**3GPP TSG-RAN4 Meeting #102-e *DRAFT R4-2207474***

**Electronic Meeting, 21 February – 3 March 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **37.105** | **CR** | **XXXX** | **rev** | **-** | **Current version:** | **15.15.0** |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **X** | Core Network |  |

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|  |
| ***Title:***  | Big CR for TS 37.105 Maintenance (Rel-15, CAT F) |
|  |  |
| ***Source to WG:*** | MCC, Huawei |
| ***Source to TSG:*** | RAN4 |
|  |  |
| ***Work item code:*** | TEI15 |  | ***Date:*** | 2021-03-07 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-15 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | This big CR merges endorsed draft CR to TS 37.105 in RAN4#102-e. The reason for change in endorsed draft CR is copied below:**R4-2204446: BS OBUE requirements clarification, rel-15**In RAN4#101e, corrections of NOTE for OBUE requirement tables for NR specs were agreed. Similar corections are required for MSR specs.  |
|  |  |
| ***Summary of change:*** | The summary of change in endorsed draft CR is copied below.**R4-2204446: BS OBUE requirements clarification, rel-15**Added clarification text in NOTE in tables for OBUE requirements.Deleted unnecessary text in NOTE in tables for OBUE requirements. |
|  |  |
| ***Consequences if not approved:*** | The consequences if not approved for endorsed draft CR are coppied below.**R4-2204446: BS OBUE requirements clarification, rel-15**Without the clarification text, how to derive “cumulative sum” is not clear when measurement bandwidthes are different.Unnecessary text in the NOTE which is never applied could cause misunderstanding. |
|  |  |
| ***Clauses affected:*** | 6.6.4.3.3, 6.6.5.2.2, 6.6.5.2.3, 9.7.5.2.2, 9.7.5.2.3 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ... |
| ***affected:*** | **X** |  |  Test specifications | TS 37.145-1, 37.145-2 CR ... |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

***<Start of change>***

Table 6.6.4.3.3-1: *Basic Limits* for spectrum emission mask values, Prated,c,cell-10\*log10(NTXU,countedpercell) ≥ 34 dBm for 1,28 Mcps TDD

|  |  |  |
| --- | --- | --- |
| Frequency offset of measurement filter centre frequency, f\_offset | *Basic Limit*  | Measurement bandwidth |
| 0.8 MHz ≤ Δf < 1.0 MHz | -20 dBm | 30 kHz  |
| 1.0 MHz ≤ Δf < 1.8 MHz |  | 30 kHz  |
| (NOTE) | -28 dBm | 30 kHz  |
| 1.8 MHz ≤ Δf ≤Δfmax | -13 dBm | 1 MHz  |
| NOTE: For a *multi-band TAB connector* with *Inter RF Bandwidth gap* less than 8MHz, the *basic limit* within the *Inter RF Bandwidth gap* is calculated as a cumulative sum of emissions from the two adjacent carriers on each side of the *Inter RF Bandwidth gap*, where the contribution from the far-end *RF Bandwidth* shall be scaled according to the measurement bandwidth of the near-end *RF Bandwidth*. |

Table 6.6.4.3.3-2: *Basic Limits* for spectrum emission mask values, 26 dBm ≤ Prated,c,cell-10\*log10(NTXU,countedpercell) < 34 dBm for 1,28 Mcps TDD

|  |  |  |
| --- | --- | --- |
| Frequency offset of measurement filter centre frequency, f\_offset | *Basic Limit* | Measurement bandwidth |
| 0.8 MHz ≤ Δf < 1.0 MHz | Prated,c,cell – 10\*log10(NTXU,countedpercell) -54 dB | 30 kHz  |
| 1.0 MHz ≤ Δf < 1.8 MHz | Prated,c,cell – 10\*log10(NTXU,countedpercell) -54-10\*(f\_offset-1,015)dB | 30 kHz  |
| (NOTE) | Prated,c,cell – 10\*log10(NTXU,countedpercell) -62 dB | 30 kHz  |
| 1.8 MHz ≤ Δf ≤Δfmax | Prated,c,cell – 10\*log10(NTXU,countedpercell) - 47 dB | 1 MHz  |
| NOTE: For a *multi-band TAB connector* with *Inter RF Bandwidth gap* less than 8MHz, the *basic limit* within the *Inter RF Bandwidth gap* is calculated as a cumulative sum of emissions from the two adjacent carriers on each side of the *Inter RF Bandwidth gap*, where the contribution from the far-end *RF Bandwidth* shall be scaled according to the measurement bandwidth of the near-end *RF Bandwidth*. |

Table 6.6.4.3.3-3: *Basic Limits* for spectrum emission mask values, Prated,c,cell-10\*log10(NTXU,countedpercell) < 26 dBm for 1,28 Mcps TDD

|  |  |  |
| --- | --- | --- |
| Frequency offset of measurement filter centre frequency, f\_offset | *Basic Limit* | Measurement bandwidth |
| 0.8 MHz≤ Δf < 1.0 MHz | -28 dBm | 30 kHz  |
| 1.0 MHz≤ Δf < 1.8 MHz |  | 30 kHz  |
| (NOTE) | -36 dBm | 30 kHz  |
| 1.8 MHz≤ Δf ≤Δfmax | -21 dBm | 1 MHz  |
| NOTE: For a *multi-band TAB connector* with *Inter RF Bandwidth gap* less than 8MHz, the *basic limit* within the *Inter RF Bandwidth gap* is calculated as a cumulative sum of emissions from the two adjacent carriers on each side of the *Inter RF Bandwidth gap*, where the contribution from the far-end *RF Bandwidth* shall be scaled according to the measurement bandwidth of the near-end *RF Bandwidth*. |

***<Next change>***

Table 6.6.5.2.2-1a: WA BS OBUE in BC1 and BC3 bands ≤ 1 GHz applicable for: BS supporting NR and not supporting UTRA

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | *Basic Limit* (Note 1, 2) | Measurement bandwidth (Note 4) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz |  | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | -14 dBm | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax  | -16 dBm (Note 5) | 100 kHz  |
| NOTE 1: For MSR *TAB connector* supporting non-contiguous spectrum operation within any operating band, the *basic limit* within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the *sub block gap*. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the sub-block gap, where the *basic limit* within sub-block gaps shall be -16dBm/100kHz.NOTE 2: For MSR *multi band TAB connector* with *Inter RF Bandwidth gap* < 2×ΔfOBUEthe *basic limit* within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or Base station *RF Bandwidth* on each side of the *Inter RF Bandwidth gap*. |

***<Next change>***

Table 6.6.5.2.2-2a: MR BS OBUE in BC1 bands applicable for: BS with maximum output power 31 < Prated,c,cell-10\*log10(NTXU,countedpercell) ≤ 38 dBm, supporting NR, and not supporting UTRA

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | *Basic Limit* (Note 1, 2) | Measurement bandwidth (Note 4) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz | Prated,c,cell – 10\*log10(NTXU,countedpercell) – 53 dB - (7/5)\*(f\_offset/MHz-0,05) dB | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | Prated,c,cell – 10\*log10(NTXU,countedpercell) - 60 dB | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax | Min(Prated,c,cell – 10\*log10(NTXU,countedpercell) - 60 dB, - 25 dBm)(Note 5) | 100 kHz |
| NOTE 1: For MSR *TAB connector* supporting non-contiguous spectrum operation within any operating band the *basic limit* within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the *sub block gap*. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the *sub-block gap*, where the *basic limit* within sub-block gaps shall be Min(Prated,c,cell – 10\*log10(NTXU,countedpercell) – 60 dB, -25 dBm) / 100 kHz.NOTE 2: For MSR *multi band TAB connector* with *Inter RF Bandwidth gap* < 2×ΔfOBUEthe *basic limit* within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or RF Bandwidth on each side of the *Inter RF Bandwidth gap*. |

***<Next change>***

Table 6.6.5.2.2-3a: MR BS OBUE in BC1 bands applicable for: BS with maximum output power Prated,c,cell-10\*log10(NTXU,countedpercell) ≤ 31 dBm, supporting NR, and not supporting UTRA

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | *Basic limit* (Note 1, 2) | Measurement bandwidth (Note 4) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz |  | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | -29 dBm | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax | -29 dBm (Note 5) | 100 kHz |
| NOTE 1: For MSR *TAB connector* supporting non-contiguous spectrum operation within any operating band the *basic limit*  within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the sub block gap. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the *sub-block gap*, where the *basic limit* within sub-block gaps shall be -29dBm/100kHz.NOTE 2: For MSR *multi band TAB connector* with *Inter RF Bandwidth gap* < 2×ΔfOBUEthe *basic limit* within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or *RF Bandwidth* on each side of the *Inter RF Bandwidth* gap. |

***<Next change>***

Table 6.6.5.2.3-1a: WA BS OBUE in BC2 bands ≤ 1 GHz applicable for: BS supporting NR, not operating NRin band n8, and not supporting UTRA

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | *Basic limit* (Note 1, 2) | Measurement bandwidth (Note 10) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz |  | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | -14 dBm | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax  | -16 dBm (Note 11) | 100 kHz  |
| NOTE 1: For MSR *TAB connector* supporting non-contiguous spectrum operation within any operating band, the *basic limit* within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the sub block gap. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the *sub-block gap*, where the *basic limit* within sub-block gaps shall be -16dBm/100kHz.NOTE 2: For MSR *multi band TAB connector* with *Inter RF Bandwidth gap* < 2×ΔfOBUEthe *basic limit* within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or RF Bandwidth on each side of the *Inter RF Bandwidth gap.*NOTE 3: For operation with an E-UTRA 1.4 or 3 MHz carrier adjacent to the *Base Station RF Bandwidth edge*, the limits in table 6.6.5.2.3-2 apply for 0 MHz ≤ Δf < 0.15 MHz. |

***<Next change>***

Table 6.6.5.2.3-3a: MR BS OBUE in BC2 bands applicable for: BS with maximum output power 31 < Prated,c,cell-10\*log10(NTXU,countedpercell) ≤ 38 dBm, supporting NR, and not supporting UTRA

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | *Basic limit* (Note 1, 2) | Measurement bandwidth (Note 10) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz | Prated,c,cell – 10\*log10(NTXU,countedpercell)-53 dB - (7/5)\*(f\_offset/MHz - 0,05) dB | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | Prated,c,cell – 10\*log10(NTXU,countedpercell) - 60 dB | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax | Min(Prated,c,cell – 10\*log10(NTXU,countedpercell) - 60 dB, -25 dBm) (Note 11) | 100 kHz |
| NOTE 1: For MSR *TAB connectors* supporting non-contiguous spectrum operation within any operating band the *basic limit* within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the *sub block gap*. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the *sub-block gap*, where the *basic limit* within sub-block gaps shall be Min(Prated,c,cell – 10\*log10(NTXU,countedpercell) -60 dB, -25 dBm) / 100 kHz.NOTE 2: For MSR *multi band TAB connector* with *Inter RF Bandwidth gap* < 2×ΔfOBUE the *basic limit* within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or *RF Bandwidth* on each side of *the Inter RF Bandwidth gap*.NOTE 3: For operation with an E-UTRA 1.4 or 3 MHz carrier adjacent to the *Base Station RF Bandwidth edge*, the limits in table 6.6.5.2.3-5 apply for 0 MHz ≤ Δf < 0.15 MHz. |

***<Next change>***

Table 6.6.5.2.3-4a: MR BS OBUE in BC2 bands applicable for: BS with maximum output power Prated,c,cell-10\*log10(NTXU,countedpercell) ≤ 31 dBm, supporting NR, and not supporting UTRA

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | *Basic limit* (Note 1, 2) | Measurement bandwidth (Note 10) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz |  | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | -29 dBm | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax | -29 dBm (Note 11) | 100 kHz |
| NOTE 1: For MSR *TAB connectors* supporting non-contiguous spectrum operation within any operating band the *basic limit* within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the *sub block gap*. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the *sub-block gap*, where the *basic limit* within sub-block gaps shall be -29dBm/100kHz.NOTE 2: For MSR *multi band TAB connector* with *Inter RF Bandwidth gap* < 2×ΔfOBUEthe *basic limit* within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or *RF Bandwidth* on each side of the *Inter RF Bandwidth gap*.NOTE 3: For operation with an E-UTRA 1.4 or 3 MHz carrier adjacent to the *Base Station RF Bandwidth edge*, the limits in table 6.6.5.2.3-5 apply for 0 MHz ≤ Δf < 0.15 MHz. |

***<Next change>***

Table 9.7.5.2.2-1a: WA BS OBUE in BC1 and BC3 bands ≤ 1 GHz applicable for: BS supporting NR and not supporting UTRA

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | Minimum requirement(Note 1, 2) | Measurement bandwidth (Note 4) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz |  | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | -5 dBm | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax  | -7 dBm (Note 5) | 100 kHz  |
| NOTE 1: For MSR *RIB* supporting non-contiguous spectrum operation within any operating band, the *minimum requirement* within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the *sub block gap*. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the sub-block gap, where the *minimum requirement* within sub-block gaps shall be -7dBm/100kHz.NOTE 2: For MSR *multi band RIB* with *Inter RF Bandwidth gap* < 2×ΔfOBUE the *minimum requirement* within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or Base station *RF Bandwidth* on each side of the *Inter RF Bandwidth gap*.NOTE 3: For operation with an E-UTRA 1.4 or 3MHz carrier adjacent to the Base Station RF Bandwidth edge, the limits in Table 6.6.2.2-2 apply for 0 MHz ≤ Δf < 0.15 MHz. |

***<Next change>***

Table 9.7.5.2.2-2a: MR BS OBUE in BC1 bands applicable for: BS with maximum output power 40 < Prated,c,TRP ≤ 47 dBm BS, supporting NR, and not supporting UTRA

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | *Minimum requirement* (Note 1, 2) | Measurement bandwidth (Note 4) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz | Prated,c,TRP – 53 dB - (7/5)\*(f\_offset-0,05) dB | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | Prated,c,TRP – 60 dB | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax | Min(Prated,c,TRP – 60 dB, -16 dBm) (Note 4) | 100 kHz |
| NOTE 1: For MSR *RIB* supporting non-contiguous spectrum operation within any operating band the *minimum requirement* within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the *sub block gap*. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the *sub-block gap*, where the *minimum requirement* within sub-block gaps shall be Min(Prated,c,TRP – 60 dB, -16 dBm)/100 kHz.NOTE 2: For MSR *multi band RIB* with *Inter RF Bandwidth gap* < 2×ΔfOBUE the *minimum requriement* within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or RF Bandwidth on each side of the *Inter RF Bandwidth gap*. |

***<Next change>***

Table 9.7.5.2.2-3a: MR BS OBUE in BC1 bands applicable for: BS with maximum output power Prated,c,TRP ≤ 40 dBm, supporting NR, and not supporting UTRA

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | Minimum requirement (Note 1, 2) | Measurement bandwidth (Note 4) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz | -13 dBm – 7/5(f\_offset/MHz – 0.05) dB | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | -20 dBm | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax | -20 dBm (Note 4) | 100 kHz |
| NOTE 1: For MSR *RIB*  supporting non-contiguous spectrum operation within any operating band the *minimum requriement*  within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the sub block gap. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the *sub-block gap*, where the *minimum requirement* within sub-block gaps shall be -20 dBm/100 kHz.NOTE 2: For MSR *multi band RIB* with *Inter RF Bandwidth gap* < 2×ΔfOBUE the *minimum requirement* within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or *RF Bandwidth* on each side of the *Inter RF Bandwidth* gap. |

***<Next change>***

Table 9.7.5.2.3-1a: WA BS OBUE in BC2 bands ≤ 1 GHz applicable for: BS supporting NR, not operating NR in band n8, and not supporting UTRA

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | Minimum requirement (Note 1, 2) | Measurement bandwidth (Note 10) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz | 2 dBm – 7/5(f\_offset/MHz – 0.05) dB | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | -5 dBm | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax  | -7 dBm (Note 11) | 100 kHz  |
| NOTE 1: For MSR *RIB* supporting non-contiguous spectrum operation within any operating band, the *minimum requirement* within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the sub block gap. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the *sub-block gap*, where the minimum requirement within sub-block gaps shall be -7 dBm/100 kHz.NOTE 2: For MSR *multi band RIB* with *Inter RF Bandwidth gap* < 2×ΔfOBUE the minimum requirement within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or RF Bandwidth on each side of the *Inter RF Bandwidth gap.*NOTE 3: For operation with an E-UTRA 1.4 or 3 MHz carrier adjacent to the *Base Station RF Bandwidth edge*, the limits in table 9.7.5.2.3-2 apply for 0 MHz ≤ Δf < 0.15 MHz. |

***<Next change>***

Table 9.7.5.2.3-3a: MR BS OBUE in BC2 bands applicable for: BS with maximum output power 40 < Prated,c,TRP ≤ 47 dBm, supporting NR, and not supporting UTRA,

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | Minimum requirement (Note 1, 2) | Measurement bandwidth (Note 10) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz | Prated,c,TRP – 53 dB - (7/5)\*(f\_offset-0,05) dB | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | Prated,c,TRP – 60 dB | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax | Min(Prated,c,TRP – 60 dB, -16 dBm) (Note 11) | 100 kHz |
| NOTE 1: For MSR *RIBs* supporting non-contiguous spectrum operation within any operating band the minimum requirement within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the *sub block gap*. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the *sub-block gap*, where the minimum requirement within sub-block gaps shall be Min(Prated,c,TRP - 60 dB, -16 dBm)/100 kHz.NOTE 2: For MSR *multi band RIB* with *Inter RF Bandwidth gap* < 2×ΔfOBUE the minimum requirement within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or *RF Bandwidth* on each side of *the Inter RF Bandwidth gap*.NOTE 3: For operation with an E-UTRA 1.4 or 3 MHz carrier adjacent to the *Base Station RF Bandwidth edge*, the limits in table 9.7.5.2.3-5 apply for 0 MHz ≤ Δf < 0.15 MHz. |

***<Next change>***

Table 9.7.5.2.3-4a: MR BS OBUE in BC2 bands applicable for: BS maximum output power Prated,c,TRP ≤ 40 dBm, supporting NR, and not supporting UTRA

|  |  |  |  |
| --- | --- | --- | --- |
| Frequency offset of measurement filter ‑3dB point, Δf | Frequency offset of measurement filter centre frequency, f\_offset | Minimum requirement (Note 1, 2) | Measurement bandwidth (Note 10) |
| 0 MHz ≤ Δf < 5 MHz | 0.05 MHz ≤ f\_offset < 5.05 MHz | -13 dBm – 7/5(f\_offset/MHz – 0.05) dB | 100 kHz  |
| 5 MHz ≤ Δf < min(10 MHz, Δfmax) | 5.05 MHz ≤ f\_offset < min(10.05 MHz, f\_offsetmax) | -20 dBm | 100 kHz  |
| 10 MHz ≤ Δf ≤ Δfmax | 10.05 MHz ≤ f\_offset < f\_offsetmax | -20 dBm (Note 11) | 100 kHz |
| NOTE 1: For MSR *RIBs* supporting non-contiguous spectrum operation within any operating band the minimum requirement within *sub-block gaps* is calculated as a cumulative sum of contributions from adjacent sub blocks on each side of the *sub block ga*. Exception is f ≥ 10MHz from both adjacent sub blocks on each side of the *sub-block gap*, where the minimum requirement within sub-block gaps shall be -20 dBm/100 kHz.NOTE 2: For MSR *multi band TAB connector* with *Inter RF Bandwidth gap* < 2×ΔfOBUE the minimum requirement within the *Inter RF Bandwidth gaps* is calculated as a cumulative sum of contributions from adjacent sub-blocks or *RF Bandwidth* on each side of the *Inter RF Bandwidth gap*.NOTE 3: For operation with an E-UTRA 1.4 or 3 MHz carrier adjacent to the *Base Station RF Bandwidth edge*, the limits in table 9.7.5.2.3-6 apply for 0 MHz ≤ Δf < 0.15 MHz. |

***<End of change>***