**3GPP TSG RAN WG1 #103-e R1-2008522**

**e-Meeting, October 26th – November 13th, 2020**

**Agenda item:** 6.2.4

**Source:** Moderator (Qualcomm Incorporated)

**Title:** Summary of email discussion [103-e-LTE\_TerrBcast-01]

**Document for:** Discussion and Decision

# Background

In RAN1#103-e, the following two issues were submitted for Rel-16 corrections to LTE-based 5G terrestrial broadcast:

|  |  |  |
| --- | --- | --- |
| [R1-2007740](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_103-e/Docs/R1-2007740.zip) | Draft 36.211 CR on LTE-based 5G Terrestrial Broadcast | ZTE |
| [R1-2008523](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_103-e/Docs/R1-2008523.zip) | Correction for 0.37kHz SCS | Qualcomm Incorporated |

# Issue#1: Number of symbols per slot

In x7740 the following corrections are presented regarding number of OFDM symbols per slot:

The OFDM symbols in a slot shall be transmitted in increasing order of , starting with , where OFDM symbol starts at time  within the slot. In case the first OFDM symbol(s) in a slot use normal cyclic prefix and the remaining OFDM symbols use extended cyclic prefix, the starting position the OFDM symbols with extended cyclic prefix shall be identical to those in a slot where all OFDM symbols use extended cyclic prefix. Thus there will be a part of the time slot between the two cyclic prefix regions where the transmitted signal is not specified. For , there is one OFDM symbol per slot and one slot per subframe. For , there is one OFDM symbol per slot and one slot per 3ms.

Table 6.12-1 lists the value of that shall be used. Note that different OFDM symbols within a slot in some cases have different cyclic prefix lengths.

In case NB-IoT is supported, the OFDM baseband signal generation is defined in clause 10.2.8.

Table 6.12-1: OFDM parameters

|  |  |  |
| --- | --- | --- |
| Configuration | | Cyclic prefix length |
| Normal cyclic prefix |  |  |
| Extended cyclic prefix |  |  |
|  |  |
|  | 3072 for |
|  |  |
|  |  | 9216 for |

Companies are encouraged to provide their comments regarding this issue (if any) in the table below.

|  |  |
| --- | --- |
| Company | Comment |
| Qualcomm | Support the CR |

# Issue#2: FFT size for 0.37kHz SCS

In x8523 the following correction regarding the FFT size for 0.37kHz SCS is presented:

The time-continuous signal  on antenna port  in OFDM symbol  in a downlink slot is defined by



for  where  and. The variable  equals 2048 for  subcarrier spacing, 4096 for  subcarrier spacing, 12288 for , 24576 for  subcarrier spacing , and 82944 for .

Companies are encouraged to provide their comments regarding this issue (if any) in the table below.

|  |  |
| --- | --- |
| Company | Comment |
| Qualcomm | Support the CR |

# Conclusion

<To be completed>