**3GPP TSG-RAN WG4 Meeting #104-e *R4-221xxxx***

**Electronic Meeting, 15 - 26 August, 2022**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.101-3** | **CR** | **CRNum** | **rev** | **-** | **Current version:** | **16.12.0** |  |
|  | | | | | | | | |
| *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:*** | Big CR for 38.101-3 maintenance (Rel-16) | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | MCC, Huawei | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_newRAT-Core  DC\_R16\_1BLTE\_1BNR\_2DL2UL | | | | |  | ***Date:*** | | | 2022-08-30 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | This big CRs merge the mutiple endorsed draft CRs. The reason for change in each endorsed draft CR is copied below.  R4-2211580 Addition of missing Additional Spurious Emissions Clause Rohde & Schwarz Rel-16 38.101-3 16.12.0 NR\_newRAT-Core A  <Reason for change>  There are several missing clauses on Additional Spurious Emissions for EN-DC. Currently requirements are only defined for NS\_04, but for no other EN-DC configuration, e.g. inter-band, incl. FR2, etc. This leads to problems in test coverage in RAN5, since no TCs can be defined for additional spurious emission under EN-DC, although this needs to be tested.  R4-2212365 Draft CR for TS 38.101-3 Rel-16: Corrections on band combinations for UE co-existence Apple Rel-16 38.101-3 16.12.0 DC\_R16\_1BLTE\_1BNR\_2DL2UL-Core F  <Reason for change>  This CR aims to introduce missing harmonic exceptions and correct certain errors in the UE coexistence tables. Furthermore, duplicate band entries are removed.  The UE coexistence lists specify relaxed emission requirements in case a harmonic falls into a protected band. The relaxation is defined in Note 2 of the UE coexistence table.  Cases exist where a harmonic can fall very close to a protected band so that the 1MHz extension of the exception interval (as defined in Note 2) overlaps with the protected band. Those cases are currently handled inconsistently as Note 2 is not always specified. For example, Note 2 is provided for the case where the second harmonic of n7 affects the protected band n79 or in case of second harmonic of n85 affecting the protected band 50. On the other side it is missing for second harmonic of band n2 affecting the protected band 48.  To remove inconsistencies the Note 2 needs to be introduced for single bands and CA/DC combinations if harmonic relaxation is missing. A full list of changes is provided in ‘Summary of change’.  Single band n28 protects its own Rx with two distinct frequency ranges. The first one ranges from 758MHz to 773MHz and defines a maximum emission level of -32dBm MHz. The second frequency range starts at 773MHz and reaches up to 803MHz. The maximum allowed emission level is -50dBm/MHz. Due to this definition the band n28 is not required to protect its own Rx with -50dBm/MHz at the lower edge. This specification been followed for almost all CA combinations e.g. CA\_n1-n28, CA\_n28-n34 and CA\_n28-n41 and many more. However, in case of DC\_28-n40 the protection for band 28 Rx is defined as -50dBm/MHz over the full Rx frequency range. This provides issues for UE compliance as the UE is only expected to meet the -50dBm/MHz in the upper Rx range. As other CA combinations with band n28 do follow the single band protection requirement it seems to be an oversight which is corrected with this CR. Details are provided in ‘Summary of change’.  R4-2212540 Correction to Channel BW for n38 in 7.3 B.2.3 Anritsu Limited Rel-16 38.101-3 16.12.0 DC\_R16\_1BLTE\_1BNR\_2DL2UL F  <Reason for change>  ChBW5M (SS Block SCS = 15kHz) of NR n38 has the limitation of Note 2 of Table 5.4.3.3-1 of 38.101-1.  Therefore, it is not possible to test by applying the test frequency defined in 7.3B.2.3.5.  R4-2213138 Draft CR for 38.101-3 to improve the wording for simultaneousRxTx clarification(R16) Huawei, HiSilicon Rel-16 38.101-3 16.12.0 NR\_newRAT-Core A  <Reason for change>  For the simultaneousRxTx clarification for CA and DC in clause 5.2A.1 and 5.5B.1, there are two kinds of band combinations, i.e. lower order and higher order band combinations. But it’s very hard to distinguish them in these clarification. That’s why the wording for simultaneousRxTx clarification need to be improved.  R4-2214923 Cat F Rel-16 Draft CR to 38.101-3 to correct the requirement of Type2 non-collocated ENDC deployement Samsung Rel-16 38.101-3 16.12.0 NR\_newRAT-Core F  <Reason for change>  Correct the contradictory requirements of Type-2 non-collocatded EN-DC with overlapping DL bands deployment.  **Background:** The discussion on the necessity of non-collocated inter-band EN-DC with overlapping DL bands deployment(DC\_42\_n77/n78) can date back to Rel-15, during which operators proposed the possible non-collocated scenario, while due to time limitation RAN4 concluded the simple assumption, i.e., “only co-located deployment” is allowed.  In Rel-16/17, the requirements on Type-2 UE (i.e., UE supporting *interBandMRDC-WithOverlapDL-Bands-r16*, which indicates 2 layer/2 Rx Chain per CC supported for non-collocated EN-DC deployement) has been specified in terms of RF and RRM requirements as R4-2206353.  Accoring to below definition, for Type1 UE (i.e., UE does not indicate *interBandMRDC-WithOverlapDL-Bands-r16*”), MRTD shall less than 3us which follows the **intra-band** EN-DC MRTD requirement, it means the non-collocated deployment is forbidden; in addtion RF requiments also follow the intra-band RF requirements.    **Discussion:**  In Rel-15 38.101-3, Note 4 of Table 5.5B.4.1 says:  *NOTE 4: The minimum requirements for intra-band non-contiguous EN-DC apply. When UE capability interBandContiguousMRDC is indicated, the minimum requirements for intra-band-contiguous EN-DC also should be met in addtion to intra-band non-contiguous EN-DC. The intra-band requirements also apply for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.*  The minimum requirements here include both RF requirements and RRM requiment (i.e., MRTD＜3us). DC\_42\_n77/n78 is inter-band EN-DC, but esscentially is regared as Intra-band EN-DC and accordlingly shall follow intra-band EN-DC requirements.  In Rel-16/17 38.101-3, Note 4 and Note 11 of Table 5.5B.4.1-1 seems contradict with each other. For UEs not indicating interBandMRDC-WithOverlapDL-Bands-r16, Note 4 says intra-band EN-DC requirement(including Intra-band RF requirements and MRTD＜3us) applies, while Note 11 says inter-band EN-DC requirements applies (Including inter-band RF requirements and MRTD＜33us).  *NOTE 4: For UEs not indicating interBandMRDC-WithOverlapDL-Bands-r16, the minimum requirements for intra-band non-contiguous EN-DC apply for the Band 42 and Band n77/n78 combination. For UEs not indicating interBandMRDC-WithOverlapDL-Bands-r16, when UE capability interBandContiguousMRDC is indicated, the minimum requirements for intra-band-contiguous EN-DC also should be met in addtion to intra-band non-contiguous EN-DC. For these UEs, the said intra-band requirements also apply for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.*  *NOTE 11: For UEs not indicating interBandMRDC-WithOverlapDL-Bands-r16, the minimum requirements for inter-band EN-DC apply when the maximum power spectral density imbalance between downlink carriers is within 6 dB. For UEs indicating interBandMRDC-WithOverlapDL-Bands-r16, the power imbalance requirement defined in clause 7.6B.2.6 apply.For these UEs, the power spectral density imbalance condition also applies for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.*  R4-2214967 Draft CR for 38.101-3 Rel-16 to correct band combination for intra-band ENDC Xiaomi Rel-16 38.101-3 16.12.0 NR\_newRAT-Core F  <Reason for change>  Introduce a new table and a new note for mixing intra-band contiguous and non-contiguous EN-DC, i.e., DC\_48A-(n)48AA.  R4-2214977 draft CR to TS38.101-3[R16] Clarification on REFSEN for inter-band CA ZTE Corporation Rel-16 38.101-3 16.12.0 NR\_newRAT-Core F  <Reason for change>  For FR1+FR2 NR CA band combination, the REFSEN are defined for FR1 band and FR2 band, respectively. Currently, only single carrier requirements for FR1 and FR2 are considered for FR1+FR2 inter-band NR CA.  However in rel-16, either intra-band NR contiguous/non-contiguous CA or inter-band NR CA were supported for FR1, and intra-band NR contiguous/non-contiguous CA was supported for FR2 band. For either FR1 or FR2 supporting CA, sensitivity degradation requirements were defined in TS38.101-1 and TS38.101-2, respectively.  Therefore, for FR1+FR2 NR band combination in which CA operation is supported in either FR1 band(s) or FR2 band, UE is allowed to apply each sensitivity degradation for FR1and for FR2 independently, which is similar approach as inter-band ENDC including FR2.  R4-2215028 Draft CR for 38.101-3 To remove the frequency restriction for DC\_28\_n5 (R16) Huawei, HiSilicon Rel-16 38.101-3 16.12.0 DC\_R16\_1BLTE\_1BNR\_2DL2UL-Core F  <Reason for change>  In Table 6.2B.3.3-1, NS\_17 is applied to DC\_28\_n5, so the 703~733 frequency restriction for DC\_28\_n5 is contradictory to the real deployment.  R4-2215113 Draft CR to 38101-3-fi0 for n41 relevant MSD test frequencies MediaTek Inc. Rel-16 38.101-3 16.12.0 NR\_newRAT-Core A  <Reason for change>  To correct n41 MSD test frequencies to follow the channel raster rule | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The summary of change in each endorsed draft CR is copied below.  R4-2211580 Addition of missing Additional Spurious Emissions Clause Rohde & Schwarz Rel-16 38.101-3 16.12.0 NR\_newRAT-Core A  <Summary of change>  Add clauses for additional spurious emissions for EN-DC  R4-2212365 Draft CR for TS 38.101-3 Rel-16: Corrections on band combinations for UE co-existence Apple Rel-16 38.101-3 16.12.0 DC\_R16\_1BLTE\_1BNR\_2DL2UL-Core F  <Summary of change>  The following modifications are made for :   1. DC\_1\_n7, DC\_7\_n1, DC\_7\_n80: Second harmonic of band 7 overlaps with band n79 with its overall exception interval. Added Note 2 for harmonic exception. 2. DC\_2\_n41, DC\_2\_n71, DC\_13\_n2, DC\_14\_n2, DC\_30\_n2: Second harmonic of band 2 overlaps with band 48 with its overall exception interval. Added Note 2 for harmonic exception. 3. DC\_2\_n12, DC\_5\_n12, DC\_12\_n2, DC\_12\_n5, DC\_66\_n12: Second harmonic of band 12 overlaps with band 50 with its overall exception interval. Added Note 2 for harmonic exception. 4. DC\_25\_n41, DC\_26\_n25: Second harmonic of band 25 overlaps with band 48 with its overall exception interval. Added Note 2 for harmonic exception. 5. DC\_1\_n50, DC\_2\_n48: Removed unnecessary naming of bandwidth class 6. DC\_8\_93\_ULSUP-TDM: Removed double entries of emission level. Removed unnecessary naming of bandwidth class 7. DC\_28\_n5: Removed band 28 from protection list. The band 28 Rx is already protected with the custom frequency ranges 758MHz to 773MHz and 773MHz to 803MHz 8. DC\_28\_n40: Removed band 28 from protection list. Added custom frequency ranges 758MHz to 773MHz with -32dBm/MHz emission limit and 773MHz to 803MHz with -50dBm/MHz   R4-2212540 Correction to Channel BW for n38 in 7.3 B.2.3 Anritsu Limited Rel-16 38.101-3 16.12.0 DC\_R16\_1BLTE\_1BNR\_2DL2UL F  <Summary of change>  Change Channle BW of Band Cominibation including n38 in the following Table from 5M to 10M and UL LCRB from 25 to 50.  ・Table 7.3B.2.3.5.1-1  ・Table 7.3B.2.3.5.2-1  R4-2213138 Draft CR for 38.101-3 to improve the wording for simultaneousRxTx clarification(R16) Huawei, HiSilicon Rel-16 38.101-3 16.12.0 NR\_newRAT-Core A  <Summary of change>  The wording for simultaneousRxTx clarification is improved to distinguish lower and higher order band combinations.  R4-2214923 Cat F Rel-16 Draft CR to 38.101-3 to correct the requirement of Type2 non-collocated ENDC deployement Samsung Rel-16 38.101-3 16.12.0 NR\_newRAT-Core F  <Summary of change>  To align with Rel-15 requiments in which non-collocated deployment is not supported, also the definition of “*interBandMRDC-WithOverlapDL-Bands-r16*” in 38.306, corret Note 11 (in Rel-16/17 38.101-3) to:  *NOTE 11: For UEs not indicating interBandMRDC-WithOverlapDL-Bands-r16, the minimum requirements for inra-band EN-DC apply when the maximum power spectral density imbalance between downlink carriers is within 6 dB. For UEs indicating interBandMRDC-WithOverlapDL-Bands-r16, the power imbalance requirement defined in clause 7.6B.2.6 apply.For these UEs, the power spectral density imbalance condition also applies for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.*  The minimum requiments of **intra-band** EN-DC shall apply when UEs not indicating interBandMRDC-WithOverlapDL-Bands-r16 (i.e., UEs not supporting non-collocated Type-2 EN-DC with overlapping DL bands deployement)  It should be noted that DC\_20\_n28 also has Note11, while arcording to the defination of “*interBandMRDC-WithOverlapDL-Bands-r16*” in 38.306 (cited as above), the corrected new Note11 is also applicable to DC\_20\_n28.  R4-2214967 Draft CR for 38.101-3 Rel-16 to correct band combination for intra-band ENDC Xiaomi Rel-16 38.101-3 16.12.0 NR\_newRAT-Core F  <Summary of change>  Correct follow requirements   1. Move DC\_48A-(n)48AA from Table 5.3B.1.3-1/ Table 5.5B.3-1 to the new Table 5.3B.1.3-2/ Table 5.5B.3-2   R4-2214977 draft CR to TS38.101-3[R16] Clarification on REFSEN for inter-band CA ZTE Corporation Rel-16 38.101-3 16.12.0 NR\_newRAT-Core F  <Summary of change>  Adding description for the the sensitivity degradation for the constitute band for FR1+FR2 inter-band NR CA.  R4-2215028 Draft CR for 38.101-3 To remove the frequency restriction for DC\_28\_n5 (R16) Huawei, HiSilicon Rel-16 38.101-3 16.12.0 DC\_R16\_1BLTE\_1BNR\_2DL2UL-Core F  <Summary of change>  To remove the note 8 (703~733 frequency restriction on DC\_28\_n5) in table 5.5B.4.1-1.  To modify the REFSENS exception requirements based on the test point specified for CA\_n5A-n28A.  R4-2215113 Draft CR to 38101-3-fi0 for n41 relevant MSD test frequencies MediaTek Inc. Rel-16 38.101-3 16.12.0 NR\_newRAT-Core A  <Summary of change>  To add general note in 7.3B.1: “For reference sensitivity exception test points where the specified carrier frequency does not correspond to a valid NR-ARFCN, the closest NR-ARFCN as specified in clause 5.4.2 applies” | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The consequences if not approved for each endorsed draft CR are coppied below.  R4-2211580 Addition of missing Additional Spurious Emissions Clause Rohde & Schwarz Rel-16 38.101-3 16.12.0 NR\_newRAT-Core A  <Consequences if not approved>  Requirements remain missing.  R4-2212365 Draft CR for TS 38.101-3 Rel-16: Corrections on band combinations for UE co-existence Apple Rel-16 38.101-3 16.12.0 DC\_R16\_1BLTE\_1BNR\_2DL2UL-Core F  <Consequences if not approved>  UE coexistence requirements stay missing or wrong.  R4-2212540 Correction to Channel BW for n38 in 7.3 B.2.3 Anritsu Limited Rel-16 38.101-3 16.12.0 DC\_R16\_1BLTE\_1BNR\_2DL2UL F  <Consequences if not approved>  Test cannot be carried out correctly.  R4-2213138 Draft CR for 38.101-3 to improve the wording for simultaneousRxTx clarification(R16) Huawei, HiSilicon Rel-16 38.101-3 16.12.0 NR\_newRAT-Core A  <Consequences if not approved>  There are some ambiguities in simultaneousRxTx clarification.  R4-2214923 Cat F Rel-16 Draft CR to 38.101-3 to correct the requirement of Type2 non-collocated ENDC deployement Samsung Rel-16 38.101-3 16.12.0 NR\_newRAT-Core F  <Consequences if not approved>  It is not clear that the minimum requirements of intra-band EN-DC or inter-band EN-DC shall apply when UE not indicating *interBandMRDC-WithOverlapDL-Bands-r16* in Rel16/17*.*  R4-2214967 Draft CR for 38.101-3 Rel-16 to correct band combination for intra-band ENDC Xiaomi Rel-16 38.101-3 16.12.0 NR\_newRAT-Core F  <Consequences if not approved>  Specified band combinations cannot be indicated using the existing Rel-15 EN-DC band capability signaling.  R4-2214977 draft CR to TS38.101-3[R16] Clarification on REFSEN for inter-band CA ZTE Corporation Rel-16 38.101-3 16.12.0 NR\_newRAT-Core F  <Consequences if not approved>  The sensitivity degradation are unclear in the case of CA operation is supported in FR1 or FR2 band for FR1+FR2 inter-band NR CA.  R4-2215028 Draft CR for 38.101-3 To remove the frequency restriction for DC\_28\_n5 (R16) Huawei, HiSilicon Rel-16 38.101-3 16.12.0 DC\_R16\_1BLTE\_1BNR\_2DL2UL-Core F  <Consequences if not approved>  The 703~733 frequency restriction for DC\_28\_n5 is contradictory to the real deployment.  R4-2215113 Draft CR to 38101-3-fi0 for n41 relevant MSD test frequencies MediaTek Inc. Rel-16 38.101-3 16.12.0 NR\_newRAT-Core A  <Consequences if not approved>  n41 test frequencies error may make UE unable to connect to test equipments | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2A.1, 5.3B.1.3, 5.5B.3, 5.5B.1, 5.5B.4.1, 6.5B.3.3.2, 6.5B.4.1.1, 6.5B.4.2, 6.5B.4.3, 6.5B.4.4, 6.5B.4.4a, 6.5B.4.5, 6.5B.4.6, 7.3A.1, 7.3B.1, 7.3B.2.3.5, 7.3B.2.3.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS 38.521-3 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

## **<<Start of Change>>**

### 5.2A.1 Inter-band CA between FR1 and FR2

NR carrier aggregation is designed to operate in the operating bands defined in Table 5.2A.1‑1 and Table 5.2A.1-2. The band combinations include at least one FR1 operating band and one FR2 operating band.

Operating bands for CA including Band n90 are defined by the corresponding operating bands for CA including Band n41 with Band n90 replacing Band n41. For brevity the said operating bands for CA including Band n90 are not listed in the tables below but are covered by this specification.

If the mandatory simultaneous Rx/Tx capability applies for a lower order band combination, when the applicable lower order band combination is a band pair in a higher order band combination, the mandatory simultaneous Rx/Tx capability also applies for the band pairin the higher order band combination.

Table 5.2A.1-1: Band combinations for inter-band CA between FR1 and FR2 (two bands)

|  |  |
| --- | --- |
| NR CA Band | NR Band |
| CA\_n1-n2571 | n1, n257 |
| CA\_n3-n2571 | n3, n257 |
| CA\_n5-n2601 | n5, n260 |
| CA\_n5-n2611 | n5, n261 |
| CA\_n8-n2581 | n8, n258 |
| CA\_n25-n2601 | n25, n260 |
| CA\_n25-n2611 | n25, n261 |
| CA\_n28-n2571 | n28, n257 |
| CA\_n41-n2601 | n41, n260 |
| CA\_n41-n2611 | n41, n261 |
| CA\_n66-n260 | n66, n260 |
| CA\_n66-n261 | n66, n261 |
| CA\_n71-n2571 | n71, n257 |
| CA\_n71-n2601 | n71, n260 |
| CA\_n71-n2611 | n71, n261 |
| CA\_n77-n2571 | n77, n257 |
| CA\_n77-n2581 | n77, n258 |
| CA\_n77-n2611 | n77, n261 |
| CA\_n78-n2571 | n78, n257 |
| CA\_n78-n2581 | n78, n258 |
| CA\_n79-n2571 | n79, n257 |
| CA\_n79-n2581 | n79, n258 |
| NOTE 1: Applicable for UE supporting inter-band carrier aggregation with mandatory simultaneous Rx/Tx capability. | |

Table 5.2A.1-2: Band combinations for inter-band CA between FR1 and FR2 (three bands)

|  |  |
| --- | --- |
| NR CA Band | NR Band |
| CA\_n1-n78-n2571 | n1, n78, n257 |
| CA\_n3-n28-n2571 | n3, n28, n257 |
| CA\_n3-n77-n2571 | n3, n77, n257 |
| CA\_n3-n78-n2571 | n3, n78, n257 |
| CA\_n28-n77-n2571 | n28, n77, n257 |
| CA\_n28-n78-n2571 | n28, n78, n257 |
| CA\_n77-n79-n257 | n77, n79, n257 |
| CA\_n78-n79-n257 | n78, n79, n257 |
| NOTE 1: Applicable for UE supporting inter-band carrier aggregation with mandatory simultaneous Rx/Tx capability. | |

Table 5.2A.1-3: Band combinations for inter-band CA between FR1 and FR2 (four bands)

|  |  |
| --- | --- |
| NR CA Band | NR Band |
| CA\_n3-n28-n77-n2571 | n3, n28, n77, n257 |
| CA\_n3-n28-n78-n2571 | n3, n28, n78, n257 |
| NOTE 1: Applicable for UE supporting inter-band carrier aggregation with mandatory simultaneous Rx/Tx capability. | |

## **<<Next of Change>>**

#### 5.3B.1.3 BCS for Intra-band non-contiguous EN-DC

For intra-band non-contiguous EN-DC, an EN-DC configuration is a single operating band supporting E-UTRA and NR carriers, where E-UTRA configuration is indicated by using E-UTRA CA bandwidth class as defined in TS 36.101 [4] and NR configuration is indicated by using NR CA bandwidth class as defined in TS 38.101-1 [2].

Requirements for intra-band non-contiguous EN-DC are defined for the EN-DC configurations and bandwidth combination sets specified in Table 5.3B.1.3-1. The EN-DC configurations and bandwidth combination sets in Table 5.3B.1.3-1 also apply to higher order EN-DC combinations that include inter-band and intra-band EN-DC on the downlink and inter-band EN-DC on the uplink. If no BCS is reported in the UE capabilities for an intra-band combination the default is that the UE supports BCS0.

Table 5.3B.1.3-1: EN-DC configurations and bandwidth combination sets defined for intra-band non-contiguous EN-DC

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| E-UTRA – NR configuration / Bandwidth combination set | | | | | | |
| Downlink  EN-DC configuration | Uplink EN-DC configurations | Component carriers in order of increasing carrier frequency | | | Maximum aggregated  bandwidth (MHz) | Bandwidth combination set |
|  |  | Channel bandwidths for E-UTRA carrier (MHz) | Channel bandwidths for NR carrier (MHz) | Channel bandwidths for E-UTRA carrier (MHz) |  |  |
| DC\_2A\_n2A | DC\_2A\_n2A2 | 5, 10, 15, 20 | 5, 10, 15, 20 |  | 40 | 0 |
| DC\_3A\_n3A | DC\_3A\_n3A |  | 5, 10, 15, 20, 25, 30 | 5, 10, 15, 20 | 50 | 0 |
|  |  |  | 5, 10, 15, 20, 25, 30 | 5, 10, 15, 20 | 50 | 1 |
|  |  | 5, 10, 15, 20 | 5, 10, 15, 20, 25, 30 |  |  |  |
| DC\_5A\_n5A | DC\_5A\_n5A2 | 5, 10 | 5, 10, 15 |  | 20 | 0 |
| DC\_7A\_n7A3 | DC\_7A\_n7A2 | 5, 10, 15, 20 | 5, 10, 15, 20 |  | 40 | 0 |
| DC\_41A\_n41A | DC\_41A\_n41A | 20 | 40, 60, 80,100 |  | 120 | 0 |
|  |  |  | 40, 60, 80,100 | 20 |  |  |
|  |  | 20 | 40, 50, 60, 80,100 |  | 120 | 1 |
|  |  |  | 40, 50, 60, 80,100 | 20 |  |  |
|  |  | 20 | 10, 20, 30, 40, 50, 60, 80,100 |  | 120 | 2 |
|  |  |  | 10, 20, 30, 40, 50, 60, 80,100 | 20 |  |  |
|  |  | 10 | 20, 30, 40, 50, 60, 80,100 |  |  |  |
|  |  |  | 20, 30, 40, 50, 60, 80,100 | 10 |  |  |
| DC\_41C\_n41A | DC\_41A\_n41A | 20+20 | 40, 60, 80,100 |  | 140 | 0 |
|  |  |  | 40, 60, 80,100 | 20+20 |  |  |
|  |  | 20+20 | 40, 50, 60, 80,100 |  | 140 | 1 |
|  |  |  | 40, 50, 60, 80,100 | 20+20 |  |  |
| DC\_41D\_n41A | DC\_41A\_n41A | 20+20+20 | 40, 60, 80,100 |  | 160 | 0 |
|  |  |  | 40, 60, 80,100 | 20+20+20 |  |  |
|  |  | 20+20+20 | 40, 50, 60, 80,100 |  | 160 | 1 |
|  |  |  | 40, 50, 60, 80,100 | 20+20+20 |  |  |
| DC\_48A\_n48A4 | DC\_48A\_n48A2 | 5, 10, 15, 20 | 5, 10, 15, 20, 40 |  | 60 | 0 |
|  |  |  | 5, 10, 15, 20, 40 | 5, 10, 15, 20 |  |  |
| DC\_48A-48A\_n48A4 | DC\_48A\_n48A2 | See CA\_48A-48A Bandwidth Combination Set 0 in TS 36.101 Table 5.6A.1-3 | 5, 10, 15, 20, 40 |  | 80 | 0 |
|  |  |  | 5, 10, 15, 20, 40 | See CA\_48A-48A Bandwidth Combination Set 0 in TS 36.101 Table 5.6A.1-3 |  |  |
| DC\_48C\_n48A4 | DC\_48A\_n48A2 | See CA\_48C Bandwidth Combination Set 0 in TS 36.101 Table 5.6A.1-1 | 5, 10, 15, 20, 40 |  | 80 | 0 |
|  |  |  | 5, 10, 15, 20, 40 | See CA\_48C Bandwidth Combination Set 0 in TS 36.101 Table 5.6A.1-1 |  |  |
| DC\_48D\_n48A4 | DC\_48A\_n48A2 | See CA\_48D Bandwidth Combination Set 0 in TS 36.101 Table 5.6A.1-1 | 5, 10, 15, 20, 40 |  | 100 | 0 |
|  |  |  | 5, 10, 15, 20, 40 | See CA\_48D Bandwidth Combination Set 0 in TS 36.101 Table 5.6A.1-1 |  |  |
| DC\_66A\_n66A | DC\_66A\_n66A2 | 5, 10, 15, 20 | 5, 10, 15, 20, 40 |  | 50 | 0 |
| NOTE 1: Void.  NOTE 2: Only single switched UL is supported.  NOTE 3: Requirements in this specification apply for NR SCS of 15 kHz only.  NOTE 4: The minimum requirements only apply for non-simultaneous Tx/Rx between all carriers. | | | | | | |

Table 5.3B.1.3-2: EN-DC configurations and bandwidth combination sets defined for intra-band EN-DC mixed intra-band contiguous and non-contiguous EN-DC

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| E-UTRA – NR configuration / Bandwidth combination set | | | | | | |
| Downlink  EN-DC configuration | Uplink EN-DC configurations | Component carriers in order of increasing carrier frequency | | | Maximum aggregated  bandwidth (MHz) | Bandwidth combination set |
|  |  | Channel bandwidths for E-UTRA carrier (MHz) | Channel bandwidths for NR carrier (MHz) | Channel bandwidths for E-UTRA carrier (MHz) |  |  |
| DC\_48A-(n)48AA4,5 | DC\_(n)48AA2  DC\_48A\_n48A2 | See CA\_48A-48A Bandwidth Combination Set 0 in TS 36.101 Table 5.6A.1-3 | 5, 10, 15, 20, 40 |  | 80 | 0 |
|  |  |  | 5, 10, 15, 20, 40 | See CA\_48A-48A Bandwidth Combination Set 0 in TS 36.101 Table 5.6A.1-3 |  |  |
| NOTE 1: Void.  NOTE 2: Only single switched UL is supported.  NOTE 3: Requirements in this specification apply for NR SCS of 15 kHz only.  NOTE 4: The minimum requirements only apply for non-simultaneous Tx/Rx between all carriers.  NOTE 5: The UE supporting these configurations mixed intra-band continuous and non-continuous ENDC with at most two sub-blocks containing more than two component carriers indicates ‘both’ by IE intraBandENDC-Support. | | | | | | |

## **<<Next of Change>>**

### 5.5B.3 Intra-band non-contiguous EN-DC

Table 5.5B.3-1: Intra-band non-contiguous EN-DC configurations

|  |  |  |
| --- | --- | --- |
| EN-DC  configuration | Uplink EN-DC  configuration  (NOTE 1) | Single UL allowed |
| DC\_2A\_n2A | DC\_2A\_n2A5 | Yes5 |
| DC\_3A\_n3A | DC\_3A\_n3A | Yes7 |
| DC\_5A\_n5A | DC\_5A\_n5A5 | Yes5 |
| DC\_7A\_n7A6 | DC\_7A\_n7A5 | Yes5 |
| DC\_41A\_n41A3  DC\_41C\_n41A3  DC\_41D\_n41A3 | DC\_41A\_n41A | Yes4 |
| DC\_48A\_n48A3 | DC\_48A\_n48A5 | Yes5 |
| DC\_48A-48A\_n48A3 | DC\_48A\_n48A5 | Yes5 |
| DC\_48C\_n48A3 | DC\_48A\_n48A5 | Yes5 |
| DC\_48D\_n48A3 | DC\_48A\_n48A5 | Yes5 |
| DC\_66A\_n66A | DC\_66A\_n66A5 | Yes5 |
| NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.  NOTE 2: Void  NOTE 3: The minimum requirements only apply for non-simultaneous Tx/Rx between all carriers.  NOTE 4: Single UL allowed due to potential emission issues, not self-interference.  NOTE 5: Only single switched UL is supported.  NOTE 6: Requirements in this specification apply for NR SCS of 15 kHz only.  NOTE 7: Single UL allowed due to potential emission issues and self-interference. | | |

Table 5.5B.3-2: Intra-band EN-DC configurations for mixed intra-band contiguous and non-contiguous EN-DC

|  |  |  |
| --- | --- | --- |
| EN-DC  configuration | Uplink EN-DC  configuration  (NOTE 1) | Single UL allowed |
| DC\_48A-(n)48AA3 | DC\_(n)48AA5  DC\_48A\_n48A5 | Yes5 |
| NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.  NOTE 2: Void  NOTE 3: The minimum requirements only apply for non-simultaneous Tx/Rx between all carriers.  NOTE 4: Single UL allowed due to potential emission issues, not self-interference.  NOTE 5: Only single switched UL is supported. | | |

## **<<Next of Change>>**

### 5.5B.1 General

The operating bands and bandwidth classes are specified for operation with EN-DC, NGEN-DC, NE-DC or NR-DC configured. The EN-DC, NGEN-DC or NE-DC band combinations include at least one E-UTRA operating band.

For EN-DC or NE-DC configurations indicated by column "Single Uplink allowed" (e.g., problematic band combinations as defined in TS 38.306 [11]) in tables in this clause the UE may indicate capability of not supporting simultaneous dual and triple uplink operation due to possible intermodulation interference to its own primary downlink channel bandwidth of PCell or PSCell if the intermodulation order is 2 or if the intermodulation order is 3 for the combinations when both operating bands are between 450 MHz – 960 MHz or between 1427 MHz – 2690 MHz. When LTE and NR transmissions collide, simultaneous dual transmissions may not be supported by UE for these EN-DC band combinations for which only single switched UL is supported.

In the case for EN-DC or NE-DC configurations listed in tables in this clause for which the intermodulation products caused by the dual and triple uplink operation fall into the receive band but do not interfere with its own primary downlink channel bandwidth of PCell or PSCell as defined in Annex I the UE is mandated to operate in dual and triple uplink mode. Single Uplink is also allowed for certain band combinations where intermodulation or reverse intermodulation products could create difficulty for meeting emission requirementsFor EN-DC combinations of order 3 or higher, "Single Uplink allowed" UL configurations captured in Table 5.5B.2-1, Table 5.5B.3-1, and Table 5.5B.4-1 apply.

If multiple UL DC configurations are listed for multiple DL DC configurations, valid uplink configurations are such that uplink does not have more carriers than downlink.

The configurations for operating bands for DC including Band n41 also apply for the corresponding operating bands for DC with Band n90 replacing Band n41 but with otherwise identical parameters. For brevity the said configuration for operating bands for DC with Band n90 are not listed in the tables below but are covered by this specification.

Non contiguous resource allocation and almost contiguous allocation are not applicable for E UTRA or NR carrier part of intra band EN DC configuration.

If the mandatory simultaneous Rx/Tx capability applies for a lower order DC configuration, when the applicable lower order DC configuration is a band pair in a higher order DC configuration, the mandatory simultaneous Rx/Tx capability also applies for the band pair in the higher order DC configuration.

## **<<Next of Change>>**

5.5B.4 Inter-band EN-DC within FR1

5.5B.4.1 Inter-band EN-DC configurations within FR1 (two bands)

**Table 5.5B.4.1-1: Inter-band EN-DC configurations within FR1 (two bands)**

| **EN-DC**  **configuration** | **Uplink EN-DC**  **configuration**  **(NOTE 1)** | **Single UL allowed** | **DL interruption allowed**  **(Note 14)** |
| --- | --- | --- | --- |
| DC\_1A\_n3A  DC\_1C\_n3A | DC\_1A\_n3A  DC\_1C\_n3A | DC\_1\_n3 |  |
| DC\_1A\_n5A | DC\_1A\_n5A | No |  |
| DC\_1A\_n7A  DC\_1A\_n7B | DC\_1A\_n7A | No |  |
| DC\_1A-1A\_n7A  DC\_1A-1A\_n7B | DC\_1A\_n7A | No |  |
| DC\_1A\_n8A | DC\_1A\_n8A | No |  |
| DC\_1A\_n20A | DC\_1A\_n20A | No |  |
| DC\_1A\_n28A | DC\_1A\_n28A | No |  |
| DC\_1A\_n38A  DC\_1C\_n38A | DC\_1A\_n38A | No |  |
| DC\_1A\_n40A | DC\_1A\_n40A | No |  |
| DC\_1A\_n41A7 | DC\_1A\_n41A | No |  |
| DC\_1A\_n50A | DC\_1A\_n50A | No |  |
| DC\_1A\_n51A | DC\_1A\_n51A | No |  |
| DC\_1A\_n71A  DC\_1A\_n71B | DC\_1A\_n71A | No |  |
| DC\_1A\_n77A7  DC\_1A\_n77C7 | DC\_1A\_n77A | DC\_1\_n77 | No |
| DC\_1A\_n77(2A)7 | DC\_1A\_n77A | DC\_1\_n77 | No |
| DC\_1A\_n78A7  DC\_1A\_n78C7 | DC\_1A\_n78A | No | No |
| DC\_1A\_n78(2A)7 | DC\_1A\_n78A | No | No |
| DC\_1A\_n79A7  DC\_1A\_n79C7 | DC\_1A\_n79A | No | No |
| DC\_2A\_n5A | DC\_2A\_n5A | No |  |
| DC\_2A-2A\_n5A | DC\_2A\_n5A | No |  |
| DC\_2A\_n7A | DC\_2A\_n7A | No |  |
| DC\_2A\_n7(2A) | DC\_2A\_n7A | No |  |
| DC\_2A\_n12A | DC\_2A\_n12A | No |  |
| DC\_2A\_n38A | DC\_2A\_n38A | No |  |
| DC\_2A-2A\_n38A | DC\_2A\_n38A | No |  |
| DC\_2A\_n41A  DC\_2A\_n41C  DC\_2C\_n41A | DC\_2A\_n41A  DC\_2C\_n41A | No |  |
| DC\_2A-2A\_n41A  DC\_2A\_n41(2A) | DC\_2A\_n41A | No |  |
| DC\_2A\_n46A | DC\_2A\_n46A | No |  |
| DC\_2A\_n48A  DC\_2A\_n48B | DC\_2A\_n48A | No |  |
| DC\_2A\_n66A | DC\_2A\_n66A | DC\_2\_n66 |  |
| DC\_2A-2A\_n66A | DC\_2A\_n66A | DC\_2\_n66 |  |
| DC\_2A\_n71A  DC\_2A\_n71B  DC\_2C\_n71A | DC\_2A\_n71A  DC\_2C\_n71A | No |  |
| DC\_2A-2A\_n71A | DC\_2A\_n71A | No |  |
| DC\_2A\_n78A | DC\_2A\_n78A | DC\_2\_n78 |  |
| DC\_2A\_n78(2A) | DC\_2A\_n78A | DC\_2\_n78 |  |
| DC\_2A-2A\_n78A | DC\_2A\_n78A | DC\_2\_n78 |  |
| DC\_3A\_n1A  DC\_3C\_n1A | DC\_3A\_n1A  DC\_3C\_n1A | DC\_3\_n1 |  |
| DC\_3A-3A\_n1A | DC\_3A\_n1A | DC\_3\_n1 |  |
| DC\_3A\_n5A  DC\_3C\_n5A | DC\_3A\_n5A  DC\_3C\_n5A | DC\_3\_n5 |  |
| DC\_3A\_n7A  DC\_3A\_n7B  DC\_3C\_n7A  DC\_3C\_n7B | DC\_3A\_n7A  DC\_3A\_n7B  DC\_3C\_n7A | No |  |
| DC\_3A-3A\_n7A  DC\_3A-3A\_n7B | DC\_3A\_n7A | No |  |
| DC\_3A\_n8A | DC\_3A\_n8A | No |  |
| DC\_3A\_n20A | DC\_3A\_n20A | No |  |
| DC\_3A\_n28A  DC\_3C\_n28A | DC\_3A\_n28A  DC\_3C\_n28A | No |  |
| DC\_3A\_n34A | DC\_3A\_n34A | No |  |
| DC\_3A\_n38A  DC\_3C\_n38A | DC\_3A\_n38A | No |  |
| DC\_3A\_n40A | DC\_3A\_n40A | No |  |
| DC\_3A\_n41A7  DC\_3C\_n41A | DC\_3A\_n41A  DC\_3C\_n41A | DC\_3\_n41 | No |
| DC\_3A\_n50A | DC\_3A\_n50A | No |  |
| DC\_3A\_n51A | DC\_3A\_n51A | No |  |
| DC\_3A\_n71A  DC\_3A\_n71B | DC\_3A\_n71A | No |  |
| DC\_3A\_n77A7  DC\_3A\_n77C7 | DC\_3A\_n77A | DC\_3\_n77 | No |
| DC\_3A\_n77(2A)7 | DC\_3A\_n77A | DC\_3\_n77 | No |
| DC\_3A-3A\_n77A7 | DC\_3A\_n77A | DC\_3\_n77 | No |
| DC\_3A\_n78A7  DC\_3A\_n78C7  DC\_3C\_n78A7 | DC\_3A\_n78A | DC\_3\_n78 | No |
| DC\_3A\_n78(2A)7  DC\_3C\_n78(2A)7 | DC\_3A\_n78A | DC\_3\_n78 | No |
| DC\_3A-3A\_n78A7 | DC\_3A\_n78A | DC\_3\_n78 | No |
| DC\_3A\_n79A7  DC\_3A\_n79C7  DC\_3C\_n79A7 | DC\_3A\_n79A  DC\_3C\_n79A | No | No |
| DC\_4A\_n38A | DC\_4A\_n38A | No |  |
| DC\_4A\_n41A | DC\_4A\_n41A | No |  |
| DC\_4A\_n78A | DC\_4A\_n78A | No |  |
| DC\_4A\_n78(2A) | DC\_4A\_n78A | No |  |
| DC\_5A\_n2A  DC\_5B\_n2A | DC\_5A\_n2A | No |  |
| DC\_5A-5A\_n2A | DC\_5A\_n2A | No |  |
| DC\_5A\_n7A | DC\_5A\_n7A | DC\_5\_n7 |  |
| DC\_5A\_n7(2A) | DC\_5A\_n7A | DC\_5\_n7 |  |
| DC\_5A\_n12A | DC\_5A\_n12A | No |  |
| DC\_5A\_n38A | DC\_5A\_n38A | DC\_5\_n38 |  |
| DC\_5A\_n40A | DC\_5A\_n40A | No |  |
| DC\_5A\_n48A  DC\_5A\_n48B | DC\_5A\_n48A | No |  |
| DC\_5A\_n66A  DC\_5B\_n66A | DC\_5A\_n66A | DC\_5\_n66 |  |
| DC\_5A-5A\_n66A | DC\_5A\_n66A | DC\_5\_n66 |  |
| DC\_5A\_n71A | DC\_5A\_n71A | No |  |
| DC\_5A\_n78A7 | DC\_5A\_n78A | No | No |
| DC\_5A\_n78(2A)7 | DC\_5A\_n78A | No | No |
| DC\_5A\_n79A | DC\_5A\_n79A | No | No |
| DC\_7A\_n1A  DC\_7C\_n1A | DC\_7A\_n1A  DC\_7C\_n1A | No |  |
| DC\_7A-7A\_n1A | DC\_7A\_n1A | No |  |
| DC\_7A\_n3A  DC\_7C\_n3A | DC\_7A\_n3A  DC\_7C\_n3A | No |  |
| DC\_7A\_n5A  DC\_7C\_n5A | DC\_7A\_n5A  DC\_7C\_n5A | DC\_7\_n5 |  |
| DC\_7A-7A\_n5A | DC\_7A\_n5A | DC\_7\_n5 |  |
| DC\_7A\_n8A | DC\_7A\_n8A | No |  |
| DC\_7A-7A\_n78A7 | DC\_7A\_n78A | No |  |
| DC\_7A-7A\_n78(2A)7 | DC\_7A\_n78A | No |  |
| DC\_7A\_n20A | DC\_7A\_n20A | No |  |
| DC\_7A\_n28A  DC\_7C\_n28A | DC\_7A\_n28A  DC\_7C\_n28A | No |  |
| DC\_7A\_n40A | DC\_7A\_n40A | Yes |  |
| DC\_7A\_n51A | DC\_7A\_n51A | No |  |
| DC\_7A\_n66A  DC\_7C\_n66A | DC\_7A\_n66A | No |  |
| DC\_7A-7A\_n66A | DC\_7A\_n66A | No |  |
| DC\_7A\_n71A | DC\_7A\_n71A | No |  |
| DC\_7A\_n77A7 | DC\_7A\_n77A | No |  |
| DC\_7A-7A\_n77A7 | DC\_7A\_n77A | No |  |
| DC\_7A\_n78A7  DC\_7C\_n78A7 | DC\_7A\_n78A  DC\_7C\_n78A | No |  |
| DC\_7A\_n78(2A)7  DC\_7C\_n78(2A)7 | DC\_7A\_n78A  DC\_7C\_n78A | No |  |
| DC\_8A\_n1A | DC\_8A\_n1A | No |  |
| DC\_8A\_n3A | DC\_8A\_n3A | No |  |
| DC\_8A\_n20A | DC\_8A\_n20A | Yes |  |
| DC\_8A\_n28A | DC\_8A\_n28A | No |  |
| DC\_8A\_n34A | DC\_8A\_n34A | No |  |
| DC\_8A\_n39A | DC\_8A\_n39A | No |  |
| DC\_8A\_n40A7 | DC\_8A\_n40A | No |  |
| DC\_8A\_n41A7  DC\_8A\_n41C | DC\_8A\_n41A | No | No |
| DC\_8A\_n41(2A) | DC\_8A\_n41A | No | No |
| DC\_8A\_n77A7 | DC\_8A\_n77A | No | No |
| DC\_8A\_n77(2A)7 | DC\_8A\_n77A | No | No |
| DC\_8A\_n78A7 | DC\_8A\_n78A | No | No |
| DC\_8A\_n79A7  DC\_8A\_n79C | DC\_8A\_n79A  DC\_8A\_n79C | No | No |
| DC\_8A\_n93A | DC\_8A\_n93A\_ULSUP-TDM | N/A |  |
| DC\_8A\_n94A | DC\_8A\_n94A\_ULSUP-TDM | N/A |  |
| DC\_11A\_n3A | DC\_11A\_n3A | No |  |
| DC\_11A\_n28A | DC\_11A\_n28A | No |  |
| DC\_11A\_n77A7 | DC\_11A\_n77A | No | No |
| DC\_11A\_n77(2A)7 | DC\_11A\_n77A | No | No |
| DC\_11A\_n78A7 | DC\_11A\_n78A | No | No |
| DC\_11A\_n79A7 | DC\_11A\_n79A | No |  |
| DC\_12A\_n2A | DC\_12A\_n2A | No |  |
| DC\_12A\_n5A | DC\_12A\_n5A | No |  |
| DC\_12A\_n7A  DC\_12A\_n7(2A) | DC\_12A\_n7A | No |  |
| DC\_12A\_n25A | DC\_12A\_n25A | No |  |
| DC\_12A\_n38A | DC\_12A\_n38A | No |  |
| DC\_12A\_n41A | DC\_12A\_n41A | No |  |
| DC\_12A\_n66A | DC\_12A\_n66A | No |  |
| DC\_12A\_n78A  DC\_12A\_n78(2A) | DC\_12A\_n78A | DC\_12\_n78 |  |
| DC\_13A\_n2A | DC\_13A\_n2A | No |  |
| DC\_13A\_n5A | DC\_13A\_n5A | DC\_13\_n5 |  |
| DC\_13A\_n7A  DC\_13A\_n7(2A) | DC\_13A\_n7A | No |  |
| DC\_13A\_n48A  DC\_13A\_n48B | DC\_13A\_n48A | No |  |
| DC\_13A\_n66A | DC\_13A\_n66A | No |  |
| DC\_13A\_n71A | DC\_13A\_n71A | No |  |
| DC\_13A\_n78A  DC\_13A\_n78(2A) | DC\_13A\_n78A | No |  |
| DC\_14A\_n2A | DC\_14A\_n2A | No |  |
| DC\_14A\_n66A | DC\_14A\_n66A | No |  |
| DC\_18A\_n3A | DC\_18A\_n3A | No |  |
| DC\_18A\_n77A7 | DC\_18A\_n77A | No | No |
| DC\_18A\_n78A7 | DC\_18A\_n78A | No | No |
| DC\_20A\_n91A | DC\_20A\_n91A\_ULSUP-TDM | N/A |  |
| DC\_20A\_n92A | DC\_20A\_n92A\_ULSUP-TDM | N/A |  |
| DC\_18A\_n79A7 | DC\_18A\_n79A | No |  |
| DC\_19A\_n77A7  DC\_19A\_n77C7 | DC\_19A\_n77A | No |  |
| DC\_19A\_n78A7  DC\_19A\_n78C7 | DC\_19A\_n78A | No | No |
| DC\_19A\_n79A7  DC\_19A\_n79C7 | DC\_19A\_n79A | No | No |
| DC\_20A\_n1A | DC\_20A\_n1A | No |  |
| DC\_20A\_n3A | DC\_20A\_n3A | No |  |
| DC\_20A\_n7A | DC\_20A\_n7A | DC\_20\_n7 |  |
| DC\_20A\_n8A | DC\_20A\_n8A | DC\_20\_n8 |  |
| DC\_20A\_n28A8, 11,13 | DC\_20A\_n28A | No |  |
| DC\_20A\_n38A | DC\_20A\_n38A | No |  |
| DC\_20A\_n41A | DC\_20A\_n41A | DC\_20\_n41 |  |
| DC\_20A\_n50A | DC\_20A\_n50A | No |  |
| DC\_20A\_n51A | DC\_20A\_n51A | No |  |
| DC\_20A\_n77A7 | DC\_20A\_n77A | No |  |
| DC\_20A\_n78A7 | DC\_20A\_n78A | No |  |
| DC\_20A\_n78(2A)7 | DC\_20A\_n78A | No |  |
| DC\_21A\_n77A7  DC\_21A\_n77C7 | DC\_21A\_n77A | No |  |
| DC\_21A\_n78A7  DC\_21A\_n78C7 | DC\_21A\_n78A | No | No |
| DC\_21A\_n79A7  DC\_21A\_n79C7 | DC\_21A\_n79A | No | No |
| DC\_25A\_n41A | DC\_25A\_n41A | No |  |
| DC\_25A-25A\_n41A | DC\_25A\_n41A | No |  |
| DC\_26A\_n25A | DC\_26A\_n25A | No |  |
| DC\_26A\_n41A | DC\_26A\_n41A | No |  |
| DC\_26A\_n77A7 | DC\_26A\_n77A | No |  |
| DC\_26A\_n78A7 | DC\_26A\_n78A | No |  |
| DC\_26A\_n79A7 | DC\_26A\_n79A | No |  |
| DC\_28A\_n3A | DC\_28A\_n3A | No |  |
| DC\_28A\_n5A | DC\_28A\_n5A | No |  |
| DC\_28A\_n7A  DC\_28A\_n7B | DC\_28A\_n7A  DC\_28A\_n7B | No |  |
| DC\_28A\_n51A | DC\_28A\_n51A | No |  |
| DC\_28A\_n8A | DC\_28A\_n8A | No |  |
| DC\_28A\_n40A | DC\_28A\_n40A | No |  |
| DC\_28A\_n41A7 | DC\_28A\_n41A | No |  |
| DC\_28A\_n50A | DC\_28A\_n50A | No |  |
| DC\_28A\_n77A7  DC\_28A\_n77C7 | DC\_28A\_n77A | No | No |
| DC\_28A\_n77(2A)7 | DC\_28A\_n77A | No | No |
| DC\_28A\_n78A7  DC\_28A\_n78C7 | DC\_28A\_n78A | No | No |
| DC\_28A\_n78(2A)7 | DC\_28A\_n78A | No | No |
| DC\_28A\_n79A7  DC\_28A\_n79C7 | DC\_28A\_n79A | No |  |
| DC\_30A\_n2A | DC\_30A\_n2A | No |  |
| DC\_30A\_n5A | DC\_30A\_n5A | No |  |
| DC\_30A\_n66A | DC\_30A\_n66A | No |  |
| DC\_38A\_n78A7 | DC\_38A\_n78A | No |  |
| DC\_39A\_n40A3 | DC\_39A\_n40A | No |  |
| DC\_39A\_n41A3  DC\_39C\_n41A3 | DC\_39A\_n41A  DC\_39C\_n41A | No | No |
| DC\_39A\_n78A5,7 | DC\_39A\_n78A | No |  |
| DC\_39A\_n79A7  DC\_39A\_n79C7 | DC\_39A\_n79A | No | No |
| DC\_40A\_n1A | DC\_40A\_n1A | No |  |
| DC\_40A\_n41A3  DC\_40C\_n41A3 | DC\_40A\_n41A | No |  |
| DC\_40A\_n77A | DC\_40A\_n77A | No |  |
| DC\_40A\_n78A  DC\_40C\_n78A | DC\_40A\_n78A  DC\_40C\_n78A | No |  |
| DC\_40A\_n79A7,12  DC\_40C\_n79A7,12 | DC\_40A\_n79A | No | No |
| DC\_41A\_n3A7  DC\_41C\_n3A7 | DC\_41A\_n3A  DC\_41C\_n3A | No |  |
| DC\_41A\_n28A7  DC\_41C\_n28A7 | DC\_41A\_n28A  DC\_41C\_n28A | No |  |
| DC\_41A\_n77A  DC\_41C\_n77A | DC\_41A\_n77A  DC\_41C\_n77A | No |  |
| DC\_41A\_n77(2A)  DC\_41C\_n77(2A) | DC\_41A\_n77A  DC\_41C\_n77A | No |  |
| DC\_41A\_n78A  DC\_41C\_n78A  DC\_41D\_n78A | DC\_41A\_n78A  DC\_41C\_n78A | No |  |
| DC\_41A\_n78(2A)  DC\_41C\_n78(2A) | DC\_41A\_n78A  DC\_41C\_n78A | No |  |
| DC\_41A\_n79A6,7  DC\_41A\_n79C6,7  DC\_41C\_n79A6,7 | DC\_41A\_n79A  DC\_41C\_n79A | No | No |
| DC\_42A\_n28A7  DC\_42C\_n28A7 | DC\_42A\_n28A  DC\_42C\_n28A | No |  |
| DC\_42A\_n51A | DC\_42A\_n51A | No |  |
| DC\_42A\_n77A3,4,9,11  DC\_42A\_n77C3,4,9,11  DC\_42C\_n77A3,4,9,11  DC\_42C\_n77C3,4,9,11  DC\_42D\_n77A3,4,9,11  DC\_42D\_n77C3,4,9,11  DC\_42E\_n77A3,4,9,11  DC\_42E\_n77C3,4,9,11 | N/A | N/A |  |
| DC\_42A\_n77(2A)3,4,9,11  DC\_42C\_n77(2A)3,4,9,11 | N/A | N/A |  |
| DC\_42A\_n78A3,4,9,11  DC\_42A\_n78C3,4,9,11  DC\_42C\_n78A3,4,9,11  DC\_42C\_n78C3,4,9,11  DC\_42D\_n78A3,4,9,11  DC\_42D\_n78C3,4,9,11  DC\_42E\_n78A3,4,9,11  DC\_42E\_n78C3,4,9,11 | N/A | N/A |  |
| DC\_42A\_n79A9,15  DC\_42A\_n79C9,15  DC\_42C\_n79A9,15  DC\_42C\_n79C9,15  DC\_42D\_n79A9,15  DC\_42D\_n79C9,15  DC\_42E\_n79A9,15  DC\_42E\_n79C9,15 | N/A | N/A |  |
| DC\_46A\_n78A2  DC\_46C\_n78A2  DC\_46D\_n78A2  DC\_46E\_n78A2 | N/A | N/A |  |
| DC\_48A\_n5A | DC\_48A\_n5A | No |  |
| DC\_48A\_n12A | DC\_48A\_n12A | No |  |
| DC\_48A\_n46A  DC\_48B\_n46A  DC\_48C\_n46A  DC\_48D\_n46A  DC\_48E\_n46A  DC\_48A\_n46B  DC\_48B\_n46B  DC\_48C\_n46B  DC\_48D\_n46B  DC\_48E\_n46B  DC\_48A\_n46C  DC\_48B\_n46C  DC\_48C\_n46C  DC\_48D\_n46C  DC\_48E\_n46C  DC\_48A\_n46D  DC\_48B\_n46D  DC\_48C\_n46D  DC\_48D\_n46D  DC\_48E\_n46D  DC\_48A\_n46E  DC\_48B\_n46E  DC\_48C\_n46E  DC\_48D\_n46E  DC\_48E\_n46E | DC\_48A\_n46A  DC\_48B\_n46A | No |  |
| DC\_48A\_n66A | DC\_48A\_n66A | No |  |
| DC\_48A\_n71A  DC\_48B\_n71A  DC\_48C\_n71A  DC\_48D\_n71A | DC\_48A\_n71A | No |  |
| DC\_48A-48A\_n71A  DC\_48A-48A-48A\_n71A | DC\_48A\_n71A | No |  |
| DC\_66A\_n2A | DC\_66A\_n2A | DC\_66\_n2 |  |
| DC\_66A-66A\_n2A | DC\_66A\_n2A | DC\_66\_n2 |  |
| DC\_66A\_n5A  DC\_66B\_n5A  DC\_66C\_n5A | DC\_66A\_n5A | DC\_66\_n5 |  |
| DC\_66A-66A\_n5A  DC\_66A-66A-66A\_n5A | DC\_66A\_n5A | DC\_66\_n5 |  |
| DC\_66A\_n7A  DC\_66A-66A\_n7A  DC\_66A\_n7(2A)  DC\_66A-66A\_n7(2A) | DC\_66A\_n7A | No |  |
| DC\_66A\_n12A | DC\_66A\_n12A | No |  |
| DC\_66A\_n25A | DC\_66A\_n25A | DC\_66\_n25 |  |
| DC\_66A\_n38A | DC\_66A\_n38A | No |  |
| DC\_66A-66A\_n38A | DC\_66A\_n38A | No |  |
| DC\_66A\_n41A  DC\_66A\_n41C | DC\_66A\_n41A | No |  |
| DC\_66A\_n41(2A) | DC\_66A\_n41A | No |  |
| DC\_66A\_n46A | DC\_66A\_n46A | No |  |
| DC\_66A\_n48A  DC\_66A\_n48B | DC\_66A\_n48A | No |  |
| DC\_66A-66A\_n48A  DC\_66A-66A\_n48B | DC\_66A\_n48A | No |  |
| DC\_66A\_n71A  DC\_66C\_n71A  DC\_66A\_n71B | DC\_66A\_n71A | No |  |
| DC\_66A-66A\_n71A | DC\_66A\_n71A | No |  |
| DC\_66A\_n78A | DC\_66A\_n78A | No |  |
| DC\_66A\_n78(2A) | DC\_66A\_n78A | No |  |
| DC\_66A-66A\_n78A | DC\_66A\_n78A | No |  |
| DC\_66A-66A\_n78(2A) | DC\_66A\_n78A | No |  |
| DC\_71A\_n5A | DC\_71A\_n5A | No |  |
| DC\_71A\_n38A | DC\_71A\_n38A | No |  |
| DC\_71A\_n48A | DC\_71A\_n48A | No |  |
| DC\_71A\_n66A | DC\_71A\_n66A | No |  |
| DC\_71A\_n78A | DC\_71A\_n78A | No |  |
| NOTE 1: Uplink EN-DC configurations are the configurations supported by the present release of specifications.  NOTE 2: Restricted to E-UTRA operation when inter-band carrier aggregation is configured. The downlink operating band for Band 46 is paired with the uplink operating band (external E-UTRA band) of the carrier aggregation configuration that is supporting the configured Pcell.  NOTE 3: The minimum requirements apply only when there is non-simultaneous Tx/Rx operation between E-UTRA and NR carriers. This restriction applies also for these carriers when applicable EN-DC configuration is part of a higher order EN-DC configuration.  NOTE 4: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements for intra-band non-contiguous EN-DC apply for the Band 42 and Band n77/n78 combination. For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, when UE capability *interBandContiguousMRDC* is indicated, the minimum requirements for intra-band-contiguous EN-DC also should be met in addtion to intra-band non-contiguous EN-DC*.* For these UEs, the said intra-band requirements also apply for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.  NOTE 5: The frequency range above 3600 MHz for Band n78 is not used in this combination.  NOTE 6: The frequency range below 2506 MHz for Band 41 is not used in this combination.  NOTE 7: Applicable for UE supporting inter-band EN-DC with mandatory simultaneous Rx/Tx capability.  NOTE 8: The frequency range in band n28 / 28 is restricted for this band combination to 703 - 733 MHz for the UL and 758-788 MHz for the DL. This restriction also apply for any band combinations when DC\_20\_n28/ DC\_28\_n20/ CA\_20-28/ CA\_n20-n28 is a subset of a higher order band combination.  NOTE 9: The combination is not used alone as fall back mode of other band combinations in which UL in Band 42 is not used.  NOTE 10: Void.  NOTE 11: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements apply when the maximum power spectral density imbalance between downlink carriers is within 6 dB. For UEs indicating interBandMRDC-WithOverlapDL-Bands-r16, the power imbalance requirement defined in clause 7.6B.2.6 apply.For these UEs, the power spectral density imbalance condition also applies for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.  NOTE 12: Applicable for frequency range above 4800 MHz for Band n79 in this combination.  NOTE 13: For UEs not indicating *interBandMRDC-WithOverlapDL-Bands-r16*, the minimum requirements apply for synchronized DL carriers with a maximum receive time difference ≤ 3 usec. The requirements also apply for these carriers when applicable EN-DC configuration is a subset of a higher order EN-DC configuration.  NOTE 14: Applicable when dynamic switching between two uplink carriers is conducted. The DL interruption requirements for NR DL carrier(s) and E-UTRA DL carrier(s) are specified in clause 8.2.1.2.14 of 38.133 [15] and clause 7.32.2.12 of 36.133 [16] respectively.  NOTE 15: Simultaneous Rx/Tx capability does not apply for UEs supporting band 42 with a n77 implementation only. Same restrictions are applied to related higher order configurations. | | | |

## **<<Next of Change>>**

##### 6.5B.3.3.2 Spurious emission band UE co-existence

This clause specifies the requirements for the specified EN-DC, for coexistence with protected bands. The requirements in Table 6.5B.3.3.2-1 apply on each component carrier with all component carriers are active.

NOTE: For inter-band EN-DC with uplink assigned to one LTE band and one NR band the requirements in Table 6.5B.3.3.2-1 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;

Table 6.5B.3.3.2-1: Requirements

| EN-DC Configuration | Spurious emission | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Protected band | Frequency range (MHz) | | | Maximum Level (dBm) | MBW (MHz) | NOTE |
| DC\_1\_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, 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 | 5 |
|  | E-UTRA band 22, 42, 52  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1880 |  | 1895 | -40 | 1 | 5,16 |
|  | Frequency range | 1895 |  | 1915 | -15.5 | 5 | 5, 7, 16 |
|  | Frequency range | 1915 |  | 1920 | +1.6 | 5 | 5, 7, 16 |
| DC\_1\_n5 | E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 21, 22, 26, 28, 31, 38, 40, 42, 43, 50, 51, 65, 73, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3,34 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA band 41, 52  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_1\_n7 | E-UTRA Band 1, 5, 7, 8, 20, 22, 26, 27, 28, 31,32, 40, 42, 43, 50, 51, 52, 65, 67, 72, 74, 75, 76  NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | band n77, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 1880 |  | 1895 | -40 | 1 | 5,16 |
|  | Frequency range | 1895 |  | 1915 | -15.5 | 5 | 5, 7, 16 |
|  | Frequency range | 1915 |  | 1920 | +1.6 | 5 | 5, 7, 16 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_1\_n8 | E-UTRA Band 11, 20, 21, 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, 52  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1, 8, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 1880 |  | 1895 | -40 | 1 | 5, 16 |
|  | Frequency range | 1895 |  | 1915 | -15.5 | 5 | 5, 7, 16 |
|  | Frequency range | 1915 |  | 1920 | +1.6 | 5 | 5, 7, 16 |
| DC\_1\_n20 | E-UTRA Band 1, 3, 7, 8, 22, 31, 32, 40, 43, 50, 51, 65, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 38, 42, 69  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 20, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
| DC\_1\_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 | 5 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 11 |
|  | E-UTRA Band 1, 65 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 5, 17 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 14 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 5 |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 5,16 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 5, 7, 16 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 5, 7, 16 |
| DC\_1\_n38 | E-UTRA Band 1, 3, 5, 8, 20, 22, 27, 28, 31, 32, 34, 40, 42, 43, 50, 51, 65, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| DC\_1\_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 | 5 |
|  | NR band n77, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1880 |  | 1895 | -40 | 1 | 5, 16 |
|  | Frequency range | 1895 |  | 1915 | -15.5 | 5 | 5, 7, 16 |
|  | Frequency range | 1915 |  | 1920 | +1.6 | 5 | 5, 7, 16 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| DC\_1\_n41 | E-UTRA Band 3, 4, 5, 8, 12, 13, 14, 17, 19, 20, 21, 24, 26, 27, 28, 29, 30, 31, 32, 42, 43, 44, 45, 50, 51, 52, 66, 67, 68, 71, 72, 73, 75, 76, 85  NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 34 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | NR Band n77, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | Frequency range | 1880 |  | 1895 | -40 | 1 | 5, 8 |
|  | Frequency range | 1895 |  | 1915 | -15.5 | 5 | 5, 7, 8 |
|  | Frequency range | 1915 |  | 1920 | +1.6 | 5 | 5, 7, 8, 20 |
|  | E-UTRA Band 11, 18, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| DC\_1\_n50 | E-UTRA Band 3, 4, 5, 7, 8, 12, 13, 17, 18, 19, 20, 26, 27, 28, 29, 31, 38, 40, 41, 42, 43, 44, 48, 52, 66, 67, 68, 69, 72, 73, 85  NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 34 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | NR Band n77, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1880 |  | 1895 | -40 | 1 | 5,16 |
|  | Frequency range | 1895 |  | 1915 | -15.5 | 5 | 5, 7, 16 |
|  | Frequency range | 1915 |  | 1920 | +1.6 | 5 | 5, 7, 16 |
| DC\_1\_n51 | E-UTRA Band 7, 12, 13, 17, 20, 22, 27, 28, 29, 31, 38, 44, 48, 67, 68, 69, 72, 73 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 5, 2 |
|  | Frequency range | 1880 | - | 1895 | -40 | 1 | 5, 16 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 5, 7, 16 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 5, 7, 16 |
|  | E-UTRA Band 5, 6, 8, 26, 30, 40, 41, 42, 43, 46  NR Band n77, n78, n79, | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_1\_n71 | E-UTRA Band 1, 5, 26, | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 71 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_1\_n77  DC\_1\_n84\_ULSUP-TDM\_n77 | 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 | 5, 8 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 5, 7, 8 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 5, 7, 8 |
| DC\_1\_n78  DC\_1\_n84\_ULSUP-TDM\_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 | 5, 8 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 5, 7, 8 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 5, 7, 8 |
| DC\_1\_n79  DC\_1\_n84\_ULSUP-TDM\_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 | 5, 8 |
|  | Frequency range | 1895 | - | 1915 | -15.5 | 5 | 5, 7, 8 |
|  | Frequency range | 1915 | - | 1920 | +1.6 | 5 | 5, 7, 8 |
| DC\_1\_n80 | E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 38, 40, 41, 43, 44, 45, 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 | 5 |
|  | E-UTRA Band 22, 42,  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_2\_n5 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 28, 29, 30, 42, 50, 51, 66, 70, 71, 74, 85, | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2, 5 |
|  | E-UTRA Band 2, 25, 48 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 41, 43, 53 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_2\_n7 | E-UTRA Band 2, 4, 5, 7, 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 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_2\_n12 | E-UTRA Band 5, 13, 14, 17, 24, 26, 27, 30, 41, 53, 71, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 25, 85  NR band n12 | FDL\_low | - | FDL\_high | -50 | 1 | 3 |
|  | E-UTRA Band 2 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 4, 50, 51, 66, 70,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_2\_n38 | E-UTRA Band 4, 5, 12, 13, 14,17, 27, 28, 29, 30, 42, 50, 51, 66, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 43 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_2\_n41 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 27, 28, 29, 30, 42, 50, 51, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 43, 48  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_2\_n48 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 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 | 5 |
| DC\_2\_n66 | E-UTRA Band 4, 5, 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 | 5 |
|  | E-UTRA Band 42, 48,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_2\_n71 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 29, 30, 66 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25, 41, 48, 70,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 71 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_2\_n78 | E-UTRA Band 4, 5, 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 | 2 |
| DC\_3\_n1 | 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, 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 | 5 |
|  | E-UTRA band 22, 42, 52  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1880 |  | 1895 | -40 | 1 | 5,16 |
|  | Frequency range | 1895 |  | 1915 | -15.5 | 5 | 5, 7, 16 |
|  | Frequency range | 1915 |  | 1920 | +1.6 | 5 | 5, 7, 16 |
| DC\_3\_n5 | E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 21, 26, 28, 31, 38, 40, 43, 50, 51, 65, 73, 74  NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3,34 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 22, 42, 52  Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| DC\_3\_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 | 5 |
|  | E-UTRA band 22, 42 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_3\_n8 | E-UTRA Band 1, 11, 20, 21, 28, 31, 32, 33, 34, 38, 39, 40, 45, 50, 51, 65, 67,68, 69, 72, 73, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3, 8 | FDL\_low | - | FDL\_high | -50 | 1 | 2, 5 |
|  | 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 |
| DC\_3\_n20 | E-UTRA Band 1, 7, 8, 31, 32, 33, 34, 40, 43, 50, 51, 65, 67, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3  NR band n20 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 22, 38, 42, 52 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
| DC\_3\_n28 | E-UTRA Band 1, 42, 43, 50, 51, 65, 74, 75, 76  NR band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 11 |
|  | E-UTRA band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 5, 7, 8, 18, 19, 20, 26, 27, 31, 34, 38, 40, 41, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 13 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 14 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 9 |
| DC\_3\_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, 79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 22, 42, 52  NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| DC\_3\_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 22, 42 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_3\_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 | 5 |
|  | E-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 |
| DC\_3\_n41,  DC\_3\_n80\_ULSUP-TDM\_n41 | E-UTRA Band 1, 5, 8, 11, 18, 19, 21, 26, 27, 28, 34, 39, 44, 45, 50, 51, 65, 73, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42, 52  NR Band n77, n78, 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 |
| DC\_3\_n50 | E-UTRA Band 5, 7, 8, 12, 13, 17, 18, 19, 20, 26, 27, 28, 29, 31, 38, 40, 41, 43, 44, 52, 67, 68, 69, 72, 73 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 1, 2, 4, 33, 34, 39, 42, 48, 65, 66  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 |  |
| DC\_3\_n51 | E-UTRA Band 7, 8, 12, 13, 17, 20, 27, 28, 31, 33, 38, 67, 68, 69, 72, 73 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 1, 5, 6, 22, 26, 30, 34, 36, 40, 41, 42, 43, 44, 48, 46, 65, 71 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_3\_n71 | E-UTRA Band 5, 26, | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 3, 71 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_3\_n77  DC\_3\_n80\_ULSUP-TDM\_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 |
| DC\_3\_n78  DC\_3\_n80\_ULSUP-TDM\_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 |
| DC\_3\_n79 DC\_3\_n80\_ULSUP-TDM\_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 |
| DC\_3\_n82 | E-UTRA Band 1, 3 7, 8, 20,31, 32, 33, 34, 40, 43, 50, 51, 65, 67, 68, 72,74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 22, 38, 42, 69 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_3\_n84 | E-UTRA Band 1, 5, 7, 8, 11, 18, 19, 20, 21, 26, 27, 28, 31, 32, 38, 40, 41, 43, 44, 45, 50, 51, 65, 67, 68, 69, 72, 73,74, 75, 76  NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_4\_n38 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 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 |
| DC\_4\_n41 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 27, 28, 29, 30, 48, 50, 51, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_4\_n78 | E-UTRA Band 5, 7, 26, 28, 41 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| DC\_5\_n2 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 28, 29, 30, 42, 50, 51, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 25 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | NR Band n2 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 26 | 859 | - | 869 | -27 | 1 |  |
|  | E-UTRA Band 41, 43, 53  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_5\_n7 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 28, 29, 30, 31, 34, 40, 42, 43, 65, 66, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 52  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA band 26 | 859 | - | 869 | -27 | 1 |  |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 7, 6 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 7, 6 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 14 |
| DC\_5\_n12 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 30, 43, 71, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Bands 4, 41, 42, 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 | 5 |
| DC\_5\_n38 | E-UTRA Band 1, 2, 3, 4, 5, 8, 12, 13, 14, 17, 28, 29, 30, 31, 34, 40, 42, 43, 50, 51, 65, 66, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 52 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_5\_n40 | E-UTRA Band 1, 3, 5, 7, 8, 11, 18, 19, 21, 28, 31, 34, 38, 42, 43, 45, 65, 73, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 26 | 859 | - | 869 | -27 | 1 |  |
|  | E-UTRA Band 41, 52  NR band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| DC\_5\_n48 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 29, 30, 50, 51, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 26 | 859 | - | 869 | -27 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_5\_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,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_5\_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, 41, 70,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 29 | FDL\_low | - | FDL\_high | -38 | 1 | 5 |
|  | E-UTRA Band 71 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_5\_n78 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 24, 25, 28, 29, 30, 31, 34, 38, 40, 45, 65, 66, 70 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 26 | 859 | - | 869 | -27 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2, 7 |
| DC\_5\_n79 | Bands 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 24, 25, 28, 29, 30, 31, 34, 38, 40, 42, 43, 45, 48, 50, 51, 65, 66, 70, 71, 73, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 26 | 859 | - | 869 | -27 | 1 |  |
|  | Bands 41, 52 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_7\_n1 | Band 1, 5, 7, 8, 20, 22, 26, 27, 28, 31,32, 40, 42, 43, 50, 51, 52, 65, 67, 72, 74, 75, 76, n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | band n77, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 1880 |  | 1895 | -40 | 1 | 5,16 |
|  | Frequency range | 1895 |  | 1915 | -15.5 | 5 | 5, 7,16 |
|  | Frequency range | 1915 |  | 1920 | +1.6 | 5 | 5, 7,16 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_7\_n3 | E-UTRA Band 1, 5, 7, 8, 20, 26, 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 | 5 |
|  | E-UTRA band 22, 42, 52  NR band n78, n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_7\_n5 | E-UTRA Band 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 22, 26, 28, 29, 30, 31, 40, 42, 43, 50, 51, 65, 66, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 52  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 7, 6 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 7, 6 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 14 |
| DC\_7\_n8 | E-UTRA Band 1, 20, 28, 31, 32, 33, 34, 40, 50, 51, 65, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3, 7, 22, 42, 43, 52  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 8 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_7\_n20 | E-UTRA Band 1, 3, 7, 8, 22, 31, 32, 33, 34, 40, 43, 50, 51, 65, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42, 52  NR band n78, n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 20 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_7\_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 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_7\_n40 | E-UTRA Band 1, 3, 5, 7, 8, 20, 22, 26, 27, 28, 31, 32, 33, 34, 42, 43, 50, 51, 52, 65, 67, 68, 72, 74, 75, 76, 77, 78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_7\_n51 | E-UTRA Band 2, 3, 5, 8, 26, 30, 31, 32, 33, 34, 40, 48, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 7, 16 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 7, 16 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5 |
|  | E-UTRA Band 1, 4, 12, 13, 14, 17, 20, 22, 23, 27, 28, 29, 42, 43, 44, 46, 65, 66, 67, 68  NR Band n77, n78, n79, | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_7\_n66 | E-UTRA Band 2, 4, 5, 7, 12, 13, 14, 17, 26, 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 | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_7\_n71 | E-UTRA Band 4, 5, 12, 13, 14, 17, 26, 30, 66, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 70 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 29 | FDL\_low | - | FDL\_high | -38 | 1 | 5 |
|  | Frequency range | 2570 | - | 2575 | 1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_7\_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 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_7\_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 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_8\_n1 | E-UTRA Band 20, 28, 31, 32, 38, 40, 50, 51, 65, 67, 72, 73, 74, 75, 76 | 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 Band 1, 8, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 12 |
|  | Frequency range | 860 | - | 890 | -40 | 1 | 5, 12 |
|  | Frequency range | 1880 |  | 1895 | -40 | 1 | 5, 16 |
|  | Frequency range | 1895 |  | 1915 | -15.5 | 5 | 5, 7, 16 |
|  | Frequency range | 1915 |  | 1920 | +1.6 | 5 | 5, 7, 16 |
| DC\_8\_n3 | E-UTRA Band 1, 20, 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, 5 |
|  | E-UTRA band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 12 |
|  | 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 | 3.12 |
|  | Frequency range | 860 | - | 890 | -40 | 1 | 5. 12 |
| DC\_7\_n80 | E-UTRA Band 1, 5, 7, 8, 20, 26, 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 | 5 |
|  | E-UTRA Band 22, 42,  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_8\_n20 | E-UTRA Band 1, 31, 32, 33, 34, 40, 50, 51, 65, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 7, 22, 38, 42, 43, 52, 69  NR band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 8, 20 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
| DC\_8\_n28 | E-UTRA Band 20, 31, 34, 38, 40, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3, 7, 22, 41, 42, 43, 50, 51, 65, 73, 74, 75, 76  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 2, 9, 11 |
|  | E-UTRA Band 8 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10, 12 |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 5, 17 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 14 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 5 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 860 | - | 890 | -40 | 1 | 5, 12 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 9, 12 |
| DC\_8\_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 | 5 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 12 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 12 |
|  | Frequency range | 860 | - | 890 | -40 | 1 | 5, 12 |
| DC\_8\_n39 | E-UTRA Band 1, 28, 34, 40, 45, 50, 51, 73, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | UTRA Band 22, 41, 42, 52  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 8 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_8\_n40 | E-UTRA Band 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 Band 3, 7, 22, 41, 42, 43, 52  NR band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 8 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| DC\_8\_n41,  DC\_8\_n81\_ULSUP-TDM\_n41 | E-UTRA Band 1, 11, 21, 28, 34, 39, 45, 50, 51, 65, 73, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3, 42, 52  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 8 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | Frequency range | 860 | - | 890 | -40 | 1 | 5, 12 |
|  | Frequency range | 1884.5 |  | 1915.7 | -41 | 0.3 | 3 |
| DC\_8\_n77 | E-UTRA Band 1, 20, 28, 31, 32, 33, 34, 38, 39, 40, 44, 45, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3, 7, 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 8 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 12 |
|  | Frequency range | 860 | - | 890 | -40 | 1 | 5, 12 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 12 |
| DC\_8\_n78  DC\_8\_n81\_ULSUP-TDM\_n78 | E-UTRA Band 1, 20, 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 |
|  | E-UTRA Band 8 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 12 |
|  | Frequency range | 860 | - | 890 | -40 | 1 | 5, 12 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 12 |
| DC\_8\_n79  DC\_8\_n81\_ULSUP-TDM\_n79 | E-UTRA Band 1, 8, 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 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 12 |
|  | Frequency range | 860 | - | 890 | -40 | 1 | 5, 12 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| DC\_8\_n80 | E-UTRA Band 1, 20, 28, 31, 32, 33, 34, 38, 39, 40, 45, 50, 51, 65, 67, 68, 69, 72, 73, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 8 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 3, 7, 22, 41, 42, 43, 52  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 13 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| DC\_8\_93\_ULSUP-TDM,  DC\_8\_94\_ULSUP-TDM | E-UTRA Band 1, 20, 28, 31, 32, 33, 34, 38, 39, 40, 45, 50, 51, 52, 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 | FDL\_low | - | FDL\_high | -50 | 1 | 2, 5 |
|  | E-UTRA 8 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_11\_n3 | E-UTRA Band 1, 11, 18, 19, 21, 28, 34, 40, 65  NR band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 42  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 |  |
| DC\_11\_n28 | E-UTRA Band 3, 18, 19, 34, 40  NR band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 42, 65, 74  NR band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 11 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 14 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 945 | - | 960 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 9 |
|  | Frequency range | 2545 | - | 2575 | -50 | 1 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_11\_n77 | E-UTRA Band 1, 3, 18, 19, 28, 34, 40, 65 | 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_11\_n78 | E-UTRA Band 1, 3, 18, 19, 28, 34, 40, 65 | 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_11\_n79 | E-UTRA Band 1, 3, 18, 19, 28, 34, 40, 42, 65 | 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_12\_n2 | E-UTRA Band 5, 13, 14, 17, 24, 26, 27, 30, 41, 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 | 5 |
|  | E-UTRA Band 4, 50, 51, 66, 70,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_12\_n5 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 30, 43 71, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Bands 4, 41, 42, 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 |  |
| DC\_12\_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 | 5 |
| DC\_12\_n7 | E-UTRA Band 2, 5, 7, 13, 14, 17, 26, 27, 30, 74, | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 50, 51,66  NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 12, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_12\_n25 | E-UTRA Band 5, 13, 14, 17, 24, 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 2, 12, 25, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 15 |
| DC\_12\_n38 | E-UTRA Band 2, 5, 13. 14. 17, 27, 30, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 50, 51, 66 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA band 12, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_12\_n41 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 27, 30, 71, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 4, 48, 50, 51, 66, 70 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA band 12, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_12\_n78 | E-UTRA Band 2, 5, 7. 13, 17, 25, 26, 41, 71 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 66 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA band 12 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| DC\_13\_n2 | E-UTRA Band 4, 5,12,13,17, 26, 29, 41, 66, 70, 71 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2,14, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 30, 48 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 5 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 5 |
| DC\_13\_n5 | E-UTRA Band 2, 4, 5, 12, 13, 17, 25, 29, 48, 50, 51, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 26 | 859 | - | 869 | -27 | 1 |  |
|  | E-UTRA Band 24, 30, 41, 53 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 14 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 5 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 5 |
| DC\_13\_n7 | E-UTRA Band 2, 4, 5, 7, 12, 13, 17,25，26, 27, 29, 50, 51, 66，74, 85  NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 30 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 14 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 5 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 5 |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_13\_n48 | E-UTRA Band 2, 4, 5, 12, 13, 17, 25, 26, 27, 29, 41, 50, 51, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 14 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 24, 30 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 5 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 5 |
| DC\_13\_n66 | E-UTRA Band 2, 4, 5, 12, 13, 17, 25, 26, 27, 29, 41, 50, 51, 53, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 14 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 30, 48,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 5 |
|  | Frequency range | 799 | - | 803 | -35 | 0.00625 | 5 |
| DC\_13\_n71 | E-UTRA Band 4, 5, 12, 13, 17, 26, 48, 66, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 24, 25, 30, 41, 70,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 29 | FDL\_low | - | FDL\_high | -38 | 1 | 5 |
|  | E-UTRA Band 14, 71 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 769 | - | 775 | -35 | 0.00625 | 5 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 5 |
| DC\_13\_n78 | 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 | 5 |
|  | Frequency range | 799 | - | 805 | -35 | 0.00625 | 5 |
| DC\_14\_n2 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 27, 29, 30, 41, 53, 66, 70, 71, 85, | FDL\_low | - | FDL\_high | -50 | 1 |  |
| E-UTRA band 2, 25, 48  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| Frequency range | 769 | - | 775 | -35 | 0.00625 | 5 |
| Frequency range | 799 | - | 805 | -35 | 0.00625 | 5 |
| DC\_14\_n66 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 25, 26, 27, 29, 30, 41, 53, 66, 70, 71, 85, | FDL\_low | - | FDL\_high | -50 | 1 |  |
| E-UTRA band 48  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| Frequency range | 769 | - | 775 | -35 | 0.00625 | 5 |
| Frequency range | 799 | - | 805 | -35 | 0.00625 | 5 |
| DC\_18\_n3 | E-UTRA Band 1, 3, 11, 18, 19, 21, 28, 34, 40, 65  NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42  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 |  |
| DC\_18\_n77 | E-UTRA Band 1, 3, 11, 21, 28, 34, 40, 65, 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_18\_n78 | E-UTRA Band 1, 3, 11, 21, 28, 34, 40, 65, 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_18\_n79 | E-UTRA Band 1, 3, 11, 21, 28, 34, 40, 42, 65, 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_19\_n77 | E-UTRA Band 1, 3, 11, 21, 28, 34, 40, 65, 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_19\_n78 | E-UTRA Band 1, 3, 11, 21, 28, 34, 40, 65, 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_19\_n79 | E-UTRA Band 1, 3, 11, 21, 28, 34, 40, 42, 65, 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_20\_n1 | E-UTRA Band 1, 3, 7, 8, 20, 22, 31, 32, 34, 40, 43, 50, 51, 65, 67, 68, 72, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 38, 42, 69  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
| DC\_20\_n3 | E-UTRA Band 1, 7, 8, 31, 32, 33, 34, 40, 43, 50, 51, 65, 67, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 20  E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 22, 38, 42, 52 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
| DC\_20\_n7 | E-UTRA Band 1, 3, 7, 8, 22, 31, 32, 33, 34, 40, 43, 50, 51, 65, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42, 52 NR band n78, n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 20 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_20\_n8 | E-UTRA Band 1, 28, 31, 32, 34, 65, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 7, 22, 38, 42, 43  NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_20\_n38 | E-UTRA Band 1, 3, 8, 22, 31, 32, 33, 34, 40, 43, 50, 51, 65, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42, 52 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 20 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_20\_n41 | E-UTRA Band 1, 2, 4, 24, 25, 30, 31, 32, 33, 34, 39, 43, 48, 50, 51, 65, 66, 70, 72, 73, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 8, 12, 13, 14, 17, 42, 44, 45, 52, 67, 68, 71, 85  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
|  | E-UTRA Band 9, 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 19 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 19 |
| DC\_20\_n28  DC\_20\_n83 | E-UTRA Band 3, 7, 8, 31, 34 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 1, 22, 32, 38, 42, 43, 65, 75, 76, NR Band 78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_20\_n50 | E-UTRA Band 2, 3, 7, 12, 17, 31, 33, 39, 43, 48, 65, 67, 68, 72, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 1, 4, 5, 8, 13, 34, 38, 40, 41, 42, 52, 69  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
| DC\_20\_n51 | E-UTRA Band 1, 3, 4, 8, 17, 22, 28, 29, 31, 40, 43, 48, 65, 66, 68, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 20 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
|  | E-UTRA Band 2, 7, 25, 32, 33, 34, 35, 36, 37, 38, 39, 41, 42, 46, 69, 70  NR Band n77, n78, n79, | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_20\_n77 | E-UTRA Band 1, 3, 7, 8, 31, 32, 33, 34, 40, 50, 51, 65, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 20 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 38, 69 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_20\_n78,  DC\_20\_n82\_ULSUP-TDM\_n78 | E-UTRA Band 1, 3, 7, 8, 31, 32, 33, 34, 40, 50, 51, 65, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 20 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 38, 69 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_20\_n80 | E-UTRA Band 1, 7, 8, 28, 31, 32, 33, 34, 40, 43, 50, 51, 65, 67, 68, 72, 74, 75, 76.  NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3, 20 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 22, 42,  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_20A\_91A\_ULSUP-TDM,  DC\_20A\_92A\_ULSUP-TDM | E-UTRA Band 1, 3, 7, 8, 22, 31, 32, 33, 34, 40, 43, 50, 51, 65, 67, 68, 72, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 20 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 38, 42, 69,  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 758 | - | 788 | -50 | 1 |  |
| DC\_21\_n77 | E-UTRA Band 1, 3, 18, 19, 21, 28, 34, 40, 65 | 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_21\_n78 | E-UTRA Band 1, 3, 18, 19, 21, 28, 34, 40, 65 | 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_21\_n79 | E-UTRA Band 1, 3, 18, 19, 21, 28, 34, 40, 42, 65 | 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 |  |
|  | Frequency range | 2595 | - | 2645 | -50 | 1 |  |
| DC\_25\_n41 | E-UTRA Band 4, 5, 12, 13 , 14, 17, 24, 26, 27, 28, 29, 30, 42, 45, 66, 70, 71 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25, | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 48  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_26\_n25 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 29, 30, 42, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 41, 43, 48, 53 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_26\_n41 | E-UTRA Band 1, 2, 3, 4, 5, 11, 12, 13 , 14, 17, 18, 19, 21, 24, 25, 26, 29, 30, 31, 34, 39, 42, 43, 48, 50, 51, 65, 66, 70, 71, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1884.5 |  | 1915.7 | -41 | 0.3 | 3 |
|  | Frequency range | 703 | - | 799 | -50 | 1 |  |
|  | Frequency range | 799 | - | 803 | -40 | 1 | 5 |
|  | Frequency range | 945 | - | 960 | -50 | 1 |  |
| DC\_26\_n77 | E-UTRA Band 1, 3, 5, 11, 18, 19, 21, 26, 34, 39, 40, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 703 | - | 799 | -50 | 1 |  |
|  | Frequency range | 799 | - | 803 | -40 | 1 | 5 |
|  | 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 |  |
| DC\_26\_n78 | E-UTRA Band 1, 3, 5, 11, 18, 19, 21, 26, 34, 39, 40, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 703 | - | 799 | -50 | 1 |  |
|  | Frequency range | 799 | - | 803 | -40 | 1 | 5 |
|  | 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 |  |
| DC\_26\_n79 | E-UTRA Band 1, 3, 5, 11, 18, 19, 21, 26, 34, 39, 40, 42, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 703 | - | 799 | -50 | 1 |  |
|  | Frequency range | 799 | - | 803 | -40 | 1 | 5 |
|  | 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 |  |
| DC\_28\_n3 | E-UTRA Band 1, 22, 42, 43, 50, 51, 65, 74, 75, 76,  NR Band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 11 |
|  | E-UTRA Band 3, 5, 7, 8, 18, 19, 20, 26, 27, 31, 34, 38, 40, 41, 72, 73  NR Band n79 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 14 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 9 |
| DC\_28\_n5 | E-UTRA Band 2, 3, 5, 7, 8, 14, 18, 19, 24, 25, 26, 30, 31, 34, 38, 40, 70, 71 | FDL\_low | - | FDL\_high | -50 |  |  |
|  | E-UTRA Band 4, 22, 32, 41, 42, 43, 45, 48, 50, 51, 52, 65, 66, 73, 74, 75, 76 NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 11 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 9 |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 5, 17 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 14 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 5 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
| DC\_28\_n7 | E-UTRA Band 2, 3, 5, 8, 20, 26, 27, 31, 34, 40, 72 NR band n7 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 22, 32, 42, 43, 50, 51, 52, 65, 66, 74, 75, 76  NR band n77, n78 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_28\_n8 | E-UTRA Band 20, 31, 34, 38, 40, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 3, 7, 22, 41, 42, 43, 50, 51, 52, 65, 73, 74, 75, 76  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 8 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 11 |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 5, 17 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 14 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 5 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 9 |
| DC\_28\_n40 | E-UTRA Band 3, 5, 7, 8, 18, 19, 20, 26, 27, 31, 34, 38, 41, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA band 1, 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 | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| DC\_28\_n41 | E-UTRA Band 4, 14, 18, 19, 20, 26, 27, 39, 42, 43, 48, 50, 51, 52, 65, 66, 71, 73  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 11 |
|  | E-UTRA Band 2, 3, 5, 8, 24, 25, 30, 31, 34, 70, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 11, 21, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 5, 17 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 14 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 5 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 9 |
| DC\_28\_n50 | E-UTRA Band 4, 40, 42, 43, 48, 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 | 9, 10 |
|  | E-UTRA Band 2, 3, 5, 7, 8, 18, 19, 25, 26, 27, 31, 34, 38, 39, 41, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 5, 17 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 14 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 5 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
| DC\_28\_n51 | E-UTRA Band 2, 3, 5, 7, 8, 25, 26, 31, 34, 38, 40, 41, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 20, 22, 24, 32, 42, 43, 45, 46, 65, 66, 71, 73  NR band n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 2, 9, 10 |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 5, 17 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 14 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 5 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
| DC\_28\_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 1, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 11 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | Frequency range | 758 | - | 773 | -32 | 1 |  |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 9 |
| DC\_28\_n78  DC\_28\_n83\_ULSUP-TDM\_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 1, 65, 74 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 11 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | Frequency range | 758 | - | 773 | -32 | 1 |  |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 9 |
| DC\_28\_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 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 11 |
|  | E-UTRA Band 11, 21 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | Frequency range | 758 | - | 773 | -32 | 1 |  |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 9 |
| DC\_30\_n2 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 27, 28, 29, 30, 41, 42, 50, 51, 53, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 25 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 2 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 43, 48  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_30\_n5 | E-UTRA Band 2, 4, 5, 7, 12, 13, 14, 17, 24, 25, 26, 29, 30, 38, 48, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41, 53  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_30\_n66 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 27, 29, 30, 38, 41, 66, 70, 71 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 48,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_38\_n78 | N/A | | | | | | |
| DC\_39\_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 | 18 |
|  | Frequency range | 1855 |  | 1880 | -15.5 | 5 | 5, 7, 18 |
| DC\_39\_n41 | E-UTRA Band 1, 8, 26, 28, 34, 42, 44, 45, 50, 51, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | Frequency range | 1805 | - | 1855 | -40 | 1 | 5 |
|  | Frequency range | 1855 | - | 1880 | -15.5 | 5 | 5, 7, 19 |
| DC\_39\_n78 | E-UTRA Band 1, 8, 28, 34, 40, 41, 44, 45 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1805 | - | 1855 | -40 | 1 | 18 |
|  | Frequency range | 1855 | - | 1880 | -15.5 | 5 | 18 |
| DC\_39\_n79 | E-UTRA Band 1, 8, 28, 34, 40, 41, 44, 45 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | Frequency range | 1805 | - | 1855 | -40 | 1 | 18 |
|  | Frequency range | 1855 | - | 1880 | -15.5 | 5 | 18 |
| DC\_40\_n1 | E-UTRA Band 1, 3, 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 |  |
|  | E-UTRA Band 34 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | NR Band n77, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| DC\_40\_n41 | Bands 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 |
| DC\_40\_n77 | N/A | | | | | | |
| DC\_40\_n78 | E-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 |
| DC\_40\_n79 | Bands 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 |
| DC\_41\_n3 | E-UTRA Band 1, 5, 8, 26, 27, 28, 34, 39, 44, 45, 50, 51, 65, 73, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 3 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 42, 52  NR Band n77, n78, 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 |
| DC\_41\_n28 | E-UTRA Band 4, 14, 18, 19, 20, 26, 27, 39, 42, 43, 48, 50, 51, 52, 65, 66, 71, 73  NR Band n77, n78, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 1 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 11 |
|  | E-UTRA Band 2, 3, 5, 8, 24, 25, 30, 31, 34, 70, 72 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 11, 21, 74, 75, 76 | FDL\_low | - | FDL\_high | -50 | 1 | 9, 10 |
|  | E-UTRA Band 40 | FDL\_low | - | FDL\_high | -40 | 1 |  |
|  | Frequency range | 470 | - | 694 | -42 | 8 | 5, 17 |
|  | Frequency range | 470 | - | 710 | -26.2 | 6 | 14 |
|  | Frequency range | 662 | - | 694 | -26.2 | 6 | 5 |
|  | Frequency range | 758 | - | 773 | -32 | 1 | 5 |
|  | Frequency range | 773 | - | 803 | -50 | 1 |  |
|  | Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3, 9 |
| DC\_41\_n77 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 26, 28, 33, 34, 39, 44, 45, 73, 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 |
| DC\_41\_n78 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 26, 28, 34, 39, 44, 45, 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 |
| DC\_41\_n79 | E-UTRA Band 1, 3, 5, 8, 11, 18, 19, 21, 26, 28, 34, 42, 44, 45, 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 |
| DC\_42\_n51 | E-UTRA Band 3, 8, 20, 25, 30, 31, 34, 39, 41, 73 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 1, 2, 4, 5, 6, 7, 12, 13, 14, 17, 23, 24, 26, 27, 28, 29, 32, 38, 40, 44, 46, 65, 66, 67, 68, 70, 71 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_42\_n77 | N/A | | | | | | |
| DC\_42\_n78 | N/A | | | | | | |
| DC\_42\_n79 | N/A | | | | | | |
| DC\_48\_n5 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 29, 30, 50, 51, 66, 70, 71, 74, 85 | 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 |
| DC\_48\_n12 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 30, 41, 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 | 5 |
| DC\_48\_n66 | 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 |  |
| DC\_48\_n71 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 30, 50, 51, 53, 66, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25, 41, 70 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 29 | FDL\_low | - | FDL\_high | -38 | 1 | 5 |
|  | E-UTRA Band 71 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_66\_n2 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 27, 28, 29, 30, 41, 50, 51, 53, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 25 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 2 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 22, 42, 43,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_66\_n5 | E-UTRA Band 1, 2, 3, 4, 5, 6, 7, 8, 12, 13, 14, 17, 24, 25, 26, 28, 29, 30, 34, 38, 40, 43, 45, 50, 51, 65, 66, 70, 71, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41, 42, 48, 52,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_66\_n7 | E-UTRA Band 2, 4, 5, 7, 12, 13, 14, 17, 26, 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 | 2570 | - | 2575 | +1.6 | 5 | 5, 6, 7 |
|  | Frequency range | 2575 | - | 2595 | -15.5 | 5 | 5, 6, 7 |
|  | Frequency range | 2595 | - | 2620 | -40 | 1 | 5, 6 |
| DC\_66\_n12 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 27, 30, 41, 53, 70, 71, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 4, 50, 51, 66, 48,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 12, 85 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_66\_n25 | 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, 48,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 2 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 25 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
|  | E-UTRA Band 43 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_66\_n41 | E-UTRA Band 2, 4, 5, 12, 13, 14, 17, 24, 25, 26, 27, 28, 29, 30, 43, 50, 51, 66, 70, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 42, 48,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_66\_n38 | EUTRA 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, 22 |
|  | Frequency range | 2645 | - | 2690 | -40 | 1 | 5, 22 |
| DC\_66\_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 |  |
| DC\_66\_n71 | E-UTRA Band 4, 5, 13, 14, 17, 24, 26, 27, 29, 30, 43, 50, 51, 66, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 7, 22, 25, 41, 42, 48, 70,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 71 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_66\_n78,  DC\_66\_n86\_ULSUP-TDM\_n78 | E-UTRA Band 1, 3, 5, 7, 8, 20, 26, 28, 34, 39, 40, 41, 65 | FDL\_low | - | FDL\_high | -50 | 1 |  |
| DC\_71\_n5 | E-UTRA Band 4, 12, 13, 14, 17, 24, 26, 30, 48, 66, 85  NR Band n5 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25, 41, 70,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 29 | FDL\_low | - | FDL\_high | -38 | 1 | 5 |
|  | E-UTRA Band 71 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_71\_n38 | E-UTRA Band 4, 5, 12, 13, 14, 17, 30, 66, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA band 29 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_71\_n48 | E-UTRA Band 4, 5, 12, 13, 14, 17, 24, 26, 29, 30, 50, 51, 66, 71, 74, 85 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 25, 41, 70 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| DC\_71\_n66 | E-UTRA Band 4, 5, 13, 14, 17, 24, 26, 27, 29, 30, 43, 50, 51, 66, 74 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 2, 7, 22, 25, 41, 42, 48, 70,  NR Band n77 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
|  | E-UTRA Band 71 | FDL\_low | - | FDL\_high | -50 | 1 | 5 |
| DC\_71\_n78 | E-UTRA Band 5, 26 | FDL\_low | - | FDL\_high | -50 | 1 |  |
|  | E-UTRA Band 41 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| NOTE 1: FDL\_low and FDL\_high refer to each frequency band specified in Table 5.5-1 in TS 36.101 [4] or in Table 5.2-1 in 3GPP TS 38.101-1 [2].  NOTE 2: As exceptions, measurements with a level up to the applicable requirements defined in Table 6.6.3.1-2 in 3GPP TS 36.101 [4] and Table 6.5.3.1-2 in 3GPP TS 38.101-1 [2] are permitted for each assigned 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 180 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: Applicable when co-existence with PHS system operating in 1884.5 - 1915.7 MHz  NOTE 4: Void  NOTE 5: These requirements also apply for the frequency ranges that are less than FOOB (MHz) in Table 6.6.3.1-1, Table 6.6.3.1A-1 in 3GPP TS 36.101 [4] or in Table 6.5.3.1-1 in 3GPP TS 38.101-1 [2] from the edge of the channel bandwidth.  NOTE 6: 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 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 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  NOTE 9: Applicable when the assigned E-UTRA or NR carrier is confined within 718 MHz and 748 MHz and when the channel bandwidth used is 5 or 10 MHz.  NOTE 10: As exceptions, measurements with a level up to the applicable requirement of -38 dBm/MHz is permitted for each assigned E-UTRA 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 5.6-1) for which the 2nd harmonic totally or partially overlaps the measurement bandwidth (MBW).  NOTE 11: 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 12: This requirement is applicable only for the following cases: A: for carriers of 5 MHz channel bandwidth when carrier centre frequency (Fc) is within the range 902.5 MHz ≤ Fc < 907.5 MHz with an uplink transmission bandwidth less than or equal to 20 RB; B: for carriers of 5 MHz channel bandwidth when carrier centre frequency (Fc) is within the range 907.5 MHz ≤ Fc ≤ 912.5 MHz without any restriction on uplink transmission bandwidth; C: for carriers of 10 MHz channel bandwidth when carrier centre frequency (Fc) is Fc = 910 MHz with an uplink transmission bandwidth less than or equal to 32 RB with RBstart > 3.  NOTE 13: Void  NOTE 14: This requirement is applicable for 5 and 10 MHz E-UTRA or NR channel bandwidth allocated within 718-728MHz. 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 15: Void  NOTE 16: 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 17: This requirement is applicable in the case of a 10 MHz E-UTRA or NR carrier confined within 703 MHz and 733 MHz, otherwise the requirement of -25 dBm with a measurement bandwidth of 8 MHz applies.  NOTE 18: This requirement is only applicable for E-UTRA 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 E-UTRA carriers of 15 MHz bandwidth when carrier center frequency is within the range 1892.5 - 1894.5 MHz and for E-UTRA carriers of 20 MHz bandwidth when carrier center frequency is within the range 1895 - 1903 MHz.  NOTE 19: Void  NOTE 20: Void.  NOTE 21: Void  NOTE 22: 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. | | | | | | | |

NOTE: To simplify the above Table, 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.

## **<<Next of Change>>**

### 6.5B.4 Additional spurious emissions

#### 6.5B.4.1 General

These requirements are specified in terms of an additional spectrum emission requirement. Additional spurious emission requirements are signalled by the network to indicate that the UE shall meet an additional requirement for a specific deployment scenario as part of the cell handover/broadcast message.

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.

##### 6.5B.4.1.1 Void



#### 6.5B.4.2 Intra-band contiguous EN-DC

##### 6.5B.4.2.1 Minimum requirement (network signalled value "NS\_04")

When "NS 04" is indicated in the cell, the power of any UE emission shall not exceed the levels specified in Table 6.5B.4.1.1-1. This requirement also applies for the frequency ranges that are less than FOOB (MHz) in Table 6.6.3.1-1 from the edge of the channel bandwidth.

Table 6.5B.4.1.1-1: Additional requirements

|  |  |  |
| --- | --- | --- |
| Frequency band  (MHz) | Channel bandwidth / Spectrum emission limit (dBm) | Measurement bandwidth |
| 2495 ≤ f < 2496 | -13 | 1 % of Channel BW for contiguous BW up to 100 MHz,  1 MHz for contiguous BW > 100 MHz |
| 2490.5 ≤ f < 2495 | -13 | 1 MHz |
| 0 < f < 2490.5 | -25 | 1 MHz |

#### 6.5B.4.3 Intra-band non-contiguous EN-DC

##### 6.5B.4.3.1 Minimum requirement (network signalled value "NS\_04")

When "NS 04" is indicated in the cell, the power of any UE emission shall not exceed the levels specified in Table 6.5B.4.1.1-1. This requirement also applies for the frequency ranges that are less than FOOB (MHz) in Table 6.6.3.1-1 from the edge of the channel bandwidth.

Table 6.5B.4.1.1-1: Additional requirements

|  |  |  |
| --- | --- | --- |
| Frequency band  (MHz) | Channel bandwidth / Spectrum emission limit (dBm) | Measurement bandwidth |
| 2495 ≤ f < 2496 | -13 | 1 % of Channel BW for contiguous BW up to 100 MHz,  1 MHz for contiguous BW > 100 MHz |
| 2490.5 ≤ f < 2495 | -13 | 1 MHz |
| 0 < f < 2490.5 | -25 | 1 MHz |

#### 6.5B.4.4 Inter-band EN-DC within FR1

The additional spurious emissions requirements specified for E-UTRA in clause 6.6.3.3 and 6.6.3.3A of TS 36.101 [4] and for NR single carrier, CA operation and UL-MIMO specified in clause 6.5.3.3, 6.5A.3.3 and 6.5D.3 of TS 38.101-1 [2] apply for each component carrier.

#### 6.5B.4.4a Inter-band NE-DC within FR1

The additional spurious emissions requirements specified for E-UTRA in clause 6.6.3.3 and 6.6.3.3A of TS 36.101 [4] and for NR single carrier, CA operation and UL-MIMO specified in clause 6.5.3.3, 6.5A.3.3 and 6.5D.3 of TS 38.101-1 [2] apply for each component carrier.

#### 6.5B.4.5 Inter-band EN-DC including FR2

The additional spurious emissions requirements specified for E-UTRA in clause 6.6.3.3 and 6.6.3.3A of TS 36.101 [4] and for NR single carrier, CA operation and UL-MIMO specified in clause 6.5.3.3, 6.5A.3.3 and 6.5D.3 of TS 38.101-2 [3] apply for each component carrier.

#### 6.5B.4.6 Inter-band EN-DC including both FR1 and FR2

The additional spurious emissions requirements specified for E-UTRA in clause 6.6.3.3 and 6.6.3.3A of TS 36.101 [4] and for NR single carrier, CA operation and UL-MIMO specified in clause 6.5.3.3, 6.5A.3.3 and 6.5D.3 of TS 38.101-1 [2] and in clause 6.5.3.3, 6.5A.3.3 and 6.5D.3 of TS 38.101-2 [3] apply for each component carrier.

## **<<Next of Change>>**

## 7.3A Reference sensitivity for CA

### 7.3A.1 General

For NR CA operation, NR single carrier and CA operation of REFSENS requirements defined in TS 38.101-1 [2] and TS 38.101-2 [3] apply to all downlink bands part of NR CA configurations listed in Table 5.2A.1-1unless sensitivity degradation is allowed as defined in clause 7.3A.

A UE which supports inter-band NR CA configuration is allowed to apply each sensitivity degradation for FR1 specified in clause 7.3A.2 TS 38.101-1 [2] and for FR2 specified in clause 7.3A.2 of TS 38.101-2 [3] independently.

### 7.3A.2 Reference sensitivity power level for CA

### 7.3A.3 ΔRIB,c for CA

For the UE which supports inter-band NR CA configuration, the minimum requirement for reference sensitivity in clause 7.3.2 in TS 38.101-1 [2] and clause 7.3.2, 7.3A.2in TS 38.101-2 [3] shall be increased by the amount given in ΔRIB,c in Tables below. Unless otherwise stated, ΔRIB,c is set to zero.

In case the UE supports more than one of band combinations for CA, SUL or DC, and an operating band belongs to more than one band combinations then

- When the operating band frequency range is ≤ 1GHz, the applicable additional ∆RIB,c shall be the average value for all band combinations defined in clause 7.3A, 7.3B, 7.3C in this specification and 7.3A, 7.3B in TS 38.101-3 [3], truncated to one decimal place that apply for that operating band among the supported band combinations. In case there is a harmonic relation between low band UL and high band DL, then the maximum ΔRIB,c among the different supported band combinations involving such band shall be applied

- When the operating band frequency range is > 1 GHz, the applicable additional ΔRIB,c shall be the maximum value for all band combinations defined in clause 7.3A, 7.3B, 7.3C in this specification and 7.3A, 7.3B in TS 38.101-3 [3] for the applicable operating bands.

#### 7.3A.3.1 ΔRIB,c for Inter-band CA between FR1 and FR2

Unless otherwise stated, ΔRIB,c for NR FR1 band and FR2 band of inter-band CA defined in table 5.5A.1-1 is set to zero.

Table 7.3A.3.1-1: Void

## **<<Next of Change>>**

## 7.3B Reference sensitivity level for DC

### 7.3B.1 General

For EN-DC, E-UTRA and NR single carrier, CA, and MIMO operation of REFSENS requirements defined in TS 38.101-1 [2], TS 38.101-2 [3] and TS 36.101 [4] apply to all downlink bands of EN-DC configurations listed in clause 5.5B, unless sensitivity degradation exception is allowed in this clause of this specification, clause 7.3 in TS 38.101-1 [2], clause 7.3 in TS 38.101-2 [3] or clause 7.3 in TS 36.101 [4]. Allowed exceptions specified in this clause also apply to any higher order EN-DC configuration combination containing one of the band combinations that exception is allowed for. Reference sensitivity exeptions are specified by applying maximum sensitivity degradation (MSD) into applicaple REFSENS requirement. EN-DC REFSENS requirements shall be met for NR uplink transmissions using QPSK DFT-s-OFDM waveforms as defined in clause 7.3.2 [2]. Unless otherwise specified UL allocation uses the lowest SCS allowable for a given channel BW. Limits on configured maximum output power for the uplink according to clause 6.2B.4 shall apply.

In case of interband EN-DC the receiver REFSENS requirements in this clause do not apply for 1.4 and 3 MHz E-UTRA carriers. For the case of inter-band EN-DC with a single carrier per cell group and multi carrier per cell group, in addition to the E-UTRA and NR single carrier, CA, and MIMO operation of REFSENS requirements defined in TS 38.101-1 [2], TS 38.101-2 [3], and TS 36.101 [4], the REFSENS requirements specified therein also apply with both downlink carriers and both uplink carriers active unless sensitivity exceptions are allowed in this clause of this specification, clause 7.3 in TS 38.101-1 [2] or clause 7.3 in TS 36.101 [4].

For reference sensitivity exception test points where the specified carrier frequency does not correspond to a valid NR-ARFCN, the closest NR-ARFCN as specified in clause 5.4.2 applies.

NOTE: For inter-band EN-DC, the reference sensitivity requirement with both uplink carriers active is allowed to be verified for only a single inter-band EN-DC configuration per NR band.

## **<<Next of Change>>**

##### 7.3B.2.3.5 MSD for intermodulation interference due to dual uplink operation for EN-DC in NR FR1

7.3B.2.3.5.0 General

For EN-DC configurations in NR FR1 the UE may indicate capability of not supporting simultaneous dual uplink operation due to possible intermodulation interference overlapping in frequency to its own primary downlink channel bandwidth if

- the intermodulation order is 2;

- the intermodulation order is 3 when both operating bands are between 450 MHz – 960 MHz or between 1427 MHz – 2690 MHz

In the case for EN-DC configurations in NR FR1 for which the intermodulation products caused by dual uplink operation do not interfere with its own primary downlink channel bandwidth as defined in Annex I the UE is mandated to operate in dual and triple uplink mode.

For EN-DC configurations in NR FR1 with uplink and downlink assigned to E-UTRA and NR FR1 bands given in Table 7.3B.2.3.5.1-1, Table 7.3B.2.3.5.1-1a, Table 7.3B.2.3.5.2-0 and Table 7.3B.2.3.5.2-1 the reference sensitivity is defined only for the specific uplink and downlink test points specified in Table 7.3B.2.3.5.1-1, Table 7.3B.2.3.5.1-1a, Table 7.3B.2.3.5.2-0 and Table 7.3B.2.3.5.2-1. For these test points the reference sensitivity levels specified in clause 7.3.1 in TS 36.101 [4] and 7.3.2 of TS 38.101-1 [2] for the corresponding channel bandwidths or in clause 7.3.1 of TS 36.101 [4] are relaxed by the amount of the parameter MSD given in Table 7.3B.2.3.5.1-1, Table 7.3B.2.3.5.1-1a, Table 7.3B.2.3.5.2-0 and Table 7.3B.2.3.5.2-1.

The throughput on each of the CGs shall be ≥ 95% of the maximum throughput of the respective reference measurement channels as specified in Annex A of TS 38.101-1 [2] and Annex A of TS 36.101 [4], with parameters specified in Table 7.3B.2.3.5.1-1, Table 7.3B.2.3.5.1-1a, Table 7.3B.2.3.5.2-0 and Table 7.3B.2.3.5.2-1 with dual UL transmissions overlapping in time unless otherwise stated.

###### 7.3B.2.3.5.1 MSD test points for intermodulation interference due to dual uplink operation for PC3 EN-DC in NR FR1 involving two bands

Table 7.3B.2.3.5.1-1: MSD test points for PCell due to dual uplink operation for PC3 EN-DC in NR FR1 (two bands)

| NR or E-UTRA Band / Channel bandwidth / NRB / MSD | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| EN-DC  Configuration | EUTRA or NR band | UL Fc  (MHz) | UL/DL BW  (MHz) | UL  LCRB | DL Fc (MHz) | MSD  (dB) | IMD order |
| DC\_1A\_n3A | 1 | 1950 | 5 | 25 | 2140 | 23 | IMD3 |
|  | n3 | 1760 | 5 | 25 | 1855 | N/A | N/A |
| DC\_1C\_n3 | 1C | 1950  1970 | 20  20 | 1 (RBstart=0)  1 (RBstart=67) | 2140  2160 | N/A | N/A |
|  | n3 | N/A | 5 | N/A | 1877.5 | 36 | IMD5 |
| DC\_1A\_n8A | 1 | 1965 | 5 | 25 | 2155 | 6.0 | IMD4 |
|  | n8 | 887.5 | 5 | 25 | 932.5 | N/A | N/A |
| DC\_1A\_n71A  DC\_1A\_n71B | 1 | 1958 | 5 | 25 | 2148 | N/A | N/A |
|  | n71 | 668 | 5 | 25 | 622 | 15.1 | IMD3 |
| DC\_1A\_n77A,  DC\_1A\_SUL\_n77A-n84A,  DC\_1A\_n77(2A), | 1 | 1950 | 5 | 25 | 2140 | 29.8 | IMD23 |
|  |  |  |  |  |  | 32.54 |  |
|  | n77 | 4090 | 10 | 50 | 4090 | N/A | N/A |
| DC\_1A\_n77A,  DC\_1A\_SUL\_n77A-n84A,  DC\_1A\_n77(2A),  DC\_1A\_n78A,  DC\_1A\_SUL\_n78A-n84A,  DC\_1A\_n78(2A) | 1 | 1950 | 5 | 25 | 2140 | 8.0 | IMD43 |
|  |  |  |  |  |  | 10.74 |  |
|  | n77, n78 | 3710 | 10 | 50 | 3710 | N/A | N/A |
| DC\_2A\_n46A | 2 | 1880 | 5 | 25 | 1960 | 12.0 | IMD3 |
|  | n46 | 5720 | 20 | 100 | 5720 | N/A | N/A |
| DC\_2A\_n48A | 2 | 1852.5 | 5 | 25 | 1932.5 | 12 | IMD4 |
|  | n48 | 3625 | 20 | 100 | 3625 | N/A | N/A |
| DC\_2A\_n66A, DC\_2A-2A\_n66A | 2 | 1855 | 5 | 25 | 1935 | 20 | IMD3 |
|  | n66 | 1775 | 5 | 25 | 2175 | N/A | N/A |
| DC\_2A\_n66A, DC\_2A-2A\_n66A | 2 | 1883.3 | 5 | 25 | 1963.3 | N/A | N/A |
|  | n66 | 1750 | 5 | 25 | 2150 | 4 | IMD5 |
| DC\_2A\_n78A  DC\_2A\_n78(2A) | 2 | 1855 | 5 | 25 | 1935 | 26 | IMD23 |
|  |  |  |  |  |  | 28.74 |  |
|  | n78 | 3790 | 10 | 50 | 3790 | N/A | N/A |
| DC\_2A\_n78A  DC\_2A\_n78(2A) | 2 | 1885 | 5 | 25 | 1965 | 8.0 | IMD43 |
|  |  |  |  |  |  | 10.74 |  |
|  | n78 | 3690 | 10 | 50 | 3690 | N/A | N/A |
| DC\_3\_n1 | 3 | 1760 | 5 | 25 | 1855 | N/A | N/A |
|  | n1 | 1950 | 5 | 25 | 2140 | 23 | IMD3 |
| DC\_3\_n5 | 3 | 1771 | 10 | 50 | 1866 | 4 | IMD4 |
|  | n5 | 838 | 5 | 25 | 883 | N/A | N/A |
|  | 3 | 1721 | 10 | 50 | 1816 | N/A | N/A |
|  | n5 | 838 | 5 | 25 | 883 | 24 | IMD23 |
| DC\_3A\_n7A  DC\_3C\_n7A | 3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
|  | n7 | 2535 | 10 | 50 | 2655 | 10.2 | IMD4 |
| DC\_3\_n8 | n8 | 900 | 5 | 25 | 945 | 8 | IMD43 |
|  | 3 | 1755 | 10 | 50 | 1850 | N/A | N/A |
|  | n8 | 897.5 | 5 | 25 | 942.5 | N/A | N/A |
|  | 3 | 1747.5 | 10 | 50 | 1842.5 | 6.4 | IMD5 |
| DC\_3A-n20A | 3 | 1775 | 5 | 25 | 1870 | 4 | IMD4 |
|  | n20 | 840 | 5 | 25 | 799 | N/A | N/A |
|  | 3 | 1735 | 5 | 25 | 1830 | N/A | N/A |
|  | n20 | 847 | 5 | 25 | 806 | 9 | IMD4 |
| DC\_3A\_n38A | 3 | 1712.8 | 5 | 25 | 1807.8 | 8.2 | IMD4 |
|  | n38 | 2616.7 | 10 | 50 | 2616.7 | N/A | N/A |
| DC\_3A\_n41A  DC\_3C\_n41A  DC\_3A\_SUL\_n41A-n80A, DC\_3C\_SUL\_n41A-n80A | 3 | 1740 | 5 | 25 | 1835 | 8.2 | IMD4 |
|  | n41 | 2657.5 | 10 | 50 | 2657.5 | N/A | N/A |
| DC\_3A\_n77A,  DC\_3A\_n77(2A),  DC\_3A\_SUL\_n77A-n80A,  DC\_3A\_n78A,  DC\_3A\_SUL\_n78A-n80A,  DC\_3A\_n78(2A),  DC\_3C\_n78A  DC\_3C\_n78(2A) | 3 | 1740 | 5 | 25 | 1835 | 26 | IMD23 |
|  |  |  |  |  |  | 28.74 |  |
|  | n77, n78 | 3575 | 10 | 50 | 3575 | N/A | N/A |
| DC\_3A\_n77A,  DC\_3A\_n77(2A),  DC\_3A\_SUL\_n77A-n80A,  DC\_3A\_n78A, DC\_3A\_SUL\_n78A-n80A,  DC\_3A\_n78(2A),  DC\_3C\_n78A  DC\_3C\_n78(2A) | 3 | 1765 | 5 | 25 | 1860 | 8.0 | IMD43 |
|  |  |  |  |  |  | 10.74 |  |
|  | n77, n78 | 3435 | 10 | 50 | 3435 | N/A | N/A |
| DC\_5\_n7 | n7 | 2547 | 10 | 50 | 2667 | N/A | N/A |
|  | 5 | 834 | 5 | 25 | 879 | 12 | IMD33 |
| DC\_5\_n38 | 5 | 844 | 5 | 25 | 889 | 12 | IMD33 |
|  | n38 | 2577 | 10 | 50 | 2577 | N/A | N/A |
| DC\_5A\_n66A | 5 | 838 | 5 | 25 | 883 | 30 | IMD23 |
|  | n66 | 1721 | 5 | 25 | 2121 | N/A | N/A |
| DC\_5A\_n78A  DC\_5A\_n78(2A) | 5 | 844 | 5 | 25 | 889 | 8.3 | IMD4 |
|  | n78 | 3421 | 10 | 50 | 3421 | N/A | N/A |
| DC\_7\_n3 | 7 | 2535 | 10 | 50 | 2655 | 13 | IMD4 |
|  | n3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
| DC\_7\_n5 | 7 | 2547 | 10 | 50 | 2667 | N/A | N/A |
|  | n5 | 834 | 5 | 25 | 879 | 12 | IMD33 |
| DC\_7A\_n20A | 7 | 2512 | 10 | 50 | 2632 | N/A | N/A |
|  | n20 | 851 | 5 | 25 | 810 | 12 | IMD33 |
| DC\_7\_n40 | 7 | 2510 | 5 | 25 | 2630 | 23 | IMD3 |
|  | n40 | 2390 | 5 | 25 | 2390 | N/A | N/A |
| DC\_7A\_n66A  DC\_7A-7A\_n66A  DC\_7C\_n66A | 7 | 2535 | 10 | 50 | 2655 | 15 | 4th IMD |
|  | n66 | 1730 | 5 | 25 | 2130 | N/A | N/A |
| DC\_7A\_n77A | 7 | 2540 | 5 | 25 | 2660 | 7.1 | IMD4 |
|  | n77 | 3870 | 10 | 50 | 3870 | N/A | N/A |
| DC\_8A\_n1A | 8 | 887.5 | 5 | 25 | 932.5 | N/A | N/A |
|  | n1 | 1965 | 5 | 25 | 2155 | 6 | IMD4 |
| DC\_8A\_n3A | 8 | 900 | 5 | 25 | 945 | 8 | IMD43 |
|  | n3 | 1755 | 10 | 50 | 1850 | N/A | N/A |
|  | 8 | 897.5 | 5 | 25 | 942.5 | N/A | N/A |
|  | n3 | 1747.5 | 10 | 50 | 1842.5 | 6.4 | IMD5 |
| DC\_8A\_n20A | n20 | 849.5 | 5 | 25 | 808.5 | 25 | IMD33 |
|  | 8 | 890.5 | 5 | 25 | 935.5 | N/A | N/A |
|  | n20 | 847.5 | 5 | 25 | 806.5 | N/A | N/A |
|  | 8 | 892.5 | 5 | 25 | 937.5 | 25 | IMD33 |
| DC\_8A\_n41A  DC\_8A\_SUL\_n41A-n81A | 8 | 882.5 | 5 | 25 | 927.5 | 12.1 | IMD33 |
|  | n41 | 2685 | 10 | 50 | 2685 | N/A | N/A |
| DC\_8A\_n77A,  DC\_8A\_n78A, DC\_8A\_SUL\_n78A-n81A | 8 | 897.5 | 5 | 25 | 942.5 | 8.3 | IMD4 |
|  | n77, n78 | 3635 | 10 | 50 | 3635 | N/A | N/A |
| DC\_8A\_n79A,  DC\_8A-n79C,  DC\_8A\_SUL\_n79A-n81A | 8 | 897.5 | 5 | 25 | 942.5 | 4.8 | IMD5 |
|  | n79 | 4532.5 | 40 | 216 | 4532.5 | N/A | N/A |
| DC\_11A\_n28A | 11 | 1430.5 | 5 | 25 | 1478.5 | N/A | N/A |
|  | n28 | 743 | 5 | 25 | 798 | 10.4 | IMD4 |
| DC\_12\_n78 | 12 | 710 | 5 | 25 | 740 | 5.5 | IMD5 |
|  | n78 | 3580 | 10 | 50 | 3580 | N/A | N/A |
| DC\_13\_n5 | 13 | 783 | 5 | 25 | 752 | N/A | N/A |
|  | n5 | 828 | 5 | 25 | 873 | 25 | IMD3 |
| DC\_13A\_n7A  DC\_13A\_n7(2A) | 13 | 784.5 | 5 | 25 | 753.5 | N/A | N/A |
|  | n7 | 2520 | 40 | 216 | 2640 | 2.5 | IMD5 |
| DC\_18A\_n3A | 18 | 823 | 5 | 25 | 868 | N/A | N/A |
|  | n3 | 1721 | 5 | 25 | 1816 | 4 | IMD4 |
| DC\_18A\_n77A  DC\_18A\_n78A | 18 | N/A | N/A | N/A | N/A | N/A | IMD4 |
|  | n77, n78 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_19A\_n78A | 19 | N/A | N/A | N/A | N/A | N/A | IMD4 |
|  | n78 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_20A\_n3A | 20 | 840 | 5 | 25 | 799 | N/A | N/A |
|  | n3 | 1775 | 5 | 25 | 1870 | 4 | IMD4 |
|  | 20 | 847 | 5 | 25 | 806 | 9 | IMD4 |
|  | n3 | 1735 | 5 | 25 | 1830 | N/A | N/A |
| DC\_20A\_n38A | 20 | N/A | N/A | N/A | N/A | N/A | IMD5 |
|  | n38 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_20\_n7 | 20 | 851 | 5 | 25 | 810 | 12 | IMD33 |
|  | n7 | 2512 | 10 | 50 | 2632 | N/A | N/A |
| DC\_20A\_n8A | 20 | 849.5 | 5 | 25 | 808.5 | 25 | IMD3 |
|  | n8 | 892.5 | 5 | 25 | 937.5 | 25 | IMD3 |
| DC\_20\_n41 | 20 | 851 | 5 | 25 | 810 | 12.1 | IMD3 |
|  | n41 | 2512 | 10 | 50 | 2512 | N/A | N/A |
| DC\_20\_n41 | 20 | 841 | 5 | 25 | 800 | 8.1 | IMD5 |
|  | n41 | 2564 | 10 | 50 | 2564 | N/A | N/A |
| DC\_20A\_n77A,  DC\_20A\_n78A,  DC\_20A\_n78(2A),  DC\_20A\_SUL\_n78A-n82A | 20 | 850 | 5 | 25 | 809 | 11 | IMD4 |
|  | n77, n78 | 3359 | 10 | 50 | 3359 | N/A | N/A |
| DC\_20A\_n77A | 20 | 840 | 5 | 25 | 799 | 6.5 | IMD5 |
|  | n77 | 4159 | 10 | 50 | 4159 | N/A | N/A |
| DC\_21A\_n79A | 21 | 1457.5 | 5 | 25 | 1505.5 | 18.4 | IMD3 |
|  | n79 | 4420.5 | 40 | 216 | 4420.5 | N/A | N/A |
| DC\_26A\_n41A | 26 | 839 | 5 | 25 | 884 | 15.6 | IMD33 |
|  | n41 | 2562 | 10 | 50 | 2562 | N/A | N/A |
| DC\_28\_n50 | 28 | 730 | 10 | 50 | 775 | 15.3 | IMD 2 |
|  | n50 | 1500 | 10 | 50 | 1500 | N/A | N/A |
|  | 28 | 740 | 10 | 50 | 785 | 6 | IMD 4 |
|  | n50 | 1500 | 10 | 50 | 1500 | N/A | N/A |
|  | 28 | 740 | 10 | 50 | 785 | 0.5 | IMD 5 |
|  | n50 | 1500 | 10 | 50 | 1500 | N/A | N/A |
| DC\_28A\_n51A | 28 | 742.3 | 5 | 25 | 797.3 | 5 | IMD4 |
|  | n51 | 1429.5 | 5 | 25 | 1429.5 | N/A | N/A |
| DC\_26A\_n77A,  DC\_26A\_n78A | 26 | 836.5 | 5 | 25 | 881.5 | 11.1 | IMD4 |
|  | n77, n78 | 3391 | 10 | 50 | 3391 | N/A | N/A |
| DC\_28A\_n77A,  DC\_28A\_n78A,  DC\_28A\_n78(2A),  DC\_28A\_SUL\_n78A-n83A | 28 | 705.5 | 5 | 25 | 760.5 | 5.5 | IMD5 |
|  | n77, n78 | 3582.5 | 10 | 50 | 3582.5 | N/A | N/A |
| DC\_41A\_n3A  DC\_41C\_n3A | n3 | 1740 | 5 | 25 | 1835 | 8.2 | IMD4 |
|  | 41 | 2657.5 | 5 | 25 | 2657.5 | N/A | N/A |
| DC\_42\_n28 | 42 | 3582.5 | 10 | 50 | 3582.5 | N/A | N/A |
|  | n28 | 705.5 | 5 | 25 | 760.5 | 5.5 | IMD5 |
| DC\_48A\_n12A | 48 | 3557.5 | 10 | 50 | 3557.5 | N/A | N/A |
|  | n12 | 705.5 | 5 | 25 | 735.5 | 5.5 | IMD5 |
| DC\_48A\_n66A | 48 | 3630 | 20 | 100 | 3630 | N/A | N/A |
|  | n66 | 1715 | 5 | 25 | 2115 | 4 | IMD5 |
| DC\_66A\_n2A, DC\_66A-66A\_n2A | 66 | 1775 | 5 | 25 | 2175 | N/A | N/A |
|  | n2 | 1855 | 5 | 25 | 1935 | 20 | IMD3 |
|  | 66 | 1750 | 5 | 25 | 2150 | 4 | IMD5 |
|  | n2 | 1883.3 | 5 | 25 | 1963.3 | N/A | N/A |
| DC\_66A\_n5A | n5 | 838 | 5 | 25 | 883 | 30 | IMD23 |
|  | 66 | 1721 | 5 | 25 | 2121 | N/A | N/A |
| DC\_66A\_n7A  DC\_66A-66A\_n7A  DC\_66A\_n7(2A)  DC\_66A-66A\_n7(2A) | 66 | 1730 | 5 | 25 | 2130 | N/A | N/A |
|  | n7 | 2535 | 10 | 50 | 2655 | 15 | IMD4 |
| DC\_66A\_n25A | 66 | 1775 | 5 | 25 | 2175 | N/A | N/A |
|  | n25 | 1855 | 5 | 25 | 1935 | 20 | IMD3 |
|  | 66 | 1712.5 | 5 | 25 | 2112.5 | 23 | IMD3 |
|  | n25 | 1912.5 | 5 | 25 | 1992.5 | N/A | N/A |
|  | 66 | 1750 | 5 | 25 | 2150 | 4 | IMD5 |
|  | n25 | 1883.3 | 5 | 25 | 1963.3 | N/A | N/A |
| DC\_66A\_n46A | 66 | 1735 | 5 | 25 | 2135 | 12.0 | IMD3 |
|  | n46 | 5605 | 20 | 100 | 5605 | N/A | N/A |
| DC\_66A\_n48A | 66 | 1715 | 5 | 25 | 2115 | 4 | IMD5 |
|  | n48 | 3630 | 20 | 100 | 3630 | N/A | N/A |
| DC\_66A\_n71A | 66 | 1750 | 5 | 25 | 2150 | 5 | IMD4 |
|  | n71 | 675 | 5 | 25 | 629 | N/A | N/A |
| DC\_66A\_n78A | 66 | 1730 | 5 | 25 | 2150 | 5.0 | IMD5 |
|  | n78 | 3660 | 10 | 50 | 3660 | N/A | N/A |
| DC\_71A\_n38A | 71 | 665 | 5 | 25 | 619 | 11 | IMD4 |
|  | n38 | 2614 | 10 | 50 | 2614 | N/A | N/A |
| DC\_71A\_n66A | 71 | 675 | 5 | 25 | 629 | N/A | N/A |
|  | n66 | 1750 | 5 | 25 | 2150 | 5 | IMD4 |
| DC\_71A\_n78A | 71 | 681.5 | 5 | 25 | 635.5 | 5.5 | IMD5 |
|  | n78 | 3361.5 | 10 | 50 | 3582.5 | N/A | N/A |
| NOTE 1: E-UTRA carrier shall be set to min(+20 dBm, PCMAX\_L\_E-UTRA,c) and NR carrier shall be set to min(+20 dBm, PCMAX\_L,f,c,NR) as defined in clause 6.2B.4.1.3.NOTE 2: RBstart = 0  NOTE 3: This band is subject to IMD5 also which MSD is not specified.  NOTE 4: Applicable only if operation with 4 antenna ports is supported in the band with EN-DC configured.  NOTE 5: Void  NOTE 6: For NR band, UL/DL BW and UL LCRB can be adjusted according to the supported BW and lowest SCS supported by the UE. | | | | | | | |

<<Unchanged sections skipped>>

Table 7.3B.2.3.5.2-1: MSD test points for Scell due to dual uplink operation for EN-DC in NR FR1 (three bands)

| NR or E-UTRA Band / Channel bandwidth / NRB / MSD | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| EN-DC Configuration | EUTRA / NR band | UL Fc  (MHz) | UL/DL BW  (MHz) | UL  LCRB | DL Fc (MHz) | MSD  (dB) | IMD order |
| DC\_1A-3A\_n28A  DC\_1A-3C\_n28A | 1 | 1975 | 5 | 25 | 2165 | N/A | N/A |
|  | n28 | 710.5 | 5 | 25 | 765.5 | N/A | N/A |
|  | 3 | 1723.5 | 5 | 25 | 1818.5 | 4.0 | IMD5 |
| DC\_1A\_n3A-n28A | 1 | 1975 | 5 | 25 | 2165 | N/A | N/A |
|  | n28 | 710.5 | 5 | 25 | 765.5 | N/A | N/A |
|  | n3 | 1723.5 | 5 | 25 | 1818.5 | 4.0 | IMD5 |
| DC\_1A-3A\_n28A  DC\_1A-3C\_n28A | 3 | 1780 | 5 | 25 | 1875 | N/A | N/A |
|  | n28 | 710.5 | 5 | 25 | 765.5 | N/A | N/A |
|  | 1 | 1949 | 5 | 25 | 2139 | 11.0 | IMD4 |
| DC\_1A-3A\_n71A  DC\_1A-3A\_n71B | 1 | 1960 | 5 | 25 | 2150 | 5 | IMD4 |
|  | 3 | 1750 | 5 | 25 | 1845 | N/A | N/A |
|  | n71 | 675 | 5 | 25 | 629 | N/A | N/A |
| DC\_1A-7A\_n28A  DC\_1A-7C\_n28A | 1 | 1935 | 5 | 25 | 2125 | N/A | N/A |
|  | n28 | 718 | 5 | 25 | 773 | N/A | N/A |
|  | 7 | 2533 | 10 | 50 | 2653 | 30.0 | IMD2 |
| DC\_1A-7A\_n40A | 1 | 1970 | 5 | 25 | 2160 | N/A | N/A |
|  | 7 | 2510 | 5 | 25 | 2630 | 23 | IMD3 |
|  | n40 | 2390 | 5 | 25 | 2390 | N/A | N/A |
|  | 1 | 1930 | 5 | 25 | 2120 | 16.4 | IMD3 |
|  | 7 | 2530 | 5 | 25 | 2650 | N/A | N/A |
|  | n40 | 2310 | 5 | 25 | 2310 | N/A | N/A |
| DC\_1A-8A\_n78A | 1 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 8 | N/A | N/A | N/A | N/A | N/A | IMD5 |
|  | n78 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_1A-3A\_n77A | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | 3 | 1712.5 | 5 | 25 | 1807.5 | 31.5 | IMD2 |
|  | n77 | 3757.5 | 10 | 50 | 3757.5 | N/A | N/A |
|  | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | 3 | 1775 | 5 | 25 | 1870 | 8.5 | IMD4 |
|  | n77 | 3980 | 10 | 50 | 3980 | N/A | N/A |
|  | 1 | 1950 | 5 | 25 | 2140 | 31.0 | IMD2 |
|  | 3 | 1775 | 5 | 25 | 1870 | N/A | N/A |
|  | n77 | 3915 | 10 | 50 | 3915 | N/A | N/A |
| DC\_1A-3A\_n78A  DC\_1A-3C\_n78A  DC\_1A-3A\_n78(2A)  DC\_1A-3C\_n78(2A) | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | 3 | 1712.5 | 5 | 25 | 1807.5 | 31.2 | IMD2 |
|  | n78 | 3757.5 | 10 | 50 | 3757.5 | N/A | N/A |
|  | 1 | 1935 | 5 | 25 | 2125 | 2.8 | IMD5 |
|  | 3 | 1775 | 5 | 25 | 1870 | N/A | N/A |
|  | n78 | 3725 | 10 | 50 | 3725 | N/A | N/A |
| DC\_1A\_n3A-n78A | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | n3 | 1750 | 5 | 25 | 1845 | N/A | N/A |
|  | n78 | 3700 | 10 | 50 | 3700 | 28.4 | IMD2 |
|  | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | n3 | 1735 | 5 | 25 | 1830 | 27.9 | IMD2 |
|  | n78 | 3780 | 10 | 50 | 3780 | N/A | N/A |
| DC\_1A-5A\_n78A | 1 | 1932 | 5 | 25 | 2122 | 18.1 | IMD3 |
|  | 5 | 829 | 5 | 25 | 874 | N/A | N/A |
|  | n78 | 3780 | 10 | 50 | 3780 | N/A | N/A |
|  | 1 | 1975 | 5 | 25 | 2165 | N/A | N/A |
|  | 5 | 840 | 5 | 25 | 885 | 3.1 | IMD5 |
|  | n78 | 3405 | 10 | 50 | 3405 | N/A | N/A |
| DC\_1A-7A\_n78A  DC\_1A-7C\_n78A  DC\_1A-7A\_n78(2A)  DC\_1A-7C\_n78(2A) | 1 | 1977.5 | 5 | 25 | 2167.5 | N/A | N/A |
|  | 7 | 2507.5 | 5 | 25 | 2627.5 | 9.1 | IMD4 |
|  | n78 | 3305 | 10 | 50 | 3305 | N/A | N/A |
|  | 1 | 1950 | 5 | 25 | 2140 | 8.7 | IMD4 |
|  | 7 | 2510 | 10 | 50 | 2630 | N/A | N/A |
|  | n78 | 3580 | 10 | 50 | 3580 | N/A | N/A |
| DC\_1A\_n7A-n78A  DC\_1A\_n7B-n78A | 1 | 1977.5 | 5 | 25 | 2167.5 | N/A | N/A |
|  | n7 | 2507.5 | 5 | 25 | 2627.5 | 9.1 | IMD4 |
|  | n78 | 3305 | 10 | 50 | 3305 | N/A | N/A |
|  | 1 | 1970 | 5 | 25 | 2160 | N/A | N/A |
|  | n7 | 2520 | 5 | 25 | 2640 | N/A | N/A |
|  | n78 | 3390 | 10 | 50 | 3390 | 10.1 | IMD4 |
| DC\_1A-3A\_n79A | 1 | 1950 | 5 | 25 | 2140 | 3.6 | IMD5 |
|  | 3 | 1750 | 5 | 25 | 1845 | N/A | N/A |
|  | n79 | 4860 | 40 | 216 | 4860 | N/A | N/A |
| DC\_1A-5A\_n79A | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | 5 | 837.5 | 5 | 25 | 882.5 | 18.3 | IMD3 |
|  | n79 | 4782.5 | 40 | 216 | 4782.5 | N/A | N/A |
|  | 1 | 1930 | 5 | 25 | 2120 | N/A | N/A |
|  | 5 | 837.5 | 5 | 25 | 882.5 | 8.9 | IMD4 |
|  | n79 | 4907.5 | 40 | 216 | 4907.5 | N/A | N/A |
|  | 1 | 1950 | 5 | 25 | 2140 | 8.1 | IMD4 |
|  | 5 | 837.5 | 5 | 25 | 882.5 | N/A | N/A |
|  | n79 | 4652.5 | 40 | 216 | 4652.5 | N/A | N/A |
| DC\_1A-8A\_n28A | 1 | 1970 | 5 | 25 | 2160 | N/A | N/A |
|  | n28 | 730 | 5 | 25 | 785 | N/A | N/A |
|  | 8 | 905 | 5 | 25 | 950 | 3.3 | IMD5 |
| DC\_1A\_n8A-n40A | 1 | 1930 | 5 | 25 | 2120 | N/A | N/A |
|  | n8 | 885 | 5 | 25 | 930 | 8.0 | IMD4 |
|  | n40 | 2395 | 5 | 25 | 2395 | N/A | N/A |
| DC\_1A-8A\_n77A | 1 | 1955 | 5 | 25 | 2145 | N/A | N/A |
|  | n77 | 3410 | 10 | 50 | 3410 | N/A | N/A |
|  | 8 | 910 | 5 | 25 | 955 | 3.3 | IMD5 |
| DC\_1A-8A\_n77A | 8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | n77 | 3960 | 10 | 50 | 3960 | N/A | N/A |
|  | 1 | 1950 | 5 | 25 | 2140 | 14.4 | IMD3 |
| DC\_1A\_n8A-n78A | 1 | 1945 | 5 | 25 | 2135 | N/A | N/A |
|  | n8 | 900 | 5 | 25 | 945 | N/A | N/A |
|  | n78 | 3745 | 10 | 50 | 3745 | 14.9 | IMD3 |
|  | 1 | 1940 | 5 | 25 | 2130 | N/A | N/A |
|  | n8 | 895 | 5 | 25 | 940 | 3.3 | IMD5 |
|  | n78 | 3380 | 10 | 50 | 3330 | N/A | N/A |
| DC\_1A-8A\_n79A | 1 | 1935 | 5 | 25 | 2125 | N/A | N/A |
|  | n79 | 4815 | 40 | 216 | 4815 | N/A | N/A |
|  | 8 | 900 | 5 | 25 | 945 | 15.8 | IMD3 |
| DC\_1A-8A\_n79A | 8 | 900 | 5 | 25 | 945 | N/A | N/A |
|  | n79 | 4845 | 40 | 216 | 4845 | N/A | N/A |
|  | 1 | 1955 | 5 | 25 | 2145 | 8.2 | IMD4 |
| DC\_1A-11A\_n3A | 1 | 1960 | 5 | 25 | 2150 | N/A | N/A |
|  | n3 | 1720 | 5 | 25 | 1815 | N/A | N/A |
|  | 11 | 1432 | 5 | 25 | 1480 | 15.2 | IMD3 |
| DC\_1A-11A\_n77A | 1 | 1955 | 5 | 25 | 2145 | N/A | N/A |
|  | n77 | 3441 | 10 | 50 | 3441 | N/A | N/A |
|  | 11 | 1438 | 5 | 25 | 1486 | 31.4 | IMD2 |
| DC\_1A-11A\_n77A | 11 | 1438 | 5 | 25 | 1486 | N/A | N/A |
|  | n77 | 3578 | 10 | 50 | 3578 | N/A | N/A |
|  | 1 | 1950 | 5 | 25 | 2140 | 30.8 | IMD2 |
| DC\_1A-11A\_n78A | 1 | 1955 | 5 | 25 | 2145 | N/A | N/A |
|  | n78 | 3441 | 10 | 50 | 3441 | N/A | N/A |
|  | 11 | 1438 | 5 | 25 | 1486 | 31.4 | IMD2 |
| DC\_1A-11A\_n78A | 11 | 1438 | 5 | 25 | 1486 | N/A | N/A |
|  | n78 | 3578 | 10 | 50 | 3578 | N/A | N/A |
|  | 1 | 1950 | 5 | 25 | 2140 | 30.8 | IMD2 |
| DC\_1A-18A\_n77A | 1 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 18 | N/A | N/A | N/A | N/A | N/A | IMD5 |
|  | n77 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 1 | 1930 | 5 | 25 | 2120 | 16.4 | IMD3 |
|  | 18 | 825 | 5 | 25 | 870 | N/A | N/A |
|  | n77 | 3770 | 10 | 50 | 3770 | N/A | N/A |
| DC\_1A-18A\_n78A | 1 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 18 | N/A | N/A | N/A | N/A | N/A | IMD5 |
|  | n78 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 1 | 1930 | 5 | 25 | 2120 | 16.4 | IMD3 |
|  | 18 | 819 | 5 | 25 | 864 | N/A | N/A |
|  | n78 | 3758 | 10 | 50 | 3758 | N/A | N/A |
| DC\_1A-18A\_n79A | 1 | 1935 | 5 | 25 | 2125 | N/A | N/A |
|  | 18 | 822.5 | 5 | 25 | 867.5 | 18.3 | IMD3 |
|  | n79 | 4737.5 | 40 | 216 | 4737.5 | N/A | N/A |
|  | 1 | 1930 | 5 | 25 | 2120 | N/A | N/A |
|  | 18 | 820 | 5 | 25 | 865 | 8.9 | IMD4 |
|  | n79 | 4925 | 40 | 216 | 4925 | N/A | N/A |
|  | 1 | 1935 | 5 | 25 | 2125 | 8.1 | IMD4 |
|  | 18 | 822.5 | 5 | 25 | 867.5 | N/A | N/A |
|  | n79 | 4592.5 | 40 | 216 | 4592.5 | N/A | N/A |
| DC\_1A-19A\_n77A  DC\_1A-19A\_n78A | 1 | 1940 | 5 | 25 | 2130 | 17.8 | IMD3 |
|  | 19 | 832.5 | 5 | 25 | 877.5 | N/A | N/A |
|  | n77, n78 | 3795 | 10 | 50 | 3795 | N/A | N/A |
|  | 1 | N/A | N/A | N/A | N/A | N/A | IMD5 |
|  | 19 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | n78 | N/A | N/A | N/A | N/A | N/A | IMD5 |
| DC\_1A-20A\_n8A | 1 | 1925 | 5 | 25 | 2115 | N/A | N/A |
|  | n8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | 20 | 846 | 5 | 25 | 805 | 11.5 | IMD4 |
| DC\_1A-20A\_n38A | 1 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 20 | N/A | N/A | N/A | N/A | N/A | IMD5 |
|  | n38 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_1A-28A\_n3A | 28 | 710.5 | 5 | 25 | 765.5 | N/A | N/A |
|  | n3 | 1780 | 5 | 25 | 1875 | N/A | N/A |
|  | 1 | 1949 | 5 | 25 | 2139 | 11.0 | IMD4 |
| DC\_1A-28A\_n7A  DC\_1A-1A-28A\_n7A  DC\_1A-28A\_n7B  DC\_1A-1A-28A\_n7B | 1 | 1935 | 5 | 25 | 2125 | N/A | N/A |
|  | 28 | 730 | 10 | 50 | 785 | 4.5 | IMD5 |
|  | n7 | 2510 | 10 | 50 | 2630 | N/A | N/A |
| DC\_1A-19A\_n79A | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | 19 | 837.5 | 5 | 25 | 882.5 | 18.3 | IMD3 |
|  | n79 | 4782.5 | 40 | 216 | 4782.5 | N/A | N/A |
|  | 1 | 1950 | 5 | 25 | 2140 | 8.1 | IMD4 |
|  | 19 | 837.5 | 5 | 25 | 882.5 | N/A | N/A |
|  | n79 | 4652.5 | 40 | 216 | 4652.5 | N/A | N/A |
| DC\_1A-20A\_n78A | 1 | 1930 | 5 | 25 | 2120 | 20.3 | IMD3 |
|  | 20 | 835 | 5 | 25 | 794 | N/A | N/A |
|  | n78 | 3790 | 10 | 50 | 3790 | N/A | N/A |
| DC\_1A-20A\_n78A | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | 20 | 851 | 5 | 25 | 810 | 3.0 | IMD5 |
|  | n78 | 3330 | 10 | 50 | 3330 | N/A | N/A |
| DC\_1A-21A\_n77A  DC\_1A-21A\_n78A | 1 | 1964.6 | 5 | 25 | 2154.6 | 30.6 | IMD2 |
|  | 21 | 1450.4 | 5 | 25 | 1498.4 | N/A | N/A |
|  | n77, n78 | 3605 | 10 | 50 | 3605 | N/A | N/A |
|  | 1 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 21 | N/A | N/A | N/A | N/A | N/A | IMD2 |
|  | n78 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | 21 | 1452 | 5 | 25 | 1500 | 2.9 | IMD5 |
|  | n77, n78 | 3675 | 10 | 50 | 3675 | N/A | N/A |
| DC\_1A-21A\_n79A | 1 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 21 | N/A | N/A | N/A | N/A | N/A | IMD4 |
|  | n79 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_1A\_n28A-n40A | 1 | 1930 | 5 | 25 | 2120 | N/A | N/A |
|  | n28 | 743 | 5 | 25 | 798 | N/A | N/A |
|  | n40 | 2374 | 5 | 25 | 2374 | 10.1 | IMD4 |
|  | 1 | 1930 | 5 | 25 | 2120 | N/A | N/A |
|  | n28 | 713 | 5 | 25 | 768 | 8.6 | IMD4 |
|  | n40 | 2314 | 5 | 25 | 2314 | N/A | N/A |
| DC\_1A-28A\_n40A | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | 28 | 725 | 5 | 25 | 780 | 8.9 | IMD4 |
|  | n40 | 2340 | 5 | 25 | 2340 | N/A | N/A |
| DC\_1A-28A\_n77A | 1 | 1960 | 5 | 25 | 2150 | 15.8 | IMD3 |
|  | 28 | 740 | 5 | 25 | 795 | N/A | N/A |
|  | n77 | 3630 | 10 | 50 | 3630 | N/A | N/A |
| DC\_1A-28A\_n77A | 1 | 1960 | 5 | 25 | 2150 | N/A | N/A |
|  | 28 | 725 | 5 | 25 | 780 | 4.3 | IMD5 |
|  | n77 | 3330 | 10 | 50 | 3330 | N/A | N/A |
| DC\_1A-28A\_n77A DC\_1A-28A\_n78A | 1 | 1960 | 5 | 25 | 2150 | 15.7 | IMD3 |
|  | 28 | 740 | 5 | 25 | 795 | N/A | N/A |
|  | n77/n78 | 3630 | 10 | 50 | 3630 | N/A | N/A |
| DC\_1A-28A\_n77A DC\_1A-28A\_n78A | 1 | 1970 | 5 | 25 | 2160 | N/A | N/A |
|  | 28 | 739 | 5 | 25 | 794 | 4.2 | IMD5 |
|  | n77/n78 | 3352 | 10 | 50 | 3352 | N/A | N/A |
| DC\_1A\_n28A-n78A | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | n28 | 733 | 5 | 25 | 788 | N/A | N/A |
|  | n78 | 3416 | 10 | 50 | 3416 | 15.7 | IMD3 |
|  | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | n78 | 3320 | 10 | 50 | 3320 | N/A | N/A |
|  | n28 | 735 | 5 | 25 | 790 | 3.3 | IMD5 |
| DC\_1A-28A\_n79A | 1 | 1930 | 5 | 25 | 2120 | N/A | N/A |
|  | 28 | 733 | 5 | 25 | 788 | 15.2 | IMD3 |
|  | n79 | 4648 | 40 | 216 | 4648 | N/A | N/A |
|  | 1 | 1925 | 5 | 25 | 2115 | N/A | N/A |
|  | 28 | 740 | 5 | 25 | 795 | 10.0 | IMD4 |
|  | n79 | 4980 | 40 | 216 | 4980 | N/A | N/A |
|  | 1 | 1977.5 | 5 | 25 | 2167.5 | 1.2 | IMD4 |
|  | 28 | 745.5 | 5 | 25 | 800.5 | N/A | N/A |
|  | n79 | 4420 | 40 | 216 | 4420 | N/A | N/A |
|  | 1 | 1935 | 5 | 25 | 2125 | 4.5 | IMD5 |
|  | 28 | 718 | 5 | 25 | 773 | N/A | N/A |
|  | n79 | 4807 | 40 | 216 | 4807 | N/A | N/A |
| DC\_1A-32A\_n78A  DC\_1A-32A\_n78(2A) | 1 | 1930 | 5 | 25 | 2120 | N/A | N/A |
|  | 32 | N/A | 5 | 25 | 1470 | 31.8 | IMD2 |
|  | n78 | 3400 | 10 | 50 | 3400 | N/A | N/A |
|  | 1 | 1930 | 5 | 25 | 2120 | N/A | N/A |
|  | 32 | N/A | 5 | 25 | 1470 | 0 | IMD5 |
|  | n78 | 3630 | 10 | 50 | 3630 | N/A | N/A |
| DC\_1A\_n40A-n78A  DC\_1A\_n40A-n78(2A) | 1 | 1930 | 5 | 25 | 2120 | N/A | N/A |
|  | n40 | 2340 | 5 | 25 | 2340 | N/A | N/A |
|  | n78 | 3450 | 10 | 50 | 3450 | 9.8 | IMD4 |
|  | 1 | 1960 | 5 | 25 | 2150 | N/A | N/A |
|  | n40 | 2360 | 5 | 25 | 2360 | 10.6 | IMD4 |
|  | n78 | 3520 | 10 | 50 | 3520 | N/A | N/A |
| DC\_1A-41A\_n3A  DC\_1A-41C\_n3A | 1 | 1977.5 | 5 | 25 | 2167.5 | N/A | N/A |
|  | n3 | 1712.5 | 5 | 25 | 1807.5 | N/A | N/A |
|  | 41 | 2507.5 | 5 | 25 | 2507.5 | 5.0 | IMD5 |
| DC\_1A-41A\_n28A | 1 | 1935 | 5 | 25 | 2125 | N/A | N/A |
|  | n28 | 718 | 5 | 25 | 773 | N/A | N/A |
|  | 41 | 2653 | 10 | 50 | 2653 | 30 | IMD2 |
| DC\_1A-41A\_n77A  DC\_1A-41C\_n77A  DC\_1A-41A\_n77(2A)  DC\_1A-41C\_n77(2A) | 1 | 1970 | 5 | 25 | 2160 | N/A | N/A |
|  | n77 | 3400 | 10 | 50 | 3400 | N/A |  |
|  | 41 | 2510 | 5 | 25 | 2510 | N/A | IMD4 |
|  | 1 | 1950 | 5 | 25 | 2140 | 9.3 | IMD4 |
|  | n77 | 3710 | 10 | 50 | 3710 | N/A | N/A |
|  | 41 | 2640 | 5 | 25 | 2640 | N/A | N/A |
|  | 1 | 1930 | 5 | 25 | 2120 | 11.0 | N/A |
|  | n77 | 4150 | 10 | 50 | 4150 | N/A |  |
|  | 41 | 2510 | 5 | 25 | 2510 | N/A | IMD5 |
| DC\_1A-41A\_n78A  DC\_1A-41C\_n78A  DC\_1A-41A\_n78(2A)  DC\_1A-41C\_n78(2A) | 1 | 1950 | 5 | 25 | 2140 | 9.3 | IMD4 |
|  | 41 | 2640 | 5 | 25 | 2640 | N/A | N/A |
|  | n78 | 3710 | 10 | 50 | 3710 | N/A | N/A |
|  | 1 | 1975 | 5 | 25 | 2165 | N/A | N/A |
|  | 41 | 2515 | 5 | 25 | 2515 | 12 | IMD4 |
|  | n78 | 3410 | 10 | 50 | 3410 | N/A | N/A |
| DC\_1A-41A\_n78A | 1 | 1955 | 5 | 25 | 2145 | 8.7 | IMD4 |
|  | 41 | 2507.5 | 10 | 50 | 2507.5 | N/A | N/A |
|  | n78 | 3580 | 10 | 50 | 3580 | N/A | N/A |
| DC\_1A\_n41A-n78A | 1 | 1975 | 5 | 25 | 2165 | N/A | N/A |
|  | n41 | 2515 | 10 | 50 | 2515 | 11.5 | IMD4 |
|  | n78 | 3410 | 10 | 50 | 3410 | N/A | N/A |
|  | 1 | 1970 | 5 | 25 | 2160 | N/A | N/A |
|  | n41 | 2650 | 10 | 25 | 2650 | N/A | N/A |
|  | n78 | 3330 | 10 | 50 | 3330 | 19.6 | IMD3 |
| DC\_1A-41A\_n79A | 1 | 1970 | 5 | 25 | 2160 | N/A | N/A |
|  | n79 | 4500 | 40 | 216 | 4500 | N/A |  |
|  | 41 | 2530 | 5 | 25 | 2530 | 29.4 | IMD2 |
| DC\_1A\_n75A-n78A  DC\_1A\_n75A-n78(2A) | 1 | 1930 | 5 | 25 | 2120 | N/A | N/A |
|  | n78 | 3400 | 10 | 50 | 3400 | N/A | N/A |
|  | n75 | - | - | - | 1470 | 30.4 | IMD2 |
| DC\_1A-42A\_n28A | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | n28 | 733 | 5 | 25 | 788 | N/A | N/A |
|  | 42 | 3416 | 5 | 25 | 3416 | 15.7 | IMD3 |
| DC\_1A-42A\_n28A | 42 | 3580 | 5 | 25 | 3580 | N/A | N/A |
|  | n28 | 723 | 5 | 25 | 778 | N/A | N/A |
|  | 1 | 1944 | 5 | 25 | 2134 | 15.7 | IMD3 |
| DC\_1A-42A\_n79A | 1 | 1977.5 | 5 | 25 | 2167.5 | N/A | N/A |
|  | n79 | 4420 | 40 | 216 | 4420 | N/A | N/A |
|  | 42 | 3490 | 5 | 25 | 3490 | 4.8 | IMD5 |
|  | 42 | 3402.5 | 5 | 25 | 3402.5 | N/A | N/A |
|  | n79 | 4640 | 40 | 216 | 4640 | N/A | N/A |
|  | 1 | 1975 | 5 | 25 | 2165 | 15.5 | IMD3 |
|  | 42 | 3450 | 5 | 25 | 3450 | N/A | N/A |
|  | n79 | 4520 | 40 | 216 | 4520 | N/A | N/A |
|  | 1 | 1950 | 5 | 25 | 2140 | 9.3 | IMD4 |
| DC\_1A\_SUL\_n77A-n80A | 1 | 1950 | 5 | 25 | 2140 | 23 | IMD3 |
|  | n80 | 1760 | 5 | 25 |  | N/A | N/A |
| DC\_1A\_SUL\_n77A-n80A | 1 | 1922.5 | 5 | 25 | 2112.5 | N/A | N/A |
|  | n80 | 1782.5 | 5 | 25 |  | N/A | N/A |
|  | n78 | 3425 | 10 | 50 | 3425 | 13.0 | IMD4 |
| DC\_1A\_n78A-n79A | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | n78 | 3410 | 10 | 50 | 3410 | N/A | N/A |
|  | n79 | 4870 | 40 | 216 | 4870 | 15.9 | IMD3 |
|  | 1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | n79 | 4670 | 40 | 216 | 4670 | N/A | N/A |
|  | n78 | 3490 | 10 | 50 | 3490 | 4.6 | IMD5 |
| DC\_1A\_SUL\_n78A-n80A | 1 | 1950 | 5 | 25 | 2140 | 23 | IMD3 |
|  | n80 | 1760 | 5 | 25 |  | N/A | N/A |
|  | 1 | 1922.5 | 5 | 25 | 2112.5 | N/A | N/A |
|  | n80 | 1782.5 | 5 | 25 |  | N/A | N/A |
|  | n78 | 3425 | 10 | 50 | 3425 | 13.0 | IMD4 |
| DC\_2A-4A\_n41A | 2 | 1860 | 5 | 25 | 1940 | 11.0 | IMD4 |
|  | 4 | 1715 | 5 | 25 | 2115 | N/A | N/A |
|  | n41 | 2685 | 10 | 50 | 2685 | N/A | N/A |
| DC\_2A-5A\_n71A | 2 | 1855 | 5 | 25 | 1935 | N/A | N/A |
|  | n71 | 686.5 | 5 | 25 | 640.5 | N/A | N/A |
|  | 5 | 846.5 | 5 | 25 | 891.5 | 4.2 | IMD5 |
| DC\_2A-7A\_n78A  DC\_2A-7C\_n78A  DC\_2A-7A-7A\_n78A  DC\_2A-7A\_n78(2A)  DC\_2A-7C\_n78(2A)  DC\_2A-7A-7A\_n78(2A) | 2 | 1870 | 5 | 25 | 1950 | 8.6 | IMD4 |
|  | 7 | 2550 | 5 | 25 | 2685 | N/A | N/A |
|  | n78 | 3525 | 10 | 50 | 3475 | N/A | N/A |
| DC\_2A\_n7A-n78A,  DC\_2A\_n7(2A)-n78A  DC\_2A\_n7A-n78(2A)  DC\_2A\_n7(2A)-n78(2A) | 2 | 1900 | 5 | 25 | 1980 | N/A | N/A |
|  | n7 | 2525 | 5 | 25 | 2645 | N/A | N/A |
|  | n78 | 3775 | 10 | 50 | 3775 | 4.2 | IMD5 |
| DC\_2A\_12A-n66A | 2 | N/A | N/A | N/A | N/A | N/A | IMD4 |
|  | 12 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | n66 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_2A-13A\_n66A  DC\_2A-2A-13A\_n66A | 2 | 1860 | 5 | 25 | 1940 | 6.2 | IMD4 |
|  | 13 | 780 | 10 | 50 | 749 | N/A | N/A |
|  | n66 | 1750 | 5 | 25 | 2150 | N/A | N/A |
| DC\_2A\_n38A-n78A | 2 | 1870 | 5 | 25 | 1950 | N/A | N/A |
|  | n38 | 2610 | 10 | 50 | 2610 | N/A | N/A |
|  | n78 | 3350 | 10 | 50 | 3350 | 14.8 | IMD3 |
| DC\_2A-14A\_n66A | 2 | 1874 | 5 | 25 | 1954 | 7.2 | IMD4 |
|  | 14 | 793 | 5 | 25 | 763 | N/A | N/A |
|  | 66 | 1770 | 5 | 25 | 2170 | N/A | N/A |
| DC\_2A\_n41A-n71A | 2 | 1900 | 5 | 25 | 1980 | N/A | N/A |
|  | n41 | 2530 | 10 | 50 | 2530 | N/A | N/A |
|  | n71 | 676 | 5 | 50 | 630 | 28.7 | IMD2 |
|  | 2 | 1900 | 5 | 25 | 1980 | N/A | N/A |
|  | n41 | 2586 | 10 | 50 | 2586 | 29.2 | IMD2 |
|  | n71 | 686 | 5 | 50 | 640 | N/A | N/A |
| DC\_2A-46A\_n66A5  DC\_2A-46C\_n66A5  DC\_2A-46D\_n66A5 | 2 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 46 | N/A | N/A | N/A | N/A | N/A | IMD3,  IMD5 |
|  | n66 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_2A-48A\_n66A | 2 | 1880 | 5 | 25 | 1960 | N/A | N/A |
|  | 48 | 3620 | 10 | 50 | 3620 | 29.4 | IMD2 |
|  | n66 | 1740 | 5 | 25 | 2140 | N/A | N/A |
|  | 2 | 1880 | 5 | 25 | 1960 | 28.3 | IMD2 |
|  | 48 | 3695 | 5 | 25 | 3695 | N/A | N/A |
|  | n66 | 1735 | 5 | 25 | 2135 | N/A | N/A |
| DC\_2A-66A\_n2A | 2 | 1900 | 5 | 25 | 1980 | 20 | IMD3 |
| 66 | 1730 | 5 | 25 | 2130 | N/A | N/A |
| n2 | 1855 | 5 | 25 | 1935 | N/A | N/A |
| DC\_2A-66A\_n5A | 2 | 1900 | 5 | 25 | 1980 | N/A | N/A |
|  | 66 | 1740 | 5 | 25 | 2140 | 7.2 | IMD4 |
|  | n5 | 830 | 5 | 25 | 875 | N/A | N/A |
| DC\_2A-66A\_n25A | 2 | 1855 | 5 | 25 | 1935 | 20 | IMD3 |
|  | 66 | 1775 | 5 | 25 | 2175 | N/A | N/A |
|  | n25 | 1855 | 5 | 25 | 1935 | 20 | IMD3 |
|  | 2 | 1883.3 | 5 | 25 | 1963.3 | N/A | N/A |
|  | 66 | 1750 | 5 | 25 | 2150 | 4 | IMD5 |
|  | n25 | 1883.3 | 5 | 25 | 1963.3 | N/A | N/A |
|  | 2 | 1883.3 | 5 | 25 | 1963.3 | N/A | N/A |
|  | 66 | 1712.5 | 5 | 25 | 2112.5 | 23 | IMD3 |
|  | n25 | 1912.5 | 5 | 25 | 1992.5 | N/A | N/A |
| DC\_2A-66A\_n41A  DC\_2A-66A\_n41C  DC\_2A-66A\_n41(2A) | 2 | 1860 | 5 | 25 | 1940 | 11.0 | IMD4 |
|  | 66 | 1715 | 5 | 25 | 2115 | N/A | N/A |
|  | n41 | 2685 | 5 | 25 | 2685 | N/A | N/A |
| DC\_2A-66A\_n48A  DC\_2A-66A\_n48B  DC\_2A-66A-66A\_n48A  DC\_2A-66A-66A\_n48B | 2 | 1905 | 5 | 25 | 1985 | N/A | N/A |
|  | 66 | 1755 | 5 | 25 | 2155 | 12.1 | IMD4 |
|  | n48 | 3560 | 5 | 25 | 3560 | N/A | N/A |
| DC\_2A-66A\_n48A  DC\_2A-66A\_n48B  DC\_2A-66A-66A\_n48A  DC\_2A-66A-66A\_n48B | 2 | 1880 | 5 | 25 | 1960 | 28.3 | IMD5 |
|  | 66 | 1735 | 5 | 25 | 2135 | N/A | N/A |
|  | n48 | 3695 | 5 | 25 | 3695 | N/A | N/A |
| DC\_2A-66A\_n78A  DC\_2A-66A\_n78(2A)  DC\_2A-66A-66A\_n78A  DC\_2A-66A-66A\_n78(2A)  DC\_2A\_n66A-n78A | 2 | 1880 | 5 | 25 | 1960 | N/A | N/A |
|  | 66/n66 | 1760 | 5 | 25 | 2160 | 10.3 | IMD4 |
|  | n78 | 3480 | 10 | 50 | 3480 | N/A | N/A |
| DC\_2A-66A\_n78A  DC\_2A-66A\_n78(2A)  DC\_2A-66A-66A\_n78A  DC\_2A-66A-66A\_n78(2A) | 2 | 1880 | 5 | 25 | 1960 | 32.1 | IMD2 |
|  | 66 | 1740 | 5 | 25 | 2140 | N/A | N/A |
|  | n78 | 3700 | 10 | 50 | 3700 | N/A | N/A |
| DC\_2A-66A\_n78A  DC\_2A-66A\_n78(2A)  DC\_2A-66A-66A\_n78A  DC\_2A-66A-66A\_n78(2A) | 2 | 1880 | 5 | 25 | 1960 | 9.1 | IMD4 |
|  | 66 | 1770 | 5 | 25 | 2170 | N/A | N/A |
|  | n78 | 3350 | 10 | 50 | 3350 | N/A | N/A |
| DC\_2A-66A\_n78A  DC\_2A-66A\_n78(2A)  DC\_2A-66A-66A\_n78A  DC\_2A-66A-66A\_n78(2A) | 2 | 1880 | 5 | 25 | 1960 | 2.1 | IMD5 |
|  | 66 | 1760 | 5 | 25 | 2160 | N/A | N/A |
|  | n78 | 3620 | 10 | 50 | 3620 | N/A | N/A |
| DC\_2A\_n66A-n78A | 2 | 1880 | 5 | 25 | 1960 | N/A | N/A |
|  | n66 | 1740 | 5 | 25 | 2140 | N/A | N/A |
|  | n78 | 3620 | 10 | 50 | 3620 | 29.4 | IMD2 |
|  | 2 | 1880 | 5 | 25 | 1960 | N/A | N/A |
|  | n66 | 1740 | 5 | 25 | 2140 | N/A | N/A |
|  | n78 | 3340 | 10 | 50 | 3340 | 8.9 | IMD4 |
| DC\_2A-71A\_n38A DC\_2A-2A-71A\_n38A | 2 | 1862 | 5 | 25 | 1942 | 26 | IMD2 |
|  | 71 | 668 | 5 | 25 | 622 | N/A | N/A |
|  | n38 | 2610 | 10 | 50 | 2610 | N/A | N/A |
| DC\_2A-71A\_n78A DC\_2A-2A-71A\_n78A | 2 | 1874 | 5 | 25 | 1954 | 16.5 | IMD3 |
|  | 71 | 693 | 5 | 25 | 647 | N/A | N/A |
|  | n78 | 3340 | 10 | 50 | 3340 | N/A | N/A |
| DC\_3A\_n1A-n28A  DC\_3C\_n1A-n28A | 3 | 1780 | 5 | 25 | 1875 | N/A | N/A |
|  | n28 | 710.5 | 5 | 25 | 765.5 | N/A | N/A |
|  | n1 | 1949 | 5 | 25 | 2139 | 11.0 | IMD4 |
| DC\_3A\_n1A-n40A | n1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | 3 | 1735 | 5 | 25 | 1830 | N/A | N/A |
|  | 40 | 2380 | 5 | 25 | 2380 | 8.0 | IMD5 |
| DC\_3A\_n1A-n77A | 3 | 1750 | 5 | 25 | 1845 | N/A | N/A |
|  | n1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | n77 | 3700 | 10 | 50 | 3700 | 28.4 | IMD2 |
|  | 3 | 1775 | 5 | 25 | 1870 | N/A | N/A |
|  | n1 | 1950 | 5 | 25 | 2140 | 31.0 | IMD2 |
|  | n77 | 3915 | 10 | 50 | 3915 | N/A | N/A |
| DC\_3A\_n1A-n78A  DC\_3C\_n1A-n78A | 3 | 1750 | 5 | 25 | 1845 | N/A | N/A |
|  | n1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | n78 | 3700 | 10 | 50 | 3700 | 28.4 | IMD2 |
|  | 3 | 1770 | 5 | 25 | 1865 | N/A | N/A |
|  | n1 | 1940 | 5 | 25 | 2130 | 3.5 | IMD5 |
|  | n78 | 3720 | 10 | 50 | 3720 | N/A | N/A |
| DC\_3A-5A\_n78A | 3 | N/A | N/A | N/A | N/A | N/A | IMD3 |
|  | 5 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | n78 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_3A-5A\_n79A | 3 | 1775 | 5 | 25 | 1870 | N/A | N/A |
|  | 5 | 840 | 5 | 25 | 885 | 18.5 | IMD3 |
|  | n79 | 4435 | 40 | 216 | 4435 | N/A | N/A |
|  | 3 | 1782.5 | 5 | 25 | 1877.5 | 0.2 | IMD4 |
|  | 5 | 842.5 | 5 | 25 | 887.5 | N/A | N/A |
|  | n79 | 4420 | 40 | 216 | 4420 | N/A | N/A |
| DC\_3A-7A\_n5A | 3 | 1780 | 10 | 50 | 1875 | N/A | N/A |
|  | 7 | 2505 | 10 | 50 | 2625 | 30.0 | IMD21 |
|  | n5 | 845 | 5 | 25 | 890 | N/A | N/A |
| DC\_3A-7A\_n8A | 3 | 1780 | 5 | 25 | 1875 | N/A | N/A |
|  | n8 | 890 | 5 | 25 | 935 | N/A | N/A |
|  | 7 | 2550 | 10 | 50 | 2670 | 29.0 | IMD2  IMD33 |
| DC\_3A-7A\_n28A  DC\_3A-7C\_n28A  DC\_3C-7A\_n28A  DC\_3C-7C\_n28A | 3 | 1712.5 | 5 | 25 | 1807.5 | N/A | N/A |
|  | n28 | 743 | 5 | 25 | 798 | N/A | N/A |
|  | 7 | 2562 | 10 | 50 | 2682 | 16.9 | IMD3 |
|  | 7 | 2543 | 10 | 50 | 2663 | N/A | N/A |
|  | n28 | 710.5 | 5 | 25 | 765.5 | N/A | N/A |
|  | 3 | 1737.5 | 5 | 25 | 1832.5 | 26.0 | IMD2 |
| DC\_3A-18A\_n77A  DC\_3A-18A\_n78A | 3 | N/A | N/A | N/A | N/A | N/A | IMD3 |
|  | 18 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | n77, n78 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_3A-19A\_n78A | 3 | N/A | N/A | N/A | N/A | N/A | IMD3 |
|  | 19 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | n78 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_3A\_n7A-n28A | 3 | 1747 | 5 | 25 | 1842 | N/A | N/A |
| DC\_3C\_n7A-n28A | n7 | 2543 | 5 | 25 | 2663 | N/A | N/A |
|  | n28 | 741 | 5 | 25 | 796.0 | 20.0 | IMD2 |
|  | 3 | 1712.5 | 5 | 25 | 1807.5 | N/A | N/A |
|  | n7 | 2562 | 5 | 25 | 2682 | 17.0 | IMD3 |
|  | n28 | 743 | 5 | 25 | 798 | N/A | N/A |
| DC\_3A-7A\_n40A | 3 | 1771.6 | 5 | 25 | 1866.6 | 3.4 | IMD5 |
|  | 7 | 2530 | 5 | 25 | 2650 | N/A | N/A |
|  | n40 | 2310 | 5 | 25 | 2310 | N/A | N/A |
| DC\_3A-7A\_n77A | 3 | 1725 | 5 | 25 | 1820 | 17.6 | IMD3 |
|  | 7 | 2565 | 5 | 25 | 2685 | N/A | N/A |
|  | n77 | 3310 | 10 | 50 | 3310 | N/A | N/A |
| DC\_3A-7A\_n77A | 3 | 1725 | 5 | 25 | 1820 | 8.6 | IMD4 |
|  | 7 | 2565 | 5 | 25 | 2685 | N/A | N/A |
|  | n77 | 3475 | 10 | 50 | 3475 | N/A | N/A |
| DC\_3A-7A\_n77A | 3 | 1715 | 5 | 25 | 1810 | N/A | N/A |
|  | 7 | 2550 | 5 | 25 | 2670 | 5.2 | IMD5 |
|  | n77 | 4190 | 10 | 50 | 4190 | N/A | N/A |
| DC\_3A-7A\_n77A | 3 | 1720 | 5 | 25 | 1815 | N/A | N/A |
|  | 7 | 2520 | 5 | 25 | 2640 | 3.4 | IMD5 |
|  | n77 | 3900 | 10 | 50 | 3900 | N/A | N/A |
| DC\_3A-7A\_n78A  DC\_3C-7A\_n78A DC\_3C-7C\_n78A  DC\_3A-3A-7A\_n78A  DC\_3A-3A-7A-7A\_n78A  DC\_3A-7A\_SUL\_n78A-n80A  DC\_3C-7A\_SUL\_n78A-n80A  DC\_3A-7A\_n78(2A)  DC\_3C-7A\_n78(2A)  DC\_3A-7C\_n78(2A)  DC\_3C-7C\_n78(2A) | 3 | 1725 | 5 | 25 | 1820 | 17.6 | IMD3 |
|  | 7 | 2565 | 5 | 25 | 2685 | N/A | N/A |
|  | n78 | 3310 | 10 | 50 | 3310 | N/A | N/A |
|  | 3 | 1725 | 5 | 25 | 1820 | 8.6 | IMD4 |
|  | 7 | 2565 | 5 | 25 | 2685 | N/A | N/A |
|  | n78 | 3475 | 10 | 50 | 3475 | N/A | N/A |
| DC\_3A-8A\_n77A | 3 | 1715 | 5 | 25 | 1810 | N/A | N/A |
|  | n77 | 4190 | 10 | 50 | 4190 | N/A | N/A |
|  | 8 | 910 | 5 | 25 | 955 | 9.7 | IMD4 |
| DC\_3A-8A\_n77A | 8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | n77 | 3640 | 10 | 50 | 3640 | N/A | N/A |
|  | 3 | 1725 | 5 | 25 | 1820 | 16.5 | IMD3 |
| DC\_3A-8A\_n78A  DC\_3A-3A-8A\_n78A | 8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | n78 | 3640 | 10 | 50 | 3640 | N/A | N/A |
|  | 3 | 1725 | 5 | 25 | 1820 | 16.5 | IMD3 |
| DC\_3A\_n8A-n78A | 3 | 1740 | 5 | 25 | 1835 | N/A | N/A |
|  | n8 | 900 | 5 | 25 | 945 | N/A | N/A |
|  | n78 | 3540 | 10 | 50 | 3540 | 16.3 | IMD3 |
| DC\_3A-8A\_n79A | 3 | 1755 | 5 | 25 | 1850 | N/A | N/A |
|  | n79 | 4465 | 40 | 216 | 4465 | N/A | N/A |
|  | 8 | 910 | 5 | 25 | 955 | 15.3 | IMD3 |
| DC\_3A-8A\_n79A | 8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | n79 | 4580 | 40 | 216 | 4580 | N/A | N/A |
|  | 3 | 1755 | 5 | 25 | 1850 | 8.8 | IMD4 |
| DC\_3A\_n7A-n78A  DC\_3A\_n7B-n78A  DC\_3C\_n7A-n78A  DC\_3C\_n7B-n78A | 3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
| DC\_3A\_n7A-n78(2A) | n7 | 2560 | 5 | 25 | 2680 | N/A | N/A |
| DC\_3C\_n7A-n78(2A) | n78 | 3390 | 10 | 50 | 3390 | 16.1 | IMD3 |
| DC\_3A-19A\_n79A | 3 | 1775 | 5 | 25 | 1870 | N/A | N/A |
|  | 19 | 840 | 5 | 25 | 885 | 18.5 | IMD3 |
|  | n79 | 4435 | 40 | 216 | 4435 | N/A | N/A |
|  | 3 | 1782.5 | 5 | 25 | 1877.5 | 0.2 | IMD4 |
|  | 19 | 842.5 | 5 | 25 | 887.5 | N/A | N/A |
|  | n79 | 4420 | 40 | 216 | 4420 | N/A | N/A |
| DC\_3A-20A\_n7A  DC\_3C-20A\_n7A | 3 | 1737 | 5 | 25 | 1832 | N/A | N/A |
|  | 20 | 847 | 10 | 20 | 806 | 10.5 | IMD2 |
|  | n7 | 2543 | 10 | 50 | 2663 | N/A | N/A |
| DC\_3A-20A\_n8A | 3 | 1720 | 5 | 25 | 1815 | N/A | N/A |
|  | n8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | 20 | 851 | 5 | 25 | 810 | 27 | IMD2 |
| DC\_3A-20A\_n8A | 3 | 1765 | 5 | 25 | 1860 | 14.5 | IMD4 |
|  | n8 | 900 | 5 | 25 | 945 | N/A | N/A |
|  | 20 | 840 | 5 | 25 | 799 | N/A | N/A |
| DC\_3A-20A\_n28A  DC\_3C-20A\_n28A | 20 | 852 | 5 | 25 | 811 | N/A | N/A |
|  | n28 | 728 | 5 | 25 | 783 | N/A | N/A |
|  | 3 | 1733 | 5 | 25 | 1828 | 9.4 | IMD4 |
| DC\_3A-20A\_n38A | 3 | 1779 | 5 | 25 | 1874 | N/A | N/A |
|  | 20 | 852 | 10 | 20 | 811 | 26.0 | IMD21 |
|  | n38 | 2590 | 10 | 50 | 2590 | N/A | N/A |
| DC\_3A-20A\_n41A  DC\_3C-20A\_n41A | 3 | 1744 | 5 | 25 | 1839 | 26.0 | IMD2 |
|  | n41 | 2680 | 10 | 50 | 2680 | N/A | N/A |
|  | 20 | 841 | 10 | 50 | 800 | N/A | N/A |
| DC\_3A-20A\_n41A  DC\_3C-20A\_n41A | 3 | 1779 | 5 | 25 | 1874 | N/A | N/A |
|  | n41 | 2590 | 10 | 50 | 2590 | N/A | N/A |
|  | 20 | 852 | 10 | 50 | 811 | 26.0 | IMD2 |
| DC\_3A-20A\_n41A  DC\_3C-20A\_n41A | 3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
|  | n41 | 2660 | 10 | 50 | 2660 | N/A | N/A |
|  | 20 | 841 | 5 | 25 | 800 | 12.5 | IMD3 |
| DC\_3A\_20A\_SUL\_n78A-n80A  DC\_3C\_20A\_SUL\_n78A-n80A | 3 | 1725 | 5 | 25 | 1820 | 17.3 | IMD3 |
|  | 20 | 845 | 5 | 25 | 804 | N/A | N/A |
|  | n78 | 3510 | 10 | 50 | 3510 | N/A | N/A |
| DC\_3A\_n20A-n78A | 3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
|  | n20 | 845 | 5 | 25 | 804 | N/A | N/A |
|  | n78 | 3420 | 10 | 50 | 3420 | 16.1 | IMD3 |
| DC\_3A-20A\_n78A  DC\_3C-20A\_n78A | 3 | 1725 | 5 | 25 | 1820 | 17.3 | IMD3 |
|  | 20 | 845 | 5 | 25 | 804 | N/A | N/A |
|  | n78 | 3510 | 10 | 50 | 3510 | N/A | N/A |
| DC\_3A-21A\_n77A  DC\_3A-21A\_n78A | 3 | 1767.5 | 5 | 25 | 1862.5 | N/A | N/A |
|  | 21 | 1459.5 | 5 | 25 | 1507.5 | 8.8 | IMD4 |
|  | n77, n78 | 3795 | 10 | 50 | 3795 | N/A | N/A |
|  | 3 | N/A | N/A | N/A | N/A | N/A | IMD2 |
|  | 21 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | n78 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_3A-21A\_n77A | 3 | 1771.6 | 5 | 25 | 1866.6 | 3.4 | IMD5 |
|  | 21 | 1450.4 | 5 | 25 | 1498.4 | N/A | N/A |
|  | n77 | 3935 | 10 | 50 | 3935 | N/A | N/A |
| DC\_3A-21A\_n79A | 3 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 21 | N/A | N/A | N/A | N/A | N/A | IMD3 |
|  | n79 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 3 | 1774.2 | 5 | 25 | 1869.2 | 17.8 | IMD3 |
|  | 21 | 1450.4 | 5 | 25 | 1498.4 | N/A | N/A |
|  | n79 | 4770 | 40 | 216 | 4770 | N/A | N/A |
| DC\_3A-28A\_n5A  DC\_3C-28A\_n5A | 3 | 1735 | 5 | 25 | 1830 | 8.7 | IMD4 |
|  | 28 | 705 | 5 | 25 | 798 | N/A | N/A |
|  | n5 | 845 | 5 | 25 | 874 | N/A | N/A |
|  | 3 | 1750 | 5 | 25 | 1845 | N/A | N/A |
|  | 28 | 730 | 5 | 25 | 785 | 9.4 | IMD4 |
|  | n5 | 845 | 5 | 25 | 874 | N/A | N/A |
| DC\_3A-28A\_n7A  DC\_3C-28A\_n7A  DC\_3A-3A-28A\_n7A  DC\_3A-28A\_n7B  DC\_3C-28A\_n7B  DC\_3A-3A-28A\_n7B | 3 | 1737.5 | 5 | 25 | 1832.5 | 26.0 | IMD2 |
|  | 28 | 710.5 | 5 | 25 | 765.5 | N/A | N/A |
|  | n7 | 2543 | 10 | 50 | 2663 | N/A | N/A |
|  | 3 | 1747 | 5 | 25 | 1842 | N/A | N/A |
|  | 28 | 741 | 5 | 25 | 796.0 | 20.0 | IMD2 |
|  | n7 | 2543 | 5 | 25 | 2663 | N/A | N/A |
| DC\_3A-28A\_n77A | 3 | 1712.5 | 5 | 25 | 1807.5 | N/A | N/A |
|  | 28 | 715 | 5 | 25 | 770 | 15.3 | IMD3 |
|  | n77 | 4195 | 10 | 50 | 4195 | N/A | N/A |
|  | 3 | 1755 | 5 | 25 | 1850 | 17.0 | IMD3 |
|  | 28 | 735 | 5 | 25 | 790 | N/A | N/A |
|  | n77 | 3320 | 10 | 50 | 3320 | N/A | N/A |
| DC\_3A\_n28A-n77A | 3 | 1720 | 5 | 25 | 1815 | N/A | N/A |
|  | 28 | 733 | 5 | 25 | 788 | N/A | N/A |
|  | n77 | 4173 | 10 | 50 | 4173 | 15.9 | IMD3 |
|  | 3 | 1712.5 | 5 | 25 | 1807.5 | N/A | N/A |
|  | 28 | 715 | 5 | 25 | 770 | 15.3 | IMD3 |
|  | n77 | 4195 | 10 | 50 | 4195 | N/A | N/A |
| DC\_3A-28A\_n41A | 3 | 1720 | 5 | 25 | 1815 | N/A | N/A |
|  | n41 | 2510 | 5 | 25 | 2510 | N/A | N/A |
|  | 28 | 735 | 5 | 25 | 790 | 26.0 | IMD21 |
|  | 3 | 1737.5 | 5 | 25 | 1832.5 | 26.0 | IMD2 |
|  | n41 | 2543 | 10 | 50 | 2543 | N/A | N/A |
|  | 28 | 710.5 | 5 | 25 | 765.5 | N/A | N/A |
| DC\_3A-28A\_n78A  DC\_3C-28A\_n78A  DC\_3A-3A-28A\_n78A | 3 | 1775 | 5 | 25 | 1870 | 17.3 | IMD3 |
|  | 28 | 740 | 5 | 25 | 760 | N/A | N/A |
|  | n78 | 3350 | 10 | 25 | 3350 | N/A | N/A |
| DC\_3A-28A\_n79A | 3 | 1770 | 5 | 25 | 1865 | N/A | N/A |
|  | 28 | 725 | 5 | 25 | 780 | 10.3 | IMD4 |
|  | n79 | 4530 | 40 | 216 | 4530 | N/A | N/A |
|  | 3 | 1775 | 5 | 25 | 1870 | 5.7 | IMD5 |
|  | 28 | 725 | 5 | 25 | 780 | N/A | N/A |
|  | n79 | 4770 | 40 | 216 | 4770 | N/A | N/A |
| DC\_3A\_n28A-n78A  DC\_3C\_n28A-n78A | 3 | 1750 | 5 | 25 | 1845 | N/A | N/A |
|  | n28 | 743 | 5 | 25 | 798 | N/A | N/A |
|  | n78 | 3764 | 10 | 50 | 3764 | 4.5 | IMD5 |
| DC\_3A\_SUL\_n77A-n84A | 3 | 1782.5 | 5 | 25 | 1877.5 | N/A | N/A |
|  | n84 | 1922.5 | 5 | 25 |  | N/A | N/A |
|  | n77 | 3425 | 10 | 50 | 3425 | 13.0 | IMD4 |
| DC\_3A\_n40A-n78A | 3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
|  | n40 | 2360 | 5 | 25 | 2360 | N/A | N/A |
|  | n78 | 3620 | 10 | 50 | 3620 | 4.8 | IMD5 |
|  | 3 | 1720 | 5 | 25 | 1815 | N/A | N/A |
|  | n40 | 2360 | 5 | 25 | 2360 | 4.4 | IMD5 |
|  | n78 | 3760 | 10 | 50 | 3760 | N/A | N/A |
| DC\_3A\_n40A-n79A | 3 | 1720 | 5 | 25 | 1815 | N/A | N/A |
|  | n40 | 2330 | 5 | 25 | 2330 | N/A | N/A |
|  | n79 | 4550 | 40 | 216 | 4550 | 4.7 | IMD5 |
|  | 3 | 1720 | 5 | 25 | 1815 | N/A | N/A |
|  | n40 | 2330 | 5 | 25 | 2330 | 3.2 | IMD5 |
|  | n79 | 4550 | 40 | 216 | 4550 | N/A | N/A |
| DC\_3A\_n41A-n79A | 3 | 1770 | 5 | 25 | 1865 | N/A | N/A |
|  | n41 | 2670 | 10 | 50 | 2670 | N/A | N/A |
|  | n79 | 4440 | 40 | 216 | 4440 | 30.8 | IMD24 |
| DC\_3A\_n75A-n78A  DC\_3A\_n75A-n78(2A) | 3 | 1782.5 | 5 | 25 | 1877.5 | N/A | N/A |
|  | n78 | 3305 | 10 | 50 | 3305 | N/A | N/A |
|  | n75 | - | - | - | 1514.5 | 10.0 | IMD2 |
| DC\_3A\_n78A-n79A | 3 | 1770 | 5 | 25 | 1865 | N/A | N/A |
|  | n78 | 3340 | 10 | 50 | 3340 | N/A | N/A |
|  | n79 | 4910 | 40 | 216 | 4910 | 16.3 | IMD3 |
|  | 3 | 1770 | 5 | 25 | 1865 | N/A | N/A |
|  | n79 | 4510 | 40 | 216 | 4510 | N/A | N/A |
|  | n78 | 3710 | 10 | 50 | 3710 | 4.2 | IMD5 |
| DC\_3A\_SUL\_n78A-n82A | 3 | 1775 | 5 | 25 | 1870 | 4 | IMD4 |
|  | n82 | 840 | 5 | 25 |  | N/A | N/A |
| DC\_3A\_SUL\_n78A-n84A | 3 | 1782.5 | 5 | 25 | 1877.5 | N/A | N/A |
|  | n84 | 1922.5 | 5 | 25 |  | N/A | N/A |
|  | n78 | 3425 | 10 | 50 | 3425 | 13.0 | IMD4 |
| DC\_3A-21A\_n79A | 3 | 1774.2 | 5 | 25 | 1869.2 | 17.8 | IMD3 |
|  | 21 | 1450.4 | 5 | 25 | 1498.4 | N/A | N/A |
|  | n79 | 4770 | 40 | 216 | 4770 | N/A | N/A |
| DC\_3A-32A\_n78A  DC\_3A-32A\_n78(2A) | 3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
|  | 32 | N/A | 5 | 25 | 1470 | 4.9 | IMD4 |
|  | n78 | 3720 | 10 | 50 | 3720 | N/A | N/A |
|  | 3 | 1775 | 5 | 25 | 1870 | N/A | N/A |
|  | 32 | N/A | 5 | 25 | 1475 | 0 | IMD5 |
|  | n78 | 3400 | 10 | 50 | 3400 | N/A | N/A |
| DC\_3A-40A\_n1A | n1 | 1950 | 5 | 25 | 2140 | N/A | N/A |
|  | 3 | 1735 | 5 | 25 | 1830 | N/A | N/A |
|  | 40 | 2380 | 5 | 25 | 2380 | 8.0 | IMD5 |
| DC\_3A-41A\_n28A  DC\_3A-41C\_n28A | 41 | 2543 | 10 | 50 | 2543 | N/A | N/A |
|  | n28 | 710.5 | 5 | 25 | 765.5 | N/A | N/A |
|  | 3 | 1737.5 | 5 | 25 | 1832.5 | 26 | IMD2 |
|  | 3 | 1780 | 5 | 25 | 1875 | N/A | N/A |
|  | n28 | 738 | 5 | 25 | 793 | N/A | N/A |
|  | 41 | 2518 | 5 | 25 | 2518 | 27.4 | IMD2 |
|  | 3 | 1715 | 5 | 25 | 1810 | N/A | N/A |
|  | n28 | 743 | 5 | 25 | 798 | N/A | N/A |
|  | 41 | 2687 | 5 | 25 | 2687 | 15.9 | IMD3 |
| DC\_3A-41A\_n77A  DC\_3A-41C\_n77A  DC\_3A-41A\_n77(2A)  DC\_3A-41C\_n77(2A) | 3 | 1720 | 5 | 25 | 1815 | N/A | N/A |
|  | n77 | 3900 | 10 | 50 | 3900 | N/A | N/A |
|  | 41 | 2640 | 5 | 25 | 2640 | 5.3 | IMD5 |
|  | 41 | 2620 | 5 | 25 | 2620 | N/A | N/A |
|  | n77 | 3400 | 10 | 50 | 3400 | N/A | N/A |
|  | 3 | 1745 | 5 | 25 | 1840 | 16.4 | IMD3 |
| DC\_3A-41A\_n78A  DC\_3A-41C\_n78A  DC\_3A-41A\_n78(2A)  DC\_3A-41C\_n78(2A) | 41 | 2620 | 5 | 25 | 2620 | N/A | N/A |
|  | n78 | 3400 | 10 | 50 | 3400 | N/A | N/A |
|  | 3 | 1745 | 5 | 25 | 1840 | 16.4 | IMD3 |
| DC\_3A\_n41A-n78A | 3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
|  | n41 | 2560 | 10 | 50 | 2560 | N/A | N/A |
|  | n78 | 3390 | 10 | 50 | 3390 | 16.4 | IMD3 |
| DC\_3A-41A\_n79A | 3 | 1770 | 5 | 25 | 1865 | N/A | N/A |
|  | n79 | 4440 | 40 | 216 | 4440 | N/A | N/A |
|  | 41 | 2670 | 5 | 25 | 2670 | 30.2 | IMD2 |
|  | 41 | 2570 | 5 | 25 | 2570 | N/A | N/A |
|  | n79 | 4420 | 40 | 216 | 4420 | N/A | N/A |
|  | 3 | 1755 | 5 | 25 | 1850 | 29.4 | IMD2 |
| DC\_5A-7A\_n71A | 5 | 835 | 5 | 25 | 880 | N/A | N/A |
|  | 7 | 2540 | 5 | 25 | 2660 | 6.5 | IMD5 |
|  | n71 | 680 | 5 | 25 | 634 | N/A | N/A |
| DC\_5A-7A\_n78A | 5 | 844 | 5 | 25 | 889 | N/A | N/A |
|  | 7 | 2525 | 5 | 25 | 2645 | 30.1 | IMD2 |
|  | n78 | 3489 | 10 | 50 | 3489 | N/A | N/A |
|  | 5 | 834 | 5 | 25 | 879 | 30.2 | IMD2 |
|  | 7 | 2550 | 5 | 25 | 2670 | N/A | N/A |
|  | n78 | 3429 | 10 | 50 | 3429 | N/A | N/A |
|  | 5 | 830 | 5 | 25 | 875 | 3.3 | IMD5 |
|  | 7 | 2525 | 5 | 25 | 2645 | N/A | N/A |
|  | n78 | 3350 | 10 | 50 | 3350 | N/A | N/A |
| DC\_5A\_n7A-n78A,  DC\_5A\_n7(2A)-n78A  DC\_5A\_n7A-n78(2A)  DC\_5A\_n7(2A)-n78(2A) | 5 | 844 | 5 | 25 | 889 | N/A | N/A |
|  | n7 | 2525 | 5 | 25 | 2645 | 30.1 | IMD2 |
|  | n78 | 3489 | 10 | 50 | 3489 | N/A | N/A |
|  | 5 | 835 | 5 | 25 | 880 | N/A | N/A |
|  | n7 | 2540 | 5 | 25 | 2660 | N/A | N/A |
|  | n78 | 3375 | 10 | 50 | 3375 | 29.7 | IMD2 |
| DC\_5A\_41A\_n78A | 5 | 860 | 5 | 25 | 885 | 30.2 | IMD2 |
|  | 41 | 2615 | 5 | 25 | 2615 | N/A | N/A |
|  | n78 | 3500 | 10 | 50 | 3500 | N/A | N/A |
|  | 5 | 856.5 | 5 | 25 | 881.5 | 3.1 | IMD5 |
|  | 41 | 2620.5 | 5 | 25 | 2620.5 | N/A | N/A |
|  | n78 | 3490 | 10 | 50 | 3490 | N/A | N/A |
| DC\_5A-41A\_n79A | 5 | 835 | 5 | 25 | 880 | 23.9 | IMD3 |
|  | 41 | 2665 | 5 | 25 | 2665 | N/A | N/A |
|  | n79 | 4450 | 40 | 216 | 4450 | N/A | N/A |
|  | 5 | 826.5 | 5 | 25 | 871.5 | N/A | N/A |
|  | 41 | 2517.5 | 5 | 25 | 2517.5 | 1.8 | IMD4 |
|  | n79 | 4980 | 40 | 216 | 4980 | N/A | N/A |
| DC\_5A-66A\_n2A  DC\_5BA-66A\_n2A  DC\_5A-5A-66A\_n2A  DC\_5A-66A-66A\_n2A  DC\_5B-66A-66A\_n2A  DC\_5A-5A-66A-66A\_n2A | 5 | 834 | 5 | 25 | 879 | N/A | N/A |
|  | 66 | 1712 | 5 | 25 | 2132 | 7.2 | IMD4 |
|  | n2 | 1900 | 5 | 25 | 1980 | N/A | N/A |
| DC\_5A-66A\_n71A | 5 | 830 | 5 | 25 | 875 | N/A | N/A |
|  | 66 | 1761 | 5 | 25 | 2161 | 13 | IMD3 |
|  | n71 | 665.5 | 5 | 25 | 619.5 | N/A | N/A |
|  | 5 | 846.5 | 5 | 25 | 891.5 | 4.2 | IMD5 |
|  | 66 | 1770 | 5 | 25 | 2170 | N/A | N/A |
|  | n71 | 665.5 | 5 | 25 | 619.5 | N/A | N/A |
| DC\_5A-66A\_n78A  DC\_5A-66A\_n78(2A) | 5 | 826.5 | 5 | 25 | 871.5 | N/A | N/A |
|  | 66 | 1742 | 5 | 25 | 2142 | 13.2 | IMD3 |
|  | n78 | 3795 | 10 | 50 | 3795 | N/A | N/A |
| DC\_7A\_n1A-n40A | 7 | 2540 | 5 | 25 | 2660 | N/A | N/A |
|  | n40 | 2335 | 5 | 25 | 2335 | N/A | N/A |
|  | n1 | 1940 | 5 | 25 | 2130 | 15.2 | IMD3 |
| DC\_7A\_n1A-n78A  DC\_7C\_n1A-n78A | 7 | 2520 | 5 | 25 | 2640 | N/A | N/A |
|  | n1 | 1970 | 5 | 25 | 2160 | N/A | N/A |
|  | n78 | 3390 | 10 | 50 | 3390 | 10.1 | IMD4 |
|  | 7 | 2530 | 5 | 25 | 2650 | N/A | N/A |
|  | n1 | 1970 | 5 | 25 | 2160 | 9.0 | IMD4 |
|  | n78 | 3610 | 10 | 50 | 3610 | N/A | N/A |
| DC\_7A\_n3A-n78A | 7 | 2560 | 5 | 25 | 2680 | N/A | N/A |
|  | n3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
|  | n78 | 3390 | 10 | 50 | 3390 | 16.1 | IMD3 |
|  | 7 | 2565 | 5 | 25 | 2685 | N/A | N/A |
|  | n3 | 1725 | 5 | 25 | 1820 | 15.6 | IMD3 |
|  | n78 | 3310 | 10 | 50 | 3310 | N/A | N/A |
| DC\_7A\_n8A-n40A | 7 | 2530 | 5 | 25 | 2650 | N/A | N/A |
|  | n8 | 905 | 5 | 25 | 950 | N/A | N/A |
|  | n40 | 2345 | 5 | 25 | 2345 | 3.0 | IMD5 |
| DC\_7A-8A\_n3A | n3 | 1735 | 5 | 25 | 1830 | N/A | N/A |
|  | 7 | 2530 | 10 | 50 | 2650 | N/A | N/A |
|  | 8 | 895 | 5 | 25 | 940 | 18.0 | IMD3 |
| DC\_7A-8A\_n3A | n3 | 1780 | 5 | 25 | 1875 | N/A | N/A |
|  | 8 | 890 | 5 | 25 | 935 | N/A | N/A |
|  | 7 | 2550 | 10 | 50 | 2670 | 29.0 | IMD2+IMD33 |
| DC\_7A-8A\_n77A | 7 | 2530 | 5 | 25 | 2650 | N/A | N/A |
|  | 8 | 895 | 5 | 25 | 940 | 30.5 | IMD2 |
|  | n77 | 3470 | 10 | 50 | 3470 | N/A | N/A |
| DC\_7A-8A\_n77A | 7 | 2520 | 5 | 25 | 2640 | N/A | N/A |
|  | 8 | 895 | 5 | 25 | 940 | 3.1 | IMD5 |
|  | n77 | 3310 | 10 | 50 | 3310 | N/A | N/A |
| DC\_7A-8A\_n77A | 7 | 2530 | 5 | 25 | 2650 | 28 | IMD2 |
|  | 8 | 895 | 5 | 25 | 940 | N/A | N/A |
|  | n77 | 3545 | 10 | 50 | 3545 | N/A | N/A |
| DC\_7A-8A\_n78A | 7 | 2530 | 5 | 25 | 2650 | N/A | N/A |
|  | 8 | 895 | 5 | 25 | 940 | 30.5 | IMD2 |
|  | n78 | 3470 | 10 | 50 | 3470 | N/A | N/A |
| DC\_7A-8A\_n78A | 7 | 2520 | 5 | 25 | 2640 | N/A | N/A |
|  | 8 | 895 | 5 | 25 | 940 | 3.1 | IMD5 |
|  | n78 | 3310 | 10 | 50 | 3310 | N/A | N/A |
| DC\_7A-8A\_n78A | 7 | 2530 | 5 | 25 | 2650 | 28 | IMD2 |
|  | 8 | 895 | 5 | 25 | 940 | N/A | N/A |
|  | n78 | 3545 | 10 | 50 | 3545 | N/A | N/A |
| DC\_7A\_n8A-n78A | 7 | 2555 | 5 | 25 | 2675 | N/A | N/A |
|  | n8 | 900 | 5 | 25 | 945 | N/A | N/A |
|  | n78 | 3455 | 10 | 50 | 3455 | 28.5 | IMD2 |
|  | 7 | 2555 | 5 | 25 | 2675 | N/A | N/A |
|  | n8 | 900 | 5 | 25 | 945 | 29.7 | IMD2 |
|  | n78 | 3500 | 10 | 50 | 3500 | N/A | N/A |
| DC\_7A-13A\_n66A | 7 | 2520 | 5 | 25 | 2640 | N/A | N/A |
|  | 13 | 781 | 5 | 25 | 750 | 31 | IMD2 |
|  | n66 | 1770 | 5 | 25 | 2170 | N/A | N/A |
| DC\_7A-13A\_n66A | 7 | 2540 | 5 | 25 | 2660 | 18 | IMD3 |
|  | 13 | 780 | 5 | 25 | 749 | N/A | N/A |
|  | n66 | 1720 | 5 | 25 | 2120 | N/A | N/A |
| DC\_7A-20A\_n1A  DC\_7C-20A\_n1A | 7 | 2510 | 10 | 50 | 2630 | N/A | N/A |
|  | 20 | 841 | 10 | 50 | 800 | 4.5 | IMD5 |
|  | n1 | 1940 | 5 | 25 | 2130 | N/A | N/A |
| DC\_7A-20A\_n3A | 7 | 2543 | 10 | 50 | 2663 | N/A | N/A |
|  | 20 | 847 | 10 | 20 | 806 | 10.5 | IMD2 |
|  | n3 | 1737 | 5 | 25 | 1832 | N/A | N/A |
|  | 7 | 2510 | 10 | 50 | 2630 | 26.0 | IMD21 |
|  | 20 | 855 | 5 | 25 | 814 | N/A | N/A |
|  | n3 | 1775 | 10 | 50 | 1870 | N/A | N/A |
| DC\_7A-20A\_n8A | 7 | 2565 | 5 | 25 | 2685 | N/A | N/A |
|  | n8 | 885 | 5 | 25 | 930 | N/A | N/A |
|  | 20 | 836 | 5 | 25 | 795 | 17.4 | IMD3 |
| DC\_7A-20A\_n8A | 7 | 2520 | 5 | 25 | 2640 | 21.1 | IMD3 |
|  | n8 | 900 | 5 | 25 | 945 | N/A | N/A |
|  | 20 | 840 | 5 | 25 | 799 | N/A | N/A |
| DC\_7A-20A\_n8A | 7 | 2504 | 5 | 25 | 2624 | 18.8 | IMD3 |
|  | n8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | 20 | 857 | 5 | 25 | 816 | N/A | N/A |
| DC\_7A-20A\_n28A | 20 | 842 | 5 | 25 | 801 | N/A | N/A |
|  | n28 | 728 | 5 | 25 | 783 | N/A | N/A |
|  | 7 | 2520 | 10 | 50 | 2640 | 5.9 | IMD5 |
| DC\_7A-20A\_n78A | 7 | 2560 | 5 | 25 | 2680 | N/A | N/A |
|  | 20 | 851 | 5 | 25 | 810 | 30.5 | IMD2 |
|  | n78 | 3370 | 10 | 50 | 3370 | N/A | N/A |
| DC\_7A-20A\_n78A | 7 | 2560 | 5 | 25 | 2680 | N/A | N/A |
|  | 20 | 851 | 5 | 25 | 810 | 3.0 | IMD5 |
|  | n78 | 3435 | 10 | 50 | 3435 | N/A | N/A |
| DC\_7A-20A\_n78A | 7 | 2555 | 5 | 25 | 2675 | 30.8 | IMD2 |
|  | 20 | 845 | 5 | 25 | 804 | N/A | N/A |
|  | n78 | 3520 | 10 | 50 | 3520 | N/A | N/A |
| DC\_7A-28A\_n3A  DC\_7C-28A\_n3A | 7 | 2543 | 5 | 25 | 2663 | N/A | N/A |
|  | 28 | 741 | 5 | 25 | 796.0 | 20.0 | IMD2 |
|  | n3 | 1747 | 5 | 25 | 1842 | N/A | N/A |
|  | 7 | 2540 | 5 | 25 | 2685 | 18 | IMD3 |
|  | 28 | 745 | 5 | 25 | 800 | N/A | N/A |
|  | n3 | 1715 | 5 | 25 | 1810 | N/A | N/A |
| DC\_7A-28A\_n5A DC\_7C-28A\_n5A | 7 | 2540 | 5 | 25 | 2725 | N/A | N/A |
|  | 28 | 721 | 5 | 25 | 776 | 4.4 | IMD5 |
|  | n5 | 829 | 5 | 25 | 854 | N/A | N/A |
|  | 7 | 2510 | 5 | 25 | 2630 | 5.9 | IMD5 |
|  | 28 | 730 | 5 | 25 | 785 | N/A | N/A |
|  | n5 | 840 | 5 | 25 | 874 | N/A | N/A |
| DC\_7A-28A\_n40A | 7 | 2510 | 5 | 25 | 2630 | 5.9 | IMD5 |
|  | 28 | 743 | 5 | 25 | 798 | N/A | N/A |
|  | n40 | 2310 | 5 | 25 | 2310 | N/A | N/A |
| DC\_7A-28A\_n78A | 7 | 2567.5 | 5 | 25 | 2687.5 | N/A | N/A |
|  | 28 | 727.5 | 5 | 25 | 782.5 | 28.8 | IMD2 |
|  | n78 | 3350 | 10 | 50 | 3350 | N/A | N/A |
|  | 7 | 2567.5 | 5 | 25 | 2687.5 | N/A | N/A |
|  | 28 | 727.5 | 5 | 25 | 782.5 | 3.0 | IMD5 |
|  | n78 | 3460 | 10 | 50 | 3460 | N/A | N/A |
|  | 7 | 2530 | 5 | 25 | 2650 | 30.5 | IMD2 |
|  | 28 | 740 | 5 | 25 | 795 | N/A | N/A |
|  | n78 | 3390 | 10 | 50 | 3390 | N/A | N/A |
| DC\_7A\_n28A-n78A  DC\_7C\_n28A-n78A | 7 | 2565 | 5 | 25 | 2685 | N/A | N/A |
|  | n28 | 745 | 5 | 25 | 800 | N/A | N/A |
|  | n78 | 3310 | 10 | 50 | 3310 | 29.7 | IMD2 |
|  | 7 | 2565 | 5 | 25 | 2685 | N/A | N/A |
|  | n78 | 3365 | 10 | 50 | 3365 | N/A | N/A |
|  | n28 | 745 | 5 | 25 | 800 | 28.8 | IMD2 |
| DC\_7A-40A\_n1A | n1 | 1970 | 5 | 25 | 2160 | N/A | N/A |
|  | 7 | 2530 | 5 | 25 | 2650 | 32.1 | IMD3 |
|  | 40 | 2310 | 5 | 25 | 2310 | N/A | N/A |
| DC\_7A-46A\_n78A6 | 7 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 46 | N/A | N/A | N/A | N/A | N/A | IMD2, IMD5 |
|  | n78 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_7A-66A\_n78A  DC\_7C-66A\_n78A  DC\_7A-7A-66A\_n78A  DC\_7A-66A-66A\_n78A  DC\_7A-7A-66A-66A\_n78A  DC\_7C-66A-66A\_n78A  DC\_7A\_n66A-n78A  DC\_7A-7A\_n66A-n78A  DC\_7C\_n66A-n78A  DC\_7A-66A\_n78(2A)  DC\_7C-66A\_n78(2A)  DC\_7A-7A-66A\_n78(2A)  DC\_7A-66A-66A\_n78(2A)  DC\_7A-7A-66A-66A\_n78(2A)  DC\_7C-66A-66A\_n78(2A) | 7 | 2550 | 5 | 25 | 2685 | N/A | N/A |
|  | 66/n66 | 1750 | 5 | 25 | 2150 | 8.7 | IMD4 |
|  | n78 | 3625 | 10 | 50 | 3475 | N/A | N/A |
| DC\_7A\_n66A-n78A  DC\_7A-7A\_n66A-n78A  DC\_7C\_n66A-n78A | 7 | 2542 | 5 | 25 | 2662 | N/A | N/A |
|  | n66 | 1740 | 5 | 25 | 2140 | N/A | N/A |
|  | n78 | 3344 | 10 | 50 | 3344 | 16.0 | IMD3 |
| DC\_7A\_SUL\_n78A-n80A | n80 | 1730 | 5 | 25 |  | N/A | N/A |
|  | 7 | 2535 | 10 | 50 | 2655 | 13 | IMD4 |
| DC\_8A\_n1A-n78A | 8 | 900 | 5 | 25 | 945 | N/A | N/A |
|  | n1 | 1945 | 5 | 25 | 2135 | N/A | N/A |
|  | n78 | 3745 | 10 | 50 | 3745 | 14.9 | IMD3 |
| DC\_8A\_n3A-n28A | 8 | 912.5 | 5 | 25 | 957.5 | N/A | N/A |
|  | n3 | 1712.5 | 5 | 25 | 1807.5 | N/A | N/A |
|  | n28 | 745 | 5 | 25 | 800 | 30.4 | IMD2 |
| DC\_8A-11A\_n77A | 8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | n77 | 3311 | 10 | 50 | 3311 | N/A | N/A |
|  | 11 | 1443 | 5 | 25 | 1491 | 18.8 | IMD3 |
| DC\_8A-11A\_n77A | 11 | 1430.5 | 5 | 25 | 1478.5 | N/A | N/A |
|  | n77 | 3791 | 10 | 50 | 3791 | N/A | N/A |
|  | 8 | 885 | 5 | 25 | 930 | 18.2 | IMD3 |
| DC\_8A-11A\_n78A | 8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | n78 | 3311 | 10 | 50 | 3311 | N/A | N/A |
|  | 11 | 1443 | 5 | 25 | 1491 | 18.8 | IMD3 |
| DC\_8A-11A\_n78A | 11 | 1430.5 | 5 | 25 | 1478.5 | N/A | N/A |
|  | n78 | 3791 | 10 | 50 | 3791 | N/A | N/A |
|  | 8 | 885 | 5 | 25 | 930 | 18.2 | IMD3 |
| DC\_8A-20A\_n78A | 8 | 890 | 5 | 25 | 935 | N/A | N/A |
|  | n78 | 3470 | 10 | 50 | 3470 | N/A | N/A |
|  | 20 | 841 | 5 | 25 | 800 | 12.1 | IMD4 |
|  | 8 | 895 | 5 | 25 | 940 | 12.1 | IMD4 |
|  | n78 | 3481 | 10 | 50 | 3481 | N/A | N/A |
|  | 20 | 847 | 5 | 25 | 806 | N/A | N/A |
| DC\_8A\_n28A-n77A | 8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | n28 | 743 | 5 | 25 | 798 | N/A | N/A |
|  | n77 | 3473 | 10 | 50 | 3473 | 10.3 | IMD4 |
|  | 8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | n28 | 710 | 5 | 25 | 765 | 11.6 | IMD4 |
|  | n77 | 3495 | 10 | 50 | 3495 | N/A | N/A |
| DC\_8A\_n40A-n79A | 8 | 885 | 5 | 25 | 930 | N/A | N/A |
|  | n40 | 2305 | 5 | 25 | 2305 | N/A | N/A |
|  | n79 | 4960 | 40 | 216 | 4960 | 10.7 | IMD4 |
|  | 8 | 885 | 5 | 25 | 930 | N/A | N/A |
|  | n40 | 2305 | 5 | 25 | 2305 | 9.2 | IMD4 |
|  | n79 | 4960 | 40 | 216 | 4960 | N/A | N/A |
| DC\_8A\_n41A-n79A | 8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | n41 | 2650 | 10 | 50 | 2650 | N/A | N/A |
|  | n79 | 4470 | 40 | 216 | 4470 | 16.3 | IMD3 |
|  | 8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | n41 | 2650 | 10 | 50 | 2650 | 15.5 | IMD3 |
|  | n79 | 4470 | 40 | 216 | 4470 | N/A | N/A |
| DC\_8A-42A\_n28A | 8 | 900 | 5 | 25 | 945 | N/A | N/A |
|  | n28 | 743 | 5 | 25 | 798 | N/A | N/A |
|  | 42 | 3443 | 5 | 25 | 3443 | 8.7 | IMD4 |
| DC\_8A\_SUL\_n78A-n80A | n80 | 1755 | 10 | 50 |  | N/A | N/A |
|  | 8 | 900 | 5 | 25 | 945 | 8 | IMD4 |
|  | n80 | 1750 | 10 | 50 |  | N/A | N/A |
|  | 8 | 900 | 5 | 25 | 945 | N/A | N/A |
|  | n78 | 3550 | 10 | 50 | 3550 | 8 | IMD33 |
| DC\_11A-18A\_n77A | 11 | 1443 | 5 | 25 | 1491 | N/A | N/A |
|  | n77 | 3706 | 10 | 50 | 3706 | N/A | N/A |
|  | 18 | 820 | 5 | 25 | 865 | 18.7 | IMD3 |
| DC\_11A-18A\_n78A | 11 | 1443 | 5 | 25 | 1491 | N/A | N/A |
|  | n78 | 3706 | 10 | 50 | 3706 | N/A | N/A |
|  | 18 | 820 | 5 | 25 | 865 | 18.7 | IMD3 |
| DC\_12A\_n7A-n78A,  DC\_12A\_n7(2A)-n78A  DC\_12A\_n7A-n78(2A)  DC\_12A\_n7(2A)-n78(2A) | 12 | 708 | 5 | 25 | 738 | N/A | N/A |
|  | n7 | 2520 | 5 | 25 | 2640 | N/A | N/A |
|  | n78 | 3624 | 10 | 50 | 3624 | 9 | IMD4 |
|  | 12 | 708 | 5 | 25 | 738 | N/A | N/A |
|  | n78 | 3370 | 10 | 50 | 3370 | N/A | N/A |
|  | n7 | 2542 | 5 | 25 | 2662 | 29.6 | IMD2 |
| DC\_12A-30A\_n2A | 12 | 708.5 | 5 | 25 | 738.5 | N/A | N/A |
|  | 30 | 2308 | 5 | 25 | 2353 | 12.0 | IMD4 |
|  | n2 | 1885 | 5 | 25 | 1965 | N/A | N/A |
| DC\_13A-66A\_n2A  DC\_13A-66A-66A\_n2A | 13 | 782 | 5 | 25 | 751 | N/A | N/A |
|  | 66 | 1736 | 5 | 25 | 2156 | 7..2 | IMD4 |
|  | n2 | 1860 | 5 | 25 | 1940 | N/A | N/A |
| DC\_12A-66A\_n25A | 12 | 708.5 | 5 | 25 | 738.5 | N/A | N/A |
|  | 66 | 1775 | 5 | 25 | 2175 | N/A | N/A |
|  | n25 | 1855 | 5 | 25 | 1935 | 20 | IMD3 |
|  | 12 | 708.5 | 5 | 25 | 738.5 | N/A | N/A |
|  | 66 | 1750 | 5 | 25 | 2150 | 4 | IMD5 |
|  | n25 | 1883.3 | 5 | 25 | 1963.3 | N/A | N/A |
|  | 12 | 708.5 | 5 | 25 | 738.5 | N/A | N/A |
|  | 66 | 1712.5 | 5 | 25 | 2112.5 | 23 | IMD3 |
|  | n25 | 1912.5 | 5 | 25 | 1992.5 | N/A | N/A |
| DC\_13A-66A\_n48A  DC\_13A-66A\_n48B  DC\_13A-66A-66A\_n48A  DC\_13A-66A-66A\_n48B | 13 | 782 | 5 | 25 | 751 | N/A | N/A |
|  | 66 | 1731 | 5 | 25 | 2131 | 17.1 | IMD3 |
|  | n48 | 3695 | 5 | 25 | 3695 | N/A | N/A |
| DC\_18A\_n3A-n77A | 18 | 820 | 5 | 25 | 865 | N/A | N/A |
|  | n3 | 1770 | 5 | 25 | 1865 | N/A | N/A |
|  | n77 | 3410 | 10 | 50 | 3410 | 16.3 | IMD3 |
|  | 18 | 820 | 5 | 25 | 865 | N/A | N/A |
|  | n3 | 1770 | 5 | 25 | 1865 | 15.7 | IMD3 |
|  | n77 | 3505 | 10 | 50 | 3505 | N/A | N/A |
| DC\_14A-66A\_n2A  DC\_14A-66A-66A\_n2A | 14 | 793 | 5 | 25 | 763 | N/A | N/A |
|  | 66 | 1762 | 5 | 25 | 2162 | 7.6 | IMD4 |
|  | n2 | 1874 | 5 | 25 | 1954 | N/A | N/A |
| DC\_18A\_n3A-n78A | 18 | 820 | 5 | 25 | 865 | N/A | N/A |
|  | n3 | 1750 | 5 | 25 | 1845 | N/A | N/A |
|  | n78 | 3390 | 10 | 50 | 3390 | 15.2 | IMD33 |
| DC\_18A-28A\_n77A | 18 | 820 | 5 | 25 | 865 | N/A | N/A |
|  | 28 | 723 | 5 | 25 | 778 | 4.4 | IMD5 |
|  | n77 | 4058 | 10 | 50 | 4058 | N/A | N/A |
| DC\_18A-28A\_n77A | 18 | 820 | 5 | 25 | 865 | 3.9 | IMD5 |
|  | 28 | 723 | 5 | 25 | 778 | N/A | N/A |
|  | n77 | 3757 | 10 | 50 | 3757 | N/A | N/A |
| DC\_18A-28A\_n78A | 18 | 819 | 5 | 25 | 864 | 3.8 | IMD5 |
|  | 28 | 723 | 5 | 25 | 778 | N/A | N/A |
|  | n78 | 3756 | 10 | 50 | 3756 | N/A | N/A |
| DC\_18A-41A\_n3A  DC\_18A-41C\_n3A | 18 | 820 | 5 | 25 | 865 | N/A | N/A |
|  | n3 | 1725 | 5 | 25 | 1820 | N/A | N/A |
|  | 41 | 2630 | 5 | 25 | 2630 | 16.0 | IMD3 |
|  | 18 | 820 | 5 | 25 | 865 | 28.9 | IMD21 |
|  | n3 | 1765 | 5 | 25 | 1860 | N/A | N/A |
|  | 41 | 2630 | 5 | 25 | 2630 | N/A | N/A |
| DC\_18A-41A\_n77A  DC\_18A-41C\_n77A | 18 | 820 | 5 | 25 | 865 | 3.4 | IMD5 |
|  | n77 | 3527.5 | 10 | 50 | 3527.5 | N/A | N/A |
|  | 41 | 2640 | 5 | 25 | 2640 | N/A | N/A |
| DC\_18A-41A\_n78A  DC\_18A-41C\_n78A | 18 | 820 | 5 | 25 | 865 | 3.4 | IMD5 |
|  | n78 | 3527.5 | 10 | 50 | 3527.5 | N/A | N/A |
|  | 41 | 2640 | 5 | 25 | 2640 | N/A | N/A |
| DC\_19A-21A\_n77A  DC\_19A-21A\_n78A | 19 | 837.5 | 5 | 25 | 882.5 | 18.7 | IMD3 |
|  | 21 | 1450.4 | 5 | 25 | 1498.4 | N/A | N/A |
|  | n77, n78 | 3783.3 | 10 | 50 | 3783.3 | N/A | N/A |
| DC\_19A-21A\_n77A | 19 | 837.5 | 5 | 25 | 882.5 | N/A | N/A |
|  | 21 | 1454.5 | 5 | 25 | 1502.5 | 9.0 | IMD4 |
|  | n77 | 4015 | 10 | 50 | 4015 | N/A | N/A |
| DC\_19A-21A\_n79A | 19 | N/A | N/A | N/A | N/A | N/A | IMD5 |
|  | 21 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | n79 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 19 | 837.5 | 5 | 25 | 882.2 | N/A | N/A |
|  | 21 | 1452 | 5 | 25 | 1500 | 3.8 | IMD5 |
|  | n79 | 4850 | 40 | 216 | 4850 | N/A | N/A |
| DC\_20A\_n1A-n78A | 20 | 845 | 5 | 25 | 804 | N/A | N/A |
|  | n1 | 1940 | 5 | 25 | 2130 | N/A | N/A |
|  | n78 | 3630 | 10 | 50 | 3630 | 16.0 | IMD3 |
|  | 20 | 835 | 5 | 25 | 794 | N/A | N/A |
|  | n1 | 1930 | 5 | 25 | 2120 | 15.3 | IMD3 |
|  | n78 | 3790 | 10 | 50 | 3790 | N/A | N/A |
| DC\_20A\_n3A-n78A | 20 | 845 | 5 | 25 | 804 | N/A | N/A |
|  | n3 | 1730 | 5 | 25 | 1825 | N/A | N/A |
|  | n78 | 3420 | 10 | 50 | 3420 | 16.1 | IMD3 |
|  | 20 | 845 | 5 | 25 | 804 | N/A | N/A |
|  | n3 | 1765 | 5 | 25 | 1860 | 15.7 | IMD3 |
|  | n78 | 3550 | 10 | 50 | 3550 | N/A | N/A |
| DC\_20A\_38A-n78A | 20 | N/A | N/A | N/A | N/A | N/A | IMD2 |
|  | 38 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | n78 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 20 | N/A | N/A | N/A | N/A | N/A | N/A |
|  | 38 | N/A | N/A | N/A | N/A | N/A | IMD2 |
|  | n78 | N/A | N/A | N/A | N/A | N/A | N/A |
| DC\_20A\_n7A-n28A | 20 | 857 | 5 | 25 | 816 | N/A | N/A |
|  | n7 | 2512 | 5 | 25 | 2632 | N/A | N/A |
|  | n28 | 743 | 5 | 25 | 798 | 13.9 | IMD3 |
|  | 20 | 852 | 5 | 25 | 811 | N/A | N/A |
|  | n7 | 2550 | 10 | 50 | 2670 | 5.9 | IMD5 |
|  | n28 | 738 | 5 | 25 | 793 | N/A | N/A |
| DC\_20A\_SUL\_n78A-n80A | 20 | 847 | 5 | 25 | 806 | 9 | IMD4 |
|  | n80 | 1735 | 5 | 25 |  | N/A | N/A |
| DC\_20A\_n41A-n78A | 20 | 845 | 5 | 25 | 804 | N/A | N/A |
|  | n41 | 2675 | 10 | 50 | 2675 | 29.8 | IMD2 |
|  | n78 | 3520 | 10 | 50 | 3520 | N/A | N/A |
|  | 20 | 850 | 5 | 25 | 809 | N/A | N/A |
|  | n41 | 2550 | 10 | 50 | 2550 | N/A | N/A |
|  | n78 | 3400 | 10 | 50 | 3400 | 28.8 | IMD2 |
| DC\_21A-28A\_n77A | 21 | 1452 | 5 | 25 | 1500 | N/A | N/A |
|  | 28 | 730.5 | 5 | 25 | 785.5 | 16.9 | IMD3 |
|  | n77 | 3689.5 | 10 | 50 | 3689.5 | N/A | N/A |
|  | 21 | 1450.5 | 5 | 25 | 1498.5 | 9.9 | IMD4 |
|  | 28 | 730.5 | 5 | 25 | 785.5 | N/A | N/A |
|  | n77 | 3690 | 10 | 50 | 3690 | N/A | N/A |
| DC\_21A-28A\_n79A | 21 | 1450 | 5 | 25 | 1498 | 5.2 | IMD5 |
|  | 28 | 730.5 | 5 | 25 | 785.5 | N/A | N/A |
|  | n79 | 4420 | 40 | 216 | 4420 | N/A | N/A |
| DC\_28A\_n3A-n77A | 28 | 735 | 5 | 25 | 790 | N/A | N/A |
|  | n3 | 1755 | 5 | 25 | 1850 | 17.0 | IMD3 |
|  | n77 | 3320 | 10 | 50 | 3320 | N/A | N/A |
|  | 28 | 733 | 5 | 25 | 788 | N/A | N/A |
|  | n3 | 1720 | 5 | 25 | 1815 | N/A | N/A |
|  | n77 | 4173 | 10 | 50 | 4173 | 15.9 | IMD3 |
| DC\_28A\_n7A-n78A  DC\_28A\_n7B-n78A | 28 | 745 | 5 | 25 | 800 | N/A | N/A |
|  | n7 | 2565 | 5 | 25 | 2685 | N/A | N/A |
|  | n78 | 3310 | 10 | 50 | 3310 | 29.7 | IMD2 |
|  | 28 | 740 | 5 | 25 | 795 | N/A | N/A |
|  | n7 | 2530 | 5 | 25 | 2650 | 30.5 | IMD2 |
|  | n78 | 3390 | 10 | 50 | 3390 | N/A | N/A |
| DC\_28A-41A\_n77A | 28 | 738 | 5 | 25 | 793 | N/A | N/A |
|  | n77 | 3380 | 10 | 50 | 3380 | N/A | N/A |
|  | 41 | 2642 | 5 | 25 | 2642 | 29.5 | IMD2 |
| DC\_28A-41A\_n77A | 41 | 2642 | 5 | 25 | 2642 | N/A | N/A |
|  | n77 | 3440 | 10 | 50 | 3440 | N/A | N/A |
|  | 28 | 743 | 5 | 25 | 798 | 30.8 | IMD2 |
| DC\_28A-41A\_n77A | 41 | 2567.5 | 10 | 50 | 2567.5 | N/A | N/A |
|  | n77 | 3460 | 10 | 50 | 3460 | N/A | N/A |
|  | 28 | 727.5 | 5 | 25 | 782.5 | 3.0 | IMD5 |
| DC\_28A-41A\_n78A | 28 | 738 | 5 | 25 | 793 | N/A | N/A |
|  | n78 | 3380 | 10 | 50 | 3380 | N/A | N/A |
|  | 41 | 2642 | 5 | 25 | 2642 | 29.5 | IMD2 |
| DC\_28A-41A\_n78A | 41 | 2642 | 5 | 25 | 2642 | N/A | N/A |
|  | n78 | 3440 | 10 | 50 | 3440 | N/A | N/A |
|  | 28 | 743 | 5 | 25 | 798 | 30.8 | IMD2 |
| DC\_28A-41A\_n79A | 28 | 743 | 5 | 25 | 798 | N/A | N/A |
|  | n79 | 4739 | 40 | 216 | 4739 | N/A | N/A |
|  | 41 | 2510 | 5 | 25 | 2510 | 8.6 | IMD4 |
| DC\_28A-41A\_n79A | 41 | 2650 | 5 | 25 | 2650 | N/A | N/A |
|  | n79 | 4502 | 40 | 216 | 4502 | N/A | N/A |
|  | 28 | 743 | 5 | 25 | 798 | 15.9 | IMD3 |
| DC\_28A-42A\_79A | 28 | 730 | 5 | 25 | 785 | N/A | N/A |
|  | 42 | 3420 | 5 | 25 | 3420 | 15.3 | IMD3 |
|  | n79 | 4880 | 40 | 216 | 4880 | N/A | N/A |
|  | 28 | 745 | 5 | 25 | 800 | 16.2 | IMD2 |
|  | 42 | 3597.5 | 5 | 25 | 3597.5 | N/A | N/A |
|  | n79 | 4420 | 40 | 216 | 4420 | N/A | N/A |
| DC\_19A\_n78A-n79A | 19 | 835 | 5 | 25 | 880 | N/A | N/A |
|  | n78 | 3680 | 10 | 50 | 3680 | N/A | N/A |
|  | n79 | 4515 | 40 | 216 | 4515 | 29.3 | IMD2 |
|  | 19 | 835 | 5 | 25 | 880 | N/A | N/A |
|  | n79 | 4550 | 40 | 216 | 4550 | N/A | N/A |
|  | n78 | 3715 | 10 | 50 | 3715 | 28.8 | IMD2 |
| DC\_20A\_n28A-n78A, DC\_20A\_SUL\_n78A-n83A | 20 | 857 | 5 | 25 | 816 | N/A | N/A |
|  | n28, n83 | 743 | 5 | 25 | 798 | N/A | N/A |
|  | n78 | 3314 | 10 | 50 | 3314 | 8.7 | IMD4 |
|  | 20 | 837 | 5 | 25 | 796 | N/A | N/A |
|  | n78 | 3310 | 10 | 50 | 3310 | N/A | N/A |
|  | n28 | 744 | 5 | 25 | 799 | 9.4 | IMD4 |
| DC\_21A\_n78A-n79A | 21 | 1453 | 5 | 25 | 1501 | N/A | N/A |
|  | n78 | 3420 | 10 | 50 | 3420 | N/A | N/A |
|  | n79 | 4873 | 40 | 216 | 4873 | 30.1 | IMD2 |
|  | 21 | 1453 | 5 | 25 | 1501 | N/A | N/A |
|  | n79 | 4940 | 40 | 216 | 4940 | N/A | N/A |
|  | n78 | 3487 | 10 | 50 | 3487 | 29.8 | IMD2 |
| DC\_28A\_n8A-n78A | 28 | 728 | 5 | 25 | 783 | N/A | N/A |
|  | n8 | 910 | 5 | 25 | 955 | N/A | N/A |
|  | n78 | 3458 | 10 | 50 | 3458 | 9.1 | IMD4 |
|  | 28 | 713 | 5 | 25 | 768 | N/A | N/A |
|  | n8 | 890 | 5 | 25 | 935 | 4.3 | IMD5 |
|  | n78 | 3787 | 10 | 50 | 3787 | N/A | N/A |
| DC\_29A-30A\_n66A | 29 | N/A | 5 | 25 | 719.5 | 4.5 | IMD5 |
| 30 | 2307.5 | 5 | 25 | 2352.5 | N/A | N/A |
| n66 | 1777.5 | 5 | 25 | 2177.5 | N/A | N/A |
| DC\_30A-66A\_n5A,  DC\_30A-66A-66A\_n5A,  DC\_30A-66A-66A-66A\_n5A | 30 | 2310 | 5 | 25 | 2355 | N/A | N/A |
|  | 66 | 1730 | 5 | 25 | 2130 | 2.5 | IMD5 |
|  | n5 | 830 | 5 | 25 | 875 | N/A | N/A |
| DC\_39A\_n40A-n79A | 39 | 1917.5 | 5 | 25 | 1917.5 | N/A | N/A |
|  | n40 | 2302.5 | 5 | 25 | 2302.5 | N/A | N/A |
|  | n79 | 4980 | 40 | 216 | 4980 | 5.8 | IMD4 |
| DC\_39A\_n41A-n79A | 39 | 1900 | 5 | 25 | 1900 | N/A | N/A |
|  | n41 | 2620 | 10 | 50 | 2620 | N/A | N/A |
|  | n79 | 4520 | 40 | 216 | 4520 | 29.8 | IMD24 |
|  | 39 | 1900 | 5 | 25 | 1900 | N/A | N/A |
|  | n41 | 2620 | 10 | 50 | 2620 | 30.2 | IMD24 |
|  | n79 | 4520 | 40 | 216 | 4520 | N/A | N/A |
| DC\_41A\_n3A-n77A  DC\_41C\_n3A-n77A  DC\_41A\_n3A-n78A  DC\_41C\_n3A-n78A | 41 | 2620 | 5 | 25 | 2620 | N/A | N/A |
|  | n3 | 1745 | 5 | 25 | 1840 | 16.4 | IMD3 |
|  | n77/n78 | 3400 | 10 | 50 | 3400 | N/A | N/A |
|  | 41 | 2580 | 5 | 25 | 2580 | N/A | N/A |
|  | n3 | 1720 | 5 | 25 | 1815 | N/A | N/A |
|  | n77/n78 | 3440 | 10 | 50 | 3440 | 16.8 | IMD34 |
| DC\_41A\_n28A-n77A  DC\_41C\_n28A-n77A  DC\_41A\_n28A-n78A  DC\_41C\_n28A-n78A | 41 | 2580 | 5 | 25 | 2580 | N/A | N/A |
|  | n28 | 743 | 5 | 25 | 798 | N/A | N/A |
|  | n77/n78 | 3323 | 10 | 50 | 3323 | 28.2 | IMD21 |
|  | 41 | 2642 | 5 | 25 | 2642 | N/A | N/A |
|  | n28 | 743 | 5 | 25 | 798 | 30.8 | IMD21 |
|  | n77/n78 | 3440 | 10 | 50 | 3440 | N/A | N/A |
| DC\_46A-66A\_n5A | 46 | 5163 | 10 | 50 | 5163 | 9.0 | IMD4 |
|  | 66 | 1775 | 5 | 25 | 2175 | N/A | N/A |
|  | n5 | 847 | 5 | 25 | 892 | N/A | N/A |
| DC\_46A-66A\_n25A4  DC\_46C-66A\_n25A4  DC\_46D-66A\_n25A4 | 46 | 5505 | 10 | 50 | 5505 | 16.1 | IMD3 |
|  | 66 | 1775 | 5 | 25 | 2175 | N/A | N/A |
|  | n25 | 1855 | 5 | 25 | 1935 | 20 | IMD3 |
|  | 46 | 5505 | 10 | 50 | 5505 | 16.1 | IMD3 |
|  | 66 | 1750 | 5 | 25 | 2150 | 4 | IMD5 |
|  | n25 | 1883.3 | 5 | 25 | 1963.3 | N/A | N/A |
|  | 46 | 5505 | 10 | 50 | 5505 | 16.1 | IMD3 |
|  | 66 | 1712.5 | 5 | 25 | 2112.5 | 23 | IMD3 |
|  | n25 | 1912.5 | 5 | 25 | 1992.5 | N/A | N/A |
| DC\_48A-66A\_n12A | 48 | 3580 | 5 | 25 | 3580 | N/A | N/A |
|  | 66 | 1760 | 5 | 25 | 2160 | 17.1 | IMD3 |
|  | n12 | 710 | 5 | 25 | 740 | N/A | N/A |
| DC\_48A-66A\_n71A | 48 | 3560 | 5 | 25 | 3560 | N/A | N/A |
|  | 66 | 1774 | 5 | 25 | 2174 | 15.8 | IMD3 |
|  | n71 | 693 | 5 | 25 | 647 | N/A | N/A |
|  | 48 | 3697.5 | 5 | 25 | 3697.5 | 13.0 | IMD4 |
|  | 66 | 1712.5 | 5 | 25 | 2112.5 | N/A | N/A |
|  | n71 | 665.5 | 5 | 25 | 619.5 | N/A | N/A |
| DC\_66A\_n7A-n78A,  DC\_66A-66A\_n7A-n78  DC\_66A\_n7(2A)-n78A  DC\_66A-66A\_n7(2A)-n78A  DC\_66A\_n7A-n78(2A)  DC\_66A-66A\_n7A-n78(2A)  DC\_66A-66A\_n7(2A)-n78(2A) | 66 | 1730 | 5 | 25 | 2130 | N/A | N/A |
|  | n7 | 2560 | 5 | 25 | 2680 | N/A | N/A |
|  | n78 | 3390 | 10 | 50 | 3390 | 16.1 | IMD3 |
| DC\_66A\_n25A-n41A | 66 | 1715 | 5 | 25 | 2115 | N/A | N/A |
|  | n41 | 2685 | 10 | 50 | 2685 | N/A | N/A |
|  | n25 | 1860 | 5 | 25 | 1940 | 5 | 11.0 |
| DC\_66A\_n38A-n78A | 66 | 1760 | 5 | 25 | 2160 | N/A | N/A |
|  | n38 | 2610 | 10 | 50 | 2610 | N/A | N/A |
|  | n78 | 3460 | 10 | 50 | 3460 | 15.0 | IMD3 |
| DC\_66A\_n66A-n78A | 66 | 1775 | 5 | 25 | 2175 | N/A | N/A |
|  | n66 | 1725 | 5 | 25 | 2125 | 2.8 | IMD5 |
|  | n78 | 3725 | 10 | 50 | 3725 | N/A | N/A |
| NOTE 1: This band is subject to IMD3 also which MSD is not specified.  NOTE 2: For DC\_3A\_n3A-n77A, DC\_3A\_n3A-n78A paired with UL\_DC\_3A\_n3A, the 3rd DL bands n77/n78 are subject to IMD2 which MSD is not specified  NOTE 3: This MSD requirement apply with both IMD2 and IMD3 products should be generated.  NOTE 4: This band is subject to IMD5 also which MSD is not specified.  NOTE 5: When Band 46 have self-interference problems by dual uplink CA/EN-DC, then the requirements do not apply in exclusion zone which is frequency range within (harmonics frequency region + FHD) and IMD frequency region as follow.  IMD frequency range   |  |  |  |  | | --- | --- | --- | --- | | DL\_CA configuration | UL\_CA configuration | Exclusion zone center frequency | Exclusion zone BW | | DC\_2A-46A\_n66A | DC\_2A\_n66A | 2\*fc\_2A + fc\_n66A | 2\*BW\_2A + BW\_n66A | | DC\_2A-46A\_n66A | DC\_2A\_n66A | fc\_2A + 2\*fc\_n66A | BW\_2A + 2\*BW\_n66A |   NOTE 6: For NR band, UL/DL BW and UL LCRB can be adjusted according to the supported BW and lowest SCS supported by the UE.  NOTE 7: E-UTRA carrier shall be set to min(+20 dBm, PCMAX\_L\_E-UTRA,c) and NR carrier shall be set to min(+20 dBm, PCMAX\_L,f,c,NR) as defined in clause 6.2B.4.1.3. | | | | | | | |

## **<<Next of Change>>**

##### 7.3B.2.3.4 Reference sensitivity exceptions due to cross band isolation for EN-DC in NR FR1

Sensitivity degradation is allowed for a band if it is impacted by UL of another band part of the same EN-DC configuration due to cross band isolation issues. Reference sensitivity exceptions for the victim band are specified in Table 7.3B.2.3.4-1 and Table 7.3B.2.3.4-1a with uplink configuration of the agressor band specified in Table 7.3B.2.3.4-2.

Table 7.3B.2.3.4-1: Reference sensitivity exceptions (MSD) due to cross band isolation for PC3 EN-DC in NR FR1

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E-UTRA or NR Band / Channel bandwidth of the affected DL band / MSD | | | | | | | | | | | | | | |
| UL band | DL band | 5 MHz  (dB) | 10 MHz  (dB) | 15 MHz  (dB) | 20 MHz  (dB) | 25 MHz  (dB) | 30 MHz  (dB) | 40 MHz  (dB) | 50 MHz  (dB) | 60 MHz  (dB) | 70 MHz  (dB) | 80 MHz  (dB) | 90 MHz  (dB) | 100 MHz  (dB) |
| n13 | 3 | [3] | 2.3 | 2 | 1.8 |  |  |  |  |  |  |  |  |  |
| n1 | 40 | 6.6 | 6.6 | 6.6 | 6.6 |  |  |  |  |  |  |  |  |  |
| 13 | n3 | 3 | 2.2 | 1.9 | 1.7 | 1.6 | 1.5 | 1.4 |  |  |  |  |  |  |
| 1 | n40 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 |  | 6.6 |  |  |
| 1 | n41 |  | 6.1 | 6.1 | 6.1 |  | 6.1] | 6.1 | 6.1 | 6.1 |  | 6.1 | 6.1 | 6.1 |
| n3 | 11 | 6.4 | 6.1 |  |  |  |  |  |  |  |  |  |  |  |
| 3 | n41 |  | 0.7 | 0.7 | 0.7 |  | 0.7 | 0.7 | 0.7 | 0.7 |  | 0.7 | 0.7 | 0.7 |
| 3 | n51 | 6.4 |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 | n66 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 |  |  |  |  |  |  |
| n3 | 41 | 0.7 | 0.7 | 0.7 | 0.7 |  |  |  |  |  |  |  |  |  |
| n5 | 28 | [17.5] | [15.8] | [14.0] | [11.7] |  |  |  |  |  |  |  |  |  |
| 7 | n40 | 3.7 | 3.4 | 3.2 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 |  | 3.1 |  |  |
| n34 | 3 | 3 | 2.2 | 1.9 | 1.7 |  |  |  |  |  |  |  |  |  |
| n38 | 1 | 1.9 | 1.9 | 1.9 | 1.9 |  |  |  |  |  |  |  |  |  |
| n38 | 2 | 0.6 | 0.6 | 0.6 | 0.6 |  |  |  |  |  |  |  |  |  |
| n38 | 4 | 1.9 | 1.9 | 1.9 | 1.9 |  |  |  |  |  |  |  |  |  |
| n38 | 66 | 1.9 | 1.9 | 1.9 | 1.9 |  |  |  |  |  |  |  |  |  |
| n40 | 1 | 8.3 | 8.3 | 8.3 | 8.3 |  |  |  |  |  |  |  |  |  |
| n41 | 4 | 3.5 | 3.5 | 3.5 | 3.5 |  |  |  |  |  |  |  |  |  |
| 40 | n1 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 |  |  |  |  |  |
| n40 | 7 | 3.7 | 3.7 | 3.7 | 3.7 |  |  |  |  |  |  |  |  |  |
| n41 | 1 | 9.1 | 9.1 | 9.1 | 9.1 |  |  |  |  |  |  |  |  |  |
| n41 | 2 | 0.6 | 0.6 | 0.6 | 0.6 |  |  |  |  |  |  |  |  |  |
| n41 | 3 | 0.6 | 0.6 | 0.6 | 0.6 |  |  |  |  |  |  |  |  |  |
| 41 | n3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |  |  |  |  |  |  |
| n41 | 661 | 3.5 | 3.5 | 3.5 | 3.5 |  |  |  |  |  |  |  |  |  |
| n41 | 25 | 0.6 | 0.6 | 0.6 | 0.6 |  |  |  |  |  |  |  |  |  |
| n50 | 3 | 2.5 | 1.9 | 1.6 | 1.5 |  |  |  |  |  |  |  |  |  |
| n77 | 71 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |  |  |  |  |  |
| n77 | 411 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |  |  |  |  |  |
| 41 | n77 |  | 8.3 | 8.3 | 8.3 | 7.3 | 6.5 | 6.3 | 5.3 | 4.5 | 4.3 | 4.0 | 3.9 | 3.8 |
| n78 | 71 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |  |  |  |  |  |
| n78 | 38 | 3.3 | 3.3 | 3.3 | 3.3 |  |  |  |  |  |  |  |  |  |
| n78 | 401 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |  |  |  |  |  |
| n78 | 411 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |  |  |  |  |  |
| n78 | 46 |  |  |  | 7 |  |  |  |  |  |  |  |  |  |
| 41 | n78 |  | 8.3 | 8.3 | 8.3 | 7.3 | 6.5 | 6.3 | 5.3 | 4.5 | 4.3 | 4.0 | 3.9 | 3.8 |
| n79 | 426 | 2.6 | 2.6 | 2.6 | 2.6 |  |  |  |  |  |  |  |  |  |
| n843 | 3 | 3 | 2.3 | 2 | 1.8 |  |  |  |  |  |  |  |  |  |
| 48 | n46 | - | - | - | 7 | - | - | 5.7 | - | 5.1 | - | 4.7 | - | - |
| n46 | 48 | 13.3 | 10.4 | 8.8 | 7.8 | - | - | 7.8 | 7 | 6.5 | - | 5.7 | 5.4 | 5.1 |
| NOTE 1: Applicable only when harmonic mixing MSD for this combination is not applied.  NOTE 2: The B41 requirements are modified by -0.5dB when carrier frequency of the assigned E-UTRA channel bandwidth is within 2515 – 2690 MHz.  NOTE 3: These requirements apply when the uplink is active in Band n1, n84 and the separation between the lower edge of the uplink channel in Band n1, n84 and the upper edge of the downlink channel in Band 3 is < 60 MHz. For each channel bandwidth in Band 3, the requirement applies regardless of channel bandwidth in Band n1, n84.  NOTE 4: The DL victim band should be configured using the lowest SCS that is compatible with the highest CBW for which an MSD is specified.  NOTE 5: MSD test point can be chosen according to supported BW and lowest SCS supported by the UE.  NOTE 6: The requirements only apply for UEs supporting inter-band DC\_42\_n79 ENDC with simultaneous Rx/Tx capability. Simultaneous Rx/Tx capability does not apply for UEs supporting band 42 with a n77 implementation only. These restrictions are applicable to related higher order configurations. | | | | | | | | | | | | | | |

Table 7.3B.2.3.4-1a: Reference sensitivity exceptions (MSD) due to cross band isolation for PC2 EN-DC in NR FR1

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | E-UTRA or NR Band / Channel bandwidth of the affected DL band / MSD | | | | | | | | | | | | |
| UL band | DL band | 5 MHz  (dB) | 10 MHz  (dB) | 15 MHz  (dB) | 20 MHz  (dB) | 25 MHz  (dB) | 30 MHz  (dB) | 40 MHz  (dB) | 50 MHz  (dB) | 60 MHz  (dB) | 80 MHz  (dB) | 90 MHz  (dB) | 100 MHz  (dB) |
| 3 | n41 |  | 0.7 | 0.7 | 0.7 |  | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| n41 | 3 | 2.3 | 2.3 | 2.3 | 2.3 |  |  |  |  |  |  |  |  |

Table 7.3B.2.3.4-2: Uplink configuration for reference sensitivity exceptions due to cross band isolation for EN-DC in NR FR1

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E-UTRA or NR Band / SCS / Channel bandwidth of the affected DL band / UL RB allocation of the agressor band | | | | | | | | | | | | | | | |
| UL band | DL band | SCS of UL band (kHz) | 5 MHz  (LCRB) | 10 MHz  (LCRB) | 15 MHz  (LCRB) | 20 MHz  (LCRB) | 25 MHz  (LCRB) | 30 MHz  (LCRB) | 40 MHz  (LCRB) | 50 MHz  (LCRB) | 60 MHz  (LCRB) | 70 MHz  (LCRB) | 80 MHz  (LCRB) | 90 MHz  (LCRB) | 100 MHz  (LCRB) |
| n1 | 3 | 15 | 25 | 25 | 25 | 25 |  |  |  |  |  |  |  |  |  |
| n1 | 40 | 15 | 25 | 50 | 75 | 100 |  |  |  |  |  |  |  |  |  |
| 1 | n3 | 15 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |  |  |  |  |  |  |
| 1 | n40 | 15 | 25 | 50 | 75 | 100 | 100 | 100 | 100 | 100 | 100 |  | 100 |  |  |
| 1 | n41 | 15 |  | 100 | 100 | 100 |  | 100 | 100 | 100 | 100 |  | 100 | 100 | 100 |
| n3 | 11 | 15 | 25 | 50 |  |  |  |  |  |  |  |  |  |  |  |
| 3 | n41 | 15 |  | 50 | 50 | 50 |  | 50 | 50 | 50 | 50 |  | 50 | 50 | 50 |
| 3 | n51 | 15 | 25 |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 | n66 | 15 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |  |  |  |  |  |  |
| n3 | 41 | 15 | 25 | 502 | 502 | 502 |  |  |  |  |  |  |  |  |  |
| n5 | 28 | 15 | 20 | 20 | 20 | 20 |  |  |  |  |  |  |  |  |  |
| 7 | n40 | 15 | 25 | 50 | 75 | 75 | 75 | 100 | 100 | 100 | 100 |  | 100 |  |  |
| n34 | 3 | 15 | 25 | 25 | 25 | 25 |  |  |  |  |  |  |  |  |  |
| n38 | 1 | 15 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  |  |
| n38 | 2 | 15 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  |  |
| n38 | 4 | 15 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  |  |
| n38 | 66 | 15 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |  |  |  |
| n40 | 1 | 15 | 25 | 50 | 75 | 100 |  |  |  |  |  |  |  |  |  |
| n41 | 4 | 30 | 128 | 128 | 128 | 128 |  |  |  |  |  |  |  |  |  |
| 40 | n1 | 15 | 25 | 50 | 75 | 100 |  |  |  |  |  |  |  |  |  |
| n40 | 7 | 30 | 216 | 216 | 216 | 216 |  |  |  |  |  |  |  |  |  |
| n41 | 1 | 30 | 128 | 128 | 128 | 128 |  |  |  |  |  |  |  |  |  |
| n41 | 2 | 30 | 160 | 160 | 160 | 160 |  |  |  |  |  |  |  |  |  |
| n41 | 3 | 30 | 160 | 160 | 160 | 160 |  |  |  |  |  |  |  |  |  |
| 41 | n3 | 15 | 25 | 50 | 75 | 100 | 100 | 100 | 100 |  |  |  |  |  |  |
| n41 | 66 | 30 | 128 | 128 | 128 | 128 |  |  |  |  |  |  |  |  |  |
| n41 | 25 | 30 | 160 | 160 | 160 | 160 |  |  |  |  |  |  |  |  |  |
| n50 | 3 | 30 | 160 | 160 | 160 | 160 |  |  |  |  |  |  |  |  |  |
| n77 | 7 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| n77 | 41 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| 41 | n77 | 15 |  | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| n78 | 7 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| n78 | 38 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| n78 | 40 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| n78 | 41 | 30 | 270 | 270 | 270 | 270 |  |  |  |  |  |  |  |  |  |
| n78 | 46 | 30 |  |  |  | 270 |  |  |  |  |  |  |  |  |  |
| 41 | n78 | 15 |  | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| n79 | 42 | 30 | 2705 | 2705 | 2705 | 2705 |  |  |  |  |  |  |  |  |  |
| n84 | 3 | 15 | 25 | 25 | 25 | 25 |  |  |  |  |  |  |  |  |  |
| 48 | n46 | 15 |  |  |  | 216 |  |  | 216 |  | 216 |  | 216 |  |  |
| n46 | 48 | 30 | 216 | 216 | 216 | 216 |  |  | 216 | 216 | 216 |  | 216 | 216 | 216 |
| NOTE 1: The UL configuration applies regardless of the channel bandwidth of the UL band. UL resource blocks allocation in the table shall be further limited to that specified in Table 7.3.1-2 in TS 36.101 [4] or Table 7.3.2-3 in TS 38.101-1 [2].  NOTE 2: The UL resource blocks shall be located as close as possible to the downlink operating band but confined within the transmission bandwidth configuration for the channel bandwidth.  NOTE 3: When the maximum UL RB allocation “LCRB” value is less than the maximum transmission bandwidth configuration “NRB” defined in Table 5.3.2-1 in 38.101-1 [2] for the specified UL band SCS, the UL band should be configured using the lowest CBW that is compatible with the maximum specified LCRB value.  NOTE 4: If the aggressor band is NR band, the test SCS and UL RB can be adjusted according to supported BW and lowest SCS supported by the UE.  NOTE 5: The requirements only apply for UEs supporting inter-band ENDC with simultaneous Rx/Tx capability. Simultaneous Rx/Tx capability does not apply for UEs supporting band 42 with a n77 implementation only. These restrictions are applicable to related higher order configurations. | | | | | | | | | | | | | | | |

## **<<End of Change>>**