**3GPP TSG-RAN WG4 Meeting #104-bis-e R4-22xxxxx**

**Online Meeting, 10 – 19 October 2022**

**Third Generation Partnership Project (3GPP™)**

**DRAFT Meeting Report  
for  
TSG RAN WG4  
meeting: 104-bis-e**

**Electronic Meeting, Online, 10/10/2022 to 19/10/2022**

Report generated on Saturday, 2022-10-01 02:14 UTC

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3.1 Incoming liaison statement

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**R4-22xxxxx RAN4#104-e RRM session chair notes**

*Type: report For: endorsement  
 Source: RAN4 Chair*

**Decision: Return to.**

RRM session email thread list

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Email title** | **WI** | **Topic areas** | **AI covered in the email thread** | **Moderator & Summary agenda** |
| [104-bis-e][200] RRM\_Session | N.A | N.A | N.A | Meng Zhang AI 3.2 |
| [104-bis-e][201] NR\_NTN\_solutions\_RRM\_1 | R17 NR NTN (NR\_NTN\_solutions) | RRM Core requirements maintenance | 4.2.5 | CH Park AI 4.2.8 |
| [104-bis-e][202] NR\_NTN\_solutions\_RRM\_2 | R17 NR NTN (NR\_NTN\_solutions) | RRM Perf requirements | 4.2.6 | Xuhua Tao AI 4.2.8 |
| [104-bis-e][203] NR\_ext\_to\_71GHz\_RRM\_1 | R17 NR 52.6 - 71GHz (NR\_ext\_to\_71GHz) | RRM Core requirements maintenance | 4.3.5 | Zhongyi Shen AI 4.3.8 |
| [104-bis-e][204] NR\_ext\_to\_71GHz\_RRM\_2 | R17 NR 52.6 - 71GHz (NR\_ext\_to\_71GHz) | RRM Perf requirements | 4.3.6 | Prashant Sharma AI 4.3.8 |
| [104-bis-e][205] NR\_feMIMO\_RRM\_1 | R17 NR feMIMO (NR\_feMIMO) | RRM Core requirement maintenance | 4.5.1 | Hua Li AI 4.5.4 |
| [104-bis-e][206] NR\_feMIMO\_RRM\_2 | R17 NR feMIMO (NR\_feMIMO) | RRM perf requirements | 4.5.2 | Yanze Fu (yanze.fu@samsung.com AI 4.5.4 |
| [104-bis-e][207] NR\_redcap\_RRM\_1 | R17 NR RedCap (NR\_redcap) | RRM Core requirements  RRM perf requirements | 4.6.3 4.6.3.1 4.6.4 | Santhan Thangarasa AI 4.6.6 |
| [104-bis-e][208] NR\_redcap\_RRM\_2 | R17 NR RedCap (NR\_redcap) | RRM Core requirements maintenance  - Extended DRX enhancements  - RRM measurement relaxations  - Others | 4.6.3.2 4.6.3.3 4.6.3.4 | Xusheng Wei AI 4.6.6 |
| [104-bis-e][209] NR\_IIOT\_URLLC\_enh | R17 NR IIoT/URLLC (NR\_IIOT\_URLLC\_enh) | RRM Core requirements  RRM Perf requirements | 4.7.1 4.7.2 | Lars Dalsgaard AI 4.7.4 |
| [104-bis-e][210] NR\_SmallData\_INACTIVE | R17 NR small data transmissions in INACTIVE state (NR\_SmallData\_INACTIVE) | RRM Core requirements  RRM Perf requirements | 4.8 | Aijun Cao AI 4.8.3 |
| [104-bis-e][211] FR2\_multiRx\_RRM\_part1 | R18 NR FR2 multi-Rx chain DL reception | RRM Core requirements for simultaneous DL Rx  -General  -Analysis of RRM impact  -L3 measurement | 6.8.3 6.8.3.1 6.8.3.2 | Qian Yang AI 6.8.4 |
| [104-bis-e][212] FR2\_multiRx\_RRM\_part2 | R18 NR FR2 multi-Rx chain DL reception | RRM Core requirements for simultaneous DL Rx  -L1 measurement | 6.8.3.3 | Valentin Gheorghiu AI 6.8.4 |
| [104-bis-e][213] FR2\_multiRx\_RRM\_part3 | R18 NR FR2 multi-Rx chain DL reception | RRM Core requirements for simultaneous DL Rx  -TCI state switching | 6.8.3.4 | Venkatarao Gonuguntla AI 6.8.4 |
| [104-bis-e][214] NR\_RRM\_enh3\_part1 | R18 Even Further RRM enhancement for NR and MR-DC | RRM Core requirements  -FR2 Scell activation delay reduction | 6.9 6.9.1 6.9.2 | Jerry Cui AI 6.9.4 |
| [104-bis-e][215] NR\_RRM\_enh3\_part2 | R18 Even Further RRM enhancement for NR and MR-DC | RRM Core requirements  -FR1-FR1 DC | 6.9.3 | Roy Hu AI 6.9.4 |
| [104-bis-e][216] NR\_MG\_enh2\_part1 | R18 Further enhancements on NR and MR-DC measurement gaps and measurements without gaps | RRM Core requirements  -pre-configured MGs, multiple concurrenet MGs, NCSG | 6.10 6.10.2 | Ato Yu AI 6.10.4 |
| [104-bis-e][217] NR\_MG\_enh2\_part2 | R18 Further enhancements on NR and MR-DC measurement gaps and measurements without gaps | RRM Core requirements  -without gaps | 6.10.3 | Rui Huang AI 6.10.4 |
| [104-bis-e][218] NR\_HST\_FR2\_enh\_RRM | R18 Enhanced NR support for high speed train scenario in frequency range 2 | RRM Core requirements | 6.12.4 6.12.5 | He (Jackson) Wang AI 6.12.6 |
| [104-bis-e][219] NR\_ATG\_RRM | R18 Air-to-ground network | RRM core requirements | 6.13.5 | Shiyuan Wang AI 6.13.6 |
| [104-bis-e][220] FS\_NR\_pos\_enh2\_RRM | R18 Study on expanded and improved NR positioning | RRM core requirements | 6.18.4 | Muhammad Kazmi AI 6.18.5 |
| [104-bis-e][221] NR\_MC\_enh\_RRM | R18 Multi-carrier enhancements for NR | RRM core requirements | 6.19.3 | Jing Han AI 6.19.4 |
| [104-bis-e][222] NR\_Mob\_enh2\_part1 | R18 further mobility enhancement | RRM core requirements  -L1/L2 based inter-cell mobility | 6.20 6.20.3 | Miao WANG AI 6.20.5 |
| [104-bis-e][223] NR\_Mob\_enh2\_part2 | R18 further mobility enhancement | RRM core requirements  -Study of improvement on FR2 SCell/SCG setup/resume | 6.20.2 | Qiming Li AI 6.20.5 |
| [104-bis-e][224] NR\_DualTxRx\_MUSIM | R18 MUSIM | RRM core requirements | 6.21 | Xusheng Wei AI 6.21.3 |
| [104-bis-e][225] NR\_netcon\_repeater\_RRM | R18 NR Network-controlled Repeaters | RRM Core requirements | 6.24.3 | Aijun Cao AI 6.24.4 |
| [104-bis-e][226] LTE\_NBeMTC\_NTN\_RRM | R18 NB-IoT/eMTC core & perf. requirements for NTN | RRM core requirements  UL Segmented Transmission for UL synchronization for IoT NTN (R1-2205642) | 7.5.6  8.2.1 | Hsuanli Lin AI 7.5.7 |
| [104-bis-e][227] LS\_reply |  | Time difference for MIMO with two TAs (R1-2205593) | 8.1.1 | Yuexia Song AI 8.4 |
| [104-bis-e][228] RAN\_task\_RRM |  | Analysis of options for BWP withoutRestriction | 9.1 | Qian Yang AI 9 |

4 Rel-17 non-spectrum related on-going work items for NR and LTE

4.2 Solutions for NR to support non-terrestrial networks (NTN)

4.2.5 RRM core requirement maintenance

**R4-2215448 Discussion on the remaining issues for NTN RRM**

*Type: discussion For: Discussion  
 Source: Xiaomi, CAICT*

**Decision:** The document was **not treated**.

**R4-2215500 CR on correction to cell re-selection requirement for satellite access**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2593 rev Cat: F (Rel-17)  
  
 Source: CMCC*

**Decision:** The document was **not treated**.

4.2.5.1 Measurement procedure requirements

**R4-2215391 Discussion on fully overlapping concurrent MGs for NTN**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215603 On measurement procedure for NTN UE**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-17)  
  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215604 CR on intra-frequency and inter-frequency measurement requirement without MG for NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2598 rev Cat: F (Rel-17)  
  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215749 CR on intra-frequency measurements in NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2602 rev Cat: F (Rel-17)  
  
 Source: Samsung*

**Decision:** The document was **not treated**.

**R4-2215751 Discussion on measurement procedure requirements in NTN**

*Type: discussion For: Discussion  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2216315 On remaining issues for NTN measurement requirements**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216316 CR on RLM and BFR requirements for NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2624 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216317 CR on MG requirements for NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2625 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216463 CR for Cell Reselection requirements with distance trigger**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2634 rev Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216472 Discussion on Colliding Measurement Gaps**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216502 CR on intra-frequency measurements for NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2637 rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

CR on intra-frequency measurements for NTN

**Decision:** The document was **not treated**.

**R4-2216504 Measurement requirements for NTN**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

Measurement requirements for NTN

**Decision:** The document was **not treated**.

4.2.5.2 Others

**R4-2215395 Completing requirements for conditional handover for NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2590 rev Cat: F (Rel-17)  
  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215431 CR on cell re-selection, MDT and timing requirements for NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2604 rev Cat: F (Rel-17)  
  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215582 CR on scheduling restrictions for L3 measurements in FR1 for NTN**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2594 rev Cat: F (Rel-17)  
  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215605 Reply LS on measurement gap enhancements for NTN**

*Type: LS out For: Agreement  
 to RAN2  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215748 CR on intra-frequency cell reselection in NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2601 rev Cat: F (Rel-17)  
  
 Source: Samsung*

**Decision:** The document was **not treated**.

**R4-2216312 Discussion on other requirements for NTN RRM**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216313 CR on RRC re-establishment requirements for NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2622 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216314 CR on UL spatial relation switch requirements for NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2623 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216464 Editorial CR To TS 38.133 Handover requirements**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2635 rev Cat: D (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **withdrawn**.

**R4-2216467 Transmit Timing Aspects for NTN RRM**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216592 Editorial CR To TS 38.133 Handover requirements**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2641 rev Cat: D (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

4.2.6 RRM performance requirements

4.2.6.1 General

**R4-2215449 Discussion on the performance requirements for NTN RRM**

*Type: discussion For: Discussion  
 Source: Xiaomi, CAICT*

**Decision:** The document was **not treated**.

**R4-2215501 Discussion on RRM test cases for NTN**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215752 Discussion on RRM performance for NR NTN**

*Type: discussion For: Discussion  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2215819 Discussion on general RRM performance requirements for NR NTN**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-17)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2216318 Discussion on measurement accuracy and TCs for NTN**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216319 CR on measurement accuracy requirements for NTN**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216863 draft CR of BWP switch and CBW change test cases for NR NTN**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

**R4-2216868 Open Issues in NTN RRM Test Case Design**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

4.2.6.2 Test cases for Cell reselection to intra- and inter-frequency neighbor cell

**R4-2215936 Draft CR on test case for cell reselection to FR1 inter-frequency NR cell for satellite access**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: (Rel-17)  
  
 Source: LG Electronics UK*

**Abstract:**

The test cases for inter-frequency cell reselection for satellite access are introduced in TS 38.133 since the inter-frequency cell reselection requirement has been specified.

**Decision:** The document was **not treated**.

**R4-2216320 Discussion on cell reselection test for NTN**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216321 CR on cell reselection TCs for NTN**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216471 Amendments on cell reselection parameters when not using enhanced mode**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

4.2.6.3 Test cases for Intra- and inter-frequency HO with known cell

**R4-2215393 Test cases for Intra- and inter-frequency HO with known cell for NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2588 rev Cat: F (Rel-17)  
  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215454 4-step RA type randon access test for satellite access**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Xiaomi, CAICT*

**Decision:** The document was **not treated**.

**R4-2216322 CR on TCs for RRC Re-establishment for NTN**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216465 Discussion on configuration of HO aspects for NTN**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

4.2.6.4 Test cases for Intra- and inter-frequency CHO

**R4-2215392 Discussion on test cases for handover for NTN**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215394 Test cases for Intra- and inter-frequency CHO for NTN**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2589 rev Cat: F (Rel-17)  
  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215452 RRC connection release with redirection rest for satellite access**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Xiaomi, CAICT*

**Decision:** The document was **not treated**.

**R4-2216466 Discussion on configuration of CHO aspects for NTN**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

4.2.6.5 Test cases for UE transmit timing

**R4-2215502 draft CR for NTN timing advance adjustment accuracy test**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2216278 Discussion on remaining issues on test cases for NTN UE timing**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216279 DraftCR on UE transmit timing tests for NTN**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216470 Discussion on open issues for timing advance**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

4.2.6.6 Test cases for RLM and BFR

**R4-2215451 Pathloss reference signal switching delay test for satellite access**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Xiaomi, CAICT*

**Decision:** The document was **not treated**.

**R4-2215503 draft CR for CSI-RS based RLM for NTN**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2216503 draft CR on test cases of BFD and LR for SA**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

draft CR on test cases of BFD and LR for SA

**Decision:** The document was **not treated**.

4.2.6.7 Test cases for Intra-frequency measurement delay

**R4-2215820 CR to Test case 10-4 to 10-9 intra-frequency measurement delay with gap for satellite access**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2607 rev Cat: B (Rel-17)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2216323 Discussion on measurement delay TCs for NTN**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216324 CR on TCs for intra-frequency measurement delay for NTN**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

4.2.6.8 Test cases for Inter-frequency measurement delay

**R4-2215455 Test case for inter-frequency measurement without gap for satellite access**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Xiaomi, CAICT*

**Decision:** The document was **not treated**.

4.2.6.9 Teste cases for L1-RSRP measurement delay

**R4-2215450 L1-RSRP measurement accuracy test for satellite access**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Xiaomi, CAICT*

**Decision:** The document was **not treated**.

4.2.6.10 Test cases for RRM measurement accuracy

**R4-2215453 SS-SINR measurement accuracy test for satellite access**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Xiaomi, CAICT*

**Decision:** The document was **not treated**.

**R4-2216325 CR on general requirement for NTN RRM test cases**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

4.2.8 Moderator summary and conclusions

**[104-bis-e][201] NR\_NTN\_solutions\_RRM\_1, AI 4.2.5 – CH Park**

**R4-2216912 Email discussion summary for [104-bis-e][201] NR\_NTN\_solutions\_RRM\_1**

*Type: other For: Information  
 Source: Moderator (Qualcomm)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

**[104-bis-e][202] NR\_NTN\_solutions\_RRM\_2, AI 4.2.6 – Xuhua Tao**

**R4-2216913 Email discussion summary for [104-bis-e][202] NR\_NTN\_solutions\_RRM\_2**

*Type: other For: Information  
 Source: Moderator (Xiaomi)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

4.3 Extending current NR operation to 71GHz

4.3.5 RRM core requirement maintenance

**R4-2215416 Discussion of remaining issues on RRM core requirements for extension to 71GHz**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

4.3.5.1 General

**R4-2215617 Remaining general aspects for NR operation in 52.6GHz - 71GHz**

*Type: discussion For: Approval  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215799 Discussion on TCI assumption for RSSI measurement for FR2-2**

*Type: discussion For: Discussion  
 Source: LG Electronics Inc.*

**Decision:** The document was **not treated**.

**R4-2215800 CR on QCL-ed assumption for inter-frequency RSSI measurement in FR2-2**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2605 rev Cat: F (Rel-17)  
  
 Source: LG Electronics Inc.*

**Decision:** The document was **not treated**.

**R4-2216256 CR on applicability of RRM requirements with CCA in FR2-2**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2611 rev Cat: B (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216261 Discussion on general requirements on FR2-2**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216262 CR on RLM requirements for FR2-2**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2612 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216263 CR on SCell activation requirements of FR2-2**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2613 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216882 Draft CR on Measurement Procedures**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

4.3.5.2 Timing requirements

4.3.5.3 LBT impacts on RRM requirements

**R4-2215618 LBT impacts on RRM requirements for NR operation in 52.6GHz - 71GHz**

*Type: discussion For: Approval  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2216257 Discussion on RRM requirements with CCA in FR2-2**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216264 Discussion on LBT impact on requirements for FR2-2**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216265 CR on LBT assumption for FR2-2**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2614 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216266 CR on RSSI measurement for FR2-2**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2615 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216606 Reply LS on signalling of CCA configurations of neighbour cells in FR2-2**

*Type: LS out For: Approval  
 to RAN2, cc RAN1  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

4.3.6 RRM performance requirements

**R4-2215417 Further discussion on general RRM performance requirements for NR extension to 71 GHz**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

4.3.6.1 General (Test configurations, side conditions and spec structure)

**R4-2216259 Discussion on RRM performance timing requirements in FR2-2**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216267 Discussion on performance requirements for FR2-2**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

4.3.6.2 Test cases with and without CCA

4.3.6.2.1 Test cases for RRC\_IDLE/RRC\_INACTIVE mode

4.3.6.2.2 Test cases for RRC\_CONNECTED mobility

**R4-2215418 Draft CR on test cases for SA RRC Re-establishment for extending NR operation to 71GHz**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2216258 Draft CR random access test cases in FR2-2**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216268 CR on test cases for HO for FR2-2**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

4.3.6.2.3 Test cases for timing

4.3.6.2.4 Test cases for signaling characteristics

**R4-2215419 Draft CR on test cases for Beam failure detection and link recovery for extending NR operation to 71GHz**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2216260 Draft CR introducing BFD and TCI state switch test cases in FR2-2**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216501 draft CR on Test Cases on RLM for SCell activation to 71GHz**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

draft CR on Test Cases on RLM for SCell activation to 71GHz

**Decision:** The document was **not treated**.

4.3.6.2.5 Test cases for measurement

**R4-2215863 Draft CR on introduction of intra-frequency and inter-frequency measurement test cases without CCA for FR2-2**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: vivo*

**Decision:** The document was **not treated**.

4.3.8 Moderator summary and conclusions

**[104-bis-e][203] NR\_ext\_to\_71GHz\_RRM\_1, AI 4.3.5 – Zhongyi Shen**

**R4-2216914 Email discussion summary for [104-bis-e][203] NR\_ext\_to\_71GHz\_RRM\_1**

*Type: other For: Information  
 Source: Moderator (Huawei)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

**[104-bis-e][204] NR\_ext\_to\_71GHz\_RRM\_2, AI 4.3.6 – Prashant Sharma**

**R4-2216915 Email discussion summary for [104-bis-e][204] NR\_ext\_to\_71GHz\_RRM\_2**

*Type: other For: Information  
 Source: Moderator (Qualcomm)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

4.5 Further enhancements on MIMO for NR

4.5.1 RRM core requirement maintenance

4.5.1.1 Unified TCI for DL and UL

**R4-2215353 Discussion on remaining issue about Unified TCI state in FeMIMO**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215591 On remaining issues for unified TCI requirements**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215592 CR for unified TCI**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2595 rev Cat: F (Rel-17)  
  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215743 Discussion on remaining issues of FeMIMO RRM core requirements for unified TCI state**

*Type: discussion For: Discussion  
 Source: Samsung*

**Decision:** The document was **not treated**.

**R4-2215764 Discussion on unified TCI for DL and UL**

*Type: discussion For: Discussion  
 Source: MediaTek Inc.*

**Decision:** The document was **not treated**.

**R4-2216280 Discussion on RRM remaining issues for R17 unified TCI framework**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216281 CR on maintaining TCI state switching requirements for R17 unified TCI**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2616 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216360 Discussion on remaining issues in unified TCI in R17 feMIMO**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216361 CR on unified TCI in R17 feMIMO**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2628 rev Cat: F (Rel-17)  
  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216486 Discussion on Unified TCI for DL and UL**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216596 Remaining issues for UL TCI state switch delay**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216817 Discussion on remaining issues on Unified TCI for DL and UL**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution discusses about remaining open issue of unified TCI state switching

**Decision:** The document was **not treated**.

**R4-2216818 CR on maintenance of unified TCI state switching requirements**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2646 rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

This contribution proposes maintnece of unified TCI state switching

**Decision:** The document was **not treated**.

4.5.1.2 Inter-cell beam management

**R4-2215354 Discussion on remaining issue about inter-cell beam management in FeMIMO**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215593 On remaining issues for inter-cell beam management**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215594 CR for inter-cell beam management**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2596 rev Cat: F (Rel-17)  
  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215744 Discussion on remaining issues of FeMIMO RRM core requirements for inter-cell beam management**

*Type: discussion For: Discussion  
 Source: Samsung*

**Decision:** The document was **not treated**.

**R4-2215765 Discussion on inter cell beam management**

*Type: discussion For: Discussion  
 Source: MediaTek Inc.*

**Decision:** The document was **not treated**.

**R4-2215767 CR on applicability of R17 inter cell beam management for FR2-2**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2603 rev Cat: F (Rel-17)  
  
 Source: MediaTek Inc.*

**Decision:** The document was **not treated**.

**R4-2216282 Discussion on RRM remaining issues for R17 inter-cell beam managements**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216283 CR on maintaining L1-RSRP measurement requirements for R17 inter-cell BM**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2617 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216362 Discussion on remaining issues in inter-cell beam managements in R17 feMIMO**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216363 CR on inter-cell beam managements in R17 feMIMO**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2629 rev Cat: F (Rel-17)  
  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216485 Discussion on remaining RRM requirements for inter-cell beam management**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216819 Discussion on remaining issues of Inter-cell beam management**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution discusses about remaining open issue of sharing factor design

**Decision:** The document was **not treated**.

**R4-2216820 Maintenance CR on inter-cell BM**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2647 rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

CR to capture the sharing factor for SC and CDP L1-RSRP

**Decision:** The document was **not treated**.

4.5.1.3 Others

**R4-2215747 Correction on requirements for TRP specific link recovery procedures**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2600 rev Cat: F (Rel-17)  
  
 Source: Samsung*

**Decision:** The document was **not treated**.

**R4-2216487 CR on SFN based RLM and LRP**

*Type: CR For: Endorsement  
 38.133 v17.7.0 CR-2636 rev Cat: F (Rel-17)  
  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

4.5.2 RRM performance requirements

4.5.2.1 General (test configurations, side condition and etc)

**R4-2216364 Discussion on R17 feMIMO test case configurations**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216821 Discussion on test cases for TRP specific BFD and LR**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

Test configuration for TRP specific BFD and LR

**Decision:** The document was **not treated**.

4.5.2.2 Test cases for unified TCI state switching

**R4-2215745 Discussion on remaining issues of test cases for unified TCI state**

*Type: discussion For: Discussion  
 Source: Samsung*

**Decision:** The document was **not treated**.

**R4-2215766 Draft CR on TC for joint unified TCI state switching in FR2 NR SA**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: MediaTek Inc.*

**Decision:** The document was **not treated**.

**R4-2216365 Draft CR on test case for DL TCI state switching for Cell with different PCI in FR2 NR-SA**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216822 CR on maintenance of UL TCI state switching of FR2 PCell**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2648 rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Test configuration for TRP specific BFD and LR

**Decision:** The document was **not treated**.

4.5.2.3 Test cases for L1-RSRP measurement on cells with different PCI

**R4-2215974 Draft CR on TC of L1-RSRP measurement on cells with different PCI**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Samsung*

**Decision:** The document was **not treated**.

**R4-2216366 Draft CR on test case for L1-RSRP measurement procedure in FR1 NR-SA**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: vivo*

**Decision:** The document was **not treated**.

4.5.2.4 Test cases for TRP specific BFD and LR

**R4-2215358 Discussion on TRP specific Beam Failure Detection and Link Recovery Test case**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215746 Discussion on remaining issues of test cases for TRP specific BFD and LR**

*Type: discussion For: Discussion  
 Source: Samsung*

**Decision:** The document was **not treated**.

**R4-2216284 DraftCR on maintaining TRP specific BFR test cases**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216823 maintenance CR on test cases for TRP specific BFD and LR**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2649 rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Test configuration correction for TRP specific BFD and LR

**Decision:** The document was **not treated**.

4.5.4 Moderator summary and conclusions

**[104-bis-e][205] NR\_feMIMO\_RRM\_1, AI 4.5.1 – Hua Li**

**R4-2216916 Email discussion summary for [104-bis-e][205] NR\_feMIMO\_RRM\_1**

*Type: other For: Information  
 Source: Moderator (Intel)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

**[104-bis-e][206] NR\_feMIMO\_RRM\_2, AI 4.5.2 – Yanze Fu**

**R4-2216917 Email discussion summary for [104-bis-e][206] NR\_feMIMO\_RRM\_2**

*Type: other For: Information  
 Source: Moderator (Samsung)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

4.6 Support of reduced capability NR devices

4.6.3 RRM core requirement maintenance

4.6.3.1 Impacts from UE complexity reduction

**R4-2215962 Discussion on LS on configuring margin for 1 Rx RedCap UEs**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

4.6.3.1.1 General

**R4-2215364 Discussion on the negative configuring margin for RSRP change threshold of 1 Rx RedCap UEs**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215365 CR on 1Rx. margin for RedCap UEs configured with relaxed measurement criterion**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2587 rev Cat: F (Rel-17)  
  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2216215 Discussion on remaining RRM issues for RedCap UEs**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216216 CR 38.133: Corrections to SDT requirements for RedCap**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2609 rev Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216291 Correction to idle measurement requirements for RedCap Ues**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2618 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216855 On offset for cell specific RSRP thresholds for 1Rx Redcap UE**

*Type: other For: Discussion  
 Source: Ericsson*

**Abstract:**

The paper analyze the specification of the offset for cell specific RSRP thresholds included in LS to RAN2 in R4-2214484.

**Decision:** The document was **not treated**.

**R4-2216856 Draft CR on offset for cell specific RSRP thresholds for 1Rx Redcap UE in 38.133**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

The draft CR defines offset for cell specific RSRP thresholds in 38.133 included in LS to RAN2 in R4-2214484.

**Decision:** The document was **not treated**.

4.6.3.1.2 Mobility requirements

**R4-2215471 Discussion on remaining issues for mobility requirements for Redcap UE**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2216455 Discussions on RedCap HO**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution discusses the HO requirements for RedCap

**Decision:** The document was **not treated**.

**R4-2216456 CR on RedCap HO**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2632 rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

To update the HO for RedCap

**Decision:** The document was **not treated**.

**R4-2216597 Discussion on offsets to cell-specific thresholds for 1 Rx RedCap UEs**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216764 Changes to RRC\_IDLE mode requirements for RedCap for TS 38.133**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2644 rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

This CR contains additional changes to IDLE mode section based on the endorsed big CR from last meeting.

**Decision:** The document was **not treated**.

**R4-2216877 Mobility requirements for RedCap UEs**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

4.6.3.1.3 Timing requirements

**R4-2216217 Discussion on timing requirements for RedCap UEs**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216218 CR 38.133 Correction to Tx timing requirements for active BWP without SSB for RedCap**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2610 rev Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216878 Timing requirements for RedCap UEs**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

**R4-2216880 Draft CR on timing requirements with measurement gaps for RedCap UEs**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

4.6.3.1.4 Signalling characteristics

**R4-2215472 Discussion on remaining issues for signalling characteristics for Redcap UE**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2216292 Discussion on signaling characteristics for RedCap**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216598 Discussion on UE power saving for RedCap**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

4.6.3.1.5 Measurement procedure

**R4-2215491 On RedCap measurement procedure**

*Type: discussion For: Decision  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215606 On remaining issues of RRM requirement for RedCap UE**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-17)  
  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215607 CR for serving cell thresholds of s-MeasureConfig for RedCap**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2599 rev Cat: F (Rel-17)  
  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2216293 Discussion on measurement requirements due to UE complexity reduction**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216294 CR on offset margin for 1Rx RedCap UE**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2619 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216457 Discussions on RedCap Measurement**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution discusses the measurement requirements for RedCap

**Decision:** The document was **not treated**.

**R4-2216458 CR on RedCap CGI**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2633 rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

To update the CGI reading for RedCap

**Decision:** The document was **not treated**.

**R4-2216599 Remaining issues on measurement procedures for RedCap**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216771 Inter-RAT accuracy requirements for RedCap**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2645 rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

The current references are incorrect and need to be updated.

**Decision:** The document was **not treated**.

**R4-2216881 Draft CR on measurement procedures for RedCap UEs**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

4.6.3.2 Extended DRX enhancements

**R4-2216295 Discussion on Extended DRX enhancements for inactive RedCap UE**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216296 Clarification on measurement for inactive mode RedCap UE**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2620 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216454 CR on RedCap eDRX**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2631 rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

To update the eDRX for RedCap

**Decision:** The document was **not treated**.

4.6.3.3 RRM measurement relaxations

**R4-2215963 on remaining issues on RRM relaxation for Redcap**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216219 Discussion on RRM relaxations**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216297 Correction on relaxed measurement for RedCap**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2621 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216763 Discussions on RRM measurement relaxations**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution we discuss RRM measurement relaxation for RedCap.

**Decision:** The document was **not treated**.

**R4-2216883 CR 38.133: RRM relaxations in case of failed S-criterion and SDT for RedCap**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2650 rev Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

4.6.3.4 Others

**R4-2215470 Discussion on NCD-SSB time offset impact for RedCap UE**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215598 CR on scheduling restrictions for L3 measurements in FR1 for RedCap**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2597 rev Cat: F (Rel-17)  
  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2216220 Discussion on impact from NCD-SSB time offset**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

4.6.4 RRM performance requirements

4.6.4.1 General (test configurations, side condition and etc)

**R4-2215492 NCD-SSB configurations and test cases**

*Type: discussion For: Decision  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2216307 Test case on E-UTRA – NR inter-RAT measurement performance for Redcap**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216452 Discussions on RedCap NCD-SSB test design**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution discusses the NCD-SSB test case design for RedCap

**Decision:** The document was **not treated**.

**R4-2216453 draftCR on RedCap NCD-SSB RMC**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

To add the RedCap NCD-SSB RMC

**Decision:** The document was **not treated**.

**R4-2216600 Discussion on NCD-SSB test cases for RedCap**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216765 Updated test case list for RedCap RRM performance part**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

Updated test case list based on already agreement document at previous meeting.

**Decision:** The document was **not treated**.

4.6.4.2 RRM test cases for FR1

4.6.4.2.1 Applicability rule, configurations and side conditions

**R4-2216298 Discussion on handover test for RedCap UE**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

4.6.4.2.2 Test cases for RRC\_IDLE and RRC\_INACTIVE state mobility

**R4-2216601 draft CR on correction to IDLE mode test cases for RedCap in FR1**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

4.6.4.2.3 Test cases for RRC\_CONNECTED state mobility

**R4-2215473 CR on 4-step random access test in FR1 for RedCap UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2216299 Test case for handover for FR1 RedCap UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216602 draft CR on correction to CONNECTED mode test cases for RedCap in FR1**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216749 DraftCR on Intra-frequency handover from FR1 to FR1 unknown target cell for 2 and 1 Rx UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

4.6.4.2.4 Test cases for timing

**R4-2215420 CR on timing test for RedCap for FR1**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2591 rev Cat: F (Rel-17)  
  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2216603 draft CR on corrections on timing test cases for RedCap**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216748 DraftCR on NR UE Transmit Timing Test for FR1 for 1 and 2 Rx UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

4.6.4.2.5 Test cases for signaling characteristics

**R4-2215474 CR on SSB-based RLM in-sync test in FR1 for RedCap UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215493 Draft CR on test case for FR1 active BWP swith and UE specific CBW change**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2216301 RLM test cases for FR1 RedCap UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216604 Draft CR introducing BFD and LR test cases for RedCap in FR1**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216750 DraftCR on Radio Link Monitoring Out-of-sync Test for FR1 PCell configured with SSB-based RLM RS in DRX mode for 1 and 2 Rx UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

4.6.4.2.6 Test cases for measurement procedure

**R4-2215422 Draft CR for RedCap UEs for intra-frequency measurement in FR1**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215808 CR on SA test with per-UE gaps under non-DRX with SSB index reading for intra-frequency measurement**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2606 rev Cat: B (Rel-17)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215964 draft CR for CSI-RS based L1-RSRP for Redcap**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216305 Test case on SA inter-frequency measurement procedure in FR1 for Redcap**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216751 DraftCR on SA event triggered reporting tests without gap under non-DRX for 1 Rx and 2 Rx UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2216756 Draft CR on the test case for SA event triggered reporting tests for FR1 without SSB time index detection when DRX is not used**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2216772 RRM test cases for FR1: Measurement procedure**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

This CR contains collection of test cases for RRM test cases for FR1: Measurement procedure.

**Decision:** The document was **not treated**.

4.6.4.2.7 Test cases for measurement accuracy

**R4-2216303 Test case for intra-frequency SS-RSRQ measurement accuracy for FR1 RedCap UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216343 Draft CR for introduction of the test cases for FR1 measurement accuracy on Redcap**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

This is a draft CR to TS 38.133 introducing Redcap FR1 measurement accuracy test cases

**Decision:** The document was **not treated**.

4.6.4.3 RRM test cases for FR2

4.6.4.3.1 Applicability rule, configurations and side conditions

4.6.4.3.2 Test cases for RRC\_IDLE and RRC\_INACTIVE state mobility

4.6.4.3.3 Test cases for RRC\_CONNECTED state mobility

**R4-2215475 CR on 4-step random access test in FR2 for RedCap UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2216300 Test case for handover for FR2 RedCap UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

4.6.4.3.4 Test cases for timing

**R4-2215421 CR on timing test for RedCap for FR2**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2592 rev Cat: F (Rel-17)  
  
 Source: CATT*

**Decision:** The document was **not treated**.

4.6.4.3.5 Test cases for signaling characteristics

**R4-2215476 CR on RLM in-sync and scheduling restriction in FR2 for RedCap UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215494 Draft CR on test case for FR2 active BWP swith, UE specific CBW change, active TCI state switch and uplink spatial relation switch delay**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215965 draft CR for CSI-RS-based BFD and LR for FR2 PCell**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216302 RLM test cases for FR2 RedCap UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

4.6.4.3.6 Test cases for measurement procedure

**R4-2215423 Draft CR for RedCap UEs for intra-frequency measurement in FR2**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215477 CR on SA event triggered reporting test with per-UE gaps under DRX for RedCap UE in FR2**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215478 CR on SSB and CSI-RS based L1-RSRP measurement for RedCap UE in FR2**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2216306 Test case on SA inter-frequency measurement procedure in FR2 for Redcap**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216752 DraftCR on SSB based L1-RSRP measurement when DRX is not used for FR2**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2216757 Draft CR on the test case for SA event triggered reporting test without gap under DRX**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2216773 RRM test cases for FR2: Measurement procedure**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

This CR contains collection of test cases for RRM test cases for FR2: Measurement procedure.

**Decision:** The document was **not treated**.

4.6.4.3.7 Test cases for measurement accuracy

**R4-2216304 Test case for intra-frequency SS-RSRQ measurement accuracy for FR2 RedCap UE**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216344 Draft CR for introduction of the test cases for FR2 measurement accuracy on Redcap**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

This is a draft CR to TS 38.133 introducing Redcap FR2 measurement accuracy test cases

**Decision:** The document was **not treated**.

**R4-2216753 DraftCR on SSB based L1-RSRP measurement for beam reporting for FR2**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2216754 DraftCR on CSI-RS based L1-RSRP measurement for beam reporting for FR2**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

4.6.6 Moderator summary and conclusions

**[104-bis-e][207] NR\_redcap\_RRM\_1, AI 4.6.3 – Santhan Thangarasa**

**R4-2216918 Email discussion summary for [104-bis-e][207] NR\_redcap\_RRM\_1**

*Type: other For: Information  
 Source: Moderator (Ericsson)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

**[104-bis-e][208] NR\_redcap\_RRM\_2, AI 4.6.4 – Xusheng Wei**

**R4-2216919 Email discussion summary for [104-bis-e][208] NR\_redcap\_RRM\_2**

*Type: other For: Information  
 Source: Moderator (vivo)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

4.7 Enhanced IIoT and URLLC support

4.7.1 RRM core requirement maintenance

**R4-2215873 Remaining issues for PDC enhancement**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216326 On RRM requirements for PDC enhancements**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216327 CR on requirements for UE Rx-Tx measurement for PDC**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2626 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216422 Requirements for DRX case**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

Requirements for DRX case

**Decision:** The document was **not treated**.

**R4-2216423 Requirements for DRX case**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2630 rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Requirements for DRX case

**Decision:** The document was **not treated**.

**R4-2216508 Discussion on finalization of the requirements for NR\_IIOT\_URLLC**

*Type: discussion For: Agreement  
 38.133 v CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216509 CR on requirements for NR\_IIOT\_URLLC**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2638 rev Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216672 CR to TS 38.133 Correction to measurements core requirements for PDC**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2642 rev Cat: F (Rel-17)  
  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216721 Open issues in core requirements for RTT-based propagation delay compensation**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

4.7.2 RRM performance requirements

**R4-2216510 Measurement accuracy requirements for TUE-RX**

*Type: discussion For: Agreement  
 38.133 v CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216511 CR on UE Rx-Tx time difference measurement accuracy requirements for RTT-based PDC**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2639 rev Cat: B (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216512 Draft CR to verify measurements for UE Rx-Tx time difference measurement with TRS for RTT based PDC in FR2 SA**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2640 rev Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **withdrawn**.

**R4-2216792 Draft CR to verify measurements for UE Rx-Tx time difference measurement with TRS for RTT based PDC in FR2 SA**

*Type: draftCR For: Agreement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Nokia Corporation*

**Decision:** The document was **not treated**.

4.7.2.1 General (test configurations, conditions and etc)

4.7.2.2 Measurement period and accuracy requirements

**R4-2216328 On measurement accuracy for PDC enhancements**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216329 CR on PDC measurement accuracy requirements**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216722 On performance requirements for RTT-based propagation delay compensation**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

4.7.2.3 Test cases for FR1

4.7.2.4 Test cases for FR2

**R4-2216330 CR on TCs for PDC measurement**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

4.7.4 Moderator summary and conclusions

**[104-bis-e][209] NR\_IIOT\_URLLC\_enh, AI 4.7.1 and 4.7.2 – Lars Dalsgaard**

**R4-2216920 Email discussion summary for [104-bis-e][209] NR\_IIOT\_URLLC\_enh**

*Type: other For: Information  
 Source: Moderator (Nokia)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

4.8 NR small data transmissions in INACTIVE state

4.8.1 RRM core requirement maintenance

**R4-2215877 CR on subsequent CG-SDT transmission for NR SDT**

*Type: CR For: Approval  
 38.133 v17.7.0 CR-2608 rev Cat: F (Rel-17)  
  
 Source: ZTE Wistron Telecom AB*

**Decision:** The document was **not treated**.

**R4-2215878 Discussion on RRM core requirements for NR SDT**

*Type: discussion For: Discussion  
 Source: ZTE Wistron Telecom AB*

**Decision:** The document was **not treated**.

**R4-2216331 CR on SDT RRM requirements**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2627 rev Cat: F (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216740 CR on requirements for CG-SDT in unlicensed band**

*Type: CR For: Agreement  
 38.133 v17.7.0 CR-2643 rev Cat: B (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

**R4-2216741 Description of the CR for CG-SDT in unlicensed band.**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

4.8.2 RRM performance requirements

**R4-2215879 Discussion on RRM performance requirements for NR SDT**

*Type: discussion For: Discussion  
 Source: ZTE Wistron Telecom AB*

**Decision:** The document was **not treated**.

**R4-2216332 Discussion on RRM test cases for SDT**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216333 CR to introduce SDT RRC TCs**

*Type: draftCR For: Endorsement  
 38.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216569 Discussion on performance requirements for SDT**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216742 Discussion on RRM performance requirement for CG-SDT**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

**R4-2216743 DraftCR for test case for CG-SDT**

*Type: draftCR For: Discussion  
 38.133 v17.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

**R4-2216770 Discussions on RRM performance requirements for SDT**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution we discuss the performance part of SDT.

**Decision:** The document was **not treated**.

4.8.3 Moderator summary and conclusions

**[104-bis-e][210] NR\_SmallData\_INACTIVE, AI 4.8.1 and 4.8.2 – Aijun Cao**

**R4-2216921 Email discussion summary for [104-bis-e][210] NR\_SmallData\_INACTIVE**

*Type: other For: Information  
 Source: Moderator (ZTE)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

5 Rel-18 spectrum related WIs for NR

6 Rel-18 non-spectrum related work items and study items for NR

6.8 Requirement for NR FR2 multi-Rx chain DL reception

6.8.3 RRM core requirements for simultaneous DL reception from different directions

**R4-2215710 Discussions on FR2 multi Rx chain DL reception**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: NTT DOCOMO, INC.*

**Decision:** The document was **not treated**.

6.8.3.1 Analysis of RRM impacts and general aspects

**R4-2215360 Discussion on FR2 multi Rx chain RRM impacts and general aspects**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215462 on the multi-RX chain general aspects**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215622 General aspects for NR FR2 multi-Rx chain DL reception**

*Type: discussion For: Approval  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215720 Discussion on general aspects for FR2 multi-Rx chain DL reception**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215759 Discussion on simultaneous DL reception from different directions for general issues**

*Type: discussion For: Discussion  
 Source: MediaTek Inc.*

**Decision:** The document was **not treated**.

**R4-2215803 Discussion on general aspects of RRM for simultaneous DL reception from different directions**

*Type: discussion For: Discussion  
 Source: LG Electronics Inc.*

**Decision:** The document was **not treated**.

**R4-2215812 Discussion on general requirements for FR2\_multiRX\_DL**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215867 Further analysis on RRM impacts and general aspects**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216285 Discussion on RRM general impacts for R18 FR2 multi-Rx chain DL reception**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216474 Discussion on general aspects on RRM requirements for simultaneous DL reception from different directions**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216578 General considerations on RRM requirements for multi-RX RRM**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216713 Further Analysis of RRM requirement impacts for simultaneous DL reception from different directions**

*Type: discussion For: Discussion  
 Source: Samsung*

**Decision:** The document was **not treated**.

**R4-2216824 Discussion on scenarios for simultaneous DL reception from different directions**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution, we discuss scenarios for simultaneous DL reception from different directions

**Decision:** The document was **not treated**.

**R4-2216866 Impacts on RRM to support FR2 multi-Rx chain based 4 layer DL reception from multi-TRP**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

6.8.3.2 L3 measurement

**R4-2215464 on the multi-RX chain L3 measurement**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215623 On L3 measurements for NR FR2 multi-Rx chain DL reception**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215722 Discussion on L3 measurement for FR2 multi-Rx chain DL reception**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215760 Discussion on simultaneous DL reception from different directions for L3 measurement**

*Type: discussion For: Discussion  
 Source: MediaTek Inc.*

**Decision:** The document was **not treated**.

**R4-2215804 Discussion on L3 measurement related RRM for simultaneous DL reception from different directions**

*Type: discussion For: Discussion  
 Source: LG Electronics Inc.*

**Decision:** The document was **not treated**.

**R4-2215813 Discussion on L3 requirements for FR2\_multiRX\_DL**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215868 On L3 measurement for multi-Rx chain**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216286 Discussion on L3 measurement impacts for R18 FR2 multi-Rx chain DL reception**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216476 Discussion on L3 part RRM requirements for simultaneous DL reception from different directions**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216579 Discussion on RRM L3 enhancements for multi Rx DL in FR2**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216825 Discussion on L3 measurements and procedures**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution, we discuss L3 measurmeent requirements and procedures

**Decision:** The document was **not treated**.

6.8.3.3 L1 measurement

**R4-2215361 Discussion on RRM impacts for L1 measurement based on FR2 multi Rx chain**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215463 on the multi-RX chain L1 measurement**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215624 On L1 measurements for NR FR2 multi-Rx chain DL reception**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215721 Discussion on L1 measurement for FR2 multi-Rx chain DL reception**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215761 Discussion on simultaneous DL reception from different directions for L1 measurement**

*Type: discussion For: Discussion  
 Source: MediaTek Inc.*

**Decision:** The document was **not treated**.

**R4-2215805 Discussion on L1 measurement related to RRM for simultaneous DL reception from different**

*Type: discussion For: Discussion  
 Source: LG Electronics Inc.*

**Decision:** The document was **not treated**.

**R4-2215814 Discussion on L1 requirements for FR2\_multiRX\_DL**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215869 On L1 measurement for multi-Rx chain**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216287 Discussion on L1 measurement impacts for R18 FR2 multi-Rx chain DL reception**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216475 Discussion on L1 part RRM requirements for simultaneous DL reception from different directions**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216580 Discussion on RRM L1 enhancements for multi Rx DL in FR2**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216826 Discussion on L1 measurements and procedures**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution, we discuss L1 measurmeent requirements and procedures

**Decision:** The document was **not treated**.

6.8.3.4 TCI state switching

**R4-2215362 Discussion on RRM impacts for TCI state switching based on FR2 multi Rx chain**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215465 on the multi-RX chain TCI state switching**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215762 Discussion on simultaneous DL reception from different directions for TCI state switching**

*Type: discussion For: Discussion  
 Source: MediaTek Inc.*

**Decision:** The document was **not treated**.

**R4-2215806 Discussion on TCI state switching for simultaneous DL reception from different directions**

*Type: discussion For: Discussion  
 Source: LG Electronics Inc.*

**Decision:** The document was **not treated**.

**R4-2215815 Discussion on TCI state switching for FR2\_multiRX\_DL**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215870 On TCI state switching for multi-Rx chain**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216277 Discussion RRM requirements of TCI state switching for multi-Rx**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216477 Discussion on TCI state related RRM requirements for simultaneous DL reception from different directions**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216581 Discussion on RRM TCI State Switching for multi Rx DL in FR2**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216827 Discussion on active TCI state requirements**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution, we discuss TCI state switch requirements for different QCl type-D

**Decision:** The document was **not treated**.

6.8.4 Moderator summary and conclusions

**[104-bis-e][211] FR2\_multiRx\_RRM\_part1, AI 6.8.3, 6.8.3.1 and 6.8.3.2 – Qian Yang**

**R4-2216922 Email discussion summary for [104-bis-e][211] FR2\_multiRx\_RRM\_part1**

*Type: other For: Information  
 Source: Moderator (vivo)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

**[104-bis-e][212] FR2\_multiRx\_RRM\_part2, AI 6.8.3.3 – Valentin Gheorghiu**

**R4-2216923 Email discussion summary for [104-bis-e][212] FR2\_multiRx\_RRM\_part2**

*Type: other For: Information  
 Source: Moderator (Qualcomm)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

**[104-bis-e][213] FR2\_multiRx\_RRM\_part3, AI 6.8.3.4 – Venkatarao Gonuguntla**

**R4-2216924 Email discussion summary for [104-bis-e][213] FR2\_multiRx\_RRM\_part3**

*Type: other For: Information  
 Source: Moderator (Ericsson)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

6.9 Even Further RRM enhancement for NR and MR-DC

6.9.1 General and work plan

**R4-2215599 Updated Work plan for R18 eFeRRM**

*Type: Work Plan For: Agreement  
 Source: Apple*

**Decision:** The document was **not treated**.

6.9.2 RRM core requirements for FR2 SCell activation delay reduction

**R4-2215456 Discussion on FR2 SCell activation delay reduction**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215801 Discussion on FR2 SCell activation delay reduction**

*Type: discussion For: Discussion  
 Source: LG Electronics Inc.*

**Decision:** The document was **not treated**.

**R4-2215807 Discussions on FR2 SCell Activation delay requirements**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: NTT DOCOMO, INC.*

**Decision:** The document was **not treated**.

**R4-2216744 Discussion on RRM requirements for FR2 unknown Scell activation delay reduction**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

6.9.2.1 L3 part enhancement for FR2 SCell activation

**R4-2215356 Discussion on L3 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215530 Discussion on A-TRS based unknown SCell activation**

*Type: discussion For: Discussion  
 Source: China Telecom*

**Decision:** The document was **not treated**.

**R4-2215600 On L3 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215719 Discussion on L3 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215785 L3 part enhancement on FR2 SCell activation delay reduction**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2215809 Discussion on L3 part enhancement for FR2 Scell activation delay reduction**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Abstract:**

L3

**Decision:** The document was **not treated**.

**R4-2215865 Discussion on L3 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216272 Discussion on L3 enhancement for FR2 SCell activation delay reduction**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216480 Discussion on the L3 part enhancement of RRM requirements for FR2 SCell activation delay reduction**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216758 Discussion on L3 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2216828 Discussion on L3 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution, we discuss L3 part of enhancements for SCell activation

**Decision:** The document was **not treated**.

6.9.2.2 L1 part enhancement for FR2 SCell activation

**R4-2215357 Discussion on L1 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215601 On L1 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215718 Discussion on L1 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215786 L1 part enhancement on FR2 SCell activation delay reduction**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2215810 Discussion on L1 part enhancement for FR2 Scell activation delay reduction**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Abstract:**

L1

**Decision:** The document was **not treated**.

**R4-2215866 Discussion on L1 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216273 Discussion on L1 enhancement for FR2 SCell activation delay reduction**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216479 Discussion on the L1 part enhancement of RRM requirements for FR2 SCell activation delay reduction**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216759 Discussion on L1 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2216829 Discussion on L1 part enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution, we discuss L1 part of enhancements for SCell activation

**Decision:** The document was **not treated**.

6.9.2.3 Other potential enhancement for FR2 SCell activation

**R4-2215531 Discussion on SCell activation without SSB in inter-band scenario**

*Type: discussion For: Discussion  
 Source: China Telecom*

**Decision:** The document was **not treated**.

**R4-2215787 Other enhancements on FR2 SCell activation delay reduction**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216274 Discussion on FR2 SCell activation delay reduction**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216478 Discussion on other aspects of RRM requirements enhancement for FR2 SCell activation delay reduction**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216760 Discussion on other potential enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2216830 Discussion on Other potential enhancement for FR2 SCell activation**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution, we discuss other potential enhancements

**Decision:** The document was **not treated**.

6.9.3 RRM core requirements for FR1-FR1 NR-DC

**R4-2215355 Discussion on FR1-FR1 NR-DC**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215466 Discussion on RRM core requirements for FR1-FR1 NR-DC.**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215602 On RRM requirements for FR1-FR1 NR-DC**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215717 Discussion on RRM requirements for FR1-FR1 NR-DC**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215763 Discussion on R18 RRM for FR1-FR1 NR-DC**

*Type: discussion For: Discussion  
 Source: MediaTek Inc.*

**Decision:** The document was **not treated**.

**R4-2215811 Discussion on RRM requirements for FR1-FR1 NR-DC**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Abstract:**

FR1-FR1 NR-DC

**Decision:** The document was **not treated**.

**R4-2215837 discussion on FR1-FR1 NR-DC**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

discussion on FR1-FR1 NR-DC requirements

**Decision:** The document was **not treated**.

**R4-2215864 Further discussion on FR1-FR1 NR-DC requirement**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216275 Discussion RRM requirements for FR1-FR1 NR-DC**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216341 Discussion on RRM core requirements for FR1-FR1 NR-DC**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution presents views on FR1-FR1 NR-DC RRM core requirements

**Decision:** The document was **not treated**.

**R4-2216745 Discussion on RRM requirements for remaining issues about FR1+FR1 NR-DC**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

6.9.4 Moderator summary and conclusions

**[104-bis-e][214] NR\_RRM\_enh3\_part1, AI 6.9, 6.9.1 and 6.9.2 – Jie Cui**

**R4-2216925 Email discussion summary for [104-bis-e][214] NR\_RRM\_enh3\_part1**

*Type: other For: Information  
 Source: Moderator (Apple)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

**[104-bis-e][215] NR\_RRM\_enh3\_part2, AI 6.9.3 – Roy Hu**

**R4-2216926 Email discussion summary for [104-bis-e][215] NR\_RRM\_enh3\_part2**

*Type: other For: Information  
 Source: Moderator (OPPO)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

6.10 Further enhancements on NR and MR-DC measurement gaps and measurements without gaps

6.10.1 General and work plan

6.10.2 RRM core requirements for pre-configured MGs, multiple concurrent MGs and NCSG

**R4-2215367 Discussion on RRM requirements for pre-configured MGs, multiple concurrent MGs and NCSG**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215426 Discussion on RRM requirements for combination of pre-MG, concurrent MGs and NCSG**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215457 RRM requirement for the combination of concurrent gaps, pre-MG and NCSG**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215610 On R18 gap enhancement - joint configuration of Pre-MG, NCSG and concurrent gaps**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215714 Discussion on combination of pre-configured MGs, multiple concurrent MGs and NCSG**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215821 Discussion on joint requirements for PreMG, concurrent MGs and NCSG**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215966 Considerations on pre-configured MGs, multiple concurrent MGs and NCSG**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216336 Discussion on joint working of eMG features**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216460 Discussion on PreMG, ConMG, NCSG**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution discusses the requirement for Pre-MG, ConMGs and NCSG

**Decision:** The document was **not treated**.

**R4-2216482 Discussion on RRM requirements for joint considerations between pre-MG, concurrent MG and NCSG for NR and MR-DC**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216582 Discussion on requirements for concurrent measurement gaps, pre-configured gaps and NCSG**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216723 On joint requirements for Rel-17 measurement gap enhancements**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

**R4-2216737 RRM core requirements for pre-configured MGs, multiple concurrent MGs and NCSG**

*Type: discussion For: Discussion  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

6.10.3 RRM core requirements for measurements without gaps

**R4-2216746 Discussion on RRM requirements for measurement without gap**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

6.10.3.1 Measurement without gaps for UEs reporting NeedForGapsInfoNR

**R4-2215368 Discussion on measurements without gaps when UE reporting NFG**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215427 Discussion on RRM requirements for measurement without gaps for UEs reporting NeedForGapsInfoNR**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215467 Discussion on RRM requirements for measurement without gaps for UEs reporting NeedForGapsInfoNR**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215611 On R18 gap enhancement - NeedForGap**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215715 Discussion on measurements without gaps for UEs reporting NeedForGapsInfoNR**

*Type: discussion For: Information  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215822 Discussion on measurement without gaps for UEs reporting NeedForGapsInfoNR**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215967 Considerations on measurement without gaps for UEs reporting NeedForGapsInfoNR**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216337 Discussion on requirements for NeedForGaps**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216461 Discussion on NeedForGaps measurement**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution discusses the NeedForGaps measurement requirement

**Decision:** The document was **not treated**.

**R4-2216484 Discussion on measurement without gaps for UEs reporting NeedForGapsInfoNR**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216583 Discussion on RRM requirements without gaps for MG\_enh2**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216738 Discussion on measurement without gaps for UEs reporting NeedForGapsInfoNR**

*Type: discussion For: Discussion  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

6.10.3.2 Inter-RAT measurement without gap

**R4-2215369 Discussion on inter-RAT measurement without gaps**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215428 Discussion on RRM requirements for Inter-RAT measurement without gap**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215468 Discussion on RRM requirements for inter-RAT measurement without gap**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215612 On R18 gap enhancement - inter-RAT measurement with gap**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215716 Discussion on inter-RAT measurements without gaps**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215823 Discussion on RRM requirements for interRAT measurements without gaps**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215968 Considerations on inter-RAT measurement without gap**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216338 Discussion on inter-RAT MG-less measurement in feMG**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216462 Discussion on Inter-RAT measurement without gap**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution discusses the inter-RAT measurement requirement

**Decision:** The document was **not treated**.

**R4-2216483 Discussion on RRM requirements for inter-RAT measurement without gap**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216739 Discussion on inter-rat measurements**

*Type: discussion For: Discussion  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

6.10.4 Moderator summary and conclusions

**[104-bis-e][216] NR\_MG\_enh2\_part1, AI 6.10 and 6.10.2 – Ato Yu**

**R4-2216927 Email discussion summary for [104-bis-e][216] NR\_MG\_enh2\_part1**

*Type: other For: Information  
 Source: Moderator (MediaTek)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

**[104-bis-e][217] NR\_MG\_enh2\_part2, AI 6.10.3 – Rui Huang**

**R4-2216928 Email discussion summary for [104-bis-e][217] NR\_MG\_enh2\_part2**

*Type: other For: Information  
 Source: Moderator (Intel)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

6.12 Enhanced NR support for high speed train scenario in frequency range 2

6.12.4 Study on reference tunnel deployment scenario and UL timing adjustment solution

**R4-2215552 On Tunnel Deployment and UL Timing Adjustment in HST FR2 Enhanced**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

An initial paper on HST FR2 Enhanced Rel-18 that considers paramters, channel model, mobility in Tunnel deployments and discusses some of the UL timing aspects.

**Decision:** The document was **not treated**.

**R4-2215700 R18 FR2 HST enhancement core requirement scope**

*Type: discussion For: Discussion  
 Source: Qualcomm Israel Ltd.*

**Decision:** The document was **not treated**.

**R4-2216009 Discussion on reference tunnel deployment scenario**

*Type: discussion For: Discussion  
 Source: Huawei,HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216403 Tunnel scenario for FR2 HST**

*Type: other For: Discussion  
 Source: Ericsson*

**Abstract:**

Discussion on tunnel

**Decision:** The document was **not treated**.

**R4-2216711 Study on reference tunnel deployment scenario and UL timing adjustment solution**

*Type: discussion For: Discussion  
 Source: Samsung*

**Decision:** The document was **not treated**.

6.12.5 Identification of RRM core requirements

**R4-2215460 Discussion on RRM requirements for FR2 HST**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215553 On RRM Core Requirements in HST FR2 Enhanced**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Main focus of this paper is on CA and Multi-Rx aspects. Additionally, a general table with expected RRM impacts is provided.

**Decision:** The document was **not treated**.

**R4-2215712 Discussion on FR2 HST RRM enhancement for CA scenario**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215824 Discussion on RRM requirements for FR2 HST**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2216311 Discussion on FR2 eHST impact on RRM**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216506 Requirements for CA in HST FR2**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

Discussions on RRM requirements for HST FR2 Rel18

**Decision:** The document was **not treated**.

**R4-2216712 Analysis on RRM core requirement impact for FR2 HST enhancement**

*Type: discussion For: Discussion  
 Source: Samsung*

**Decision:** The document was **not treated**.

6.12.6 Moderator summary and conclusions

**[104-bis-e][218] NR\_HST\_FR2\_enh\_RRM, AI 6.12.4 and 6.12.5 – Jackson He Wang**

**R4-2216929 Email discussion summary for [104-bis-e][218] NR\_HST\_FR2\_enh\_RRM**

*Type: other For: Information  
 Source: Moderator (Samsung)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

6.13 Air-to-ground network for NR

6.13.5 RRM core requirements

**R4-2215396 Further discussion on Rel-18 ATG RRM**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215505 Discussion on RRM requirements for ATG**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215635 Further discussion on RRM requirement for ATG**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215937 Discussion on RRM core requirements for ATG UE**

*Type: discussion For: Discussion  
 Source: LG Electronics UK*

**Decision:** The document was **not treated**.

**R4-2216276 Discussion on RRM requirements for ATG**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216481 Discussion on RRM requirements for air-to-ground network**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216769 Discussions on A2G RRM requirements**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

During RAN4#104-e, RAN4 had initial discussions to identify the RRM impact of introducing requirements for ATG. Some high-level agreements related to scenario, specification impact, assistance information were reached. In addition, technical proposals rel

**Decision:** The document was **not treated**.

6.13.6 Moderator summary and conclusions

**[104-bis-e][219] NR\_ATG\_RRM, AI 6.13.5 – Shiyuan Wang**

**R4-2216930 Email discussion summary for [104-bis-e][219] NR\_ATG\_RRM**

*Type: other For: Information  
 Source: Moderator (CMCC)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

6.18 Study on expanded and improved NR positioning

6.18.4 RRM aspects in the study on expanded and improved NR positioning

**R4-2215432 Discussion on RRM aspects in the study on expanded and improved NR positioning**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215825 RRM requirements on expanded and improved NR positioning**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215885 RRM aspects of expanded and improved NR positioning**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution discusses RRM aspects of expanded and improved NR positioning.

**Decision:** The document was **not treated**.

**R4-2216229 RRM impacts for NR positioning accuracy improvements bandwidth aggregation and carrier phase measurements**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

6.18.5 Moderator summary and conclusions

**[104-bis-e][220] FS\_NR\_pos\_enh2\_RRM, AI 6.18.4 – Muhammad Kazmi**

**R4-2216931 Email discussion summary for [104-bis-e][220] FS\_NR\_pos\_enh2\_RRM**

*Type: other For: Information  
 Source: Moderator (Ericsson)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

6.19 Multi-carrier enhancements for NR

6.19.3 RRM core requirements for multi-carrier enhancements

**R4-2215496 RRM requirements for multi-carrier enhancements**

*Type: discussion For: Decision  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215613 On R18 CA enhancement - RRM**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215788 RRM core requirements for multi-carrier enhancements**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2215798 DL interruption and UL outage time for Rel-18 Tx switching**

*Type: discussion For: Discussion  
 Source: China Telecom*

**Decision:** The document was **not treated**.

**R4-2215872 Discussion on RRM impacts for mulit-carrier enhancement**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216310 Discussion on RRM core requirements for multi-carrier enhancements**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216424 RRM impact**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

RRM impact

**Decision:** The document was **not treated**.

**R4-2216715 Discussion on RRM requirements for UL Tx Switching Across 3 or 4 Bands**

*Type: discussion For: Discussion  
 Source: Samsung*

**Decision:** The document was **not treated**.

6.19.4 Moderator summary and conclusions

**[104-bis-e][221] NR\_MC\_enh\_RRM, AI 6.19.3 – Jing Han**

**R4-2216932 Email discussion summary for [104-bis-e][221] NR\_MC\_enh\_RRM**

*Type: other For: Information  
 Source: Moderator (Huawei)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

6.20 Further NR mobility enhancements

6.20.1 General and work plan

6.20.2 Study of improvement on FR2 SCell/SCG setup/resume

**R4-2215424 Discussion of improvement on FR2 Scell/SCG setup/resume**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215446 Discussion on improvement on FR2 SCell/SCG setup/resume**

*Type: discussion For: Discussion  
 Source: MediaTek (Shenzhen) Inc.*

**Decision:** The document was **not treated**.

**R4-2215458 Discussion on improvement of FR2 Scell and SCG setup**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215518 Discussion on FR2 SCell/SCG setup/resume**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2215609 On R18 mobility enhancement - new RRM measurement during RRC connection setup**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215723 Discussion on FR2 SCell/SCG setup/resume**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215816 Discussion on improvement on FR2 Scell SCG setup resume**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215862 Discussion on the improvement on FR2 SCell/SCG setup/resume**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2215961 Discussion on Study of improvement on FR2 SCell/SCG setup/resume**

*Type: discussion For: Discussion  
 Source: LG Electronics UK*

**Decision:** The document was **not treated**.

**R4-2216309 Discussion on improvement on FR2 SCell/SCG setup/resume**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216342 Discussion on Study of improvement on FR2 SCell/SCG setup/resume**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution presents views on Idle/Inactive early measurement study on FR2 for SCG/Scell setup

**Decision:** The document was **not treated**.

**R4-2216867 Enhancement of FR2 cell measurements in RRC non-connected mode**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

6.20.3 L1/L2 based inter-cell mobility

**R4-2215359 Discussion on RRM impacts from R18 L1/L2 mobility**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215425 Discussion on L1/L2 based inter-cell mobility**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215447 Discussion on L1/L2 mobility**

*Type: discussion For: Discussion  
 Source: MediaTek (Shenzhen) Inc.*

**Decision:** The document was **not treated**.

**R4-2215459 Discussion on L1/L2 based inter-cell mobility**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215519 Discussion on Lower Layer Mobility, LLM**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2215608 On R18 mobility enhancement - L1/L2 inter-cell mobility RRM**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215724 Discussion on L1/L2 based inter-cell mobility**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215817 Discussion on L1L2 based inter-cell mobility**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215957 Discussion on L1/L2 based inter-cell mobility**

*Type: discussion For: Discussion  
 Source: LG Electronics UK*

**Decision:** The document was **not treated**.

**R4-2216308 Discussion on L1/L2 based inter-cell mobility for mobility latency reduction**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216367 Discussion on RRM aspects in R18 L1L2 mobility**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216831 Discussion on L1/L2 based inter-cell mobility**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution, we discuss L1/L2 based inter-cell mobility

**Decision:** The document was **not treated**.

6.20.5 Moderator summary and conclusions

**[104-bis-e][222] NR\_Mob\_enh2\_part1, AI 6.20 and 6.20.3 – Miao Wang**

**R4-2216933 Email discussion summary for [104-bis-e][222] NR\_Mob\_enh2\_part1**

*Type: other For: Information  
 Source: Moderator (MediaTek)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

**[104-bis-e][223] NR\_Mob\_enh2\_part2, AI 6.20.2 – Qiming Li**

**R4-2216934 Email discussion summary for [104-bis-e][223] NR\_Mob\_enh2\_part2**

*Type: other For: Information  
 Source: Moderator (Apple)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

6.21 Dual Tx/Rx Multi-SIM for NR

6.21.1 General and work plan

6.21.2 RRM requirements for Rel-17 MUSIM gaps

**R4-2215469 Discussion on RRM requirements for Rel-17 MUSIM gaps**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215615 On R18 MUSIM enhancement - RRM**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215725 Discussion on RRM requirements for Rel-17 MUSIM gaps**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215826 Discussion on RRM requirements for Rel-17 MUSIM gaps**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215969 Considerations on RRM requirements for R17 MUSIM gaps**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216335 Discussion on RRM requirements for MUSIM gaps**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216459 Discussion on MUSIM gaps**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution discusses the requirement for MUSIM gaps

**Decision:** The document was **not treated**.

**R4-2216513 Discussion on MUSIM requirements**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216724 On requirements for Rel-17 MUSIM gaps**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

**R4-2216761 Discussion on RRM requirements for MUSIM gaps**

*Type: discussion For: Discussion  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

6.21.3 Moderator summary and conclusions

**[104-bis-e][224] NR\_DualTxRx\_MUSIM, AI 6.21 – Xusheng Wei**

**R4-2216935 Email discussion summary for [104-bis-e][224] NR\_DualTxRx\_MUSIM**

*Type: other For: Information  
 Source: Moderator (vivo)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

6.24 NR Network-controlled Repeaters

6.24.3 Study of RRM function and RRM core requirements

**R4-2216289 Initial discussion on RRM impacts for NR network-controlled repeaters**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216554 Discussion on RRM requirements for NCR-MT in Rel-18**

*Type: other For: Approval  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

**R4-2216862 Impact of RRM on network controlled repeater**

*Type: other For: Discussion  
 Source: Ericsson*

**Abstract:**

The paper analyzes the impact of RRM requirements on network controlled repeater

**Decision:** The document was **not treated**.

6.24.4 Moderator summary and conclusions

**[104-bis-e][225] NR\_netcon\_repeater\_RRM, AI 6.24.3 – Aijun Cao**

**R4-2216936 Email discussion summary for [104-bis-e][225] NR\_netcon\_repeater\_RRM**

*Type: other For: Information  
 Source: Moderator (ZTE)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

7 Rel-18 Work Items for LTE

7.5 NB-IoT/eMTC core & perf. requirements for NTN

7.5.6 RRM core requirements[LTE\_NBIOT\_eMTC\_NTN\_req-Core

**R4-2215506 Discussion on RRM core requirements for LTE NB-IoT and eMTC NTN**

*Type: discussion For: Discussion  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215507 draft CR on RRC re-establishment and timing requirement for eMTC UE in IoT-NTN**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: (Rel-18)  
  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215753 RRM requirements for LTE NB-IoT/eMTC over NTN**

*Type: discussion For: Discussion  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2215754 Introduction of cell re-selection and PUR requirement for UE category NB-IoT for Satellite Access**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: B (Rel-18)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2215755 Introduction of RRC Re-establishment requirement for NB-IoT UEs for Satellite Access**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: B (Rel-18)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2215756 Introduction of measurements requirement for UE category NB-IoT for Satellite Access**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: B (Rel-18)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2215757 Introduction of Random Access Requirements for Cat-M1 UEs for Satellite Access**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: B (Rel-18)  
  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2216269 Discussion RRM requirements for IoT NTN**

*Type: LS out For: Approval  
 to RAN2  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216270 DraftCR on RRM requirements for NB-IoT for IoT NTN**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216339 CR on HO and measurement requirements for eMTC over NTN**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: B (Rel-18)  
  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216468 Discussion on Core Requirements for IoT NTN**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216505 Draft CR on RLM for category M1 UE for SA**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: B (Rel-18)  
  
 Source: Ericsson*

**Abstract:**

RLM for M1 UE for Satellite Access

**Decision:** The document was **not treated**.

**R4-2216767 Discussions on NTN IoT RRM requirements**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

A contribution discussing the RRM imapct of NTN IoT work item.

**Decision:** The document was **not treated**.

**R4-2216768 IDLE mode requirements for IoT NTN (cat-M)**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: B (Rel-18)  
  
 Source: Ericsson*

**Abstract:**

This CR contains the IDLE mode requirements for IoT NTN for cat-M Ues.

**Decision:** The document was **not treated**.

**R4-2216860 Draft CR on RRC release with redirection non-anchor NB-IoT carrier for satellite access in 36.133**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: B (Rel-18)  
  
 Source: Ericsson*

**Abstract:**

The draft CR defines requirements for RRC release with redirection for NB-IoT with satellite access based on the work split in R4-2214350.

**Decision:** The document was **not treated**.

**R4-2216861 Draft CR on RRC release with redirection for Cat-M1 for satellite access in 36.133**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: B (Rel-18)  
  
 Source: Ericsson*

**Abstract:**

The draft CR defines requirements for RRC release with redirection for Cat-M1 with satellite access based on the work split in R4-2214350.

**Decision:** The document was **not treated**.

**R4-2216864 draft CR of UE UL Timing Requirements for IoT NTN**

*Type: draftCR For: Endorsement  
 36.133 v17.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

**R4-2216869 RRM requirements of IoT NTN**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

7.5.7 Moderator summary and conclusions

**[104-bis-e][226] LTE\_NBeMTC\_NTN\_RRM, AI 7.5.6 and 8.2.1 – Hsuanli Lin**

**R4-2216937 Email discussion summary for [104-bis-e][226] LTE\_NBeMTC\_NTN\_RRM**

*Type: other For: Information  
 Source: Moderator (MediaTek)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

8 Liaison and output to other groups

8.1 R18 related

8.1.1 Maximum uplink timing difference for multi-DCI multi-TRP with two TAs (R1-2205593)

**R4-2215461 Further discussion on Maximum uplink timing difference for multi-DCI multi-TRP with two Tas**

*Type: discussion For: Discussion  
 Source: Xiaomi*

**Decision:** The document was **not treated**.

**R4-2215614 On R18 eFeMIMO - MTTD for multi-DCI mult-TRP with two TAs**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2216290 On maximum uplink timing difference for multi-DCI multi-TRP with two Tas**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216368 Discussion on maximum uplink timing difference for multi-DCI multi-TRP with two TAs**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216410 Multiple TA for multi-TRP deployments limits**

*Type: other For: Approval  
 Source: InterDigital Communications*

**Abstract:**

In this contribution we are discussing the possible MRTD and MTTD values for intra-cell-and inter-cell mTRP for STxMP and propose next steps.

**Decision:** The document was **not treated**.

**R4-2216605 Maximum uplink timing difference for multi-DCI multi-TRP with 2 TAs**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216716 Discussion on maximum uplink timing difference for Multi-DCI Multi-TRP with two TAs**

*Type: discussion For: Discussion  
 Source: Samsung*

**Decision:** The document was **not treated**.

**R4-2216832 Discussion on maximum uplink timing difference for multi-DCI multi-TRP with two TAs**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution, we discuss MTTD for multi-DCI and multi-TA

**Decision:** The document was **not treated**.

**R4-2216833 Reply LS on maximum uplink timing difference for multi-DCI multi-TRP with two TAs**

*Type: LS out For: Approval  
 to RAN1  
 Source: Ericsson*

**Abstract:**

In this contribution, we propose LS out to RAN1 for MTTD for multi-DCI and multi-TA

**Decision:** The document was **not treated**.

8.2 R17 related

8.2.1 UL Segmented Transmission for UL synchronization for IoT NTN (R1-2205642)

**The tdocs in this sub-agenda are treated in the email thread [226].**

**R4-2216255 Views on RAN4 action on UL Segmented Transmission for UL synchronization for IoT NTN**

*Type: other For: Approval  
 Source: Sony*

**Decision:** The document was **not treated**.

**R4-2216271 Discussion on UL Segmented Transmission for UL synchronization for IoT NTN**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216469 Discussion on UL segmentation for IoT NTN**

*Type: discussion For: Discussion  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216766 UL Segmented Transmission for UL synchronization for IoT NTN**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

RAN4 received an LS from RAN1related to UL segmented transmission for UL synchronization for IoT NTN [1].

**Decision:** The document was **not treated**.

8.2.2 Others

8.3 R15, R16 related

8.4 Moderator summary and conclusions

**[104-bis-e][227] LS\_reply, AI 8.1.1 – Yuexia Song**

**R4-2216938 Email discussion summary for [104-bis-e][227] LS\_reply**

*Type: other For: Information  
 Source: Moderator (Apple)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

9 RAN task

**[104-bis-e][228] RAN\_task\_RRM, AI 9.1 – Qian Yang**

**R4-2216939 Email discussion summary for [104-bis-e][228] RAN\_task\_RRM**

*Type: other For: Information  
 Source: Moderator (vivo)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**Decision: Return to.**

**Conclusions after 2nd round**

9.1 Analysis of options for BWP withoutRestriction

**R4-2215363 Analysis and summary of specification impacts of RAN4 options for FG 6-1a support**

*Type: discussion For: Discussion  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

**R4-2215429 Analysis on the options for BWP withoutRestriction**

*Type: discussion For: Discussion  
 Source: CATT*

**Decision:** The document was **not treated**.

**R4-2215497 Discussion on options for "bwp-WithoutRestriction"**

*Type: discussion For: Decision  
 Source: CMCC*

**Decision:** The document was **not treated**.

**R4-2215616 On BWP without restriction**

*Type: discussion For: Discussion  
 Source: Apple*

**Decision:** The document was **not treated**.

**R4-2215729 Discussion on BWP without restriction**

*Type: discussion For: Discussion  
 Source: Spreadtrum Communications*

**Decision:** The document was **not treated**.

**R4-2215818 Discussion on BWP operation without bandwidth restriction**

*Type: discussion For: Approval  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: OPPO*

**Decision:** The document was **not treated**.

**R4-2215871 Discussion on options for BWP without restriction**

*Type: discussion For: Discussion  
 Source: vivo*

**Decision:** The document was **not treated**.

**R4-2216334 Discussion on options for bwp-WithoutRestriction**

*Type: discussion For: Discussion  
 Source: Huawei, HiSilicon*

**Decision:** The document was **not treated**.

**R4-2216514 Analysis of options for BWP withoutRestriction**

*Type: discussion For: Discussion  
 38.133 v CR- rev Cat: (Rel-18)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Decision:** The document was **not treated**.

**R4-2216736 Discussion on BWP operation without BW restrictions**

*Type: discussion For: Discussion  
 Source: MediaTek inc.*

**Decision:** The document was **not treated**.

**R4-2216762 Discussion of BWP operation without bandwidth restriction**

*Type: LS out For: Approval  
 to RAN2  
 Source: Ericsson*

**Abstract:**

Discussions and draft LS realted to RAN2 incoming LS related to BWP operation without bandwidth restriction.

**Decision:** The document was **not treated**.

**R4-2216865 BWP operation without bandwidth restriction**

*Type: discussion For: Discussion  
 Source: Qualcomm Incorporated*

**Decision:** The document was **not treated**.

10 Revision of the Work Plan

11 Any other business

12 Close of the E-meeting

Report prepared by: MCC