**3GPP TSG- Meeting #**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

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|  |
| ***Title:***  | DraftCR for PDCCH requirements for eDSS - TDD with 2RX |
|  |  |
| ***Source to WG:*** |  |
| ***Source to TSG:*** |  |
|  |  |
| ***Work item code:*** |  |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** |  |  | ***Release:*** |  |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
|  |  |
| ***Reason for change:*** | RAN4 has agreed to define requirements for PDCCH demod for enhanced DSS |
|  |  |
| ***Summary of change:*** | Introduced requirements for PDCCH demod in eDSS for TDD with 2RX |
|  |  |
| ***Consequences if not approved:*** | There will not be any requirements defined for PDCCH demod in eDSS for TDD with 2RX |
|  |  |
| ***Clauses affected:*** | 5.3.2.2 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** | **X** |  |  Test specifications | TS 38.521-4 |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

5.3.2.2.6 Minimum requirements with PDCCH overlapping with LTE CRS

The parameters specified in Table 5.3.2.2.6-1 are additional prarameters for requirements with PDCCH overlapping with LTE CRS.

**Table 5.3.2.2.6-1: Test Parameters**

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Unit** | **Value** |
| TDD UL-DL pattern |  | FR1.15-1 |
| NR UL transmission with a 7.5 kHz shift to the LTE raster  |  | True |
| CCE to REG mapping type |  | Non-interleaved |
| REG bundle size |  | 6 |
| Shift Index |  | 0 |
| PDCCH Configuration | Start symbol |  | 1 |
| CRS for rate matching (Note 1) | LTE carrier centre subcarrier location |  | Same as NR carrier centre subcarrier location |
| LTE carrier BW | MHz | 10 |
| Number of antenna ports |  | 4 |
| v-shift |  | 0 |
| Note 1: No MBSFN is configured on LTE carrier.Note 2: LTE carrier is configured with Uplink-downlink configuration 2 [Table 4.2-2, TS 36.211] and Special subframe configuration 7 [Table 4.2-1, TS 36.211]. The start of transmission of LTE frame is delayed by 2 LTE subframes with respect to the start of transmission of NR frame.Note 3: gNB punctures the PDCCH data and DMRS REs overlapped with LTE CRS. |

For the parameters specified in Table 5.3.2.2.6-1, the average probability of a missed downlink scheduling grant (Pm-dsg) shall be below the specified value in Table 5.3.2.2.6-2. The downlink physical setup is in accordance with Annex C.3.1.

**Table 5.3.2.2.6-2: Minimum performance for PDCCH with enhanced DSS**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Test number** | **Bandwidth (MHz)** | **CORESET RB** | **CORESET duration** | **Aggregation level** | **Reference Channel** | **Propagation Condition** | **Antenna configuration and correlation Matrix** | **Reference value** |
| **Pm-dsg (%)** | **SNR (dB)** |
| 1 | 10 | 48 | 2 | 8 | R.PDCCH.1-2.8 TDD | TDLC300-100 | 2x2 Low | 1 | [0.0] |