3GPP TSG-RAN WG1#8
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Agenda Item: Adhoc 16 (Adhoc 8 for information)

Source: Nokia

Title: Additions to TS 25.215 to support FDD/GSM multimode UEs

Document for: Approval

1. Introduction

In last WG1 meeting no. 7bis in Korea the structure of TS 25.215 was modified and the section 7, explaining - among other items - the measurements preparing a handover to GSM, was removed.

In order to support FDD/GSM and FDD/TDD/GSM multimode UEs, the necessary measurements need to be included in this specification.

Further, it should be clarified that GSM measurements are only needed in multimode UEs.

For this proposal, we have kept the current section structuring of 25.215 and leave it to the editor whether GSM measurements are moved later to an own subsection.

In section 6, the newly introduced Power Resume Mode is added to the required compressed mode parameters.

2. Text proposal to S25.215

----- start of text proposal for section 5 -----

5.1.6 GSM carrier RSSI

This measurement ability is needed only for FDD/GSM dualmode UEs.

[…]

5.1.15 Observed time difference to GSM target cell

This measurement ability is needed only for FDD/GSM dualmode UEs.

Definition	Time difference in the frame timing between the serving FDD cell and the frame timing of the GSM target cell, measured on the BCCH of the GSM cell.
Applicable for	Idle mode, Connected Inter
Range/mapping	

Note that the required synchronization to GSM requires appropriate compressed mode patterns, examples are provided in Annex A.2.3.

5.1.16 GSM BSIC reconfirmation

This measurement ability is needed only for FDD/GSM dualmode UEs.

Definition	Reconfirmation of the BSIC of a monitored GSM cell, typically by decoding the SCH of the GSM BCCH.
Applicable for	Idle mode, Connected Inter
Range/mapping	

Note that this measurement requires appropriate compressed mode patterns, examples are provided in Annex A.2.3.

----- end of text proposal for section 5 -----

----- start of text proposal for section 6 -----

6.1.1.2 Parameterisation of the compressed mode

In response to a request from upper layers, the UTRAN shall signal to the UE the compressed mode parameters.

The following parameters characterize a transmission gap :

- TGL : Transmission Gap Length is the duration of no transmission, expressed in number of slots (e.g. used for switching frequency, monitoring).
- SFN : The system frame number when the transmission gap starts
- SN : The slot number when the transmission gap starts

With this definition, it is possible to have a flexible position of the transmission gap in the frame, as defined in [2].

The following parameters characterize a compressed mode pattern :
- TGP : Transmission Gap Period is the period of repetition of a set of consecutive frames containing up to 2 transmission gaps (*).
- TGL : As defined above
- TGD : Transmission Gap Distance is the duration of transmission between two consecutive transmission gaps within a transmission gap period, expressed in number of frames. In case there is only one transmission gap in the transmission gap period, this parameter shall be set to zero.
- PD: Pattern duration is the total time of all TGPs expressed in number of frames.
- SFN : The system frame number when the first transmission gap starts
- PCM: Power Control Mode specifies the uplink power control algorithm applied during recovery period after each transmission gap in compressed mode. PCM can take 2 values (0 or 1). The different power control modes are described in TS 25.214.
- PRM: Power Resume Mode chooses the algorithm to calculate the initial transmit power after the gap. PRM can take two values (0 or 1) and is described in 25.214.

In a compressed mode pattern, the first transmission gap starts in the first frame of the pattern. The gaps have a fixed position in the frames, and start in the slot position defined in [2].

----- end of text proposal for section 6 -----