**3GPP TSG-RAN WG4 Meeting #106 R4-2301089**

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

**Source:** Ericsson, BT plc

**Title:** TP for TR 37.718-11-21: Including band combination DC\_(n)3-n67

**Agenda item:** 8.6.2

**Document for:** Approval

# 1. Introduction

A text proposal for TR 37.718-11-21 to add DC\_(n)3-n67.

# 2. Text Proposal

---Start of changes---

6.x DC\_(n)3-n67

### 6.x.1 Configuration for DC

Table 6.x.1-1: LTE 1 band DL/1UL + NR 2 bands DL/1UL DC operating bands

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E-UTRA and NR DC Band | E-UTRA and NR Band | Uplink (UL) operating band | | | Downlink (DL) operating band | | | Duplex Mode |
| BS receive / UE transmit | | | BS transmit / UE receive | | |
| FUL\_low – FUL\_high | | | FDL\_low – FDL\_high | | |
| DC\_(n)3-n67 | 3 | 1710 MHz | – | 1785 MHz | 1805 MHz | – | 1880 MHz | FDD |
| n3 | 1710 MHz | – | 1785 MHz | 1805 MHz | – | 1880 MHz | FDD |
| n67 | N/A | | | 738 MHz | – | 758 MHz | FDD |

Table 6.x.2-1: Inter-band EN-DC configurations (three bands)

| EN-DC  Configuration | Uplink EN-DC  configuration  (NOTE 1) |
| --- | --- |
| DC\_(n)3AA-n67A | DC\_(n)3AA2 |
| NOTE 2: Only single switched UL is supported | |

### 6.x.2 Channel bandwidths per operating band for DC

Table 6.x.2-1: Supported bandwidths per DC band combination of LTE 1DL/1UL + NR 2DL/1UL

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | | DC operating / channel bandwidth | | | | | | | | | | | | | | | | | |
| E-UTRA and NR DC Configuration | | | E-UTRA and NR Band | | Subcarrier spacing  [kHz] | 5  MHz | 10  MHz | 15  MHz | 20  MHz | 25 MHz | 30 MHz | 35 MHz | 40  MHz | 45  MHz | 50  MHz | 60  MHz | 70  MHz | 80  MHz | 90 MHz | 100 MHz | Maximum aggregated bandwidth  [MHz] |
| DC\_(n)3AA-n67A | | | 3 | | 15 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  |  |  | 70 |
| n3 | | 15 | 5 | 10 | 15 | 20 | 25 | 30 |  |  |  |  |  |  |  |  |  |
| 30 |  | 10 | 15 | 20 | 25 | 30 |  |  |  |  |  |  |  |  |  |
| 60 |  | 10 | 15 | 20 | 25 | 30 |  |  |  |  |  |  |  |  |  |
| n67 | | 15 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  |  |  |
| 30 |  | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  |  |  |
| 60 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

### 6.x.3 Co-existence studies

UL DC\_3\_n67 is not a possible UL configuration since n67 is SDL.

6.x.4 ∆TIB and ∆RIB values

For DC\_(n)3-n67, the ΔTIB,c and ΔRIB,c values are reused from DC\_3\_n67 and are given in the tables below.

**Table 6.x.4-1: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\_(n)3-n67 | - | - | - |
| 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 6.x.4-2: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\_(n)3-n67 | 0.3 | 0.3 | - |
| 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. | | | |

6.x.5 MSD requirements

MSD value does not need to be defined.

---End of changes---

# Reference

[1] R4-2218027, Revised WID on Rel-18 Dual Connectivity (DC) of x bands (x=1,2,3,4) LTE inter-band CA (xDL/1UL) and 2 bands NR inter-band CA (2DL/1UL), LG Electronics Deutschland

[2] R4-2218026, TR 37.718-11-21 v0.3.0 TR Update: LTE(xDL/1UL)+ NR(2DL/1UL) DC in Rel-18, LG Electronics Deutschland