**3GPP TSG RAN WG1 Meeting #110 R1-22xxxxx**

**Toulouse, France, August 22 - 26, 2022**

**Agenda Item: 7.2.11**

**Source: Moderator (Huawei)**

**Title: Feature lead summary on LS on eMIMO features defined in different granularity with prerequisite**

**Document for: Discussion and Decision**

# Introduction

This document provides the proposals and summary of discussions on RAN2 LS on eMIMO features defined in different granularity with prerequisite [1] based on the inputs [2-7].

# Discussion

## Issue 1: Response to RAN2 understanding

In [1], RAN2 noticed some eMIMO UE features defined in different granularity with their prerequisite(s) as below:

For example, FG 16-2a-0(per band level), FG 16-2a-4(perUE level) and FG 16-2a-10(perBC level) have prerequisite of FG 16-2a (per FSPC level). FG 16-2b-1a/16-2b-1b (per band level) have prerequisite of FG 16-2b-1(perFS level).

For these UE features, RAN2 has following understanding:

RAN2 understands for the features with prerequisite in a finer granularity, UE shall indicate support of the prerequisite for at least one band/component carrier in at least one band combination.

All inputs [2-7] have the same understanding with RAN2, therefore the following draft response is proposed:

RAN1 confirms that for the features with prerequisite in a finer granularity, UE shall indicate support of the prerequisite for at least one band/component carrier in at least one band combination.

Please input your comments on the draft response to RAN2 understanding.

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| Companies | Comments |
| QC | We are fine with the above understanding. In addition, the response LS should include RAN1’s understanding of the interpretation of capabilities in case of prerequisite with a finer granularity. RAN1’s understanding is that in the cases (bands, band combinations, etc.) the prerequisite was indicated as ‘not supported’, the dependent capability with less granularity is also not supported. In the cases (bands, band combinations, etc.) the prerequisite was indicated as ‘supported’, the dependent capability with less granularity is supported, as long as the dependent capability was indicated as ‘supported’. |
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## Issue 2: Comments to RAN2 CRs

In the LS [1], two RAN2 CRs are also attached as R2-2205560 and R2-2205561. Please input your comments to these two CRs if any.

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| Companies | Comments |
|  | In our view, a conclusion on Issue 3 (and Issue 1) should be reached first before analyzing the impact of these CRs. |
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## Issue 3: on the applicable range of UE feature

As commented online, the applicable range of such UE features may need to be discussed as well. For example, a per band UE feature X has a prerequisite UE feature Y, which is of per CC reporting type. Then if UE reports UE feature X for a band and UE feature Y for a CC in the band.

Please input your view whether this issue should be discussed and also the applicable range of UE feature X and the prerequisite UE feature Y:

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| Companies | Comments |
|  | As mentioned for Issue 1, we think it is important to capture RAN1’s understanding regarding this. The understanding, using the ‘X’ ‘Y’ notation should be that, in a CC where Y is indicated as ‘not supported’, X is also not supported on that CC. In a CC where Y was indicated as ‘supported’, X is also supported on that CC, as long as X in the corresponding band of that CC was indicated ‘supported’. |
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# Draft LS

To be updated

# References

1. R1-2205731 LS on eMIMO features defined in different granularity with prerequisite RAN2, HiSilicon
2. R1-2205805 Draft reply LS on eMIMO features defined in different granularity with prerequisite Huawei, HiSilicon
3. R1-2205925 Draft reply LS on eMIMO features defined in different granularity with prerequisite ZTE
4. R1-2206186 Draft reply LS on eMIMO features defined in different granularity with prerequisite Google
5. R1-2206216 Draft reply LS on eMIMO features defined in different granularity with prerequisite Lenovo
6. R1-2206706 Draft reply LS on eMIMO features defined in different granularity with prerequisite vivo
7. R1-2206778 Draft Reply LS on eMIMO features defined in different granularity with prerequisite Samsung