**3GPP TSG- Meeting # *R5-253532***

**Malta, Malta, 19th May 2025 - 23rd May 2025**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.521-2** | **CR** | **1148** | **rev** | **1** | **Current version:** | **18.6.0** |  |
|  | | | | | | | | |
| *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 |  | Core Network |  |

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| ***Title:*** | FR2 MU - PC3 MU update for OBW UL MIMO test in 38.521-2 Annex F | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Keysight Technologies | | | | | | | | | |
| ***Source to TSG:*** | R5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI15\_Test, 5GS\_NR\_LTE-UEConTest | | | | |  | ***Date:*** | | | 2025-05-08 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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:*** | | Certain progress has been made for PC3 MU and TT analysis in discussion R5-253527. Impacted test cases should be updated accordingly. | | | | | | | | |
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| ***Summary of change:*** | | Updated OBW UL MIMO test MUs for PC3. | | | | | | | | |
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| ***Consequences if not approved:*** | | Test specification will remain incomplete for PC3. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | F.1.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Revision 1:  -Set new values in [] for UL MIMO when MBW is different than used for SISO. | | | | | | | | |

## <<< START OF CHANGES >>>

## F.1.2 Measurement of transmitter

Table F.1.2-1: Maximum Test System Uncertainty (MTSU) for transmitter tests

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| --- | --- | --- | --- |
| Sub clause | | Maximum Test System Uncertainty | Derivation of MTSU |
|  | | <<< Skip unchanged rows >>> |  |
| 6.5.1 Occupied bandwidth | | Max Device size≤ 30cm  PC3 and PC1:  FR2a:  ±0.4 [%CBW] (BW 50MHz)  ±0.4 [%CBW] (BW 100MHz)  ±1.2 [%CBW] (BW 200MHz)  ±1.2 [%CBW] (BW 400MHz)  FR2b:  ±0.4 [%CBW] (BW 50MHz)  ±0.4 [%CBW] (BW 100MHz)  ±1.3 [%CBW] (BW 200MHz)  ±1.3 [%CBW] (BW 400MHz)  PC3:  FR2c:  ±0.65 [%CBW] (BW 50MHz)  ±0.65 [%CBW] (BW 100MHz)  ±1.3 [%CBW] (BW 200MHz)  ±1.5 [%CBW] (BW 400MHz)  PC5, PC6:  FR2a:  ±0.4 [%CBW] (BW 50MHz)  ±0.4 [%CBW] (BW 100MHz)  ±1.2 [%CBW] (BW 200MHz)  ±1.2 [%CBW] (BW 400MHz) |  |
|  | | <<< Skip unchanged rows >>> |  |
| 6.5D.1 Occupied bandwidth for UL MIMO | | Max Device size≤ 30cm  PC3:  FR2a:  ±0.4 [%CBW] (BW 50MHz)  ±0.4 [%CBW] (BW 100MHz)  ±1.2 [%CBW] (BW 200MHz)  ±1.3 [%CBW] (BW 400MHz)  FR2b:  ±0.4 [%CBW] (BW 50MHz)  ±0.4 [%CBW] (BW 100MHz)  ±1.3 [%CBW] (BW 200MHz)  ±[1.7] [%CBW] (BW 400MHz)  PC3:  FR2c:  ±0.65 [%CBW] (BW 50MHz)  ±0.65 [%CBW] (BW 100MHz)  ±[1.2] [%CBW] (BW 200MHz)  ±TBD [%CBW] (BW 400MHz) |  |
| 6.5D.2.1 Spectrum Emission Mask for UL MIMO | | Same as 6.5.2.1 |  |
| 6.5D.2.2 Adjacent channel leakage ratio for UL MIMO | | Same as 6.5.2.3 |  |
| 6.5D.3.1 Transmitter Spurious emissions for UL MIMO | | Same ad 6.5.3.1 |  |
| 6.5D.3.2 Spurious emission band UE co-existence for UL MIMO | | Same ad 6.5.3.2 |  |
| 6.5D.3.3 Additional spurious emissions for UL MIMO | | Same ad 6.5.3.3 |  |
| 6.6.1 Beam correspondence – EIRP | | PC3  Max Device size≤ 30 cm  2.67 dB (FR2a, NTC testing)  3.80 dB (FR2b, NTC testing) | MTSU = 1.00 x MU (from Table B.18a.2-2 in TR 38.309) |
| 6.6.2 Enhanced Beam correspondence - EIRP | | Same as 6.6.1 |  |
| NOTE 1: FR2a, FR2b and FR2c are specified in Table 5.1-2. | | | |

## <<< END OF CHANGES >>>