Title: **Proposed CRs (R99 and Rel-4 Category A) to TS 25.214 on Qth threshold parameter in SSDT**

Source: **Fujitsu, NEC**

Agenda item: **7.1.3**

No.	Spec	CR	Rev	Subject	Release	Cat	Workitem	V_old	V_new
1	25.214	230	3	Qth threshold parameter in SSDT	R99	F	TEI	3.9.0	3.10.0
2	25.214	231	3	Qth threshold parameter in SSDT	Rel-4	A	TEI	4.3.0	4.4.0

CR-Form-v5

CHANGE REQUEST

| ⌘ | **25.214** CR **230** | ⌘ **rev** | **3** | ⌘ | Current version: | **3.9.0** | ⌘ |

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

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

Title: ⌘	Qth threshold parameter in SSDT	
Source: ⌘	NEC, Fujitsu	
Work item code: ⌘	TEI	***Date:*** ⌘ 08.03.2002
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)

Reason for change: ⌘	The current UTRAN Specifications and Physical Layer Specifications appear to be mis-aligned concerning Q_{th} parameter in SSDT. Physical Layer Specifications define Qth parameter as a parameter that is controlled by UTRAN, however in UTRAN Specifications the Qth is not supported over the Iub/Iur. This is so because, RAN3 had decided that Qth is an OAM parameter.

In addition, the physical quantity that is compared with the Qth threshold parameter is not fully defined. This is needed to ensure consistent UTRAN behaviour where there are NodeBs from multiple vendors. |
| ***Summary of change:*** ⌘ | In section 5.2.1.4.4 text implying that the Q_{th} parameter is controlled by UTRAN is removed. Qth threshold parameter is removed. As a result, in this version of the specifications, UTRAN support for SSDT is limited to long length cell ID code. |
| ***Consequences if not approved:*** ⌘ | Ambiguous definition of Qth parameter is remains in the specifications. |

Clauses affected: ⌘	5.2.1.4.4
Other specs affected: ⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments: ⌘	Isolated impact: This CR will not impact the use of any other R99 feature besides SSDT operation.

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.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.

5.2.1.4.4   Delivery of primary cell ID

For this version of the specification, only long length cell ID code is supported for SSDT in UTRAN.

The UE periodically sends the ID code of the primary cell via portion of the uplink FBI field assigned for SSDT use (FBI S field). A cell recognises its state as non-primary if the following conditions are fulfilled simultaneously:

-    The received ID code does not match with the own ID code.

-    ~~The received uplink signal quality satisfies a quality threshold, Qth a parameter defined by the network~~.

-    If uplink compressed mode is used, and less than $\lfloor N_{ID}/3 \rfloor$ bits are lost from the ID code (as a result of uplink compressed mode), where N_{ID} is the number of bits in the ID code (after puncturing according to clause 5.2.1.4.1.1, if puncturing has been done).

Otherwise the cell recognises its state as primary.

The state of the cells (primary or non-primary) in the active set is updated synchronously. If a cell receives the last portion of the coded ID in uplink slot j, the state of cell is updated in downlink slot $(j+1+T_{os})$ mod 15, where T_{os} is defined as a constant of 2 time slots. The updating of the cell state is not influenced by the operation of downlink compressed mode.

At the UE, the primary ID code to be sent to the cells is segmented into a number of portions. These portions are distributed in the uplink FBI S-field. The cell in SSDT collects the distributed portions of the primary ID code and then detects the transmitted ID. The period of the primary cell update depends on the settings of the code length and the number of FBI bits assigned for SSDT use as shown in table 5.

Table 5: Period of primary cell update

code length	The number of FBI bits per slot assigned for SSDT	
	1	2
"long"	1 update per frame	2 updates per frame
"medium"	2 updates per frame	4 updates per frame
"short"	3 updates per frame	5 updates per frame

CR-Form-v5

CHANGE REQUEST

| ⌘ | **25.214** CR **231** | ⌘**rev** **3** | ⌘ | Current version: | **4.3.0** | ⌘ |

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

Title: ⌘	Qth threshold parameter in SSDT	
Source: ⌘	NEC, Fujitsu	
Work item code: ⌘	TEI	***Date:*** ⌘ 08.03.2002
Category: ⌘ **A**		***Release:*** ⌘ REL-4

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Clauses affected: ⌘	5.2.1.4.4
Other specs affected: ⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments: ⌘	Isolated impact: This CR will not impact the use of any other Rel-4 feature besides SSDT and DSCH operation.

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