**3GPP TSG-RAN4 Meeting #108-bis *R4-2317650***

**Xiamen, China, Oct. 9th - 13th, 2023**

**Title:** WF on enhancement for MPR reduction

**Agenda Item:** 5.27.3

**Source:** Nokia

**Document for:** Approval

# Topic 1 – Power Boosting

**<Agreement>**:

- Power boosting for QPSK is available under network control. A new UE capability is assumed for transparent power boosting for QPSK.

- FFS if the same boosting can be applied for 2/pi BPSK with FDSS shall also be available under network control. The assumption is that legacy power boosting for 2/pi BPSK is not changed, and this is added to the QPSK new capability.

- FFS if this new capability is a single capability or there will be independent capabilities for e.g. power boosting alone or with FDSS.

# Topic 2 - UE output power boundary

**<Agreement>**:

- When boosting is enabled a UE shall only be allowed to boost/increase its output power from its nominal power class with a maximum of [1dB]. The tolerances for the nominal power class applies to the boosted power level.

# Topic 3 - ACLR for QPSK Power Boosting

**<Agreement>**:

- ACLR for the nominal power class apply when power boosting is enabled with a maximum of [1dB] of power boosting.

- For large cells the assumption is that the impact of the leakage increase from the power boosting is acceptable since the ACLR performance associated with the power boosting is better for the inner regions of the RB set.

- For smaller cells, which may be impacted by this leakage the network can choose to schedule the inner RBs, where ACLR performance associated with the power boosting is better, there is no impacting the smaller cells.

# Topic 4 - Spectrum Flatness for QPSK Power Boosting

**<Agreement>**:

- If spectrum flatness requirements from clause 6.4.2.4 in 38.101-1 for QPSK can not be met for the enhancement a new requirement shall be defined.

- FFS if there is different requirements for different RB regions intended for power boosting

# Topic 5 - RB region(s) under consideration

**<Agreement>**:

- Reuse the current RB region definition. i.e. outer/edge and inner.

- For the inner region define a new sub-set used for the enhancement.

- Other sub-set(s) regions are not precluded.

# Topic 6 - RB region(s) definition for power boosting

**<Agreement>**:

- Power boosting will be defined within the inner region.

- Power boosting is equivalent to ΔPpowerboosting=[-1]dB applied to Ppowerclass.

- FFS on whether power boosting is define for outer region or other region

- Whether or not to finalize outer region or other region does not impact the completion of WI