**3GPP TSG-RAN WG4 Meeting #108bis R4-2317597**

**Xiamen, China, October 9–13, 2023**

**Title:** WF on UL power enhancement

**Agenda Item:** 5.27.3

**Source:** Huawei, HiSilicon

**Document for:** Approval

# <Topic #1> Whether ΔPPowerClass reporting also applies to CA/DC scenario

**<Agreement>**:

- ΔPPowerClass reporting also applies to CA/DC scenario.

# <Topic #2> What is ΔPPowerClass reporting occasion based on

**<Agreement>:**

- No need for further clarification since the previously approved LS in R4-2314728 is sufficient.

# <Topic #3> Whether ΔPPowerClass reporting is only specific to HPUE with “Increasing UE power high limit for CA and DC” feature

**<Agreement>:**

- It should be applicable to all HPUE power classes and not be specific to HPUE with “Increasing UE power high limit for CA and DC” feature.

# <Topic #4> How to accommodate ΔPPowerClass reporting with HPUE with “Increasing UE power high limit for CA and DC” feature

**<Agreement>:**

- In Rel-18, for HPUE with high power limit, no need to specify new values other than 3/6dB for ΔPPowerClass reporting.

# <Topic #5> Whether further RAN1 impact and RAN4 corresponding verification can be needed for dynamic indication of full power transmission mode capability

* Proposals
  + Option 1: Yes. (Ericsson, Qualcomm)
    - *potential dynamic indication of the UL-MIMO full-power capability would not necessarily only depend on ΔPPowerclass but also other parameters modifying the current power capability and require a specified UE behavior (RAN1) with appropriate verification of performance (RAN4)*
    - *Each power-class change event can have a unique ULFPTx capability in the effective power class configuration (destination power class). i.e the UE’s ULFPTx capability in the effective power class configuration is independent of previous or future ULFPTx capabilities in that power class configuration.*
  + Option 2: No further extended discussion especially in RAN1 is expected. (Samsung)
  + Option 3: Others.
* Recommended WF
  + TBA

# <Topic #6> Whether UL MIMO max. layers capability can be revised with fallback or power class recovery event

* Proposals
  + Option 1: Yes. (Qualcomm)
    - *UE to relay information to the network that conveys change of UL MIMO layer capability when the UE avails of the power class fallback option*
  + Option 2: No (Samsung)
    - *NW has solution to know the actual UE rank by link adaption even if there is no UE immediate rank reporting nor new trigger event for PHR reporting*
  + Option 3: Others.
* Recommended WF
  + TBA