**3GPP TSG-RAN4 Meeting #98-e *R4-2103259***

**Electronic Meeting, 25th January – 5th February 2021**

**Source:** Ericsson

**Title:** TP to TR 38.808: Numerology and Channel Bandwidths

**Agenda item:** 12.2.1

**Document for:** Approval

# 1. Introduction

During RAN4#98-e text proposals and discussion papers were discussed during main session GTW meeting on Thursday January 28, 2021. The following is a TP in order to capture single TP from [2-4] as proposed as a WF outcome of GTW session.

# 2. Discussion

The following is agreements from GTW session

Previously agreed parameters:

FFT max size 4096, max number of RBs possible 275

120, 480, 960 SCS

Supporting 480 and 960 SCS is optional

For 120 SCS max CBW: 400 MHz

For 480 SCS min CBW:

Proposal 1: 50 MHz

Proposal 2: 100 MHz

Proposal 3: 300 MHz

For 480 SCS max CBW:

Proposal 1: 1600 MHz

Proposal 2: FFS until regulatory and band plan has been discussed

For 480 SCS min CBW:

Proposal 1: 200 MHz

Proposal 2: FFS until regulatory and band plan has been discussed

For 960 SCS max CBW:

Proposal 1: <= 1600 MHz

Proposal 2: 2000/2160 MHz (licensed/unlicensed)

Proposal 3: FFS until regulatory and band plan has been discussed

Proposal 4: 2000 MHz

Proposal 5: 2160 MHz

Proposal 6: 3200 MHz

For 960 SCS min CBW:

Proposal 1: 400/2160 MHz (licensed/unlicensed)

Proposal 2: FFS until regulatory and band plan has been discussed

# 3. References

[1] 3GPP TR 38.808 v1.0.0, “Study on supporting NR from 52.6 GHz to 71 GHz”

[2] R4-2101561, “TP to TR 38.808: Numerology and Channel Bandwidths”, Ericsson

[3] R4-2102569, “TP to TR 38.808: capturing WF on the min/max CHBW and SCS”, Huawei

[4] R4-2102009, “TP to TR 38.808: Timing considerations for operation between 52.6 and 71 GHz”, Nokia, Nokia Shanghai Bell

[5] R4-2100364, “Discussion on CBW and FR name for above 52.6 GHz”, CATT

[6] R4-2102730, “Discussion on minimum and maximum channel bandwidth for 52.6 GHz to 71 GHz”, Huawei, HiSilicon

[7] R4-2100519, “Further considerations on the numerology and channel bandwidth sizes for 60GHz frequency range” Apple

[8] R4-2100781, “Discussion on the minimum and maximum channel bandwidth for B52.6GHz”, Vivo

[9] R4-2100803, “Discussion on band definition and channel BW for NR in 52.6GHz ~ 71GHz”, CMCC

[10] R4-2101281, “On numerology and channel bandwidth in 52.6 – 71 GHz”, Intel Corporation

TEXT PROPOSAL:

4.2.6 UE aspects

4.2.7 Numerologies and Channel Bandwidths

During the study item phase analysis on RF impairments and co-existence were discussed and studied in consideration of numerology and channel bandwidth selection.

The following are minimum and maximum channel bandwidths for different numerologies as described in Table 4.2.7-1. The values in Table 4.2.7-1 are considered for both licensed and unlicensed conditions.

**Table 4.2.7-1: Minimum and maximum channel bandwidths for supported numerologies**

|  |  |  |  |
| --- | --- | --- | --- |
| Subcarrier spacing [kHz] | Minimum bandwidths under study [MHz] | Maximum bandwidths under study[MHz] | Note |
| 120 | 50  400 | 400 |  |
| 480 | 200 | 1600 |  |
| 960 | 400  2160 | 2000  2160  3200 |  |

Other channel bandwidths between minimum channel bandwidth and maximum channel bandwidth are not precluded from the NR operation in 52.6 – 71 GHz frequency range, and should be further investigated during WI phase including alignment with agreements RAN1 has made.

Carrier aggregation is considered to be used for NR operation in 52.6 – 71 GHz range. Decision on intra/inter band operation in contiguous/non-contiguous allocation is out of scope of this SI.

END OF TEXT PROPOSAL