAN1, the Cell_FACH requirements in RAN4 are deleted by this CR.

5.1.11   Observed time difference to GSM cell

Definition
……...
……...
……...
Applicable for   *Idle, URA_PCH*
inter-RAT, CELL_PCH inter-RAT, CELL_DCH inter-RAT

Summary of change:⌘	Reference to GSM observed time difference in CELL_FACH state is deleted.
	<u>Isolated Impact Analyses:</u> Since it is already defined in TS25.215 that the observed time difference to GSM cell is not applicable for CELL_FACH state, the CR should have no impact on a UE or UTRAN.

Consequences if not approved:	⌘	TS25.133 is inconsistent with TS25.215 This could make T1 to start developing a test case for CELL_FACH state, which is not supported by a specification and therefore a UE fulfilling all the core requirements could fail the test.

Clauses affected:	⌘	9.1.10.1		

		Y	N			
Other specs affected:	⌘		X	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		

Other comments:	⌘	
		Equivalent CRs in other Releases: CR682 cat. F to 25.133 R99, CR683 cat. A to 25.133 Rel-4, CR685 cat. A to 25.133 Rel-6

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.

9.1.10 Observed time difference to GSM cell

NOTE: This measurement is used to determine the system time difference between UTRAN and GSM cells.

The requirements in this section are valid for terminals supporting UTRA and GSM.

9.1.10.1 Measurement requirement

The measurement period for CELL_DCH state is equal to the maximum time between two successive BSIC re-confirmations for one particular GSM cell according to sub clause 8.1.2.5.2. ~~The measurement period for CELL_FACH state is equal to the maximum time between two successive BSIC re-confirmations according to sub clause 8.4.2.5.2.~~

The accuracy requirement in table 9.29 is valid in the conditions defined in sub clause 8.1.2.5.2.

Table 9.29

Parameter	Unit	Accuracy [chip]	Conditions
Observed time difference to GSM cell	chip	± 20	

									CR-Form-v7.1

CHANGE REQUEST

⌘	**25.133** CR **685**	⌘ **rev**		⌘	Current version:	**6.6.0**	⌘

*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 **X** Radio Access Network ☐   Core Network ☐

Title: ⌘	Removal of Cell_FACH requirements for GSM observed time difference measurement	
Source: ⌘	RAN WG4	
Work item code: ⌘	TEI	**Date:** ⌘ 30/08/2004
Category: ⌘	**A**	**Release:** ⌘ Rel-6

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)*
Detailed explanations of the above categories can
be found in 3GPP TR 21.900.

Use *one* of the following releases:
    Ph2   *(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)*
    Rel-7   *(Release 7)*

Reason for change: ⌘	From the following clause extracted from TS25.215, observed time difference to GSM cell is not applicable to Cell_FACH state. However TS25.133 currently defines some requirements for this measurement. Since the measurement is not required in Cell_FACH state by RAN1, the Cell_FACH requirements in RAN4 are deleted by this CR.

5.1.11   Observed time difference to GSM cell

Definition
……..
……..
……..
Applicable for   *Idle, URA_PCH*
inter-RAT, CELL_PCH inter-RAT, CELL_DCH inter-RAT

Summary of change: ⌘	Reference to GSM observed time difference in CELL_FACH state is deleted. Isolated Impact Analyses: Since it is already defined in TS25.215 that the observed time difference to GSM cell is not applicable for CELL_FACH state, the CR should have no impact on a UE or UTRAN.

Consequences if *not approved:*	⌘	TS25.133 is inconsistent with TS25.215. This could make T1 to start developing a test case for CELL_FACH state, which is not supported by a specification and therefore a UE fulfilling all the core requirements could fail the test.

Clauses affected:	⌘	9.1.10.1		

		Y	N		
Other specs *affected:*	⌘		X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	
		Equivalent CRs in other Releases: CR682 cat. F to 25.133 R99, CR683 cat. A to 25.133 Rel-4, CR684 cat. A to 25.133 Rel-5

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.

9.1.10   Observed time difference to GSM cell

NOTE: This measurement is used to determine the system time difference between UTRAN and GSM cells.

The requirements in this section are valid for terminals supporting UTRA and GSM.

9.1.10.1   Measurement requirement

The measurement period for CELL_DCH state is equal to the maximum time between two successive BSIC re-confirmations for one particular GSM cell according to sub clause 8.1.2.5.2. ~~The measurement period for CELL_FACH state is equal to the maximum time between two successive BSIC re-confirmations according to sub clause 8.4.2.5.2.~~

The accuracy requirement in table 9.29 is valid in the conditions defined in sub clause 8.1.2.5.2.

Table 9.29

Parameter	Unit	Accuracy [chip]	Conditions
Observed time difference to GSM cell	chip	± 20	

CR-Form-v7

CHANGE REQUEST

⌘ **25.133 CR 690** ⌘ **rev** ⌘ Current version: **3.18.0** ⌘

*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 **X** Radio Access Network ☐   Core Network ☐

Title: ⌘	Change of test parameter for event triggered reporting with event 1B	
Source: ⌘	RAN WG4	
Work item code:⌘	TEI	*Date:* ⌘ 30/08/2004

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)*
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)*
  Rel-6 *(Release 6)*

Reason for change: ⌘ In last RAN4, R4-040379 TS25133CR655rev2, which is R99 only CR for changing test case of event triggered reporting with event 1B, was approved.

In this CR, the Active Set Update message is sent to the UE to move cell2 into active sets in each test case, since the UE behaviour is unspecified in R99 when using a triggering condition other than "Active set cells" for the intra-frequency events 1b. However, this modification makes event-triggering condition different from other releases because cell 2 is in active sets and parameter W is unchanged from this modification. Our understanding is the intension of above CR is event-triggering condition should be same but just test procedure is modified to meet within R99 functionality.

Parameter W controls event triggering condition. If W is one, all active set cell's results except not forbidden are evaluated for event triggering condition. If W is zero, only best cell's result is evaluated for event triggering condition. According to above CR, cell 2 has changed from monitored set to the active set. Therefore, in R99, cell 1 and cell 2 are used for the evaluation of event-trigger. In R4/5/6, only cell 1 is used for the evaluation of event-trigger. To make event-triggering condition unchanged among different releases, we proposed parameter W is changed from one to zero, which means always only cell 1 is used for the evaluation of event-trigger.

We propose this modification was applied only to R99.

Moreover, at the test A.8.1.2, cell3 becomes undetectable from the start of the time period T4 and becomes detectable again at the start of the time period T6. Thus, UE

	cannot detect the cell3 during 6s (T4 + T5 = 6s). In order to keep the 200 ms reporting delay, the total time T4+T5 would remain as 5s. In addition, following editorial errors are found. - The numbers of successive time periods for each test (A.8.1.1, A.8.1.2 and A.8.1.3) are wrong. - In A.8.1.2 Cell3 should be added to the active set during time period T1 and not Cell2. - In A.8.1.2 Cell3 should be removed from the active set during time period T4 and not Cell2. - In A.8.1.2 the change of time durations (T5 and T6) has not been implemented to the specification.
Summary of change: ⌘	- The parameter W is changed from 1 to 0 in section A.8.1.1, A.8.1.2 and A.8.1.3. - In section A.8.1.2, time duration T4 is changed from 5s to 4s. - The numbers of successive time periods for each test (A.8.1.1, A.8.1.2 and A.8.1.3) are corrected. - In section A.8.1.2, UTRAN shall send an Active Set Update command with activation time "start of T2" adding cell 3 to the active set. - In section A.8.1.2, UTRAN shall send an Active Set Update command with activation time "start of T5" removing cell 3 from the active set. - In section A.8.1.2, time duration T5 and T6 are added, and correct the time duration T2, T3 and T4.
Consequences if not approved: ⌘	Triggering condition is different between R99 and other release. Events may be erroneously triggered in R99 test case. <Isolated Impact Analysis> - This CR relates the test procedure of R99 event-triggering functionality. There are no impact on R4 and R5 functionality of UE.

Clauses affected:	⌘	A 8.1.1, A 8.1.2, A 8.1.3	

		Y	N		
Other specs affected:	⌘		X	Other core specifications ⌘	TS34.121 in 2004/06 version has not captured the modification of R4-040379 TS25133CR655rev3. Therefore, at this moment, no impact on TS34.121.
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	

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.

A.8.1 FDD intra frequency measurements

A.8.1.1 Event triggered reporting in AWGN propagation conditions

A.8.1.1.1 Test Purpose and Environment

The purpose of this test is to verify that the UE makes correct reporting of an event. This test will partly verify the requirements in section 8.1.2 and 9.1.

The test parameters are given in Table A.8.1 and A.8.2 below. In the measurement control information it is indicated to the UE that event-triggered reporting with Event 1A and 1B shall be used and that CPICH Ec/Io and SFN-CFN observed time difference shall be reported together with Event 1A. The test consists of ~~three~~ four successive time periods, with a time duration of T1, T2 T3 and T4 respectively. During time duration T1, the UE shall not have any timing information of cell 2.

Table A.8.1: General test parameters for Event triggered reporting in AWGN propagation conditions

Parameter	Unit	Value	Comment
DCH parameters		DL Reference Measurement Channel 12.2 kbps	As specified in TS 25.101 section A.3.1
Power Control		On	
Active cell		Cell 1	
Reporting range	dB	3	Applicable for event 1A and 1B
Hysteresis	dB	0	
W		~~1~~0	Applicable for event 1A and 1B
Reporting deactivation threshold		0	Applicable for event 1A
Time to Trigger	ms	0	
Filter coefficient		0	
Monitored cell list size		24	
T1	s	5	
T2	s	5	
T3	s	1	
T4	s	5	

Table A.8.2: Cell specific test parameters for Event triggered reporting in AWGN propagation conditions

Parameter	Unit	Cell 1				Cell 2			
		T1	T2	T3	T4	T1	T2	T3	T4
CPICH_Ec/Ior	dB	-10				-10			
PCCPCH_Ec/Ior	dB	-12				-12			
SCH_Ec/Ior	dB	-12				-12			
PICH_Ec/Ior	dB	-15				-15			
DPCH_Ec/Ior	dB	Note 1				N/A		Note 1	
OCNS		Note 2				-0.941		Note 2	
$\hat{I}_{or}/I_{oc}$	dB	0	6.97	6.97	0	-Infinity	5.97	5.97	-Infinity
I_{oc}	dBm/3.84 MHz	-70							
CPICH_Ec/Io	dB	-13	-13	-13	-13	-Infinity	-14	-14	-Infinity
Propagation Condition		AWGN							
Note 1 The DPCH level is controlled by the power control loop									
Note 2 The power of the OCNS channel that is added shall make the total power from the cell to be equal to I_{or}.									

The test shall be performed in the following way:

During time period T1:

The test is started at the beginning of T1 with cell 1 active.

During time period T2:

UTRAN shall after   the Event 1A triggered measurement is reported send an Active Set Update command with activation time "start of T3" adding cell 2 to the active set.

The Active Set Update message shall be sent to the UE so that the whole message is available at the UE the RRC procedure delay prior to the beginning of T3.

A.8.1.1.2   Test Requirements

The UE shall send one Event 1A triggered measurement report, with a measurement reporting delay less than 800 ms from the beginning of time period T2.

The UE shall send one Event 1B triggered measurement report, with a measurement reporting delay less than 200 ms from the beginning of time period T4.

The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled.

The rate of correct events observed during repeated tests shall be at least 90%.

A.8.1.2   Event triggered reporting of multiple neighbours in AWGN propagation condition

A.8.1.2.1   Test Purpose and Environment

The purpose of this test is to verify that the UE makes correct reporting of events. This test will partly verify the requirements in section 8.1.2 and 9.1.

The test parameters are given in Table A.8.3 and A.8.4. In the measurement control information it is indicated to the UE that event-triggered reporting with Event 1A, 1C and 1B shall be used and the periodical reporting of the events is not applied. The CPICH Ec/Io and SFN-CFN observed time difference shall be reported together with Event 1A. The test consists of ~~four~~ six successive time periods, with a time duration of T1, T2, T3, T4, T5 and T6 respectively. In the initial condition before the time T1 only Cell1 is active.

Table A.8.3: General test parameters for Event triggered reporting of multiple neighbours in AWGN propagation conditions

Parameter	Unit	Value	Comment
DCH parameters		DL Reference Measurement Channel 12.2 kbps	As specified in TS 25.101 section A.3.1
Power Control		On	
Active cell		Cell 1	
Reporting range	dB	3	Applicable for event 1A and 1B
Hysteresis	dB	0	
W		~~1~~0	Applicable for event 1A and 1B
Replacement activation threshold		0	Applicable for event 1C
Reporting deactivation threshold		0	Applicable for event 1A
Time to Trigger	ms	0	
Filter coefficient		0	
Monitored cell list size		32	
T1	s	10	
T2	s	1~~10~~	
T3	s	10~~5~~	
T4	s	4~~10~~	
T5	s	1	
T6	s	10	

Table A.8.4: Cell specific test parameters for Event triggered reporting of multiple neighbours in AWGN propagation condition

Parameter	Unit	Cell 1 T1	T2	T3	T4	T5	T6	Cell 2 T1	T2	T3	T4	T5	T6	Cell3 T1	T2	T3	T4	T5	T6
CPICH_Ec/Ior	dB	-10						-10						-10					
PCCPCH_Ec/Ior	dB	-12						-12						-12					
SCH_Ec/Ior	dB	-12						-12						-12					
PICH_Ec/Ior	dB	-15						-15						-15					
DPCH_Ec/Ior	dB	Note 1						N/A						N/A	Note 1			N/A	
OCNS_Ec/Ior	dB	Note 2						-0.941						-0.941	Note 2			-0.941	

		Cell 1 T1	T2	T3	T4	T5	T6	Cell 2 T1	T2	T3	T4	T5	T6	Cell3 T1	T2	T3	T4	T5	T6
$\hat{I}_{or}/I_{oc}$	dB	6.97		6.93	5.97		6.12	-Inf		9.43	6.97		7.62	5.97		6.93	-Inf		5.62
I_{oc}	dBm/3.84 MHz	-85																	
CPICH_Ec/Io	dB	-13		-16	-14		-15.5	-Inf		-13.5	-13		-14	-14		-16	-Inf		-16
Propagation Condition		AWGN																	

Note 1   The DPCH level is controlled by the power control loop
Note 2   The power of the OCNS channel that is added shall make the total power from the cell to be equal to I_or

The test shall be performed in the following way:

During time period T1:

The test is started at the beginning of T1 with cell 1 active.

UTRAN shall after   the Event 1A triggered measurement is reported send an Active Set Update command with activation time "start of T2" adding ~~cell 2~~ cell 3 to the active set.

The Active Set Update message shall be sent to the UE so that the whole message is available at the UE the RRC procedure delay prior to the beginning of T2.

During time period T4:

UTRAN shall after   the Event 1B triggered measurement is reported send an Active Set Update command with activation time "start of   T5" removing ~~cell 2~~ cell3 from the active set.

The Active Set Update message shall be sent to the UE so that the whole message is available at the UE the RRC procedure delay prior to the beginning of T5.

A.8.1.2.2   Test Requirements

a) The UE shall send one Event 1A triggered measurement report for Cell3, with a measurement reporting delay less than 800 ms from the beginning of time period T1.

b) The UE may send one Event 1C triggered measurement report for Cell3 after the beginning of the time period T1.

c) The UE shall send one Event 1C triggered measurement report for Cell2, with a measurement reporting delay less than 800 ms from the beginning of time period T3.

d) The UE shall send one Event 1A triggered measurement report for Cell2, with a measurement reporting delay less than 800 ms from the beginning of time period T3.

e) The UE shall send one Event 1B triggered measurement report for Cell3, with a measurement reporting delay less than 200 ms from the beginning of time period T4.

f) The UE shall send one Event 1A triggered measurement report for Cell3, with a measurement reporting delay less than 200 ms from the beginning of time period T6.

g) The UE may send one Event 1C triggered measurement report for Cell2 after the beginning of the time period T6.

h) The UE may send one Event 1C triggered measurement report for Cell3 after the beginning of the time period T6.

i) The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled.

The rate of correct events observed during repeated tests shall be at least 90%.

A.8.1.3 Event triggered reporting of two detectable neighbours in AWGN propagation condition

A.8.1.3.1 Test Purpose and Environment

The purpose of this test is to verify that the UE makes correct reporting of events. This test will partly verify the requirements in section 8.1.2 and 9.1.

The test parameters are given in Table A.8.5 and A.8.6. In the measurement control information it is indicated to the UE that event-triggered reporting with Event 1A and 1B shall be used and the periodical reporting of the events is not applied. The CPICH Ec/Io and SFN-CFN observed time difference shall be reported together with Event 1A. The test consists of ~~four~~ five successive time periods, with a time duration of T1, T2, T3, T4 and T5 respectively. In the initial condition before the time T1 only Cell1 is active.

Table A.8.5: General test parameters for Event triggered reporting of two detectable neighbours in AWGN propagation condition

Parameter	Unit	Value	Comment
DCH parameters		DL Reference Measurement Channel 12.2 kbps	As specified in TS 25.101 section A.3.1
Power Control		On	
Active cell		Cell 1	
Reporting range	dB	3	Applicable for event 1A and 1B
Hysteresis	dB	0	
W		~~1~~0	Applicable for event 1A and 1B
Reporting deactivation threshold		0	Applicable for event 1A
Time to Trigger	ms	0	
Filter coefficient		0	
Monitored cell list size		32	
T1	s	10	
T2	s	10	
T3	s	1	
T4	s	10	
T5	s	10	

Table A.8.6: Cell specific test parameters for Event triggered reporting of two detectable neighbours in AWGN propagation condition

Parameter	Unit	Cell 1					Cell 2					Cell3				
		T1	T2	T3	T4	T5	T1	T2	T3	T4	T5	T1	T2	T3	T4	T5
CPICH_Ec/Ior	dB			-10					-10					-10		
PCCPCH_Ec/Ior	dB			-12					-12					-12		
SCH_Ec/Ior	dB			-12					-12					-12		
PICH_Ec/Ior	dB			-15					-15					-15		
DPCH_Ec/Ior	dB			Note 1			N/A			Note 1				N/A		
OCNS_Ec/Ior	dB			Note 2			-0.941			Note 2				-0.941		
$\hat{I}_{or}/I_{oc}$	dB	14.55	28.51		14.45	28.51	-Inf	27.51		13.95	21.51	8.05	21.51		13.95	27.51
I_{oc}	dBm/ 3.84 MHz							-85								
CPICH_Ec/Io	dB	-11	-13		-14.5	-13	-Inf	-14.0		-15	-20	-17.5	-20		-15	-14
Propagation Condition								AWGN								

Note 1: The DPCH level is controlled by the power control loop
Note 2 : The power of the OCNS channel that is added shall make the total power from the cell to be equal to I_{or}

The test shall be performed in the following way:

During time period T1:

The test is started at the beginning of T1 with cell 1 active.

During time period T2:

UTRAN shall after the Event 1A triggered measurement is reported send an Active Set Update command with activation time "start of T3" adding cell 2 to the active set.

The Active Set Update message shall be sent to the UE so that the whole message is available at the UE the RRC procedure delay prior to the beginning of T3.

A.8.1.3.2 Test Requirements

a) The UE shall send one Event 1A triggered measurement report for Cell2, with a measurement reporting delay less than 800 ms from the beginning of time period T2.

b) The UE shall send one Event 1A triggered measurement report for Cell3, with a measurement reporting delay less than 200 ms from the beginning of time period T4.

c) The UE shall send one Event 1B triggered measurement report for Cell2, with a measurement reporting delay less than 200 ms from the beginning of time period T5.

d) The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled.

The rate of correct events observed during repeated tests shall be at least 90%.