TSG RAN Meeting #24   **RP-040190**
Seoul, Korea, 2 - 4 June 2004

Title   **CRs (Rel-4 and Rel-5/Rel-6 Category A) to TS 25.123 for correction of Test**
                                   case for SFN-SFN observed time difference type 2 for 3.84Mcps TDD
Source   **TSG RAN WG4**
Agenda Item   **7.5.4**

RAN4 Tdoc	Spec	CR	R	Cat	Rel	Curr Ver	Title	Work Item
R4-040236	25.123	340		F	Rel-4	4.12.0	Test case for SFN-SFN observed time difference type 2 for 3.84Mcps TDD	TEI4
R4-040237	25.123	341		A	Rel-5	5.8.0	Test case for SFN-SFN observed time difference type 2 for 3.84Mcps TDD	TEI4
R4-040238	25.123	342		A	Rel-6	6.1.0	Test case for SFN-SFN observed time difference type 2 for 3.84Mcps TDD	TEI4

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CHANGE REQUEST

⌘ **25.123** CR **340** ⌘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: ⌘	Test case for SFN-SFN observed time difference type 2 for 3.84Mcps TDD
Source: ⌘	RAN WG4
Work item code:⌘	TEI4

Date: ⌘ 24/05/2004

Category: ⌘ **F**

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.

Release: ⌘ Rel-4

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: ⌘	There is no test case specified for SFN-SFN observed time difference type 2 measurement for 3.84Mcps TDD UE at present, therefore UE measurement accuracy can't be guaranteed and UE's performance can't be assured to be proper.
Summary of change:⌘	3.48Mcps TDD test case for UE SFN-SFN observed time difference type 2 measurement is filled in 9.2.8.2.
Consequences if not approved: ⌘	The peformance requirement on the UE SFN-SFN observed time difference type 2 measurement can't be tested, so UE measurement accuracy can't be guaranteed and UE's performance can't be assured to be proper. **Isolated Impact Analysis:** This CR does not change UE performance requirements, it adds a test case to insure the existing requirements are met. This CR does not affect TDD UE's that meet the current performance requirements.

Clauses affected: ⌘	A.9.1.8.2

Other specs affected: ⌘	Y	N		⌘	
			Other core specifications	⌘	
	X		Test specifications		34.122
			O&M Specifications		

Other comments: ⌘	This CR is similar to the changes made at meeting #30 to 1.28Mcps TDD. (R4-040138) Equivalent CRs in other Releases: CR341 cat. A to 25.123 v5.8.0, CR342 cat. A to 25.123 v6.1.0

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.9.1.8.2 SFN-SFN observed time difference type 2

NOTE: ~~This section is included for consistency with numbering in section 9, currently no test covering requirements on SFN-SFN observed time difference type 2 in sections 9.1.1.8 exists.~~

A.9.1.8.2.1 Test Purpose and Environment

The purpose of this test is to verify that the SFN-SFN observed time difference type 2 measurement accuracy is within the specified limits. This test will verify the requirements in section 9.1.1.8.

Cell 1 and cell 2 shall be synchronised, i.e. share the same frame and timeslot timing. During the test, the timing difference between cell 1 and cell 2 can be set to any value from –1280 ... +1280 chip.

The DL DPCH shall be transmitted in timeslot 4 and the UL DPCH shall be transmitted in timeslot 12. The second Beacon timeslot shall be provided in timeslot 8 for cell 1 and in timeslot 10 for cell 2.

A.9.1.8.2.1.1 Intra frequency test parameters

In this case all cells are on the same frequency. The SFN-SFN observed time difference type 2 accuracy requirements in the intra-frequency case are tested by using test parameters in Table A.9.x.

Table A.9.x: SFN-SFN observed time difference type 2 Intra frequency test parameters

Parameter	Unit	Test 1		Test 2		Test 3	
		Cell 1	Cell 2	Cell 1	Cell 2	Cell 1	Cell 2
DL timeslot number		0	2	0	2	0	2
UTRA RF Channel number		Channel 1		Channel 1		Channel 1	
PCCPCH_Ec/Ior	dB	-3		-3		-3	
SCH_Ec/Ior	dB	-9		-9		-9	
SCH_t_{offset}		0	5	0	5	0	5
OCNS_Ec/Ior	dB	-3,12		-3,12		-3,12	
Ioc	dBm / 3.84 MHz	-75.2	-75.2	-57.8	-54.7	-98.7	-98.7
Îor/Ioc	dB	5	5	7	3	3	3
Io, Note 1	dBm / 3.84 MHz	-69		-50		-94	
Propagation condition		AWGN		AWGN		AWGN	
NOTE 1: Io levels have been calculated from other parameters for information purposes. They are not settable parameters themselves.							

A.9.1.8.2.1.2 Inter frequency test parameters

In this case both cells are on different frequencies. The SFN-SFN observed time difference type 2 accuracy requirements in the inter-frequency case are tested by using test parameters in Table A.9.y.

Table A.9.y: SFN-SFN observed time difference type 2 Inter frequency tests parameters

Parameter	Unit	Test 1		Test 2		Test 3	
		Cell 1	Cell 2	Cell 1	Cell 2	Cell 1	Cell 2
DL timeslot number		0	2	0	2	0	2
UTRA RF Channel number		Channel 1	Channel 2	Channel 1	Channel 2	Channel 1	Channel 2
PCCPCH_Ec/Ior	dB	-3		-3		-3	
SCH_Ec/Ior	dB	-9		-9		-9	
SCH_t_{offset}		0	5	0	5	0	5
OCNS_Ec/Ior	dB	-3,12		-3,12		-3,12	
Ioc	dBm / 3.84 MHz	-75.2	-75.2	-57.8	-54.7	-98.7	-98.7
Îor/Ioc	dB	5	5	7	3	3	3
Io, Note 1	dBm / 3.84 MHz	-69		-50		-94	
Propagation condition		AWGN		AWGN		AWGN	
NOTE 1: Io levels have been calculated from other parameters for information purposes. They are not settable parameters themselves.							

A.9.1.8.2.2 Test Requirements

The SFN-SFN observed time difference type 2 measurement accuracy shall meet the requirements in section 9.1.1.8.

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

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CHANGE REQUEST

⌘ **25.123** CR **341** ⌘rev ⌘ Current version: **5.8.0** ⌘

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

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

Title: ⌘	Test case for SFN-SFN observed time difference type 2 for 3.84Mcps TDD
Source: ⌘	RAN WG4
Work item code:⌘	TEI4 ***Date:*** ⌘ 24/05/2004
Category: ⌘	**A** ***Release:*** ⌘ Rel-5

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: ⌘	There is no test case specified for SFN-SFN observed time difference type 2 measurement for 3.84Mcps TDD UE at present, therefore UE measurement accuracy can't be guaranteed and UE's performance can't be assured to be proper.
Summary of change:⌘	3.48Mcps TDD test case for UE SFN-SFN observed time difference type 2 measurement is filled in 9.2.8.2.
Consequences if not approved: ⌘	The peformance requirement on the UE SFN-SFN observed time difference type 2 measurement can't be tested, so UE measurement accuracy can't be guaranteed and UE's performance can't be assured to be proper.

Clauses affected: ⌘	A.9.1.8.2

Other specs affected: ⌘	Y	N			
			Other core specifications	⌘	
	X		Test specifications		34.122
			O&M Specifications		

Other comments: ⌘	Equivalent CRs in other Releases: CR340 cat. F to 25.123 v4.12.0, CR342 cat. A to 25.123 v6.1.0

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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.

A.9.1.8.2   SFN-SFN observed time difference type 2

NOTE: ~~This section is included for consistency with numbering in section 9, currently no test covering requirements on SFN-SFN observed time difference type 2 in sections 9.1.1.8 exists.~~

A.9.1.8.2.1   Test Purpose and Environment

The purpose of this test is to verify that the SFN-SFN observed time difference type 2 measurement accuracy is within the specified limits. This test will verify the requirements in section 9.1.1.8.

Cell 1 and cell 2 shall be synchronised, i.e. share the same frame and timeslot timing. During the test, the timing difference between cell 1 and cell 2 can be set to any value from –1280 ... +1280 chip.

The DL DPCH shall be transmitted in timeslot 4 and the UL DPCH shall be transmitted in timeslot 12. The second Beacon timeslot shall be provided in timeslot 8 for cell 1 and in timeslot 10 for cell 2.

A.9.1.8.2.1.1   Intra frequency test parameters

In this case all cells are on the same frequency. The SFN-SFN observed time difference type 2 accuracy requirements in the intra-frequency case are tested by using test parameters in Table A.9.x.

Table A.9.x: SFN-SFN observed time difference type 2 Intra frequency test parameters

Parameter	Unit	Test 1		Test 2		Test 3	
		Cell 1	**Cell 2**	**Cell 1**	**Cell 2**	**Cell 1**	**Cell 2**
DL timeslot number		0	2	0	2	0	2
UTRA RF Channel number		Channel 1		Channel 1		Channel 1	
PCCPCH_Ec/Ior	dB	-3		-3		-3	
SCH_Ec/Ior	dB	-9		-9		-9	
SCH_t_{offset}		0	5	0	5	0	5
OCNS_Ec/Ior	dB	-3,12		-3,12		-3,12	
Ioc	dBm / 3.84 MHz	-75.2	-75.2	-57.8	-54.7	-98.7	-98.7
Îor/Ioc	dB	5	5	7	3	3	3
Io, Note 1	dBm / 3.84 MHz	-69		-50		-94	
Propagation condition		AWGN		AWGN		AWGN	
NOTE 1: Io levels have been calculated from other parameters for information purposes. They are not settable parameters themselves.							

A.9.1.8.2.1.2   Inter frequency test parameters

In this case both cells are on different frequencies. The SFN-SFN observed time difference type 2 accuracy requirements in the inter-frequency case are tested by using test parameters in Table A.9.y.

Table A.9.y: SFN-SFN observed time difference type 2 Inter frequency tests parameters

Parameter	Unit	Test 1		Test 2		Test 3	
		Cell 1	Cell 2	Cell 1	Cell 2	Cell 1	Cell 2
DL timeslot number		0	2	0	2	0	2
UTRA RF Channel number		Channel 1	Channel 2	Channel 1	Channel 2	Channel 1	Channel 2
PCCPCH_Ec/Ior	dB	-3		-3		-3	
SCH_Ec/Ior	dB	-9		-9		-9	
SCH_t_{offset}		0	5	0	5	0	5
OCNS_Ec/Ior	dB	-3,12		-3,12		-3,12	
Ioc	dBm / 3.84 MHz	-75.2	-75.2	-57.8	-54.7	-98.7	-98.7
Îor/Ioc	dB	5	5	7	3	3	3
Io, Note 1	dBm / 3.84 MHz	-69		-50		-94	
Propagation condition		AWGN		AWGN		AWGN	
NOTE 1: Io levels have been calculated from other parameters for information purposes. They are not settable parameters themselves.							

A.9.1.8.2.2   Test Requirements

The SFN-SFN observed time difference type 2 measurement accuracy shall meet the requirements in section 9.1.1.8.

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

CR-Form-v7

CHANGE REQUEST

⌘ **25.123** CR **342** ⌘rev ⌘ Current version: **6.1.0** ⌘

*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: ⌘	Test case for SFN-SFN observed time difference type 2 for 3.84Mcps TDD
Source: ⌘	RAN WG4

Work item code:⌘	TEI4	***Date:*** ⌘	24/05/2004

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)*
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Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change: ⌘	There is no test case specified for SFN-SFN observed time difference type 2 measurement for 3.84Mcps TDD UE at present, therefore UE measurement accuracy can't be guaranteed and UE's performance can't be assured to be proper.
Summary of change:⌘	3.48Mcps TDD test case for UE SFN-SFN observed time difference type 2 measurement is filled in 9.2.8.2.
Consequences if not approved: ⌘	The peformance requirement on the UE SFN-SFN observed time difference type 2 measurement can't be tested, so UE measurement accuracy can't be guaranteed and UE's performance can't be assured to be proper.

Clauses affected: ⌘	A.9.1.8.2

	Y	N		
Other specs affected: ⌘			Other core specifications ⌘	
	X		Test specifications	34.122
			O&M Specifications	

Other comments: ⌘	Equivalent CRs in other Releases: CR340 cat. F to 25.123 v4.12.0, CR341 cat. A to 25.123 v5.8.0

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A.9.1.8.2   SFN-SFN observed time difference type 2

NOTE: ~~This section is included for consistency with numbering in section 9, currently no test covering requirements on SFN-SFN observed time difference type 2 in sections 9.1.1.8 exists.~~

A.9.1.8.2.1   Test Purpose and Environment

The purpose of this test is to verify that the SFN-SFN observed time difference type 2 measurement accuracy is within the specified limits. This test will verify the requirements in section 9.1.1.8.

Cell 1 and cell 2 shall be synchronised, i.e. share the same frame and timeslot timing. During the test, the timing difference between cell 1 and cell 2 can be set to any value from –1280 ... +1280 chip.

The DL DPCH shall be transmitted in timeslot 4 and the UL DPCH shall be transmitted in timeslot 12. The second Beacon timeslot shall be provided in timeslot 8 for cell 1 and in timeslot 10 for cell 2.

A.9.1.8.2.1.1   Intra frequency test parameters

In this case all cells are on the same frequency. The SFN-SFN observed time difference type 2 accuracy requirements in the intra-frequency case are tested by using test parameters in Table A.9.x.

Table A.9.x: SFN-SFN observed time difference type 2 Intra frequency test parameters

Parameter	Unit	Test 1		Test 2		Test 3	
		Cell 1	Cell 2	Cell 1	Cell 2	Cell 1	Cell 2
DL timeslot number		0	2	0	2	0	2
UTRA RF Channel number		Channel 1		Channel 1		Channel 1	
PCCPCH_Ec/Ior	dB	-3		-3		-3	
SCH_Ec/Ior	dB	-9		-9		-9	
SCH_t_{offset}		0	5	0	5	0	5
OCNS_Ec/Ior	dB	-3,12		-3,12		-3,12	
Ioc	dBm / 3.84 MHz	-75.2	-75.2	-57.8	-54.7	-98.7	-98.7
Îor/Ioc	dB	5	5	7	3	3	3
Io, Note 1	dBm / 3.84 MHz	-69		-50		-94	
Propagation condition		AWGN		AWGN		AWGN	
NOTE 1: Io levels have been calculated from other parameters for information purposes. They are not settable parameters themselves.							

A.9.1.8.2.1.2   Inter frequency test parameters

In this case both cells are on different frequencies. The SFN-SFN observed time difference type 2 accuracy requirements in the inter-frequency case are tested by using test parameters in Table A.9.y.

Table A.9.y: SFN-SFN observed time difference type 2 Inter frequency tests parameters

Parameter	Unit	Test 1		Test 2		Test 3	
		Cell 1	Cell 2	Cell 1	Cell 2	Cell 1	Cell 2
DL timeslot number		0	2	0	2	0	2
UTRA RF Channel number		Channel 1	Channel 2	Channel 1	Channel 2	Channel 1	Channel 2
PCCPCH_Ec/Ior	dB	-3		-3		-3	
SCH_Ec/Ior	dB	-9		-9		-9	
SCH_t$_{offset}$		0	5	0	5	0	5
OCNS_Ec/Ior	dB	-3,12		-3,12		-3,12	
Ioc	dBm / 3.84 MHz	-75.2	-75.2	-57.8	-54.7	-98.7	-98.7
Îor/Ioc	dB	5	5	7	3	3	3
Io, Note 1	dBm / 3.84 MHz	-69		-50		-94	
Propagation condition		AWGN		AWGN		AWGN	
NOTE 1: Io levels have been calculated from other parameters for information purposes. They are not settable parameters themselves.							

A.9.1.8.2.2   Test Requirements

The SFN-SFN observed time difference type 2 measurement accuracy shall meet the requirements in section 9.1.1.8.

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