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

**e-Meeting, October 10th – 19th, 2022**

Agenda Item: 7.2

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Title: Summary on email discussion 110bis-e-NR-R16-05

Document for: Discussion/Decision

# Introduction

In this contribution, we provided a summary on email discussion 110bis-e-NR-R16-05, which is about the draft CR R1-2208869 with the following proposed changes:

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| 6 Link recovery procedures <unrelated part omitted>  For the PCell or the PSCell, if BFR MAC CE [11, TS 38.321] is transmitted in Msg3 or MsgA of contention based random access procedure, and if a PUCCH resource is provided with *PUCCH-SpatialRelationInfo*, after 28 symbols from the last symbol of the PDCCH reception that determines the completion of the contention based random access procedure as described in clause 5.1.4a or in clause 5.1.5 of [11, TS 38.321], the UE transmits the PUCCH on a same cell as the PRACH transmission using  - a same spatial filter as for the last PRACH transmission  - a power determined as described in clause 7.2.1 with , , and , where *q*new is the SS/PBCH block index selected for the last PRACH transmission.  where the SCS configuration for the 28 symbols is the smallest of the SCS configurations of the active DL BWP and of the active UL BWP for the PCell or the PSCell. |

The reason for the change is as follows:

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| ***Reason for change:*** | In Rel-16, it is defined that after 28 symbols after UE receives the CBRA based BFR, the UE shall apply the reported new beam to PUCCH and reset the power control parameters for PUCCH. However, the subcarrier spacing to count the 28 symbols is not defined. |
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| ***Summary of change:*** | Define the subcarrier spacing to be based on the minimal subcarrier spacing among the active DL BWP and UL BWP. |
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| ***Consequences if not approved:*** | How to count the 28 symbols for the UE to apply the new beam for CBRA based BFR is unclear. |

# Discussion

**Q1: Which of the following options is correct for the SCS to determine the “28 symbols” for CBRA based spCell BFR?**

* **Option 1: The SCS is the DL SCS in active DL BWP in spCell**
* **Option 2: The SCS is the UL SCS in active UL BWP in spCell**
* **Option 3: The SCS is the smallest SCS between DL SCS and UL SCS in active DL/UL BWP in spCell**

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| Company | Option? | Comments |
| Samsung |  | Based on the following conclusion in RAN1#104-e, since active DL and UL BWP in a serving cell have same SCS, we think that the CR is not needed.  **Conclusion**   * It’s RAN1’s understanding that for both paired spectrum and unpaired spectrum UE may assume the same SCS and CP length for its active DL BWP and active UL BWP in a serving cell except for SUL at a given time   + No RAN1 CR is needed |
| ZTE | Option-1 | But we tend to agree with Samsung that the CR may not be needed based on above conclusion. |
| QC |  | This CR is not needed. Same SCS is written in 331, while SUL is only for FR1 now without spatial relation  Except for SUL, the network ensures the same subcarrier spacing is used in active DL BWP and active UL BWP within a serving cell. |
| Huawei, Hisilicon |  | We also think the CR is not needed. In our view, from the wording “after 28 symbols from the last symbol of the PDCCH reception”, it can be inferred that the symbol of PDCCH is used for counting the time duration of “28 symbols”. In other words, SCS of PDCCH is assumed. |

**Q2: If “option 3” to the Q1, do you agree with the proposed CR?**

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| Company | Y or N? | Comments |
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**Q3: If “Option 1 or option 2” to the Q1, do you think whether the spec change is needed?**

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| Company | Y or N? | Comments |
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