**3GPP TSG-RAN WG4 Meeting #96-e R4-201xxxx**

**Electronic Meeting, August 17th – 28th 2020**

**Agenda item:** 7.1.4 (Rel-16 NR-U BS RF requirements

**Source:** Moderator (Nokia)

**Title:** Post-meeting email discussion summary for [96e][305] NR\_unlic\_RF\_BS

**Document for:** Information

# Introduction

Email discussion of NR-U BS RF requirements is summarized in [1] for RAN4 #96-e. At the conclusion of the RAN4 #96-e meeting, a set of CRs with NR-U introduction to BS RF specifications was presented in response to comments received during the meeting.

The RAN4 Chairman has allotted a one-way email approval process for the CR to be concluded by 5pm UTC September 4. This document summarizes comments received during the post-meeting email discussion.

# Email discussion

There is strong desire and passion to complete the NR-U work. Therefore, the following NR-U BS RF tdocs are for email approval by 5pm UTC Sept. 4:

|  |  |  |
| --- | --- | --- |
| R4-2012608 | CR to TS 38.104: Introduction of NR-U into BS core specification | Nokia, Nokia Shanghai Bell, Verizon |
| R4-2010739 | CR to TS 37.107 with introduction of NR-U feature | Nokia, Nokia Shanghai Bell |
| R4-2010962 | CR to 36.104: Introduction of Band n46 in 36.104 | ZTE Corporation |
| R4-2012768 | CR to 36.104: Introduction of NR-U co-existence requirements | Nokia, Nokia Shanghai Bell |
| R4-2012766 | CR to 37.104: Introduction of NR-U co-existence requirements | Nokia, Nokia Shanghai Bell |
| R4-2012767 | CR to 37.105: Introduction of NR-U co-existence requirements | Nokia, Nokia Shanghai Bell |

Following table collect companies comments:

|  |  |  |
| --- | --- | --- |
| **CR No.** | **Company** | **Comments** |
| R4-2012608  CR to 38.104 | Charter Communications, Inc | We support this CR |
| Ericsson | Table 5.3.5-1 contains n96 definition without appropriate agreed note from agreement during GTW meeting. Note: “this band is *intended* for operations subject to FCC NPRM R&O”  Table 6.6.5.2.3-1, Table 6.6.5.2.4-1 which contains n96 definition see comment for Table 5.3.5-1 |
| Huawei | Comments applicable to BS and UE CR: there is no agreement on channelization. It should be further discussed especially after hearing the comments at Aug.27 GTW that proponents of option 2 (adopted in previous CR) emphasis option 2 is the best choice considering current status of uncertainty of IEEE draft standard. We may need the decision based on 3GPP study or have some coordination with IEEE to minimize the risk on the misalignment between NR-U and WIFI. The SU for 20 MHz with 60 KHz SCS is TBD for both single carrier case and wideband operation case. It is not acceptable since we had an agreement long time ago (R4-1910537) that 25 PRB should be adopted.  Comments to BS CR: as captured in the section chair Note, there is no agreements reached for ΔfOBUE and ΔfOOBB for 6GHz band for both NR-BS Type 1-C and NR-BS type 1-H, and no agreements on IBB and OOBB requirements, and no agreements on LO leakage for NR-U punctured channels. Without further technical evaluation and analysis we can not agree on the CR. Furthermore, as we comment last week, if introduce both n46 and 6GHz band, the co-existence between the two 3GPP bands should be addressed. There are lots of updates in the CR, which were new and provided in the last minute of RAN4#96e. We would like to take more time for review and will come back later. |
| AT&T | We support this CR and also any compromise proposal to list any items in brackets if companies want more time to review to allow n96 band definition in Rel-16 to support the US market. |
| R4-2010739  CR to 37.107 | Charter Communications, Inc | We support this CR |
| Huawei | n96 should be removed if the requirement for n96 is not completed. |
| AT&T | We support this CR. |
| Ericsson | Small type-o in text, “Band n46 and Band n96”, “d” is missing from Band n96 in proposed text change. |
| R4-2010962  CR to 36.104 | Charter Communications, Inc | We do not support this CR |
| Huawei | OK with the CR |
| AT&T | We do not support this CR in its present form since it does not address the 6 GHz requirements for n96. |
| R4-2012768  CR to 36.104 | Charter Communications, Inc | We support this CR |
| Huawei | The co-existence between 5GHz band and 6 GHz band should be addressed. |
| Ericsson | Table 6.6.4.3.1-1, Table 6.6.4.4.1-2 contains n96 without appropriate agreed note from agreement during GTW meeting. Note: “this band is *intended* for operations subject to FCC NPRM R&O” |
| AT&T | We support this CR. We also support any compromise proposal to list items in brackets if companies want more time to review. |
| R4-2012766  CR to 37.104 | Charter Communications, Inc | We support this CR |
| Huawei | The co-existence between 5GHz band and 6 GHz band should be addressed. |
| Ericsson | Table 6.6.1.3.1-1, Table 6.6.1.4.1-1 and Table 7.5.2-1 contains n96 without appropriate agreed note from agreement during GTW meeting. Note: “this band is *intended* for operations subject to FCC NPRM R&O” |
| AT&T | We support this CR. We also support any compromise proposal to list items in brackets if companies want more time to review. |
| R4-2012767  CR to 37.105 | Charter Communications, Inc | We support this CR |
| Huawei | The co-existence between 5GHz band and 6 GHz band should be addressed. |
| Ericsson | Table 7.5.2.2-1, Table 9.7.6.3.4.2-1, Table 9.7.6.4.4.2-1, Table 10.6.2.2-1, Table 10.6.3.2-1 and Table 10.6.4.2-1 contains n96 without appropriate agreed note from agreement during GTW meeting. Note: “this band is *intended* for operations subject to FCC NPRM R&O” |
| AT&T | We support this CR. We also support any compromise proposal to list items in brackets if companies want more time to review. |

# Reference

1. R4-2012726, “Email discussion summary for [96e][305] NR\_unlic\_RF\_BS” Moderator (Nokia)