**3GPP TSG-RAN WG4 Meeting # 108-bis R4-23XXXXX**

**Xiamen, China, October 09 – October 13, 2023**

**Agenda item:** 4.33.5

**Source:** Moderator (Anterix)

**Title:** Topic summary for [108-bis][115] US\_900MHz

**Document for:** Information

# Introduction

This document is a summary of contributions submitted to agenda item 4.33. Contributions on AAS BS requirements, BS colocation requirements, and 3 MHz band n106 GSCN specifications have been submitted. The CRs submitted help update some of the LTE band 106 and n106 parameter with clean versions of the changes.

# Topic #1: GSCN range addition for n106

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2315951 | Huawei, Hisilicon | Proposal 1: Update to band n106 in for TS 38.104 Table 5.4.3.3-1: Adding in the applicable SS raster entries per operating band (FR1) for 3 MHz CBW. |

## Open issues summary

With the sync channel definition in RAN 1 for <5 MHz NR completed in RAN1-#114, the SS Block pattern and GSCN can be defined now and updated.

|  |  |  |  |
| --- | --- | --- | --- |
| **NR *operating band*** | **SS Block SCS** | **SS Block pattern(NOTE 1)** | **Range of GSCN****(First – <Step size> – Last)** |
| n106 | 15 kHz | Case A | 31317– <1> –31329 |

### Sub-topic 1-1

* Recommended WF
	+ Suggested parameter changes are agreeable with the WID for band n106.

# Topic #2: Colocation requirements for band 106/n106

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2315776 | Ericsson | Proposal 1: Colocation tables need to be updated to support bands 106 and n106. Both are being considered to reduce editorial constraints. |

## Open issues summary

*Suggested change to colocation specifications in TS 37.145-1 and TS 37.145-2 to support band 106/n106.* *Proposed changes are similar with existing bands and support the WID. Unless otherwise noted the overall WF is to support the changes in this CR.*

### Sub-topic 2-1

**Issue 2-1: Blocking requirement for co-location with BS in other frequency bands**

* Proposals
	+ Option 1:

| **Type of co-located BS** | **Centre Frequency of Interfering Signal [MHz]** | **Interfering Signal mean power for WA BS [dBm]** | **Interfering Signal mean power for MR BS [dBm]** | **Interfering Signal mean power for LA BS [dBm]** | **Wanted Signal mean power [dBm]** | **Type of Interfering Signal** |
| --- | --- | --- | --- | --- | --- | --- |
| E-UTRA Band 106 or NR band n106 | 935 - 940 | +16 | +8 | -6 | PREFSENS + x dB (NOTE 1) | CW carrier |

* Recommended WF
	+ Suggested parameter changes to Table 7.5.2.2-1 are similar to existing bands and agreeable with the WID.

### Sub-topic 2-2

**Issue 2-2: Additional spurious emissions requirements**

* Proposals
	+ Option 1:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **System type operating in the same geographical area** | **Band for co-existence requirement** | **Maximum Level** | **Measurement Bandwidth** | **Notes** |
| E-UTRA Band 106 or NR band n106 | 896 – 901 MHz | -120 dBm | -115 dBm | -112 dBm |

* Recommended WF
	+ Suggested parameter changes to Table 9.7.6.3.3-1 are similar to other bands and agreeable for band 106/n106 coexistence specifications.

### Sub-topic 2-3

**Issue 2-3: UTRA AAS BS OTA Spurious emissions limits for AAS BS co-located with another BS**

* Proposals
	+ Option 1:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Type of co-located BS** | **Frequency range for co-location requirement** | **Maximum Level****(WA-BS)** | **Maximum Level****(MR-BS)** | **Maximum Level****(LA-BS)** | **Measurement Bandwidth** | **Notes** |
| E-UTRA Band 106 or NR band n106 | 896 – 901 MHz | -120 dBm | -115 dBm | -112 dBm | 100 kHz |  |

* Recommended WF
	+ Suggested parameter changes to Table 9.7.6.3.4.2-1 are similar to other bands and agreeable for band 106/n106 spurious emissions limits specifications.

### Sub-topic 2-4

**Issue 2-4: AAS BS OTA Spurious emissions limits for co-existence with systems operating in other frequency bands**

* Proposals
	+ Option 1:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **System type to co-exist with** | **Frequency range for co-existence requirement** | **Maximum Level** | **Measurement Bandwidth** | **Note** |
| **E-UTRA Band 106 or NR band n106** | **935 – 940 MHz** | **-43 dBm** | **1 MHz** |  |
| **896 – 901 MHz** | **-40 dBm** | **1 MHz** |  |

* Recommended WF
	+ In RAN4-107 it was agreed that the UE has a -30 dBm/MHz for UE-to-UE coexistence requirements for LTE and NR US 900 MHz band to protect bands 5, n5, 26, and n26.
	+ The suggested parameter changes to Table 9.7.6.4.4.2-1 are agreeable with coexistence specifications defined for band 106 and should be applicable to n106 but ask BS experts to make sure these specifications are inline with each other.

### Sub-topic 2-5

**Issue 2-5: OTA Blocking requirement for co-location with BS in other frequency bands**

* Proposals
	+ Option 1:

| **Type of co-located BS** | **Centre Frequency of Interfering Signal [MHz]** | **Interfering Signal mean power for WA BS [dBm]** | **Interfering Signal mean power for MR BS [dBm]** | **Interfering Signal mean power for LA BS [dBm]** | **Wanted Signal mean power [dBm]** | **Type of Interfering Signal** |
| --- | --- | --- | --- | --- | --- | --- |
| **E-UTRA Band 106 or or NR band n106** | **935 – 940** | **+46** | **+38** | **+24** | **EISminSENS + x dB (NOTE 1)** | **CW carrier** |

* Recommended WF
	+ Suggested parameter changes to Table 9.7.6.3.3-1 are similar to other bands and agreeable for band 106/n106 blocking requirements.

### Sub-topic 2-6

**Issue 2-6: UTRA additional OTA blocking requirement for co-location with BS in other frequency bands**

* Proposals
	+ Option 1:

| **Type of co-located BS** | **Centre Frequency of Interfering Signal [MHz]** | **Interfering Signal mean power for WA BS [dBm]** | **Interfering Signal mean power for MR BS [dBm]** | **Interfering Signal mean power for LA BS [dBm]** | **Wanted Signal mean power [dBm]** | **Type of Interfering Signal** |
| --- | --- | --- | --- | --- | --- | --- |
| **E-UTRA Band 106 or or NR band n106** | **935 – 940**  | **+46** | **+38** | **+24** | **EISminSENS + x dB (NOTE 1)** | **CW carrier** |

* Recommended WF
	+ Suggested parameter changes to Table 10.6.3.2-1 are similar to other bands and agreeable for band 106/n106 blocking requirements.

### Sub-topic 2-7

**Issue 2-7: E-UTRA additional OTA blocking requirement for co-location with BS in other frequency bands**

* Proposals
	+ Option 1:

| **Type of co-located BS** | **Centre Frequency of Interfering Signal [MHz]** | **Interfering Signal mean power for WA BS [dBm]** | **Interfering Signal mean power for MR BS [dBm]** | **Interfering Signal mean power for LA BS [dBm]** | **Wanted Signal mean power [dBm]** | **Type of Interfering Signal** |
| --- | --- | --- | --- | --- | --- | --- |
| **E-UTRA Band 106 or or NR band n106** | **935 – 940** | **+46** | **+38** | **+24** | **EISminSENS + x dB (NOTE 1)** | **CW carrier** |

* Recommended WF
	+ Suggested parameter changes to Table 10.6.4.2-1 are similar to other bands and agreeable for band 106/n106 blocking requirements.