**3GPP TSG-RAN WG4 Meeting #112 R4-2414310**

**Maastricht, 19 ‒ 23, 2024**

**Title:** WF on UE RF requirements for Rel-19 MIMO enhancement

**Agenda Item:** 8.18.4

**Source: Samsung**

**Document for:** Approval

# <Topic 1> UE RF impact

**<Agreement>**: UE RF impact of 3Tx

Agreement: RAN4 will analyse the impact of 3Tx on UE RF requirements.

**<Way forward>**: UE RF impact of asymmetric DL sTRP/UL mTRP

- Option 1: Yes

- Option 2: No

# <Topic 2> 3Tx

**<Agreement>:** Applicable UE types

- Both handheld and non-handheld UEs will be considered for UE RF requirements

- FFS on whether a single set or two sets of UE RF requirements, e.g., MPR, will be specified.

**<Agreement>**: Applicable Frequency Ranges

- Both FR1 and FR2 will be considered for potential UL mTRP requirements

- Only FR1 is considered for 3Tx objective

**<Way forward>**: Power classes and PA configurations for 3Tx UL MIMO

- Option 1: PC3 and PC2

- Option 2: PC1.5

- Option 3: Others

**<Agreement>**: MIMO configuration for non-ULFPTx mode

- 3-layer with precoding matrix of $W=\frac{1}{\sqrt{3}}\left[\begin{matrix}1&0&0\\0&1&0\\0&0&1\end{matrix}\right]$

**<Tentative agreement>**: MIMO configuration for ULFPTx mode 0

- Take 1-layer as baseline

- Further discuss whether 2-layer is needed