**3GPP TSG-RAN WG1 #104b-e R1-210xxxx**

**e-Meeting, April 12th – 20th, 2021**

**Agenda item:** 5

**Source:** 3GPP TSG RAN1 Chair

**Title:** RAN1#104b-e preparation phase on LSs

**Document for:** Discussion/Decision

# Introduction

In this document, we will summarize contributions submitted to Agenda Item 5 of RAN1#104b-e, and identify a set of critical LSs (if any) that need to be addressed in the subsequent email discussion/approval phase .

# Summary

The list of contributions can be found in the References section. Herein we organize the LSs based on the respective topics. Note that the goal is to identify the LS **critical** to address during this e-Meeting.

## Incoming LSs “To RAN1”

### LTE

#### R1-2102299 LS on timing of neighbor cell RSS-based measurements RAN4, Qualcomm

Related contributions:

* [R1-2102853](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102853.zip) Discussion on RAN4 LS on timing of neighbor cell RSS-based measurement ZTE
* [R1-2103065](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103065.zip) Discussion on timing of neighbor cell RSS-based measurements Qualcomm Incorporated
* [R1-2103714](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103714.zip) Timing of RSS in neighbor cells for Rel-16 LTE-MTC Ericsson
* [R1-2103760](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103760.zip) Discussion on timing of neighbor cell RSS-based measurements Huawei, HiSilicon

Initial assessment:

* Noted; reply LS is necessary – email discussion/approval till 4/16. To be handled under 6.2.1 (name TBD, Qualcomm).

Proposed conclusion:

* Email discussion/approval for reply LS to R1-2102299 till 4/16. To be handled under 6.2.1 (name TBD, Qualcomm).

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| --- | --- |
| **Company** | **Views** |
| Nokia | Agree with the initial assessment |
| LG | Agree with the initial assessment. |
| ZTE | Agree with the initial assessment |
| Huawei, HiSilicon | Agree with the initial assessment. |
| Qualcomm | Agree with the initial assesment |

### NR

#### R1-2102285 LS Reply to RAN1 on CBRA based Beam Failure Recovery RAN2, Apple

Related contributions:

* None

Initial assessment:

* Noted. No subsequent email discussion

Proposed conclusion:

* Noted. No subsequent email discussion

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment |
| vivo | Agree with the initial assessment |
| Samsung | Agree with the initial assessment |
| ZTE | Agree with the initial assessment |
| Huawei, HiSilicon | Agree with the initial assessment |
| CATT | Agree with the initial assessment |
| Qualcomm | Agree with the initial assessment |

#### R1-2102286 LS on uplink timing alignment for small data transmissions RAN2, Lenovo

Related contributions:

* R1-2102930 Draft Reply LS on uplink timing alignment for small data transmissions vivo

Initial assessment:

* Noted. A reply LS may be necessary – email discussion/approval till 4/15 (name TBD, Lenovo)

Proposed Conclusion:

* A reply LS to R1-2102286 may be necessary – email discussion/approval till 4/15 (name TBD, Lenovo). To be handled under 5.2

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| **Company** | **Views** |
| Nokia | OK with the initial assessment. Could be taken in AI5.2 as well, as the timing alignment could be discussed with the rest of the SDT discussion. |
| vivo | OK with the initial assessment. We are open to Nokia’s suggestion above to take the discussion together with other papers in AI 5.2.  |
| Samsung | Can be discussed under AI.5.2 |
| LG | Agree with the initial assessment. The timing alignment for SDT could be discussed in AI 5.2. |
| ZTE | OK with the initial assessment. Could be handled in AI5.2 with a separate email discussion. |
| Huawei, HiSilicon | OK with the initial assessment  |
| CATT | Could be discussed under AI 5.2. |
| Qualcomm | Agree with the initial assessment, and the suggestion of Nokia. |

#### R1-2102287 Reply LS on PUSCH skipping with UCI in Rel-16 RAN2, vivo

Related contributions:

* None

Initial assessment:

* Noted. No subsequent email discussion

Proposed conclusion:

* Noted. No subsequent email discussion

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment |
| vivo | Agree with the initial assessment |
| Samsung | Agree with the initial assessment |
| ZTE | Agree with the initial assessment |
| Huawei, HiSilicon | Agree with the initial assessment |
| CATT | Agree with the initial assessment |
| Qualcomm | Agree with the assessment. |

#### R1-2102303 Further Reply LS on power control for NR-DC RAN4, vivo

Related contributions:

* [R1-2102485](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102485.zip) [DRAFT] Reply LS on power control for NR-DC ZTE
* [R1-2102929](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102929.zip) Draft Reply LS on power control for NR-DC vivo
* [R1-2103757](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103757.zip) UL power control for NR-NR dual connectivity Huawei, HiSilicon

Initial assessment:

* Noted; a reply LS may be necessary – email discussion/approval till 4/16. To be handled under 7.2.10 (name TBD, vivo)

Proposed conclusion:

* A reply LS to R1-2102303 may be necessary – email discussion/approval till 4/16. To be handled under 7.2.10 (name TBD, vivo)

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment, several contributions submitted on the topic to AI 7.2.10 |
| vivo | Agree with the initial assessment that an LS reply is necessary.  |
| Samsung | Agree with the initial assessment.  |
| ZTE | Agree with chairman’s initial assessment. |
| Huawei, HiSilicon | Agree with the initial assessment |
| CATT | Agree with the initial assessment |
| Qualcomm | Agree with the initial asseessment. |

#### R1-2102288 Reply LS on AN-PDB and PER targets for satellite access RAN2, Qualcomm

Related contributions:

* None

Initial assessment:

* Noted. No subsequent email discussion

Proposed conclusion:

* Noted. No subsequent email discussion

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment |
| Nokia | Agree with the initial assessment |
| Huawei, HiSilicon | Agree |

#### R1-2102293 LS on gNB-based propagation delay compensation RAN3, Nokia

Related contributions:

* None

Initial assessment:

* Noted. No subsequent email discussion. Subsequent actions can be taken as part of the normative work (particulary under 8.3.4)

Proposed conclusion:

* Noted. No subsequent email discussion. Subsequent actions can be taken as part of the normative work (particulary under 8.3.4)

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment |
| vivo | Agree with the initial assessment |
| Samsung | Agree with the initial assessment |
| ZTE | Agree with the initial assessment |
| Huawei, HiSilicon | Agree with the initial assessment. |

#### R1-2102294 LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU RAN3, Ericsson

Related contributions:

* [R1-2102927](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102927.zip) Draft Reply LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU vivo
* [R1-2103136](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103136.zip) Reply to RAN3 LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU Qualcomm Incorporated
* [R1-2103210](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103210.zip) Draft reply LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU Samsung
* R1-2103769 About reply LS on Granularity of the HSNA Slot Configurations for the IAB-DU ZTE, Sanechips
* Revision of [R1-2103284](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103284.zip)
* [R1-2103322](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103322.zip) Draft reply LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU ETRI
* [R1-2103628](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103628.zip) Draft reply LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU LG Electronics
* [R1-2103753](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103753.zip) On resource confguration for IAB-DU Huawei, HiSilicon
* [R1-2103713](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103713.zip) H/S/NA configuration per pair of IAB-DU cell and IAB-MT’s serving cell Ericsson, AT&T

Initial assessment:

* Noted; reply LS is necessary – target 4/16 for email discussion/approval. To be handled under 8.10 (name TBD, Ericsson)

Proposed conclusion:

* Reply LS to R1-2102294 is necessary – target 4/16 for email discussion/approval. To be handled under 7.2.3 (name TBD, Ericsson)

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment |
| AT&T | We would like to note that the following contribution under 7.2.3 is related to the LS: [R1-2103713](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103713.zip) H/S/NA configuration per pair of IAB-DU cell and IAB-MT’s serving cell Ericsson, AT&TSo we wonder if it is better to handle the topic under Rel-16 maintenance instead of Rel-17 eIAB with a dedicated thread. |
| ETRI | OK with the initial assessment.We would like to note that the target release of this LS is clarified as Rel-16. |
| vivo | Agree with the initial assessment |
| Samsung | Reply LS is needed. Agree with AT&T – Rel-16 maintenance |
| LG Electronics | Agree with the initial assessment |
| ZTE | Agree with AT&T, it is better to handle this under Rel-16 maintenance. |
| Huawei, HiSilicon | Agree. Strictly speaking this is a Rel-16 issue. |
| Ericsson | Agree to discuss, but should as AT&T states be handled under Rel-16 AI 7.2.3 |
| Qualcomm | Agree with the assessment. We also agree with the suggestion from AT&T given it is indeed a Rel-16 issue. |

#### R1-2102296 LS on Rel-17 Tx switching enhancements RAN4, China Telecom

Related contributions:

* None

Initial assessment:

* Noted; no subsequent email discussion. Any further action can be done by the normative work under 5.1

Proposed Conclusion:

* Noted; no subsequent email discussion. Any further action can be done by the normative work under 5.1

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment |
| China Telecom | Agree with the initial assessment |
| vivo | Agree with the initial assessment |
| Samsung | Agree with the initial assessment |
| ZTE | Agree with chairman’s initial assessment. |
| Huawei, HiSilicon | Agree with the initial assessment |
| CATT | Agree with the initial assessment |

#### R1-2102297 Reply LS on Beam switching gaps for Multi-TRP UL transmission RAN4, Samsung

Related contributions:

* None

Initial assessment:

* Noted; no subsequent email discussion.

Proposed conclusion:

* Noted; no subsequent email discussion.

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment |
| vivo | Agree with the initial assessment |
| Samsung | Agree with the initial assessment |
| ZTE | Agree with chairman’s initial assessment. |
| Huawei, HiSilicon | Fine with the initial assessment. |
| CATT | Agree with the initial assessment |

#### R1-2102298 Reply LS on PUCCH and PUSCH repetition RAN4, Qualcomm

Related contributions:

* [R1-2102483](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102483.zip) [DRAFT] Reply LS on PUCCH and PUSCH repetition ZTE
* [R1-2102505](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102505.zip) Draft reply LS on PUCCH/PUSCH repetition and scenarios OPPO
* [R1-2102923](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102923.zip) Discussion on RAN4 LS on PUCCH and PUSCH repetition vivo
* [R1-2103624](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103624.zip) Draft reply LS on PUCCH and PUSCH repetition LG Electronics
* [R1-2103690](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103690.zip) [Draft] Reply on Scenarios for PUCCH and PUSCH Repetition Ericsson
* [R1-2103758](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103758.zip) Discussion on Reply LS on PUCCH and PUSCH repetition Huawei, HiSilicon

Initial assessment:

* Noted; a reply LS is necessary – email discussion/approval till 4/16, to be handled under 8.8 (name TBD, Qualcomm)

Proposed conclusion:

* A reply LS to R1-2102298 is necessary – email discussion/approval till 4/16, to be handled under 8.8 (name TBD, Qualcomm)

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment |
| China Telecom | Agree with the initial assessment |
| vivo | Agree with the initial assessment |
| Samsung | Agree with the initial assessment |
| OPPO | Agree with the initial assessment |
| LG Electronics | Agree with the initial assessment |
| ZTE | Agree with the initial assessment |
| Huawei, HiSilicon | Agree with the initial assessment |
| CATT | Agree with the initial assessment |

#### R1-2102300 Reply LS on temporary RS for efficient SCell activation in NR CA RAN4, Huawei

Related contributions:

* None

Initial assessment:

* Noted; on subsequent email discussion.

Proposed conclusion:

* Noted; on subsequent email discussion. The LS input can be taken into account in AI 8.13.3.

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment, the LS input can be taken into account in AI 8.13.3 |
| vivo | Agree with the initial assessment |
| Samsung | Agree with the initial assessment and Nokia’s suggestion. |
| ZTE | Agree with chairman’s initial assessment. The LS can be taken into account in Rel-17 MR-DC discussion. |
| Huawei, HiSilicon | Agree with the initial assessment and Nokia’s view. |
| CATT | Agree with the initial assessment |
| Qualcomm | Agree with the initial assessment. |

#### R1-2102306 LS on Scheduling Location in Advance to reduce Latency SA2, Qualcomm

Related contributions:

* [R1-2102926](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102926.zip) Draft Reply LS on Scheduling Location in Advance to reduce Latency vivo
* [R1-2103756](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103756.zip) Discussion on scheduling location in advance to reduce latency Huawei, HiSilicon

Initial assessment:

* Noted; a reply LS is necessary – email discussion/approval till 4/16. To be handled under 8.5 (name TBD, Qualcomm)

Proposed conclusion:

* Noted; a reply LS is necessary – to be handled in RAN1#105-e (since AI 8.5.4 is restricted in RAN1#104b-e).

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment |
| vivo | Agree with the initial assessment |
| Samsung | Reply LS is needed. On the other hand, the relevant AI 8.5.4 (Latency improvements for both DL and DL+UL positioning methods) is closed in this meeting. Can postpone the discussion until next meeting |
| Huawei, HiSilicon | OK |
| CATT | Reply LS is needed, prefereablly scheduled in RAN1#105, since RAN1 will start working positioning latency in next RAN1 meeting. |
| Qualcomm | Reply LS is needed. We are OK to schedule it for RAN1 #105, since Latency Reduction subAgenda is closed in this meeting. |

#### R1-2102308 Reply LS on New Standardized 5QIs for 5G-AIS (Advanced Interactive Services) SA4, Qualcomm

Related contributions:

* [R1-2102924](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102924.zip) Draft Reply LS on New Standardized 5QIs for 5G-AIS vivo
* [R1-2103282](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103282.zip) Discussion on the Reply LS on New Standardized 5QIs for 5G-AIS ZTE, Sanechips
* [R1-2103749](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103749.zip) Discussion on reply LS on new standardized 5QIs for 5G-AIS Huawei, HiSilicon
* [R1-2103718](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103718.zip) Draft reply LS on New Standardized 5QIs for 5G-AIS (Advanced Interactive Services) OPPO

Initial assessment:

* Noted; a reply LS is necessary – email discussion/approval till 4/16. To be managed under 8.14 (name TBD, Qualcomm)

Proposed conclusion:

* Email discussion/approval whether/how to reply LS R1-2102308 till 4/16. To be managed under 8.14 (name TBD, Qualcomm)

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| **Company** | **Views** |
| Nokia | This LS is a SA4 response to an SA2 LS (R1-2100017/S2-2009227) that RAN1 responded (To: SA2, SA4) in RAN1#104 in R1-2101976. RAN1 has already provided the response and another LS for the same to the same SA WGs is not needed. |
| vivo | Agree with the initial assessment |
| Samsung | Same view with Nokia |
| OPPO | Agree with Nokia to a certain extend that we have already responded to the same LS to SA2 and SA4 in the last meeting. But this time SA4 asked if whether a different set of requirements can be supported by NG RAN, to which we should also perhaps formally provide a response. But the answer could be very similar to the last response we provided. |
| LG | Agree with the initial assessment. |
| ZTE | Agree with the initial assessment. The SA4 LS is a bit different in terms of the 5QI requirements from the previous SA2 counterpart thus RAN1 needs to discuss a proper reply and XR AI is an appropriate place for such a discussion. |
| Huawei, HiSilicon | Agree with the initial assessment – this is a different set of questions that we previously answered to SA4. |
| CATT | Agree with the initial assessment. |
| Ericsson | As noted by Nokia, we already replied to the SA2 LS and since the answer was very general, the is no need to discuss this again. |

## Incoming LSs “CC: RAN1”

**All the following LSs are noted – no actions from RAN1 unless explicitly requested.**

* [R1-2102289](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102289.zip) Reply LS on Rel-16 NR Positioning Correction RAN2, Huawei
* [R1-2102290](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102290.zip) Reply LS on PC5 DRX operation RAN2, LG Electronics
* [R1-2102291](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102291.zip) Reply LS on DAPS-like solution for service interruption reduction RAN2, Ericsson
* [R1-2102292](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102292.zip) Reply on LS on DC location reporting for intra-band UL CA RAN2, Apple
* [R1-2102295](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102295.zip) Reply LS on Latency of NR Positioning Protocols RAN3, Ericsson
* [R1-2102301](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102301.zip) LS on Signaling scheme of Transparent TxD RAN4, vivo
* [R1-2102302](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102302.zip) LS on Rel-16 updated RAN4 UE features lists for LTE and NR RAN4, CMCC
* [R1-2102304](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102304.zip) LS on Rel-16 updated RAN4 UE features lists for LTE and NR RAN4, CMCC
* [R1-2102305](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102305.zip) LS on RSS based RSRQ for LTE-MTC RAN4, Huawei
* [R1-2102307](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102307.zip) Reply LS on New Standardized 5QIs for 5G-AIS (Advanced Interactive Services) SA2, Qualcomm
* [R1-2102554](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102554.zip) Reply LS on 3GPP NR Rel-16 URLLC and IIoT performance evaluation RAN, Ericsson

Note that for R1-2102291, RAN2 recommends that “*RAN1 should be consulted as to whether simultaneous UL transmissions can be supported in Rel-17 from their point of view*”. There are two related contributions:

* [R1-2103285](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103285.zip) Discussion on simultaneous UL transmissions for DAPS-like solution in IAB ZTE, Sanechips
* [R1-2103323](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103323.zip) Draft reply LS on DAPS-like solution for service interruption reduction ETRI

Initial assessment:

* Noted; discuss further under 8.10 whether/how RAN1 should be involved.

Proposed conclusion:

* Noted; no subsequent discussion in RAN1#104b-e. Wait for more progress.

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment |
| AT&T | We are OK to discuss whether RAN1 should be involved under 8.10. However given the limited TUs for this meeting and that there is no explicit action for RAN1, we do not anticipate this to be a prioritized topic until RAN2/RAN3 can clarify the scope of a DAPS-like solution for IAB in Rel-17.  |
| ETRI | Agree with the initial assessment |
| vivo | Agree with the initial assessment |
| Samsung | We share the view from AT&T |
| ZTE | Agree with the initial assessment |
| Huawei, HiSilicon | So far RAN1 has not discussed “DAPS-like” solution and similar to RAN2, RAN1 does not understand what is intended for “DAPS-like” solution in the RAN3 LS. It will be difficult to provide any answer before RAN3 can provide more details.  |
| Ericsson | We prefer to wait with any discussion until RAN3 contacts RAN1 directly. |

## Others

### Related to R1-2100021 (LS to RAN1 on SL DRX design by RAN2, ZTE)

Related contributions:

* [R1-2102577](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102577.zip) Discussion on LS from RAN2 on SL DRX design CATT, GOHIGH
* [R1-2102928](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102928.zip) Draft Reply LS on SL DRX design vivo
* [R1-2103283](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103283.zip) [draft]Reply LS on sidelink DRX ZTE, Sanechips
* [R1-2103717](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103717.zip) Consideration of SL DRX ZTE, Sanechips
* [R1-2103752](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103752.zip) Discussion on RAN2 LS on DRX impact Huawei, HiSilicon

Initial assessment:

* Email discussion/approval for the reply LS till 4/16, to be handled under 8.11 (Boyuan Zhang, ZTE)

Proposed conclusion:

* Email discussion/approval to reply LS in R1-2100021 (April 15th – 20th), to be handled under 8.11.1.1, conditioned on the progress and joint management in the sub-agenda (Yuzhou Hu, ZTE)

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment, postponed in RAN1#104. |
| vivo | Agree with the initial assessment |
| Samsung | Agree with the initial assessment |
| OPPO | This is very much related to power saving RA agenda, in which all relevant issues related to SL-DRX and partial sensing operation are considered. So we suggest further discussions and action (a potential reply LS) can be done by the normative work under 8.11.1.1. |
| ZTE | Agree with the initial assessment, RAN1 should strive to provide a reply LS for this meeting. |
| Huawei, HiSilicon | We can attempt to reply, although the possibility will have to depend on progress overall. Thus, OPPO’s suggestion to handle it under 8.11.1.1 may be useful to avoid duplicating/forking the discussion. |
| CATT | Agree with the initial assessment |
| Qualcomm | In our view, the DRX design discussions can be continued under AI 8.11.1.1. After making some progress, RAN1 can respond to the LS if needed.  |

### Related to R1-2100008 (LS on measuring CSI-RS during SCell activation by RAN4, Ericsson)

Related contributions:

* [R1-2102925](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2102925.zip) Draft Reply LS on measuring CSI-RS during SCell activation vivo

Initial assessment:

* RAN1 reply LS was approved in R1-2102011. No further email discussion.

Proposed conclusion:

* A reply LS to the remaining issues as in R1-2100008 is necessary – email discussion/approval till 4/16. To be handled under 7.2.2 (name TBD, Ericsson)

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment, reply already sent, R1-2102925 must have been submitted in error (a resubmission of now-obsolete R1-2101156) and should perhaps be withdrawn by the proponent. |
| vivo | We do not agree with the initial assessment. The reply LS in R1-2102011 only addressed the Q1 from RAN4 and for Q2/3/4 the LS did not provide any answer as it says the following**“Reply by RAN1:** RAN1 has discussed these cases, but has not achieved consensus on the expected UE behaviour. RAN1 will inform RAN4 if consensus is achieved in the future.”The intention for R1-2102925 is to continue the RAN1 discussion about Q2/3/4 (from R1-2100008) targeting an LS reply to RAN4. Therefore we think this paper should be treated and LS reply to RAN4 should be sent if the discussion can be converged in RAN1.  |
| Samsung | It can be discussed under AI 7.2.2 based on above vivo’s clarification. |
| LG Electronics | In RAN1 reply LS R1-2102011 that was approved in the last meeting, RAN1 responded only to one RAN4’s question out of four questions, since RAN1 couldn’t reach the consensus to the other three questions. RAN1 can continue discussion under 7.2.2 considering that several contributions in that agenda item also deal with this issue. |
| ZTE | The reply LS in R1-2102011 did not answer all the questions from RAN4. The remaining issues can be further discussed under 7.2.2. |
| Huawei, HiSilicon | There are still 3 out of 4 questions from RAN4 remaining not answered. It could be discussed in 7.2.2. |
| Ericsson | As mentioned by others, RAN1 only answered the first question. |

### Related to R1-2100023 (LS on half-duplex operation by RAN2, Nokia)

Related contributions:

* [R1-2103388](file:///C%3A%5CUsers%5Cwanshic%5COneDrive%20-%20Qualcomm%5CDocuments%5CStandards%5C3GPP%20Standards%5CMeeting%20Documents%5CTSGR1_104b%5CDocs%5CR1-2103388.zip) Discussion on LS on half-duplex operation Huawei, HiSilicon

Initial assessment:

* No dedicated discussion. Can be further discussed under 7.2.12

Proposed conclusion:

* No dedicated discussion. To be further discussed under 7.2.12

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| **Company** | **Views** |
| Nokia | Agree with the initial assessment, LS response was postponed in RAN1#104 to await for the CR discussion to converge. |
| vivo | Agree with the initial assessment, and LS reply to RAN2 is needed after RAN1 agreement about the CR.  |
| Samsung | Agree with the initial assessment |
| LG | Agree with the initial assessment |
| ZTE | Agree with chairman’s initial assessment. |
| Huawei, HiSilicon | Generally agree while prefer to use a slightly more conclusive statement such as: “to be” rather than “can be”. |
| CATT | Agree with the initial assessment |

# Conclusion

All incoming LSs are noted. The following are for the next phase of email discussion/approval:

* Email discussion/approval for reply LS to R1-2102299 till 4/16. To be handled under 6.2.1 (name TBD, Qualcomm).
* A reply LS to R1-2102286 may be necessary – email discussion/approval till 4/15 (name TBD, Lenovo). To be handled under 5.2
* A reply LS to R1-2102303 may be necessary – email discussion/approval till 4/16. To be handled under 7.2.10 (name TBD, vivo)
* Reply LS to R1-2102294 is necessary – target 4/16 for email discussion/approval. To be handled under 7.2.3 (name TBD, Ericsson)
* A reply LS to R1-2102298 is necessary – email discussion/approval till 4/16, to be handled under 8.8 (name TBD, Qualcomm)
* Email discussion/approval whether/how to reply LS R1-2102308 till 4/16. To be managed under 8.14 (name TBD, Qualcomm)
* Email discussion/approval to reply LS in R1-2100021 (April 15th – 20th), to be handled under 8.11.1.1, conditioned on the progress and joint management in the sub-agenda (Yuzhou Hu, ZTE)
* A reply LS to the remaining issues as in R1-2100008 is necessary – email discussion/approval till 4/16. To be handled under 7.2.2 (name TBD, Ericsson)

# References

R1-2102285 LS Reply to RAN1 on CBRA based Beam Failure Recovery RAN2, Apple

R1-2102286 LS on uplink timing alignment for small data transmissions RAN2, Lenovo

R1-2102287 Reply LS on PUSCH skipping with UCI in Rel-16 RAN2, vivo

R1-2102288 Reply LS on AN-PDB and PER targets for satellite access RAN2, Qualcomm

R1-2102289 Reply LS on Rel-16 NR Positioning Correction RAN2, Huawei

R1-2102290 Reply LS on PC5 DRX operation RAN2, LG Electronics

R1-2102291 Reply LS on DAPS-like solution for service interruption reduction RAN2, Ericsson

R1-2102292 Reply on LS on DC location reporting for intra-band UL CA RAN2, Apple

R1-2102293 LS on gNB-based propagation delay compensation RAN3, Nokia

R1-2102294 LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU RAN3, Ericsson

R1-2102295 Reply LS on Latency of NR Positioning Protocols RAN3, Ericsson

R1-2102296 LS on Rel-17 Tx switching enhancements RAN4, China Telecom

R1-2102297 Reply LS on Beam switching gaps for Multi-TRP UL transmission RAN4, Samsung

R1-2102298 Reply LS on PUCCH and PUSCH repetition RAN4, Qualcomm

R1-2102299 LS on timing of neighbor cell RSS-based measurements RAN4, Qualcomm

R1-2102300 Reply LS on temporary RS for efficient SCell activation in NR CA RAN4, Huawei

R1-2102301 LS on Signaling scheme of Transparent TxD RAN4, vivo

R1-2102302 LS on Rel-16 updated RAN4 UE features lists for LTE and NR RAN4, CMCC

R1-2102303 Further Reply LS on power control for NR-DC RAN4, vivo

R1-2102304 LS on Rel-16 updated RAN4 UE features lists for LTE and NR RAN4, CMCC

R1-2102305 LS on RSS based RSRQ for LTE-MTC RAN4, Huawei

R1-2102306 LS on Scheduling Location in Advance to reduce Latency SA2, Qualcomm

R1-2102307 Reply LS on New Standardized 5QIs for 5G-AIS (Advanced Interactive Services) SA2, Qualcomm

R1-2102308 Reply LS on New Standardized 5QIs for 5G-AIS (Advanced Interactive Services) SA4, Qualcomm

R1-2102483 [DRAFT] Reply LS on PUCCH and PUSCH repetition ZTE

R1-2102485 [DRAFT] Reply LS on power control for NR-DC ZTE

R1-2102505 Draft reply LS on PUCCH/PUSCH repetition and scenarios OPPO

R1-2102554 Reply LS on 3GPP NR Rel-16 URLLC and IIoT performance evaluation RAN, Ericsson

R1-2102577 Discussion on LS from RAN2 on SL DRX design CATT, GOHIGH

R1-2102853 Discussion on RAN4 LS on timing of neighbor cell RSS-based measurement ZTE

R1-2102923 Discussion on RAN4 LS on PUCCH and PUSCH repetition vivo

R1-2102924 Draft Reply LS on New Standardized 5QIs for 5G-AIS vivo

R1-2102925 Draft Reply LS on measuring CSI-RS during SCell activation vivo

R1-2102926 Draft Reply LS on Scheduling Location in Advance to reduce Latency vivo

R1-2102927 Draft Reply LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU vivo

R1-2102928 Draft Reply LS on SL DRX design vivo

R1-2102929 Draft Reply LS on power control for NR-DC vivo

R1-2102930 Draft Reply LS on uplink timing alignment for small data transmissions vivo

R1-2103065 Discussion on timing of neighbor cell RSS-based measurements Qualcomm Incorporated

R1-2103136 Reply to RAN3 LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU Qualcomm Incorporated

R1-2103210 Draft reply LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU Samsung

R1-2103282 Discussion on the Reply LS on New Standardized 5QIs for 5G-AIS ZTE, Sanechips

R1-2103283 [draft]Reply LS on sidelink DRX ZTE, Sanechips

R1-2103769 About reply LS on Granularity of the HSNA Slot Configurations for the IAB-DU ZTE, Sanechips

Revision of R1-2103284

R1-2103285 Discussion on simultaneous UL transmissions for DAPS-like solution in IAB ZTE, Sanechips

R1-2103322 Draft reply LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU ETRI

R1-2103323 Draft reply LS on DAPS-like solution for service interruption reduction ETRI

R1-2103388 Discussion on LS on half-duplex operation Huawei, HiSilicon

R1-2103624 Draft reply LS on PUCCH and PUSCH repetition LG Electronics

R1-2103628 Draft reply LS on Granularity of the H/S/NA Slot Configurations for the IAB-DU LG Electronics

R1-2103690 [Draft] Reply on Scenarios for PUCCH and PUSCH Repetition Ericsson

R1-2103717 Consideration of SL DRX ZTE, Sanechips

R1-2103718 Draft reply LS on New Standardized 5QIs for 5G-AIS (Advanced Interactive Services) OPPO

R1-2103749 Discussion on reply LS on new standardized 5QIs for 5G-AIS Huawei, HiSilicon

R1-2103752 Discussion on RAN2 LS on DRX impact Huawei, HiSilicon

R1-2103753 On resource confguration for IAB-DU Huawei, HiSilicon

R1-2103756 Discussion on scheduling location in advance to reduce latency Huawei, HiSilicon

R1-2103757 UL power control for NR-NR dual connectivity Huawei, HiSilicon

R1-2103758 Discussion on Reply LS on PUCCH and PUSCH repetition Huawei, HiSilicon

R1-2103760 Discussion on timing of neighbor cell RSS-based measurements Huawei, HiSilicon