3GPP TSG-RAN WG4 Meeting #110bis R4-2404228

Changsha, China, 15th - 19th April 2024

Title: TP for TR37.718-21-11 Support of DC\_3A-11A\_n1A

Source: Softbank

Agenda Item: 5.4.2

Document for: Approval

# **Introduction**

This contribution is a text proposal for TR 37.718-21-11[6] combinations as requested in RAN4#109.

* EN-DC 3-11\_n1 (2 band LTE (2 DL / 1 UL)) and 1 NR bands (1 DL / 1 UL))

# **Reference**

[1] 3GPP TR 21.905 Vocabulary for 3GPP Specifications (Release 17) V17.1.0

[5] 3GPP TS37.718-11-21 Rel-18 DC of x bands (x=1,2,3,4) LTE inter-band CA (xDL/1UL) and 2 bands NR inter-band CA (2DL/1UL) (Release 18) V0.8.0

[6] 3GPP TS37.718-21-11 Dual Connectivity of 2 bands LTE inter-band CA and 1 NR band (Release 18) V0.8.0

[7] 3GPP TS38.101-1 User Equipment (UE) radio transmission and reception; Part 1: Range 1 Standalone (Release 18) V18.3.0

# **Text Proposal**

# **-- Start of TP –**

**-- Unaffected parts omitted –**

5.x DC\_3-11\_n1

1. 5.x.1 Configurations for DC

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

| **EN-DC**  **configuration** | **Uplink EN-DC**  **configuration**  **(NOTE 1)** |
| --- | --- |
| DC\_3A-11A\_n1A | DC\_3A\_n1A DC\_11A\_n1A |

1. 5.x.2 Co-existence studies

When uplink is DC\_3A\_n1A there is IMD3 and IMD5 interfering band 11 downlink.

There is no impact from UL 11\_n1 interfering band 3 downlink.

1. 5.x.3 ∆TIB and ∆RIB values
2. 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\_3-11\_n1 | 0.9 | 0.8 | 0.3 |

1. 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\_3-11\_n1 | 0.5 | 0.3 | - |

1. 5.x.4 Reference sensitivity exceptions

**Tab**le 5.x.4-1: 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\_3A-11A\_n1A | 3 | 1730 | 5 | 25 | 1820 | N/A | N/A |
| n1 | 1970 | 5 | 25 | 2150 | N/A | N/A |
| 11 | N/A | 5 | 25 | 1490 | 15.2 |  |
| NOTE 4:This band is subject to IMD5 also which MSD is not specified. | | | | | | | |

**-- Unaffected parts omitted –**

**-- End of TP --**