0 TSG-RAN RP-990139

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Agenda Item: Baseband key characteristics

Source: TTA

Title: TTA's view on Baseband key characteristics

Document for:

1 Introduction

In Turin and Yokohama meeting, progress was made in listing the definitions and values of the key characteristics. This contribution addresses modifications in Baseband key characteristics. Different point of views from 3GPP result should be respected because 3GPP had too short time to align every point of view.

2 Different points from 3GPP

2.1 Item 9 (Random Access) in Baseband Key characteristic table

The value in Random Access was defined as "Random Access mechanism with power ramping on preamble followed by message". However when we consider the "Acquisition indication" is one of the main merits in AiSMA, this should be stressed. Since AiSMA is one of the successful harmonization examples in 3GPP, we, TTA, believe that AiSMA (Acquisition indication based Random Access mechanism with power ramping on preamble followed by message) is strongly recommended as a value of Random Access.

2.2 Item 10 Modulation

The value defined in modulation was categorized as data modulation and spreading modulation. However there is no clear functional explanation on them. Therefore explanation on them is proposed as a note in definition part.

Modulation can be categorized as Data modulation and Spreading modulation. Data modulation explains how data can be mapped to the In-Phase branch and Quadrature-Phase branch. Spreading modulation explains how In-Phase branch data and Quadrature-Phase branch data are spread by channelization code and scrambled by scrambling code.

This was discussed in modulation group in Malaysia, thereby the value was defined as such. We, TTA, propose to follow the result made in Malaysia WG5 meeting. Especially, uplink spreading modulation is not dual channel QPSK. Data modulation is defined as dual channel QPSK as in 3GPP document (S1.13, V0.0.3). From this point of view, more attention should be given to UK contribution to Malaysia meeting.

Therefore the value should be defined as follows:

FDD:

Data modulation: UL dual-channel QPSK DL QPSK

Spreading modulation: UL HPSK, DL OPSK