**3GPP TSG- WG4 Meeting #116bis**

**Prague, Czech,**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** | **DraftCR** | **rev** | **1** | **Current version:** | **19.3.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

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|  | | | | | | | | | | |
| ***Title:*** | draft CR for TS 38.101-1 to introduce RMC for LB-LB CA via switching | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | CATT, MediaTek Inc., Anritsu | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_LBCA\_Sw-Core | | | | |  | ***Date:*** | | | 2025-10-14 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | B |  | | | | | ***Release:*** | | | *Rel-19* |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | To introduce UE-coexistence requirements for CA\_n12-n29 and CA\_n28-n67, and the RMC for LB-LB CA via switching | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. In Table 6.5.3.2-1 spurious emissions for UE co-existence, n12 UL shall protect n29 frequency ranges with 1MHz frequency gap, n28 UL shall protect n67 frequency ranges (748~758 MHz) not overlapped between n28 UL and n67 DL 2. To introduce the Reference sensitivity power level for Inter-band CA via switching in clause 7.3A.2.5. 3. To introduce the RMC for inter-band CA via switching in clause A.8 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Current specification can’t support the LB-LB CA via switching without RF requirements. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.5.3.2, 7.3A.2.5 (New), A.8 (New) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS 38.521-1 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

## >> Start of Changes <<

#### 6.5.3.2 Spurious emissions for UE co-existence

This clause specifies the requirements for NR bands for coexistence with protected bands. Unless otherwise stated, the spurious emission for UE co-existence apply for the frequency ranges that are more than FOOB (MHz) in Table 6.5.3.1-1 from the edge of the channel bandwidth.

Table 6.5.3.2-1: Requirements for spurious emissions for UE co-existence

| NR Band | Spurious emission for UE co-existence | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Protected band | Frequency range (MHz) | | | Maximum Level (dBm) | MBW (MHz) | NOTE |
| n1, n84 | E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 20, 21, 22, 26, 27, 28, 31, 32, 38, 40, 41, 42, 43, 44, 45, 50, 51, 52, 65, 67, 68, 69, 72, 73, 74, 75, 76  NR Band n78, n79, n100, n104, n105, n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | E-UTRA Band 34 | FDL\_low | - | FDL\_high | -50 | 1 | 15, 47 |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 15, 27 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 15, 26, 27 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 15, 26, 27 |
| n2 | E-UTRA Band 4, 5, 7, 12, 13, 14, 17, 24, 26, 27, 28, 29, 30, 38, 41, 42, 50, 51, 53, 54, 66, 70, 71, 74, 85, 103, 106  NR Band n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | E-UTRA Band 43, 48  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| n3, n80 | E-UTRA Band 1, 5, 7, 8, 20, 26, 27, 28, 31, 32, 33, 34, 38, 39, 40, 41, 43, 44, 45, 50, 51, 65, 67, 68, 69, 72, 73,74, 75, 76  NR Band n79, n100, n101, n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | E-UTRA Band 11, 18, 19, 21 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 22, 42, 52  NR Band n77, n78, n104 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| n5, n89 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 24, 25, 28, 29, 30, 31, 34, 38, 40, 42, 43, 45, 48, 50, 51, 65, 66, 70, 71, 73, 74, 85, 103, 106  NR Band n79, n105, n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41, 52, 53, 54  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 26 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| n7 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 20, 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 40, 42, 43, 50, 51, 52, 65, 66, 67, 68, 71, 72, 74, 75, 76, 85, 103,  NR Band n77, n78, n100, n101, n105, n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 15, 21, 26 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 15, 21, 26 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 15, 21 |
| n8, n81, n93, n94 | E-UTRA Band 1, 20, 28, 31, 32, 33, 34, 38, 39, 40, 45, 50, 51, 54, 65, 67, 68, 69, 72, 73, 74, 75, 76  NR Band n101, n104, n105, n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3, 7, 22, 41, 42, 43, 52  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA 8 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| n12 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 27, 30, 41, 53, 54, 70, 71, 74, 103, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| E-UTRA Band 4, 48, 50, 51, 66  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| E-UTRA Band 12, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
| Frequency range | 717 | - | 722 | +1.6 | 5 | 15, 26 |
| Frequency range | 722 | - | 728 | -15.5 | 5 | 15, 26 |
| n13 | E-UTRA Band 2, 4, 5, 12, 13, 17, 25, 26, 27, 29, 41, 48, 50, 51, 53, 54, 66, 70, 71, 74, 85, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 14, 103 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | E-UTRA Band 24, 30  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 15 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 11, 15 |
| n14 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 23, 24, 25, 26, 27, 29, 30, 41, 48, 53, 54, 66, 70, 71, 85, 103, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 12, 15 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 11, 12, 15 |
| n18 | E-UTRA Band 1, 3, 11, 21, 34, 40, 42, 65  NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 758 | - | 799 | -50 | 1 |  |
|  | Frequency range | 799 | - | 803 | -40 | 1 |  |
|  | Frequency range | 860 | - | 890 | -40 | 1 |  |
|  | Frequency range | 945 | - | 960 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
|  | Frequency range | 2545 | - | 2575 | -50 | 1 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| n20, n82, n91, n92 | E-UTRA Band 1, 3, 7, 8, 22, 31, 32, 33, 34, 40, 43, 50, 51, 65, 67, 68, 72, 74, 75, 76  NR Band n100, n101, n104, n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 20 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | E-UTRA Band 38, 42, 52, 69  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
| n24, n99 | E-UTRA Band 2, 4, 5, 10, 12, 13, 14, 17, 24, 25, 26, 29, 30, 41, 48, 66, 70, 71, 85, 103, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| n25 | E-UTRA Band 4, 5, 7, 12, 13, 14, 17, 24, 26, 27, 28, 29, 30, 38, 41, 42, 53, 54, 66, 70, 71, 85, 103, 106  NR Band n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | E-UTRA Band 25 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | E-UTRA Band 43, 48  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| n26 | E-UTRA Band 1, 2, 3, 4, 5, 7, 11, 12, 13, 14, 17, 18, 19, 21, 24, 25, 29, 30, 31, 34, 39, 40, 42, 43, 48, 50, 51, 65, 66, 70, 71, 73, 74, 85, 103, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41, 53, 54  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 26 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | Frequency range | 703 | - | 79948 | -50 | 1 |  |
|  | Frequency range | 79948 | - | 803 | -40 | 1 | 15 |
|  | Frequency range | 945 | - | 960 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| n28, n83 | E-UTRA Band 1, 4, 22, 32, 42, 43, 50, 51, 65, 66, 74, 75, 76  NR Band n77, n78, n100, n101, n109 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 19, 25 |
| E-UTRA Band 2, 3, 5, 7, 8, 18, 19, 20, 25, 26, 27, 31, 34, 38, 39, 40, 41, 52, 71, 72, 73  NR Band n79, n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 19, 24 |
| Frequency range | 470 | - | 694 | -42 | 8 | 15, 35 |
| Frequency range | 470 | - | 710 | -26.2 | 6 | 34 |
| Frequency range | 662 | - | 694 | -26.2 | 6 | 15 |
| Frequency range | 748 | - | 753 | +1.6 | 5 | 15, 26 |
| Frequency range | 753 | - | 758 | -15.5 | 5 | 15, 26 |
| Frequency range | 758 | - | 773 | -32 | 1 | 15 |
| Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8, 19 |
| n30 | E-UTRA Band 2, 4, 5, 7, 12, 13, 14, 17, 24, 25, 26, 27, 29, 30, 38, 41, 48, 53, 54, 66, 70, 71, 85, 103, 106  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| n31 | E-UTRA Band 1, 5, 7, 8, 20, 22, 26, 27, 28, 31, 32, 33, 34, 38, 40, 42, 43, 50, 51, 52, 65, 67, 68, 69, 74, 75, 76, 87, 88  NR Band n100, n101 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 470 | - | 694 | -42 | 8 |  |
| n34 | E-UTRA Band 1, 3, 7, 8, 11, 18, 19, 20, 21, 22, 26, 28, 31, 32, 33, 38, 39, 40, 41, 42, 43, 44, 45, 50, 51, 52, 65, 67, 69, 72, 74, 75, 76  NR Band n78, n79, n100, n101, n105, n109 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| n38 | E-UTRA Band 1, 2, 3, 4, 5, 8, 12, 13, 14, 17, 20, 22, 25, 27, 28, 29, 30, 31, 32, 33, 34, 40, 42, 43, 50, 51, 52, 65, 66, 67, 68, 71, 72, 74, 75, 76, 85, 103  NR Band n100, n101, n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 2620 | - | 2645 | -15.5 | 5 | 15, 22, 26 |
|  | Frequency range | 2645 | - | 2690 | -40 | 1 | 15, 22 |
| n39, n98 | E-UTRA Band 1, 8, 22, 26, 28, 34, 40, 41, 42, 44, 45, 50, 51, 52, 74  NR Band n79, n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1805 | - | 1855 | -40 | 1 | 33 |
|  | Frequency range | 1855 | - | 1880 | -15.5 | 5 | 15, 26, 33 |
| n40, n97 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 22, 26, 27, 28, 31, 32, 33, 34, 38, 39, 41, 42, 43, 44, 45, 50, 51, 52, 65, 67, 68, 69, 72, 74, 75, 76  NR Band n77, n78, n100, n101, n105, n109 | FDL\_low | - | FDL\_high | -50 | 1 | 44 |
|  | NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| n41 | E-UTRA Band 1, 2, 3, 4, 5, 8, 12, 13, 14, 17, 24, 25, 26, 27, 28, 29, 30, 34, 39, 42, 44, 45, 48, 50, 51, 52, 54, 65, 66, 70, 71, 73, 74, 85, 103, 106  NR Band n77, n78, n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 11, 18, 19, 21 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 |  | 1915.7 | -41 | 0.3 | 8 |
|  | Frequency range | 2530 | - | 2535 | -25 | 1 | 49 |
|  | Frequency range | 2505 | - | 2530 | -30 | 1 | 49 |
| n47 | E-UTRA Band 1, 3, 5, 7, 8, 22, 26, 28, 34, 39, 40, 41, 42, 44, 45, 65, 68, 72, 73, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n71, n77, n78, n79, n105, n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| n48 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 29, 30, 41, 50, 51, 53, 54, 66, 70, 71, 74, 85, 103, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| n50 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 17, 20, 26, 28, 29, 31, 34, 38, 39, 40, 41, 42, 43, 48, 65, 66, 67, 68, 103  NR Band n100, n101, n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| n51 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 17, 20, 26, 28, 29, 31, 34, 38, 39, 40, 41, 42, 43, 48, 52, 65, 66, 67, 68, 85, 103  NR Band n100, n101, n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| n53 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 29, 30, 48, 54, 66, 70, 71, 85, 103, 106  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| n54 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 29, 30, 48, 50, 51, 53, 66, 70, 71, 85, 103, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR NTN Band n255, n256 |  |  |  |  |  |  |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| n65 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 22, 26, 27, 28, 31, 32, 38, 40, 41, 42, 43, 50, 51, 65, 68, 69, 72, 74, 75, 76  NR Band n78, n79, n100, n105 n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 34 | FDL\_low | - | FDL\_high | -50 | 1 | 43 |
|  | Frequency range | 1900 | - | 1915 | -15.5 | 5 | 15, 26, 27 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 15, 26, 27 |
| n66, n86 | E-UTRA Band 2, 4, 5, 7, 12, 13, 14, 17, 25, 26, 27, 28, 29, 30, 38, 41, 43, 50, 51, 53, 66, 70, 71, 74, 85, 103, 106  NR Band n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42, 48  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| n68 | E-UTRA Band 3, 7, 8, 20, 28, 31, 38, 40, 47, 72, 74, 87, 88  NR Band n100, n101 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 1, 22, 42, 43, 50, 51, 52, 65 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| n70 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 29, 30, 41, 47, 48, 66, 70, 71, 85, 103, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| n71 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 28, 30, 38, 48, 53, 54, 66, 85, 103, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 7, 25, 41, 70  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 29 | FDL\_low | - | FDL\_high | -38 | 1 | 15 |
|  | E-UTRA Band 71 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
| n72 | E-UTRA Band 1, 7, 20, 22, 28, 31, 32, 33, 34, 38, 42, 43, 47, 52, 65, 68, 72, 87, 88  NR Band n100, n101 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 8, 40 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 470 | - | 694 | -42 | 8 |  |
| n74 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 17, 18, 19, 20, 26, 28, 29, 31, 34, 38, 39, 40, 41, 42, 43, 48, 52, 65, 66, 67, 68, 85  NR Band n77, n78, n100, n101, n103, n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
|  | Frequency range | 1400 | - | 1427 | -32 | 27 | 15, 41 |
|  | Frequency range | 1475 | - | 1488 | -28 | 1 | 15, 42 |
|  | Frequency range | 1475 | - | 1488 | -50 | 1 | 15, 45 |
|  | Frequency range | 1475.9 | - | 1510.9 | -35 | 1 | 15, 46 |
|  | Frequency range | 1488 | - | 1518 | -50 | 1 | 15 |
| n77 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29, 30, 34, 39, 40, 41, 53, 54, 65, 66, 70, 71, 74, 85, 103  NR Band n100, n101, n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n104 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| n78 | E-UTRA Band 1, 2, 3, 5, 7, 8, 11, 18, 19, 20, 21, 25, 26, 28, 32, 34, 38, 39, 40, 41, 50, 65, 66, 67, 70, 71, 74, 75, 76  NR Band n100, n101, n105, n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n104 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| n79 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 21, 28, 34, 38, 39, 40, 41, 42, 65, 74  NR Band n105 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| n85 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 27, 30, 41, 53, 54, 70, 71, 74, 103, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 48, 50, 51, 66  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 12, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
| n87 | E-UTRA Band 1, 3, 7, 8, 22, 28, 31, 32, 33, 34, 38, 40, 42, 43, 47, 52, 65, 68, 72  NR Band n100, n101 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band, 20 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 87, 88 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | Frequency range | 470 | - | 694 | -42 | 8 |  |
| n88 | E-UTRA Band 1, 3, 7, 8, 20, 22, 28, 31, 32, 33, 34, 38, 40, 42, 43, 47, 52, 65, 68, 72  NR Band n100, n101 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 87 | FDL\_low | - | FDL\_high | -20 | 1 | 15 |
|  | E-UTRA Band 88 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | Frequency range | 470 | - | 694 | -42 | 8 |  |
| n95 | E-UTRA Band 1, 3, 5, 8, 28, 39, 40, 41  NR Band n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| n100 | E-UTRA Band 1, 3, 8, 20, 28, 31, 32, 33, 34, 38, 40, 43, 50, 51, 52, 65, 67, 68, 69, 72, 74, 75, 76, 87, 88  NR Band n101, n105, n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 7, 22, 42  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
| n101 | E-UTRA Band 1, 3, 8, 20, 22, 28, 31, 32, 38, 40, 50, 51, 52, 65, 67, 68, 69, 72, 74, 75, 76, 87, 88  NR Band n100, n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 7, 42, 43  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
| n104 | E-UTRA Band 1, 3, 7, 8, 20 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| n105 | E-UTRA Band 1, 3, 4, 5, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 38, 39, 40, 43, 50, 51, 65, 66, 72, 73, 74, 75, 76  NR Band n79, n100, n109 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 7, 22, 25, 34, 41, 42, 52  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| n106 | E-UTRA Band 2, 4, 12, 13, 14, 23, 24, 25, 30, 53, 54, 66, 70, 71, 85, 103, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41, 48,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 5, 26 | FDL\_low | - | FDL\_high | -30 | 1 |  |
| n109 | E-UTRA Band 22, 32, 42, 43, 65, 75, 76,  NR Band n78, n100, n101 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 19, 25 |
|  | E-UTRA Band 3, 7, 8, 20, 38,40 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 15 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 15 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
| n110 | E-UTRA Band 2, 4, 5, 12, 13, 14, 24, 25, 26, 27, 29, 30, 41, 48, 53, 54, 66, 70, 71, 85, 103, 106 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| NOTE 1: FDL\_low and FDL\_high refer to each frequency band specified in Table 5.2-1 in TS 38.101-1 or Table 5.5-1 in TS 36.101  NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.5.3.1-2 are permitted for each assigned NR carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. Due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x LCRB x RBsize kHz), where N is 2, 3, 4, 5 for the 2nd, 3rd, 4th or 5th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.  NOTE 3: 15 kHz SCS is assumed when RB is mentioned in the note when channel bandwidth is less than or equal to 50 MHz, lowest SCS is assumed when channel bandwidth is larger than 50 MHz. The transmission bandwidth in terms of RB position and range is not limited to 15 kHz SCS and shall scale with SCS accordingly.  NOTE 4: Void  NOTE 5: For non-synchronised TDD operation to meet these requirements some restriction will be needed for either the operating band or protected band  NOTE 6: N/A  NOTE 7: Void  NOTE 8: Applicable when co-existence with PHS system operating in 1884.5 - 1915.7 MHz.  NOTE 9: Void  NOTE 10: Void  NOTE 11: Void  NOTE 12: The emissions measurement shall be sufficiently power averaged to ensure a standard deviation < 0.5 dB  NOTE 13: Void  NOTE 14: Void  NOTE 15: These requirements also apply for the frequency ranges that are less than FOOB (MHz) in Table 6.5.3.1-1 from the edge of the channel bandwidth.  NOTE 16: Void  NOTE 17: Void  NOTE 18: Void  NOTE 19: Applicable when the assigned NR carrier is confined within 718 MHz and 748 MHz and when the channel bandwidth used is 5 or 10 MHz. Applicable when the assigned NR carrier is confined within 715 MHz and 718 MHz and when the channel bandwidth used is 3 MHz.  NOTE 20: Void  NOTE 21: This requirement is applicable for any channel bandwidths up to 20MHz within the range 2500 - 2570 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 2560.5 - 2562.5 MHz and for carriers of 20 MHz bandwidth when carrier centre frequency is within the range 2552 - 2560 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB.  NOTE 22: This requirement is applicable for power class 3 UE for any channel bandwidths up to 20 MHz. For channel bandwidth within the range 2570 - 2615 MHz with the following restriction: for carriers of 15 MHz bandwidth when the carrier centre frequency is within the range 2605.5 - 2607.5 MHz and for carriers of 20 MHz bandwidth when the carrier centre frequency is within the range 2597 - 2605 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB. For carriers overlapping the frequency range 2615 - 2620 MHz the requirement applies with the maximum output power configured to +19 dBm in the IE P-Max.  NOTE 23: Void  NOTE 24: As exceptions, measurements with a level up to the applicable requirement of -38 dBm/MHz is permitted for each assigned NR carrier used in the measurement due to 2nd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.3.1-1) for which the 2nd harmonic totally or partially overlaps the measurement bandwidth (MBW).  NOTE 25: As exceptions, measurements with a level up to the applicable requirement of -36 dBm/MHz is permitted for each assigned NR carrier used in the measurement due to 3rd harmonic spurious emissions. An exception is allowed if there is at least one individual RB within the transmission bandwidth (see Figure 5.3.1-1) for which the 3rd harmonic totally or partially overlaps the measurement bandwidth (MBW).  NOTE 26: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.  NOTE 27: This requirement is applicable for power class 3 and channel bandwidths up to 20 MHz within the range 1920 - 1980 MHz with the following restriction: for carriers of 15 MHz bandwidth when the carrier centre frequency is within the range 1927.5 - 1929.5 MHz and for carriers of 20 MHz bandwidth when the carrier centre frequency is within the range 1930 - 1938 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB.  NOTE 28: Void  NOTE 29: Void  NOTE 30: Void  NOTE 31: Void  NOTE 32: Void  NOTE 33: This requirement is only applicable for carriers with bandwidth up to 20MHz and confined within 1885-1920 MHz (requirement for carriers with at least 1RB confined within 1880 - 1885 MHz is not specified). This requirement applies for an uplink transmission bandwidth less than or equal to 54 RB for carriers of 15 MHz bandwidth when carrier center frequency is within the range 1892.5 - 1894.5 MHz and for carriers of 20 MHz bandwidth when carrier center frequency is within the range 1895 - 1903 MHz. The above restriction is applicable to only power class 3 UEs.  NOTE 34: This requirement is applicable for 5 and 10 MHz NR channel bandwidth allocated within 718-728 MHz. For carriers of 10 MHz bandwidth, this requirement applies for an uplink transmission bandwidth less than or equal to 30 RB with RBstart > 1 and RBstart < 48. Applicable when the assigned NR carrier is confined within 715 MHz and 718 MHz and when the channel bandwidth used is 3 MHz.  NOTE 35: This requirement is applicable in the case of a 10 MHz NR carrier confined within 703 MHz and 733 MHz, otherwise the requirement of -25 dBm with a measurement bandwidth of 8 MHz applies.  NOTE 36: Void  NOTE 37: Void  NOTE 38: Void  NOTE 39: Void  NOTE 40: Void  NOTE 41: Applicable for cases and when the lower edge of the assigned NR UL channel bandwidth frequency is greater than or equal to 1427 MHz + the channel BW assigned for 5 and 10 MHz bandwidth, and when the lower edge of the assigned NR UL channel bandwidth frequency is greater than or equal to 1440 MHz for 15 and 20 MHz bandwidth. This requirement shall be verified with UE transmission power configured as high as possible but no higher than 15 dBm.  NOTE 42: Applicable when upper edge of the assigned NR UL channel bandwidth frequency is more than 1460 MHz and less than or equal to 1470 MHz for 5 MHz bandwidth, and when the upper edge of the assigned NR UL channel bandwidth frequency is more than 1460 MHz and less than or equal to 1465 MHz for 10 MHz bandwidth.  NOTE 43: This requirement is applicable for UE which is operating in power class 3 and NR channel bandwidths up to 20MHz within frequency range 1920-1980 MHz.  NOTE 44: As exceptions, for 90 and 100 MHz channel bandwidth, -40 dBm/MHz is applicable in the frequency range of 2496 – 2505 MHz.  NOTE 45: Applicable when upper edge of the assigned NR UL channel bandwidth frequency is equal to or less than 1460 MHz.  NOTE 46: Applicable for 5 MHz bandwidth and when the NR carrier is within 1447.9 – 1462.9 MHz.  NOTE 47: This requirement is applicable for power class 3 and channel bandwidths up to 20MHz.  NOTE 48: For 20MHz channel bandwidth this value is changed to 794MHz.  NOTE 49: Applicable when contained within 2545 – 2575 MHz in Japan. Channel bandwidth shall be confined so that there is at least BWChannel separation between 2535 MHz and lower BWChannel edge in the current release. With this BWChannel placement the requirement is covered by general SEM and the spurious emission limits. | | | | | | | |

## >> Next of Changes <<

#### 7.3A.2.5 Reference sensitivity power level for Inter-band CA via switching

The reference sensitivity power level REFSENS for Inter-band CA via switching in a band pair is the minimum mean power applied to each band respectively at each one of the UE antenna ports for all UE categories, at which the throughput in the DL scheduling before and/or after the Switching Gap shall meet or exceed the requirements for the specified reference measurement channel. It’s noted that the DL scheduling in the RMC for Inter-band CA via switching as specified in Annexes A.8 is closest to the Switching Gap (*gapDurationPCelltoSCell-r19* and *gapDurationSCelltoPCell-r19*) configured by network.

For a UE indicating the capability [*switchingPeriodForFDD-SDL]* for the band pair of NR inter-band CA combinations defined in Table 5.2A.3-1, the throughput shall be ≥ 95 % of the maximum throughput of the reference measurement channels as specified in Annexes A.2.2.2/A8.1 (with one sided dynamic OCNG Pattern OP.1 FDD for the DL-signal as described in Annex A.5.1.1) with the REFSENS specified in Table 7.3.2-1a for PCell FDD band, the REFSENS specified in Table 7.3.2-1b for SCell SDL band and uplink transmission bandwidth less than or equal to that specified in Table 7.3.2-3 for PCell FDD band.

## >> Next of Changes <<

# A.8 DL RMC for inter-band CA via switching

## A.8.1 DL RMC for inter-band CA via switching

Table A.8.1-1 DL RMC for inter-band CA via switching

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | | Unit | Value |
| *Switching Pattern for Low-band CA* | *LBCA-SwitchingPattern* | A bitmap of slots | [00011 00110 01100 11001 11100 11001 10011 00110] |
| Period of Switching Pattern | Slots | 40 |
| Slots on the PCell |  | A bit value of ‘0’ in *LBCA-SwitchingPattern* |
| Slots on the SCell |  | A bit value of ‘1’ in *LBCA-SwitchingPattern* |
| Switch-from DL slot on the PCell/SCell | Slot Location |  | Mod(i, 20) = 2, 4, 6, 8, 10, 12, 14, 16, 18 |
| The number of Switch-from Slot |  | 18 slots for each period of 40 slots. |
| CORESET frequency domain allocation |  | Full BW |
| CORESET time domain allocation |  | 2 OFDM symbol at the begin of each slot |
| PDSCH mapping type |  | Type A |
| PDSCH start symbol index (S) |  | 2 |
| Number of consecutive PDSCH symbols (L) |  | 12 - *gapDurationPCelltoSCell-r19* for the slot indicated as ‘0’ in the *LBCA-SwitchingPattern*  *Or*  12 - *gapDurationSCelltoPCell-r19* for the slot indicated as ‘1’ in the *LBCA-SwitchingPattern* |
| PDSCH PRB bundling | PRBs | 2 |
| Dynamic PRB bundling |  | false |
| Overhead value for TBS determination |  | 0 |
| First DMRS position for Type A PDSCH mapping |  | 2 |
| DMRS type |  | Type 1 |
| Number of additional DMRS |  | 2 |
| FDM between DMRS and PDSCH |  | Disable |
| The number of slots between PDSCH and corresponding HARQ-ACK information (K1 Value) | Slots | 2 |
| Switch-to DL slot on the PCell/SCell | Slot Location |  | Mod(i, 20) = 3, 5, 7, 9, 11, 13, 15, 17, 19 |
| The number of Switch-from Slot |  | 18 slots for every period of 40 slots. |
| CORESET frequency domain allocation |  | Full BW |
| CORESET time domain allocation |  | 2 OFDM symbol at the begin of each slot |
| PDSCH mapping type |  | Type A |
| PDSCH start symbol index (S) |  | 2 |
| Number of consecutive PDSCH symbols (L) |  | 12 |
| PDSCH PRB bundling | PRBs | 2 |
| Dynamic PRB bundling |  | false |
| Overhead value for TBS determination |  | 0 |
| First DMRS position for Type A PDSCH mapping |  | 2 |
| DMRS type |  | Type 1 |
| Number of additional DMRS |  | 2 |
| FDM between DMRS and PDSCH |  | Disable |
| The number of slots between PDSCH and corresponding HARQ-ACK information (K1 Value) | Slots | 2 |
| HARQ process number | |  | 4 |
| Subcarrier spacing | | kHz | 15 |
| Subcarrier spacing configuration µ | |  | 0 |
| Subcarriers per resource block | |  | 12 |
| Allocated slots per period of 40 slots on the PCell | | Slots | 18 |
| Allocated slots per period of 40 slots on the SCell | | Slots | 18 |
| MCS Index | |  | 4 |
| MCS Table for TBS determination | |  | 64QAM / table 5.1.3.1-1: MCS index table 1 for PDSCH in TS 38.214 |
| Modulation | |  | QPSK |
| Target Coding Rate R x [1024] | |  | 308 |
| Maximum number of HARQ transmissions | |  | 1 |
| Channel bandwidth | |  | These parameters can refer to Table A.8.1-2 for differernt channel bandwidth. As PCell and SCell can be configured with different channel bandwidth, TBS per slot for PCell and SCell could be different. |
| Allocated resource blocks | |  |
| Information Bit Payload (TBS) per Slot | |  |
| Number of Code Blocks per Slot | |  |
| Number of Code Blocks per Slot | |  |
| Max. Throughput averaged over 4 frame | | Mbps | (18\*TBSPCell + 18\*TBSSCell) / 0.04 / 10^6 |
| RTDP2S (NOTE2) | | µs | 0 |
| RTDS2P (NOTE2) | | µs | 0 |
|  | |  | 0 |
|  | |  | 0 |
| *gapDurationPCelltoSCell-r19* | | Symbol | ‘1’ for 35us of [*switchingPeriodForFDD-SDL]*  ‘2’ for 70us of [*switchingPeriodForFDD-SDL]*  ‘3’ for 140us of [*switchingPeriodForFDD-SDL]* |
| *gapDurationSCelltoPCell-r19* | | Symbol | ‘1’ for 35us of [*switchingPeriodForFDD-SDL]*  ‘2’ for 70us of [*switchingPeriodForFDD-SDL]*  ‘3’ for 140us of [*switchingPeriodForFDD-SDL]* |
| CSI‑RS for tracking | First subcarrier index in the PRB used for CSI-RS (k0) |  | 0 for CSI-RS resource 1,2,3,4 |
|  | OFDM symbols in the PRB used for CSI‑RS |  | l0 = 6 for CSI-RS resource 1 and 3  l0 = 10 for CSI-RS resource 2 and 4 |
|  | Number of CSI-RS ports |  | 1 for CSI-RS resource 1,2,3,4 |
|  | CDM Type |  | 'No CDM' for CSI-RS resource 1,2,3,4 |
|  | Density (ρ) |  | 3 for CSI-RS resource 1,2,3,4 |
|  | CSI‑RS periodicity | Slots | 40 for CSI-RS resource 1,2,3,4 |
|  | CSI‑RS offset | Slots | For PCell FDD band, CSI-RS offset are:  0 for CSI-RS resource 1 and 2  1 for CSI-RS resource 3 and 4  For SCell SDL band, CSI-RS offset are:  20 for CSI-RS resource 1 and 2  21 for CSI-RS resource 3 and 4 |
|  | Frequency Occupation |  | Start PRB 0  Number of PRB = BWP size |
|  | QCL info |  | TCI state #0 |
| PTRS configuration | |  | PTRS is not configured |
| NOTE 1: Slot i is slot index per four frames.  NOTE 2: The definition is referred to the clause 5.2.2 and 5.2.3 of TR 38.768 | | | |

Table A.8.1-2 DL TBS for different channel bandwidth under the inter-band CA via switching

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | | **Unit** | **Value** | | | | |
| Channel bandwidth | | MHz | 5 | 10 | 15 | 20 | 25 |
| Allocated resource blocks | |  | 25 | 52 | 79 | 106 | 133 |
| For Slots i in which PDSCH is not allocated,  If Mod(i, 20) = 0 or 1 | Information Bit Payload per Slot | Bits | NA | NA | NA | NA | NA |
| Number of Code Blocks per Slot | CBs | NA | NA | NA | NA | NA |
| Binary Channel Bits per Slot | Bits | NA | NA | NA | NA | NA |
| For Switch-from Slots i in which PDSCH is allocated,  if Mod(i, 20) = 2, 4, 6, 8, 10, 12, 14, 16, 18 and ‘1’ is indicated by *gapDurationPCelltoSCell-r19* or *gapDurationSCelltoPCell-r19* | Allocated data symbols of PDSCH | Symbols | 8 | | | | |
| Information Bit Payload per Slot | Bits | 1480 | 2976 | 4480 | 6144 | 7680 |
| Transport block CRC | Bits | 16 | 16 | 24 | 24 | 24 |
| LDPC base graph |  | 2 | 2 | 1 | 1 | 1 |
| Number of Code Blocks per Slot / CBs | CBs | 1 | 1 | 1 | 1 | 1 |
| Binary Channel Bits per Slot / Bits | Bits | 4800 | 9984 | 15168 | 20352 | 25536 |
| For Switch-from Slots i in which PDSCH is allocated,  if Mod(i, 20) = 2, 4, 6, 8, 10, 12, 14, 16, 18 and ‘2’ is indicated by *gapDurationPCelltoSCell-r19* or *gapDurationSCelltoPCell-r19* | Allocated data symbols of PDSCH | Symbols | 7 | | | | |
| Information Bit Payload per Slot | Bits | 1256 | 2664 | 3968 | 5376 | 6656 |
| Transport block CRC | Bits | 16 | 16 | 24 | 24 | 24 |
| LDPC base graph |  | 2 | 2 | 1 | 1 | 1 |
| Number of Code Blocks per Slot / CBs | CBs | 1 | 1 | 1 | 1 | 1 |
| Binary Channel Bits per Slot / Bits | Bits | 4200 | 8736 | 13272 | 17808 | 22344 |
| For Switch-from Slots i in which PDSCH is allocated,  if Mod(i, 20) = 2, 4, 6, 8, 10, 12, 14, 16, 18 and ‘3’ is indicated by *gapDurationPCelltoSCell-r19* or *gapDurationSCelltoPCell-r19* | Allocated data symbols of PDSCH | Symbols | 6 | | | | |
| Information Bit Payload per Slot | Bits | 1128 | 2280 | 3496 | 4608 | 5760 |
| Transport block CRC | Bits | 16 | 16 | 16 | 24 | 24 |
| LDPC base graph |  | 2 | 2 | 2 | 1 | 1 |
| Number of Code Blocks per Slot / CBs | CBs | 1 | 1 | 1 | 1 | 1 |
| Binary Channel Bits per Slot / Bits | Bits | 3600 | 7488 | 11376 | 15264 | 19152 |
| For Switch-to Slots i in which PDSCH is allocated,  If Mod(i, 20) = 3, 5, 7, 9, 11, 13, 15, 17, 19 | Allocated data symbols of PDSCH | Symbols | 9 | | | | |
| Information Bit Payload per Slot | Bits | 1672 | 3368 | 5120 | 6912 | 8712 |
| Transport block CRC | Bits | 16 | 16 | 24 | 24 | 24 |
| LDPC base graph |  | 2 | 2 | 1 | 1 | 1 |
| Number of Code Blocks per Slot | CBs | 1 | 1 | 1 | 1 | 2 |
| Binary Channel Bits per Slot | Bits | 5400 | 11232 | 17064 | 22896 | 28728 |
| NOTE 1: Additional parameters are specified in Table A.8.1-1.  NOTE 2: If TB size is larger than 3824, the CRC sequence of L = 24 Bits is attached to each Code Block.  NOTE 3: SS/PBCH block is transmitted in slot 0, 1 and 20, 21 of each period of 40 slots  NOTE 4: Slot i is slot index per four frames. | | | | | | | |

## >> End of Changes <<