**3GPP TSG-RAN4 Meeting #97-e *R4-2017592***

**Online, , 2nd Nov 2020 - 13th Nov 2020**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.141-2** | **CR** | **0249** | **rev** | **1** | **Current version:** | **15.7.0** |  |
|  | | | | | | | | |
| *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:*** | CR to 38.141-2: Annex C correction on frequency range of FR2 TT table (C.2) | | | | | | | | | |
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| ***Source to WG:*** | Keysight Technologies UK Ltd | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_newRAT-Perf | | | | |  | ***Date:*** | | | 2020-11-10 |
|  |  | | | |  | |  | | |  |
| ***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 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:*** | | During study to prepare MU and TT value in TR 38.817-02 documents, study was conducted up to 40GHz. Studied value up to 40.0GHz should not be applied up to 52.6GHz, it is large enough difference to use existing value. Also, during discussion, it was agreed that MU/TT study would be conducted when new band will be added. | | | | | | | | |
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| ***Summary of change:*** | | In table C.2-2, upper frequency corrected to 40.0GHz in 7.3 and 7.9. | | | | | | | | |
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| ***Consequences if not approved:*** | | Without this correction, incorrect value used in higher mmWave frequency when new band with higher frequency is added. | | | | | | | | |
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| ***Clauses affected:*** | | C.2 | | | | | | | | |
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|  | | **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:*** | | For R15, upper frequency should be 40.0GHz because n259 is R16 WI. Correction made to have upper frequency as 40.0GHz from 43.5GHz | | | | | | | | |

# C.2 Measurement of receiver

Table C.2-1: Derivation of test requirements (FR1 OTA receiver tests)

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| Test | Minimum requirement in TS 38.104 [2] | Test Tolerance  (TTOTA) | Test requirement in the present document |
| 7.2 OTA sensitivity | See TS 38.104 [2], clause 10.2 | 1.3 dB, f ≤ 3.0 GHz  1.4 dB, 3.0 GHz < f ≤ 4.2 GHz  1.6 dB, 4.2 GHz < f ≤ 6.0 GHz | Formula:  Declared Minimum EIS + TT |
| 7.3 OTA reference sensitivity level | See TS 38.104 [2], clause 10.3 | 1.3 dB, f ≤ 3.0 GHz  1.4 dB, 3.0 GHz < f ≤ 4.2 GHz  1.6 dB, 4.2 GHz < f ≤ 6.0 GHz | Formula:  EISREFSENS + TT |
| 7.4 OTA dynamic range | See TS 38.104 [2], clause 10.4 | 0.3 dB, f ≤ 6 GHz | Formula:  Wanted signal power + TT  Interferer signal power unchanged. |
| 7.5.1 OTA adjacent channel selectivity | See TS 38.104 [2], clause 10.5.1 | 0 dB | Formula:  Wanted signal power + TT  Interferer signal power unchanged. |
| 7.5.2 In-band blocking (General) | See TS 38.104 [2], clause 10.5.2 | 0 dB | Formula:  Wanted signal power + TT  Interferer signal power unchanged. |
| 7.5.2 In-band blocking (Narrowband) | See TS 38.104 [2], clause 10.5.2 | 0 dB | Formula:  Wanted signal power + TT  Interferer signal power unchanged. |
| 7.6 OTA out-of-band blocking  (General) | See TS 38.104 [2], clause 10.6 | 0 dB | Formula:  Wanted signal power + TT  Interferer signal power unchanged. |
| 7.6 OTA out-of-band blocking  (Co-location) | See TS 38.104 [2], clause 10.6 | 0 dB | Formula:  Wanted signal power unchanged  Interferer signal power - TT. |
| 7.7 OTA receiver spurious emissions | See TS 38.104 [2], clause 10.7 | 0 dB | Formula:  Minimum Requirement + TT |
| 7.8 OTA receiver intermodulation | See TS 38.104 [2], clause 10.8 | 0 dB | Formula:  Wanted signal power + TT  Interferer signal power unchanged |
| 7.9 OTA in-channel selectivity | See TS 38.104 [2], clause 10.9 | 1.7 dB, f ≤ 3.0 GHz  2.1 dB, 3.0 GHz < f ≤ 4.2 GHz  2.4 dB, 4.2 GHz < f ≤ 6.0 GHz | Formula:  Wanted signal power + TT  Interferer signal power unchanged |
| NOTE: TT values are applicable for normal condition unless otherwise stated. | | | |

Table C.2-2: Derivation of test requirements (FR2 OTA receiver tests)

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| Test | Minimum requirement in TS 38.104 [2] | Test Tolerance  (TTOTA) | Test requirement in the present document |
| 7.3 OTA reference sensitivity level | See TS 38.104 [2], clause 10.3 | 2.4 dB, 24.25 GHz < f ≦ 33.4 GHz  2.4 dB, 37 GHz < f ≦ 40.0 GHz | Formula:  EISREFSENS+ TT |
| 7.5.1 OTA adjacent channel selectivity | See TS 38.104 [2], clause 10.5.1 | 0 dB | Formula:  Wanted signal power + TT  Interferer signal power unchanged. |
| 7.5.2 In-band blocking | See TS 38.104 [2], clause 10.5.2 | 0 dB | Formula:  Wanted signal power + TT  Interferer signal power unchanged. |
| 7.6 OTA out-of-band blocking | See TS 38.104 [2], clause 10.6 | 0 dB | Formula:  Wanted signal power + TT  Interferer signal power unchanged |
| 7.7 OTA receiver spurious emissions | See TS 38.104 [2], clause 10.7 | 0 dB | Formula:  Minimum Requirement + TT |
| 7.8 OTA receiver intermodulation | See TS 38.104 [2], clause 10.8 | 0 dB | Formula:  Wanted signal power + TT  Interferer signal power unchanged. |
| 7.9 OTA in-channel selectivity | See TS 38.104 [2], clause 10.9 | 3.4 dB, 24.25 GHz < f ≦ 33.4 GHz  3.4 dB, 37 GHz < f ≦ 40.0 GHz | Formula:  Wanted signal power + TT  Interferer signal power unchanged. |
| NOTE: TT values are applicable for normal condition unless otherwise stated. | | | |