

Rel.18 RAN4 Package Approval

Qualcomm Incorporated

RedCap – Operating Bands - Background

- RAN4 discussed which bands should be supported by RedCap UEs and a WF was agreed in [R4-2115096.zip](#)
 - Agreement was reached that All FDD bands supported.
 - There are some FFSs for other bands
 - In the following slides we will propose way forward for n47, n79, n46, n96 and SUL
 - Tentative Agreement: V2X n47 band not supported by RedCap UE
 - Varying Views on TDD and NR-U bands
 - Decision next meeting
 - TDD n79 -> Only ZTE against; most companies support
 - Currently, min BW for n79 is 40MHz; Discussion to add lower channel BWs for NR in n79 is on going in RAN4
 - NR-U (n46, n96) -> Huawei against. Other companies will decide the feasibility of unlicensed RedCap UE next meeting
 - SUL support is split
 - For – HW, CMCC, CBN, OPPO, MediaTek, Vodafone, DT
 - China operators see demand for RedCap UE supporting SUL band combinations
 - Against – Ericsson, QC, Apple, Nokia, ZTE
- QC supports having all bands supported in an optional manner

RedCap – V2X n47

- Tentative Agreement: V2X n47 band not supported by RedCap UE
 - Remove tentative agreement to preclude n47.
 - Example case is vehicle to pedestrian (V2P), where pedestrian has a RedCap wearable device
- Proposal: UE with V2X capability should be allowed to support Redcap on Uu bands
 - UE will support V2X in n47
 - FFS redcap UE signaling concurrent operation capability with V2X

RedCap – TDD n79

- Varying Views on TDD Decision next meeting
 - TDD n79 -> Only ZTE against; most companies support
 - Currently, min BW for n79 is 40MHz; Discussion to add lower channel BWs for NR in n79 is on going
- Proposal: Requirements for Redcap bandwidths and 1 and 2 Rx shall be added under Redcap WI for band n79

RedCap – NR-U n46, n96

- NR-U (n46, n96) -> Not yet agreed whether to support or not
 - RedCap type devices should not be precluded from from unlicensed bands. (ie. industrial sensors)
- Proposal: NR-U requirements for Redcap shall be specified

RedCap – SUL

- SUL support not yet decided
 - SUL should not be supported since CA support was ruled out for RedCap devices
 - UE supporting SUL has to support 2 Uls (2LOs)
- Proposal: Redcap UEs shall not support SUL bands



Thank you!

Follow us on: **f** **🐦** **in**

For more information, visit us at:

www.qualcomm.com & www.qualcomm.com/blog

Nothing in these materials is an offer to sell any of the components or devices referenced herein.

©2018 Qualcomm Technologies, Inc. and/or its affiliated companies. All Rights Reserved.

Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries. Other products and brand names may be trademarks or registered trademarks of their respective owners.

References in this presentation to “Qualcomm” may mean Qualcomm Incorporated, Qualcomm Technologies, Inc., and/or other subsidiaries or business units within the Qualcomm corporate structure, as applicable. Qualcomm Incorporated includes Qualcomm’s licensing business, QTL, and the vast majority of its patent portfolio. Qualcomm Technologies, Inc., a wholly-owned subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of Qualcomm’s engineering, research and development functions, and substantially all of its product and services businesses, including its semiconductor business, QCT.