3GPP TSG-RAN WG4 Meeting # 111 R4-2405263

**Fukuoka, Japan, 20th – 24th May 2024**

**Agenda item:** 6.17

**Source:** Moderator (China Telecom)

**Title:** Topic summary for [111][112] HPUE\_Basket\_inter-CA\_SUL

**Document for:** Information

# Introduction

*List of candidate target of discussions for this topic.*

* *PC2 and PC1.5 indications in BC configuration tables*
* *TPs and draft CRs.*

# Topic #1: HPUE\_FR1\_TDD\_NR\_CADC\_SUL\_R18

*Main technical topic overview. The structure can be done based on sub-agenda basis.*

## Companies’ contributions summary

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| --- | --- | --- |
| **T-doc number** | **Proposals / Observations** | **Company** |
| R4-2407088 | On PC2 and PC1.5 indications in BC configuration tables | Apple |
| R4-2407089 | CR for 38.101-1 to add general text descriptions on higher power class(es) applicability for higher order band combinations | Apple |
| R4-2407169 | TP for TR38.899 to add new HP-NRCA combinations for FR1 | SoftBank Corp. |
| R4-2407171 | Draft CR for TS38.101-1 to add new HP-NRCA combinations for FR1 | SoftBank Corp. |
| R4-2407211 | TP for TR38.899 to add new HP-NRCA 1-77-79 with 2UL | SoftBank Corp., LG Electronics |
| R4-2407703 | (HPUE\_FR1\_TDD\_NR\_CADC\_SUL\_R18) CR for 38.101-1: Corrections for missing PC2 CA\_n41C and MOP Table | T-Mobile USA |
| R4-2407705 | Draft CR for 38.101-1: T-Mobile USA HPUE Combinations | T-Mobile USA |
| R4-2407948 | (HPUE\_FR1\_TDD\_NR\_CADC\_SUL\_R18) TP for TR 38.899 to introduce PC2 and PC1.5 CA\_n3A-n40A | CMCC, Murata Manufacturing Co Ltd., ZTE Corporation |
| R4-2408458 | draft CR 38.101-1 adding CA\_n77(2A) PC2 UL to CA\_n5A-n25A-n77(3A) | Ericsson, Bell Mobility, TELUS |
| R4-2408863 | Draft CR for NR CA Harmonic Mixing clean-up PC2 PC1.5 | Qualcomm France |
| R4-2409167 | Draft CR 38.101-1 Rel-18 Correction of the MSD values for CA\_n18A-n77A PC2 | KDDI, Samsung, LGE, Murata, Skyworks |
| R4-2409227 | Draft CR 38.101-1 Rel-18 Correction of the MSD values for CA\_n18A-n77A PC3 | KDDI, Samsung, LGE, Murata, Skyworks |
| R4-2409238 | Draft CR 38.101-1 Rel-18 for adding some high power NR CA band combinations | KDDI Corporation |
| R4-2409239 | TP for adding UL CA\_n77(2A) to HPUE CA\_n3-n41-n77(2A) for TR 38.899 | KDDI , Samsung, Qualcomm |
| R4-2409298 | TP for adding UL CA\_n77(2A) to HPUE CA\_n28-n41-n77(2A) for TR 38.899 | KDDI Corporation |
| R4-2409299 | Revised WID for HPUE\_NR\_CADC\_SUL\_R18 RAN4#111 | China Telecom |
| R4-2409300 | Big CR to 38.101-1 new combinations for Rel-18 NR HPUE Inter-band | China Telecom |
| R4-2409346 | TP for 38.899 to add PC2 and PC1.5 UL to CA\_n1-n3-n78 | Ericsson, BT plc |
| R4-2409347 | TP for 38.899 to add PC2 and PC1.5 UL to CA\_n1-n7-n78 | Ericsson, BT plc |
| R4-2409348 | TP for 38.899 to add PC2 and PC1.5 UL to CA\_n1-n28-n78 | Ericsson, BT plc |
| R4-2409349 | TP for 38.899 to add PC2 and PC1.5 UL to CA\_n3-n7-n78 | Ericsson, BT plc |
| R4-2409350 | TP for 38.899 to add PC2 and PC1.5 UL to CA\_n3-n28-n78 | Ericsson, BT plc |
| R4-2409351 | TP for 38.899 to add PC2 and PC1.5 UL to CA\_n7-n28-n78 | Ericsson, BT plc |
| R4-2409352 | TP for 38.899 to add CA\_n78(2A) PC2 UL to CA\_n1A-n78(2A) | Ericsson, BT plc |
| R4-2409353 | TP for 38.899 to add CA\_n78(2A) PC2 UL to CA\_n3A-n78(2A) | Ericsson, BT plc |
| R4-2409354 | TP for 38.899 to add CA\_n78(2A) PC2 UL to CA\_n28A-n78(2A) | Ericsson, BT plc |
| R4-2409361 | draftCR 38.101-1 to add PC2 and PC1.5 UL to NR CA with 2DL and 3DL combinations | Ericsson, Telstra |
| R4-2409421 | Draft CR for NR CA Uplink Harmonic clean-up PC2 | Skyworks Solutions Inc. |
| R4-2409642 | TR for High power UE for FR1 NR inter-band CA/DC or NR SUL band combination with y (1<y<=6) bands DL and x (x=1, 2) bands UL and power class m (m<3) and high power on TDD band(s) | Huawei, HiSilicon, China Telecom |

## Open issues summary

*Before Meeting, moderators shall summarize list of open issues, candidate options and possible WF (if applicable) based on companies’ contributions.*

### Sub-topic 1: PC2 and PC1.5 indications in BC configuration tables

*Open issues and candidate options before meeting:*

**Issue 1-1: General text descriptions on the rules of higher power class(es) applicability for higher order band combinations in TS 38.101-1 (R4-2407089)**

***Proposal 1*:** discuss the following contents added in TS 38.101-1:

### 5.5A.0 General5.5A.0 General

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By default, power class 3 is applicable for the CA configurations listed in the following clauses. The applicability of higher power class(es) is explicitly indicated in the CA configuration tables in clauses 5.5A.1, 5.5A.2 and 5.5A.3. ***For inter-band CA configurations in clause 5.5A.3, the applicability of higher power class(es) for higher order band combinations is based on the following rules:***

* ***For configuration with intra-band CA in the DL, the inter-band UL CA configuration can apply the same higher power class(es) as with the configuration composed of the same bands without intra-band CA in the DL.***
* ***For configuration with intra-band CA in the DL, the higher power class(es) apply for single UL or intra-band UL CA when the same higher power class(es) are specified for all its fallback configurations including single band.***
* ***For configuration with 3 or more DL bands and without intra-band CA in the DL, the higher power class(es) apply for single UL when the same higher power class(es) are specified for all its fallback configurations.***
* ***For configuration with 4 or more DL bands and without intra-band CA in the DL, the higher power class(es) apply for inter-band UL CA configuration when the same higher power class(es) are specified for all its fallback configurations.***

**Issue 1-2: General text descriptions on the rules of higher power class(es) applicability for higher order band combinations in TS 38.101-3 (R4-2407090)**

***Proposal 1*:** discuss the following contents added in TS 38.101-3:

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

***By default, power class 3 is applicable for the EN-DC configurations listed in the following sub-clauses. The applicability of higher power class(es) is explicitly indicated in the EN-DC configuration tables. For higher order EN-DC band combinations, the applicability of higher power class(es) is based on the following rules:***

* ***For EN-DC configuration with intra-band CA in the DL, the UL configuration without intra-band CA can apply the same higher power class(es) as with the EN-DC configuration composed of the same bands without intra-band CA in the DL.***
* ***For EN-DC configuration with 4 or more DL bands and without intra-band CA in the DL, the higher power class(es) apply when the same higher power class(es) are specified for all its fallback configurations.***

### Sub-topic 2: TPs and Darft CRs

**Issue 2-1: TPs and Draft CRs.**

* Proposal:
* Recommended WF: go through CRs one by one