**3GPP TSG-RAN Meeting # 90-e RP-20XXX**

**Electronic Meeting, December 7-11, 2020**

**Agenda item:** 9.1.4

**Source:** Moderator (Nokia)

**Title:** Email discussion summary for [90E][12][600MHz\_SI]

**Document for:** Information

# Introduction

The documents intent to capture companies’ comments on the SID on extended 600 MHz NR band in[**RP-202515**](https://www.3gpp.org/ftp/TSG_RAN/TSG_RAN/TSGR_90e/Docs/RP-202515.zip)[1]. This is spectrum related SI.

# Comments on extended 600 MHz NR band

## Topics for discussion

* Sub-topic 1-1: SI objectives
* Sub-topic 1-2: Timeline e.g. number of meetings
* Sub-topic 1-3: Any other issue

## Companies’ views collected

Interested companies to provide comments on the following objectives:

The purpose of this study item is to:

Study a harmonised frequency variant approach within the frequency range of 612-652/663-703 MHz. The liaison statement from AWG to RAN4 has given two options B1 and B2 respectively. For each option it will be desirable to study the technical feasibility of the duplex filters needed, centre band gap, insertion loss.

For option B2 the duplex distance is 46 MHz as is the case with NR band n71. The bottom duplexer is the same as that of n71, with an additional upper duplexer that should have as large possible overlap as possible with the lower duplexer in n71 but at the same time being able to handle the duplex gap of 6 MHz. The size of this upper duplexer needs to be studied. The co-existence requirement with adjacent broadcast service below 617 MHz can be fulfilled with the same condition as in band n 71. It is assumed that there are no services in 657- 663 MHz.

For option B1 the duplex distance is 51 MHz , which may be considered in case of an additional broadcasting channel can be vacated such that the guard band to the adjacent broadcast service is still maintained similarly to band n 71. In addition, the protection of radio astronomy is required in certain countries in Region 3 ( WRC 15).

Both options B1 and B2 addressed here are just starting point for the feasibility study to enable the utilization on extended 600MHz band..

The AWG work plan forwarded to the 3GPP shows this work to be completed by September 2021.

Specifically, this study item includes the following objectives:

* Regulatory study of the frequency range around 600MHz
* Co-existence study for the frequency range of 612-652/663-703 MHz, (if needed)
* Study the two band plan (options B1 and B2 )for the frequency range of 612-652/663-703 MHz.
* Study the channel arrangement for the potential band, e.g. channel bandwidth, channel raster, center frequency, etc.
* Study of transmitter emissions and appropriate receiver characteristics for both BS and UE based on the band plans.
* Answer the request from AWG regarding the technical feasibility of option B1 and B2, respectively.
* Further extension of this study item may also involve a similar study for LTE

### Sub-topic 1-1: SI objectives

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| **Company** | **Comments** |
| Spark NZ Ltd | The objectives and the tasks listed in section 1.2 represent a fair and accurate representation of the study items needed. AWG has a meeting in March 2021. It will be desirable to send a response to their LS. |
| CBN | The B1 and B2 options are reasonable and suitable as the starting point of this study item, other potential extended 600MHz options are possible for further study as well depending on the actual regulatory in regions. |
| Huawei, HiSilicon | Support to have a SI for 600MHz. For the objectives, agree with CBN that option B1 and B2 should be starting point. The appropriate band plan depends on further study in RAN4.  |
| DISH | Add the following note into the objectives for clarity “NOTE: The SI does not impact any requirements defined for US 600MHz band” |
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### Sub-topic 1-2: Timeline e.g. Number of meetings

The target completion date is RAN#92 (2 quarters)

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| **Company** | **Comments** |
| CBN | Okay with RAN#92 |
| Huawei, HiSilicon | Okay with RAN#92 |
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### Sub-topic 1-3: Any other issue

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| **Company** | **Comments** |
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## Initial summary of discussion

*To be filled in by moderator*

# References

[1] RP-202515 Study on extended 600MHz NR band Spark NZ Ltd