**3GPP TSG-RAN WG4 Meeting #111 R4-2410611**

**Fukuoka, Japan, May 20 - 24, 2024**

**Title:** WF on NR\_cov\_enh2\_R18

**Agenda Item:** 7.17.3

**Source: Huawei, HiSilicon**

**Document for:** Approval

# 1. On Rel-18 power boosting applicability

## 1.1 How to handle MSD for Rel-18 power boosting extension

**Recommended WF**

* For the band combinations that UE indicated as support for Rel-18 power boosting, MSD would only be tested in the cases without power boosting applied, and the new MSD of power boosting cases does not need to be specified and tested again.

## 1.2. Rel-18 power boosting applicability for inter-band UL CA

**Recommended WF:**

* For uplink inter-band UL carrier aggregation with a single uplink component carrier configured in each of every bands, Rel-18 power boosting can be applied with following conditions:
  + Only when the UE support *higherPowerLimit-r17* for this band combination which is an eligible CA configuration as specified in Table 6.2A.1.3-1
    - Alternative 1: Only one band that the UE supports Rel-18 power boosting can be set [powerBoostPi2BPSKRel18] or [powerBoostQPSKRel18] as 1.
    - Alternative 2: UE can indicate the support of [powerBoostTSRel18] or [powerBoostRel18] on only one band.

## 1.3. Rel-18 power boosting applicability for FR1+FR2 CA/DC

**Recommended WF:**

* For FR1+FR2 UL CA and FR1+FR2 DC, power boosting feature is supported in one FR1 NR band, where a single CC is configured in this uplink band.

## 1.4. Sanity check on existing RAN2 signalling aspect

**Recommended WF:**

* RAN4 to verify that can per FS signalling of associated capabilities allow UE to indicate support of case A (DL CA) but not case B (case descried in issue 1.2) or C (case descried in issue 1.3)?
* Check that when parent BC does not indicate the support of Rel-18 power boosting capability, can UE indicate support of Rel-18 power boosting capability for the same band in fallback BC?