3GPP TSG-RAN WG4 Meeting # 97-e R4-201xxxx

Electronic Meeting, 2nd – 13th November, 2020

**Source:** Huawei, HiSilicon

**Title:** TP for TR 36.717-04-01 CA\_1A-7A-8A-38A

**Agenda item:** 14.3.2

**Document for:** Approval

# Background

This contribution provides text proposal on the LTE CA configuration CA\_1A-7A-8A-38A as defined in the revised WID [1].

# Reference

[1] RP-201911, “Revised WID: LTE Advanced inter-band CA Rel-17 for x bands DL (x=4, 5) with 1 band UL”, Nokia, Nokia Shanghai Bell

# Text Proposal

##### ---Start of changes---

## 5.x CA\_1-7-8-38

### 5.x.1 Channel bandwidths per operating band for CA

Table 5.x.1-1: E-UTRA CA configurations and bandwidth combination sets defined for inter-band CA

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E-UTRA CA configuration / Bandwidth combination set | | | | | | | | | | |
| E-UTRA CA Configuration | Uplink CA configurations | E-UTRA Bands | 1.4 MHz | 3 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz | Maximum aggregated bandwidth  [MHz] | Bandwidth combination set |
| CA\_1A-7A-8A-38Ax | - | 1 |  |  | Yes | Yes | Yes | Yes | 70 | 0 |
| 7 |  |  | Yes | Yes | Yes | Yes |
| 8 |  |  | Yes | Yes |  |  |
| 38 |  |  | Yes | Yes | Yes | Yes |
| NOTE x: UL carrier shall be supported in Band 1 or 8 only. Power imbalance between downlink carriers on Band 7 and Band 38 is assumed to be within [6dB]. | | | | | | | | | | |

### 5.x.2 ∆TIB and ∆RIB values

Table 5.x.2-1: IB,c

|  |  |  |
| --- | --- | --- |
| CA\_1-7-8-38 | 1 | 0.5 |
| 7 | 0.5 |
| 8 | 0.5 |
| 38 | 0.5 |

Table 5.x.2-2: R IB,c

|  |  |  |
| --- | --- | --- |
| CA\_1-7-8-38 | 1 | 0 |
| 7 | 0 |
| 8 | 0 |
| 38 | 0.2 |

### 5.x.3 REFSENS requirements

The MSD requriements for CA\_1A-7A-8A-38A are shown below.

Table 5.x.3-1: Reference sensitivity for carrier aggregation QPSK PREFSENS, CA (exceptions due to cross band isolation issues of TDD and FDD bands)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EUTRA CA Configuration | EUTRA band | Channel bandwidth | | | | | | Duplex mode | Applicable active UL band |
| 1.4 MHz (dBm) | 3 MHz (dBm) | 5 MHz (dBm) | 10 MHz (dBm) | 15 MHz (dBm) | 20 MHz (dBm) |
| CA\_1A-7A-8A-38A | 719 |  |  | -93.3 | -90.7 | -89.2 | -88.1 | FDD | 1 |
| 38 |  |  | -93.3 | -90.7 | -89.2 | -88.1 | TDD |
| NOTE 19: Applicable for the operations with 2 or 4 antenna ports supported in the band with carrier aggregation configured. | | | | | | | | | |

Table 5.x.3-2: Uplink configuration for reference sensitivity (exceptions due to cross band isolation issues of TDD and FDD bands)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E-UTRA Band / Channel bandwidth of the affected DL band / NRB / Duplex mode | | | | | | | | |
| EUTRA CA Configuration | E-UTRA Band | 1.4 MHz | 3 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz | Duplex Mode |
| CA\_1A-7A-8A-38A | 1 |  |  | 25 | 45 | 451 | 451 | FDD |
| NOTE 1: 1 refers to 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 (Table 5.6-1). | | | | | | | | |

Table 5.x.3-3: Reference sensitivity for carrier aggregation QPSK PREFSENS, CA (exceptions due to harmonic issue)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Channel bandwidth | | | | | | | | |
| EUTRA CA Configuration | EUTRA band | 1.4 MHz (dBm) | 3 MHz (dBm) | 5 MHz (dBm) | 10 MHz (dBm) | 15 MHz (dBm) | 20 MHz (dBm) | Duplex mode |
| CA\_1A-7A-8A-38A 5,6 | 733 |  |  |  | -87.1 | -86.7 | -86.4 | FDD |
| NOTE 5: These requirements apply when there is at least one individual RE within the uplink transmission bandwidth of a low band for which the 3rd transmitter harmonic is within the downlink transmission bandwidth of a high band.  NOTE 6: The requirements should be verified for UL EARFCN of a low band (superscript LB) such that in MHz and  with the carrier frequency of a high band in MHz and  the channel bandwidth configured in the low band.  NOTE 33: Applicable for the operations with 2 or 4 antenna ports supported in the band with carrier aggregation configured. | | | | | | | | |

Table 5.x.3-4: Uplink configuration for the low band (exceptions due to harmonic issue)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E-UTRA Band / Channel bandwidth of the high band / NRB / Duplex mode | | | | | | | | |
| EUTRA CA Configuration | UL band | 1.4 MHz | 3 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz | Duplex mode |
| CA\_1A-7A-8A-40A | 8 |  |  | 8 | 16 | 25 | 25 | FDD |

##### ---End of changes---