**3GPP TSG-RAN4 Meeting #111 *R4-2408578***

**Fukuoka, Japan, 20 May – 24 May, 2024**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.133** | **CR** | **4499** | **rev** | **-** | **Current version:** | **17.13.0** |  |
|  | | | | | | | | |
| *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:*** | CR Correcting propagation condition Rel-17 (Cat F) | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_2step\_RACH-Perf, NR\_feMIMO-Perf, LTE\_NR\_DC\_enh2-Perf, NR\_RRM\_enh2-Perf, NR\_HST\_FR2-Perf, NR\_ext\_to\_71GHz-Perf, NR\_MG\_enh-Perf, NR\_redcap-Perf | | | | |  | ***Date:*** | | | 2024-05-07 |
|  |  | | | |  | |  | | |  |
| ***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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In RAN4#110, the group agreed to replace the propagation condition ‘AWGN’ by ‘No external noise’ for RRM test cases that only Es power level is configured in test parameters. The corrections were done for Rel-15 test cases. This CR is to address the test cases introduced from Rel-16. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Using ‘No external noise’ as propagation condition in the RRM test cases that only Es power level is configured in test parameters. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The propagation condition is not refecting the expected configuration. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | A.5.3.2.2.3, A.5.3.2.2.4, A.5.5.11.3.1, A.5.5.12.1, A.5.5.13.1, A.7.3.1.6, A.7.3.1.7, A.7.3.2.2.3, A.7.3.2.2.4, A.7.5.7.3, A.7.5.7.4, A.7.5.8.3.1, A.7.5.12.1, A.7.5.13.1, A.7.5.13.3.1, A.7.6.1.5, A.7.6.1.6, A.7.6.1.8, A.7.6.1.10, A.7.6.1.11, A.7.6.2.12, A.7.6.2.14, A.7.6.2.16, A.7.6.2.18, A.7.6.14.1, A.7.6.14.2, A.7.6.15.1, A.7.6.15.2, A.7.6.16.1, A.7.6.16.3, A.15.4.1.1, A.15.4.2.1, A.17.3.2.2.1, A.17.3.2.2.2, A.17.3.2.2.3, A.17.3.2.2.4, A.17.5.4.1, A.17.5.4.2, A.17.6.1.1, A.17.6.1.3, A.17.6.2.1, A.17.6.2.3, A.18.3.1.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 Changes>

##### A.5.3.2.2.3 2-step RA type contention based random access test in FR2 for PSCell/SCell in EN-DC

### <Unchanged Part Skipped >

Table A.5.3.2.2.3.1-3: OTA-related test parameters for 2-step RA type contention based random access test in FR2 for PSCell/SCell in EN-DC

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | | Unit | Test-1 | Comments |
| AoA setup | |  | Setup 1 | As defined in A.3.15.1 |
| Assumption for UE beamsNote 2 | |  | Rough |  |
| SSB with | Es Note1 | dBm/SCS | -80.6 | Power of SSB with index 0 is set to be above configured *msgA-RSRP-ThresholdSSB* |
| index 0 | SSB\_RP | dBm/SCS | -80.6 |
|  | Es/IotBB | dB | 21.09 |  |
|  | Io | dBm/95.04 MHz | -56.01 | Io in symbols containing SSB index 0 |
| SSB with | Es Note1 | dBm/SCS | -95.0 | Power of SSB with index 1 is set to be below configured *msgA-RSRP-ThresholdSSB* |
| index 1 | SSB\_RP | dBm/SCS | -95.0 |
|  | Es/IotBB | dB | 6.69 |  |
|  | Io | dBm/95.04 MHz | -70.41 | Io in symbols containing SSB index 1 |
| Propagation Condition | | - | No external noise (Note 3) |  |
| Note 1: No artificial noise is applied in this test.  Note 2: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 3: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | |

### <Unchanged Part Skipped >

##### A.5.3.2.2.4 2-step RA type non-contention based random access test in FR2 for PSCell/SCell in EN-DC

### <Unchanged Part Skipped >

Table A.5.3.2.2.4.1-3: OTA-related test parameters for non-contention based random access test in FR2 for PSCell/SCell in EN-DC

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | | Unit | Test-1 | Comments |
| AoA setup | |  | Setup 1 | As defined in A.3.15.1 |
| Assumption for UE beamsNote 2 | |  | Rough |  |
| SSB with | Es Note1 | dBm/SCS | -80.6 | Power of SSB with index 0 is set to be above configured msgA-*RSRP-ThresholdSSB* |
| index 0 | SSB\_RP | dBm/SCS | -80.6 |
|  | Es/IotBB | dB | 21.09 |  |
|  | Io | dBm/95.04 MHz | -56.01 | Io in symbols containing SSB index 0 |
| SSB with | Es Note1 | dBm/SCS | -95.0 | Power of SSB with index 1 is set to be below configured msgA-*RSRP-ThresholdSSB* |
| index 1 | SSB\_RP | dBm/SCS | -95.0 |
|  | Es/IotBB | dB | 6.69 |  |
|  | Io | dBm/95.04 MHz | -70.41 | Io in symbols containing SSB index 1 |
| Propagation Condition | | - | No external noise (Note 3) |  |
| Note 1: No articial noise is applied in this test.  Note 2: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 3: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | |

### <Unchanged Part Skipped >

#### A.5.5.11.3 MAC-CE based active downlink TCI state switch

##### A.5.5.11.3.1 E-UTRAN – NR PSCell FR2 downlink TCI state switch to cell with additional PCI for a known TCI state

### <Unchanged Part Skipped >

Table A.5.5.11.3.1.1-3: NR Cell specific test parameters for TCI state switch

|  |  |  |
| --- | --- | --- |
| Parameter | Unit | Cell 2 |
| Frequency Range |  | FR2 |
| Duplex mode |  | TDD |
| TDD configuration |  | TDDConf.3.1 |
| BWchannel |  | 100 MHz: NRB,c = 66 |
| Data RBs allocated |  | 24 |
| Initial DL BWP Configuration |  | DLBWP.0.2 |
| Dedicated DL BWP Configuration |  | DLBWP.1.1 |
| Initial UL BWP Configuration |  | ULBWP.0.2 |
| Dedicated UL BWP Configuration |  | ULBWP.1.1 |
| PDSCH Reference measurement channel |  | SR.3. 2 TDD |
| RMSI CORESET parameters |  | CR.3.1 TDD |
| Dedicated CORESET parameters |  | CCR.3.1 TDD |
| OCNG Patterns |  | OP. 5 |
| SSB Configuration |  | SSB.1 FR2 |
| SMTC Configuration |  | SMTC.1 |
| DL TCI State 0 |  | DLorJoint TCI.State.0 |
| DL TCI State 1 |  | DLorJoint TCI.State.1 |
| UL TCI State 0 |  | UL TCI.State.0 |
| UL TCI State 1 |  | UL TCI.State.1 |
| Pathloss RS Configuration |  | Resource #4 in TRS.2.1 TDD |
| TRS Configuration |  | TRS.2.1 TDD for DLorJoint TCI.State.0  TRS.2.2 TDD for DLorJoint TCI.State.1 |
| Correlation Matrix and Antenna Configuration |  | 1x2 Low |
| EPRE ratio of PSS to SSS | dB | 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 |  |  |
| EPRE ratio of OCNG DMRS to SSS(Note 1) |  |  |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) |  |  |
| Propagation Condition |  | No external noise (Note 2) |
| Note 1: OCNG shall be used such that a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | |

### <Unchanged Part Skipped >

#### A.5.5.12.1 PSCell activation and deactivation delay

### <Unchanged Part Skipped >

Table A.5.5.12.1.1-3: Cell Specific Parameters for PSCell activation and deactivation

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Test | | | |
|  |  |  | T1 | T2 | T3 | T4 |
| E-UTRA Channel Number |  | 1,2 | 1 | | | |
| NR Channel Number |  | 1,2 | 2 | | | |
| Duplex Mode |  | 1,2 | TDD | | | |
| TDD configuration |  | 1,2 | TDDConf.3.1 | | | |
| BWchannel | MHz | 1,2 | 100: NRB,c = 66 | | | |
| Data RBs allocated |  | 1,2 | 48 | | | |
| Initial BWP Configuration |  | 1,2 | DLBWP.0.1  ULBWP.0.1 | | | |
| Dedicated BWP Configuration |  | 1,2 | DLBWP.1.1  ULBWP.1.1 | | | |
| TRS Configuration |  | 1 | TRS.2.1 TDD | | | |
| PDSCH/PDCCH TCI state |  | 1 | TCI.State.2 | | | |
| PDSCH Reference measurement channel |  | 1,2 | SR.3.3 TDD | | | |
| RMSI CORESET Reference Channel |  | 1,2 | CR.3.2 TDD | | | |
| Dedicated CORESET Reference Channel |  | 1,2 | CCR.3.7 TDD | | | |
| OCNG Patterns |  | 1,2 | OP.3 | | | |
| SSB configuration |  | 1,2 | SSB.2 FR2 | | | |
| SMTC configuration |  | 1,2 | SMTC.2 | | | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1,2 | 120 | | | |
| TRS Configuration |  | 1,2 | TRS.2.1 TDD | | | |
| CSI-RS configuration for CSI reporting |  | 1,2 | CSI-RS.3.1 TDD | | | |
| reportConfigType |  | 1,2 | periodic | | | |
| reportQuantity |  | 1,2 | cri-RI-PMI-CQI | | | |
| CSI reporting periodicity | slot | 1,2 | 40 | | | |
| CSI reporting offset | slot | 1,2 | 4 | | | |
| EPRE ratio of PSS to SSS | dB | 1,2 | 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 |  |  |  | | | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) |  |  |  | | | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) |  |  |  | | | |
| Propagation condition |  | 1,2 | No external noise (Note 1) | | | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

Table A.5.5.12.1.1-4: OTA related test parameters

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Cell 2 | | | |
| T1 | T2 | T3 | T4 |
| Angle of arrival configuration |  | Setup 2a according to clause A.3.15.2.1 | | | |
| Assumption for UE beamsNote 6 |  | Rough | | | |
| Ês | dBm/SCS | -81 | | | |
| SSB\_RPNote2, Note 4 | dBm/SCS | -81 | | | |
| BB Note 2, Note 7 | dB | 4.88 | | | |
| IoNote 2, Note 4 | dBm/95.04 MHz | -56.41 | | | |
| Note 1: Void  Note 2: Es/Iot, SSB\_RP and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 3: Void  Note 4: Equivalent power received by an antenna with 0dBi gain at the centre of the quiet zone  Note 5: Void  Note 6: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 7: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4. | | | | | |

### <Unchanged Part Skipped >

#### A.5.5.13.1 Addition and Release Delay of NR PSCell

### <Unchanged Part Skipped >

Table A.5.5.13.1.1-3: Cell Specific Parameters for Conditional PSCell Addition and Release

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **Unit** | **Config** | **Test** | | | |
|  |  |  | **T1** | **T2** | **T3** | **T4** |
| E-UTRA Channel Number |  | 1,2 | 1 | | | |
| NR Channel Number |  | 1,2 | 2 | | | |
| Duplex Mode |  | 1,2 | TDD | | | |
| TDD configuration |  | 1,2 | TDDConf.3.1 | | | |
| BWchannel | MHz | 1,2 | 100: NRB,c = 66 | | | |
| Data RBs allocated |  | 1,2 | 48 | | | |
| Initial BWP Configuration |  | 1,2 | DLBWP.0.1  ULBWP.0.1 | | | |
| Dedicated BWP Configuration |  | 1,2 | DLBWP.1.1  ULBWP.1.1 | | | |
| TRS Configuration |  | 1 | TRS.2.1 TDD | | | |
| PDSCH/PDCCH TCI state |  | 1 | TCI.State.2 | | | |
| PDSCH Reference measurement channel |  | 1,2 | SR.3.3 TDD | | | |
| RMSI CORESET Reference Channel |  | 1,2 | CR.3.2 TDD | | | |
| Dedicated CORESET Reference Channel |  | 1,2 | CCR.3.7 TDD | | | |
| OCNG Patterns |  | 1,2 | OP.3 | | | |
| SSB configuration |  | 1,2 | SSB.2 FR2 | | | |
| SMTC configuration |  | 1,2 | SMTC.2 | | | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1,2 | 120 | | | |
| TRS Configuration |  | 1,2 | TRS.2.1 TDD | | | |
| CSI-RS configuration for CSI reporting |  | 1,2 | CSI-RS.3.1 TDD | | | |
| reportConfigType |  | 1,2 | periodic | | | |
| reportQuantity |  | 1,2 | cri-RI-PMI-CQI | | | |
| CSI reporting periodicity | slot | 1,2 | 40 | | | |
| CSI reporting offset | slot | 1,2 | 4 | | | |
| EPRE ratio of PSS to SSS | dB | 1,2 | 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 |  |  |  | | | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) |  |  |  | | | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) |  |  |  | | | |
| Propagation condition |  | 1,2 | No external noise (Note 1) | | | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

Table A.5.5.13.1.1-4: OTA related test parameters

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter** | **Unit** | **Cell 2** | | | |
| **T1** | **T2** | **T3** | **T4** |
| Angle of arrival configuration |  | Setup 2a according to clause A.3.15.2.1 | | | |
| Assumption for UE beamsNote 6 |  | Rough | | | |
| Ês | dBm/SCS | -∞ | -81 | | |
| SSB\_RPNote2, Note 4 | dBm/SCS | -∞ | -81 | | |
| BB Note 2, Note 7 | dB | -∞ | 4.88 | | |
| IoNote 2, Note 4 | dBm/95.04 MHz | N/A | -56.41 | | |
| Note 1: Void  Note 2: Es/Iot, SSB\_RP and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 3: Void  Note 4: Equivalent power received by an antenna with 0dBi gain at the centre of the quiet zone  Note 5: Void  Note 6: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 7: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4. | | | | | |

### <Unchanged Part Skipped >

#### A.7.3.1.6 Handover with PSCell from SA to EN-DC with; unknown FR2 target PScell

### <Unchanged Part Skipped >

Table A.7.3.1.6.2-5: Cell specific test parameters for NR Cell 3

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Test | | | |
|  |  |  | T1 | T2 | T3 | T4 |
| E-UTRA Channel Number |  | 1,2, 3, 4 | 1 | | | |
| NR Channel Number |  | 1,2, 3, 4 | 2 | | | |
| Duplex Mode |  | 1,2, 3, 4 | TDD | | | |
| TDD configuration |  | 1,2, 3, 4 | TDDConf.3.1 | | | |
| BWchannel | MHz | 1,2, 3, 4 | 100: NRB,c = 66 | | | |
| Data RBs allocated |  | 1,2, 3, 4 | 48 | | | |
| Initial BWP Configuration |  | 1,2, 3, 4 | DLBWP.0.1  ULBWP.0.1 | | | |
| Dedicated BWP Configuration |  | 1,2, 3, 4 | DLBWP.1.1  ULBWP.1.1 | | | |
| PRACH configuration on cell 3 |  | FR2 PRACH configuration 2 | Captured in A.3.8.3.2 | | | |
| TRS Configuration |  | 1,2, 3, 4 | TRS.2.1 TDD | | | |
| PDSCH/PDCCH TCI state |  | 1,2, 3, 4 | TCI.State.2 | | | |
| PDSCH Reference measurement channel |  | 1,2, 3, 4 | SR.3.3 TDD | | | |
| RMSI CORESET Reference Channel |  | 1,2, 3, 4 | CR.3.2 TDD | | | |
| Dedicated CORESET Reference Channel |  | 1,2, 3, 4 | CCR.3.7 TDD | | | |
| OCNG Patterns |  | 1,2, 3, 4 | OP.3 | | | |
| SSB configuration |  | 1,2, 3, 4 | SSB.2 FR2 | | | |
| SMTC configuration |  | 1,2, 3, 4 | SMTC.2 | | | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1,2, 3, 4 | 120 | | | |
| TRS Configuration |  | 1,2, 3, 4 | TRS.2.1 TDD | | | |
| CSI-RS configuration for CSI reporting |  | 1,2, 3, 4 | CSI-RS.3.1 TDD | | | |
| reportConfigType |  | 1,2, 3, 4 | periodic | | | |
| reportQuantity |  | 1,2, 3, 4 | cri-RI-PMI-CQI | | | |
| CSI reporting periodicity | slot | 1,2, 3, 4 | 40 | | | |
| CSI reporting offset | slot | 1,2, 3, 4 | 4 | | | |
| EPRE ratio of PSS to SSS | dB | 1,2, 3, 4 | 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 |  |  |  | | | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) |  |  |  | | | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) |  |  |  | | | |
| Propagation condition |  | 1,2, 3, 4 | No external noise (Note 1) | | | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

Table A.7.3.1.6.2-6: OTA related test parameters

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Cell 3 | | | |
| T1 | T2 | T3 | T4 |
| Angle of arrival configuration |  | Setup 2a according to clause A.3.15.2.1 | | | |
| Assumption for UE beamsNote 6 |  | Rough | | | |
| Ês | dBm/SCS | -Infinity | -81 | | |
| SSB\_RPNote2, Note 4 | dBm/SCS | -Infinity | -81 | | |
| BB Note 2, Note 7 | dB | -Infinity | 4.88 | | |
| IoNote 2, Note 4 | dBm/95.04 MHz | N/A | -56.41 | | |
| Note 1: Void  Note 2: Es/Iot, SSB\_RP and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 3: Void  Note 4: Equivalent power received by an antenna with 0dBi gain at the centre of the quiet zone  Note 5: Void  Note 6: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 7: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4. | | | | | |

### <Unchanged Part Skipped >

#### A.7.3.1.7 HO with PSCell from FR1 NR-SA to EN-DC with known E-UTRA PCell and known FR2 PSCell

### <Unchanged Part Skipped >

Table A.7.3.1.7.1-5: Cell specific test parameters for Cell 3

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Test | | | |
|  |  |  | T1 | T2 | T3 | T4 |
| E-UTRA Channel Number |  | 1,2 | 1 | | | |
| NR Channel Number |  | 1,2 | 2 | | | |
| Duplex Mode |  | 1,2 | TDD | | | |
| TDD configuration |  | 1,2 | TDDConf.3.1 | | | |
| BWchannel | MHz | 1,2 | 100: NRB,c = 66 | | | |
| Data RBs allocated |  | 1,2 | 48 | | | |
| Initial BWP Configuration |  | 1,2 | DLBWP.0.1  ULBWP.0.1 | | | |
| Dedicated BWP Configuration |  | 1,2 | DLBWP.1.1  ULBWP.1.1 | | | |
| TRS Configuration |  | 1,2 | TRS.2.1 TDD | | | |
| PDSCH/PDCCH TCI state |  | 1,2 | TCI.State.2 | | | |
| PDSCH Reference measurement channel |  | 1,2 | SR.3.3 TDD | | | |
| RMSI CORESET Reference Channel |  | 1,2 | CR.3.2 TDD | | | |
| Dedicated CORESET Reference Channel |  | 1,2 | CCR.3.7 TDD | | | |
| OCNG Patterns |  | 1,2 | OP.3 | | | |
| SSB configuration |  | 1,2 | SSB.2 FR2 | | | |
| SMTC configuration |  | 1,2 | SMTC.2 | | | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1,2 | 120 | | | |
| TRS Configuration |  | 1,2 | TRS.2.1 TDD | | | |
| CSI-RS configuration for CSI reporting |  | 1,2 | CSI-RS.3.1 TDD | | | |
| reportConfigType |  | 1,2 | periodic | | | |
| reportQuantity |  | 1,2 | cri-RI-PMI-CQI | | | |
| CSI reporting periodicity | slot | 1,2 | 40 | | | |
| CSI reporting offset | slot | 1,2 | 4 | | | |
| EPRE ratio of PSS to SSS | dB | 1,2 | 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 |  |  |  | | | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) |  |  |  | | | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) |  |  |  | | | |
| Propagation condition |  | 1,2 | No external noise (Note 1) | | | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

Table A.7.3.1.7.1-6: OTA related test parameters

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Cell 3 | | | |
| T1 | T2 | T3 | T4 |
| Angle of arrival configuration |  | Setup 2a according to clause A.3.15.2.1 | | | |
| Assumption for UE beamsNote 6 |  | Rough | | | |
| Ês | dBm/SCS | -Infinity | -81 | | |
| SSB\_RPNote2, Note 4 | dBm/SCS | -Infinity | -81 | | |
| BB Note 2, Note 7 | dB | -Infinity | 4.88 | | |
| IoNote 2, Note 4 | dBm/95.04 MHz | N/A | -56.41 | | |
| Note 1: Void  Note 2: Es/Iot, SSB\_RP and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 3: Void  Note 4: Equivalent power received by an antenna with 0dBi gain at the centre of the quiet zone  Note 5: Void  Note 6: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 7: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4. | | | | | |

### <Unchanged Part Skipped >

##### A.7.3.2.2.3 2-step RA type contention based random access test in FR2 for NR Standalone

### <Unchanged Part Skipped >

Table A.7.3.2.2.3.1-3: OTA-related test parameters for 2-step RA type contention based random access test in FR2 for NR Standalone

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | | Unit | Test-1 | Comments |
| AoA setup | |  | Setup 2b | As defined in A.3.15.1 |
| Assumption for UE beamsNote 2 | |  | Rough |  |
| SSB with index 0 | Es Note1 | dBm/SCS | -80.6 | Power of SSB with index 0 is set to be above configured *msgA-RSRP-ThresholdSSB* |
|  | SSB\_RP | dBm/SCS | -80.6 |
|  | Es/IotBB | dB | 21.09 |  |
|  | Io | dBm/95.04 MHz | -56.01 | Io in symbols containing SSB index 0 |
| SSB with index 1 | Es Note1 | dBm/SCS | -95.0 | Power of SSB with index 1 is set to be below configured *msgA-RSRP-ThresholdSSB* |
|  | SSB\_RP | dBm/SCS | -95.0 |
|  | Es/IotBB | dB | 6.69 |  |
|  | Io | dBm/95.04 MHz | -70.41 | Io in symbols containing SSB index 1 |
| Propagation Condition | | - | No external noise (Note 3) |  |
| Note 1: No articial noise is applied in this test.  Note 2: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 3: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | |

### <Unchanged Part Skipped >

Table A.7.3.2.2.4.1-3: OTA-related test parameters for non-contention based random access test for 2-step RA type in FR2 for NR Standalone

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | | Unit | Test-1 | Comments |
| AoA setup | |  | Setup 1 | As defined in A.3.15.1 |
| Assumption for UE beams Note 2 | |  | Rough |  |
| SSB with index 0 | Es Note1 | dBm/SCS | -80.6 | Power of SSB with index 0 is set to be above configured *msgA-RSRP-ThresholdSSB* |
|  | SSB\_RP | dBm/SCS | -80.6 |
|  | Es/IotBB | dB | 21.09 |  |
|  | Io | dBm/95.04 MHz | -56.01 | Io in symbols containing SSB index 0 |
| SSB with index 1 | Es Note1 | dBm/SCS | -95.0 | Power of SSB with index 1 is set to be below configured *msgA-RSRP-ThresholdSSB* |
|  | SSB\_RP | dBm/SCS | -95.0 |
|  | Es/IotBB | dB | 6.69 |  |
|  | Io | dBm/95.04 MHz | -70.41 | Io in symbols containing SSB index 1 |
| Propagation Condition | | - | No external noise (Note 3) |  |
| Note 1: No artificial noise is applied in this test.  Note 2: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 3: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | |

### <Unchanged Part Skipped >

#### A.7.5.7.3 Addition and Release Delay of known NR PSCell in FR2-2

### <Unchanged Part Skipped >

Table A.7.5.7.3.1-3: NR Cell specific test parameters for PSCell addition and release delay

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | Cell2 | | | | |
|  |  |  |  | T1 | T2 | T3 | T4 | T5 |
| Frequency Range |  | 1,2,3 | FR1 | FR2-2 | | | | |
| Duplex mode |  | 1 | FDD | TDD | | | | |
|  |  | 2,3 | TDD |  | | | | |
| TDD configuration |  | 1 | – | TDDConf.3.1 | | | | |
|  |  | 2 | TDDConf.1.1 |  | | | | |
|  |  | 3 | TDDConf.2.1 |  | | | | |
| BWchannel | MHz | 1,2 | 10: NRB,c = 52 | 100: NRB,c = 66 | | | | |
|  |  | 3 | 40: NRB,c = 106 |  | | | | |
| Data RBs allocated |  | 1,2 | 52 | 48 | | | | |
| 3 | 106 |
| Initial Downlink BWP configuration |  | 1,2,3 | DLBWP.0.1 | DLBWP.0.1 | | | | |
| Initial Uplink BWP configuration |  | 1,2,3 | ULBWP.0.1 | ULBWP.0.1 | | | | |
| Dedicated Downlink BWP configuration |  | 1,2,3 | DLBWP.1.1 | DLBWP.1.1 | | | | |
| Dedicated Uplink BWP configuration |  | 1,2,3 | ULBWP.1.1 | ULBWP.1.1 | | | | |
| PDSCH Reference Measurement Channel |  | 1 | SR.1.1 FDD | SR.3.3 TDD | | | | |
|  |  | 2 | SR.1.1 TDD |  | | | | |
|  |  | 3 | SR.2.1 TDD |  | | | | |
| TRS configuration |  | 1,2,3 | – | TRS.2.1 TDD | | | | |
| TCI state |  | 1,2,3 | – | TCI.State.0 | | | | |
| RMSI CORESET parameters |  | 1 | CR.1.1 FDD | CR.3.2 TDD | | | | |
|  |  | 2 | CR.1.1 TDD |  | | | | |
|  |  | 3 | CR.2.1 TDD |  | | | | |
| Dedicated CORESET parameters |  | 1 | CCR.1.1 FDD | CCR.3.7 TDD | | | | |
|  |  | 2 | CCR.1.1 TDD |  | | | | |
|  |  | 3 | CCR.2.1 TDD |  | | | | |
| OCNG PatternsNote1 |  | 1,2,3 | OP.1 | OP.3 | | | | |
| SSB configuration |  | 1,2 | SSB.1 FR1 | SSB.2 FR2 | | | | |
|  |  | 3 | SSB.2 FR1 |
| SMTC configuration |  | 1,2,3 | SMTC.2 | SMTC.1 | | | | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1,2 | 15 | 120 | | | | |
| 3 | 30 |
| EPRE ratio of PSS to SSS | dB | 1,2,3 | 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 |  |  |  |  | | | | |
| EPRE ratio of OCNG DMRS to SSS |  |  |  |  | | | | |
| EPRE ratio of OCNG to OCNG DMRS |  |  |  |  | | | | |
| Propagation Condition |  | 1,2,3 | N/A | No external noise (Note 2) | | | | |
| Note 1: OCNG shall be used such that a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | | |

### <Unchanged Part Skipped >

#### A.7.5.7.4 Addition and Release Delay of unknown NR PSCell in FR2-2

### <Unchanged Part Skipped >

Table A.7.5.7.4.1-3: NR Cell specific test parameters for PSCell addition and release delay

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | Cell2 | | | |
|  |  |  |  | T1 | T2 | T3 | T4 |
| Frequency Range |  | 1,2,3 | FR1 | FR2-2 | | | |
| Duplex mode |  | 1 | FDD | TDD | | | |
|  |  | 2,3 | TDD |  | | | |
| TDD configuration |  | 1 | – | TDDConf.3.1 | | | |
|  |  | 2 | TDDConf.1.1 |  | | | |
|  |  | 3 | TDDConf.2.1 |  | | | |
| BWchannel | MHz | 1,2 | 10: NRB,c = 52 | 100: NRB,c = 66 | | | |
|  |  | 3 | 40: NRB,c = 106 |  | | | |
| Data RBs allocated |  | 1,2 | 52 | 48 | | | |
| 3 | 106 |
| Initial Downlink BWP configuration |  | 1,2,3 | DLBWP.0.1 | DLBWP.0.1 | | | |
| Initial Uplink BWP configuration |  | 1,2,3 | ULBWP.0.1 | ULBWP.0.1 | | | |
| Dedicated Downlink BWP configuration |  | 1,2,3 | DLBWP.1.1 | DLBWP.1.1 | | | |
| Dedicated Uplink BWP configuration |  | 1,2,3 | ULBWP.1.1 | ULBWP.1.1 | | | |
| PDSCH Reference Measurement Channel |  | 1 | SR.1.1 FDD | SR.3.3 TDD | | | |
|  |  | 2 | SR.1.1 TDD |  | | | |
|  |  | 3 | SR.2.1 TDD |  | | | |
| TRS configuration |  | 1,2,3 | – | TRS.2.1 TDD | | | |
| TCI state |  | 1,2,3 | – | TCI.State.0 | | | |
| RMSI CORESET parameters |  | 1 | CR.1.1 FDD | CR.3.2 TDD | | | |
|  |  | 2 | CR.1.1 TDD |  | | | |
|  |  | 3 | CR.2.1 TDD |  | | | |
| Dedicated CORESET parameters |  | 1 | CCR.1.1 FDD | CCR.3.7 TDD | | | |
|  |  | 2 | CCR.1.1 TDD |  | | | |
|  |  | 3 | CCR.2.1 TDD |  | | | |
| OCNG PatternsNote1 |  | 1,2,3 | OP.1 | OP.3 | | | |
| SSB configuration |  | 1,2 | SSB.1 FR1 | SSB.2 FR2 | | | |
| 3 | SSB.2 FR1 |
| SMTC configuration |  | 1,2,3 | SMTC.2 | SMTC.1 | | | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1,2 | 15 | 120 | | | |
| 3 | 30 |
| EPRE ratio of PSS to SSS | dB | 1,2,3 | 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 |  |  |  |  | | | |
| EPRE ratio of OCNG DMRS to SSS |  |  |  |  | | | |
| EPRE ratio of OCNG to OCNG DMRS |  |  |  |  | | | |
| Propagation Condition |  | 1,2,3 | No external noise (Note 2) | No external noise (Note 2) | | | |
| Note 1: OCNG shall be used such that a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | |

### <Unchanged Part Skipped >

#### A.7.5.8.3 MAC-CE based active TCI state switch for HST FR2 scenario

##### A.7.5.8.3.1 NR PCell FR2 HST active TCI state switch for a known TCI state

### <Unchanged Part Skipped >

Table A.7.5.8.3.1.1-3: NR Cell specific test parameters for TCI state switch

|  |  |  |
| --- | --- | --- |
| Parameter | Unit | Cell 1 |
| Frequency Range |  | FR2 |
| Duplex mode |  | TDD |
| TDD configuration |  | TDDConf.3.1 |
| BWchannel |  | 100 MHz: NRB,c = 66 |
| Data RBs allocated |  | 66 |
| Initial DL BWP Configuration |  | DLBWP.0.2 |
| Dedicated DL BWP Configuration |  | DLBWP.1.1 |
| Initial UL BWP Configuration |  | ULBWP.0.2 |
| Dedicated UL BWP Configuration |  | ULBWP.1.1 |
| PDSCH Reference measurement channel |  | SR.3. 2 TDD |
| RMSI CORESET parameters |  | CR.3.1 TDD |
| Dedicated CORESET parameters |  | CCR.3.1 TDD |
| OCNG Patterns |  | OP. 5 |
| SSB Configuration |  | SSB.1 FR2 |
| SMTC Configuration |  | SMTC.1 |
| TCI State 0 |  | TCI.State.0 |
| TCI State 1 |  | TCI.State.1 |
| TRS Configuration |  | TRS.2.1 TDD |
| Correlation Matrix and Antenna Configuration |  | 1x2 |
| EPRE ratio of PSS to SSS | dB | 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 |  |  |
| EPRE ratio of OCNG DMRS to SSS(Note 1) |  |  |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) |  |  |
| Propagation Condition |  | AOA1: No external noise (Note 2)  AOA2: No external noise (Note 2) with 9722 Hz frequency offset |
| Note 1: OCNG shall be used such that a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | |

### <Unchanged Part Skipped >

#### A.7.5.12.1 Addition and Release Delay of PSCell

### <Unchanged Part Skipped >

Table A.7.5.12.1.2-3: NR Cell specific test parameters for conditional PSCell addition and release delay

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | Cell2 | | | |
|  |  |  |  | T1 | T2 | T3 | T4 |
| Frequency Range |  | 1,2,3 | FR1 | FR2 | | | |
| Duplex mode |  | 1 | FDD | TDD | | | |
|  |  | 2,3 | TDD |  | | | |
| TDD configuration |  | 1 | – | TDDConf.3.1 | | | |
|  |  | 2 | TDDConf.1.1 |  | | | |
|  |  | 3 | TDDConf.2.1 |  | | | |
| BWchannel | MHz | 1,2 | 10: NRB,c = 52 | 100: NRB,c = 66 | | | |
|  |  | 3 | 40: NRB,c = 106 |  | | | |
| Data RBs allocated |  | 1,2 | 52 | 48 | | | |
| 3 | 106 |
| Initial Downlink BWP configuration |  | 1,2,3 | DLBWP.0.1 | DLBWP.0.1 | | | |
| Initial Uplink BWP configuration |  | 1,2,3 | ULBWP.0.1 | ULBWP.0.1 | | | |
| Dedicated Downlink BWP configuration |  | 1,2,3 | DLBWP.1.1 | DLBWP.1.1 | | | |
| Dedicated Uplink BWP configuration |  | 1,2,3 | ULBWP.1.1 | ULBWP.1.1 | | | |
| PDSCH Reference Measurement Channel |  | 1 | SR.1.1 FDD | SR.3.3 TDD | | | |
|  |  | 2 | SR.1.1 TDD |  | | | |
|  |  | 3 | SR.2.1 TDD |  | | | |
| TRS configuration |  | 1,2,3 | – | TRS.2.1 TDD | | | |
| TCI state |  | 1,2,3 | – | TCI.State.0 | | | |
| RMSI CORESET parameters |  | 1 | CR.1.1 FDD | CR.3.2 TDD | | | |
|  |  | 2 | CR.1.1 TDD |  | | | |
|  |  | 3 | CR.2.1 TDD |  | | | |
| Dedicated CORESET parameters |  | 1 | CCR.1.1 FDD | CCR.3.7 TDD | | | |
|  |  | 2 | CCR.1.1 TDD |  | | | |
|  |  | 3 | CCR.2.1 TDD |  | | | |
| OCNG PatternsNote1 |  | 1,2,3 | OP.1 | OP.3 | | | |
| SSB configuration |  | 1,2 | SSB.1 FR1 | SSB.2 FR2 | | | |
|  |  | 3 | SSB.2 FR1 |
| SMTC configuration |  | 1,2,3 | SMTC.2 | SMTC.1 | | | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1,2 | 15 | 120 | | | |
| 3 | 30 |
| EPRE ratio of PSS to SSS | dB | 1,2,3 | 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 |  |  |  |  | | | |
| EPRE ratio of OCNG DMRS to SSS |  |  |  |  | | | |
| EPRE ratio of OCNG to OCNG DMRS |  |  |  |  | | | |
| Propagation Condition |  | 1,2,3 | N/A | No external noise (Note 2) | | | |
| Note 1: OCNG shall be used such that a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | |

### <Unchanged Part Skipped >

#### A.7.5.13.1 MAC-CE based active joint TCI state switching

### <Unchanged Part Skipped >

Table A.7.5.13.1.1.2-1: NR Cell specific test parameters for TCI state switch

|  |  |  |
| --- | --- | --- |
| Parameter | Unit | Cell 1 |
| Frequency Range |  | FR2 |
| Duplex mode |  | TDD |
| TDD configuration |  | TDDConf.3.1 |
| BWchannel |  | 100 MHz: NRB,c = 66 |
| Data RBs allocated |  | 24 |
| Initial DL BWP Configuration |  | DLBWP.0.2 |
| Dedicated DL BWP Configuration |  | DLBWP.1.1 |
| Initial UL BWP Configuration |  | ULBWP.0.2 |
| Dedicated UL BWP Configuration |  | ULBWP.1.1 |
| PDSCH Reference measurement channel |  | SR.3. 2 TDD |
| RMSI CORESET parameters |  | CR.3.1 TDD |
| Dedicated CORESET parameters |  | CCR.3.1 TDD |
| OCNG Patterns |  | OP. 5 |
| SSB Configuration |  | SSB.1 FR2 |
| SMTC Configuration |  | SMTC.1 |
| PL-RS Configuration  (CSI-RS#1) |  | Resource #4 in TRS.2.1 TDD for DLorJoint TCI.State.2 and DLorJoint TCI.State.3 |
| TCI State 0 |  | DLorJoint TCI.State.2 |
| TCI State 1 |  | DLorJoint TCI.State.3 |
| TRS Configuration |  | TRS.2.1 TDD for DLorJoint TCI.State.2  TRS 2.2 TDD for DLorJoint TCI.State.3 |
| Correlation Matrix and Antenna Configuration |  | 1x2 Low |
| EPRE ratio of PSS to SSS | dB | 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 |  |  |
| EPRE ratio of OCNG DMRS to SSS(Note 1) |  |  |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) |  |  |
| Propagation Condition |  | No external noise (Note 2) |
| Note 1: OCNG shall be used such that a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | |

### <Unchanged Part Skipped >

#### A.7.5.13.3 MAC-CE based active downlink TCI state switch

##### A.7.5.13.3.1 NR PCell FR2 active downlink TCI state switch to cell with additional PCI for a known TCI state

### <Unchanged Part Skipped >

Table A.7.5.13.3.1.2-2: NR Cell specific test parameters for TCI state switch to a cell with additional PCI

|  |  |  |
| --- | --- | --- |
| Parameter | Unit | Cell 1 |
| Frequency Range |  | FR2 |
| Duplex mode |  | TDD |
| TDD configuration |  | TDDConf.3.1 |
| BWchannel |  | 100 MHz: NRB,c = 66 |
| Data RBs allocated |  | 24 |
| Initial DL BWP Configuration |  | DLBWP.0.2 |
| Dedicated DL BWP Configuration |  | DLBWP.1.1 |
| Initial UL BWP Configuration |  | ULBWP.0.2 |
| Dedicated UL BWP Configuration |  | ULBWP.1.1 |
| PDSCH Reference measurement channel |  | SR.3. 2 TDD |
| RMSI CORESET parameters |  | CR.3.1 TDD |
| Dedicated CORESET parameters |  | CCR.3.1 TDD |
| OCNG Patterns |  | OP. 5 |
| SSB Configuration |  | SSB.1 FR2 for SSB0 of Cell 1 and SSB1 of Cell 2 |
| SMTC Configuration |  | SMTC.1 |
| DL TCI State 0 |  | DLorJoint TCI.State.0 |
| DL TCI State 1 |  | DLorJoint TCI.State.1 |
| TRS Configuration |  | TRS.2.1 TDD for DLorJoint TCI.State.0  TRS.2.2 TDD for DLorJoint TCI.State.1 |
| Pathloss RS Configuration |  | Resource #4 in TRS.2.1 TDD |
| reportQuantity for SSB |  | ssb-Index-RSRP-Index-r17 |
| reportConfigType for SSB |  | periodic |
| Correlation Matrix and Antenna Configuration |  | 1x2 Low |
| EPRE ratio of PSS to SSS | dB | 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 |  |  |
| EPRE ratio of OCNG DMRS to SSS(Note 1) |  |  |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) |  |  |
| Propagation Condition |  | No external noise (Note 2) |
| Note 1: OCNG shall be used such that a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | |

### <Unchanged Part Skipped >

#### A.7.6.1.5 SA event triggered reporting test without gap under non-DRX for UE configured with *highSpeedMeasFlagFR2-r17*

### <Unchanged Part Skipped >

Table A.7.6.1.5.1-3: NR Cell specific test parameters for intra-frequency event triggered reporting for SA with TDD PCell in FR2 without gap without DRX

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | | Cell 2 | |
|  |  |  | T1 | T2 | T1 | T2 |
| TDD configuration |  | 1, 2 | TDDConf.3.1 | | TDDConf.3.1 | |
| BWchannel | MHz | 1, 2 | 100: NRB,c = 66 | | 100: NRB,c = 66 | |
| Data RBs allocated |  | 1 | 24 | | 24 | |
| 2 | 48 | | 48 | |
| Intial BWP configuration |  | 1, 2 | DLBWP.0.1  ULBWP.0.1 | | DLBWP.0.1  ULBWP.0.1 | |
| Active DL BWP configuration |  | 1, 2 | DLBWP.1.1 | | DLBWP.1.1 | |
| Active UL BWP configuration |  | 1, 2 | ULBWP.1.1 | | ULBWP.1.1 | |
| RLM-RS |  | 1, 2 | SSB | | SSB | |
| PDSCH RMC configuration |  | 1 | SR.3.2 TDD | | N/A | |
| 2 | SR.3.3 TDD | |
| RMSI CORESET RMC configuration |  | 1 | CR.3.1 TDD | | N/A | |
| 2 | CR.3.2 TDD | | N/A | |
| Dedicated CORESET RMC configuration |  | 1 | CCR.3.1 TDD | | N/A | |
| 2 | CCR.3.7 TDD | | N/A | |
| TRS configuration |  | 1, 2 | TRS.2.1 TDD | | N/A | |
| PDSCH/PDCCH TCI states |  | 1, 2 | TCI.State.2 | | N/A | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1, 2 | 120 | | 120 | |
| OCNG Patterns |  | 1, 2 | OP.5 | | N/A | |
| cellIndividualOffset | dB | 1~2 | N/A | | 16 | |
| SSB |  | 1 | SSB.1 FR2 | | SSB.7 FR2 | |
|  |  | 2 | SSB.2 FR2 | | SSB.8 FR2 | |
| Propagation Condition |  | 1, 2 | No external noise (Note 2) | | No external noise (Note 2) 19444Hz Note 1 | |
| Note 1: The AWGN 19444 Hz condition is a non fading propagation channel with one tap. Doppler shift is a constant 19444 Hz.  Note 2: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.1.6 SA event triggered reporting test without gap under non-DRX for FR2-2

### <Unchanged Part Skipped >

Table A.7.6.1.6.1-3: NR Cell specific test parameters for intra-frequency event triggered reporting for SA with TDD PCell in FR2-2 without gap without DRX

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | | Cell 2 | |
|  |  |  | T1 | T2 | T1 | T2 |
| TDD configuration |  | 1,2,3 | TDDConf.3.1 | | TDDConf.3.1 | |
| BWchannel | MHz | 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | |
| 2 | 400: NRB,c = 66 | | 400: NRB,c = 66 | |
| 3 | 400: NRB,c = 33 | | 400: NRB,c = 33 | |
| Data RBs allocated |  | 1 | 66 | | 66 | |
| 2 | 66 | | 66 | |
| 3 | 33 | | 33 | |
| Intial BWP configuration |  | 1,2,3 | DLBWP.0.1  ULBWP.0.1 | | DLBWP.0.1  ULBWP.0.1 | |
| Active DL BWP configuration |  | 1,2,3 | DLBWP.1.1 | | DLBWP.1.1 | |
| Active UL BWP configuration |  | 1,2,3 | ULBWP.1.1 | | ULBWP.1.1 | |
| RLM-RS |  | 1,2,3 | SSB | | SSB | |
| PDSCH RMC configuration |  | 1 | SR.3.2 TDD | | N/A | |
| 2,3 | SR.3.3 TDD | |
| RMSI CORESET RMC configuration |  | 1 | CR.3.1 TDD | | N/A | |
| 2,3 | CR.3.2 TDD | | N/A | |
| Dedicated CORESET RMC configuration |  | 1 | CCR.3.1 TDD | | N/A | |
| 2,3 | CCR.3.7 TDD | | N/A | |
| TRS configuration |  | 1,2,3 | TRS.2.1 TDD | | N/A | |
| PDSCH/PDCCH TCI states |  | 1,2,3 | TCI.State.2 | | N/A | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1,2,3 | 120 | | 120 | |
| OCNG Patterns |  | 1,2,3 | OP.5 | | N/A | |
| cellIndividualOffset | dB | 1,2,3 | N/A | | 16 | |
| SSB |  | 1 | SSB.1 FR2 | | SSB.7 FR2 | |
| 2 | SSB.9 FR2 | | SSB.15 FR2 | |
| 3 | SSB.10 FR2 | | SSB.16 FR2 | |
| Propagation Condition |  | 1, 2,3 | No external noise (Note 1) | | No external noise (Note 1) | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.1.8 SA event triggered reporting test with per-UE gaps under non-DRX for FR2-2

### <Unchanged Part Skipped >

Table A.7.6.1.8.1-3: NR Cell specific test parameters for intra-frequency event triggered reporting for SA with TDD PCell in FR2-2 with per-UE gaps without DRX

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | | Cell 2 | |
|  |  |  | T1 | T2 | T1 | T2 |
| TDD configuration |  | 1, 2,3 | TDDConf.3.1 | | TDDConf.3.1 | |
| BWchannel | MHz | 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | |
| 2 | 400: NRB,c = 66 | | 400: NRB,c = 66 | |
| 3 | 400: NRB,c = 33 | | 400: NRB,c = 33 | |
| Data RBs allocated |  | 1 | 66 | | 66 | |
| 2 | 66 | | 66 | |
| 3 | 33 | | 33 | |
| Intial BWP configuration |  | 1,2,3 | DLBWP.0.1  ULBWP.0.1 | | DLBWP.0.1  ULBWP.0.1 | |
| Active DL BWP configuration |  | 1,2,3 | DLBWP.1.2 | | DLBWP.1.1 | |
| Active UL BWP configuration |  | 1,2,3 | ULBWP.1.2 | | ULBWP.1.1 | |
| RLM-RS |  | 1,2,3 | CSI-RS | | SSB | |
| PDSCH RMC configuration |  | 1 | SR.3.2 TDD | | N/A | |
| 2,3 | SR.3.3 TDD | |
| RMSI CORESET RMC configuration |  | 1 | CR.3.1 TDD | | N/A | |
| 2,3 | CR.3.2 TDD | | N/A | |
| Dedicated CORESET RMC configuration |  | 1 | CCR.3.1 TDD | | N/A | |
| 2,3 | CCR.3.7 TDD | | N/A | |
| TRS configuration |  | 1,2,3 | TRS.2.1 TDD | | N/A | |
| PDSCH/PDCCH TCI states |  | 1,2,3 | TCI.State.2 | | N/A | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1,2,3 | 120 | | 120 | |
| OCNG Patterns |  | 1,2,3 | OP.5 | | N/A | |
| cellIndividualOffset | dB | 1,2,3 | N/A | | 16 | |
| SSB |  | 1 | SSB.1 FR2 | | SSB.7 FR2 | |
| 2 | SSB.9 FR2 | | SSB.15 FR2 | |
| 3 | SSB.10 FR2 | | SSB.16 FR2 | |
| Propagation Condition |  | 1, 2,3 | No external noise (Note 1) | | No external noise (Note 1) | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.1.10 SA event triggered reporting test with SSB time index detection without gap under non-DRX for FR2-2

### <Unchanged Part Skipped >

Table A.7.6.1.10.1-3: NR Cell specific test parameters for intra-frequency event triggered reporting for SA with TDD Pcell in FR2-2 without gap without DRX

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | | Cell 2 | |
|  |  |  | T1 | T2 | T1 | T2 |
| TDD configuration |  | 1 | TDDConf.3.1 | | TDDConf.3.1 | |
| BWchannel | MHz | 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | |
| Data RBs allocated |  | 1 | 24 | | 24 | |
| Intial BWP configuration |  | 1 | DLBWP.0.1  ULBWP.0.1 | | DLBWP.0.1  ULBWP.0.1 | |
| Active DL BWP configuration |  | 1 | DLBWP.1.1 | | DLBWP.1.1 | |
| Active UL BWP configuration |  | 1 | ULBWP.1.1 | | ULBWP.1.1 | |
| RLM-RS |  | 1 | SSB | | SSB | |
| PDSCH RMC configuration |  | 1 | SR.3.2 TDD | | N/A | |
| RMSI CORESET RMC configuration |  | 1 | CR.3.1 TDD | | N/A | |
| Dedicated CORESET RMC configuration |  | 1 | CCR.3.1 TDD | | N/A | |
| TRS configuration |  | 1 | TRS.2.1 TDD | | N/A | |
| PDSCH/PDCCH TCI states |  | 1 | TCI.State.2 | | N/A | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1 | 120 | | 120 | |
| OCNG Patterns |  | 1 | OP.5 | | N/A | |
| cellIndividualOffset | dB | 1 | N/A | | 16 | |
| SSB |  | 1 | SSB.10 FR2 | | SSB.16 FR2 | |
|  |  |
| Propagation Condition |  | 1 | No external noise (Note 1) | | No external noise (Note 1) | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.1.11 SA event triggered reporting test with SSB time index detection with per-UE gaps under non-DRX for FR2-2

### <Unchanged Part Skipped >

Table A.7.6.1.11.1-3: NR Cell specific test parameters for intra-frequency event triggered reporting for SA with TDD PCell in FR2-2 with per-UE gaps without DRX

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | | Cell 2 | |
|  |  |  | T1 | T2 | T1 | T2 |
| TDD configuration |  | 1 | TDDConf.3.1 | | TDDConf.3.1 | |
| BWchannel | MHz | 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | |
| Data RBs allocated |  | 1 | 24 | | 24 | |
| 2 | 48 | | 48 | |
| Intial BWP configuration |  | 1 | DLBWP.0.1  ULBWP.0.1 | | DLBWP.0.1  ULBWP.0.1 | |
| Active DL BWP configuration |  | 1 | DLBWP.1.2 | | DLBWP.1.1 | |
| Active UL BWP configuration |  | 1 | ULBWP.1.2 | | ULBWP.1.1 | |
| RLM-RS |  | 1 | CSI-RS | | SSB | |
| PDSCH RMC configuration |  | 1 | SR.3.2 TDD | | N/A | |
| RMSI CORESET RMC configuration |  | 1 | CR.3.1 TDD | | N/A | |
| N/A | |
| Dedicated CORESET RMC configuration |  | 1 | CCR.3.1 TDD | | N/A | |
| TRS configuration |  | 1 | TRS.2.1 TDD | | N/A | |
| PDSCH/PDCCH TCI states |  | 1 | TCI.State.2 | | N/A | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1 | 120 | | 120 | |
| OCNG Patterns |  | 1 | OP.5 | | N/A | |
| cellIndividualOffset | dB | 1 | N/A | | 16 | |
| SSB |  | 1 | SSB.12 FR2 | | SSB.16 FR2 | |
|  |  |
| Propagation Condition |  | 1 | No external noise (Note 1) | | No external noise (Note 1) | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.2.12 SA event triggered reporting tests for FR2-2 without SSB time index detection when DRX is not used (PCell in FR2-2)

### <Unchanged Part Skipped >

Table A.7.6.2.12.1-3: Cell specific test parameters for SA inter-frequency event triggered reporting for FR2-2 without SSB time index detection

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | | Unit | Test configuration | Cell 1 | | Cell 2 | | |
|  | |  |  | T1 | T2 | T1 | | T2 |
| AoA setup | |  | Config 1,2,3 | Setup 3 as specified in clause A.3.15 | | | | |
|  | |  |  | AoA1 | | AoA2 | | |
| Beam AssumptionNote 7 | |  | 1,2,3 | Rough | | Rough | | |
| NR RF Channel Number | |  | Config 1,2,3 | 1 | | 2 | | |
| Duplex mode | |  | Config 1,2,3 | TDD | | TDD | | |
| TDD configuration | |  | Config 1,2,3 | TDDConf.3.1 | | TDDConf.3.1 | | |
| BWchannel | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| Config 2 | 400: NRB,c = 66 | | 400: NRB,c = 66 | | |
| Config 3 | 400: NRB,c = 33 | | 400: NRB,c = 33 | | |
| Data RBs allocated | |  | Config 1 | 66 | | 66 | | |
| Config 2 | 66 | | 66 | | |
| Config 3 | 33 | | 33 | | |
| BWP BW | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| Config 2 | 400: NRB,c = 66 | | 400: NRB,c = 66 | | |
| Config 3 | 400: NRB,c = 33 | | 400: NRB,c = 33 | | |
| BWP configuration | Initial DL BWP |  | Config 1,2,3 | DLBWP.0.1 | | N/A | | |
|  | Initial UL BWP |  |  | ULBWP.0.1 | | N/A | | |
|  | Dedicated DL BWP |  |  | DLBWP.1.1 | | N/A | | |
|  | Dedicated UL BWP |  |  | ULBWP.1.1 | | N/A | | |
| OCNG Patterns defined in A.3.2.1.1 (OP.1) | |  | Config 1,2,3 | OP.1 | | OP.1 | | |
| PDSCH Reference measurement channel | |  | Config 1,2,3 | SR.3.1 TDD | | - | | |
| CORESET Reference Channel | |  | Config 1,2,3 | CR.3.1 TDD | | - | | |
| SMTC configuration defined in A.3.11.1 and A.3.11.2 | |  | Config 1,2,3 | SMTC.1 | | SMTC.1 | | |
| PDSCH/PDCCH subcarrier spacing | | kHz | Config 1,2,3 | 120 | | 120 | | |
| TRS configuration | |  | Config 1,2,3 | TRS.2.1 TDD | | N/A | | |
| PDSCH/PDCCH TCI state | |  | Config 1,2,3 | TCI.State.2 | | N/A | | |
| EPRE ratio of PSS to SSS | |  |  |  | |  | | |
| 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 | |  | Config 1,2,3 | 0 | | 0 | | |
| EPRE ratio of PDSCH DMRS to SSS | |  |  |  | |  | | |
| EPRE ratio of PDSCH to PDSCH | |  |  |  | |  | | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) | |  |  |  | |  | | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) | |  |  |  | |  | | |
| Ês | | dBm/SCS | Config 1 | -87 | -87 | -Infinity | | -87 |
| Config 2 | -81 | -81 | -Infinity | | -81 |
| Config 3 | -78 | -78 | -Infinity | | -78 |
| SSBRP Note 3 | | dBm/SCS Note5 | Config 1 | -87 | -87 | -Infinity | | -87 |
| Config 2 | -81 | -81 | -Infinity | | -81 |
| Config 3 | -78 | -78 | -Infinity | | -78 |
| BB Note 8 | | dB | Config 1,2,3 | 1.89 | 1.89 | -Infinity | | 1.89 |
| IoNote3 | | dBm/95.04 MHz Note5 | Config 1,2,3 | -58.01 | -58.01 | -Infinity | | -58.01 |
| Propagation Condition | |  | Config 1,2,3 | No external noise (Note 9) | | | No external noise (Note 9) | |
| 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: VoidNote 3: SSBRP, Es/Iot and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 4: Void  Note 5: Equivalent power received by an antenna with 0 dBi gain at the centre of the quiet zone  Note 6: As observed with 0 dBi gain antenna at the centre of the quiet zone  Note 7: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 8: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4.  Note 9: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.2.14 SA event triggered reporting tests for FR2-2 with SSB time index detection when DRX is not used (PCell in FR2-2)

### <Unchanged Part Skipped >

Table A.7.6.2.14.1-3: Cell specific test parameters for SA inter-frequency event triggered reporting for FR2-2 with SSB time index detection

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | | Unit | Test configuration | Cell 1 | | Cell 2 | | |
|  | |  |  | T1 | T2 | T1 | | T2 |
| AoA setup | |  | Config 1,2,3 | Setup 3 as specified in clause A.3.15 | | | | |
|  | |  |  | AoA1 | | AoA2 | | |
| Beam AssumptionNote 7 | |  | Config 1,2,3 | Rough | | Rough | | |
| NR RF Channel Number | |  | Config 1,2,3 | 1 | | 2 | | |
| Duplex mode | |  | Config 1,2,3 | TDD | | TDD | | |
| TDD configuration | |  | Config 1,2,3 | TDDConf.3.1 | | TDDConf.3.1 | | |
| BWchannel | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| Config 2 | 400: NRB,c = 66 | | 100: NRB,c = 66 | | |
| Config 3 | 400: NRB,c = 33 | | 100: NRB,c = 33 | | |
|  | |  | Config 1 | 66 | | 66 | | |
| Config 2 | 66 | | 66 | | |
| Config 3 | 33 | | 33 | | |
| BWP BW | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| Config 2 | 400: NRB,c = 66 | | 400: NRB,c = 66 | | |
| Config 3 | 400: NRB,c = 33 | | 400: NRB,c = 33 | | |
| BWP configuration | Initial DL BWP |  | Config 1,2,3 | DLBWP.0.1 | | N/A | | |
|  | Initial UL BWP |  |  | ULBWP.0.1 | | N/A | | |
|  | Dedicated DL BWP |  |  | DLBWP.1.1 | | N/A | | |
|  | Dedicated UL BWP |  |  | ULBWP.1.1 | | N/A | | |
| OCNG Patterns defined in A.3.2.1.1 | |  | Config 1,2,3 | OP.1 | | OP.1 | | |
| PDSCH Reference measurement channel | |  | Config 1,2,3 | SR.3.1 TDD | | - | | |
| CORESET Reference Channel | |  | Config 1,2,3 | CR.3.1 TDD | | - | | |
| SMTC configuration defined in A.3.11.1 and A.3.11.2 | |  | Config 1,2,3 | SMTC.1 | | SMTC.1 | | |
| PDSCH/PDCCH subcarrier spacing | | kHz | Config 1,2,3 | 120 | | 120 | | |
| TRS configuration | |  | Config 1,2,3 | TRS.2.1 TDD | | N/A | | |
| PDSCH/PDCCH TCI state | |  | Config 1,2,3 | TCI.State.2 | | N/A | | |
| EPRE ratio of PSS to SSS | |  |  |  | |  | | |
| 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 | |  | Config 1,2,3 | 0 | | 0 | | |
| EPRE ratio of PDSCH DMRS to SSS | |  |  |  | |  | | |
| EPRE ratio of PDSCH to PDSCH | |  |  |  | |  | | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) | |  |  |  | |  | | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) | |  |  |  | |  | | |
| Ês | | dBm/SCS | Config 1 | -87 | -87 | -Infinity | | -87 |
| Config 2 | -81 | -81 | -Infinity | | -81 |
| Config 3 | -78 | -78 | -Infinity | | -78 |
| SSBRP Note 3 | | dBm/SCS Note5 | Config 1 | -87 | -87 | -Infinity | | -87 |
| Config 2 | -81 | -81 | -Infinity | | -81 |
| Config 3 | -78 | -78 | -Infinity | | -78 |
| BB Note 8 | | dB | Config 1,2,3 | 1.89 | 1.89 | -Infinity | | 1.89 |
| Io Note3 | | dBm/95.04 MHz Note5 | Config 1,2,3 | -58.01 | -58.01 | -Infinity | | -58.01 |
| Propagation Condition | |  | Config 1,2,3 | No external noise (Note 9) | | | No external noise (Note 9) | |
| 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: Void  Note 3: SBRP, Es/Iot and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 4: Void  Note 5: Equivalent power received by an antenna with 0 dBi gain at the centre of the quiet zone  Note 6: As observed with 0 dBi gain antenna at the centre of the quiet zone  Note 7: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 8: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4.  Note 9: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.2.16 SA event triggered reporting tests for FR2-2 without SSB time index detection when DRX is not used (PCell in FR1)

### <Unchanged Part Skipped >

Table A.7.6.2.16.1-3: Cell specific test parameters for SA inter-frequency event triggered reporting for FR2-2 without SSB time index detection

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | | Unit | Test configuration | Cell 1 | | Cell 2 | |
|  | |  |  | T1 | T2 | T1 | T2 |
| AoA setup | |  | Config 1,2,3,4,5,6,7,8,9 | N/A | | Setup 1 as specified in clause A.3.15 | |
| Beam AssumptionNote 7 | |  | Config 1,2,3,4,5,6,7,8,9 | N/A | | Rough | |
| NR RF Channel Number | |  | Config 1,2,3,4,5,6,7,8,9 | 1 | | 2 | |
| Duplex mode | |  | Config 1,4,7 | FDD | | TDD | |
|  | |  | Config 2,3,5,6,8,9 | TDD | | TDD | |
| TDD configuration | |  | Config 1,4,7 | Not Applicable | | TDDConf.3.1 | |
|  | |  | Config 2,5,8 | TDDConf.1.1 | | TDDConf.3.1 | |
|  | |  | Config 3,6,9 | TDDConf.2.1 | | TDDConf.3.1 | |
| BWchannel | | MHz | Config 1 | 10: NRB,c = 52 | | 100: NRB,c = 66 | |
| Config 2 | 10: NRB,c = 52 | | 100: NRB,c = 66 | |
| Config 3 | 40: NRB,c = 106 | | 100: NRB,c = 66 | |
| Config 4 | 10: NRB,c = 52 | | 400: NRB,c = 66 | |
| Config 5 | 10: NRB,c = 52 | | 400: NRB,c = 66 | |
| Config 6 | 40: NRB,c = 106 | | 400: NRB,c = 66 | |
| Config 7 | 10: NRB,c = 52 | | 400: NRB,c = 33 | |
| Config 8 | 10: NRB,c = 52 | | 400: NRB,c = 33 | |
| Config 9 | 40: NRB,c = 106 | | 400: NRB,c = 33 | |
| Data RBs allocated | |  | Config 1 | 52 | | 66 | |
| Config 2 | 52 | | 66 | |
| Config 3 | 106 | | 66 | |
| Config 4 | 52 | | 66 | |
| Config 5 | 52 | | 66 | |
| Config 6 | 106 | | 66 | |
| Config 7 | 52 | | 33 | |
| Config 8 | 52 | | 33 | |
| Config 9 | 106 | | 33 | |
| BWP BW | | MHz | Config 1 | 10: NRB,c = 52 | | 100: NRB,c = 66 | |
| Config 2 | 10: NRB,c = 52 | | 100: NRB,c = 66 | |
| Config 3 | 40: NRB,c = 106 | | 100: NRB,c = 66 | |
| Config 4 | 10: NRB,c = 52 | | 400: NRB,c = 66 | |
| Config 5 | 10: NRB,c = 52 | | 400: NRB,c = 66 | |
| Config 6 | 40: NRB,c = 106 | | 400: NRB,c = 66 | |
| Config 7 | 10: NRB,c = 52 | | 400: NRB,c = 33 | |
| Config 8 | 10: NRB,c = 52 | | 400: NRB,c = 33 | |
| Config 9 | 40: NRB,c = 106 | | 400: NRB,c = 33 | |
| BWP configuration | Initial DL BWP |  | Config 1,2,3,4,5,6,7,8,9 | DLBWP.0.1 | | N/A | |
|  | Initial UL BWP |  |  | ULBWP.0.1 | | N/A | |
|  | Dedicated DL BWP |  |  | DLBWP.1.1 | | N/A | |
|  | Dedicated UL BWP |  |  | ULBWP.1.1 | | N/A | |
| OCNG Patterns defined in A.3.2.1.1 (OP.1) | |  | Config 1,2,3,4,5,6,7,8,9 | OP.1 | | OP.1 | |
| PDSCH Reference | |  | Config 1,4,7 | SR.1.1 FDD | | - | |
| measurement channel | |  | Config 2,5,8 | SR.1.1 TDD | |  | |
|  | |  | Config 3,6,9 | SR.2.1 TDD | |  | |
| RMSI CORESET Reference | |  | Config 1,4,7 | CR.1.1 FDD | | - | |
| Channel | |  | Config 2,5,8 | CR.1.1 TDD | |  | |
|  | |  | Config 3,6,9 | CR.2.1 TDD | |  | |
| Dedicated CORESET RMC configuration | |  | Config 1,4,7 | CCR.1.1 FDD | | - | |
|  | Config 2,5,8 | CCR.1.1 TDD | |  | |
|  | Config 3,6,9 | CCR.2.1 TDD | |  | |
| SMTC configuration defined | |  | Config 1,4,7 | SMTC.2 | | SMTC.2 | |
| in A.3.11.1 and A.3.11.2 | |  | Config 2,3,5,6,8,9 | SMTC.1 | | SMTC.1 | |
| PDSCH/PDCCH subcarrier spacing | | kHz | Config 1,2,4,5,7,8 | 15 | | 120 | |
|  | |  | Config 3,6,9 | 30 | | 120 | |
| EPRE ratio of PSS to SSS | |  |  |  | |  | |
| 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 | |  | Config 1,2,3,4,5,6,7,8,9 | 0 | | 0 | |
| EPRE ratio of PDSCH DMRS to SSS | |  |  |  | |  | |
| EPRE ratio of PDSCH to PDSCH | |  |  |  | |  | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) | |  |  |  | |  | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) | |  |  |  | |  | |
| Ês | | dBm/SCS | Config 1,2,3 |  | | -Infinity | -87 |
| Config 4,5,6 |  | | -Infinity | -81 |
| Config 7,8,9 |  | | -Infinity | -78 |
| SSB\_RP Note 3 | | dBm/SCS  Note5 | Config 1,2,3 |  | | -Infinity | -87 |
| Config 4,5,6 |  | | -Infinity | -81 |
| Config 7,8,9 |  | | -Infinity | -78 |
| BB Note 8 | | dB | Config 1,2,3,4,5,6,7,8,9 | NA  Link only, see clause | | -Infinity | 14.69 |
|  | | dBm/95.04 MHz Note5 | Config 1,2,3,4,5,6,7,8,9 | A.3.7A | | -Infinity | -58.01 |
| Propagation Condition | |  | Config 1,2,3,4,5,6,7,8,9 | No external noise (Note 9) | |
| 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: Void  Note 3: SS B\_RP, Es/Iot and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 4: Void  Note 5: Equivalent power received by an antenna with 0 dBi gain at the centre of the quiet zone  Note 6: As observed with 0 dBi gain antenna at the centre of the quiet zone  Note 7: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 8: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4.  Note 9: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.2.18 SA event triggered reporting tests for FR2-2 with SSB time index detection when DRX is not used (PCell in FR1)

### <Unchanged Part Skipped >

Table A.7.6.2.18.1-3: Cell specific test parameters for SA inter-frequency event triggered reporting for FR2-2 with SSB time index detection

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | | Unit | Test configuration | Cell 1 | | Cell 2 | |
|  | |  |  | T1 | T2 | T1 | T2 |
| AoA setup | |  | Config 1,2,3,4,5,6,7,8,9 | N/A | | Setup 1 as specified in clause A.3.15 | |
| Beam AssumptionNote 7 | |  | Config 1,2,3,4,5,6,7,8,9 | N/A | | Rough | |
| NR RF Channel Number | |  | Config 1,2,3,4,5,6,7,8,9 | 1 | | 2 | |
| Duplex mode | |  | Config 1,4,7 | FDD | | TDD | |
|  | |  | Config 2,3,5,6,8,9 | TDD | | TDD | |
| TDD configuration | |  | Config 1,4,7 | Not Applicable | | TDDConf.3.1 | |
|  | |  | Config 2,5,8 | TDDConf.1.1 | | TDDConf.3.1 | |
|  | |  | Config 3,6,9 | TDDConf.2.1 | | TDDConf.3.1 | |
| BWchannel | | MHz | Config 1 | 10: NRB,c = 52 | | 100: NRB,c = 66 | |
| Config 2 | 10: NRB,c = 52 | | 100: NRB,c = 66 | |
| Config 3 | 40: NRB,c = 106 | | 100: NRB,c = 66 | |
| Config 4 | 10: NRB,c = 52 | | 400: NRB,c = 66 | |
| Config 5 | 10: NRB,c = 52 | | 400: NRB,c = 66 | |
| Config 6 | 40: NRB,c = 106 | | 400: NRB,c = 66 | |
| Config 7 | 10: NRB,c = 52 | | 400: NRB,c = 33 | |
| Config 8 | 10: NRB,c = 52 | | 400: NRB,c = 33 | |
| Config 9 | 40: NRB,c = 106 | | 400: NRB,c = 33 | |
| Data RBs allocated | |  | Config 1 | 52 | | 66 | |
| Config 2 | 52 | | 66 | |
| Config 3 | 106 | | 66 | |
| Config 4 | 52 | | 66 | |
| Config 5 | 52 | | 66 | |
| Config 6 | 106 | | 66 | |
| Config 7 | 52 | | 33 | |
| Config 8 | 52 | | 33 | |
| Config 9 | 106 | | 33 | |
| BWP BW | | MHz | Config 1 | 10: NRB,c = 52 | | 100: NRB,c = 66 | |
| Config 2 | 10: NRB,c = 52 | | 100: NRB,c = 66 | |
| Config 3 | 40: NRB,c = 106 | | 100: NRB,c = 66 | |
| Config 4 | 10: NRB,c = 52 | | 400: NRB,c = 66 | |
| Config 5 | 10: NRB,c = 52 | | 400: NRB,c = 66 | |
| Config 6 | 40: NRB,c = 106 | | 400: NRB,c = 66 | |
| Config 7 | 10: NRB,c = 52 | | 400: NRB,c = 33 | |
| Config 8 | 10: NRB,c = 52 | | 400: NRB,c = 33 | |
| Config 9 | 40: NRB,c = 106 | | 400: NRB,c = 33 | |
| BWP configuration | Initial DL BWP |  | Config 1,2,3,4,5,6,7,8,9 | DLBWP.0.1 | | N/A | |
|  | Initial UL BWP |  |  | ULBWP.0.1 | | N/A | |
|  | Dedicated DL BWP |  |  | DLBWP.1.1 | | N/A | |
|  | Dedicated UL BWP |  |  | ULBWP.1.1 | | N/A | |
| OCNG Patterns defined in A.3.2.1.1 (OP.1) | |  | Config 1,2,3,4,5,6,7,8,9 | OP.1 | | OP.1 | |
| PDSCH Reference | |  | Config 1,4,7 | SR.1.1 FDD | | - | |
| measurement channel | |  | Config 2,5,8 | SR.1.1 TDD | |  | |
|  | |  | Config 3,6,9 | SR.2.1 TDD | |  | |
| RMSI CORESET Reference | |  | Config 1,4,7 | CR.1.1 FDD | | - | |
| Channel | |  | Config 2,5,8 | CR.1.1 TDD | |  | |
|  | |  | Config 3,6,9 | CR.2.1 TDD | |  | |
| Dedicated CORESET RMC configuration | |  | Config 1,4,7 | CCR.1.1 FDD | | - | |
|  | Config 2,5,8 | CCR.1.1 TDD | |  | |
|  | Config 3,6,9 | CCR.2.1 TDD | |  | |
| SMTC configuration defined | |  | Config 1,4,7 | SMTC.2 | | SMTC.2 | |
| in A.3.11.1 and A.3.11.2 | |  | Config 2,3,5,6,8,9 | SMTC.1 | | SMTC.1 | |
| PDSCH/PDCCH subcarrier spacing | | kHz | Config 1,2,4,5,7,8 | 15 | | 120 | |
|  | |  | Config 3,6,9 | 30 | | 120 | |
| EPRE ratio of PSS to SSS | |  |  |  | |  | |
| 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 | |  | Config 1,2,3,4,5,6,7,8,9 | 0 | | 0 | |
| EPRE ratio of PDSCH DMRS to SSS | |  |  |  | |  | |
| EPRE ratio of PDSCH to PDSCH | |  |  |  | |  | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) | |  |  |  | |  | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) | |  |  |  | |  | |
| Ês | | dBm/SCS | Config 1,2,3 |  | | -Infinity | -87 |
| Config 4,5,6 |  | | -Infinity | -81 |
| Config 7,8,9 |  | | -Infinity | -78 |
| SSB\_RP Note 3 | | dBm/SCS  Note5 | Config 1,2,3 |  | | -Infinity | -87 |
| Config 4,5,6 |  | | -Infinity | -81 |
| Config 7,8,9 |  | | -Infinity | -78 |
| BB Note 8 | | dB | Config 1,2,3,4,5,6,7,8,9 | NA  Link only, see clause | | -Infinity | 14.69 |
|  | | dBm/95.04 MHz Note5 | Config 1,2,3,4,5,6,7,8,9 | A.3.7A | | -Infinity | -58.01 |
| Propagation Condition | |  | Config 1,2,3,4,5,6,7,8,9 | No external noise (Note 9) | |
| 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: Void  Note 3: SS B\_RP, Es/Iot and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 4: Void  Note 5: Equivalent power received by an antenna with 0 dBi gain at the centre of the quiet zone  Note 6: As observed with 0 dBi gain antenna at the centre of the quiet zone  Note 7: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 8: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4.  Note 9: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.14.1 Intra-frequency measurement test with SA event triggered reporting tests: with autonomous activation/deactivation of Pre-MG in FR2

### <Unchanged Part Skipped >

Table A.7.6.14.1.2-3: NR Cell specific test parameters for intra-frequency event triggered reporting with network-controlled activation/deactivation of Pre-MG

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Cell 1 | | | Cell 2 | | |
|  |  | T1 | T2 | T3 | T1 | T2 | T3 |
| TDD configuration |  | TDDConf.3.1 | | | TDDConf.3.1 | | |
| BWchannel | MHz | 100: NRB,c = 66 | | | 100: NRB,c = 66 | | |
| Data RBs allocated |  | 24 | | | 24 | | |
| Intial BWP configuration |  | DLBWP.0.1  ULBWP.0.1 | | | DLBWP.0.1  ULBWP.0.1 | | |
| BWP-1 Configuration |  | DLBWP.1.6  ULBWP.1.6 | | | N/A | | |
| BWP-2 Configuration |  | DLBWP.1.5  ULBWP.1.5 | | | N/A | | |
| RLM-RS |  | CSI-RS | | | N/A | | |
| PDSCH RMC configuration |  | SR.3.2 TDD | | | N/A | | |
| RMSI CORESET RMC configuration |  | CR.3.1 TDD | | | N/A | | |
| Dedicated CORESET RMC configuration |  | CCR.3.1 TDD | | | N/A | | |
| TRS configuration |  | TRS.2.1 TDD | | | N/A | | |
| PDSCH/PDCCH TCI states |  | TCI.State.2 | | | N/A | | |
| PDSCH/PDCCH subcarrier spacing | kHz | 120 | | | 120 | | |
| OCNG Patterns |  | OP.5 | | | N/A | | |
| cellIndividualOffset | dB | N/A | | | 16 | | |
| SSB |  | SSB.3 FR2 | | | SSB.7 FR2 | | |
| Propagation Condition |  | No external noise (Note 1) | | | No external noise (Note 1) | | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.14.2 Intra-frequency measurement test with SA event triggered reporting tests: with network-controlled activation/deactivation of Pre-MG in FR2

### <Unchanged Part Skipped >

Table A.7.6.14.2.2-3: NR Cell specific test parameters for intra-frequency event triggered reporting with network-controlled activation/deactivation of Pre-MG

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Cell 1 | | | Cell 2 | | |
|  |  | T1 | T2 | T3 | T1 | T2 | T3 |
| TDD configuration |  | TDDConf.3.1 | | | TDDConf.3.1 | | |
| BWchannel | MHz | 100: NRB,c = 66 | | | 100: NRB,c = 66 | | |
| Data RBs allocated |  | 24 | | | 24 | | |
| Intial BWP configuration |  | DLBWP.0.1  ULBWP.0.1 | | | DLBWP.0.1  ULBWP.0.1 | | |
| BWP-1 Configuration |  | DLBWP.1.6  ULBWP.1.6 | | | N/A | | |
| BWP-2 Configuration |  | DLBWP.1.5  ULBWP.1.5 | | | N/A | | |
| RLM-RS |  | CSI-RS | | | N/A | | |
| PDSCH RMC configuration |  | SR.3.2 TDD | | | N/A | | |
| RMSI CORESET RMC configuration |  | CR.3.1 TDD | | | N/A | | |
| Dedicated CORESET RMC configuration |  | CCR.3.1 TDD | | | N/A | | |
| TRS configuration |  | TRS.2.1 TDD | | | N/A | | |
| PDSCH/PDCCH TCI states |  | TCI.State.2 | | | N/A | | |
| PDSCH/PDCCH subcarrier spacing | kHz | 120 | | | 120 | | |
| OCNG Patterns |  | OP.5 | | | N/A | | |
| cellIndividualOffset | dB | N/A | | | 16 | | |
| SSB |  | SSB.3 FR2 | | | SSB.7 FR2 | | |
| Propagation Condition |  | No external noise (Note 1) | | | No external noise (Note 1) | | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.15.1 SA event triggered reporting tests For FR2 with fully non-overlapping concurrent MGs for SSB-based inter-frequency measurements

### <Unchanged Part Skipped >

Table A.7.6.15.1.1-3: Cell specific test parameters for SA inter-frequency event triggered reporting for FR2 with fully non-overlapping concurrent MGs for SSB-based inter-frequency measurements

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | | Unit | Test configuration | Cell 1 | | | Cell 2 | | **Cell 3** | | |
|  | |  |  | T1 | | T2 | T1 | T2 | T1 | | T2 |
| AoA setup | |  | Config 1 | Setup 3 as specified in clause A.3.15 | | | | | | | |
|  | |  |  | AoA1 | | | AoA2 | | AoA2 | | |
| Beam AssumptionNote 4 | |  | 1,2 | Rough | | | Rough | | Rough | | |
| NR RF Channel Number | |  | Config 1 | 1 | | | 2 | | 3 | | |
| Duplex mode | |  | Config 1 | TDD | | | TDD | | TDD | | |
| TDD configuration | |  | Config 1 | TDDConf.3.1 | | | TDDConf.3.1 | | TDDConf.3.1 | | |
| BWchannel | | MHz | Config 1 | 100: NRB,c = 66 | | | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| Data RBs allocated | |  | Config 1 | 66 | | | 66 | | 66 | | |
| BWP BW | | MHz | Config 1 | 100: NRB,c = 66 | | | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| BWP configuration | Initial DL BWP |  | Config 1 | DLBWP.0.1 | | | N/A | |  | | |
|  | Initial UL BWP |  |  | ULBWP.0.1 | | | N/A | |  | | |
|  | Dedicated DL BWP |  |  | DLBWP.1.1 | | | N/A | |  | | |
|  | Dedicated UL BWP |  |  | ULBWP.1.1 | | | N/A | |  | | |
| OCNG Patterns defined in A.3.2.1.1 (OP.1) | |  | Config 1 | OP.1 | | | OP.1 | | OP.1 | | |
| PDSCH Reference measurement channel | |  | Config 1 | SR.3.1 TDD | | | - | | - | | |
| CORESET Reference Channel | |  | Config 1 | CR.3.1 TDD | | | - | | - | | |
| SMTC configuration defined in A.3.11.1 and A.3.11.2 | |  | Config 1 | SMTC.1 | | | SMTC.1 | | SMTC.1 | | |
| PDSCH/PDCCH subcarrier spacing | | kHz | Config 1 | 120 | | | 120 | | 120 | | |
| TRS configuration | |  | Config 1 | TRS.2.1 TDD | | | N/A | | N/A | | |
| PDSCH/PDCCH TCI state | |  | Config 1 | TCI.State.2 | | | N/A | | N/A | | |
| EPRE ratio of PSS to SSS | |  |  |  | | |  | |  | | |
| 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 | |  | Config 1 | 0 | | | 0 | | 0 | | |
| EPRE ratio of PDSCH DMRS to SSS | |  |  |  | | |  | |  | | |
| EPRE ratio of PDSCH to PDSCH | |  |  |  | | |  | |  | | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) | |  |  |  | | |  | |  | | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) | |  |  |  | | |  | |  | | |
| Ês | | dBm/SCS | Config 1 | -87 | -87 | | -Infinity | -87 | -Infinity | -87 | |
| SSBRP Note 2 | | dBm/SCS Note3 | Config 1 | -87 | -87 | | -Infinity | -87 | -Infinity | -87 | |
| BB Note 5 | | dB | Config 1 | 1.89 | 1.89 | | -Infinity | 1.89 | -Infinity | 1.89 | |
| IoNote 2 | | dBm/95.04 MHz Note3 | Config 1 | -58.01 | -58.01 | | -Infinity | -58.01 | -Infinity | -58.01 | |
| Propagation Condition | |  | Config 1 | No external noise (Note 6) | | | | | | | |
| 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: SSBRP, Es/Iot and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 3: Equivalent power received by an antenna with 0 dBi gain at the centre of the quiet zone  Note 4: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 5: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4.  Note 6: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.15.2 SA event triggered reporting tests For FR2 with concurrent measurement gaps without SSB time index detection when DRX is not used (PCell in FR2)

### <Unchanged Part Skipped >

Table A.7.6.15.2.1-3: Cell specific test parameters for SA inter-frequency event triggered reporting for FR2 without SSB time index detection

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | | Unit | Test configuration | Cell 1 | | Cell 2 | | Cell 3 | | | |
|  | |  |  | T1 | T2 | T1 | T2 | T1 | | T2 | |
| AoA setup | |  | Config 1 | Setup 3 as specified in clause A.3.15 | | | | | | | |
|  | |  |  | AoA1 | | AoA2 | | AoA3 | | | |
| Beam AssumptionNote 7 | |  | 1,2 | Rough | | Rough | | Rough | | | |
| NR RF Channel Number | |  | Config 1 | 1 | | 2 | | 3 | | | |
| Duplex mode | |  | Config 1 | TDD | | TDD | | TDD | | | |
| TDD configuration | |  | Config 1 | TDDConf.3.1 | | TDDConf.3.1 | | TDDConf.3.1 | | | |
| BWchannel | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | 100: NRB,c = 66 | | | |
| Data RBs allocated | |  | Config 1 | 66 | | 66 | | 66 | | | |
| BWP BW | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | 100: NRB,c = 66 | | | |
| BWP configuration | Initial DL BWP |  | Config 1 | DLBWP.0.1 | | N/A | | N/A | | | |
|  | Initial UL BWP |  |  | ULBWP.0.1 | | N/A | | N/A | | | |
|  | Dedicated DL BWP |  |  | DLBWP.1.1 | | N/A | | N/A | | | |
|  | Dedicated UL BWP |  |  | ULBWP.1.1 | | N/A | | N/A | | | |
| OCNG Patterns defined in A.3.2.1.1 (OP.1) | |  | Config 1 | OP.1 | | OP.1 | | OP.1 | | | |
| PDSCH Reference measurement channel | |  | Config 1 | SR.3.1 TDD | | - | | - | | | |
| CORESET Reference Channel | |  | Config 1 | CR.3.1 TDD | | - | | - | | | |
| SMTC configuration defined in A.3.11.1 and A.3.11.7 | |  | Config 1 | SMTC.1 | | SMTC.1 | | SMTC.7 | | | |
| PDSCH/PDCCH subcarrier spacing | | kHz | Config 1 | 120 | | 120 | | 120 | | | |
| TRS configuration | |  | Config 1 | TRS.2.1 TDD | | N/A | | N/A | | | |
| PDSCH/PDCCH TCI state | |  | Config 1 | TCI.State.2 | | N/A | | N/A | | | |
| EPRE ratio of PSS to SSS | |  |  |  | |  | |  | | | |
| 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 | |  | Config 1 | 0 | | 0 | | 0 | | | |
| EPRE ratio of PDSCH DMRS to SSS | |  |  |  | |  | |  | | | |
| EPRE ratio of PDSCH to PDSCH | |  |  |  | |  | |  | | | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) | |  |  |  | |  | |  | | | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) | |  |  |  | |  | |  | | | |
| Ês | | dBm/SCS | Config 1 | -87 | -87 | -Infinity | -87 | -Infinity | | | -87 |
| SSBRP Note 3 | | dBm/SCS Note5 | Config 1 | -87 | -87 | -Infinity | -87 | -Infinity | | | -87 |
| BB Note 8 | | dB | Config 1 | 1.89 | 1.89 | -Infinity | 1.89 | -Infinity | | | 1.89 |
| IoNote3 | | dBm/95.04 MHz Note5 | Config 1 | -58.01 | -58.01 | -Infinity | -58.01 | -Infinity | | | -58.01 |
| Propagation Condition | |  | Config 1 | No external noise (Note 9) | | | | | No external noise (Note 9) | | |
| 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: Void  Note 3: SSBRP, Es/Iot and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 4: Void  Note 5: Equivalent power received by an antenna with 0 dBi gain at the centre of the quiet zone  Note 6: As observed with 0 dBi gain antenna at the centre of the quiet zone  Note 7: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 8: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4.  Note 9: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.16.1 SA event triggered reporting test with per-UE NCSG under non-DRX

### <Unchanged Part Skipped >

Table A.7.6.16.1.1-3: NR Cell specific test parameters for intra-frequency event triggered reporting for SA with TDD PCell in FR2 with per-UE NCSG without DRX

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | | Cell 2 | |
|  |  |  | T1 | T2 | T1 | T2 |
| TDD configuration |  | 1, 2 | TDDConf.3.1 | | TDDConf.3.1 | |
| BWchannel | MHz | 1, 2 | 100: NRB,c = 66 | | 100: NRB,c = 66 | |
| Data RBs allocated |  | 1 | 24 | | 24 | |
| 2 | 48 | | 48 | |
| Intial BWP configuration |  | 1, 2 | DLBWP.0.1  ULBWP.0.1 | | DLBWP.0.1  ULBWP.0.1 | |
| Active DL BWP configuration |  | 1, 2 | DLBWP.1.2 | | DLBWP.1.1 | |
| Active UL BWP configuration |  | 1, 2 | ULBWP.1.2 | | ULBWP.1.1 | |
| RLM-RS |  | 1, 2 | CSI-RS | | SSB | |
| PDSCH RMC configuration |  | 1 | SR.3.2 TDD | | N/A | |
| 2 | SR.3.3 TDD | |
| RMSI CORESET RMC configuration |  | 1 | CR.3.1 TDD | | CR.3.1 TDD | |
| 2 | CR.3.2 TDD | | CR.3.2 TDD | |
| Dedicated CORESET RMC configuration |  | 1 | CCR.3.1 TDD | | CCR.3.1 TDD | |
| 2 | CCR.3.7 TDD | | CCR.3.7 TDD | |
| TRS configuration |  | 1, 2 | TRS.2.1 TDD | | N/A | |
| PDSCH/PDCCH TCI states |  | 1, 2 | TCI.State.2 | | N/A | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1, 2 | 120 | | 120 | |
| OCNG Patterns |  | 1, 2 | OP.5 | | N/A | |
| cellIndividualOffset | dB | 1~2 | N/A | | 16 | |
| SSB |  | 1 | SSB.3 FR2 | | SSB.7 FR2 | |
|  |  | 2 | SSB.4 FR2 | | SSB.8 FR2 | |
| Propagation Condition |  | 1, 2 | No external noise (Note 1) | | No external noise (Note 1) | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

### <Unchanged Part Skipped >

#### A.7.6.16.3 Event triggered reporting test on deactivated Scell measurement via NCSG in FR2 in non-DRX

### <Unchanged Part Skipped >

Table A.7.6.16.3.1-3: Cell specific test parameters for FR2 deactivated Scell measurement via NCSG

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ParameterNote 5 | Unit | Cell 1 | Cell 2 | Cell 3 |
| SSB ARFCN |  | freq1 | freq2 | freq2 |
| Duplex mode |  | TDD | | |
| TDD configuration |  | TDDConf.3.1 | | |
| Downlink initial BWP Configuration |  | DLBWP.0.1 | DLBWP.0.1 | DLBWP.0.1 |
| Downlink dedicated BWP Configuration |  | DLBWP.1.1 | DLBWP.1.1 | DLBWP.1.1 |
| Uplink initial BWP configuration |  | ULBWP.0.1 | ULBWP.0.1 | ULBWP.0.1 |
| Uplink dedicated BWP configuration |  | ULBWP.1.1 | ULBWP.1.1 | ULBWP.1.1 |
| TRS configuration |  | TRS.2.1 TDD | TRS.2.1 TDD | N/A |
| TCI state |  | TCI.State.0 | TCI.State.0 | N/A |
| BWchannel | MHz | 100: NRB,c = 66 | | |
| Data RBs allocated |  | 24 | 24 | 24 |
| PDSCH Reference measurement channel |  | SR.3.2 TDD | SR.3.2 TDD | N/A |
| RMSI CORESET Parameters |  | CR.3.1 TDD | - | N/A |
| Dedicated CORESET Parameters |  | CCR.3.1 TDD | CCR.3.1 TDD | N/A |
| OCNG Patterns |  | OP.1 | OP.5 | N/A |
| SSB Configuration |  | SSB.1 FR2 | SSB.3 FR2 | SSB.7 FR2 |
| SMTC Configuration |  | SMTC.1 | SMTC.1 | |
| cellIndividualOffset |  | N/A | N/A | 16 |
| EPRE ratio of PSS to SSS | dB | 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 |
| Propagation conditions |  | No external noise (Note 2) | | |
| 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: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | |

### <Unchanged Part Skipped >

### A.15.4.1 Intra-frequency Measurements

#### A.15.4.1.1 SA event triggered reporting test without gap under non-DRX for FR2-2 with CCA

### <Unchanged Part Skipped >

Table A.15.4.1.1.1-3: NR Cell specific test parameters for intra-frequency event triggered reporting for SA with TDD PCell in FR2-2 without gap without DRX

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | | Cell 2 | |
|  |  |  | T1 | T2 | T1 | T2 |
| TDD configuration |  | 1,2,3 | TDDConf.3.1 | | TDDConf.3.1 | |
| BWchannel | MHz | 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | |
| 2 | 400: NRB,c = 66 | | 400: NRB,c = 66 | |
| 3 | 400: NRB,c = 33 | | 400: NRB,c = 33 | |
| DL CCA model |  | 1,2,3 | As specified in clause TBD | | As specified in clause TBD | |
| DL CCA probability |  | 1,2,3 | TBD | | TBD | |
| Data RBs allocated |  | 1 | 66 | | 66 | |
| 2 | 66 | | 66 | |
| 3 | 33 | | 33 | |
| Intial BWP configuration |  | 1,2,3 | DLBWP.0.1  ULBWP.0.1 | | DLBWP.0.1  ULBWP.0.1 | |
| Active DL BWP configuration |  | 1,2,3 | DLBWP.1.1 | | DLBWP.1.1 | |
| Active UL BWP configuration |  | 1,2,3 | ULBWP.1.1 | | ULBWP.1.1 | |
| RLM-RS |  | 1,2,3 | SSB | | SSB | |
| PDSCH RMC configuration |  | 1 | SR.3.2 TDD | | N/A | |
| 2,3 | SR.3.3 TDD | |
| RMSI CORESET RMC configuration |  | 1 | CR.3.1 TDD | | N/A | |
| 2,3 | CR.3.2 TDD | | N/A | |
| Dedicated CORESET RMC configuration |  | 1 | CCR.3.1 TDD | | N/A | |
| 2,3 | CCR.3.7 TDD | | N/A | |
| TRS configuration |  | 1,2,3 | TRS.2.1 TDD | | N/A | |
| PDSCH/PDCCH TCI states |  | 1,2,3 | TCI.State.2 | | N/A | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1,2,3 | 120 | | 120 | |
| OCNG Patterns |  | 1,2,3 | OP.5 | | N/A | |
| cellIndividualOffset | dB | 1,2,3 | N/A | | 16 | |
| SSB |  | 1 | SSB.1 FR2 | | SSB.7 FR2 | |
| 2 | SSB.9 FR2 | | SSB.15 FR2 | |
| 3 | SSB.10 FR2 | | SSB.16 FR2 | |
| Propagation Condition |  | 1, 2,3 | No external noise (Note 1) | | No external noise (Note 1) | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

### <Unchanged Part Skipped >

### A.15.4.2 Inter-frequency Measurements

#### A.15.4.2.1 SA event triggered reporting tests for FR2-2 with CCA without SSB time index detection when DRX is not used (PCell in FR2-2)

### <Unchanged Part Skipped >

Table A.15.4.2.1.1-3: Cell specific test parameters for SA inter-frequency event triggered reporting for FR2-2 without SSB time index detection

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | | Unit | Test configuration | Cell 1 | | Cell 2 | | |
|  | |  |  | T1 | T2 | T1 | | T2 |
| AoA setup | |  | Config 1,2,3 | Setup 3 as specified in clause A.3.15 | | | | |
|  | |  |  | AoA1 | | AoA2 | | |
| Beam AssumptionNote 7 | |  | 1,2,3 | Rough | | Rough | | |
| NR RF Channel Number | |  | Config 1,2,3 | 1 | | 2 | | |
| Duplex mode | |  | Config 1,2,3 | TDD | | TDD | | |
| TDD configuration | |  | Config 1,2,3 | TDDConf.3.1 | | TDDConf.3.1 | | |
| DL CCA model | |  | Config 1,2,3 | As specified in clause TBD | | As specified in clause TBD | | |
| DL CCA probability | |  | Config 1,2,3 | TBD | | TBD | | |
| BWchannel | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| Config 2 | 400: NRB,c = 66 | | 400: NRB,c = 66 | | |
| Config 3 | 400: NRB,c = 33 | | 400: NRB,c = 33 | | |
| Data RBs allocated | |  | Config 1 | 66 | | 66 | | |
| Config 2 | 66 | | 66 | | |
| Config 3 | 33 | | 33 | | |
| BWP BW | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| Config 2 | 400: NRB,c = 66 | | 400: NRB,c = 66 | | |
| Config 3 | 400: NRB,c = 33 | | 400: NRB,c = 33 | | |
| BWP configuration | Initial DL BWP |  | Config 1,2,3 | DLBWP.0.1 | | N/A | | |
|  | Initial UL BWP |  |  | ULBWP.0.1 | | N/A | | |
|  | Dedicated DL BWP |  |  | DLBWP.1.1 | | N/A | | |
|  | Dedicated UL BWP |  |  | ULBWP.1.1 | | N/A | | |
| OCNG Patterns defined in A.3.2.1.1 (OP.1) | |  | Config 1,2,3 | OP.1 | | OP.1 | | |
| PDSCH Reference measurement channel | |  | Config 1,2,3 | SR.3.1 TDD | | - | | |
| CORESET Reference Channel | |  | Config 1,2,3 | CR.3.1 TDD | | - | | |
| SMTC configuration defined in A.3.11.1 and A.3.11.2 | |  | Config 1,2,3 | SMTC.1 | | SMTC.1 | | |
| PDSCH/PDCCH subcarrier spacing | | kHz | Config 1,2,3 | 120 | | 120 | | |
| TRS configuration | |  | Config 1,2,3 | TRS.2.1 TDD | | N/A | | |
| PDSCH/PDCCH TCI state | |  | Config 1,2,3 | TCI.State.2 | | N/A | | |
| EPRE ratio of PSS to SSS | |  |  |  | |  | | |
| 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 | |  | Config 1,2,3 | 0 | | 0 | | |
| EPRE ratio of PDSCH DMRS to SSS | |  |  |  | |  | | |
| EPRE ratio of PDSCH to PDSCH | |  |  |  | |  | | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) | |  |  |  | |  | | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) | |  |  |  | |  | | |
| Ês | | dBm/SCS | Config 1 | -87 | -87 | -Infinity | | -87 |
| Config 2 | -81 | -81 | -Infinity | | -81 |
| Config 3 | -78 | -78 | -Infinity | | -78 |
| SSBRP Note 3 | | dBm/SCS Note5 | Config 1 | -87 | -87 | -Infinity | | -87 |
| Config 2 | -81 | -81 | -Infinity | | -81 |
| Config 3 | -78 | -78 | -Infinity | | -78 |
| BB Note 8 | | dB | Config 1,2,3 | 1.89 | 1.89 | -Infinity | | 1.89 |
| IoNote3 | | dBm/95.04 MHz Note5 | Config 1,2,3 | -58.01 | -58.01 | -Infinity | | -58.01 |
| Propagation Condition | |  | Config 1,2,3 | No external noise (Note 9) | | | No external noise (Note 9) | |
| 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: VoidNote 3: SSBRP, Es/Iot and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 4: Void  Note 5: Equivalent power received by an antenna with 0 dBi gain at the centre of the quiet zone  Note 6: As observed with 0 dBi gain antenna at the centre of the quiet zone  Note 7: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 8: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4.  Note 9: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | | |

### <Unchanged Part Skipped >

##### A.17.3.2.2.1 4-step RA type contention based random access test in FR2 for NR Standalone

### <Unchanged Part Skipped >

Table A.17.3.2.2.1.1-3: OTA-related test parameters for contention based random access test in FR2 for NR Standalone

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter** | | **Unit** | **Test-1** | **Comments** |
| AoA setup | |  | Setup 1 | As defined in A.3.15.1 |
| Assumption for UE beamsNote 3 | |  | Rough |  |
| SSB with index 0 | Es Note1 | dBm/SCS | -80.6 | Power of SSB with index 0 is set to be above configured *rsrp-ThresholdSSB* |
| SSB\_RP | dBm/SCS | -80.6 |
|  | Es/IotBB | dB | 21.09 |  |
| Io | dBm/95.04 MHz | -56.01 | Io in symbols containing SSB index 0 |
| SSB with index 1 | Es Note1 | dBm/SCS | -95.0 | Power of SSB with index 1 is set to be below configured *rsrp-ThresholdSSB* |
| SSB\_RP | dBm/SCS | -95.0 |
|  | Es/IotBB | dB | 6.69 |  |
| Io | dBm/95.04 MHz | -70.41 | Io in symbols containing SSB index 1 |
| Propagation Condition | | - | No external noise (Note 4) |  |
| Note 1: No articial noise is applied in this test.  Note 2: Void.  Note 3: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 4: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | |

### <Unchanged Part Skipped >

##### A.17.3.2.2.2 4-step RA type non-contention based random access test in FR2 for NR Standalone

### <Unchanged Part Skipped >

Table A.17.3.2.2.2.1-3: OTA-related test parameters for non-contention based random access test in FR2 for NR Standalone

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter** | | **Unit** | **Test-1** | **Test-2** | **Comments** |
| AoA setup | |  | Setup 1 | Setup 1 | As defined in A.3.15.1 |
| Assumption for UE beamsNote 3 | |  | Rough | Rough |  |
| SSB with index 0 | Es Note1 | dBm/SCS | -80.6 | -80.6 | Power of SSB with index 0 is set to be above configured *rsrp-ThresholdSSB* |
|  | SSB\_RP | dBm/SCS | -80.6 | -80.6 |  |
|  | Es/IotBB | dB | 21.09 | 21.09 |  |
|  | Io | dBm/95.04 MHz | -56.01 | -56.01 | Io in symbols containing SSB index 0 |
| SSB with index 1 | Es Note1 | dBm/SCS | -95.0 | -95.0 | Power of SSB with index 1 is set to be below configured *rsrp-ThresholdSSB* |
|  | SSB\_RP | dBm/SCS | -95.0 | -95.0 |  |
|  | Es/IotBB | dB | 6.69 | 6.69 |  |
|  | Io | dBm/95.04 MHz | -70.41 | -70.41 | Io in symbols containing SSB index 1 |
| Propagation Condition | | - | No external noise (Note 4) | No external noise (Note 4) |  |
| Note 1: No articial noise is applied in this test.  Note 2: void.  Note 3: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 4: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | |

### <Unchanged Part Skipped >

##### A.17.3.2.2.3 2-step RA type contention based random access test in FR2 for NR Standalone

### <Unchanged Part Skipped >

Table A.17.3.2.2.3.1-3: OTA-related test parameters for 2-step RA type contention based random access test in FR2 for NR Standalone

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | | Unit | Test-1 | Comments |
| AoA setup | |  | Setup 2b | As defined in A.3.15.2 |
| Assumption for UE beamsNote 2 | |  | Rough |  |
| SSB with index 0 | Es Note1 | dBm/SCS | -80.6 | Power of SSB with index 0 is set to be above configured *msgA-RSRP-ThresholdSSB* |
|  | SSB\_RP | dBm/SCS | -80.6 |
|  | Es/IotBB | dB | 21.09 |  |
|  | Io | dBm/95.04 MHz | -56.01 | Io in symbols containing SSB index 0 |
| SSB with index 1 | Es Note1 | dBm/SCS | -95.0 | Power of SSB with index 1 is set to be below configured *msgA-RSRP-ThresholdSSB* |
|  | SSB\_RP | dBm/SCS | -95.0 |
|  | Es/IotBB | dB | 6.69 |  |
|  | Io | dBm/95.04 MHz | -70.41 | Io in symbols containing SSB index 1 |
| Propagation Condition | | - | No external noise (Note 3) |  |
| Note 1: No articial noise is applied in this test.  Note 2: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 3: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | |

### <Unchanged Part Skipped >

##### A.17.3.2.2.4 2-step RA type non-contention based random access test in FR2 for NR Standalone

### <Unchanged Part Skipped >

Table A.17.3.2.2.4.1-3: OTA-related test parameters for non-contention based random access test for 2-step RA type in FR2 for NR Standalone

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | | Unit | Test-1 | Comments |
| AoA setup | |  | Setup 1 | As defined in A.3.15.1 |
| Assumption for UE beams Note 2 | |  | Rough |  |
| SSB with index 0 | Es Note1 | dBm/SCS | -80.6 | Power of SSB with index 0 is set to be above configured *msgA-RSRP-ThresholdSSB* |
|  | SSB\_RP | dBm/SCS | -80.6 |
|  | Es/IotBB | dB | 21.09 |  |
|  | Io | dBm/95.04 MHz | -56.01 | Io in symbols containing SSB index 0 |
| SSB with index 1 | Es Note1 | dBm/SCS | -95.0 | Power of SSB with index 1 is set to be below configured *msgA-RSRP-ThresholdSSB* |
|  | SSB\_RP | dBm/SCS | -95.0 |
|  | Es/IotBB | dB | 6.69 |  |
|  | Io | dBm/95.04 MHz | -70.41 | Io in symbols containing SSB index 1 |
| Propagation Condition | | - | No external noise (Note 3) |  |
| Note 1: No artificial noise is applied in this test.  Note 2: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 3: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | |

### <Unchanged Part Skipped >

#### A.17.5.4.1 MAC-CE based active TCI state switch

##### A.17.5.4.1.1 NR PCell FR2 active TCI state switch for a known TCI state

### <Unchanged Part Skipped >

Table A.17.5.4.1.1.1-3: NR Cell specific test parameters for TCI state switch

|  |  |  |
| --- | --- | --- |
| Parameter | Unit | Cell 1 |
| Frequency Range |  | FR2 |
| Duplex mode |  | TDD |
| TDD configuration |  | TDDConf.3.1 |
| BWchannel |  | 100 MHz: NRB,c = 66 |
| Data RBs allocated |  | 66 |
| Initial DL BWP Configuration |  | DLBWP.0.2 |
| Dedicated DL BWP Configuration |  | DLBWP.1.1 |
| Initial UL BWP Configuration |  | ULBWP.0.2 |
| Dedicated UL BWP Configuration |  | ULBWP.1.1 |
| PDSCH Reference measurement channel |  | SR.3. 2 TDD |
| RMSI CORESET parameters |  | CR.3.1 TDD |
| Dedicated CORESET parameters |  | CCR.3.1 TDD |
| OCNG Patterns |  | OP. 5 |
| SSB Configuration |  | SSB.1 FR2 |
| SMTC Configuration |  | SMTC.1 |
| TCI State 0 |  | TCI.State.0 |
| TCI State 1 |  | TCI.State.1 |
| TRS Configuration |  | TRS.2.1 TDD |
| Correlation Matrix and Antenna Configuration |  | 1x2 Low |
| EPRE ratio of PSS to SSS | dB | 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 |  |  |
| EPRE ratio of OCNG DMRS to SSS(Note 1) |  |  |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) |  |  |
| Propagation Condition |  | No external noise (Note 2) |
| Note 1: OCNG shall be used such that a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | |

### <Unchanged Part Skipped >

#### A.17.5.4.2 RRC based active TCI state switch

##### A.17.5.4.2.1 NR PCell FR2 active TCI state switch for a known TCI state

### <Unchanged Part Skipped >

Table A.17.5.4.2.1.1-1-3: NR Cell specific test parameters for TCI state switch

|  |  |  |
| --- | --- | --- |
| Parameter | Unit | Cell 1 |
| Frequency Range |  | FR2 |
| Duplex mode |  | TDD |
| TDD configuration |  | TDDConf.3.1 |
| BWchannel |  | 100 MHz: NRB,c = 66 |
| Data RBs allocated |  | 66 |
| Initial DL BWP Configuration |  | DLBWP.0.2 |
| Dedicated DL BWP Configuration |  | DLBWP.1.1 |
| Initial UL BWP Configuration |  | ULBWP.0.2 |
| Dedicated UL BWP Configuration |  | ULBWP.1.1 |
| PDSCH Reference measurement channel |  | SR.3. 2 TDD |
| RMSI CORESET parameters |  | CR.3.1 TDD |
| Dedicated CORESET parameters |  | CCR.3.1 TDD |
| OCNG Patterns |  | OP. 5 |
| SSB Configuration |  | SSB.1 FR2 |
| SMTC Configuration |  | SMTC.1 |
| TCI State 0 |  | TC. State.0 |
| TCI State 1 |  | TCI.State.1 |
| reportConfigType |  | ssb-Index-RSRP |
| reportConfigType |  | periodic |
| Number of reported RS |  | 2 |
| L1-RSRP reporting period | slot | 640 |
| timeRestrictionForChannelMeasurements |  | configured |
| TRS Configuration |  | TRS.2.1 TDD |
| Correlation Matrix and Antenna Configuration |  | 1x2 Low |
| EPRE ratio of PSS to SSS | dB | 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 |  |  |
| EPRE ratio of OCNG DMRS to SSS(Note 1) |  |  |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) |  |  |
| Propagation Condition |  | No external noise (Note 2) |
| Note 1: OCNG shall be used such that a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | |

### <Unchanged Part Skipped >

#### A.17.6.1.1 SA event triggered reporting test without gap under non-DRX

### <Unchanged Part Skipped >

Table A.17.6.1.1.1-3: NR Cell specific test parameters for intra-frequency event triggered reporting for SA with TDD PCell in FR2 without gap without DRX for RedCap

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | | Cell 2 | |
|  |  |  | T1 | T2 | T1 | T2 |
| TDD configuration |  | 1, 2 | TDDConf.3.1 | | TDDConf.3.1 | |
| BWchannel | MHz | 1, 2 | 100: NRB,c = 66 | | 100: NRB,c = 66 | |
| Data RBs allocated |  | 1 | 24 | | 24 | |
| 2 | 48 | | 48 | |
| Intial BWP configuration |  | 1, 2 | DLBWP.0.1  ULBWP.0.1 | | DLBWP.0.1  ULBWP.0.1 | |
| Active DL BWP configuration |  | 1, 2 | DLBWP.1.1 | | DLBWP.1.1 | |
| Active UL BWP configuration |  | 1, 2 | ULBWP.1.1 | | ULBWP.1.1 | |
| RLM-RS |  | 1, 2 | SSB | | SSB | |
| PDSCH RMC configuration |  | 1 | SR.3.2 TDD | | N/A | |
| 2 | SR.3.3 TDD | |
| RMSI CORESET RMC configuration |  | 1 | CR.3.1 TDD | | N/A | |
| 2 | CR.3.2 TDD | | N/A | |
| Dedicated CORESET RMC configuration |  | 1 | CCR.3.1 TDD | | N/A | |
| 2 | CCR.3.7 TDD | | N/A | |
| TRS configuration |  | 1, 2 | TRS.2.1 TDD | | N/A | |
| PDSCH/PDCCH TCI states |  | 1, 2 | TCI.State.2 | | N/A | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1, 2 | 120 | | 120 | |
| OCNG Patterns |  | 1, 2 | OP.5 | | N/A | |
| cellIndividualOffset | dB | 1~2 | N/A | | 16 | |
| SSB |  | 1 | SSB.1 FR2 | | SSB.7 FR2 | |
|  |  | 2 | SSB.2 FR2 | | SSB.8 FR2 | |
| Propagation Condition |  | 1, 2 | No external noise (Note 1) | | No external noise (Note 1) | |
| Note 1: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

### <Unchanged Part Skipped >

#### A.17.6.1.3 SA event triggered reporting test with per-UE gaps under non-DRX

### <Unchanged Part Skipped >

Table A.17.6.1.3.1-3: NR Cell specific test parameters for intra-frequency event triggered reporting for SA with TDD PCell in FR2 with per-UE gaps without DRX

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Parameter | Unit | Config | Cell 1 | | Cell 2 | |
|  |  |  | T1 | T2 | T1 | T2 |
| TDD configuration |  | 1, 2 | TDDConf.3.1 | | TDDConf.3.1 | |
| BWchannel | MHz | 1, 2 | 100: NRB,c = 66 | | 100: NRB,c = 66 | |
| Data RBs allocated |  | 1 | 24 | | 24 | |
| 2 | 48 | | 48 | |
| Intial BWP configuration |  | 1, 2 | DLBWP.0.1  ULBWP.0.1 | | DLBWP.0.1  ULBWP.0.1 | |
| Dedicated DL BWP configuration |  | 1, 2 | DLBWP.1.3 RedCap Note 1 | | DLBWP.1.3 RedCap Note 1 | |
| Dedicated UL BWP configuration |  | 1, 2 | ULBWP.1.3 RedCap Note 2 | | ULBWP.1.3 RedCap Note 2 | |
| RLM-RS |  | 1, 2 | CSI-RS | | SSB | |
| PDSCH RMC configuration |  | 1 | SR.3.2 TDD | | N/A | |
| 2 | SR.3.3 TDD | |
| RMSI CORESET RMC configuration |  | 1 | CR.3.1 TDD | | N/A | |
| 2 | CR.3.2 TDD | | N/A | |
| Dedicated CORESET RMC configuration |  | 1 | CCR.3.1 TDD | | N/A | |
| 2 | CCR.3.7 TDD | | N/A | |
| TRS configuration |  | 1, 2 | TRS.2.1 TDD | | N/A | |
| PDSCH/PDCCH TCI states |  | 1, 2 | TCI.State.2 | | N/A | |
| PDSCH/PDCCH subcarrier spacing | kHz | 1, 2 | 120 | | 120 | |
| OCNG Patterns |  | 1, 2 | OP.5 | | N/A | |
| cellIndividualOffset | dB | 1~2 | N/A | | 16 | |
| CD-SSB |  | 1 | SSB.2 RedCap FR2 | | SSB.2 RedCap FR2 | |
|  |  | 2 | SSB.4 RedCap FR2 | | SSB.4 RedCap FR2 | |
| NCD-SSB |  | 1, 2 | SSB.3 RedCap FR2 | | SSB.3 RedCap FR2 | |
|  |  |  | SSB.5 RedCap FR2 | | SSB.5 RedCap FR2 | |
| Propagation Condition |  | 1, 2 | No external noise (Note 3) | | No external noise (Note 3) | |
| Note 1: The starting PRB index for dedicated DL BWP1 corresponding to CD-SSB PRB index; the starting PRB index for dediacted DL BWP2 corresponding to NCD-SSB PRB index;  Note 2: The starting PRB index for dedicated UL BWP1 is the same as the starting PRB index for dedicated DL BWP1; the starting PRB index for dedicated UL BWP2 is the same as the starting PRB index for dedicated DL BWP2.  Note 3: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | |

### <Unchanged Part Skipped >

#### A.17.6.2.1 SA event triggered reporting tests For FR2 without SSB time index detection when DRX is not used (PCell in FR2)

### <Unchanged Part Skipped >

Table A.17.6.2.1.1-3: Cell specific test parameters for SA inter-frequency event triggered reporting for FR2 without SSB time index detection

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | | Unit | Test configuration | Cell 1 | | Cell 2 | | |
|  | |  |  | T1 | T2 | T1 | | T2 |
| AoA setup | |  | Config 1 | Setup 3 as specified in clause A.3.15 | | | | |
|  | |  |  | AoA1 | | AoA2 | | |
| Beam AssumptionNote 7 | |  | 1,2 | Rough | | Rough | | |
| NR RF Channel Number | |  | Config 1 | 1 | | 2 | | |
| Duplex mode | |  | Config 1 | TDD | | TDD | | |
| TDD configuration | |  | Config 1 | TDDConf.3.1 | | TDDConf.3.1 | | |
| BWchannel | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| Data RBs allocated | |  | Config 1 | 66 | | 66 | | |
| BWP BW | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| BWP configuration | Initial DL BWP |  | Config 1 | DLBWP.0.1 | | N/A | | |
| Initial UL BWP |  | ULBWP.0.1 | | N/A | | |
| Dedicated DL BWP |  | DLBWP.1.1 | | N/A | | |
| Dedicated UL BWP |  | ULBWP.1.1 | | N/A | | |
| Dedicated DL BWP configuration |  | DLBWP.1.3 RedCap Note 9 | | N/A | | |
| Dedicated UL BWP configuration |  | ULBWP.1.3 RedCap Note 10 | | N/A | | |
| OCNG Patterns defined in A.3.2.1.1 (OP.1) | |  | Config 1 | OP.1 | | OP.1 | | |
| PDSCH Reference measurement channel | |  | Config 1 | SR.3.1 TDD | | - | | |
| CORESET Reference Channel | |  | Config 1 | CR.3.1 TDD | | - | | |
| SMTC configuration defined in A.3.11.1 and A.3.11.2 for CD-SSB | |  | Config 1 | SMTC.1 | | SMTC.1 | | |
| SMTC configuration for NCD-SSB | |  | Config 1 | SMTC.2 RedCap | | SMTC.2 RedCap | | |
| PDSCH/PDCCH subcarrier spacing | | kHz | Config 1 | 120 | | 120 | | |
| TRS configuration | |  | Config 1 | TRS.2.1 TDD | | N/A | | |
| PDSCH/PDCCH TCI state | |  | Config 1 | TCI.State.2 | | N/A | | |
| EPRE ratio of PSS to SSS | |  |  |  | |  | | |
| 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 | |  | Config 1 | 0 | | 0 | | |
| EPRE ratio of PDSCH DMRS to SSS | |  |  |  | |  | | |
| EPRE ratio of PDSCH to PDSCH | |  |  |  | |  | | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) | |  |  |  | |  | | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) | |  |  |  | |  | | |
| Ês | | dBm/SCS | Config 1 | -87 | -87 | -Infinity | | -87 |
| SSBRP Note 3 | | dBm/SCS Note5 | Config 1 | -87 | -87 | -Infinity | | -87 |
| BB Note 8 | | dB | Config 1 | 1.89 | 1.89 | -Infinity | | 1.89 |
| IoNote3 | | dBm/95.04 MHz Note5 | Config 1 | -58.01 | -58.01 | -Infinity | | -58.01 |
| Propagation Condition | |  | Config 1 | No external noise (Note 11) | | | No external noise (Note 11) | |
| 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: VoidNote 3: SSBRP, Es/Iot and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 4: Void  Note 5: Equivalent power received by an antenna with 0 dBi gain at the centre of the quiet zone  Note 6: As observed with 0 dBi gain antenna at the centre of the quiet zone  Note 7: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 8: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4.  Note 9: The starting PRB index for dedicated DL BWP1 corresponding to CD-SSB PRB index; the starting PRB index for dediacted DL BWP2 corresponding to NCD-SSB PRB index;  Note 10: The starting PRB index for dedicated UL BWP1 is the same as the starting PRB index for dedicated DL BWP1; the starting PRB index for dedicated UL BWP2 is the same as the starting PRB index for dedicated DL BWP2.  Note 11: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | | |

### <Unchanged Part Skipped >

#### A.17.6.2.3 SA event triggered reporting tests For FR2 with SSB time index detection when DRX is not used (PCell in FR2)

### <Unchanged Part Skipped >

Table A.17.6.2.3.1-3: Cell specific test parameters for SA inter-frequency event triggered reporting for FR2 with SSB time index detection

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Parameter | | Unit | Test configuration | Cell 1 | | Cell 2 | | |
|  | |  |  | T1 | T2 | T1 | | T2 |
| AoA setup | |  | Config 1 | Setup 3 as specified in clause A.3.15 | | | | |
|  | |  |  | AoA1 | | AoA2 | | |
| Beam AssumptionNote 7 | |  | Config 1 | Rough | | Rough | | |
| NR RF Channel Number | |  | Config 1 | 1 | | 2 | | |
| Duplex mode | |  | Config 1 | TDD | | TDD | | |
| TDD configuration | |  | Config 1 | TDDConf.3.1 | | TDDConf.3.1 | | |
| BWchannel | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| Data RBs allocated | |  | Config 1 | 66 | | 66 | | |
| BWP BW | | MHz | Config 1 | 100: NRB,c = 66 | | 100: NRB,c = 66 | | |
| BWP configuration | Initial DL BWP |  | Config 1 | DLBWP.0.1 | | N/A | | |
|  | Initial UL BWP |  |  | ULBWP.0.1 | | N/A | | |
|  | Dedicated DL BWP |  |  | DLBWP.1.1 | | N/A | | |
|  | Dedicated UL BWP |  |  | ULBWP.1.1 | | N/A | | |
| OCNG Patterns defined in A.3.2.1.1 | |  | Config 1 | OP.1 | | OP.1 | | |
| PDSCH Reference measurement channel | |  | Config 1 | SR.3.1 TDD | | - | | |
| CORESET Reference Channel | |  | Config 1 | CR.3.1 TDD | | - | | |
| SMTC configuration defined in A.3.11.1 and A.3.11.2 | |  | Config 1 | SMTC.1 | | SMTC.1 | | |
| PDSCH/PDCCH subcarrier spacing | | kHz | Config 1 | 120 | | 120 | | |
| TRS configuration | |  | Config 1 | TRS.2.1 TDD | | N/A | | |
| PDSCH/PDCCH TCI state | |  | Config 1 | TCI.State.2 | | N/A | | |
| EPRE ratio of PSS to SSS | |  |  |  | |  | | |
| 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 | |  | Config 1 | 0 | | 0 | | |
| EPRE ratio of PDSCH DMRS to SSS | |  |  |  | |  | | |
| EPRE ratio of PDSCH to PDSCH | |  |  |  | |  | | |
| EPRE ratio of OCNG DMRS to SSS(Note 1) | |  |  |  | |  | | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) | |  |  |  | |  | | |
| Ês | | dBm/SCS | Config 1 | -87 | -87 | -Infinity | | -87 |
| SSBRP Note 3 | | dBm/SCS Note5 | Config 1 | -87 | -87 | -Infinity | | -87 |
| BB Note 8 | | dB | Config 1 | 1.89 | 1.89 | -Infinity | | 1.89 |
| Io Note3 | | dBm/95.04 MHz Note5 | Config 1 | -58.01 | -58.01 | -Infinity | | -58.01 |
| Propagation Condition | |  | Config 1 | No external noise (Note 9) | | | No external noise (Note 9) | |
| 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: Void  Note 3: SBRP, Es/Iot and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 4: Void  Note 5: Equivalent power received by an antenna with 0 dBi gain at the centre of the quiet zone  Note 6: As observed with 0 dBi gain antenna at the centre of the quiet zone  Note 7: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 8: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBS from TS 38.101-2 [19] Table 6.2.1.3-4.  Note 9: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | | | | |

### <Unchanged Part Skipped >

#### A.18.3.1.5 NR Inter-RAT event triggered reporting tests for FR2 without SSB time index detection when DRX is not used

### <Unchanged Part Skipped >

Table A.18.3.1.5.1-3: NR neighbour cell specific test parameters for NR inter-RAT event triggered reporting for FR2 without SSB time index detection in non-DRX

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Parameter | | Unit | Test configuration | Cell 2 | |
|  | |  |  | T1 | T2 |
| AoA setup defined in A.3.15.2.1 | |  | 1, 2 | Setup 2a | |
| Assumption for UE beamsNote 5 | |  | 1, 2 | Rough | |
| NR RF Channel Number | |  | 1, 2 | 1 | |
| Duplex mode | |  | 1, 2 | TDD | |
| TDD configuration | |  | 1, 2 | TDDConf.3.1 | |
| BWchannel | | MHz | 1, 2 | 100: NRB,c = 24 | |
| OCNG patterns defined in A.3.2.1.1 | |  | 1, 2 | OP. 3 | |
| SMTC configuration defined in A.3.11.1 and A.3.11.2 | |  | 1 | SMTC.2 | |
|  | |  | 2 | SMTC.1 | |
| PDSCH/PDCCH subcarrier spacing | | kHz | 1, 2 | 120 | |
| b1-ThresholdNR | UE power class 3 | dBm/SCS | 1, 2 | -112 | |
| EPRE ratio of PSS to SSS | |  | 1, 2 | 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 | |  |  |  | |
| EPRE ratio of OCNG DMRS to SSS (Note 1) | |  |  |  | |
| EPRE ratio of OCNG to OCNG DMRS (Note 1) | |  |  |  | |
| Ês | | dBm/SCS | 1, 2 | - Infinity | -80.6 |
| SS B\_RP Note 3 | | dBm/SCS | 1, 2 | -Infinity | -80.6 |
| BB Note 6 | | dB | 1, 2 | -Infinity | 8.3 |
| IoNote3 | | dBm/95.04MHz | 1, 2 | -Infinity | -56.0 |
| Propagation Condition | |  | 1, 2 | No external noise (Note 7) | |
| Note 1: OCNG shall be used such that a constant total transmitted power spectral density is achieved for all OFDM symbols.  Note 2: Void  Note 3: SS B\_RP and Io levels have been derived from other parameters for information purposes. They are not settable parameters themselves.  Note 4: Void  Note 5: Information about types of UE beam is given in B.2.1.3, and does not limit UE implementation or test system implementation  Note 6: Calculation of Es/IotBB includes the effect of UE internal noise up to the value assumed for the associated Refsens requirement in clause 7.3.2 of TS 38.101-2 [19], and an allowance of 1dB for UE multi-band relaxation factor ΔMBP from TS 38.101-2 [19] Table 6.2.1.3-4.  Note 7: The downlink connection between the System Simulator and the UE is without Additive White Gaussian Noise, and has no fading or multipath effects as specified in TS 38.521-2 B.0 [38]. | | | | | |

##### A.18.3.1.5.2 Test Requirements

In test 1 with per-UE gap, the UE shall send one Event B1 triggered measurement report, with a measurement reporting delay less than D1 ms from the beginning of time period T2. The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled. The rate of correct events observed during repeated tests shall be at least 90%.

In test 2 with per-FR gap, the UE shall send one Event B1 triggered measurement report, with a measurement reporting delay less than D2 ms from the beginning of time period T2. The UE shall not send event triggered measurement reports, as long as the reporting criteria are not fulfilled. The rate of correct events observed during repeated tests shall be at least 90%.

In test 1 and test 2, the UE is not required to report SSB time index.

Table A.18.3.1.5.2-1: Test requirements for NR inter-RAT event triggered reporting for FR2 without SSB time index detection in non-DRX

|  |  |  |
| --- | --- | --- |
| **Test case** | **Measurement reporting delay (ms)** | |
|  | **Test 1: D1 ms** | **Test 2: D2 ms** |
| UE power class 3 | 3200 | 1600 |

NOTE: The actual overall delays measured in the test may be up to 2xTTIDCCH higher than the measurement reporting delays above because of TTI insertion uncertainty of the measurement report in DCCH.

### <End of Changes>