3GPP TSG RAN WG1 #110 R1-22xxxxx

Toulouse, Aug 22-26, 2022

**Agenda item: 8.13**

**Source: Moderator (Ericsson)**

**Title: Summary of Rel17 Maintenance on NR Dynamic spectrum sharing (DSS)**

**WI: NR\_DSS**

**Document for: Discussion and Decision**

# 1 Introduction

This document summarizes discussions for RAN1#110 for Rel17 NR DSS WI considering below documents submitted for A.I. 8.13

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| **Ref#** | **TDoc** | **Title** | **Source** | **Agenda item** |
| 1 | [R1-2205760](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_110/Docs/R1-2205760.zip) | Discussion on minimum scheduling offset restriction | Huawei, HiSilicon | 8.13 |
| 2 | [R1-2205952](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_110/Docs/R1-2205952.zip) | Maintenance of Rel-17 DSS | ZTE | 8.13 |
| 3 | [R1-2206564](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_110/Docs/R1-2206564.zip) | Correction on different SCS between P(S)Cell and sSCell | Intel Corporation | 8.13 |
| 4 | [R1-2206565](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_110/Docs/R1-2206565.zip) | Discussion on different SCS between P(S)Cell and sSCell | Intel Corporation | 8.13 |
| 5 | [R1-2206806](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_110/Docs/R1-2206806.zip) | Discussion on DCI size alignment for Rel-17 DSS | Samsung | 8.13 |
| 6 | [R1-2206807](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_110/Docs/R1-2206807.zip) | Draft CR for DCI size alignment for Rel-17 DSS | Samsung | 8.13 |
| 7 | [R1-2207667](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_110/Docs/R1-2207667.zip) | Correction on dormancy indication on SCell | Huawei, HiSilicon | 8.13 |
| 8 | [R1-2207668](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_110/Docs/R1-2207668.zip) | Correction on dormancy indication on SCell | Huawei, HiSilicon | 8.13 |

# 2 Topics for discussion

## 2.1 Topics for discussion

1. Clarification on minimum scheduling offset restriction – [1]
2. SCell dormancy indication on sSCell - [2][,[7],[8]
3. Draft CR to 38.213 related to P(S)Cell SCS > sSCell SCS case – [3],[4]
4. Draft CR to 38.212 related to DCI Size alignment – [5],[6]

Some parts of 1, 2 and 4 above were also discussed in RAN1#109-e (Topics 2,1,5 in R1-2205583 respectively). Proponents have provided more information/discussion points for these topics in this meeting.

Companies are requested to provide comments (if any) on above four topics for discussion

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| --- | --- |
| Company Name | Comments |
| Apple | Issue 1: We are open to discuss the need of different minimum scheduling offset for sSCell, SpCell.  Issue 2: We do not see the necessity of supporting SCell dormancy indication on sSCell. If supported, we also need to discuss if that SCell can be indicated to be dormant  Issue 3: We are open to discuss the CR  Issue 4: We are open to discuss the CR |
| Qualcomm | Issue 1: We do not think new RRC parameters that configure different values of min K0/K2 offset for the same scheduled cell should be introduced. If this is considered as an issue, a potential option that we can discuss could be to interpret the configured value of min K0/K2 offset based on the SCS of P(S)Cell, regardless of which of P(S)Cell and sSCell the DCI scheduling PDSCH/PUSCH on P(S)Cell is detected.  Issue 2: RAN1 has already discussed this at the last meeting. We think we should not re-open the discussion.  Issue 3: We do not think the changes are necessary. If the intention is to enable “dynamic switch between R17 DSS and legacy CA” by switching the SCS combinations of the BWPs for {P(S)Cell, sSCell}, such option was not agreed and hence should not be allowed. In addition, P(S)Cell SCS not 15kHz is not a target scenario of the DSS – so the proposal will not be used in reality.  Issue 4: We are open to discuss the proposals. For the first proposal, we may be able to find simpler text change. |
| ZTE | We are open to discuss all these issues.  Regarding Issue 2, during the previous discussion in last meeting, companies raised the potential concern that too many different variance of FGs for PDCCH budget sharing between MCG and SCG are introduced since Rel-16. However, our current CR is trying to focus this issue for Rel-15 PDCCH budget sharing capability to alleviate companies’ potential concern. Some new discussion is worth it. |
| Samsung | Issue 1: we prefer to not consider introduction of RRC parameters for an enhancement given the ASN.1 freeze. If the intended flexibility can be achieved by L1-only methods, the issue can be further discussed.  Issue 2: Already discussed and concluded. There is no correction to be made to the specifications.  Issue 3 and Issue 4: OK to discuss. |
| Intel | We are open to discuss all these issues. Issue 3 & 4 are new hence should be handled with high priority if down-selection is necessary.  To reply a comment from Qualcomm on issue 3, we don’t think the issue was discussed before. RAN1 just concludes DSS feature is only applicable when PCell SCS <= sSCell SCS. However, the relation between DSS and BWP switching of PCell/sSCell was not clarified. Therefore, it should be discussed for common understanding. |
| Spreadtrum | Issue 1 has already discussed at the last meeting, but the majority of companies see no need to clarify the issue and think that the min K0/K2 offset is applied to the scheduled cell.  Issue 2 have already discussed at the last meeting, but there seems to be no conclusion. We are open to discuss the issue.  Issue 3 and Issue 4: OK to discuss |