**3GPP TSG-RAN WG4 Meeting # 113 *R4-2419231***

**Orlando, US, 18th – 22nd November, 2024**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **37.105** | **CR** | 0291 | **rev** | **1** | **Current version:** | **17.10.0** |  |
|  | | | | | | | | |
| *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:*** | (TEI17) CR to TS 37.105 - BS spurious receiver protection note [MSR\_BSRF\_RX] | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17 | | | | |  | ***Date:*** | | | 2024-11-21 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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 can be 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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | For BS capable of multi-band operation, if the BS transmit in a band is overlapping to receive frequency range of the other band, e.g. band 5 and band 8, similar as co-existence requirements and co-location requirements, a NOTE is needed to clarify that the requirement is not applied.  It is noted that the same change was agreed for 38 series | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | A new NOTE is added in clause 9.7.6.2.2 and 9.7.6.4.2 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The not applicable requirement exists for the specific case. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.7.6.2.2, 9.7.6.4.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS 37.145 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**<Start of Change >**

##### 9.7.6.2.2 Protection of the BS receiver of own or different BS

This requirement shall be applied for FDD operation in order to prevent the receivers of own or a different BS of the same band being desensitised by emissions from a *OTA AAS BS*.

The requirement is a co-location requirement. The power levels are specified at the *co-location reference antenna* output.

The power sum of any spurious emissions is specified over all supported polarizations of the *co-location reference antenna* and shall not exceed the limits in table 9.7.6.2.2-1 depending on the declared Base Station class and Band Category.

Table 9.7.6.2.2-1: BS Spurious emissions limits for protection of the BS receiver

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| BS-class | Band category | Frequency range | Maximum Level | Measurement Bandwidth | NOTE |
| Wide Area BS | BC1 | FUL\_low – FUL\_high | -117 dBm | 100 kHz |  |
| Wide Area BS | BC2 | FUL\_low – FUL\_high | -119 dBm | 100 kHz |  |
| Medium Range BS | BC1,BC2 | FUL\_low – FUL\_high | -112 dBm | 100 kHz |  |
| Local Area BS | BC1,BC2 | FUL\_low – FUL\_high | -109 dBm | 100 kHz |  |
| NOTE: For BS operating in regions where a band is only partially allocated for E-UTRA/NR operations (e.g. band 28), this requirement only applies in the UL frequency range of the partial allocation.  NOTE 2: For BS capable of multi-band operation, Table 9.7.6.2.2-1 assumes that the supported *operating bands*, where the corresponding BS transmit and receive frequency ranges in TS 37.104 [5] Table 4.5-1 or Table 4.5-2 would be overlapping, are not deployed in the same geographical area. For such a case of operation with overlapping frequency arrangements in the same geographical area, special protection requirements may apply that are not covered by the 3GPP specifications. | | | | | |

**<Next Change >**

##### 9.7.6.4.2 Protection of the BS receiver of own or different BS

This requirement shall be applied for E-UTRA FDD operation in order to prevent the receivers of own or a different BS of the same band being desensitised by emissions from a *OTA AAS BS*.

The requirement is a co-location requirement. The power levels are specified at the *co-location reference antenna* output.

The power sum of any spurious emission is specified over all supported polarizations of the *co-location reference antenna* and shall not exceed the limits in table 9.7.6.4.2-1.

Table 9.7.6.4.2-1: BS Spurious emissions limits for protection of the BS receiver

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Frequency range | Maximum Level | Measurement Bandwidth | Notes |
| Wide Area BS | FUL\_low – FUL\_high | - 117 dBm | 100 kHz |  |
| Medium Range BS | FUL\_low – FUL\_high | - 112 dBm | 100 kHz |  |
| Local Area BS | FUL\_low – FUL\_high | -109 dBm | 100 kHz |  |
| NOTE: For BS operating in regions where a band is only partially allocated for E-UTRA operations (e.g. band 28), this requirement only applies in the UL frequency range of the partial allocation.  NOTE 2: For BS capable of multi-band operation, Table 9.7.6.4.2-1 assumes that the supported *operating bands*, where the corresponding BS transmit and receive frequency ranges in TS 37.104 [5] Table 4.5-1 or Table 4.5-2 would be overlapping, are not deployed in the same geographical area. For such a case of operation with overlapping frequency arrangements in the same geographical area, special protection requirements may apply that are not covered by the 3GPP specifications. | | | | |

**<End of Change >**