**3GPP TSG-RAN WG4 Meeting # 104-bis-e *R4-2216268***

**Electronic Meeting, October 10 – October 19, 2022**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.133** | **CR** | **Draft** | **rev** | **-** | **Current version:** | **17.7.0** |  |
|  |
| *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 | **X** | Radio Access Network |  | Core Network |  |

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| ***Title:***  | DraftCR on test cases for HO for FR2-2 |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | R4 |
|  |  |
| ***Work item code:*** | NR\_ext\_to\_71GHz-Perf |  | ***Date:*** | 2022-09-01 |
|  |  |  |  |  |
| ***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 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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | In HO test case from FR1 to FR2-2, the test configuration of FR1 source and FR2-2 target cell shall be selected more flexibly.For instance, in current test case configurations, FR2-2 960 KHz can only be tested with FR1 TDD 30kHz, and 120 kHz can only be tested with FR1 FDD 15 KHz.. |
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| ***Summary of change:*** | Define separate test configuration tables for source cell and target cell. |
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| ***Consequences if not approved:*** | Some combinations can not be tested. |
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| ***Clauses affected:*** | A.7.3.1.11 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS 38.533 |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

### <Start of Change 1>

A.7.3.1.11 Inter-frequency handover from FR1 to FR2-2; unknown target cell

A.7.3.1.11.1 Test Purpose and Environment

This test is to verify the requirement for the NR FR1-NR FR2-2 Inter frequency handover requirements specified in clause 6.1.1.4.

A.7.3.1.11.2 Test Parameters

Supported test configurations are shown in table A.7.3.1.11.2-1 and A.7.3.1.11.2-1A, and the configuration for NR Cell1 and NR Cell2 are chosen independently. Both handover delay and interruption length are tested by using the parameters in table A.7.3.1.X3.2-2, and A.7.3.1.X3.2-3.

The test scenario comprises of carriers and one cell on each carrier. No gap patterns are configured in the test case. The test consists of two successive time periods, with time durations of T1, T2 respectively. At the start of time duration T1, the UE does not have any timing information of cell 2. Starting T2, cell 2 becomes detectable and the UE receives a RRC handover command from the network. The start of T2 is the instant when the last TTI containing the RRC message implying handover is sent to the UE.

**Table A.7.3.1.11.2-1: Inter-frequency handover from FR1 to FR2-2 test configurations for Cell1**

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| **Configuration** | **Description** |
| 1 | NR TDD, SSB SCS 120 kHz, data SCS 120 kHz, BW 100 MHz |
| 2 | NR TDD, SSB SCS 480 kHz, data SCS 480 kHz, BW 400 MHz |
| 3 | NR TDD, SSB SCS 960 kHz, data SCS 960 kHz, BW 400 MHz |
| Note 1: The UE is only required to be tested in one of the supported test configurations |

**Table A.7.3.1.11.2-1A: Inter-frequency handover from FR1 to FR2-2 test configurations for Cell2**

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| --- | --- |
| **Configuration** | **Description** |
| 1 | NR 15 kHz SSB SCS, ≥10 MHz bandwidth, FDD duplex mode |
| 2 | NR 15 kHz SSB SCS, ≥10 MHz bandwidth, TDD duplex mode |
| 3 | NR 30 kHz SSB SCS, ≥40 MHz bandwidth, TDD duplex mode |
| Note 1: The UE is only required to be tested in one of the supported test configurationsNote 2: The UE is only required to be tested in one with smallest aggregated channel bandwidth from supported band combinations which is composed of CCs ≥ the bandwidth (BWchannel) defined in each test configuration |

### <End of Change 1>