**3GPP TSG-RAN WG4 Meeting # 107 R4-23XXXXX**

**Incheon, KR, May 22 – May 26, 2023**

**Agenda item:** 8.24.4

**Source:** Moderator (Huawei, HiSilicon)

**Title:** Topic summary for [107][222] NR\_MC\_enh

**Document for:** Information

# Introduction

This email thread discusses the RRM core requirements of WI on Multi-carrier enhancements.

# Topic #1: DL interruption for Tx switching across 3/4 bands

## Companies’ contributions summary

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| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2308334 | Huawei, HiSilicon | CR  If one downlink carrier is indicated to be interrupted by two band pairs for dynamic switching simultaneously, the DL interruption length and location on the victim carrier is determined by the maximum of uplink switching periods of the two band pairs. |
| R4-2308601 | Nokia, Nokia Shanghai Bell | Observation 1: RF is still discussion about the time mask in case of dynamic switching simultaneously.  Proposal 1: Wait for RF agreement on the length of switching time for simultaneous switching of two band pairs. |
| R4-2309478 | Apple | Observation 1: In the current Release 18 specifications, DL interruption applicability for UL Tx switching across 2 bands and 3 bands is clearly defined for every band NR CA band combination.  Observation 2: There is no DL interruption applicability for UL Tx switching across 4 bands in the current specifications.  Proposal: We propose adding DL interruption applicability to the Table 5.2A.2.3-1 for the 4-band CA combinations. |

## Open issues summary

**Issue 1-1: DL interruption length when one downlink carrier is indicated to be interrupted by two band pairs for dynamic switching simultaneously**

* Proposals
  + Option 1(Huawei): If one downlink carrier is indicated to be interrupted by two band pairs for dynamic switching simultaneously, the DL interruption length and location on the victim carrier is determined by the maximum of uplink switching periods of the two band pairs.
  + Option 2(Nokia): Wait for RF agreement on the length of switching time for simultaneous switching of two band pairs
* Recommended WF

Wait for RF agreement and revise the CR accordingly (if needed)

**Issue 1-2: Whether to add DL interruption applicability to the Table 5.2A.2.3-1 for the 4-band CA combinations**

* Proposals
  + Option 1(Apple): add DL interruption applicability to the Table 5.2A.2.3-1 for the 4-band CA combinations in TS 38.101-1
* Recommended WF

As per WF [R4-2306621] there is a specific open issue (shown below) in RF session. This issue will continue discussing in RF this meeting.

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| Sub-topic 1-8: Applicability of DL interruption **Way forward:**   * Clarify that “no DL interruption applies to Tx switching across 2 UL bands” in the DL\_intrpt\_combos\_TxSW\_R18 WI in the next meeting. * Further discuss for Rel-18 Tx switching across 3 or 4 UL bands. |