3GPP TSG-RAN WG4 Meeting #112bis R4-241xxxx

Hefei, China, October 14 – 18, 2024

**Title:** Way Forward for RAN task on HPUE with 1UL and DL CA

**Agenda Item:** 8.2

**Source:** Qualcomm Inc., Vivo, Anterix, Nokia, Ericsson, T-Mobile US, [AT&T, Verizon, Samsung, Deutsche Telekom, Dish Network…]

**Document for:** Approval

# Way forward

Agreements:

To enable UE to support higher power class than default power class for single configured UL carrier with DL CA configuration when HPUE requirements for the band combination have not been specified or the HPUE applicability note for the CA configuration (clause 5.5A) is not present:

* UE is allowed to indicate higher power class than default power class of single configured UL carrier with DL CA configuration when single carrier requirements with the higher power class requirements and default power class requirements for the CA configuration exist in specification
  + Applies for single configured UL carrier with both intra-band DL CA and inter-band DL CA configurations
  + UE can support UL-MIMO in the single carrier aligned with UL-MIMO single carrier maximum output power requirements
* It is optional for UE to support higher than default power class for the above band combinations.
  + Reference sensitivity requirements (e.g. MSD) for configurations with single configured UL carrier and DL CA: Option 1: Are only verified with default power class transmission when HPUE requirements for the band combination have not been specified or the HPUE applicability note for the configuration (clause 5.5A) is not present.
  + Option 2: are only verified with default power class transmission
  + Option 3: are verified based on the requirements defined in clause 7 of 38.101-1.