**3GPP TSG-RAN4 Meeting #112 *R4-2413915***

**Maastricht, Netherlands, 19th August - 23rd August**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.133** | **CR** | **4629** | **rev** | **1** | **Current version:** | **17.14.0** |  |
|  | | | | | | | | |
| *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:*** | (NR\_redcap-Perf) CR to A.16.7.1.3 and A.16.7.1.4 for typo correction | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Anritsu Corporation | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_redcap-Perf | | | | |  | ***Date:*** | | | 2024-08-21 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | There are typos in A.16.7.1.3 and A.16.7.1.4.  In the test configuration Table A.16.7.1.3.1-1 and Table A.16.7.1.4.1-1, config 3 is defined as TDD duplex mode. But some of the config 3 parameters in Table A.16.7.1.3.2-1 and Table A.16.7.1.4.2-1 are described as FDD.  There are some other minor typos. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Fixed typos in A.16.7.1.3 and A.16.7.1.4. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | A.16.7.1.3 and A.16.7.1.4 remain incorrect. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | A.16.7.1.3 and A.16.7.1.4  **Isolated impact analysis:**  No change to UE requirements, changes test parameters only. | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Revised from R4-2411274  A space at the wrong position in Table A.16.7.1.3.1-1 for config 3 is fixed. | | | | | | | | |

<<Unchanged sections skipped>>

<<Start of change>>

#### A.16.7.1.3 SA inter-frequency case measurement accuracy with FR1 serving cell and FR1 target cell for 1 Rx UE

##### A.16.7.1.3.1 Test Purpose and Environment

The purpose of this test is to verify that the SS-RSRP measurement accuracy is within the specified limits. This test will verify the requirements in clauses 10.1A.4.1.1 and 10.1A.4.1.2 for inter-frequency measurements with the testing configurations for NR cells in Table A.16.7.1.3.1-1.

Table A.16.7.1.3.1-1: Applicable NR configurations for FR1 inter-frequency SS-RSRP accuracy test

|  |  |
| --- | --- |
| Config | 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, 20 MHz bandwidth, TDD duplex mode |
| 4 | NR 15 kHz SSB SCS, 10 MHz bandwidth, HD-FDD duplex mode |
| Note: The UE is only required to be tested in one of the supported test configurations in each supported band | |

##### A.16.7.1.3.2 Test parameters

In this set of test cases there are two cells in the test, PCell (Cell 1) and a FR1 neighbour cell (Cell 2) on a different frequency than the PCell. The test parameters for the Cell 1 and Cell 2 are given in Table A.16.7.1.3.2-1 below. Both absolute and relative accuracy of RSRP inter-frequency measurements is tested by using the parameters in Table A.16.7.1.3.2-1. The inter-frequency measurements are supported by a measurement gap.

Table A.16.7.1.3.2-1: SS-RSRP inter-frequency test parameters

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | | Config | Unit | Test 1 | | | | Test 2 | | |
|  | |  |  | Cell 1 | | | Cell 2 | Cell 1 | | Cell 2 |
| SSB ARFCN | | 1~4 |  | freq1 | | | freq2 | freq1 | | freq2 |
| BWchannel | | 1,4 | MHz | 10: NRB,c = 52 | | | | 10: NRB,c = 52 | | |
|  | | 2 |  | 10: NRB,c = 52 | | | | 10: NRB,c = 52 | | |
|  | | 3 |  | 20: NRB,c = 51 | | | | 20: NRB,c = 51 | | |
| Duplex mode | | 1 |  | FDD | | | | FDD | | |
| 2 |  | TDD | | | | TDD | | |
| 3 |  | TDD | | | | TDD | | |
| 4 |  | HD-FDD | | | | HD-FDD | | |
| TDD configuration | | 1 |  | N/A | | | | N/A | | |
|  | | 2 |  | TDDConf.1.1 | | | | TDDConf.1.1 | | |
|  | | 3 |  | TDDConf.2.1 | | | | TDDConf.2.1 | | |
| PDSCH Reference measurement channel | | 1,4 |  | SR.1.1 FDD | | | - | SR.1.1 FDD | | - |
|  | | 2 |  | SR.1.1 TDD | | |  | SR.1.1 TDD | |  |
|  | | 3 |  | SR.2.1 TDD | | |  | SR.2.1 TDD | |  |
| RMSI CORESET Reference Channel | | 1,4 |  | CR.1.1 FDD | | | - | CR.1.1 FDD | | - |
|  | | 2 |  | CR.1.1 TDD | | | - | CR.1.1 TDD | | - |
|  | | 3 |  | CR.2.1 TDD | | | - | CR.2.1 TDD | | - |
| Dedicated CORESET Reference Channel | | 1,4 |  | CCR.1.1 FDD | | | - | CCR.1.1 FDD | | - |
|  | | 2 |  | CCR.1.1 TDD | | | - | CCR.1.1 TDD | | - |
|  | | 3 |  | CCR.2.1 TDD | | | - | CCR.2.1 TDD | | - |
| SSB configuration | | 1,4 |  | SSB.1 FR1 | | | | SSB.1 FR1 | | |
|  | | 2 |  | SSB.1 FR1 | | | | SSB.1 FR1 | | |
|  | | 3 |  | SSB.1 RedCap FR1 | | | | SSB.1 RedCap FR1 | | |
| OCNG Patterns | | 1~4 |  | OP.1 | | | | OP.1 | | |
| TRS configuration | | 1,4 |  | TRS.1.1 FDD | | - | | TRS.1.1 FDD | |  |
|  | | 2 |  | TRS.1.1 TDD | |  | | TRS.1.1 TDD | |  |
|  | | 3 |  | TRS.1.2 TDD | |  | | TRS.1.2 TDD | |  |
| Initial BWP Configuration | | 1~4 |  | DLBWP.0.1  ULBWP.0.1 | | | | DLBWP.0.1  ULBWP.0.1 | | |
| Dedicated BWP configuration | | 1~4 |  | DLBWP.1.1  ULBWP.1.1 | | | | DLBWP.1.1  ULBWP.1.1 | | |
| Time offset with Cell 1 | | 1,4 | ms | - | 3 | | | - | 3 | |
|  | | 2,3 | μs | - | 3 | | | - | 3 | |
| SMTC configuration | | 1,4 |  | SMTC.2 | | | | SMTC.2 | | |
|  | | 2,3 |  | SMTC.1 | | | | SMTC.1 | | |
| EPRE ratio of PSS to SSS | | 1~4 | dB | 0 | | | 0 | 0 | | 0 |
| EPRE ratio of PBCH DMRS to SSS | |  |  |  | | |  |  | |  |
| EPRE ratio of PBCH to PBCH DMRS | |  |  |  | | |  |  | |  |
| EPRE ratio of PDCCH DMRS to SSS | |  |  |  | | |  |  | |  |
| EPRE ratio of PDCCH to PDCCH DMRS | |  |  |  | | |  |  | |  |
| EPRE ratio of PDSCH DMRS to SSS | |  |  |  | | |  |  | |  |
| EPRE ratio of PDSCH to PDSCH DMRS | |  |  |  | | |  |  | |  |
| EPRE ratio of OCNG DMRS to SSSNote 1 | |  |  |  | | |  |  | |  |
| EPRE ratio of OCNG to OCNG DMRS Note 1 | |  |  |  | | |  |  | |  |
| Note2 | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5 | 1~4 | dBm/15kHz | -94.65 | | | | ( for Channel 2 +8dB) | | -115 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -114.5 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -114 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -113.5 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -113 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -112.5 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -112 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -111.5 |
| Note2 | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 1,2,4 | dBm/SSB SCS | -94.65 | | | | ( for Channel 2 +8dB) | | -115 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -114.5 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -114 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -113.5 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -113 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -112.5 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -112 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -111.5 |
|  | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 3 |  | -91.65 | | | | ( for Channel 2 +8dB) | | -112.00 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -111.50 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -111.00 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -110.50 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -110.00 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -109.50 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -109.00 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -108.50 |
|  | | 1~4 | dB | 10 | | | 10 | 13 | | -3 |
| SS-RSRPNote3 | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 1,2,4 | dBm/SCS | -84.65 | | | | (RSRP for Cell 2 +25dB) | | -118.00 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -117.50 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -117.00 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -116.50 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -116.00 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -115.50 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -115.00 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -114.50 |
|  | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 3 |  | -84.65 | | | | (RSRP for Cell 2 +25dB) | | -115.00 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -114.50 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -114.00 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -113.50 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -113.00 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -112.50 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -112.00 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -111.50 |
| IoNote3 | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 1,2,4 | dBm/  9.36MHz | -56.28 | | | | (Io for Channel 2 +19.75dB) | | -85.28 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -84.78 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -84.28 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -83.78 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -83.28 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -82.78 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -82.28 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -81.78 |
|  | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 3 | dBm/  18.36MHz | -53.33 | | | | (Io for Channel 2 +19.75dB) | | -82.35 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -81.85 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -81.35 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -80.85 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -80.35 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -79.85 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -79.35 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -78.85 |
|  | | 1~4 | dB | 10 | | | 10 | 13 | | -3 |
| Propagation condition | | 1~4 | - | AWGN | | | | AWGN | | |
| Antenna configuration | | 1~4 |  | 1x1 low | | | | 1x1 low | | |
| Note 1: OCNG shall be used such that both cells are fully allocated and a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: Interference from other cells and noise sources not specified in the test is assumed to be constant over subcarriers and time and shall be modelled as AWGN of appropriate power for  to be fulfilled.  Note 3: RSRP and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 4: RSRP minimum requirements are specified assuming independent interference and noise at each receiver antenna port.  Note 5: The test configuration excludes support for band n51 and it is not required to run this test on band n51 in this release of the specification. | | | | | | | | | | |

##### A.16.7.1.3.3 Test Requirements

The SS-RSRP measurement accuracy for Cell 1 and Cell 2 shall fulfil the absolute requirement in clause 10.1A.4.1.1 and relative requirement in clause 10.1A.4.1.2.

#### A.16.7.1.4 SA inter-frequency case measurement accuracy with FR1 serving cell and FR1 target cell for 2 Rx UE

##### A.16.7.1.4.1 Test Purpose and Environment

The purpose of this test is to verify that the SS-RSRP measurement accuracy is within the specified limits. This test will verify the requirements in clauses 10.1A.4.1.1 and 10.1A.4.1.2 for inter-frequency measurements with the testing configurations for NR cells in Table A.16.7.1.4.1-1.

Table A.16.7.1.4.1-1: Applicable NR configurations for FR1 inter-frequency SS-RSRP accuracy test

|  |  |
| --- | --- |
| Config | 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, 20 MHz bandwidth, TDD duplex mode |
| 4 | NR 15 kHz SSB SCS, 10 MHz bandwidth, HD-FDD duplex mode |
| Note: The UE is only required to be tested in one of the supported test configurations in each supported band | |

##### A.16.7.1.4.2 Test parameters

In this set of test cases there are two cells in the test, PCell (Cell 1) and a FR1 neighbour cell (Cell 2) on a different frequency than the PCell. The test parameters for the Cell 1 and Cell 2 are given in Table A.16.7.1.4.1-1 below. Both absolute and relative accuracy of RSRP inter-frequency measurements is tested by using the parameters in Table A.16.7.1.4.11. The inter-frequency measurements are supported by a measurement gap.

Table A.16.7.1.4.2-1: SS-RSRP inter-frequency test parameters

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | | Config | Unit | Test 1 | | | | Test 2 | | |
|  | |  |  | Cell 1 | | | Cell 2 | Cell 1 | | Cell 2 |
| SSB ARFCN | | 1~4 |  | freq1 | | | freq2 | freq1 | | freq2 |
| BWchannel | | 1,4 | MHz | 10: NRB,c = 52 | | | | 10: NRB,c = 52 | | |
|  | | 2 |  | 10: NRB,c = 52 | | | | 10: NRB,c = 52 | | |
|  | | 3 |  | 20: NRB,c = 51 | | | | 20: NRB,c = 51 | | |
| Duplex mode | | 1 |  | FDD | | | | FDD | | |
| 2 |  | TDD | | | | TDD | | |
| 3 |  | TDD | | | | TDD | | |
| 4 |  | HD-FDD | | | | HD-FDD | | |
| TDD configuration | | 1 |  | N/A | | | | N/A | | |
|  | | 2 |  | TDDConf.1.1 | | | | TDDConf.1.1 | | |
|  | | 3 |  | TDDConf.2.1 | | | | TDDConf.2.1 | | |
| PDSCH Reference measurement channel | | 1,4 |  | SR.1.1 FDD | | | - | SR.1.1 FDD | | - |
|  | | 2 |  | SR.1.1 TDD | | |  | SR.1.1 TDD | |  |
|  | | 3 |  | SR.2.1 TDD | | |  | SR.2.1 TDD | |  |
| RMSI CORESET Reference Channel | | 1,4 |  | CR.1.1 FDD | | | - | CR.1.1 FDD | | - |
|  | | 2 |  | CR.1.1 TDD | | | - | CR.1.1 TDD | | - |
|  | | 3 |  | CR.2.1 TDD | | | - | CR.2.1 TDD | | - |
| Dedicated CORESET Reference Channel | | 1,4 |  | CCR.1.1 FDD | | | - | CCR.1.1 FDD | | - |
|  | | 2 |  | CCR.1.1 TDD | | | - | CCR.1.1 TDD | | - |
|  | | 3 |  | CCR.2.1 TDD | | | - | CCR.2.1 TDD | | - |
| SSB configuration | | 1,4 |  | SSB.1 FR1 | | | | SSB.1 FR1 | | |
|  | | 2 |  | SSB.1 FR1 | | | | SSB.1 FR1 | | |
|  | | 3 |  | SSB.1 RedCap FR1 | | | | SSB.1 RedCap FR1 | | |
| OCNG Patterns | | 1~4 |  | OP.1 | | | | OP.1 | | |
| TRS configuration | | 1,4 |  | TRS.1.1 FDD | | - | | TRS.1.1 FDD | |  |
|  | | 2 |  | TRS.1.1 TDD | |  | | TRS.1.1 TDD | |  |
|  | | 3 |  | TRS.1.2 TDD | |  | | TRS.1.2 TDD | |  |
| Initial BWP Configuration | | 1~4 |  | DLBWP.0.1  ULBWP.0.1 | | | | DLBWP.0.1  ULBWP.0.1 | | |
| Dedicated BWP configuration | | 1~4 |  | DLBWP.1.1  ULBWP.1.1 | | | | DLBWP.1.1  ULBWP.1.1 | | |
| Time offset with Cell 1 | | 1,4 | ms | - | 3 | | | - | 3 | |
|  | | 2,3 | μs | - | 3 | | | - | 3 | |
| SMTC configuration | | 1,4 |  | SMTC.2 | | | | SMTC.2 | | |
|  | | 2,3 |  | SMTC.1 | | | | SMTC.1 | | |
| EPRE ratio of PSS to SSS | | 1~4 | dB | 0 | | | 0 | 0 | | 0 |
| EPRE ratio of PBCH DMRS to SSS | |  |  |  | | |  |  | |  |
| EPRE ratio of PBCH to PBCH DMRS | |  |  |  | | |  |  | |  |
| EPRE ratio of PDCCH DMRS to SSS | |  |  |  | | |  |  | |  |
| EPRE ratio of PDCCH to PDCCH DMRS | |  |  |  | | |  |  | |  |
| EPRE ratio of PDSCH DMRS to SSS | |  |  |  | | |  |  | |  |
| EPRE ratio of PDSCH to PDSCH DMRS | |  |  |  | | |  |  | |  |
| EPRE ratio of OCNG DMRS to SSSNote 1 | |  |  |  | | |  |  | |  |
| EPRE ratio of OCNG to OCNG DMRS Note 1 | |  |  |  | | |  |  | |  |
| Note2 | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5 | 1~4 | dBm/15kHz | -94.65 | | | | ( for Channel 2 +8dB) | | -115 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -114.5 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -114 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -113.5 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -113 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -112.5 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -112 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -111.5 |
| Note2 | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 1,2,4 | dBm/SSB SCS | -94.65 | | | | ( for Channel 2 +8dB) | | -115 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -114.5 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -114 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -113.5 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -113 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -112.5 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -112 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -111.5 |
|  | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 3 |  | -91.65 | | | | ( for Channel 2 +8dB) | | -112.00 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -111.50 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -111.00 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -110.50 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -110.00 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -109.50 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -109.00 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -108.50 |
|  | | 1~4 | dB | 10 | | | 10 | 13 | | -3 |
| SS-RSRPNote3 | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 1,2,4 | dBm/SCS | -84.65 | | | | (RSRP for Cell 2 +25dB) | | -118.00 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -117.50 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -117.00 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -116.50 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -116.00 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -115.50 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -115.00 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -114.50 |
|  | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 3 |  | -84.65 | | | | (RSRP for Cell 2 +25dB) | | -115.00 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -114.50 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -114.00 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -113.50 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -113.00 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -112.50 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -112.00 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -111.50 |
| IoNote3 | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 1,2,4 | dBm/  9.36MHz | -56.28 | | | | (Io for Channel 2 +19.75dB) | | -85.28 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -84.78 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -84.28 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -83.78 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -83.28 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -82.78 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -82.28 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -81.78 |
|  | NR\_FDD\_FR1\_A, NR\_TDD\_FR1\_A NOTE 5, | 3 | dBm/  18.36MHz | -53.33 | | | | (Io for Channel 2 +19.75dB) | | -82.35 |
|  | NR\_FDD\_FR1\_B |  |  |  | | | |  | | -81.85 |
|  | NR\_TDD\_FR1\_C |  |  |  | | | |  | | -81.35 |
|  | NR\_FDD\_FR1\_D, NR\_TDD\_FR1\_D |  |  |  | | | |  | | -80.85 |
|  | NR\_FDD\_FR1\_E, NR\_TDD\_FR1\_E |  |  |  | | | |  | | -80.35 |
|  | NR\_FDD\_FR1\_F |  |  |  | | | |  | | -79.85 |
|  | NR\_FDD\_FR1\_G |  |  |  | | | |  | | -79.35 |
|  | NR\_FDD\_FR1\_H |  |  |  | | | |  | | -78.85 |
|  | | 1~4 | dB | 10 | | | 10 | 13 | | -3 |
| Propagation condition | | 1~4 | - | AWGN | | | | AWGN | | |
| Antenna configuration | | 1~4 |  | 1x2 | | | | 1x2 | | |
| Note 1: OCNG shall be used such that both cells are fully allocated and a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: Interference from other cells and noise sources not specified in the test is assumed to be constant over subcarriers and time and shall be modelled as AWGN of appropriate power for  to be fulfilled.  Note 3: RSRP and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 4: RSRP minimum requirements are specified assuming independent interference and noise at each receiver antenna port.  Note 5: The test configuration excludes support for band n51 and it is not required to run this test on band n51 in this release of the specification. | | | | | | | | | | |

##### A.16.7.1.4.3 Test Requirements

The SS-RSRP measurement accuracy for Cell 1 and Cell 2 shall fulfil the absolute requirement in clause 10.1A.4.1.1 and relative requirement in clause 10.1A.4.1.2.

<<End of change >>