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

Electronic, 01 June - 12 June, 2020

Agenda item: 5.4.3.1

Source: Apple

Title: Summary of email discussion [AT110-e][015][NR15] UE cap FR2 Fallback (Apple)

Document for: Discussion

# 1 Introduction

This is to summarize the following offline email discussion.

* [AT110-e][015][NR15] UE cap FR2 Fallback (Apple)

Scope: Progress CRs, based on R2-2004754 and R2-2004754

Part 1: Can kick off email discussion to gather more comments on the CRs, awaiting on-line treatment.

Part 2: Technically Endorsed CRs for RP. Deadline: June 10, 0700 UTC

# 2 Discussion

From the summary on email discussion [Post109bis-e][921][NR15] CRs for FR2 CA Fallback (Apple), rapporteur list several open issues to gather more comments on the CRs (R2-2004754, R2-2004755).

**Issue 1:** For inter-node signaling (CG-Config, CG-ConfigInfo), current design from R2-2004754 is to keep one *bandCombinationIndex*, which follows the design made for *supportedBandCombinationListNEDC-Only*. We received some offline comments proposing whether to introduce a separate *bandCombinationIndex* for supportedbandcombinations in *rf-Parameters-FR2-CA-Fallback* and *rf-ParametersMRDC-FR2-CA-Fallback*, in order to make sure it's clear which band combination list each index the MN indicates refers to.

Q1: Do companies think the current change shown below to *bandCombinationIndex* is sufficient and clear enough?

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| ***BandCombinationInfoSN* field descriptions** |
| ***bandCombinationIndex***  In case of (NG)EN-DC and NR-DC, this field indicates the position of a band combination in the *supportedBandCombinationList*. In case of NE-DC, this field indicates the position of a band combination in the *supportedBandCombinationList* and/or *supportedBandCombinationListNEDC-Only*. Band combination entries in *supportedBandCombinationList* are referred by an index which corresponds to the position of a band combination in the *supportedBandCombinationList*. Band combination entries in *supportedBandCombinationListNEDC-Only* are referred by an index which corresponds to the position of a band combination in the *supportedBandCombinationListNEDC-Only* increased by the number of entries in *supportedBandCombinationList*.  In case *rf-Parameters-FR2-CA-Fallback* and/or *rf-ParametersMRDC-FR2-CA-Fallback* exist, band combination entries in *rf-Parameters-FR2-CA-Fallback* and/or *rf-ParametersMRDC-FR2-CA-Fallback* are referred by an index which corresponds to the position of a band combination in the *rf-Parameters-FR2-CA-Fallback* and/or *rf-ParametersMRDC-FR2-CA-Fallback* increased by the number of band combination entries in *rf-Parameters* and/or *rf-ParametersMRDC*. |

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| Companies | Answer (Yes/No) | Comments |
| MediaTek | No? | If UE reports a fallback exception list, UE would have two lists, so it is not clear to us how to reuse existing index to refer to two lists. It seems we need to have a new index for the fallback exception list or clarify index is to the combined list. |
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**Issue 2:** One comment received during email discussion [Post109bis-e][921][NR15] CRs for FR2 CA Fallback (Apple) was not captured into the draft CR submitted in R2-2004754 and R2-2004755. The proposed change is to add the highlighted text “in a cell group”. The purpose is to clarify that “UE can only fallback to one single carrier on FR2” means for intra-band FR2 SCG, UE only fallbacks to one single carrier. But the MCG part is not impacted. Otherwise, UE is not able to support DC anymore. Rapporter thinks this is a straightforward clarification.

Q2: Do companies agree with the additional text “in the cell group” (highlighted in yellow) in the field descriptions?

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| ***UE-MRDC-Capability* field descriptions** |
| ***featureSetCombinations***  A list of *FeatureSetCombination*:s for *supportedBandCombinationList* and *supportedBandCombinationListNEDC-Only* in *UE-MRDC-Capability*. The *FeatureSetDownlink*:s and *FeatureSetUplink*:s referred to from these *FeatureSetCombination*:s are defined in the *featureSets* list in *UE-NR-Capability*. |
| ***rf-ParametersMRDC-FR2-CA-Fallback***  A list of band combinations that the UE supports for MR-DC with FR2 intra-band non-contiguous CA, on which the UE only supports fallback band combinations resulting in a single FR2 carrier in the cell group. The band combinations that are allowed to be reported in this list are defined in [34] and [39]. The *FeatureSetCombinationId*:s in this list refer to the *FeatureSetCombination* entries in the *featureSetCombinations* list in the *UE-MRDC-Capability* IE. |

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| ***UE-NR-Capability* field descriptions** |
| ***featureSetCombinations***  A list of *FeatureSetCombination:s* for *supportedBandCombinationList* in *UE-NR-Capability*. The *FeatureSetDownlink:s* and *FeatureSetUplink:s* referred to from these *FeatureSetCombination:s* are defined in the *featureSets* list in *UE-NR-Capability*. |
| ***rssi-CO-Measurements***  Indicates whether the UE supports performing RSSI and Channel Occupancy (CO) measurements for operation with shared spectrum channel access. |
| ***rf-Parameters-FR2-CA-Fallback***  A list of band combinations that the UE supports for NR (and NR-DC, if requested) with FR2 intra-band non-contiguous CA, on which the UE only supports fallback band combinations resulting in a singler FR2 carrier in a cell group. The band combinations that are allowed to be reported in this list are defined in [39]. The *FeatureSetCombinationId*:s in this list refer to the *FeatureSetCombination* entries in the *featureSetCombinations* list in the *UE-NR-Capability* IE. |

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| Companies | Answer (Yes/No) | Comments |
| MediaTek | Yes |  |
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Q3: If companies have other comments on the CR set, please bring them here.

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| Companies | Comments |
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# 3 Conclusions

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