

3GPP TSG RAN#103

Maastricht , NL, March 18-21, 2024

RP-240109

Agenda Item: 9.1.4.1

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# Views on R19 candidate UE RF topics

# Recommendations for R19 UE RF (1)

Items	Recommendations Based on High level suggestions from RAN#102 moderator summary [1]	Comments
HPUE for CA	<ul style="list-style-type: none"> <li>• PC1.5 UE for intra-band contiguous CA w/o UL MIMO with 2TX high <b>(high priority)</b></li> <li>• PC 1.5 UE for two band inter-band CA with 2TX and/or 3TX for handheld and FWA (3TX for FWA) <b>(medium priority)</b></li> <li>• Generic framework of support increasing UE power high limit for inter-band CA HPUE <b>(high priority)</b></li> </ul>	
HPUE for NTN	<ul style="list-style-type: none"> <li>• Introduce PC2 for NR/IoT NTN UE in NTN FR1 bands for both handheld and non-handheld <b>(high priority)</b></li> <li>• Introduce PC1 for NR NTN UE in NTN FR1 bands for non-handheld <b>(low priority)</b></li> <li>• Introduce PC1.5 for NR NTN UE in NTN FR1 bands <b>(medium priority)</b></li> </ul>	
Power boosting and/or MPR reduction	<ul style="list-style-type: none"> <li>• Power boosting or MPR reduction for PC2/PC3 with ACLR relaxation with BS indication bands <b>(medium priority)</b></li> <li>• MPR reduction for RedCap via relaxed emission requirements with BS indication <b>(high priority)</b></li> <li>• MPR reduction for UL contiguous CA in FR1/FR2 <b>(low priority)</b></li> </ul>	MPR reduction for RedCap via relaxed emission requirements with BS indication should include <b>eRedcap</b>

# Recommendations for R19 UE RF (2)

Items	Recommendations Based on High level suggestions from RAN#102 moderator summary	Notes
6RX	<ul style="list-style-type: none"><li>Investigate and enable 6Rx on higher frequency bands (&gt;2.5GHz ) targeting at support of smartphone and FWA smartphone <b>(high priority for FWA)</b></li><li>Specify the requirements to support SRS antenna switching <b>(high priority)</b></li><li>FFS MIMO layer to be supported</li><li>Improved SRS reporting for antenna switching usage <b>(high priority)</b></li></ul>	MIMO layer should be 4
3TX	<ul style="list-style-type: none"><li>Enable 3Tx for band combinations of inter-band CA or EN-DC with two bands for handheld UE</li><li>Support of PC2 and PC1.5 for inter-band CA or EN-DC with 3Tx<ul style="list-style-type: none"><li>◆ For HPUE which needs the new generic requirements</li></ul></li><li>Support of high power limit feature for inter-band CA or EN-DC with 3Tx</li></ul>	As <b>3TX</b> has overlapping parts with <b>HPUE for CA</b> , <b>3TX</b> can be merged into <b>HPUE for CA</b>

# Reference

[1] RP-233918, “Moderator's summary for RAN4 Candidate RF/OTA Topics for Rel-19”.Huawei, 3GPP RAN#102,Dec,2023

# Thanks