**3GPP TSG-RAN4 Meeting #100-e *R4-2112358***

**Online, , 16th Aug 2021 - 27th Aug 2021**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-1** | **CR** | **0908** | **rev** | **2** | **Current version:** | **17.2.0** |  |
|  | | | | | | | | |
| *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:*** | CR for TS 38.101-1 Rel-17: Applying n40 and n41 spurious emissions on CA | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Apple, NTT DOCOMO, INC. | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_RF\_FR1-Core | | | | |  | ***Date:*** | | | 2021-08-21 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-17 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | With the resent agreement on n40 and n41 single band emission requirements, the emission limits for CA combinations require an update to match new conditions.  In addition, so we added emission requirements between Band 40 and Japan bands at the RAN4#99e meeting. Band 41 is one of the Japan bands, and it has already been agreed to add requirements for them at the RAN4#98e meeting (R4-2103134). Therefore, these emission limits for CA combinations are added to match new conditions. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. Changed emission limit for n40 to -40dBm/MHz: CA\_n41, CA\_n3-n41, CA\_n8n-n41, CA\_n39-n41, CA\_n41-n50, CA\_n41-n77, CA\_n41-n79 2. Added emission limit for n40 to -40dBm/MHz: CA\_n1-n41, CA\_n18-n41, CA\_n28-n41, CA\_n41-n74, CA\_n41-n78 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Emission requirements for all CA combinations with n40 are wrong. Also, n40 is not properly protected from CA between n41 and Japan band. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.5A.3.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 changed sections >>>

#### 6.5A.3.2 Spurious emissions for UE co-existence

##### 6.5A.3.2.1 Spurious emissions for UE co-existence for intra-band contiguous CA

This clause specifies the requirements for the specified intra-band contiguous carrier aggregation configurations for coexistence with protected bands, the requirements in Table 6.5A.3.2.1-1 apply.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.5A.3.2.1-1: Requirements for uplink intra-band contiguous carrier aggregation

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| NR CA combination | Spurious emission | | | | | | |
|  | Protected Band | Frequency range (MHz) | | | Maximum Level (dBm) | MBW (MHz) | NOTE |
| CA\_n7 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 20, 22, 26, 27, 28, 29, 30, 31, 32, 33, 34, 40, 42, 43, 50, 51, 52, 65, 66, 67, 68, 72, 74, 75, 76, 85,  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| CA\_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, 65, 66, 70, 71, 73, 74, 85,  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2, 4 |
|  | E-UTRA Band 9, 11, 18, 19, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 6 |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | Frequency range | 1884.5 |  | 1915.7 | -41 | 0.3 | 5, 6 |
| CA\_n48 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 29, 30, 41, 50, 51, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| CA\_n77 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 39, 40, 41, 65 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 5 |
| CA\_n78 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 39, 40, 41, 65 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 5 |
| CA\_n79 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 28, 34, 39, 40, 41, 42, 65 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 5 |
| NOTE 1: Void  NOTE 2: Void  NOTE 3: Void  NOTE 4: 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 5: Applicable when co-existence with PHS system operating in 1884.5 - 1915.7 MHz.  NOTE 6: This requirement applies when the NR carrier is confined within 2545 – 2575 MHz or 2595 – 2645 MHz and the channel bandwidth is 10 or 20 MHz | | | | | | | |

##### 6.5A.3.2.2 Spurious emissions for UE co-existence for intra-band non-contiguous CA

This clause specifies the requirements for the specified intra-band non-contiguous carrier aggregation configurations for coexistence with protected bands, the requirements in Table 6.5A.3.2.2-1 apply.

NOTE: For measurement conditions at the edge of each frequency range, the lowest frequency of the measurement position in each frequency range should be set at the lowest boundary of the frequency range plus MBW/2. The highest frequency of the measurement position in each frequency range should be set at the highest boundary of the frequency range minus MBW/2. MBW denotes the measurement bandwidth defined for the protected band.

Table 6.5A.3.2.2-1: Requirements for uplink intra-band non-contiguous carrier aggregation

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| NR CA combination | Spurious emission | | | | | | |
|  | Protected Band | Frequency range (MHz) | | | Maximum Level (dBm) | MBW (MHz) | NOTE |
| CA\_n41 | E-UTRA Band 1, 2, 3, 4, 5, 8, 10, 12, 13, 14, 17, 24, 25, 26, 27, 28, 29, 30, 34, 39, 42, 44, 45, 48, 50, 51, 52, 65, 66, 70, 71, 73, 74, 85,  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 | 1, 2 |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | E-UTRA Band 9, 11, 18, 19, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n77 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 39, 40, 41, 65 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  |
| CA\_n78 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 39, 40, 41, 65 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  |
| NOTE 1: 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 2: This requirement applies when the NR carrier is confined within 2545 – 2575 MHz or 2595 – 2645 MHz and the channel bandwidth is 10 or 20 MHz | | | | | | | |

##### 6.5A.3.2.3 Spurious emissions for UE co-existence for Inter-band CA

For inter-band carrier aggregation with the uplink assigned to two NR bands, the requirements in Table 6.5A.3.2.3-1 apply on each component carrier with all component carriers are active.

NOTE: For inter-band carrier aggregation with uplink assigned to two NR bands the requirements in Table 6.5A.3.2.3-1 could be verified by measuring spurious emissions at the specific frequencies where second and third order intermodulation products generated by the two transmitted carriers can occur; in that case, the requirements for remaining applicable frequencies in Table 6.5A.3.2.3-1 would be considered to be verified by the measurements verifying the one uplink inter-band CA UE to UE co-existence requirements.

Table 6.5A.3.2.3-1: Requirements for uplink inter-band carrier aggregation (two bands)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| NR CA combination | Spurious emission | | | | | | |
|  | Protected Band | Frequency range (MHz) | | | Maximum Level (dBm) | MBW (MHz) | NOTE |
| CA\_n1-n3 | E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 38, 40, 41, 43, 44, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76  NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA band 22, 42, 52  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 4,6 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 4, 6, 7 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 4, 6, 7 |
| CA\_n1-n7 | E-UTRA Band 1, 5, 7, 8, 20, 22, 26, 27, 28, 31,32, 40, 42, 43, 50, 51, 52, 65, 67, 68, 72, 74, 75, 76  NR Band n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | Frequency range | 1880 |  | 1895 | -40 | 1 | 4, 6 |
|  | Frequency range | 1895 |  | 1915 | -15.5 | 5 | 4. 7, 6 |
|  | Frequency range | 1915 |  | 1920 | +1.6 | 5 | 4. 7, 6 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 4, 7, 18 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 4, 7, 18 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 4, 18 |
| CA\_n1-n8 | E-UTRA Band 20, 28, 31, 32, 38, 40, 45, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 7, 22, 41, 42, 43  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1, 8, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 4, 6 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 4, 6, 7 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 4, 6, 7 |
| CA\_n1-n18 | E-UTRA Band 1, 11, 21, 42, 65  NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 758 | - | 799 | -50 | 1 |  |
|  | Frequency range | 799 | - | 803 | -40 | 1 | 4 |
|  | Frequency range | 860 | - | 890 | -40 | 1 |  |
|  | Frequency range | 945 | - | 960 | -50 | 1 |  |
|  | Frequency range | 2545 | - | 2575 | -50 | 1 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| CA\_n1-n28 | E-UTRA Band 5, 7, 8, 18, 19, 20, 26, 27, 31, 38, 40, 41, 72, 73  NR band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 1, 22, 32, 42, 43, 50, 51, 52, 65, 74, 75, 76  NR band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 12 |
|  | E-UTRA Band 1, 65 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 15 |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 4, 14 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 15 |
|  | Frequency range | 758 | - | 773 | -30 | 1 | 4 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 4 |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 4, 6 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 4, 6, 7 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 4, 6, 7 |
| CA\_n1-n40 | E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 20, 21, 22, 26, 27, 28, 31, 32, 38, 41, 42, 43, 44, 45, 50, 51, 52, 65, 67, 68, 69, 72, 73, 74, 75, 76  NR band n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | NR band n77, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1880 |  | 1895 | -40 | 1 | 4, 14 |
|  | Frequency range | 1895 |  | 1915 | -15.5 | 5 | 4, 7, 14 |
|  | Frequency range | 1915 |  | 1920 | +1.6 | 5 | 4, 7, 14 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n1-n41 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 26, 27, 28, 42, 44, 45, 50, 51, 52, 65, 73, 74  NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 34 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | NR Band n77, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 4,6 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 4, 6, 7 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 4, 6, 7 |
| CA\_n1-n74 | E-UTRA Band 1, 5, 7, 8, 18, 19, 20, 26, 28, 31, 38, 40, 41, 42, 43, 52, 65, 67, 68  NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 4, 6 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 4, 6, 7 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 4, 6, 7 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
|  | Frequency range | 1400 | - | 1427 | -32 | 27 | 4, 20 |
|  | Frequency range | 1475 | - | 1488 | -50 | 1 | 21 |
|  | Frequency range | 1488 | - | 1518 | -50 | 1 | 4 |
| CA\_n1-n77 | E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 40, 41, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 4, 6 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 4, 6, 7 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 4, 6, 7 |
| CA\_n1-n78 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 40, 41, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 4, 6 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 4, 6, 7 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 4, 6, 7 |
| CA\_n1-n79 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 21, 26, 28, 34, 40, 41, 42, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 4, 6 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 4, 6, 7 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 4, 6, 7 |
| CA\_n2-n5 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 25, 26, 28, 29, 30, 42, 48, 50, 51 66, 70, 71, 74, 85, | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41, 43, 53  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n2-n7 | E-UTRA Band 2, 5, 7, 10, 12, 13, 14, 17, 26, 27, 28, 29, 30, 42, 50, 51, 66, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 43 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 2570 | - | 2575 | 1.6 | 5 | 4, 7, 18 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 4, 7, 18 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 4, 18 |
| CA\_n2-n12 | E-UTRA Band 5, 13, 14, 17, 24, 26, 27, 30, 41, 50, 53, 71, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 12, 25, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 3 |
|  | E-UTRA Band 2 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 4, 10, 51, 66, 70 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n2-n14 | E-UTRA Band 4, 5, 10, 12, 13, 14, 17, 24, 26, 27, 29, 30, 41, 48, 53, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 4 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 4 |
| CA\_n2-n30 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 27, 28, 29, 41, 42, 48, 50, 51, 53, 66, 70, 71, 74, 85  NR band n30 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 25 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | NR Band n2 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 43,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n2-n48 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 25, 26, 29, 30, 41, 50, 51, 53, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| CA\_n2-n66 | E-UTRA Band 4, 5, 10, 12, 13, 14, 17, 24, 26, 27, 28, 29, 30, 41, 50, 51, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 42, 48,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n2-n77 | E-UTRA Band 4, 5, 12, 13, 14, 17, 26, 29, 30, 41, 65, 66, 70, 71 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n2-n78 | E-UTRA Band 5, 7, 12, 13，26, 28, 41, 66 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| CA\_n3-n7 | E-UTRA Band 1, 5, 7, 8, 20, 26, 27, 28, 31, 32, 33, 34, 40, 43, 44, 50, 51, 65, 67, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA band 22, 42, 52  NR-band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 4, 7, 18 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 4, 7, 18 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 4, 18 |
| CA\_n3-n8 | E-UTRA Band 1, 11, 20, 21, 28, 31, 32, 33, 34, 38, 39, 40, 44, 50, 51, 65, 67, 72, 73, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3, 8 | FDL\_low | - | FDL\_high | -50 | 1 | 2, 4 |
|  | E-UTRA band 7, 22, 41, 42, 43, 52  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n3-n18 | E-UTRA Band 1, 3, 11, 21, 28, 34, 40, 65  NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 945 | - | 960 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
|  | Frequency range | 2545 | - | 2575 | -50 | 1 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| CA\_n3-n34 | E-UTRA Band 1, 7, 8, 11, 18, 19, 20, 21, 26, 28, 31, 32, 33, 38, 39, 40, 41, 43, 44, 45, 50, 51, 65, 67, 69,72, 73, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 22, 42, 52  NR Band n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n3-n38 | E-UTRA Band 1, 5, 8, 20, 27, 28, 31, 32, 33, 34, 40, 43, 50, 51, 65, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
|  | E-UTRA band 22, 42, 52 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 2620 | - | 2645 | -15.5 | 5 | 15, 22, 26 |
|  | Frequency range | 2645 | - | 2690 | -40 | 1 | 15, 22 |
| CA\_n3-n28 | E-UTRA Band 5, 7, 8, 18, 19, 20, 26, 27, 31 38, 40, 41, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 32, 42, 43, 50, 51, 74, 75, 76  NR band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 12 |
|  | E-UTRA Band 1, 65 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 15 |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 4, 14 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 15 |
|  | Frequency range | 758 | - | 773 | -30 | 1 | 4 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 4 |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 4, 6 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 4, 6, 7 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 4, 6, 7 |
|  | Frequency range | 1839.9 | - | 1879.9 | -50 | 1 | 4 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 11 |
| CA\_n3-n40 | E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 33, 34, 38, 39, 41, 43, 44. 45, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | UTRA Band 22, 42, 52  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n3-n41 | E-UTRA Band 1, 5, 8, 11, 18, 19, 20, 21, 26, 27, 28, 34, 39, 44, 45, 50, 51, 65, 73, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 42,  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n3-n74 | E-UTRA Band 1, 5, 7, 8, 18, 19, 20, 26, 28, 31, 34, 38, 39, 40, 41, 43, 65, 67, 68 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 42, 52  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
|  | Frequency range | 1400 | - | 1427 | -32 | 27 | 4, 20 |
|  | Frequency range | 1475 | - | 1488 | -50 | 1 | 21 |
|  | Frequency range | 1488 | - | 1518 | -50 | 1 | 4 |
| CA\_n3-n77 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 39, 40, 41, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n3-n78 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 28, 34, 39, 40, 41, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n3-n79 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 28, 34, 39, 40, 41, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n5-n12 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 30, 42, 43 50, 71, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 10, 41, 42, 48, 51, 66, 70  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 12, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| CA\_n5-n14 | E-UTRA Band 2, 4, 5, 10, 12, 13, 14, 17, 24, 25, 26, 29, 30, 48, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 41, 53 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n5-n25 | E-UTRA Band 4, 5, 10, 12, 13, 14, 17, 24, 26, 28, 29, 30, 42, 48, 50, 51, 53, 66, 70, 71,74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41, 43, n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| CA\_n5-n30 | E-UTRA Band 2, 4, 7, 12, 13, 14, 17, 24, 25, 26, 29, 38, 48, 66, 70, 71, 85  NR band n5, 30 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41, 53  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n5An48 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 29, 30, 65, 66, 70, 71, 73 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| CA\_n5-n66 | E-UTRA Band 1, 2, 3, 4, 5, 6, 7, 8, 12, 13, 14, 17, 24, 25, 28, 29, 30, 34, 38, 40, 43, 45, 50, 51, 65, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 26 | 859 | - | 869 | -27 | 1 |  |
|  | E-UTRA Band 41, 42, 48, 52 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n5-n77 | E-UTRA Band 1, 2, 3, 4, 8, 11, 12, 13, 14, 17, 18, 19, 21, 25, 26, 28, 29, 30, 34, 40, 65, 66, 70, 71, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n5-n78 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 21, 24, 25, 26, 28, 29, 30, 31, 34, 38, 40, 45, 65, 66, 70, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 945 | - | 960 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
|  | Frequency range | 2545 | - | 2575 | -50 | 1 | 2 |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 7, 2 |
| CA\_n5-n79 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 21, 24, 25, 26, 28, 29, 30, 31, 34, 38, 40, 42, 43, 45, 48, 50, 51, 65, 66, 70, 71, 73, 74, 85 | FDL\_low | - | FDL\_high |  |  |  |
|  | E-UTRA Band 41, 52 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n7-n25 | E-UTRA Band 4, 5, 7, 12, 13, 14 17, 26, 27, 28, 29, 30, 42, 66, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 43 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | Frequency range | 2570 | - | 2575 | 1.6 | 5 | 4, 7, 18 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 4, 7, 18 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 4, 18 |
| CA\_n7-n28 | E-UTRA Band 2, 3, 5, 7, 8, 20, 26, 27, 31, 34, 40 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 1, 4, 42, 43, 50, 51, 65, 66, 74, 75, 76  NR band n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band n1 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 12 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 4 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 4, 7, 18 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 4, 7, 18 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 4, 18 |
| CA\_n7-n66 | E-UTRA Band 2, 4, 5, 7, 12, 13, 14, 17, 26, 27, 28, 29, 30, 43, 66, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 4, 7, 18 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 4, 7, 18 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 4, 18 |
| CA\_n7-n77 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 33, 34, 40, 50, 51, 65, 66, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 4, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 4, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 4, 6 |
| CA\_n7-n78 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 33, 34, 40, 50, 51, 65, 66, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 4, 7, 18 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 4, 7, 18 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 4, 18 |
| CA\_n8-n34 | E-UTRA Band 1, 20, 28, 31, 32, 33, 38, 39, 40, 45, 50, 51, 65, 67, 69,72, 73, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 7, 22, 41, 42, 43, 52  NR Band n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 8 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n8-n39 | E-UTRA Band 1, 34, 40, 50, 51, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 22, 41, 42  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 8 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| CA\_n8-n40 | E-UTRA Bands 1, 5, 11, 18, 19, 20, 21, 26, 28, 31, 32, 33, 34, 38, 39, 45, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Bands 3, 7, 22, 41, 42, 43, 52  NR Bands n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 8 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n8-n41 | E-UTRA Band 1, 11, 12, 28, 34, 39, 45, 50, 51, 65, 73,74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | E-UTRA band 3, 42, 52  NR band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n8-n78 | E-UTRA Band 1, 8, 11, 20, 21, 28, 34, 39, 40, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 7, 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n8-n79 | E-UTRA Band 1, 8, 11, 21, 28, 34, 39, 40, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 41, 42 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n12-n30 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 27, 30, 41, 53, 71 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 48, 66, 70,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 12, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| CA\_n12-n66 | E-UTRA Band 2, 5, 13, 14, 17, 25, 26, 27, 30, 41, 53, 71, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 48, 50, 51, 66, 70  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 12, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| CA\_n12-n77 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 27, 30, 41, 53, 71, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 50, 51, 66, 70, | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 12, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| CA\_n13-n25 | E-UTRA Band 4, 5,12,13,17, 26, 29, 41, 48, 66, 70, 71 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2,14, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 30 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 4 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 4 |
| CA\_n13-n66 | Bands 2, 4, 5, 7, 12, 13, 17, 25, 26, 27, 29, 41, 53, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 14 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 24, 30, 46, 48, | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | NR Band n77 | 769 | - | 775 | -35 | 0.00625 | 4 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 4 |
| CA\_n13-n77 | E-UTRA Band 2, 5, 7, 12, 13, 25, 26, 41, 66 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 4 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 4 |
| CA\_n14-n30 | E-UTRA Band 2, 4, 5,12, 13, 14, 17, 24, 25, 26, 27, 29, 30, 41, 48, 53, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 4 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 4 |
| CA\_n14-n66 | E-UTRA Band 2, 4, 5, 10, 12, 13, 14, 17, 24, 25, 26, 27, 29, 30, 41, 53, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 48 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 4 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 4 |
| CA\_n14-n77 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 23, 24, 25, 26, 27, 29, 30, 41, 53, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 4, 20 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 4, 20 |
| CA\_n18-n28 | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 12 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 2,11, 15 |
|  | E-UTRA Band 42, 65  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 3, 34  NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 4, 14 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 13 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 4 |
|  | Frequency range | 758 | - | 799 | -50 | 1 |  |
|  | Frequency range | 799 | - | 803 | -40 | 1 | 4 |
|  | Frequency range | 860 | - | 890 | -40 | 1 |  |
|  | Frequency range | 945 | - | 960 | -50 | 1 | 4 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
|  | Frequency range | 2545 | - | 2575 | -50 | 1 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| CA\_n18-n41 | E-UTRA Band 1, 3, 34, 42, 65 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | NR Band n77, n78, n79 | 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 | 3 |
| CA\_n18-n74 | E-UTRA Band 1, 3, 34, 42, 65 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77, n78, n79 | 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 | 1400 | - | 1427 | -32 | 27 | 4, 20 |
|  | Frequency range | 1475 | - | 1488 | -50 | 1 | 21 |
|  | Frequency range | 1488 | - | 1518 | -50 | 1 | 4 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
|  | Frequency range | 2545 | - | 2575 | -50 | 1 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| CA\_n18-n77 | E-UTRA Band 1, 3, 11, 21, 34, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | 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 | 3 |
|  | Frequency range | 2545 | - | 2575 | -50 | 1 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| CA\_n18-n78 | E-UTRA Band 1, 3, 11, 21, 34, 65, | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | 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 | 3 |
|  | Frequency range | 2545 | - | 2575 | -50 | 1 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| CA\_n20-n28 | E-UTRA Band 3, 7, 28, 31, 34 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 1, 22, 32, 38, 42, 43, 65, 75, 76  NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n20-n78 | E-UTRA Band 1, 3, 7, 8, 34, 40, 65 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 20 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 38, 69 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n24-n41 | E-UTRA Band 2, 4, 5, 10, 12, 13, 14, 17, 25, 26, 29, 30, 48, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n24-n48 | E-UTRA Band 2, 4, 5, 10, 12, 13, 14, 17, 25, 26, 29, 30, 41, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| CA\_n24-n77 | E-UTRA Band 2, 4, 5, 10, 12, 13, 14, 17, 25, 26, 29, 30, 41, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| CA\_n25-n41 | E-UTRA Band 4, 5, 12, 13 , 14, 17, 24, 26, 27, 28, 29, 30, 42, 48, 66, 70, 71,85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n25-n48 | E-UTRA Band 2, 4, 5, 10, 12, 13, 14, 17, 24, 25, 26, 29, 30, , 50, 51, 53, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41, NR band n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n25-n66 | E-UTRA Band 4, 5, 7, 12, 13, 14, 17, 24, 26, 27, 28, 29, 30, 38, 41, 50, 51, 53, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42, 43, 48,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| CA\_n25-n71 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 30, 48, 53, 66, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41, 70 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | NR Band n71 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 29 | FDL\_low | - | FDL\_high | -38 | 1 | 4 |
| CA\_n25-n77 | E-UTRA Band 4, 5, 12, 13, 14, 17, 26, 29, 30, 41, 65, 66, 70, 71 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n25-n78 | E-UTRA Band 5, 7, 12, 13, 25, 26, 28, 41，66 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| CA\_n28-n40 | E-UTRA Band 1, 3, 5, 7, 8, 18, 19, 20, 26, 27, 28, 31, 34, 38, 41, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 11, 21, 22, 32, 42, 43, 50, 51, 52, 65, 73, 74, 75, 76  NR band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n28-n41 | E-UTRA Band 2, 3, 5, 8, 25, 26, 27, 34 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 42, 50, 51, 52, 65, 66, 73, 74  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 18, 19 | FDL\_low | - | FDL\_high | -50 | 1 | 11 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 15 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 12 |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 4, 14 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 13 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 4 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 4 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 11 |
| CA\_n28-n50 | E-UTRA Band 2, 3, 5, 7, 8, 18, 19, 25, 26, 27, 31, 34, 38, 39, 40, 41, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 22, 42, 43, 48, 52, 65, 66, 73  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 2, 10, 11 |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 4, 14 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 13 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 4 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 4 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 11 |
| CA\_n28-n77 | E-UTRA Band 3, 5, 7, 8, 18, 19, 20, 26, 34, 39, 40, 41 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 15 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 12 |
|  | Frequency range | 758 | - | 773 | -32 | 1 |  |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 11 |
| CA\_n28-n74 | E-UTRA Band 2, 3, 5, 7, 8, 18, 19, 20, 26, 31, 34, 38, 39, 40, 41 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 2, 11, 15 |
|  | E-UTRA Band 4, 42, 43, 52, 65, 66  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 4, 14 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 13 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 4 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 4 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 11 |
|  | Frequency range | 1400 | - | 1427 | -32 | 27 | 4, 20, 2 |
|  | Frequency range | 1475 | - | 1488 | -50 | 1 | 21, 2 |
|  | Frequency range | 1488 | - | 1518 | -50 | 1 | 4, 2 |
| CA\_n28-n78 | E-UTRA Band 3, 5, 7, 8, 18, 19, 20, 26, 34, 39, 40, 41 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 65 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 15 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 11, 12 |
|  | Frequency range | 758 | - | 773 | -32 | 1 |  |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 11 |
| CA\_n28-n79 | E-UTRA Band 3, 5, 8, 18, 19, 34, 39, 40, 41, | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 1, 42, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 10 |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 4, 14 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 13 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 4 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 4 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 10, 11 |
| CA\_n30-n66 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 27, 29, 38, 41, 70, 71  NR band n30, n66 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 48,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n30-n77 | E-UTRA Band 2, 4, 5, 7, 12, 13, 14, 17, 24, 25, 26, 27, 29, 30, 38, 41, 53, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| CA\_n34-n40 | E-UTRA Band 1, 3, 7, 8, 20, 22, 26, 28, 31, 32, 33, 38, 39, 41, 42, 43, 44, 45, 50, 51, 65, 67, 69, 72, 73, 74, 75, 76  NR band n78 | 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 |
| CA\_n34-n79 | E-UTRA Band 1, 3, 8, 11, 18, 19, 21, 28, 39, 40, 41, 42, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 8 |
| CA\_n38-n66 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 25, 27, 28, 29, 30, 43, 50, 51, 66, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 2620 | - | 2645 | -15.5 | 5 | 5, 7, 19 |
|  | Frequency range | 2645 | - | 2690 | -40 | 1 | 5, 19, |
| CA\_n38-n78 | E-UTRA Band 1, 3, 5, 8, 20, 28, 34, 40, 65, | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 2620 | - | 2645 | -15.5 | 5 | 15, 22, 26 |
|  | Frequency range | 2645 | - | 2690 | -40 | 1 | 15, 22 |
| CA\_n39-n40 | E-UTRA Band 1, 8, 22, 26, 28, 34, 41, 42, 44, 45, 50, 51, 52, 73, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1805 |  | 1855 | -40 | 1 | 8 |
|  | Frequency range | 1855 |  | 1880 | -15.5 | 5 | 4, 7, 8 |
| CA\_n39-n41 | E-UTRA Band 1, 8, 26, 28, 34, 42, 44, 45, 50, 51, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1805 | - | 1855 | -40 | 1 | 4 |
|  | Frequency range | 1855 | - | 1880 | -15.5 | 5 | 4, 7, 8 |
| CA\_n39-n79 | E-UTRA Band 1, 8, 28, 34, 40, 41, 44, 45 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1805 | - | 1855 | -40 | 1 | 4, 8 |
|  | Frequency range | 1855 | - | 1880 | -15.5 | 5 | 4, 7, 8 |
| CA\_n40-n41 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 26, 27, 28, 34, 39, 42, 44, 45, 50, 51, 65, 73, 74,  NR Band n77, n78 | 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 | 3 |
| CA\_n40-n78 | UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 33, 34, 38, 39, 41, 44, 45, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76 | 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 | 3 |
| CA\_n40-n79 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 26, 28, 34, 39, 41, 42, 65, 74,  NR band n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n41-n50 | E-UTRA Band 1, 2, 3, 4, 5, 8, 12, 13 , 14, 17, 20, 25, 26, 27, 28, 29, 30, 31, 34, 39, 42, 43, 44, 48, 52, 65, 66, 67, 68, 70, 71, 73, 85  NR Band n77, n78 | 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 |
| CA\_n41-n66 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 27, 28, 29, 30, 50, 51, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42, 48 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n41-n71 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 30, 48, 66, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25, 70 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | NR Band n71 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 29 | FDL\_low | - | FDL\_high | -38 | 1 | 4 |
| CA\_n41-n74 | E-UTRA Band 1, 2, 3, 4, 5, 8, 12, 13, 17, 18, 19, 26, 28, 29, 34, 39, 42, 48, 52, 65, 66, 85  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | Frequency range | 1884.5 |  | 1915.7 | -41 | 0.3 | 3 |
|  | Frequency range | 1400 | - | 1427 | -32 | 27 | 4, 20 |
|  | Frequency range | 1475 | - | 1488 | -50 | 1 | 21 |
|  | Frequency range | 1488 | - | 1518 | -50 | 1 | 4 |
| CA\_n41-n77 | E-UTRA Band 1, 2, 3, 4, 5, 8, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29, 30, 34, 39, 44, 45, 50, 51, 53, 65, 66, 70, 71, 73, 74, 85, | FDL\_low | - | FDL\_high | -50 | 1 |  |
| E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | Frequency range | 1884.5 |  | 1915.7 | -41 | 0.3 | 3 |
| CA\_n41-n78 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 26, 28, 34, 39, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
| Frequency range | 1884.5 |  | 1915.7 | -41 | 0.3 | 3 |
| CA\_n41-n79 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 28, 34, 42, 44, 45, 65 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n48-n66 | E-UTRA Band 2, 4, 5, 7, 12, 13, 14, 17, 24, 25, 26, 27, 29, 30, 41, 50, 51, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| CA\_n50-n78 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 17, 20, 25, 26, 27, 28, 29, 31, 33, 34, 38, 39, 40, 41, 44, 65, 66, 67, 68, 69, 72, 73, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n66-n71 | E-UTRA Band 4, 5, 12, 13, 14, 17, 26, 27, 30, 43, 50, 51, 53, 66, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25, 41, 42, 48, 70  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 29 | FDL\_low | - | FDL\_high | -38 | 1 | 4 |
|  | E-UTRA Band 71 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| CA\_n66-n77 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 26, 29, 30, 41, 65, 66, 70, 71 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| CA\_n66-n78 | E-UTRA Band 2, 4, 5, 7, 12, 13, 14, 17, 29, 26, 28, 41, 66, 71 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| CA\_n70-n71 | E-UTRA Band 4, 5, 12, 13, 14, 17, 26, 27, 30, 48, 66, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 7, 25, 41, 70,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 29 | FDL\_low | - | FDL\_high | -38 | 1 | 4 |
|  | E-UTRA Band 71 | FDL\_low | - | FDL\_high | -38 | 1 | 4 |
| CA\_n71-n77 | E-UTRA Band 1, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 24, 26, 27, 28, 29, 30, 34, 39, 40, 44, 45, 50, 51, 53, 65, 66, 71, 73, 74, 85, | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 |  | 1915.7 | -41 | 0.3 | 3 |
|  | E-UTRA Band 2, 25, 41, 70 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 29 | FDL\_low | - | FDL\_high | -38 | 1 | 4 |
|  | E-UTRA Band 71 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| CA\_n71-n78 | E-UTRA Band 5, 26 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| CA\_n74-n77 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 17, 18, 19, 20, 26, 28, 29, 34, 39, 40, 41, 65, 66,85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
|  | Frequency range | 1400 | - | 1427 | -32 | 27 | 4, 20 |
|  | Frequency range | 1475 | - | 1488 | -50 | 1 | 21 |
|  | Frequency range | 1488 | - | 1518 | -50 | 1 | 4 |
| CA\_n74-n78 | E-UTRA Band 1, 3, 5, 7, 8, 18, 19, 20, 26, 28, 34, 39, 40, 41, 65, | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
|  | Frequency range | 1400 | - | 1427 | -32 | 27 | 4, 20 |
|  | Frequency range | 1475 | - | 1488 | -50 | 1 | 21 |
|  | Frequency range | 1488 | - | 1518 | -50 | 1 | 4 |
| CA\_n77-n79 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 28, 34, 40, 41, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n78-n79 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 28, 34, 40, 41, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| CA\_n78-n92 | E-UTRA Band 1, 3, 7, 8, 34, 40, 65 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 20 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
|  | E-UTRA Band 38, 69 | 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 180kHz), 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: Applicable when co-existence with PHS system operating in 1884.5 -1915.7 MHz  NOTE 4: 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 5: Void.  NOTE 6: This requirement is applicable for any channel bandwidths within the range 1920 – 1980 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 1927.5 - 1929.5 MHz and for carriers of 20 MHz bandwidth when 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 7: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.  NOTE 8: This requirement is only applicable for carriers with bandwidth 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.  NOTE 9: Void.  NOTE 10: Void.  NOTE 11: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.  NOTE 12: 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 13: 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.  NOTE 14: 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 15: As exceptions, measurements with a level up to the applicable requirement of -36 dBm/MHz is permitted for each assigned E-UTRA 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 5.6-1) for which the 3rd harmonic totally or partially overlaps the measurement bandwidth (MBW).  NOTE 17: Void.  NOTE 18: This requirement is applicable for any channel bandwidths 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 19: This requirement is applicable for power class 3 UE for any channel bandwidths within the range 2570 - 2615 MHz with the following restriction: for carriers of 15 MHz bandwidth when carrier centre frequency is within the range 2605.5 - 2607.5 MHz and for carriers of 20 MHz bandwidth when 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 power class 2 UE for any channel bandwidths within the range 2570 - 2615 MHz, NS\_44 shall apply. For power class 2 or 3 UE for carriers with channel bandwidth 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 20: 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.  NOTE 21: Applicable for 5 MHz bandwidth, and when the upper edge of the assigned NR UL channel bandwidth frequency is less than or equal to 1467 MHz assigned for 10 MHz bandwidth, and when the upper edge of the assigned NR UL channel bandwidth frequency is less than or equal to 1463.8 MHz for 15 MHz bandwidth, and when the upper edge of the assigned NR UL channel bandwidth.. | | | | | | | |

NOTE: To simplify Table 6.5A.3.2.3-1, E-UTRA band numbers are listed for bands which are specified only for E-UTRA operation or both E-UTRA and NR operation. NR band numbers are listed for bands which are specified only for NR operation.

<<< End of changed sections >>>