**3GPP TSG-RAN WG4 Meeting #106 R4-2301086**

**Athens, Greece, 27th February – 3rd March 2023**

**Source:** Ericsson, BT plc

**Title:** TP for TR 37.718-21-11: Including band combinations DC\_20-(n)3

**Agenda item:** 8.4.2

**Document for:** Approval

# 1. Introduction

A text proposal for TR 37.718-21-11 to add DC\_20A-(n)3AA.

# 2. Text Proposal

---Start of changes---

## 5.x DC\_20-(n)3

5.x.1 Operating bands for EN-DC

Table 5.x.1-1: EN-DC Band combinations (three bands)

| EN-DC band | E-UTRA CA band | NR band | Single UL allowed |
| --- | --- | --- | --- |
| DC\_20-(n)3 | CA\_3-20 | n3 | No |

### 5.x.2 Configuration for DC

Table 5.x.2-1: Inter-band EN-DC configurations (three bands)

| EN-DC  Configuration | Uplink EN-DC  configuration  (NOTE 1) | E-UTRA CA configuration | NR band |
| --- | --- | --- | --- |
| DC\_20A-(n)3AA | DC\_(n)3AA2  DC\_20A\_n3A | CA\_3A-20A | n3A |
| NOTE 2: Only single switched UL is supported | | | |

5.x.3 ∆TIB and ∆RIB values

For DC\_20-(n)3, the ΔTIB,c and ΔRIB,c values are reused from DC\_20\_n3 and are given in the tables below.

**Table 5.x.3-1:ΔTIB,c due to EN-DC (three bands)**

| Inter-band EN-DC configuration | ΔTIB,c for E-UTRA band / NR band (dB)6 | | |
| --- | --- | --- | --- |
| Component band in order of bands in configuration7 | | |
| DC\_20-(n)3 | 0.3 | 0.3 | 0.3 |
| NOTE 6: “-” denotes ΔTIB,c = 0.  NOTE 7: The component band order in the configuration should be listed by the order of E-UTRA band and NR band respectively, such as for DC\_66\_(n)12 the band order from left to right is 12, 66 and n12. | | | |

**Table 5.x.3-2:ΔRIB,c due to EN-DC (three bands)**

| **Inter-band EN-DC configuration** | ΔRIB,c for E-UTRA band / NR band (dB)7 | | |
| --- | --- | --- | --- |
| Component band in order of bands in configuration8 | | |
| DC\_20-(n)3 | - | - | - |
| NOTE 7: “-” denotes ΔRIB,c = 0.  NOTE 8: The component band order in the configuration should be listed by the order of E-UTRA band and NR band respectively, such as for DC\_5\_(n)12 the band order from left to right is 5, 12 and n12. | | | |

5.x.4 REFSENS requirements

There are IMD4 impact from UL 20\_n3 affecting DL band 3.

MSD value band n3 is derived from DC\_3\_n20.

A similar approach to the effect on SCell as DC\_3\_(n)7 (see R4-2216086) has been used for MSD value band 3.

| 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\_20A-(n)3AA | 3 | N/A | 5 | N/A | 1865 | 3 | IMD4 |
|  | n3 | 1775 | 5 | 25 | 1870 | 4 | IMD4 |
|  | 20 | 840 | 5 | 25 | 799 | N/A | N/A |

---End of changes---

# Reference

[1] RP-223348, Rel-18 Dual Connectivity (DC) of 2 bands LTE inter-band CA (2DL/1UL) and 1 NR band (1DL/1UL), Huawei, HiSilicon