3GPP TSG RAN WG1 #104-e Meeting R1-2102045

e-Meeting, January 25th – February 5th, 2021

Title: [Draft] LS on maximum data rate for NR sidelink

Release: Rel-16

Work Item: 5G\_V2X\_NRSL-Core

Source: RAN1

To: RAN2

Cc:

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Attachments: -

**1. Overall Description:**

In RAN1#104-e, RAN1 reached the agreements for the overhead values in the SL maximum data rate for NR sidelink defined in TS38.306.

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| Agreements:   * The following value, OH, are used for the calculation of SL max data rate.   + 0.25 for FR2 in SL   Agreements:   * The following value, OH, are used for the calculation of SL max data rate.   + 0.217 for FR1 in SL |

From the above agreements and from identification of an IE naming error, RAN1 suggest the following changes.

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| 4.1.5 Supported max data rate for SL For NR sidelink, the approximate data rate is computed as follows.  wherein  Rmax = 948/1024,  is the the maximum number of supported layers for sidelink transmission (or reception) given by UE capability on supporting rank 2 PSSCH transmission and higher layer parameter *rankTwoReception*,  is the maximum supported modulation order between 6 or 8 given by higher layer parameter *sl-Tx-256QAM* and *sl-Rx-256QAM*,  is the scaling factor for sidelink transmission and reception given by higher layer parameter *scalingFactorTxSidelink* and *scalingFactorRxSidelink* respectively, as specified in TS 36.331 [17] and TS 38.331 [9], and can take the values 1, 0.8, 0.75, and 0.4.  is the numerology (as defined in TS 38.211 [6])  is the average OFDM symbol duration in a subframe for numerology , i.e. . Note that normal cyclic prefix is assumed.  is the maximum possible RB allocation in bandwidth BW for PSSCH, where BW is the UE supported maximum bandwidth in the given band or band combination,  is the overhead and takes the following values  0.217, for frequency range FR1 for SL  0.25, for frequency range FR2 for SL |

**2. Actions:**

**To RAN2**

RAN1 respectfully asks RAN2 to implement the above RAN1 agreements in TS 38.306 considering the suggested changes.

**3. Date of Next Meetings:**

TSG-RAN WG1 Meeting #104-bis-e April 12 – 20, 2021 e-meeting

TSG-RAN WG1 Meeting #105-e May 19 – 27, 2021 e-meeting