**3GPP TSG-RAN WG4 Meeting#98-bis-e R4-2106600**

**E-meeting,12th April– 20th April, 2021**

**Agenda item: 5.3.2.4.2**

**Source: ZTE Corporation**

**Title: TP to TS 38.176-2: RX IMD requirements**

**Document for:** **Approval**

1. Introduction

In the past RAN4#98e meetings, work split has been agreed among companies, therefore in this contribution, we want to share the draft TP for section 7.8 Rx IMD requirements test for further discussion.

1. Reference

[1] R4-2103856,WF on IAB conformance specification work split and drafting guidelines, approved.

1. Annex

## <Start of TP>

## 7.8 OTA receiver intermodulation

### 7.8.1 Definition and applicability

Third and higher order mixing of the two interfering RF signals can produce an interfering signal in the band of the desired channel. Intermodulation response rejection is a measure of the capability of the receiver unit to receive a wanted signal on its assigned channel frequency in the presence of two interfering signals which have a specific frequency relationship to the wanted signal. The requirement is defined as a directional requirement at the *RIB*.

The wanted and interfering signals apply to each supported polarization, under the assumption of *polarization match*.

### 7.8.2 Minimum requirement

The minimum requirements for *IAB-DU type 1-O* are in TS 38.174 [2], clause 10.8.2.

The minimum requirements for *IAB-DU type 2-O* are in TS 38.174 [2], clause 10.8.3.

### The minimum requirements for *IAB-MT type 1-O* are in TS 38.174 [2], clause 10.8.4.7.8.3 Test purpose

The test purpose is to verify the ability of the IAB receiver to inhibit the generation of intermodulation products in its non-linear elements caused by the presence of two high-level interfering signals at frequencies with a specific relationship to the frequency of the wanted signal.

### 7.8.4 Method of test

#### 7.8.4.1 Initial conditions

Test environment: Normal, annex B.2.

RF channels to be tested for single carrier: M; see clause 4.9.1.

*IAB RF Bandwidth* positions to be tested for multi-carrier and/or CA:

- MRFBW for single-band operation, see clause 4.9.1.

- BRFBW\_T'RFBW and B'RFBW\_TRFBW for multi-band operation, see clause 4.9.1.

Directions to be tested:

- OTA REFSENS receiver target reference direction (D.54).

- In addition, for *IAB type 1-O*, receiver target reference direction (D.31).

#### 7.8.4.2 Procedure

1) Place the IAB with its manufacturer declared coordinate system reference point in the same place as calibrated point in the test system, as shown in annex E.2.6.

2) Align the manufacturer declared coordinate system orientation of the IAB with the test system.

3) Align the IAB with the test antenna in the declared direction to be tested.

4) Align the IAB to that the wanted signal and interferer signal is *polarization matched* with the test antenna(s).

5) Configure the beam peak direction of the IAB according to declared reference beam direction pair for the appropriate beam identifier.

6) Set the IAB to transmit the beam(s) of the same operational band as the *OTA REFSENS RoAoA* or OSDD being tested according to the appropriate test configuration in clauses 4.7 and 4.8.

7) Set the test signal mean power so the calibrated radiated power at the IAB Antenna Array coordinate system reference point is as specified as follows:

a) Set the signal generator for the wanted signal to transmit as specified in sub-clause 7.8.5.1 for IAB-DU type 1-O, sub-clause 7.8.5.2 for IAB-DU type 2-O and sub-clause 7.8.5.3 for IAB-MT type 1-O.

b) Set the signal generator for the interfering signal at the same frequency as the wanted signal to transmit as specified in sub-clause 7.8.5.1 for IAB-DU type 1-O, sub-clause 7.8.5.2 for IAB-DU type 2-O and sub-clause 7.8.5.3 for IAB-MT type 1-O.

8) Set the signal generator for the interfering signal to transmit at the frequency offset and as specified in sub-clause 7.8.5.1 for IAB-DU type 1-O, sub-clause 7.8.5.2 for IAB-DU type 2-O and sub-clause 7.8.5.3 for IAB-MT type 1-O.

9) Measure the throughput according to annex A.1 for each supported polarization, for multi-carrier and/or CA operation the throughput shall be measured for relevant carriers specified by the test configuration specified in clause 4.7.

10) Repeat for all the specified measurement directions and supported polarizations.

In addition, for *multi-band RIB(s)*, the following steps shall apply:

11) For *multi-band RIBs* and single band tests, repeat the steps above per involved band where single band test configurations and test models shall apply with no carrier activated in the other band.

### 7.8.5 Test requirement

#### 7.8.5.1 *IAB-DU type 1-O*

The requirement shall apply at the RIB when the AoA of the incident wave of a received signal and the interfering signal are from the same direction, and:

- when the wanted signal is based on EISREFSENS: the AoA of the incident wave of a received signal and the interfering signal are within the *FR1 OTA REFSENS RoAoA.*

- when the wanted signal is based on EISminSENS: the AoA of the incident wave of a received signal and the interfering signal are within the *minSENS RoAoA*.

The throughputshall be ≥ 95% of the maximum throughput of the reference measurement channel, with a wanted signal at the assigned channel frequency and two interfering signals at the RIB with the conditions specified in tables 7.8.5.1-1 and 7.8.5.1-2 for intermodulation performance and in tables 7.8.5.1-3 and 7.8.5.1-4 for narrowband intermodulation performance.

The reference measurement channel for the wanted signal is identified in table 7.3.5.2-1, table 7.3.5.2-2 and table 7.3.5.2-3 for each *IAB-DU channel bandwidth* and further specified in annex A.1.

The subcarrier spacing for the modulated interfering signal shall be the same as the subcarrier spacing for the wanted signal, except for the case of wanted signal subcarrier spacing 60 kHz and *IAB-DU channel bandwidth* ≤ 20 MHz, for which the subcarrier spacing of the interfering signal should be 30 kHz.

The receiver intermodulation requirement is applicable outside the IAB-DU RF Bandwidth or Radio Bandwidth edges. The interfering signal offset is defined relative to the IAB-DU RF Bandwidth edges or Radio Bandwidth edges.

For a RIBs supporting operation in non-contiguous spectrum within any *operating band*, the narrowband intermodulation requirement shall apply in addition inside any sub-block gap in case the sub-block gap is at least as wide as the *IAB-DU channel bandwidth* of the NR interfering signal in tables 7.8.5.1-2 and 7.8.5.1-4. The interfering signal offset is defined relative to the sub-block edges inside the sub-block gap.

For *multi-band RIBs*, the intermodulation requirement shall apply in addition inside any Inter RF Bandwidth gap, in case the gap size is at least twice as wide as the NR interfering signal centre frequency offset from the IAB-DU RF Bandwidth edge.

For *multi-band RIBs*, the narrowband intermodulation requirement shall apply in addition inside any Inter RF Bandwidth gap in case the gap size is at least as wide as the NR interfering signal in tables 7.8.5.1-2 and 7.8.5.1-4. The interfering signal offset is defined relative to the IAB-DU RF Bandwidth edges inside the Inter RF Bandwidth gap.

Table 7.8.5.1-1: General intermodulation requirement

|  |  |  |  |
| --- | --- | --- | --- |
| IAB-DU class | Wanted Signal mean power (dBm) | Mean power of interfering signals (dBm) | Type of interfering signal |
| Wide Area  | EISREFSENS + 6 dB | -52 - ΔOTAREFSENS | See table 7.8.5.1-2 |
|  | EISminSENS + 6 dB | -52 - ΔminSENS |  |
| Medium Range  | EISREFSENS + 6 dB | -47 - ΔOTAREFSENS |  |
|  | EISminSENS + 6 dB | -47 - ΔminSENS |  |
| Local Area  | EISREFSENS + 6 dB | -44 - ΔOTAREFSENS |  |
|  | EISminSENS + 6 dB | -44 - ΔminSENS |  |
| NOTE: EISREFSENS and EISminSENS depend on the IAB-DU class and on the IAB-DU *channel bandwidth* as specified in TS 38.174 [x], clause 10.2.1.1 and 10.3.2.1.  |

Table 7.8.5.1-2: Interfering signals for intermodulation requirement

|  |  |  |
| --- | --- | --- |
| *IAB-DU channel bandwidth* of the lowest/highest carrier received (MHz) | Interfering signal centre frequency offset from the lower/upper IAB-DU RF Bandwidth edge (MHz) | Type of interfering signal (Note 3) |
| 5 | ±7.5 | CW |
|  | ±17.5 | 5MHz DFT-s-OFDM NR signal (Note 1) |
| 10 | ±7.465 | CW |
|  | ±17.5 | 5MHz DFT-s-OFDM NR signal (Note 1) |
| 15 | ±7.43 | CW |
|  | ±17.5 | 5MHz DFT-s-OFDM NR signal (Note 1) |
| 20 | ±7.395 | CW |
|  | ±17.5 | 5MHz DFT-s-OFDM NR signal (Note 1) |
| 25 | ±7.465 | CW |
|  | ±25 | 20 MHz DFT-s-OFDM NR signal (Note 2) |
| 30 | ±7.43 | CW |
|  | ±25 | 20MHz DFT-s-OFDM NR signal (Note 2) |
| 40 | ±7.45 | CW |
|  | ±25 | 20MHz DFT-s-OFDM NR signal (Note 2) |
| 50 | ±7.35 | CW |
|  | ±25 | 20MHz DFT-s-OFDM NR signal (Note 2) |
| 60 | ±7.49 | CW |
|  | ±25 | 20MHz DFT-s-OFDM NR signal (Note 2) |
| 70 | ±7.42 | CW |
|  | ±25 | 20 MHz DFT-s-OFDM NR signal (Note 2) |
| 80 | ±7.44 | CW |
|  | ±25 | 20MHz DFT-s-OFDM NR signal (Note 2) |
| 90 | ±7.46 | CW |
|  | ±25 | 20 MHz DFT-s-OFDM NR signal (Note 2) |
| 100 | ±7.48 | CW |
|  | ±25 | 20MHz DFT-s-OFDM NR signal (Note 2) |
| NOTE 1: For the 15 kHz subcarrier spacing, the number of RB is 25. For the 30 kHz subcarrier spacing, the number of RB is 10.NOTE 2: For the 15 kHz subcarrier spacing, the number of RB is 100. For the 30 kHz subcarrier spacing, the number of RB is 50. For the 60 kHz subcarrier spacing, the number of RB is 24.NOTE 3: The RBs shall be placed adjacent to the transmission bandwidth configuration edge which is closer to the *IAB-DU RF Bandwidth* edge. |

Table 7.8.5.1-3: Narrowband intermodulation performance requirement in FR1

|  |  |  |  |
| --- | --- | --- | --- |
| IAB-DU class | Wanted signal mean power (dBm) | Interfering signal mean power (dBm) | Type of interfering signal |
| Wide Area  | EISREFSENS + 6 dB (Note 1) | -52 - ΔOTAREFSENS | See table 7.8.5.1-4 |
|  | EISminSENS + 6 dB (Note 1) | -52 - ΔminSENS |  |
| Medium Range  | EISREFSENS + 6 dB (Note 1) | -47 - ΔOTAREFSENS |  |
|  | EISminSENS + 6 dB (Note 1) | -47 - ΔminSENS |  |
| Local Area | EISREFSENS + 6 dB (Note 1) | -44 - ΔOTAREFSENS |  |
|  | EISminSENS + 6 dB (Note 1) | -44 - ΔminSENS |  |
| NOTE: EISREFSENS and EISminSENS depends on the *BS channel bandwidth* as specified in TS 38.174 [x], clause 10.2.1.1 and 10.3.2.1.  |

Table 7.8.5.1-4: Interfering signals for narrowband intermodulation requirement in FR1

|  |  |  |
| --- | --- | --- |
| *IAB-DU channel bandwidth* of the lowest/highest carrier received (MHz) | Interfering RB centre frequency offset from the lower/upper IAB-DU RF Bandwidth edge or sub-block edge inside a sub-block gap (kHz) (Note 3) | Type of interfering signal |
| 5 | ±360 | CW |
|  | ±1420 | 5MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 10 | ±370 | CW |
|  | ±1960 | 5MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 15 (NOTE 2) | ±380 | CW |
|  | ±1960 | 5MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 20 (NOTE 2) | ±390 | CW |
|  | ±2320 | 5MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 25 (NOTE 2) | ±325 | CW |
|  | ±2350 | 20MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 30 (NOTE 2) | ±335 | CW |
|  | ±2350 | 20MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 40 (NOTE 2) | ±355 | CW |
|  | ±2710 | 20MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 50 (NOTE 2) | ±375 | CW |
|  | ±2710 | 20MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 60 (NOTE 2) | ±395 | CW |
|  | ±2710 | 20MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 70 (NOTE 2) | ±415 | CW |
|  | ±2710 | 20MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 80 (NOTE 2) | ±435 | CW |
|  | ±2710 | 20MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 90 (NOTE 2) | ±365 | CW |
|  | ±2530 | 20MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| 100 (NOTE 2) | ±385 | CW |
|  | ±2530 | 20MHz DFT-s-OFDM NR signal, 1 RB (NOTE 1) |
| NOTE 1: Interfering signal consisting of one resource block positioned at the stated offset, the *IAB-DU channel bandwidth* of the interfering signal is located adjacently to the lower/upper IAB-DU RF Bandwidth edge.NOTE 2: This requirement shall apply only for a G-FRC mapped to the frequency range at the channel edge adjacent to the interfering signals.NOTE 3: The centre of the interfering RB refers to the frequency location between the two central subcarriers. |

#### 7.8.5.2 *IAB-DU type 2-O*

Throughputshall be ≥ 95% of the maximum throughput of the reference measurement channel, with OTA wanted signal at the assigned channel frequency and two OTA interfering signals provided at the RIB using the parameters in tables 7.8.5.2-1 and 7.8.5.2-2. All of the OTA test signals arrive from the same direction, and the requirement is valid if the signals arrive from any direction within the *FR2 OTA REFSENS RoAoA*. The reference measurement channel for the wanted signal is identified in table 7.3.5.3-1 for each *IAB-DU channel bandwidth* and further specified in annex A.1.

The subcarrier spacing for the modulated interfering signal shall be the same as the subcarrier spacing for the wanted signal.

The receiver intermodulation requirement is applicable outside the IAB-DU RF Bandwidth. The interfering signal offset is defined relative to the IAB-DU RF Bandwidth edges.

Table 7.8.5.2-1: General intermodulation requirement

|  |  |  |  |
| --- | --- | --- | --- |
| *IAB-DU channel bandwidth* of the lowest/highest carrier received (MHz) | Mean power of interfering signals (dBm) | Wanted signal mean power (dBm) | Type of interfering signal |
| 50, 100, 200, 400 | EISREFSENS\_50M + 25 + ΔFR2\_REFSENS dB | EISREFSENS + 6dB | See table 7.8.5.2-2 |
| NOTE: EISREFSENS and EISREFSENS\_50M are given in TS 38.174 [xx], clause 10.3.2.2. |

Table 7.8.5.2-2: Interfering signals for intermodulation requirement

|  |  |  |
| --- | --- | --- |
| *IAB-DU channel bandwidth* of the lowest/highest carrier received (MHz) | Interfering signal centre frequency offset from the IAB-DU RF Bandwidth edge (MHz) | Type of interfering signal |
| 50 MHz | ±7.5 | CW |
|  | ±40 | 50MHz DFT-s-OFDM NR signal(Note) |
| 100 MHz | ±6.88 | CW |
|  | ±40 | 50MHz DFT-s-OFDM NR signal(Note) |
| 200 MHz | ±5.64 | CW |
|  | ±40 | 50MHz DFT-s-OFDM NR signal(Note) |
| 400 MHz | ±6.02 | CW |
|  | ±45 | 50MHz DFT-s-OFDM NR signal(Note) |
| NOTE: For the 60 kHz subcarrier spacing, the number of RB is 64. For the 120 kHz subcarrier spacing, the number of RB is 32. |

#### 7.8.5.3 *IAB-MT type 1-O*

The requirement shall apply at the RIB when the AoA of the incident wave of a received signal and the interfering signal are from the same direction, and:

- when the wanted signal is based on EISREFSENS: the AoA of the incident wave of a received signal and the interfering signal are within the *FR1 OTA REFSENS RoAoA.*

- when the wanted signal is based on EISminSENS: the AoA of the incident wave of a received signal and the interfering signal are within the *minSENS RoAoA*.

The throughputshall be ≥ 95% of the maximum throughput of the reference measurement channel, with a wanted signal at the assigned channel frequency and two interfering signals at the RIB with the conditions specified in tables 7.8.5.3-1 and 7.8.5.3-2 for intermodulation performance and in tables 7.8.5.3-3 and 7.8.5.3-4 for narrowband intermodulation performance.

The reference measurement channel for the wanted signal is identified in table 7.3.5.2-1, table 7.3.5.2-2 and table 7.3.5.2-3 for each *IAB-MT channel bandwidth* and further specified in annex A.1.

The subcarrier spacing for the modulated interfering signal shall be the same as the subcarrier spacing for the wanted signal, except for the case of wanted signal subcarrier spacing 60 kHz and *IAB-MT channel bandwidth* ≤ 20 MHz, for which the subcarrier spacing of the interfering signal should be 30 kHz.

The receiver intermodulation requirement is applicable outside the IAB-MT RF Bandwidth or Radio Bandwidth edges. The interfering signal offset is defined relative to the IAB-MT RF Bandwidth edges or Radio Bandwidth edges.

For a RIBs supporting operation in non-contiguous spectrum within any *operating band*, the narrowband intermodulation requirement shall apply in addition inside any sub-block gap in case the sub-block gap is at least as wide as the *IAB-MT channel bandwidth* of the NR interfering signal in tables 7.8.5.3-1 and 7.8.5.3-2. The interfering signal offset is defined relative to the sub-block edges inside the sub-block gap.

For *multi-band RIBs*, the intermodulation requirement shall apply in addition inside any Inter RF Bandwidth gap, in case the gap size is at least twice as wide as the NR interfering signal centre frequency offset from the IAB-MT RF Bandwidth edge.

For *multi-band RIBs*, the narrowband intermodulation requirement shall apply in addition inside any Inter RF Bandwidth gap in case the gap size is at least as wide as the NR interfering signal in tables 7.8.5.3-3 and 7.8.5.3-4. The interfering signal offset is defined relative to the IAB-MT RF Bandwidth edges inside the Inter RF Bandwidth gap.

Table 7.8.5.3-1: General intermodulation requirement

|  |  |  |  |
| --- | --- | --- | --- |
| IAB-MT class | Wanted Signal mean power (dBm) | Mean power of interfering signals (dBm) | Type of interfering signal |
| Wide Area  | EISREFSENS + 6 dB | -52 - ΔOTAREFSENS | See table 7.8.5.3-2 |
|  | EISminSENS + 6 dB | -52 - ΔminSENS |  |
| Local Area  | EISREFSENS + 6 dB | -44 - ΔOTAREFSENS |  |
|  | EISminSENS + 6 dB | -44 - ΔminSENS |  |
| NOTE: EISREFSENS and EISminSENS depend on the IAB-MT class and on the *IAB-MT* *channel bandwidth* as specified in TS 38.174 [xx], clause 10.2.2.1.2 and 10.3.3.2. |

Table 7.8.5.3-2: Interfering signals for intermodulation requirement

|  |  |  |
| --- | --- | --- |
| *IAB-DU channel bandwidth* of the lowest/highest carrier received (MHz) | Interfering signal centre frequency offset from the lower/upper IAB-DU RF Bandwidth edge (MHz) | Type of interfering signal (Note 3) |
| 10 | ±7.465 | CW |
|  | ±17.5 | 5MHz CP-OFDM NR signal (Note 1) |
| 15 | ±7.43 | CW |
|  | ±17.5 | 5MHz CP-OFDM NR signal (Note 1) |
| 20 | ±7.395 | CW |
|  | ±17.5 | 5MHz CP-OFDM NR signal (Note 1) |
| 25 | ±7.465 | CW |
|  | ±25 | 20 MHz CP-OFDM NR signal (Note 2) |
| 30 | ±7.43 | CW |
|  | ±25 | 20MHz CP-OFDM NR signal (Note 2) |
| 40 | ±7.45 | CW |
|  | ±25 | 20MHz CP-OFDM NR signal (Note 2) |
| 50 | ±7.35 | CW |
|  | ±25 | 20MHz CP-OFDM NR signal (Note 2) |
| 60 | ±7.49 | CW |
|  | ±25 | 20MHz CP-OFDM NR signal (Note 2) |
| 70 | ±7.42 | CW |
|  | ±25 | 20 MHz CP-OFDM NR signal (Note 2) |
| 80 | ±7.44 | CW |
|  | ±25 | 20MHz CP-OFDM NR signal (Note 2) |
| 90 | ±7.46 | CW |
|  | ±25 | 20 MHz CP-OFDM NR signal (Note 2) |
| 100 | ±7.48 | CW |
|  | ±25 | 20MHz CP-OFDM NR signal (Note 2) |
| NOTE 1: For the 15 kHz subcarrier spacing, the number of RB is 25. For the 30 kHz subcarrier spacing, the number of RB is 10.NOTE 2: For the 15 kHz subcarrier spacing, the number of RB is 100. For the 30 kHz subcarrier spacing, the number of RB is 50. For the 60 kHz subcarrier spacing, the number of RB is 24.NOTE 3: The RBs shall be placed adjacent to the transmission bandwidth configuration edge which is closer to the *IAB-MT RF Bandwidth* edge. |

Table 7.8.5.3-3: Narrowband intermodulation performance requirement in FR1

|  |  |  |  |
| --- | --- | --- | --- |
| IAB-MT class | Wanted signal mean power (dBm) | Interfering signal mean power (dBm) | Type of interfering signal |
| Wide Area | EISREFSENS + 6 dB (Note 1) | -52 - ΔOTAREFSENS | See table 7.8.5.3-4 |
|  | EISminSENS + 6 dB (Note 1) | -52 - ΔminSENS |  |
| Local Area | EISREFSENS + 6 dB (Note 1) | -44 - ΔOTAREFSENS |  |
|  | EISminSENS + 6 dB (Note 1) | -44 - ΔminSENS |  |
| NOTE: EISREFSENS and EISminSENS depends on the *IAB-MT channel bandwidth* as specified in TS 38.174 [xx], clause 10.2.2.1.2 and 10.3.3.2. |

Table 7.8.5.3-4: Interfering signals for narrowband intermodulation requirement in FR1

|  |  |  |
| --- | --- | --- |
| *IAB-MT channel bandwidth* of the lowest/highest carrier received (MHz) | Interfering RB centre frequency offset from the lower/upper IAB-MT RF Bandwidth edge or sub-block edge inside a sub-block gap (kHz) (Note 3) | Type of interfering signal |
| 10 | ±370 | CW |
|  | ±1960 | 5MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| 15 (NOTE 2) | ±380 | CW |
|  | ±1960 | 5MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| 20 (NOTE 2) | ±390 | CW |
|  | ±2320 | 5MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| 25 (NOTE 2) | ±325 | CW |
|  | ±2350 | 20MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| 30 (NOTE 2) | ±335 | CW |
|  | ±2350 | 20MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| 40 (NOTE 2) | ±355 | CW |
|  | ±2710 | 20MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| 50 (NOTE 2) | ±375 | CW |
|  | ±2710 | 20MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| 60 (NOTE 2) | ±395 | CW |
|  | ±2710 | 20MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| 70 (NOTE 2) | ±415 | CW |
|  | ±2710 | 20MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| 80 (NOTE 2) | ±435 | CW |
|  | ±2710 | 20MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| 90 (NOTE 2) | ±365 | CW |
|  | ±2530 | 20MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| 100 (NOTE 2) | ±385 | CW |
|  | ±2530 | 20MHz CP-OFDM NR signal, 1 RB (NOTE 1) |
| NOTE 1: Interfering signal consisting of one resource block positioned at the stated offset, the *IAB-MTchannel bandwidth* of the interfering signal is located adjacently to the lower/upper IAB-MT RF Bandwidth edge.NOTE 2: This requirement shall apply only for a G-FRC mapped to the frequency range at the channel edge adjacent to the interfering signals.NOTE 3: The centre of the interfering RB refers to the frequency location between the two central subcarriers. |

## <End of TP>