**3GPP TSG-RAN WG4 Meeting #104-e R4-2214422**

**Electronic Meeting, August 15 – 26, 2022**

**Title:** WF on system parameters for FR2-2

**Agenda Item:** 9.14.9

**Source: Intel Corporation**

**Document for:** Approval

# General

## UE feature list

*Improved ON/ON transient period*

**Agreement**:

* Further discuss in Rel-18; either in existing WI or TEI

## LS reply to RAN1 on minimum guard period

**Way forward**:

* LS reply will capture current discussion status (15 µs period) and inform RAN1 further assessment is needed to determine if switching time improvements are feasible for 480 and 960 kHz

**Answer from RAN4:** RAN4 has considered the absolute switching time evaluated for FR2-1 in R15, i.e., the antenna switching time is 15 µsec with a view to reusing this value for FR2-2. The detailed evaluation results for the switching scenarios considered are included in the R15 reply LS R4-1710048 [1]. RAN4 will further consider this result and its feasibility for SRS transmission used for antenna switching and whether the switching time assumed could be improved for 480 and 960 kHz operation.

# Operation bands and system parameters

## FR2 band for unlicensed operation

*Note for band n263 to be included in Table 5.2-1: NR operating bands in FR2*

**Agreement**:

* NOTE 1: This band is for unlicensed operation and subject to regional and/or country specific regulatory requirements

## Operating bands for CA

**Agreement**:

* If all the UE CA requirements are finalized,
	+ Add NR CA band CA\_n263 to Table 5-2A.1-1 in TS 38.101-2 together with a note clarifying that only contiguous CA is applicable for this band.

|  |  |
| --- | --- |
| **NR CA Band** | **NR Band****(Table 5.2-1)** |
| CA\_n257 | n257 |
| CA\_n258 | n258 |
| CA\_n259 | n259 |
| CA\_n260 | n260 |
| CA\_n261 | n261 |
| CA\_n263 (Note) | n263  |
| NOTE: In this release of the specification, only contiguous CA is applicable for this operating band. |

## NR CA bandwidth class

**Agreement**:

* No new bandwidth classes are specified for n\*100 MHz
* The discussion on the new channel bandwidth classes for FR2-2 is allowed in the maintenance of this WI

## Channel spacing for CA

**Agreement**:

* Channel spacing for adjacent NR carriers in FR2-2

Nominal Channel spacing = ceil((BWChannel(1) + BWChannel(2))/100.8 MHz) \* 50.4 MHz

Channel spacing for CA in FR2-2

Nominal Channel spacing = ceil((BWChannel(1) + BWChannel(2))/100.8 MHz) \* 50.4 MHz

## Configurations for intra-band contiguous CA

**Agreement**:

* This is related to NR CA bandwidth classes and therefore can also be discussed in maintenance stage

# FR1+FR2-2 DC/CA band combinations

**Agreement**:

* Specify n48 + n263 within this work item and if n48 + n263 is completed, then the WI is viewed as completed.

**Agreement**:

* RAN4 targets completing one example band combination FR2-2 DC/CA with an anchor in FR1 within the maintenance phase of the WI
* Additional band combinations can be added in a release-independent manner as part of a Release 18 basket WI
* To specify the example band combination FR2-2 DC/CA with an anchor in FR1, RAN4 could take a corresponding FR2-1 DC/CA combination with anchor in FR1 as a baseline in this meeting, with square brackets around the requirements, and aim to remove the brackets in the maintenance phase

# References

1. R4-2214228, “Email discussion summary for [104-e][110] NR\_ext\_to\_71GHz\_Part\_1,” Moderator (Intel Corporation), RAN4 #104e, August 2022