**3GPP TSG-RAN WG4 Meeting # 98-e R4-2100369**

**Electronic Meeting, Jan. 25-Feb. 5, 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.174** | **CR** |  | **rev** | **1** | **Current version:** | 16.1.0 |  |
|  | | | | | | | | |
| *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:*** | Draft CR for TS 38.174: Correction of clause 6,7 and 9 | | | | | | | | | |
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| ***Source to WG:*** | CATT | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_IAB-Core | | | | |  | ***Date:*** | | | 2020-1-14 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | *Rel-16* |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | 1. Some references are not correct. 2. The title of clause 9.3 is not correct. 3. Some editorial errors. | | | | | | | | |
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| ***Summary of change:*** | | Correct the above errors. | | | | | | | | |
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| ***Consequences if not approved:*** | | Misleadings exits in spec. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.3.1.3.2, 6.3.2.1.1, 6.3.3, 6.6.5, 7.7.3, 9.2.2, 9.2.3, 9.3, 9.3.2, 9.3.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | The title of 9.3 is changed to “OTA IAB output power” from “OTA output power”. | | | | | | | | |

## < Start of the changes >

##### 6.3.1.3.2 Minimum requirement for IAB-DU *type 1-H*

The total power dynamic range is specified the same as the total power dynamic range requirement for BS *type 1-H* in TS 38.104 [2], subclause 6.3.3.2, where references to *BS channel bandwidth* apply to *IAB-DU channel bandwidth*.

## < Next change >

##### 6.3.2.1.1 General

The IAB-MT total power dynamic range is the difference between the maximum and the minimum controlled transmit power in the channel bandwidth for a specified reference condition. The maximum and minimum output powers are defined as the mean power in at least one sub-frame 1ms.

NOTE: The specified reference condition(s) are specified in the conformance specification. Changes in the controlled transmit power in the channel bandwidth due to changes in the specified reference condition are not included as part of the dynamic range.

## < Next change >

### 6.3.3 Power control

## < Next change >

### 6.6.5 Transmitter spurious emissions

#### 6.6.5.1 General

For IAB-DU, the transmitter spurious emission limits shall apply from 9 kHz to 12.75 GHz, excluding the frequency range from ΔfOBUE below the lowest frequency of each supported downlink *operating band*, up to ΔfOBUE above the highest frequency of each supported downlink *operating band*, where the ΔfOBUE is defined in table 6.6.1-1. For some *operating bands*, the upper limit is higher than 12.75 GHz in order to comply with the 5th harmonic limit of the downlink *operating band*, as specified in ITU-R recommendation SM.329 [16].

For IAB-MT, the transmitter spurious emission limits shall apply from 9 kHz to 12.75 GHz, excluding the frequency range from ΔfOBUE below the lowest frequency of each supported uplink *operating band*, up to ΔfOBUE above the highest frequency of each supported uplink *operating band*, where the ΔfOBUE is defined in table 6.6.1-2. For some *operating bands*, the upper limit is higher than 12.75 GHz in order to comply with the 5th harmonic limit of the uplink *operating band*, as specified in ITU-R recommendation SM.329 [16].

For a *multi-band connector*, for each supported *operating band* together with ΔfOBUE around the band is excluded from the transmitter spurious emissions requirement.

The requirements shall apply whatever the type of transmitter considered (single carrier or multi-carrier). It applies for all transmission modes foreseen by the manufacturer's specification.

Unless otherwise stated, all requirements are measured as mean power (RMS).

## < Next change >

### 7.7.3. Minimum requirement for *IAB-MT type 1-H*

The Wide Aarea IAB-MT receiver intermodulation requirement is specified the same as the Wide Area receiver intermodulation requirement for BS *type 1-H* in TS 38.104[2], subclause 7.7.2, where references to *BS channel bandwidth* apply to *IAB-MT channel bandwidth*.

The Local Area IAB-MT receiver intermodulation requirement is specified the same as theLocal Area BS receiver intermodulation requirement for BS *type 1-H* in TS 38.104[2], subclause 7.7.2, where references to *BS channel bandwidth* apply to *IAB-MT channel bandwidth*.

Interfering signal for IAB-MT *type 1-H* should be CP-OFDM.

## < Next change >

### 9.2.2 Minimum requirement for IAB-DU type 1-H, IAB-DU type 1-O, IAB-MT type 1-H and IAB-MT type 1-O

For each declared beam, in normal conditions, for any specific *beam peak direction* associated with a *beam direction pair* within the *OTA peak directions set*, a manufacturer claimed EIRP level in the corresponding *beam peak direction* shall be achievable to within ±2.2 dB of the claimed value.

For *IAB type 1-O* only, for each declared beam, in extreme conditions, for any specific *beam peak direction* associated with a *beam direction pair* within the *OTA peak directions set*, a manufacturer claimed EIRP level in the corresponding *beam peak direction* shall be achievable to within ±2.7 dB of the claimed value.

Normal and extreme conditions are defined in TS 38.141-2 [21], annex B.

In certain regions, the minimum requirement for normal conditions may apply also for some conditions outside the range of conditions defined as normal.

### 9.2.3 Minimum requirement for IAB-DU type 2-O and IAB-MT type 2-O

For each declared beam, in normal conditions, for any specific *beam peak direction* associated with a *beam direction pair* within the *OTA peak directions set*, a manufacturer claimed EIRP level in the corresponding *beam peak direction* shall be achievable to within ± 3.4 dB of the claimed value.

For each declared beam, in extreme conditions, for any specific *beam peak direction* associated with a *beam direction pair* within the *OTA peak directions set*, a manufacturer claimed EIRP level in the corresponding *beam peak direction* shall be achievable to within ± 4.5 dB of the claimed value.

Normal and extreme conditions are defined in TS 38.141-2 [21], annex B.

In certain regions, the minimum requirement for normal conditions may apply also for some conditions outside the range of conditions defined as normal.

## < Next change >

## 9.3 OTA IAB output power

## < Next change >

### 9.3.2 Minimum requirement for IAB-DU type 1-O and IAB-MT type 1-O

In normal conditions, the *IAB type 1-O* *maximum carrier TRP output power*, Pmax,c,TRP measured at the RIB shall remain within ±2 dB of the *rated carrier TRP output power* Prated,c,TRP, as declared by the manufacturer.

Normal conditions are defined in [TS 38.141-1 [22], annex B].

### 9.3.3 Minimum requirement for IAB type 2-O

In normal conditions, the *IAB type 2-O* *maximum carrier TRP output power*, Pmax,c,TRP measured at the RIB shall remain within ±3 dB of the *rated carrier TRP output power* Prated,c,TRP, as declared by the manufacturer.

Normal conditions are defined in [TS 38.141-2 [21], annex B].

## < End of the changes >