**3GPP TSG-RAN** **WG2 Meeting #110-e R2-200xxxx**

**Electronic, June 1 – 12, 2020**

**Source: Qualcomm Incorporated**

**Title: Summary of email discussion [AT110e][021][NR15] UE cap Miscellaneous I**

**Document for: Decision**

**Agenda Item: 5.4.3.1**

# Introduction

This document summarizes the following email discussion.

* [AT110e][021][NR15] UE cap Miscellaneous I (Qualcomm)

Scope: Treat [R2-2005630](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005630.zip), [R2-2005631](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005631.zip), [R2-2005632](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005632.zip), [R2-2005633](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005633.zip), [R2-2004326](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004326.zip), [R2-2005577](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005577.zip), [R2-2005578](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005578.zip), [R2-2004436](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004436.zip), [R2-2004437](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004437.zip) (proponents are responsible to explain and drive)

Part 1: Decision whether to make corrections or not, identify agreeable corrections. **Deadline: June 4, 0700 UTC.**

Part 2: For agreeable parts, continuation to agree CRs. **Deadline: June 10, 0700 UTC**

# Discussion: Part 1 (by June 4, 0700 UTC)

It is proposed to try to come to a set of agreeable proposals out of the documents listed above. For each set of CRs, companies are requested provide their views.

## UE Capability Enhancement for FR1 FR2 CA and DC ([R2-2005630](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005630.zip), [R2-2005631](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005631.zip), [R2-2005632](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005632.zip), [R2-2005633](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005633.zip))

These CRs propose to introduce the UE capabilities for support for PCell on FR1 FDD, FR1 TDD and/or FR2 in NR SA, EN-DC and NR-DC.

Separate capabilities are proposed for 4 types of CA within a CG.

1. FR1 TDD + FR1 FDD CA (2 bits)
2. FR2 + FR1 FDD CA (2 bits)
3. FR2 + FR1 TDD CA (2 bits)
4. FR1 TDD + FR1 FDD + FR2 CA (3 bits)

The above set of capabilities is introduced separately for:

1. NR SA (MCG of non-DC) and MCG of NR-DC
2. SCG of NR-DC
3. SCG of EN-DC

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| **Company name** | **Support / Not support** | **Comments** |
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## PDSCH RE mapping patterns ([R2-2004326](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004326.zip), [R2-2005577](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005577.zip), [R2-2005578](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005578.zip))

In [R2-2004326](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004326.zip), RAN1 indicates that they agreed on the following default values of the UE capability parameters:

- pdsch-RE-MappingFR1-PerSymbol: 10

- pdsch-RE-MappingFR1-PerSlot: 16

- pdsch-RE-MappingFR2-PerSymbol: 6

- pdsch-RE-MappingFR2-PerSlot: 16

The CRs, [R2-2005577](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005577.zip), [R2-2005578](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2005578.zip), propose to capture the RAN1 agreement.

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## Signalling of NR-DC only band combination ([R2-2004436](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004436.zip))

This document tries to obtain RAN2’s confirmation that the current UE capability signalling allows the UE to indicate band combinations supported with NR-DC, but not with NR CA.

The same document was discussed in the offline discussion [AT109bis-e][014][NR15] “UE Cap Miscellaneous I”. The discussion was postponed in the last meeting because one company wanted to check backward compatibility.

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| **Company name** | **Agree / Disagree** | **Comments** |
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## Clarification on supported NR-DC cell grouping ([R2-2004437](http://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_110-e/Docs/R2-2004437.zip))

This CR proposes to clarify the supported cell grouping for NR-DC in release-15.

* *a UE indicating support for NR-DC supports only configuration where all serving cells of the MCG are in FR1 and all serving cells of the SCG are in FR2.*

The same document was discussed in the offline discussion [AT109bis-e][014][NR15] “UE Cap Miscellaneous I”. The wording of the CR was improved during the offline discussion based on the comments received. The discussion was postponed because some companies indicated it may be already clear in specifications of other WGs. However no additional input was provided as to exactly where it is clarified.

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| **Company name** | **Support / Not support** | **Comments** |
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# Discussion: Part 2 (by June 10, 0700 UTC)

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# Conclusion

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# Reference

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