3GPP TSG RAN WG1 Meeting #101-e R1-200xxxx

e-Meeting, May 25th – Jun 5th, 2020

**Agenda item:** 6.2.4

**Source:** Moderator (Qualcomm Incorporated)

**Title:** Summary of 101-e-LTE\_TerrBcast-02

**Document for:** Discussion and Decision

# Background

This document contains the summary for the following email discussion:

[101-e-LTE\_TerrBcast-02] Email discussion/approval on UE categories and 0.37kHz numerology until 5/28 – Alberto (Qualcomm)

* Discuss TP 4.1 and potential LS to RAN2.

# Categories for 0.37kHz SCS

In x3785, it is proposed to send an LS to RAN2 to update TS 36.306 with the new larger TBS value. RAN1 would need to endorse a TP and send it to RAN2 to implement the CR. The proposed TP is as follows:

**<===================================== TP 1 36.306 =============================>**

4.1 *ue-Category*

**<Unchanged parts are omitted>**

Table 4.1-4: Maximum number of bits of a MCH transport block received within a TTI set by the field *ue-Category* for an MBMS capable UE capable of reception via MBSFN

|  |  |
| --- | --- |
| UE Category | Maximum number of bits of a MCH transport block received within a TTI |
| Category 1 | 10296 |
| Category 2 | 51024 |
| Category 3 | 75376  226416 (0.37kHz) |
| Category 4 | 75376  226416 (0.37kHz) |
| Category 5 | 75376  226416 (0.37kHz) |
| Category 6 | 75376  226416 (0.37kHz) |
| Category 7 | 75376  226416 (0.37kHz) |
| Category 8 | 75376  226416 (0.37kHz) |
| Category 9 | 75376  226416 (0.37kHz) |
| Category 10 | 75376  226416 (0.37kHz) |
| Category 11 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |
| Category 12 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |

**<Unchanged parts are omitted>**

4.1A *ue-CategoryDL* and *ue-CategoryUL*

**<Unchanged parts are omitted>**

Table 4.1A-4: Maximum number of bits of a MCH transport block received within a TTI set by the field *ue-CategoryDL* for an MBMS capable UE capable of reception via MBSFN

|  |  |
| --- | --- |
| UE DL Category | Maximum number of bits of a MCH transport block received within a TTI |
| DL Category M1 | NA |
| DL Category M2 | NA |
| DL Category 0 | 4584 |
| DL Category 1bis | 10296 |
| DL Category 4 | 75376  226416 (0.37kHz) |
| DL Category 6 | 75376  226416 (0.37kHz) |
| DL Category 7 | 75376  226416 (0.37kHz) |
| DL Category 9 | 75376  226416 (0.37kHz) |
| DL Category 10 | 75376  226416 (0.37kHz) |
| DL Category 11 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |
| DL Category 12 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |
| DL Category 13 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |
| DL Category 14 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |
| DL Category 15 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |
| DL Category 16 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |
| DL Category 17 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |
| DL Category 18 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |
| DL Category 19 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |
| DL Category 20 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |
| DL Category 21 | 75376 (64QAM)  97896 (256QAM)  226416 (64QAM 0.37kHz)  293736 (256QAM 0.37kHz) |

**<=====================================End TP 1 =============================>**

The proposal is to endorse TP 1 from RAN1 perspective, and send an LS to RAN2 (CC RAN4) to implement this change.

**Proposal: TP 1 is endorsed from RAN1 perspective.**

**- Send TP 1 in an LS to RAN2 (CC RAN4) to implement this change.**

|  |  |
| --- | --- |
| Company | Comment |
| Qualcomm | Support the change. |
|  |  |

# Conclusion

<To be filled after discussion is completed>

# References

|  |  |  |
| --- | --- | --- |
| [R1-2003785](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_101-e/Docs/R1-2003785.zip) | Support of longer numerologies for rooftop reception | Qualcomm Incorporated |