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

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## 1 Opening of the E-meeting

The Chairman Xizeng Dai (Huawei) opened the meeting on RAN4 reflector on 17/01/2022.

Intellectual Property Rights Declaration Policy

The attention of the delegates to the meeting of this Technical Specification Group was drawn to the fact that 3GPP Individual Members have the obligation under the IPR Policies of their respective Organizational Partners to inform their respective Organizational Partners of Essential IPRs they become aware of.

The delegates were asked to take note that they were thereby invited:

- to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP.

- to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Information Statement and the Licensing declaration forms.

Statement regarding competition law

The attention of the delegates to the meeting was drawn to the fact that 3GPP activities were subject to all applicable antitrust and competition laws and that compliance with said laws was therefore required by any participant of the meeting, including the Chairman and Vice-Chairmen and were invited to seek any clarification needed with their legal counsel. The leadership would conduct the present meeting with impartiality and in the interests of 3GPP. Delegates were reminded that timely submission of work items in advance of TSG/WG meetings was important to allow for full and fair consideration of such matters.

Meeting arrangements

The meeting was conducted on three parallel sessions; Main session, RRM session and BS RF Test Demod session. The Main session was chaired by RAN4 Chair Xizeng Dai (Huawei), RRM session was chaired by RAN4 Vice Chair Andrey Chervyakov (Intel) and BS RF Test Demod session was chaired by RAN4 ViceChair Haijie Qiu (Samsung). The sessions were further broken down into separate email threads to address specific technical topics lead by assigned discussion moderators. Webinar sessions were used to summarize progress, resolve controversial issues and decide way forward.

## 2 Approval of the agenda

[**R4-2200001**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200001.zip) **RAN4#101-e Meeting Report**

*Type: report For: Approval  
 Source: ETSI MCC*

**Decision: Approved.**

[**R4-2200002**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200002.zip) **Agenda for RAN4#101-bis-e**

*Type: agenda For: Approval  
 Source: RAN4 Chair (Huawei)*

**Decision: Approved.**

[**R4-2200003**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200003.zip) **RAN4#101-bis-e E-Meeting Arrangements and Guidelines**

*Type: other For: Approval  
 Source: RAN4 Chair (Huawei)*

**Decision: Approved.**

## 3 Letters / reports from other groups / meeting

[R4-2200005](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200005.zip) LS on Energy Efficiency as guiding principle for new solutions SA

[R4-2200006](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200006.zip) Reply LS on inclusion of the 6425-7125 MHz frequency band in the 3GPP specification for 5G-NR/IMT-2000 systems RAN Response to: (RP-213605)

[R4-2200007](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200007.zip) LS on updates to study on optimizations of pi/2 BPSK uplink power in NR RAN

[R4-2200008](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200008.zip) Liaison statement to 3GPP TSG RAN on the inclusion of the 6425-7125 MHz frequency band in the 3GPP specification for 5G-NR / 1MT-2020 systems RCC Commission on Spectrum and Satellite Orbits

[R4-2200009](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200009.zip) Reply LS to RP-211577 on Test methods for over-the-air Total Radiated Power (TRP) field measurements of unwanted emissions from IMT radio equipment utilizing active antennas ITU-R WP1C Response to: (RP-211577)

[R4-2200010](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200010.zip) LS on work towards two new recommendations "Generic unwanted emission characteristics of base / mobile stations using the terrestrial radio interfaces of IMT-2020" RAN5 Response to: (R5-216419)

[R4-2200011](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200011.zip) LS on configuration of p-MaxEUTRA and p-NR-FR1 RAN5

[R4-2200012](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200012.zip) Reply to LS (in [R4-2120025](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2120025.zip)) on FR2 UE relative power control tolerance requirements RAN5 Response to: ([R4-2120025](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2120025.zip))

[R4-2200013](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200013.zip) Reply LS on TCI State Update for L1/L2-Centric Inter-Cell Mobility to RAN3 RAN3 Response to: (R1-2108527)

[R4-2200014](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200014.zip) LS on TRS-based SCell activation details RAN2

[R4-2200015](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200015.zip) LS response on PC5 DRX for ProSe RAN2 Response to: (R2-2111237)

[R4-2200016](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200016.zip) Reply LS on signalling for intra-band CA with UL-MIMO RAN2 Response to: ([R4-2114754](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2114754.zip))

[R4-2200026](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200026.zip) Reply LS on R17 NR MG enhancements – Concurrent MG RAN2 Response to: ([R4-2115343](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2115343.zip))

[R4-2200027](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200027.zip) Response LS on updated Rel-16 RAN1 UE features lists for NR after RAN1#105-e RAN2 Response to: (R1-2108427)

[R4-2200028](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200028.zip) Reply LS on the use of NCD-SSB instead of CD-SSB for RedCap UEs RAN2 Response to: (R2-2110727)

[R4-2200029](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200029.zip) Reply LS to RAN4 on UL gap in FR2 RF enhancement RAN2 Response to: ([R4-2114965](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2114965.zip))

[R4-2200030](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200030.zip) LS to RAN4 on L3 filter configuration RAN2

[R4-2200031](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200031.zip) Reply LS on specification impact for methods on efficient utilization of licensed spectrum that is not aligned with existing NR channel bandwidths RAN2

[R4-2200032](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200032.zip) LS on MPE information signalling RAN2

[R4-2200033](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200033.zip) Reply LS on Pre-configured MG RAN2 Response to: ([R4-2115438](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2115438.zip))

[R4-2200034](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200034.zip) LS on the minimum time gap for wake-up and Scell dormancy indication for NR operation in 52.6 to 71 GHz RAN1

[R4-2200035](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200035.zip) Follow-up reply LS on inter-cell beam management and multi-TRP in Rel-17 RAN1 Response to: (R2-2108925)

[R4-2200036](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200036.zip) LS on DL PRS processing by UEs in RRC\_INACTIVE state RAN1

[R4-2200037](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200037.zip) LS on UL SRS-RSRPP definition RAN1

[R4-2200038](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200038.zip) Reply LS on capability related RAN2 agreements for RedCap RAN1 Response to: (R1-2108714)

[R4-2200040](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200040.zip) LS on L1-RSRP measurement behaviour when SSBs associated with different PCIs overlap RAN1

[R4-2200041](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200041.zip) LS on lower Rx beam sweeping factor for latency improvement RAN1

[R4-2200042](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200042.zip) LS on DL synchronization enhancements for IoT NTN RAN1

[R4-2200043](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200043.zip) LS on updated Rel-16 RAN1 UE features lists for NR after RAN1#107-e RAN1

[R4-2200044](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200044.zip) LS on use of NCD-SSB or CSI-RS in DL BWPs for RedCap UE RAN1

[R4-2200045](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200045.zip) LS on sensing beam selection RAN1

[R4-2200046](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200046.zip) LS on BFR for CORESET with two activated TCI states RAN1

[R4-2200047](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200047.zip) LS on propagation delay compensation RAN1

[R4-2200048](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200048.zip) LS on Rel-17 MAC-CE impacts RAN1

[R4-2200049](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200049.zip) Reply LS on beam information of PUCCH SCell in PUCCH SCell activation procedure RAN1 Response to: ([R4-2115339](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2115339.zip))

[R4-2200050](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200050.zip) Reply LS on initial state of elements controlled by MAC CEs RAN1 Response to: (R1-2110756)

[R4-2200051](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200051.zip) LS on the condition of PRS measurement outside the MG RAN1

[R4-2200052](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200052.zip) LS on updated Rel-17 RAN1 UE features list for LTE RAN1

[R4-2200053](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200053.zip) LS on updated Rel-17 RAN1 UE features list for NR RAN1

[R4-2200054](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200054.zip) LS on the reporting of the Tx TEG association information RAN1

[R4-2200055](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200055.zip) LS on channel quality reporting for NB-IoT RAN1

[R4-2200056](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200056.zip) LS on range of power control parameters for eIAB RAN1

[R4-2200057](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200057.zip) LS on updated Rel-17 LTE and NR higher-layers parameter list RAN1

[R4-2200058](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200058.zip) LS on triggering signalling of temporary RS for SCell activation RAN1

[**R4-2200005**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200005.zip) **LS on Energy Efficiency as guiding principle for new solutions (SA)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN, CT, SA1, SA2, SA3, SA4, SA5, SA6, RAN1, RAN2, RAN3, RAN4, RAN5, CT1, CT3, CT4, CT6, cc -*

**Decision: Noted.**

[**R4-2200006**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200006.zip) **Reply LS on inclusion of the 6425-7125 MHz frequency band in the 3GPP specification for 5G-NR/IMT-2000 systems (RAN)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RCC Commission on Spectrum and Satellite Orbits, cc RAN4***Decision: Noted.**

[**R4-2200007**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200007.zip) **LS on updates to study on optimizations of pi/2 BPSK uplink power in NR (RAN)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -***Decision: Noted.**

[**R4-2200008**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200008.zip) **Liaison statement to 3GPP TSG RAN on the inclusion of the 6425-7125 MHz frequency band in the 3GPP specification for 5G-NR / 1MT-2020 systems (RCC Commission on Spectrum and Satellite Orbits)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN, cc RAN4***Decision: Noted.**

[**R4-2200009**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200009.zip) **Reply LS to RP-211577 on Test methods for over-the-air Total Radiated Power (TRP) field measurements of unwanted emissions from IMT radio equipment utilizing active antennas (ITU-R WPIC)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN, cc ITU-R WP5D, RAN4*

**Decision: Noted.**

[**R4-2200010**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200010.zip) **LS on work towards two new recommendations "Generic unwanted emission characteristics of base / mobile stations using the terrestrial radio interfaces of IMT-2020 (RAN5)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN, cc RAN4*

**Decision: Noted.**

[**R4-2200011**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200011.zip) **LS on configuration of p-MaxEUTRA and p-NR-FR1 (RAN5)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN1, RAN2, RAN4, cc -*

**Decision: Noted.**

[**R4-2200012**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200012.zip) **Reply to LS (in** [**R4-2120025**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2120025.zip)**) on FR2 UE relative power control tolerance requirements (RAN5)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200013**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200013.zip) **Reply LS on TCI State Update for L1/L2-Centric Inter-Cell Mobility to RAN3 (RAN3)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN, RAN1, RAN2, cc RAN4*

**Decision: Noted.**

[**R4-2200014**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200014.zip) **LS on TRS-based SCell activation details (RAN2)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN1, RAN4, cc -*

**Decision: Noted.**

[**R4-2200015**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200015.zip) **LS response on PC5 DRX for ProSe (RAN2)**

*Type: LS in For: Information  
 Original outgoing LS: -, to SA2, cc CT1, RAN1, RAN4*

**Decision: Noted.**

[**R4-2200016**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200016.zip) **Reply LS on signalling for intra-band CA with UL-MIMO (RAN2)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200026**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200026.zip) **Reply LS on R17 NR MG enhancements – Concurrent MG (RAN2)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc RAN1*

**Decision: Noted.**

[**R4-2200027**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200027.zip) **Response LS on updated Rel-16 RAN1 UE features lists for NR after RAN1#105-e (RAN2)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN1, cc RAN4*

**Decision: Noted.**

[**R4-2200028**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200028.zip) **Reply LS on the use of NCD-SSB instead of CD-SSB for RedCap Ues (RAN2)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN1, cc RAN4*

**Decision: Noted.**

[**R4-2200029**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200029.zip) **Reply LS to RAN4 on UL gap in FR2 RF enhancement (RAN2)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200030**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200030.zip) **LS to RAN4 on L3 filter configuration (RAN2)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200031**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200031.zip) **Reply LS on specification impact for methods on efficient utilization of licensed spectrum that is not aligned with existing NR channel bandwidths (RAN2)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc RAN1*

**Decision: Noted.**

[**R4-2200032**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200032.zip) **LS on MPE information signalling (RAN2)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN1, cc RAN4*

**Decision: Noted.**

[**R4-2200033**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200033.zip) **Reply LS on Pre-configured MG (RAN2)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200034**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200034.zip) **LS on the minimum time gap for wake-up and Scell dormancy indication for NR operation in 52.6 to 71 GHz (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200035**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200035.zip) **Follow-up reply LS on inter-cell beam management and multi-TRP in Rel-17 (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, cc RAN4*

**Decision: Noted.**

[**R4-2200036**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200036.zip) **LS on DL PRS processing by UEs in RRC\_INACTIVE state (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200037**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200037.zip) **LS on UL SRS-RSRPP definition (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200038**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200038.zip) **Reply LS on capability related RAN2 agreements for RedCap (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, cc RAN4*

**Decision: Noted.**

[**R4-2200040**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200040.zip) **LS on L1-RSRP measurement behaviour when SSBs associated with different PCIs overlap (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc RAN2*

**Decision: Noted.**

[**R4-2200041**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200041.zip) **LS on lower Rx beam sweeping factor for latency improvement (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200042**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200042.zip) **LS on DL synchronization enhancements for IoT NTN (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200043**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200043.zip) **LS on updated Rel-16 RAN1 UE features lists for NR after RAN1#107-e (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, cc RAN4*

**Decision: Noted.**

[**R4-2200044**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200044.zip) **LS on use of NCD-SSB or CSI-RS in DL BWPs for RedCap UE (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, cc RAN4*

**Decision: Noted.**

[**R4-2200045**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200045.zip) **LS on sensing beam selection (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200046**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200046.zip) **LS on BFR for CORESET with two activated TCI states (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc RAN2*

**Decision: Noted.**

[**R4-2200047**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200047.zip) **LS on propagation delay compensation (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, cc RAN4*

**Decision: Noted.**

[**R4-2200048**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200048.zip) **LS on Rel-17 MAC-CE impacts (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, cc RAN4*

**Decision: Noted.**

[**R4-2200049**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200049.zip) **Reply LS on beam information of PUCCH SCell in PUCCH SCell activation procedure (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc RAN2*

**Decision: Noted.**

[**R4-2200050**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200050.zip) **Reply LS on initial state of elements controlled by MAC Ces (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, cc RAN4*

**Decision: Noted.**

[**R4-2200051**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200051.zip) **LS on the condition of PRS measurement outside the MG (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc -*

**Decision: Noted.**

[**R4-2200052**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200052.zip) **LS on updated Rel-17 RAN1 UE features list for LTE (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, cc RAN4*

**Decision: Noted.**

[**R4-2200053**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200053.zip) **LS on updated Rel-17 RAN1 UE features list for NR (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, cc RAN4*

**Decision: Noted.**

[**R4-2200054**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200054.zip) **LS on the reporting of the Tx TEG association information (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, RAN4, cc RAN3*

**Decision: Noted.**

[**R4-2200055**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200055.zip) **LS on channel quality reporting for NB-IoT (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, RAN4, cc -*

**Decision: Noted.**

[**R4-2200056**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200056.zip) **LS on range of power control parameters for eIAB (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN4, cc RAN2*

**Decision: Noted.**

[**R4-2200057**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200057.zip) **LS on updated Rel-17 LTE and NR higher-layers parameter list (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, RAN3, cc RAN4*

**Decision: Noted.**

[**R4-2200058**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200058.zip) **LS on triggering signalling of temporary RS for SCell activation (RAN1)**

*Type: LS in For: Information  
 Original outgoing LS: -, to RAN2, cc RAN4*

**Decision: Noted.**

## 4 Rel-17 feature list

**[101-bis-e][139] R17\_feature\_list, AI 4 – Xiaoran Zhang**

[**R4-2202239**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202239.zip) **Email discussion summary for [101-bis-e][139] R17\_feature\_list**

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

**Abstract:**

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

Collect all the features and/or feature groups in this email thread.

**Decision: Revised to R4-2202339 (from R4-2202239).**

[**R4-2202339**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202239.zip) **Email discussion summary for [101-bis-e][139] R17\_feature\_list**

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

**Abstract:**

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

Collect all the features and/or feature groups in this email thread.

**Decision: Return to.**

**Conclusions after 1st round**

**GTW on Jan-18**

**Issue 1-1: Requirements for intra-band UL CA+UL MIMO**

Qualcomm: there is LS reply R2-2111465 from RAN2. There is no need to have additional signaling according to feedback LS. We would like to know any reason to have the signaling.

**Agreement:** follow the reply LS R2-2111465 from RAN2.

**Issue 1-2: Other features groups for NR FR1 enhancement**

Skyworks: depending architecture, we may or may not reuse the existing signalling.

* Further discuss the Skyworks proposal in [118 & 122]

**Agreement:** Capture the previous agreements of capabilities for Tx switching.

**Issue 2-1 ~ 2-3 (Apple)**

* Further discuss issue 2-1~2-3 in [120].

**Issue 2-3: Support of UL gap for coherent UL MIMO**

Ericsson: we do not support the UL gap for UL-MIMO at this stage. It can be done autonomously.

**Issue 2-4 inter-band UL CA**

Qualcomm: we do not distinguish it for UL and DL CA. Under what situation we forsee that the BM is different between DL and UL at the same time.

ZTE: Need this.

Huawei: More discussion is needed.

Nokia: what is the situation that BM is different? Once we have uplink in RAN4, the signalling should cover both downlink and uplink.

LGE: UL CBM is not in the scope.

Apple: Agree with Qualcomm and Nokia. Currently uplink transmission of FR2 is based on beam correspondence. BM should be the same between UL and DL.

Samsung: agree with Qualcomm and Nokia.

Oppo: for downlink, we have more CCs than uplink. For the common CC, it can be same. For other CC, it is downlink only, which could be IBM. Keeping uplink and downlink separate may be more flexible.

* Discuss issue 2-4 in [119].

**Issue 2-5 inter-band DL CA**

Nokia: The discussion is on-going, whether it should be per-UE or per band combination.

Samsung: common sense is that it should be per-band combination.

**Agreement:** Indicate the supported beam management type for inter-band CA within FR2-1. Beam management type can be independent beam management (IBM) or common beam management (CBM), or both

* The capability is defined per-band combination.

**Issue 3-1: UE supported FR2-2 channel bandwidths**

Apple: further discuss it in email thread 127.

Huawei: for note 2, what is the relationship between RAN1 feature and RAN4 feature?

* Further discuss issue 3-1 in email thread [127].

**Issue 3-2: UL support of 64QAM in the UL**

**Agreement:** agree on option 2.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Index | Feature group | Components | Prerequisite feature groups | Need for the gNB to know if the feature is supported | Applicable to the capability signalling exchange between UEs (V2X WI only)”. | Consequence if the feature is not supported by the UE | Type | Need of FDD/TDD differentiation | Need of FR1/FR2 differentiation | Capability interpretation for mixture of FDD/TDD and/or FR1/FR2 | Note | Mandatory/Optional |
| x-2 | 64QAM for PUSCH for FR2-2 | 1) Support of 64QAM modulation for FR2-2 PUSCH | FFS | Yes | No | UE cannot support PUSCH 64QAM transmission | Per band | N/A | Applicable to FR2-2 only | N/A |  | Optional with capability signalling |

**Issue 3-3: Improved ON/ON transient period**

* Discuss it in [128].

**Issue 4-1: TxD support per band per band combination**

**Issue 4-2: New power class signalling per band per band combination**

Apple: does Huawei mean that UE can only fall back to PC3?

Huawei: At the current stage, if UE supports TxD on one band and support CA combo, UE should fall back to 1 Tx on band.

OPPO: 4-1 and 4-2 can be discussed together. It should be clear which power class should be applied.

Skyworks: inter-band with one band using TxD is discussed in increasing power class WI. There is issue that one UE supports TxD in one band but has full power PA such that it can still support high power on one band.

Ericsson: Agree with OPPO. There is similarity to EN-DC case. We should consider Tx switching case with CA. We agree with concern from Apple.

Qualcomm: support Skyworks. We should have good understanding how those things can work together.

Mediatek: We share the similar view as OPPO and Ericsson. We need clear the signalling to indicate the power class per band per band combination.

* Discuss issue 4-1, 4-2 in email thread [139].

**Issue 4-3: Other UE features for TxD**.

* Discuss issue 4-3 in [118].

**Issue 5-1: Maximum duration of UE transmission for joint channel estimation**

Apple: can we further discuss it until the next meeting?

**Agreement:** no need to capture the feature in RAN4. Provide the feedback to RAN1 to capture the values.

**Issue 6-1: Support ot Hybrid duplex operation for HPUE FDD (Apple)**

* Discuss it in [115].

**Issue 6-2: Power high limit for inter-band CA and DC (ZTE)**

* Discuss it in [114].

**Issue 6-3: maxUplinkDutyCycle-interBandCA-PC2 (ZTE)**

**Agreement:** agree to capture feature of maxUplinkDutyCycle-interBandCA-PC2 and *maxUplinkDutyCycle-interBandCA-PC2* and *maxUplinkDutyCycle-SULcombination-PC2* in RAN4 feature list.

**Issue 6-4: DC location for intra-band CA [more than 2CC]**

Apple: is it for FR2 only?

OPPO/Nokia/Skyworks/Huawei/ZTE: to both.

**Agreement:** Introduce the new capability signalling for DC location for intra-band CA more than 2CC to indicate whether UE support additional DC location reporting for intra-band UL CA.

* Further discuss the details in email thread [121] for both FR1 and FR2.

**Issue 6-5: Per BC indication for the per-FR gap capability (Qualcomm)**

**Observation 1: Per-FR gap capability for a UE is not purely depending on RF architecture but also baseband design.**

**Observation 2: There are thousands of FR1+FR2 band combinations specified in 3GPP so far and they can be of up to 5 bands of either FDD or TDD in both FR1 and FR2.**

**Observation 3: The constraints of the per UE indication of per-FR gap come from that UE may not support per-FR gap for certain high order CA combination.**

**Observation 4: For overloading issues, reverting the assumptions for all related requirements in a case by case manner is not feasible as there will be severe compatibility issues even by introducing new dedicated signaling for each requirements.**

**Observation 5: The advantages of introducing the new capability are very clear (e.g. enables more UEs to support per-FR gap feature) while there is no foreseen disadvantage. In the worst case scenario, the new capability is simply ignored.**

**Proposal 1: Keep the original per UE per-FR gap indication and add new Per BC indication for the per-FR gap capacity to Rel-17 UE feature list.**

Intel: support the technique proposal. But we had agree in RAN not to discuss it in Rel-17.

Qualcomm: We discussed it in Rel-16 and then postponed. But we did not discuss it in Rel-17.

CMCC: we discussed several enhancement in RAN. There is no objective officially capturing it. We can have another try.

Qualcomm: we do not introduce a new capability. This is a simple capability. We do not need to change the requriements.

* Further discuss it in this email thread.

**Issue 6-6: Support of MSD reduction for HPUE FDD (China Unicom)**

Apple: this proposal contradicts with objective of WID.

* Discuss it in [115] email thread for FDD HPUE.

**Introduction of DL 1024QAM for NR FR1**

Intel/Ericsson: RAN1 has introduced the feature for it.

Tentative agreement: No need to capture the DL 1024QAM feature in RAN4.

**NR repeater**

**Agreement:** no UE features for NR repeaters in RAN4.

**Enhancements to Integrated Access and Backhaul (IAB) for NR**

* Need further discussion in this email thread.

**Conclusions after 2nd round**

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[**R4-2200286**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200286.zip) **Initial views on R17 feature list**

*Type: discussion For: Discussion  
 Source: Apple*

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

[**R4-2200485**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200485.zip) **Inputs to Rel-17 NR UE features for measurement gap enhancement**

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

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

[**R4-2200544**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200544.zip) **Discussion on Rel-17 RAN4 UE feature list**

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

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

[**R4-2200641**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200641.zip) **Discussion on UE capability for FR1 HST enhancement**

*Type: discussion For: Discussion  
 Source: CMCC*

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

[**R4-2201446**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201446.zip) **Initial review of RAN4 UE feature in Rel-17**

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

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

[**R4-2201803**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201803.zip) **A new Rel-17 per-FR MG capability based on Per BC**

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

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

[**R4-2200611**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200611.zip) **Discussion on capability signalling for HPUE NR DC with UE supporting TxD**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: MediaTek Inc.*

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

[**R4-2200612**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200612.zip) **Draft LS on signalling clarification of NR CA/DC power class in R17**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: MediaTek Inc.*

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

[**R4-2201308**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201308.zip) **TxD signalling and inter-band carrier aggregation**

*Type: discussion For: Discussion  
 Source: Apple*

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

## 5 Rel-17 spectrum related WIs for NR

### 5.1 Introduction of lower 6GHz NR unlicensed operation for Europe

**[101-bis-e][101] NR\_6GHz\_unlic\_EU, AI 5.1 – Johannes Hejselbaek**

[**R4-2202201**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202201.zip) **Email discussion summary for [101-bis-e][101] NR\_6GHz\_unlic\_EU**

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

**Abstract:**

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

**Decision: Revised to R4-2202301 (from R4-2202201).**

[**R4-2202301**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202201.zip) **Email discussion summary for [101-bis-e][101] NR\_6GHz\_unlic\_EU**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.1.1 General

[**R4-2200429**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200429.zip) **Overview of the Region 1 countries implementing lower 6GHz unlicensed band**

*Type: discussion For: Decision  
 Source: Apple*

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

[**R4-2201080**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201080.zip) **draft TR 38.849 v0.6.0**

*Type: draft TR For: Agreement  
 38.849 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Inclusion of agreements and TPs provided at RAN4#101bis

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

#### 5.1.2 Band definition and channel arrangement

[**R4-2200910**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200910.zip) **On channel rasters for the 6GHz unlicensed band**

*Type: discussion For: Decision  
 Source: Apple*

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

[**R4-2201081**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201081.zip) **On band definition for the lower 6GHz NR unlicensed operation**

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

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

#### 5.1.3 UE RF requirements

[**R4-2200430**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200430.zip) **Introduction of the lower 6GHz unlicensed band**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Apple, Skyworks Solutions Inc., MediaTek Inc.*

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

[**R4-2200849**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200849.zip) **Unwanted emissions requirements for lower 6GHz NR unlicensed operation for Europe**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution we discuss the unwanted emissions requirements for operations in 5925-6425 MHz

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

[**R4-2200850**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200850.zip) **Unwanted emissions requirements for Band n102**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Draft CR to introduce unwanted emissions requirements for Band n102

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

[**R4-2201854**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201854.zip) **NS signaling, MPR, and A-MPR for the 5925 – 6425 MHz NR-U band**

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

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

#### 5.1.4 BS RF requirements

[**R4-2201082**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201082.zip) **Running CR for 38.104 to add n102**

*Type: draftCR For: Endorsement  
 38.104 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, ZTE Corporation*

**Abstract:**

draftCR including agreements at RAN4#101 intended revised to include agreements at RAN4#101bis

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

[**R4-2201474**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201474.zip) **Discussion on MU for EU band n102**

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

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

[**R4-2201475**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201475.zip) **draft CR to TS38.141-2 the introduction of EU unlicensed band n102**

*Type: draftCR For: Endorsement  
 38.141-2 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: ZTE Corporation*

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

[**R4-2201476**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201476.zip) **draft CR to TS36.104 the introduction of EU unlicensed band n102**

*Type: draftCR For: Endorsement  
 36.104 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

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

[**R4-2201918**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201918.zip) **draft CR 37.105 on Introduction of lower 6GHz NR unlicensed operation for Europe**

*Type: draftCR For: Endorsement  
 37.105 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

draft CR 37.105 on Introduction of lower 6GHz NR unlicensed operation for Europe

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

[**R4-2201928**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201928.zip) **draftCR to 37.145-1 - adding band n102**

*Type: draftCR For: Endorsement  
 37.145-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei*

**Abstract:**

Adding the new UL band to the AAS conducted conformance specification

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

[**R4-2201929**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201929.zip) **draftCR to 37.145-2 - adding band n102**

*Type: draftCR For: Endorsement  
 37.145-2 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei*

**Abstract:**

Adding the new UL band to the AAS radiated conformance specification

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

[**R4-2201998**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201998.zip) **draft CR to 37.104 on introduction of n102 co-existence requirements**

*Type: draftCR For: Endorsement  
 37.104 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

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

#### 5.1.5 Others

[**R4-2200431**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200431.zip) **TP for TR 38.849**

*Type: pCR For: Approval  
 38.849 v0.5.0 CR- rev Cat: (Rel-17)  
  
 Source: Apple*

**Abstract:**

Text proposal with a summary of which NS values are applicable to Region 1 countries.

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

[**R4-2201083**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201083.zip) **TP to TR 38.849 updating clause 5.1 for the lower 6GHz band**

*Type: pCR For: Approval  
 38.849 v0.5.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

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

[**R4-2202001**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202001.zip) **draft CR to 37.141 on introduction of n102 co-existence requirements**

*Type: draftCR For: Endorsement  
 37.141 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

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

[**R4-2202002**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202002.zip) **draft CR to 36.141 on introduction of n102 co-existence requirements**

*Type: draftCR For: Endorsement  
 36.141 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

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

### 5.2 Introduction of operation in full unlicensed band 5925-7125MHz for NR

**[101-bis-e][102] NR\_6GHz\_unlic\_full, AI 5.2 –Alexander Sayenko**

[**R4-2202202**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202202.zip) **Email discussion summary for [101-bis-e][102] NR\_6GHz\_unlic\_full**

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

**Abstract:**

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

**Decision: Revised to R4-2202302 (from R4-2202202).**

[**R4-2202302**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202202.zip) **Email discussion summary for [101-bis-e][102] NR\_6GHz\_unlic\_full**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.2.1 General

[**R4-2200432**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200432.zip) **Update of the 6GHz unlicensed band system and regulatory requirements in Region 2 and Region 3 countries**

*Type: discussion For: Decision  
 Source: Apple*

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

[**R4-2201084**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201084.zip) **On band definition for 6GHz NR unlicensed operation**

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

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

#### 5.2.2 Regulatory requirements and evaluation for re-using existing NS

[**R4-2200374**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200374.zip) **Introduction of the VLP mode for the 6GHz unlicensed band**

*Type: discussion For: Information  
 Source: TTA*

**Abstract:**

Korean regulation includes the LPI/VLP operation modes. Regarding the VLP operation, MSIT and domestic industries prefer to standardize the related requirement for VLP mode to enrich the echo system of the 6 GHz unlicensed band. TTA kindly ask 3GPP RAN4 t

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

[**R4-2200433**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200433.zip) **Applicability of band n96**

*Type: discussion For: Decision  
 Source: Apple*

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

#### 5.2.3 UE RF requirements

[**R4-2200434**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200434.zip) **Draft CR for TS 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Apple*

**Abstract:**

Draft running CR for endorsing technical content of existing agreements.

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

[**R4-2201125**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201125.zip) **Discussion on the impact of the New power class definitions for NR-U UE in other countries**

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

**Abstract:**

In this contribution, We propose new power class and MPR/A-MPR approach for other countries that require VLP operating mode.

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

[**R4-2201128**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201128.zip) **A-MPR analysis results for NR-U(VLP) considering regulatory parameters in Korea**

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

**Abstract:**

In this contribution, we provide A-MPR analysis results for NR-U(VLP) considering regulatory parameters in South Korea.

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

#### 5.2.4 BS RF requirements

[**R4-2201515**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201515.zip) **TP for BS RF requirements**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

#### 5.2.5 Others

[**R4-2200435**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200435.zip) **TP for TR 38.849**

*Type: pCR For: Approval  
 38.849 v0.5.0 CR- rev Cat: (Rel-17)  
  
 Source: Apple*

**Abstract:**

Text proposal with a summary of which NS values are applicable to Region 2 and Region 3 countries.

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

[**R4-2201085**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201085.zip) **TP to TR 38.849 updating clause 5.1 for the full 6GHz band**

*Type: pCR For: Approval  
 38.849 v0.5.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

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

### 5.3 Introduction of 6GHz NR licensed bands

**[101-bis-e][103] NR\_6 GHz\_licensed, AI 5.3 – Liehai Liu**

[**R4-2202203**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202203.zip) **Email discussion summary for [101-bis-e][103] NR\_6 GHz\_licensed**

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

**Abstract:**

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

**Decision: Revised to R4-2202303 (from R4-2202203).**

[**R4-2202303**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202203.zip) **Email discussion summary for [101-bis-e][103] NR\_6 GHz\_licensed**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.3.1 General

[**R4-2200436**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200436.zip) **Initial considerations on requirements for the licensed operation in the upper 6GHz frequency range**

*Type: discussion For: Decision  
 Source: Apple*

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

[**R4-2201231**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201231.zip) **Discussion on general issues for 6GHz licensed band**

*Type: discussion For: Approval  
 Source: CATT*

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

[**R4-2201330**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201330.zip) **6GHz licensed band - General**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

This contribution is discussing general aspects and system parameters for the new 6GHz license band

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

[**R4-2201503**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201503.zip) **General aspects for 6GHz NR licensed band**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

[**R4-2201987**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201987.zip) **6GHz licensed band aspects**

*Type: discussion For: Discussion  
 Source: MediaTek (Chengdu) Inc.*

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

#### 5.3.2 System parameters

[**R4-2200149**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200149.zip) **Discussion on system parameters for 6GHz licensed band**

*Type: discussion For: Approval  
 Source: CATT*

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

[**R4-2200152**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200152.zip) **draft CR on introduction of 6GHz licensed band for 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2201304**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201304.zip) **Discussion on system parameters for 6G license band**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

[**R4-2201331**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201331.zip) **6GHz licensed band - BS requirements**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

This contribution is going through BS RF requirements, proposing a way forward to specify the corresponding limits for the new 6GHz license band.

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

[**R4-2201447**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201447.zip) **Discussion on system parameters for 6425-7125MHz**

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

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

[**R4-2201504**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201504.zip) **System parameters for 6GHz NR licensed band**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

[**R4-2201545**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201545.zip) **6GHz licensed band attributes based on RCC recommendations**

*Type: discussion For: Discussion  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

In this contribution, we examine the RCC recommendation document and applicable ITU documents referred to and provide our understanding on how it can translate into RAN4 specifications.

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

[**R4-2201824**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201824.zip) **draft CR on introduction of 6GHz system parameters for 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: ZTE Corporation*

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

[**R4-2201825**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201825.zip) **draft CR on introduction of 6GHz system parameters for 38.104**

*Type: draftCR For: Endorsement  
 38.104 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: ZTE Corporation*

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

#### 5.3.3 UE RF requirements

[**R4-2200150**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200150.zip) **Discussion on UE RF requirements for 6GHz licensed band**

*Type: discussion For: Approval  
 Source: CATT*

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

[**R4-2201305**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201305.zip) **Discussion on UE RF requirements for 6G license band**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

[**R4-2201332**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201332.zip) **6GHz licensed band - UE requirements**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

This contribution is going through UE RF requirements, proposing a way forward to specify the corresponding limits for the new 6GHz license band.

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

[**R4-2201448**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201448.zip) **Discussion on UE RF requirements for 6425-7125MHz**

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

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

[**R4-2201505**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201505.zip) **UE RF requirements**

*Type: other For: Approval  
 Source: Huawei, HiSilicon, CMCC, China Unicom, OPPO*

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

[**R4-2201506**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201506.zip) **Draft CR for 38.101-1: 6GHz NR licensed band**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon,CMCC, China Telecom, China Unicom, OPPO*

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

[**R4-2201826**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201826.zip) **draft CR on introduction of 6GHz UE RF requirements for 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: ZTE Corporation*

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

[**R4-2201855**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201855.zip) **6 GHz licensed band**

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

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

#### 5.3.4 BS RF requirements

[**R4-2200153**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200153.zip) **Analysis on BS requirements for operation in 6GHz band**

*Type: discussion For: Discussion  
 Source: CATT*

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

[**R4-2200154**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200154.zip) **draft CR on introduction of 6GHz licensed band for 38.104**

*Type: draftCR For: Endorsement  
 38.104 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200155**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200155.zip) **draft CR on introduction of 6GHz licensed band for 38.141-1**

*Type: draftCR For: Endorsement  
 38.141-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200156**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200156.zip) **draft CR on introduction of 6GHz licensed band for 38.141-2**

*Type: draftCR For: Endorsement  
 38.141-2 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200157**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200157.zip) **draft CR on introduction of 6GHz licensed band for 37.104**

*Type: draftCR For: Endorsement  
 37.104 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200158**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200158.zip) **draft CR on introduction of 6GHz licensed band for 37.105**

*Type: draftCR For: Endorsement  
 37.105 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200159**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200159.zip) **draft CR on introduction of 6GHz licensed band for 37.141**

*Type: draftCR For: Endorsement  
 37.141 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200160**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200160.zip) **draft CR on introduction of 6GHz licensed band for 37.145-1**

*Type: draftCR For: Endorsement  
 37.145-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200161**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200161.zip) **draft CR on introduction of 6GHz licensed band for 37.141-2**

*Type: draftCR For: Endorsement  
 37.145-2 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200480**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200480.zip) **draft CR on introduction of 6GHz licensed band for 38.174**

*Type: draftCR For: Endorsement  
 38.174 v16.5.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200481**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200481.zip) **draft CR on introduction of 6GHz licensed band for 38.176-1**

*Type: draftCR For: Endorsement  
 38.176-1 v16.2.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200482**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200482.zip) **draft CR on introduction of 6GHz licensed band for 38.176-2**

*Type: draftCR For: Endorsement  
 38.176-2 v16.2.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2201449**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201449.zip) **Discussion on BS RF requirements for 6425-7125MHz**

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

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

[**R4-2201450**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201450.zip) **draft CR to TS38.104 the introduction of 6425-7125MHz**

*Type: draftCR For: Endorsement  
 38.104 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: ZTE Corporation*

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

[**R4-2201451**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201451.zip) **draft CR to TS36.104 the introduction of coexistence requirements of licensed band 6425-7125MHz**

*Type: draftCR For: Endorsement  
 36.104 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: ZTE Corporation*

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

[**R4-2201452**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201452.zip) **draft CR to TS36.141 the introduction of coexistence requirements of licensed band 6425-7125MHz**

*Type: draftCR For: Endorsement  
 36.141 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: ZTE Corporation*

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

[**R4-2201507**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201507.zip) **BS RF requirements**

*Type: other For: Approval  
 Source: Huawei, HiSilicon, China Unicom, CMCC*

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

[**R4-2201508**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201508.zip) **Draft CR for 38.104: 6GHz NR licensed band**

*Type: draftCR For: Endorsement  
 38.104 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

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

[**R4-2201827**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201827.zip) **draft CR to TS 38.174 introduction of 6GHz coexistence requirement in IAB spec**

*Type: draftCR For: Endorsement  
 38.174 v16.5.0 CR- rev Cat: B (Rel-16)  
  
 Source: ZTE Corporation*

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

[**R4-2201828**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201828.zip) **draft CR to TS 38.176-1 on introduction of coexistence requirement for 6GHz**

*Type: draftCR For: Endorsement  
 38.176-1 v16.2.0 CR- rev Cat: B (Rel-16)  
  
 Source: ZTE Corporation*

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

[**R4-2201829**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201829.zip) **draft CR to TS 38.176-2 on introduction of coexistence requirement for 6GHz**

*Type: draftCR For: Endorsement  
 38.176-1 v16.2.0 CR- rev Cat: B (Rel-16)  
  
 Source: ZTE Corporation*

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

#### 5.3.5 Others

[**R4-2201453**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201453.zip) **Discussion on MR/LA BS UEM requirements for 6425-7125MHz and 10-10.5GHz**

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

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

[**R4-2201454**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201454.zip) **draft CR to TR38.921 MR and LA BS requirements for 6425-7125MHz and 10-10.5GHz**

*Type: draftCR For: Endorsement  
 38.921 v17.0.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

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

### 5.4 Introduction of 900 MHz spectrum to 5G NR applicable for Rail Mobile Radio

#### 5.4.1 General

**[101-bis-e][104] RAIL\_900\_1900MHz, AI 5.4.1, 5.4.2, 5.4.4, 5.5.1, 5.5.2, 5.5.4 – Ingo Wendler**

[**R4-2202204**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202204.zip) **Email discussion summary for [101-bis-e][104] RAIL\_900\_1900MHz**

*Type: other For: Information  
 Source: Moderator (Union Inter. Chemins de Fer)*

**Abstract:**

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

**Decision: Revised to R4-2202304 (from R4-2202204).**

[**R4-2202304**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202204.zip) **Email discussion summary for [101-bis-e][104] RAIL\_900\_1900MHz**

*Type: other For: Information  
 Source: Moderator (Union Inter. Chemins de Fer)*

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

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[**R4-2201687**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201687.zip) **Revised TR 38.853 version 0.2.0**

*Type: draft TR For: Approval  
 38.853 v0.1.0 CR- rev Cat: (Rel-17)  
  
 Source: Union Inter. Chemins de Fer*

**Abstract:**

In the Copyright Notification section, update the copyright year to 2022.

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

#### 5.4.2 UE RF requirements

**[101-bis-e][104] RAIL\_900\_1900MHz, AI 5.4.1, 5.4.2, 5.4.4, 5.5.1, 5.5.2, 5.5.4 – Ingo Wendler**

[**R4-2200702**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200702.zip) **On RMR900 sensitivity**

*Type: other For: Approval  
 Source: Nokia*

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

#### 5.4.3 BS RF requirements

#### 5.4.4 Others

**[101-bis-e][104] RAIL\_900\_1900MHz, AI 5.4.1, 5.4.2, 5.4.4, 5.5.1, 5.5.2, 5.5.4 – Ingo Wendler**

[**R4-2201688**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201688.zip) **TR\_38.853\_changes\_clause 7.1**

*Type: pCR For: Approval  
 38.853 v0.1.0 CR- rev Cat: (Rel-17)  
  
 Source: Union Inter. Chemins de Fer*

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

### 5.5 Introduction of 1900 MHz spectrum to 5G NR applicable for Rail Mobile Radio

#### 5.5.1 General

**[101-bis-e][104] RAIL\_900\_1900MHz, AI 5.4.1, 5.4.2, 5.4.4, 5.5.1, 5.5.2, 5.5.4 – Ingo Wendler**

[**R4-2201328**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201328.zip) **RMR 1900 MHz - TP to TR 38.852 on Regulatory background**

*Type: pCR For: Approval  
 38.852 v0.1.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

This is TP on the regulatory background for RMR band 1900MHz

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

[**R4-2201682**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201682.zip) **Revised TR 38.852 version 0.2.0**

*Type: draft TR For: Approval  
 38.852 v0.1.0 CR- rev Cat: (Rel-17)  
  
 Source: Union Inter. Chemins de Fer*

**Abstract:**

In the Copyright Notification section, update the copyright year to 2022.

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

#### 5.5.2 UE RF requirements

#### 5.5.3 BS RF requirements

#### 5.5.4 Others

**[101-bis-e][104] RAIL\_900\_1900MHz, AI 5.4.1, 5.4.2, 5.4.4, 5.5.1, 5.5.2, 5.5.4 – Ingo Wendler**

[**R4-2201683**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201683.zip) **TR\_38.852\_changes\_clause 7.1**

*Type: pCR For: Approval  
 38.852 v0.1.0 CR- rev Cat: (Rel-17)  
  
 Source: Union Inter. Chemins de Fer*

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

[**R4-2201685**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201685.zip) **TR\_38.852\_changes\_clause 7.2**

*Type: pCR For: Approval  
 38.852 v0.1.0 CR- rev Cat: (Rel-17)  
  
 Source: Union Inter. Chemins de Fer*

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

### 5.6 Issues arising from basket WIs but not subject to block approval

**[101-bis-e][105] NR\_Baskets\_Part\_1, AI 5.6 – Dominique Brunel**

[**R4-2202205**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202205.zip) **Email discussion summary for [101-bis-e][105] NR\_Baskets\_Part\_1**

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

**Abstract:**

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

[R4-2200698](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200698.zip), [R4-2201440](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201440.zip) will be treated in this email thread.

[R4-2201804](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201804.zip) will be moved to AI 5.6.1 and treated in this email thread.

[R4-2202028](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202028.zip), [R4-2202034](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202034.zip), [R4-2202038](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202038.zip) will be treated in this email thread.

[R4-2202039](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202039.zip) is treated in this email thread.

[R4-2200176](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200176.zip) (n46-n480-n96, the note in TP needs discussion) and [R4-2200059](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200059.zip) are moved from [107] to [105], and treated in [105]

[R4-2200706](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200706.zip), [R4-2201565](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201565.zip), [R4-2202035](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202035.zip), [R4-2202036](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202036.zip) and [R4-2202037](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202037.zip) are also moved from [107] to [105]

**Decision: Revised to R4-2202305 (from R4-2202205).**

[**R4-2202305**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202205.zip) **Email discussion summary for [101-bis-e][105] NR\_Baskets\_Part\_1**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.6.1 UE RF requirements

[**R4-2200176**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200176.zip) **TP to TR TR38.717-03-01 for CA\_n46-n48-n96**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Charter Communications, Inc*

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

[**R4-2200698**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200698.zip) **Working procedures for updating release independence specification**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

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

[**R4-2200706**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200706.zip) **n29 MSD in CA\_n29-n71**

*Type: discussion For: Discussion  
 Source: Nokia, Dish*

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

[**R4-2201440**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201440.zip) **Discussion on the working procedure for introducing release independent features**

*Type: discussion For: Discussion  
 Source: CHTTL*

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

[**R4-2201565**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201565.zip) **TP for TR 38.717-02-01 to include CA\_n20-n67**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-02-01 to include CA\_n20-n67

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

[**R4-2201804**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201804.zip) **Discussion on the Rel-17 specifications: 25-series and 34-series**

*Type: discussion For: Discussion  
 Source: Huawei*

**Abstract:**

In this contribution we provide inputs to the discussion on the list of RAN4 specifications to be promoted to Rel-17, in particular looking at 25-, and 34-series specifications.

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

[**R4-2202022**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202022.zip) **NR-U Contiguous UL-CA Measurements**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

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

[**R4-2202028**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202028.zip) **Corrections to Intra-band CA MSD for CA\_n5B and CA\_n7B**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

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

[**R4-2202034**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202034.zip) **Triple beat B3 MSD evaluation for DC\_3A\_n41C**

*Type: discussion For: Approval  
 38.101-3 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Decision: Revised to** [**R4-2202154**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202154.zip) **(from** [**R4-2202034**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202034.zip)**).**

[**R4-2202154**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202154.zip) **Triple beat B3 MSD evaluation for DC\_3A\_n41C**

*Type: discussion For: Approval  
 38.101-3 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Decision: Return to.**

[**R4-2202035**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202035.zip) **Measurements for CA\_n29-n71 MSD**

*Type: discussion For: Approval  
 38.101 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

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

[**R4-2202036**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202036.zip) **Measurements for CA\_n5-n28 MSD**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

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

[**R4-2202037**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202037.zip) **CA\_n29A-n71A MSD**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

[**R4-2202038**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202038.zip) **MSD for DC\_20A-38A\_n8A**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

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

[**R4-2202039**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202039.zip) **Intra-band CA REFSENS Ambiguity**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

[**R4-2200059**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200059.zip) **TP to TR 38.717.02-01 for CA\_n46-n48--n96**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Charter Communications, Inc*

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

#### 5.6.2 NR-U intra-band contiguous UL CA

[**R4-2200851**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200851.zip) **On the MPR and A-MPR for intra-band UL CA with shared spectrum access**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

In this contribution we propose MPR and A-MPR requirements for interlaced transmissions and discuss the requirements for other resource-allocation types

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

### 5.7 NR intra band Carrier Aggregation for xCC DL/yCC UL including contiguous and non-contiguous spectrum (x>=y)

**[101-bis-e][106] NR\_Baskets\_Part\_2, AI 5.7, 5.14, 5.15, 5.16, 5.17, 5.18 – Iwo Angelow**

[**R4-2202206**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202206.zip) **Email discussion summary for [101-bis-e][106] NR\_Baskets\_Part\_2**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.7.1 UE RF requirements for FR1

[**R4-2201104**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201104.zip) **TP to TR 38.717-01-01 Addition of CA\_n40B**

*Type: pCR For: Approval  
 38.717-01-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, NBN*

**Decision: Revised to R4-2202174 (from R4-2201104).**

**[R4-2202174](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201104.zip) TP to TR 38.717-01-01 Addition of CA\_n40B**

*Type: pCR For: Approval  
 38.717-01-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, NBN*

**Decision: Return to.**

#### 5.7.2 UE RF requirements for FR2

### 5.8 NR inter-band Carrier Aggregation/Dual Connectivity for 2 bands DL with x bands UL (x=1, 2)

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

[**R4-2202207**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202207.zip) **Email discussion summary for [101-bis-e][107] NR\_Baskets\_Part\_3**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

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[**R4-2201796**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201796.zip) **TR 38.717-02-01 v0.8.0**

*Type: draft TR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Wistron Telecom AB*

**Decision: Not pursued.**

#### 5.8.1 NR inter band CA requirements without any FR2 band(s)

[**R4-2200060**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200060.zip) **TP to TR 38.717.02-01 for CA\_n48-n96**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Charter Communications, Inc*

**Decision: Revised to R4-2202175 (from R4-2200060).**

[**R4-2202175**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200060.zip) **TP to TR 38.717.02-01 for CA\_n48-n96**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Charter Communications, Inc*

**Decision: Return to.**

[**R4-2200061**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200061.zip) **TP to TR 38.717.02-01 for CA\_n46-n48**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Charter Communications, Inc*

**Decision: Revised to R4-2202176 (from R4-2200061).**

[**R4-2202176**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200061.zip) **TP to TR 38.717.02-01 for CA\_n46-n48**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Charter Communications, Inc*

**Decision: Return to.**

[**R4-2200193**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200193.zip) **Draft CR for 38.101-1: support of DC\_n1A-n28A and DC\_n1A-n41A**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

DC\_n1A-n28A and n1A-n41A are added based on relevant 2UL CA requirements..

**Decision: Endorsed.**

[**R4-2200201**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200201.zip) **Draft CR for TS 38.101-1: Support of BCS2 in CA\_n41-n79**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Revised to R4-2202177 (from R4-2200201).**

[**R4-2202177**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200201.zip) **Draft CR for TS 38.101-1: Support of BCS2 in CA\_n41-n79**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Return to.**

[**R4-2201022**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201022.zip) **Draft CR for 38.101-1 to introduce CA\_n1A-n77(3A) and CA\_n18A-n77(3A)**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Endorsed.**

[**R4-2201062**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201062.zip) **Draft CR for 38.101-1 to introduce new configurations of CA\_n25-n77**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung, Telus, Bell Mobility*

**Decision: Endorsed.**

[**R4-2201088**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201088.zip) **draftCR to add DC\_n1A-n7A to 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, BT*

**Decision: Endorsed.**

[**R4-2201090**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201090.zip) **draftCR to add DC\_n7A-n46 to 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, BT*

**Decision: Endorsed.**

[**R4-2201094**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201094.zip) **TP to TR 38.717-02-01 Addition of BCS1 for CA\_n25-n77**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Telus*

**Decision: Approved.**

[**R4-2201100**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201100.zip) **TP to TR 38.717-02-01 Addition of CA\_n40-n77**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, NBN*

**Decision: Revised to R4-2202178 (from R4-2201100).**

[**R4-2202178**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201100.zip) **TP to TR 38.717-02-01 Addition of CA\_n40-n77**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, NBN*

**Decision: Return to.**

[**R4-2201101**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201101.zip) **draftCR to add DC\_n40B-n78 to 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, NBN*

**Decision: Revised to R4-2202179 (from R4-2201101).**

[**R4-2202179**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201101.zip) **draftCR to add DC\_n40B-n78 to 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, NBN*

**Decision: Return to.**

[**R4-2201105**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201105.zip) **draftCR 38.101-1 Addition of CA\_n12A-n66(2A)(3A)**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Endorsed.**

[**R4-2201106**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201106.zip) **draftCR 38.101-1 Addition of CA\_n2(2A)-n12**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Endorsed.**

[**R4-2201107**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201107.zip) **draftCR 38.101-1 Addition of CA\_n29A-n66(3A)**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Endorsed.**

[**R4-2201546**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201546.zip) **draft CR 38.101-1 to add new configurations for CA\_n25-n77 and CA\_n41-n48**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Eridsson, T-Mobile US*

**Abstract:**

draft CR 38.101-1 to add new configurations for CA\_n25-n77 and CA\_n41-n48

**Decision: Endorsed.**

[**R4-2201554**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201554.zip) **TP for TR 38.717-02-01 to include CA\_n41-n70**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

TP for TR 38.717-02-01 to include CA\_n41-n70

**Decision: Revised to R4-2202180 (from R4-2201554).**

[**R4-2202180**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201554.zip) **TP for TR 38.717-02-01 to include CA\_n41-n70**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

TP for TR 38.717-02-01 to include CA\_n41-n70

**Decision: Return to.**

[**R4-2201555**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201555.zip) **TP for TR 38.717-02-01 to include CA\_n70-n78**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

TP for TR 38.717-02-01 to include CA\_n70-n78

**Decision: Revised to R4-2202181 (from R4-2201555).**

[**R4-2202181**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201555.zip) **TP for TR 38.717-02-01 to include CA\_n70-n78**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

TP for TR 38.717-02-01 to include CA\_n70-n78

**Decision: Return to.**

[**R4-2201556**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201556.zip) **draft CR 38.101-1 to add new configurations for CA\_n3-n79**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

draft CR 38.101-1 to add new configurations for CA\_n3-n79

**Decision: Endorsed.**

[**R4-2201559**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201559.zip) **TP for TR 38.717-02-01 to include dual UL for CA\_n3-n20**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-02-01 to include dual UL for CA\_n3-n20

**Decision: Approved.**

[**R4-2201561**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201561.zip) **TP for TR 38.717-02-01 to include CA\_n1-n67**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-02-01 to include CA\_n1-n67

**Decision: Approved.**

[**R4-2201562**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201562.zip) **TP for TR 38.717-02-01 to include CA\_n3-n67**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-02-01 to include CA\_n3-n67

**Decision: Approved.**

[**R4-2201564**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201564.zip) **TP for TR 38.717-02-01 to include dual UL for CA\_n1-n20**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-02-01 to include dual UL for CA\_n1-n20

**Decision: Revised to R4-2202182 (from R4-2201564).**

[**R4-2202182**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201564.zip) **TP for TR 38.717-02-01 to include dual UL for CA\_n1-n20**

*Type: pCR For: Approval  
 38.717-02-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-02-01 to include dual UL for CA\_n1-n20

**Decision: Return to.**

[**R4-2201681**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201681.zip) **Draft CR on CA\_n1A-n8A**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: China Unicom*

**Abstract:**

Add BCS1 for CA\_n1A-n8A.

**Decision: Endorsed.**

#### 5.8.2 NR inter band CA requirements with at least one FR2 band

[**R4-2200192**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200192.zip) **Draft CR 38.101-3: support of DC\_n1A-n257D**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

DC\_n1A-n257D is added.

**Decision: Endorsed.**

[**R4-2200621**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200621.zip) **Draft CR for TS 38.101-3 on corrections to CA configurations of CA\_n25-n260**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Abstract:**

This paper is to provide draft CR for TS 38.101-3 on corrections to CA configurations of CA\_n25-n260

**Decision: Endorsed.**

[**R4-2201023**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201023.zip) **Draft CR for 38.101-3 to introduce new configuratuons of DC\_n77-n257**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Endorsed.**

[**R4-2201102**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201102.zip) **draftCR to add CA\_n40-n257 to 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, NBN*

**Decision: Revised to R4-2202183 (from R4-2201102).**

[**R4-2202183**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201102.zip) **draftCR to add CA\_n40-n257 to 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, NBN*

**Decision: Return to.**

[**R4-2201348**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201348.zip) **Draft CR for TS 38.101-3 on corrections to CA configurations of CA\_n77(3A)-n257A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: ZTE Corporation*

**Decision: Endorsed.**

### 5.9 NR Inter-band Carrier Aggregation for 3 bands DL with 1 band UL

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

#### 5.9.1 UE RF requirements

[**R4-2200189**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200189.zip) **Draft CR for 38.101-3: support of n77(3A) in 1UL CA\_n3A/n28A-n77-n257A/D/G/H/I**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

n77(3A) support is added to CA\_n3/n28-n77-n257X in 1UL.

**Decision: Endorsed.**

[**R4-2200200**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200200.zip) **Draft CR for TS 38.101-1: Addition of missing CA\_n3-n28-n41 Tib values**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Endorsed.**

[**R4-2200606**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200606.zip) **Draft CR for TS 38.101-1: Adding same note for higher order combo of CA\_n20-n28**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: MediaTek Inc.*

**Decision: Revised to R4-2202184 (from R4-2200606).**

[**R4-2202184**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200606.zip) **Draft CR for TS 38.101-1: Adding same note for higher order combo of CA\_n20-n28**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: MediaTek Inc.*

**Decision: Return to.**

[**R4-2200607**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200607.zip) **Draft CR for TS 38.101-3: UL configuration correction of 48\_n77's higher order combinations**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: MediaTek Inc.*

**Decision: Endorsed.**

[**R4-2200711**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200711.zip) **TP to TR 38.717-03-01: CA\_n41-n66-n260**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, TMO USA*

**Decision: Approved.**

[**R4-2200712**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200712.zip) **TP to TR 38.717-03-01: CA\_n66-n77-n260**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, TMO USA*

**Decision: Noted.**

[**R4-2201024**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201024.zip) **TP for TR 38.717-03-01 CA\_n1-n3-n18**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201025**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201025.zip) **TP for TR 38.717-03-01 CA\_n1-n18-n28**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201026**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201026.zip) **TP for TR 38.717-03-01 CA\_n1-n18-n41**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201027**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201027.zip) **TP for TR 38.717-03-01 CA\_n1-n18-n77**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201028**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201028.zip) **TP for TR 38.717-03-01 CA\_n1-n28-n41**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201029**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201029.zip) **TP for TR 38.717-03-01 CA\_n1-n28-n77**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201030**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201030.zip) **TP for TR 38.717-03-01 CA\_n1-n41-n77**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201031**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201031.zip) **TP for TR 38.717-03-01 CA\_n3-n18-n28**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201032**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201032.zip) **TP for TR 38.717-03-01 CA\_n3-n18-n77**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201033**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201033.zip) **TP for TR 38.717-03-01 CA\_n18-n28-n41**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201034**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201034.zip) **TP for TR 38.717-03-01 CA\_n18-n28-n77**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201035**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201035.zip) **TP for TR 38.717-03-01 CA\_n18-n41-n77**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Approved.**

[**R4-2201052**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201052.zip) **Draft CR for 38.101-1 to introduce new configurations to CA\_n5-n48-n77 and CA\_n48-n66-n77 with 1UL**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung, Verizon*

**Decision: Revised to R4-2202185 (from R4-2201052).**

**[R4-2202185](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201052.zip) Draft CR for 38.101-1 to introduce new configurations to CA\_n5-n48-n77 and CA\_n48-n66-n77 with 1UL**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung, Verizon*

**Decision: Return to.**

[**R4-2201063**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201063.zip) **Draft CR for 38.101-1 to introduce new configurations to CA\_n5-n25-n77 and CA\_n5-n66-n77 with 1UL**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung, Telus, Bell Mobility*

**Decision: Endorsed.**

[**R4-2201108**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201108.zip) **TP to TR 38.717-03-01 Addition of CA\_n12-n30-n66**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201109**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201109.zip) **TP to TR 38.717-03-01 Addition of CA\_n29-n30-n66**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201110**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201110.zip) **TP to TR 38.717-03-01 Addition of CA\_n2-n12-n30**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201111**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201111.zip) **TP to TR 38.717-03-01 Addition of CA\_n2-n12-n66**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201112**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201112.zip) **TP to TR 38.717-03-01 Addition of CA\_n2-n29-n30**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201113**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201113.zip) **TP to TR 38.717-03-01 Addition of CA\_n2-n29-n66**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201552**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201552.zip) **TP for TR 38.717-03-01 to include CA\_n41-n70-n78**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

TP for TR 38.717-03-01 to include CA\_n41-n70-n78

**Decision: Approved.**

[**R4-2201566**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201566.zip) **TP for TR 38.717-03-01 to include CA\_n1-n20-n67**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-03-01 to include CA\_n1-n20-n67

[Skyworks] Fallback CA\_n20-n67 LB-LB configuration requires discussion in the "not for block approval" AI

**Decision: Return to.**

[**R4-2201568**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201568.zip) **TP for TR 38.717-03-01 to include CA\_n3-n20-n67**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-03-01 to include CA\_n3-n20-n67

[Skyworks] Fallback CA\_n20-n67 LB-LB configuration requires discussion in the "not for block approval" AI

**Decision: Return to.**

[**R4-2201724**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201724.zip) **TP for TR 38.717-03-01 to include CA\_n2-n71-n78**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 38.717-03-01 to include CA\_n2-n71-n78

**Decision: Approved.**

[**R4-2201725**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201725.zip) **TP for TR 38.717-03-01 to include CA\_n2-n66-n78**

*Type: pCR For: Approval  
 38.717-03-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 38.717-03-01 to include CA\_n2-n66-n78

**Decision: Approved.**

### 5.10 NR Inter-band Carrier Aggregation for 4 bands DL with 1 band UL

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

#### 5.10.1 UE RF requirements

[**R4-2200211**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200211.zip) **TP for TR 38.717-04-01: CA\_n1-n3-n28-n77**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200212**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200212.zip) **TP for TR 38.717-04-01: CA\_n1-n3-n28-n79**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200213**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200213.zip) **TP for TR 38.717-04-01: CA\_n1-n3-n28-n257**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200214**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200214.zip) **TP for TR 38.717-04-01: CA\_n1-n3-n77-n79**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200215**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200215.zip) **TP for TR 38.717-04-01: CA\_n1-n3-n79-n257**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200216**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200216.zip) **TP for TR 38.717-04-01: CA\_n1-n28-n77-n79**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200217**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200217.zip) **TP for TR 38.717-04-01: CA\_n1-n28-n77-n257**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200218**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200218.zip) **TP for TR 38.717-04-01: CA\_n1-n28-n79-n257**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200219**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200219.zip) **TP for TR 38.717-04-01: CA\_n3-n28-n41-n257**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200220**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200220.zip) **TP for TR 38.717-04-01: CA\_n3-n41-n77-n257**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200221**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200221.zip) **TP for TR 38.717-04-01: CA\_n28-n41-n77-n257**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200356**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200356.zip) **TP for CA\_n28-n77-n79-n257 for TR 38.717-04-01**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: NTT DOCOMO, INC.*

**Decision: Approved.**

[**R4-2200357**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200357.zip) **TP for CA\_n28-n78-n79-n257 for TR 38.717-04-01**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: NTT DOCOMO, INC.*

**Decision: Approved.**

[**R4-2200724**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200724.zip) **draft CR to add NR Inter-band CA for 4 bands in TS 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Endorsed.**

[**R4-2201065**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201065.zip) **TP for TR 38.717-04-01 CA\_n5-n25-n66-n77**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, Telus, Bell Mobility*

**Decision: Approved.**

[**R4-2201120**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201120.zip) **TP to TR 38.717-04-01 Addition of CA\_n2-n12-n30-n66**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201121**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201121.zip) **TP to TR 38.717-04-01 Addition of CA\_n2-n29-n30-n66**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201550**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201550.zip) **TP for TR 38.717-04-01 to include CA\_n41-n66-n70-n78**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

TP for TR 38.717-04-01 to include CA\_n41-n66-n70-n78

**Decision: Approved.**

[**R4-2201726**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201726.zip) **TP for TR 38.717-04-01 to include CA\_n25-n41-n71-n78**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 38.717-04-01 to include CA\_n25-n41-n71-n78

**Decision: Approved.**

[**R4-2201727**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201727.zip) **TP for TR 38.717-04-01 to include CA\_n2-n66-n71-n78**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 38.717-04-01 to include CA\_n2-n66-n71-n78

**Decision: Approved.**

[**R4-2201891**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201891.zip) **TP for TR 38.717-04-01 to include CA\_n2A-n5A-n30A-n77A**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-01 to include CA\_n2A-n5A-n30A-n77A

**Decision: Approved.**

[**R4-2201892**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201892.zip) **TP for TR 38.717-04-01 to include CA\_n2A-n5A-n66A-n77A**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-01 to include CA\_n2A-n5A-n66A-n77A

**Decision: Revised to R4-2202186 (from R4-2201892).**

[**R4-2202186**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201892.zip) **TP for TR 38.717-04-01 to include CA\_n2A-n5A-n66A-n77A**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-01 to include CA\_n2A-n5A-n66A-n77A

**Decision: Return to.**

[**R4-2201893**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201893.zip) **TP for TR 38.717-04-01 to include CA\_n2A-n14A-n30A-n77A**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-01 to include CA\_n2A-n14A-n30A-n77A

**Decision: Approved.**

[**R4-2201894**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201894.zip) **TP for TR 38.717-04-01 to include CA\_n2A-n14A-n66A-n77A**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-01 to include CA\_n2A-n14A-n66A-n77A

**Decision: Approved.**

[**R4-2201895**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201895.zip) **TP for TR 38.717-04-01 to include CA\_n5A-n30A-n66-n77A**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-01 to include CA\_n5A-n30A-n66-n77A

**Decision: Approved.**

[**R4-2201896**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201896.zip) **TP for TR 38.717-04-01 to include CA\_n14A-n30A-n66A-n77A**

*Type: pCR For: Approval  
 38.717-04-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-01 to include CA\_n14A-n30A-n66A-n77A

**Decision: Approved.**

### 5.11 NR Inter-band Carrier Aggregation/Dual connectivity for 3 bands DL with 2 bands UL

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

[**R4-2201797**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201797.zip) **TR 38.717-03-02 v0.8.0**

*Type: draft TR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Wistron Telecom AB*

**Decision: Not pursued.**

#### 5.11.1 UE RF requirements

[**R4-2200190**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200190.zip) **Draft CR for 38.101-1: support of n77(2A) in 2UL CA\_n1A-n77-n79A**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

n77(2A) support is added to CA\_n1-n77-n79.

**Decision: Endorsed.**

[**R4-2200191**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200191.zip) **Draft CR for 38.101-1: support of 2UL in CA\_n3A-n28A-n77(3A)**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

2UL support is added to CA\_n3A-n28A-n77(3A).

**Decision: Not pursued.**

[**R4-2200194**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200194.zip) **Draft CR for 38.101-1: support of 3 Bands DC\_n1A-n3A-n77A and DC\_n1A-n3A-n79A**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

DC\_n1A-n3A-n77A/n79A are added.

**Decision: Endorsed.**

[**R4-2200195**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200195.zip) **Draft CR for 38.101-1: support of 3 Bands DC\_n1A-n77A-n79A, DC\_n3A-n77A-n79A and DC\_n3A-n77(2A)-n79A**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

DC\_n1A-n77A-n79A and n3A-n77A/n77(2A)-n79A are added.

**Decision: Endorsed.**

[**R4-2200196**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200196.zip) **Draft CR for 38.101-1: support of 3 Bands DC\_n3A-n28A-n41A, DC\_n3A-n41A-n77A and DC\_n28A-n41A-n77A**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

DC\_n3A-n28A-n41A, DC\_n3A-n41A-n77A and DC\_n28A-n41A-n77A are added.

**Decision: Endorsed.**

[**R4-2200202**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200202.zip) **TP for TR 38.717-03-02: CA\_n1-n3-n79**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200203**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200203.zip) **TP for TR 38.717-03-02: CA\_n1-n3-n257**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200204**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200204.zip) **TP for TR 38.717-03-02: CA\_n1-n28-n41**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200205**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200205.zip) **TP for TR 38.717-03-02: CA\_n1-n28-n77**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200206**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200206.zip) **TP for TR 38.717-03-02: CA\_n1-n28-n79**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200207**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200207.zip) **TP for TR 38.717-03-02: CA\_n1-n28-n257**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200208**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200208.zip) **TP for TR 38.717-03-02: CA\_n1-n41-n77**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200209**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200209.zip) **TP for TR 38.717-03-02: CA\_n1-n41-n257**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200210**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200210.zip) **TP for TR 38.717-03-02: CA\_n41-n77-n257**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200351**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200351.zip) **BCS corrections for CA\_n7-n66-n77 and CA\_n66-n71-n77**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

CR implementation error is corrected.

**Decision: Endorsed.**

[**R4-2200355**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200355.zip) **TP for CA\_n28-n78-n79 for TR 38.717-03-02**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: NTT DOCOMO, INC. MediaTek Inc.*

**Decision: Approved.**

[**R4-2201036**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201036.zip) **TP for TR 38.717-03-02 CA\_n1A-n3A-n18A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Approved.**

[**R4-2201037**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201037.zip) **TP for TR 38.717-03-02 CA\_n1A-n18A-n28A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Approved.**

[**R4-2201038**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201038.zip) **TP for TR 38.717-03-02 CA\_n1A-n18A-n41A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Approved.**

[**R4-2201039**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201039.zip) **TP for TR 38.717-03-02 CA\_n1A-n18A-n77A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Approved.**

[**R4-2201040**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201040.zip) **TP for TR 38.717-03-02 CA\_n1A-n28A-n41A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Noted.**

[**R4-2201041**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201041.zip) **TP for TR 38.717-03-02 CA\_n1A-n28A-n77A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Noted.**

[**R4-2201042**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201042.zip) **TP for TR 38.717-03-02 CA\_n1A-n41A-n77A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Noted.**

[**R4-2201043**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201043.zip) **TP for TR 38.717-03-02 CA\_n3A-n18A-n28A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Approved.**

[**R4-2201044**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201044.zip) **TP for TR 38.717-03-02 CA\_n3A-n18A-n77A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Approved.**

[**R4-2201045**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201045.zip) **TP for TR 38.717-03-02 CA\_n18A-n28A-n41A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Approved.**

[**R4-2201046**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201046.zip) **TP for TR 38.717-03-02 CA\_n18A-n28A-n77A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Approved.**

[**R4-2201047**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201047.zip) **TP for TR 38.717-03-02 CA\_n18A-n41A-n77A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, KDDI*

**Abstract:**

This contribution is a resubmission from last meeting contribution which was noted for uncompleted fallback mode.

**Decision: Approved.**

[**R4-2201048**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201048.zip) **Draft CR for 38.101-1 to introduce CA\_n3A-n28A-n77(3A) and CA\_n1A-n3A-n77(2A)**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Endorsed.**

[**R4-2201049**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201049.zip) **Draft CR for 38.101-3 to introduce new combination for NR inter-band CA DC 3 bands DL with 2 bands UL**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Endorsed.**

[**R4-2201053**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201053.zip) **TP for TR 38.717-03-02 CA\_n2-n5-n48**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, Verizon*

**Decision: Approved.**

[**R4-2201054**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201054.zip) **TP for TR 38.717-03-02 CA\_n2-n48-n66**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, Verizon*

**Decision: Approved.**

[**R4-2201055**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201055.zip) **TP for TR 38.717-03-02 CA\_n2-n48-n77**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, Verizon*

**Decision: Approved.**

[**R4-2201056**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201056.zip) **TP for TR 38.717-03-02 CA\_n5-n48-n66**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, Verizon*

**Decision: Approved.**

[**R4-2201057**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201057.zip) **TP for TR 38.717-03-02 CA\_n5-n48-n77**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, Verizon*

**Decision: Approved.**

[**R4-2201058**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201058.zip) **TP for TR 38.717-03-02 CA\_n48-n66-n77**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, Verizon*

**Decision: Approved.**

[**R4-2201064**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201064.zip) **Draft CR for 38.101-1 to introduce new configurations to CA\_n5-n25-n77 and CA\_n5-n66-n77 with 2UL**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung, Telus, Bell Mobility*

**Decision: Endorsed.**

[**R4-2201086**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201086.zip) **TP to TR 38.717-03-02 Addition of CADC\_n7A-n46-n78A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, BT*

**Decision: Revised to R4-2202187 (from R4-2201086).**

[**R4-2202187**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201086.zip) **TP to TR 38.717-03-02 Addition of CADC\_n7A-n46-n78A**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, BT*

**Decision: Return to.**

[**R4-2201087**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201087.zip) **draftCR to add n78(2A) to CA\_n7A-n28A-n78 already in 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, BT*

**Decision: Endorsed.**

[**R4-2201103**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201103.zip) **draftCR to add CA\_n40-n78-n257 to 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, NBN*

**Decision: Endorsed.**

[**R4-2201114**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201114.zip) **TP to TR 38.717-03-02 Addition of CA\_n12-n30-n66**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201115**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201115.zip) **TP to TR 38.717-03-02 Addition of CA\_n29-n30-n66**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Revised to R4-2202188 (from R4-2201115).**

[**R4-2202188**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201115.zip) **TP to TR 38.717-03-02 Addition of CA\_n29-n30-n66**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Return to.**

[**R4-2201116**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201116.zip) **TP to TR 38.717-03-02 Addition of CA\_n2-n12-n30**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201117**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201117.zip) **TP to TR 38.717-03-02 Addition of CA\_n2-n12-n66**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201118**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201118.zip) **TP to TR 38.717-03-02 Addition of CA\_n2-n29-n30**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201119**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201119.zip) **TP to TR 38.717-03-02 Addition of CA\_n2-n29-n66**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201349**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201349.zip) **Draft CR for TS 38.101-3 Add a note for BCS in 3DL NR CA table**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: ZTE Corporation*

**Decision: Endorsed.**

[**R4-2201516**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201516.zip) **DraftCR for 38.101-1: Correction on CA\_n7-n66-n78**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon, Bell Mobility, Telus*

**Decision: Endorsed.**

[**R4-2201517**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201517.zip) **DraftCR for 38.101-1: CA\_n25(2A)-n38A-n66(2A)**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon, Bell Mobility, Telus*

**Decision: Endorsed.**

[**R4-2201518**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201518.zip) **DraftCR for 38.101-1: additional combinations for CA\_n7-n25-n66**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon, Bell Mobility, Telus*

**Decision: Endorsed.**

[**R4-2201547**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201547.zip) **draft CR 38.101-1 to add new configurations for CA\_n25-n41-n66, CA\_n25-n41-n71, CA\_n25-n66-n71, CA\_n41-n66-n71, CA\_n66-n71-n77**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Eridsson, T-Mobile US*

**Abstract:**

draft CR 38.101-1 to add new configurations for CA\_n25-n41-n66, CA\_n25-n41-n71, CA\_n25-n66-n71, CA\_n41-n66-n71, CA\_n66-n71-n77

**Decision: Endorsed.**

[**R4-2201548**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201548.zip) **TP for TR 38.717-03-02 to include CA\_n41-n66-n260**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Eridsson, T-Mobile US*

**Abstract:**

TP for TR 38.717-03-02 to include CA\_n41-n66-n260

**Decision: Revised to R4-2202189 (from R4-2201548).**

[**R4-2202189**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201548.zip) **TP for TR 38.717-03-02 to include CA\_n41-n66-n260**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Eridsson, T-Mobile US*

**Abstract:**

TP for TR 38.717-03-02 to include CA\_n41-n66-n260

**Decision: Return to.**

[**R4-2201549**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201549.zip) **TP for TR 38.717-03-02 to include DC\_n41-n66-n260**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Eridsson, T-Mobile US*

**Abstract:**

TP for TR 38.717-03-02 to include DC\_n41-n66-n260

**Decision: Noted.**

[**R4-2201553**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201553.zip) **TP for TR 38.717-03-02 to include CA\_n41-n70-n78**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

TP for TR 38.717-03-02 to include CA\_n41-n70-n78

**Decision: Revised to R4-2202190 (from R4-2201553).**

**[R4-2202190](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201553.zip) TP for TR 38.717-03-02 to include CA\_n41-n70-n78**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

TP for TR 38.717-03-02 to include CA\_n41-n70-n78

**Decision: Return to.**

[**R4-2201560**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201560.zip) **TP for TR 38.717-03-02 to include CA\_n1-n3-n20**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-03-02 to include CA\_n1-n3-n20

**Decision: Approved.**

[**R4-2201563**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201563.zip) **TP for TR 38.717-03-02 to include CA\_n1-n3-n67**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-03-02 to include CA\_n1-n3-n67

**Decision: Approved.**

[**R4-2201567**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201567.zip) **TP for TR 38.717-03-02 to include CA\_n1-n20-n67**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-03-02 to include CA\_n1-n20-n67

[Skyworks] Fallback CA\_n20-n67 LB-LB configuration requires discussion in the "not for block approval" AI

**Decision: Return to.**

[**R4-2201569**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201569.zip) **TP for TR 38.717-03-02 to include CA\_n3-n20-n67**

*Type: pCR For: Approval  
 38.717-03-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 38.717-03-02 to include CA\_n3-n20-n67

[Skyworks] Fallback CA\_n20-n67 LB-LB configuration requires discussion in the "not for block approval" AI

**Decision: Return to.**

[**R4-2201578**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201578.zip) **draft CR 38.101-3 to add new 3DL CA combinations with FR2**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, Telstra*

**Abstract:**

draft CR 38.101-3 to add new 3DL CA combinations with FR2

**Decision: Endorsed.**

[**R4-2201579**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201579.zip) **draft CR 38.101-3 to add new 3DL DC combinations with FR2**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, Telstra*

**Abstract:**

draft CR 38.101-3 to add new 3DL DC combinations with FR2

**Decision: Endorsed.**

### 5.12 NR inter-band Carrier Aggregation and Dual connectivity for DL 4 bands and 2UL bands

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

#### 5.12.1 UE RF requirements

[**R4-2200197**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200197.zip) **Draft CR for 38.101-3: support of 4 Bands DC\_n28A-n77A-n79A-257A/G/H/I and DC\_n28A-n77(2A)-n79A-257A/G/H/I**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

DC\_n28A-n77A/(2A)-n79A-257A/G/H/I are added.

**Decision: Not pursued.**

[**R4-2200198**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200198.zip) **Draft CR for 38.101-3: additions of Low+Low UL configurations for 4 Bands DC\_n3A-n28A-n77A-257A/G/H/I and DC\_n3A-n28A-n77(2A)-257A/G/H/I**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

UL conf of two low bands combinations, i.e., n3-n28, n3-n77 and n28-n77 are added to DC\_n3A-n28A-n77A/(2A)-257A/G/H/I.

**Decision: Endorsed.**

[**R4-2200199**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200199.zip) **Draft CR for 38.101-3: support of 4 Bands DC\_n3A-n28A-n79A-257A/G/H/I**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

DC\_n3A-n28A-n79A-257A/G/H/I are added.

**Decision: Endorsed.**

[**R4-2200358**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200358.zip) **TP for CA\_n28-n78-n79-n257 for TR 38.717-04-02**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: NTT DOCOMO, INC.*

**Decision: Approved.**

[**R4-2200359**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200359.zip) **Draft CR for TS 38.101-3: DC\_n28-n77-n79-n257 and DC\_n28-n78-n79-n257**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: NTT DOCOMO, INC.*

**Decision: Revised to R4-2202191 (from R4-2200359).**

[**R4-2202191**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200359.zip) **Draft CR for TS 38.101-3: DC\_n28-n77-n79-n257 and DC\_n28-n78-n79-n257**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: NTT DOCOMO, INC.*

**Decision: Return to.**

[**R4-2201050**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201050.zip) **Draft CR for 38.101-3 to introduce new combinations for NR inter-band CA DC 4 bands DL with 2 bands UL**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung, KDDI*

**Decision: Not pursued.**

[**R4-2201066**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201066.zip) **TP for TR 38.717-04-02 CA\_n5-n25-n66-n77**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, Telus, Bell Mobility*

**Decision: Approved.**

[**R4-2201122**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201122.zip) **TP to TR 38.717-04-02 Addition of CA\_n2-n12-n30-n66**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201123**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201123.zip) **TP to TR 38.717-04-02 Addition of CA\_n2-n29-n30-n66**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, AT&T*

**Decision: Approved.**

[**R4-2201551**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201551.zip) **TP for TR 38.717-04-02 to include CA\_n41-n66-n70-n78**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

TP for TR 38.717-04-02 to include CA\_n41-n66-n70-n78

**Decision: Noted.**

[**R4-2201580**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201580.zip) **draft CR 38.101-3 to add new 4DL CA combinations with FR2**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, Telstra*

**Abstract:**

draft CR 38.101-3 to add new 4DL CA combinations with FR2

**Decision: Endorsed.**

[**R4-2201581**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201581.zip) **draft CR 38.101-3 to add new 4DL DC combinations with FR2**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, Telstra*

**Abstract:**

draft CR 38.101-3 to add new 4DL DC combinations with FR2

**Decision: Endorsed.**

[**R4-2201897**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201897.zip) **TP for TR 38.717-04-02 to include CA\_n2A-n5A-n30A-n77A**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-02 to include CA\_n2A-n5A-n30A-n77A

**Decision: Approved.**

[**R4-2201898**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201898.zip) **TP for TR 38.717-04-02 to include CA\_n2A-n5A-n66A-n77A**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-02 to include CA\_n2A-n5A-n66A-n77A

**Decision: Revised to R4-2202192 (from R4-2201898).**

[**R4-2202192**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201898.zip) **TP for TR 38.717-04-02 to include CA\_n2A-n5A-n66A-n77A**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-02 to include CA\_n2A-n5A-n66A-n77A

**Decision: Return to.**

[**R4-2201899**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201899.zip) **TP for TR 38.717-04-02 to include CA\_n2A-n14A-n30A-n77A**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-02 to include CA\_n2A-n14A-n30A-n77A

**Decision: Approved.**

[**R4-2201900**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201900.zip) **TP for TR 38.717-04-02 to include CA\_n14A-n30A-n66A-n77A**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-02 to include CA\_n14A-n30A-n66A-n77A

**Decision: Approved.**

[**R4-2201901**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201901.zip) **TP for TR 38.717-04-02 to include CA\_n2A-n14A-n66A-n77A**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-02 to include CA\_n2A-n14A-n66A-n77A

**Decision: Approved.**

[**R4-2201902**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201902.zip) **TP for TR 38.717-04-02 to include CA\_n5A-n30A-n66-n77A**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 38.717-04-02 to include CA\_n5A-n30A-n66-n77A

**Decision: Approved.**

### 5.13 NR inter-band CA for 5 bands DL with x bands UL (x=1, 2)

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

#### 5.13.1 UE RF requirements

[**R4-2200222**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200222.zip) **TP for TR 38.717-05-01: CA\_n3-28-n77-n79-n257**

*Type: pCR For: Approval  
 38.717-05-01 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

### 5.14 DC of 1 LTE band and 1 NR band

**[101-bis-e][106] NR\_Baskets\_Part\_2, AI 5.7, 5.14, 5.15, 5.16, 5.17, 5.18 – Iwo Angelow**

[**R4-2201362**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201362.zip) **TR 37.717-11-11 v1.1.0 Rel-17 Dual Connectivity (DC) of 1 LTE band (1DL/1UL) and 1 NR band (1DL/1UL)**

*Type: draft TR For: Approval  
 37.717-11-11 v1.0.0 CR- rev Cat: (Rel-17)  
  
 Source: CHTTL*

**Decision: Withdrawn.**

#### 5.14.1 EN-DC requirements without FR2 band

[**R4-2200185**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200185.zip) **Draft CR for 38.101-3: corrections of MOP in DC\_42C\_n1A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

A missed MOP for the combo is added.

**Decision: Endorsed.**

[**R4-2200237**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200237.zip) **TP update for TR 37.717-11-11: DC\_11\_n1**

*Type: pCR For: Approval  
 37.717-11-11 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200827**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200827.zip) **TP for TR 37.717-11-11: DC\_n28A\_8C**

*Type: pCR For: Approval  
 37.717-11-11 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision: Revised to R4-2202157 (from R4-2200827).**

[**R4-2202157**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200827.zip) **TP for TR 37.717-11-11: DC\_n28A\_8C**

*Type: pCR For: Approval  
 37.717-11-11 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision: Return to.**

[**R4-2200828**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200828.zip) **TP for TR 37.717-11-11: DC\_n41\_39**

*Type: pCR For: Approval  
 37.717-11-11 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision: Revised to R4-2202158 (from R4-2200828).**

[**R4-2202158**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200828.zip) **TP for TR 37.717-11-11: DC\_n41\_39**

*Type: pCR For: Approval  
 37.717-11-11 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision: Return to.**

[**R4-2200829**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200829.zip) **TP for TR 37.717\_11\_11 DC\_n41\_3**

*Type: pCR For: Approval  
 37.717-11-11 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision: Revised to R4-2202159 (from R4-2200829).**

[**R4-2202159**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200829.zip) **TP for TR 37.717\_11\_11 DC\_n41\_3**

*Type: pCR For: Approval  
 37.717-11-11 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision: Return to.**

[**R4-2200830**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200830.zip) **TP for TR 37.717\_11\_11 DC\_n41\_8**

*Type: pCR For: Approval  
 37.717-11-11 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision: Revised to R4-2202160 (from R4-2200830).**

[**R4-2202160**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200830.zip) **TP for TR 37.717\_11\_11 DC\_n41\_8**

*Type: pCR For: Approval  
 37.717-11-11 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision: Return to.**

[**R4-2200831**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200831.zip) **TP for TR 37.717\_11\_11 DC\_n41\_40**

*Type: pCR For: Approval  
 37.717-11-11 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision: Revised to R4-2202161 (from R4-2200831).**

[**R4-2202161**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200831.zip) **TP for TR 37.717\_11\_11 DC\_n41\_40**

*Type: pCR For: Approval  
 37.717-11-11 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CMCC*

**Decision: Return to.**

[**R4-2201051**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201051.zip) **TP for TR 37.717-11-11 DC\_5\_n3**

*Type: pCR For: Approval  
 37.717-11-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, Reliance Jio*

**Decision: Noted.**

[**R4-2201091**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201091.zip) **draftCR to add DC\_3C\_n20A to 38.101-3**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, BT*

**Decision: Revised to R4-2202162 (from R4-2201091).**

[**R4-2202162**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201091.zip) **draftCR to add DC\_3C\_n20A to 38.101-3**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, BT*

**Decision: Return to.**

[**R4-2201557**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201557.zip) **TP for TR 37.717-11-11 to include DC\_5\_n1**

*Type: pCR For: Approval  
 37.717-11-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Airtel*

**Abstract:**

TP for TR 37.717-11-11 to include DC\_5\_n1

**Decision: Revised to R4-2202163 (from R4-2201557).**

[**R4-2202163**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201557.zip) **TP for TR 37.717-11-11 to include DC\_5\_n1**

*Type: pCR For: Approval  
 37.717-11-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Airtel*

**Abstract:**

TP for TR 37.717-11-11 to include DC\_5\_n1

**Decision: Return to.**

[**R4-2201558**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201558.zip) **TP for TR 37.717-11-11 to include DC\_5\_n3**

*Type: pCR For: Approval  
 37.717-11-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Airtel*

**Abstract:**

TP for TR 37.717-11-11 to include DC\_5\_n3

**Decision: Revised to** [**R4-2202153**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202153.zip) **(from** [**R4-2201558**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201558.zip)**).**

[**R4-2202153**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202153.zip) **TP for TR 37.717-11-11 to include DC\_5\_n3**

*Type: pCR For: Approval  
 37.717-11-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Airtel, Samsung, Relience Jio*

**Abstract:**

TP for TR 37.717-11-11 to include DC\_5\_n3

**Decision: Return to.**

[**R4-2201728**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201728.zip) **draft CR 38.101-3 to add new configurations for DC\_2\_n78 and DC\_71\_n78**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

draft CR 38.101-3 to add new configurations for DC\_2\_n78 and DC\_71\_n78

**Decision: Revised to R4-2202164 (from R4-2201728).**

**[R4-2202164](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201728.zip) draft CR 38.101-3 to add new configurations for DC\_2\_n78 and DC\_71\_n78**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

draft CR 38.101-3 to add new configurations for DC\_2\_n78 and DC\_71\_n78

**Decision: Return to.**

#### 5.14.2 EN-DC requirements with FR2 band

### 5.15 DC of 2 LTE band and 1 NR band

**[101-bis-e][106] NR\_Baskets\_Part\_2, AI 5.7, 5.14, 5.15, 5.16, 5.17, 5.18 – Iwo Angelow**

[**R4-2200367**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200367.zip) **TP for TR 37.717-21-11 DC\_n3A\_1A-8A**

*Type: discussion For: Approval  
 37.717-21-11 v CR- rev Cat: (Rel-17)  
  
 Source: Huawei Technologies France*

**Decision: Approved.**

[**R4-2200368**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200368.zip) **TP for TR 37.717-21-11: DC\_n77A\_1A-8A and DC\_n77(2A)\_1A-8A**

*Type: discussion For: Approval  
 37.717-21-11 v CR- rev Cat: (Rel-17)  
  
 Source: Huawei Technologies France*

**Decision: Approved.**

[**R4-2200369**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200369.zip) **TP for TR 37.717-21-11 DC\_n77A\_3A\_1A**

*Type: discussion For: Approval  
 37.717-21-11 v CR- rev Cat: (Rel-17)  
  
 Source: Huawei Technologies France*

**Decision: Approved.**

[**R4-2200370**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200370.zip) **TP for TR 37.717-21-11 DC\_n77A\_3A-8A and DC\_n77(2A)\_3A-8A**

*Type: discussion For: Approval  
 37.717-21-11 v CR- rev Cat: (Rel-17)  
  
 Source: Huawei Technologies France*

**Decision: Approved.**

[**R4-2200371**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200371.zip) **TP for TR 37.717-21-11: DC\_n257A\_3A-1A**

*Type: discussion For: Approval  
 37.717-21-11 v CR- rev Cat: (Rel-17)  
  
 Source: Huawei Technologies France*

**Decision: Approved.**

[**R4-2200372**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200372.zip) **TP for TR 37.717-21-11 DC\_n257A\_3A-8A**

*Type: discussion For: Approval  
 37.717-21-11 v CR- rev Cat: (Rel-17)  
  
 Source: Huawei Technologies France*

**Decision: Approved.**

#### 5.15.1 EN-DC requirements without FR2 band

[**R4-2200186**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200186.zip) **Draft CR for 38.101-3: support of n77(3A) in 2LTE+1NR DC\_1A/3A/8A/11A\_n77**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

n77(3A) support is added to 2 LTE + 1NR DC of 1A/3A/8A/11A\_n77.

**Decision: Revised to R4-2202165 (from R4-2200186).**

[**R4-2202165**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200186.zip) **Draft CR for 38.101-3: support of n77(3A) in 2LTE+1NR DC\_1A/3A/8A/11A\_n77**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

n77(3A) support is added to 2 LTE + 1NR DC of 1A/3A/8A/11A\_n77.

**Decision: Return to.**

[**R4-2200235**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200235.zip) **TP for TR 37.717-21-11: EN-DC\_8-41\_n1**

*Type: pCR For: Approval  
 37.717-21-11 v0.7.1 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp., LG Electronics*

**Decision: Revised to R4-2202166 (from R4-2200235).**

[**R4-2202166**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200235.zip) **TP for TR 37.717-21-11: EN-DC\_8-41\_n1**

*Type: pCR For: Approval  
 37.717-21-11 v0.7.1 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp., LG Electronics*

**Decision: Return to.**

[**R4-2200375**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200375.zip) **TP for TR 37.717-21-11: DC\_1A\_(n)3AA**

*Type: discussion For: Approval  
 37.717-21-11 v CR- rev Cat: (Rel-17)  
  
 Source: Huawei Technologies France*

**Decision: Withdrawn.**

[**R4-2200608**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200608.zip) **CR for TS 38.101-3: Adding same note for higher order combo of DC\_20\_n28**

*Type: CR For: Endorsement  
 38.101-3 v17.4.0 CR-0672 rev Cat: F (Rel-17)  
  
 Source: MediaTek Inc.*

**Abstract:**

This CR is for endorsement

**Decision: Revised to R4-2202167 (from R4-2200608).**

[**R4-2202167**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200608.zip) **CR for TS 38.101-3: Adding same note for higher order combo of DC\_20\_n28**

*Type: CR For: Endorsement  
 38.101-3 v17.4.0 CR-0672 rev Cat: F (Rel-17)  
  
 Source: MediaTek Inc.*

**Abstract:**

This CR is for endorsement

**Decision: Return to.**

[**R4-2201089**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201089.zip) **draftCR to add DC\_n1A-n7A-n78A to 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, BT*

**Decision: Endorsed.**

[**R4-2201095**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201095.zip) **TP to TR 37.717-21-11 Addition of DC\_2A-38A\_n78A**

*Type: pCR For: Approval  
 37.717-21-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia*

**Decision: Revised to R4-2202168 (from R4-2201095).**

[**R4-2202168**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201095.zip) **TP to TR 37.717-21-11 Addition of DC\_2A-38A\_n78A**

*Type: pCR For: Approval  
 37.717-21-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia*

**Decision: Return to.**

[**R4-2201096**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201096.zip) **TP to TR 37.717-21-11 Addition of DC\_2A-28A\_n78A**

*Type: pCR For: Approval  
 37.717-21-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia*

**Decision: Revised to R4-2202169 (from R4-2201096).**

[**R4-2202169**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201096.zip) **TP to TR 37.717-21-11 Addition of DC\_2A-28A\_n78A**

*Type: pCR For: Approval  
 37.717-21-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia*

**Decision: Return to.**

[**R4-2201097**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201097.zip) **draftCR to add DC\_2-7\_n28 and DC\_5-66\_n78 to 38.101-3**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia*

**Decision: Revised to R4-2202170 (from R4-2201097).**

[**R4-2202170**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201097.zip) **draftCR to add DC\_2-7\_n28 and DC\_5-66\_n78 to 38.101-3**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia*

**Decision: Return to.**

[**R4-2201356**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201356.zip) **TP for TR 37.717-21-11\_DC\_1A-38A\_n78A**

*Type: pCR For: Approval  
 37.717-21-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Decision: Approved.**

[**R4-2201357**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201357.zip) **TP for TR 37.717-21-11\_DC\_7A-38A\_n78A**

*Type: pCR For: Approval  
 37.717-21-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Decision: Approved.**

[**R4-2201573**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201573.zip) **TP for TR 37.717-21-11 to include DC\_2-7\_n25**

*Type: pCR For: Approval  
 37.717-21-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Bell Mobility*

**Abstract:**

TP for TR 37.717-21-11 to include DC\_2-7\_n25

Move to [105]

**Decision: Return to.**

[**R4-2201729**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201729.zip) **draft CR 38.101-3 to add new configurations for DC\_12-66\_n78, DC\_2-71\_n78, DC\_7-12\_n78, DC\_7-71\_n78, DC\_66-71\_n78**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

draft CR 38.101-3 to add new configurations for DC\_12-66\_n78, DC\_2-71\_n78, DC\_7-12\_n78, DC\_7-71\_n78, DC\_66-71\_n78

**Decision: Revised to R4-2202171 (from R4-2201729).**

[**R4-2202171**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201729.zip) **draft CR 38.101-3 to add new configurations for DC\_12-66\_n78, DC\_2-71\_n78, DC\_7-12\_n78, DC\_7-71\_n78, DC\_66-71\_n78**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

draft CR 38.101-3 to add new configurations for DC\_12-66\_n78, DC\_2-71\_n78, DC\_7-12\_n78, DC\_7-71\_n78, DC\_66-71\_n78

**Decision: Return to.**

[**R4-2202005**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202005.zip) **TP update for TR 37.717-21-11: EN-DC\_1-11\_n79**

*Type: pCR For: Approval  
 37.717-21-11 v0.7.1 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp., LG Electronics*

**Decision: Approved.**

[**R4-2202007**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202007.zip) **TP update for TR 37.717-21-11: EN-DC\_8-11\_n79**

*Type: pCR For: Approval  
 37.717-21-11 v0.7.1 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp., LG Electronics*

**Decision: Approved.**

#### 5.15.2 EN-DC requirements with FR2 band

### 5.16 DC of 3 LTE band and 1 NR band

**[101-bis-e][106] NR\_Baskets\_Part\_2, AI 5.7, 5.14, 5.15, 5.16, 5.17, 5.18 – Iwo Angelow**

[**R4-2200373**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200373.zip) **TP for TR 37.717-31-11 DC\_n77A\_1A-3A-8A and DC\_n77(2A)\_1A-3A-8A**

*Type: discussion For: Approval  
 37.717-31-11 v CR- rev Cat: (Rel-17)  
  
 Source: Huawei Technologies France*

**Decision: Approved.**

#### 5.16.1 EN-DC requirements without FR2 band

[**R4-2200609**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200609.zip) **CR for TS 38.101-3: Adding same note for higher order combo of DC\_20\_n28**

*Type: CR For: Endorsement  
 38.101-3 v17.4.0 CR-0673 rev Cat: F (Rel-17)  
  
 Source: MediaTek Inc.*

**Abstract:**

This CR is for endorsement

**Decision: Not pursued.**

[**R4-2200623**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200623.zip) **Draft CR for TS 38.101-3 to add UL DC\_20A\_n78A support for DC\_1A-20A-38A\_n78A and DC\_3A-20A-38A\_n78A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Abstract:**

This paper is to provide draft CR for TS 38.101-3 to add UL DC\_20A\_n78A support for DC\_1A-20A-38A\_n78A and DC\_3A-20A-38A\_n78A

**Decision: Endorsed.**

[**R4-2200624**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200624.zip) **TP for TR 37.717-31-11\_DC\_1A-3A-38A\_n78A**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Abstract:**

This paper is to provide TP for TR 37.717-31-11\_DC\_1A-3A-38A\_n78A

**Decision: Approved.**

[**R4-2200713**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200713.zip) **TP to TR 37.717-31-11: DC\_2-5-48\_n77**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Revised to R4-2202172 (from R4-2200713).**

[**R4-2202172**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200713.zip) **TP to TR 37.717-31-11: DC\_2-5-48\_n77**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Return to.**

[**R4-2200714**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200714.zip) **TP to TR 37.717-31-11: DC\_5-48-66\_n77**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Approved.**

[**R4-2200715**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200715.zip) **TP to TR 37.717-31-11: DC\_2-13-48\_n77**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Approved.**

[**R4-2201059**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201059.zip) **Draft CR for 38.101-3 to introduce DC\_7A-7A-29A-66A\_n78A and DC\_7C-29A-66A\_n78A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung, Telus, Bell Mobility*

**Decision: Approved.**

[**R4-2201060**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201060.zip) **TP for TR 37.717-31-11 DC\_2-7-29\_n78**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, Telus, Bell Mobility*

**Decision: Approved.**

[**R4-2201098**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201098.zip) **TP to TR 37.717-31-11 Addition of DC\_2-7-28\_n78**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia*

**Decision: Approved.**

[**R4-2201099**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201099.zip) **TP to TR 37.717-31-11 Addition of DC\_5-7-66\_n78**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia*

**Decision: Approved.**

[**R4-2201233**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201233.zip) **Draft CR for 38.101-3 To configuration DC\_3C-7A-20A\_n28A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Endorsed.**

[**R4-2201234**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201234.zip) **Draft CR for 38.101-3 To configuration DC\_3C-20A-32A\_n1A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Endorsed.**

[**R4-2201235**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201235.zip) **Draft CR for 38.101-3 To add UL configuration DC\_3C\_n78A for DC\_3C-7A-20A\_n78A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Endorsed.**

[**R4-2201236**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201236.zip) **Draft CR for 38.101-3 To add UL configuration DC\_3C\_n28A for DC\_1A-3C-20A\_n28A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Endorsed.**

[**R4-2201358**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201358.zip) **TP for TR 37.717-31-11\_DC\_1A-7A-38A\_n78A**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Decision: Approved.**

[**R4-2201359**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201359.zip) **TP for TR 37.717-31-11\_DC\_7A-20A-38A\_n78A**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Decision: Approved.**

[**R4-2201574**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201574.zip) **TP for TR 37.717-31-11 to include DC\_2-7-66\_n25**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Bell Mobility*

**Abstract:**

TP for TR 37.717-31-11 to include DC\_2-7-66\_n25

Move to [105]

**Decision: Return to.**

[**R4-2201575**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201575.zip) **TP for TR 37.717-31-11 to include DC\_2-7-13\_n25**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Bell Mobility*

**Abstract:**

TP for TR 37.717-31-11 to include DC\_2-7-13\_n25

Move to [105].

**Decision: Return to.**

[**R4-2201730**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201730.zip) **TP for TR 37.717-31-11 to include DC\_2-5-7\_n78**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-31-11 to include DC\_2-5-7\_n78

**Decision: Approved.**

[**R4-2201731**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201731.zip) **TP for TR 37.717-31-11 to include DC\_2-5-66\_n78**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-31-11 to include DC\_2-5-66\_n78

**Decision: Approved.**

[**R4-2201732**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201732.zip) **TP for TR 37.717-31-11 to include DC\_5-7-66\_n78**

*Type: pCR For: Approval  
 37.717-31-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-31-11 to include DC\_5-7-66\_n78

**Decision: Approved.**

#### 5.16.2 EN-DC requirements with FR2 band

[**R4-2201903**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201903.zip) **draft CR 38101-3 to add DC\_2A-2A-5A-66A\_n260M and DC\_2A-2A-5A-66A\_n260M**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 38101-3 to add DC\_2A-2A-5A-66A\_n260M and DC\_2A-2A-5A-66A\_n260M

**Decision: Endorsed.**

[**R4-2201904**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201904.zip) **draft CR 38101-3 to add DC\_2A-2A-12A-30A\_n260M**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 38101-3 to add DC\_2A-2A-12A-30A\_n260M

**Decision: Endorsed.**

[**R4-2201905**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201905.zip) **draft CR 38101-3 to add DC\_2A-2A-12A-66A\_n260M and DC\_2A-12A-66A-66A\_n260M**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 38101-3 to add DC\_2A-2A-12A-66A\_n260M and DC\_2A-12A-66A-66A\_n260M

**Decision: Endorsed.**

[**R4-2201906**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201906.zip) **draft CR 38101-3 to add DC\_5A-30A-66A-66A\_n260M**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 38101-3 to add DC\_5A-30A-66A-66A\_n260M

**Decision: Endorsed.**

[**R4-2201907**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201907.zip) **draft CR 38101-3 to add DC\_12A-30A-66A-66A\_n260M**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 38101-3 to add DC\_12A-30A-66A-66A\_n260M

**Decision: Endorsed.**

[**R4-2201908**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201908.zip) **draft CR 38101-3 to add DC\_12A-30A-66A-66A\_n260M**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 38101-3 to add DC\_12A-30A-66A-66A\_n260M

**Decision: Withdrawn.**

[**R4-2201961**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201961.zip) **draft CR 38101-3 to add DC\_2A-2A-5A-30A\_n260M**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 38101-3 to add DC\_2A-2A-5A-30A\_n260M

**Decision: Endorsed.**

### 5.17 DC of 4 LTE band and 1 NR band

**[101-bis-e][106] NR\_Baskets\_Part\_2, AI 5.7, 5.14, 5.15, 5.16, 5.17, 5.18 – Iwo Angelow**

#### 5.17.1 EN-DC requirements without FR2 band

[**R4-2200610**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200610.zip) **CR for TS 38.101-3: Adding same note for higher order combo of DC\_20\_n28**

*Type: CR For: Endorsement  
 38.101-3 v17.4.0 CR-0674 rev Cat: F (Rel-17)  
  
 Source: MediaTek Inc.*

**Abstract:**

This CR is for endorsement

**Decision: Not pursued.**

[**R4-2200622**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200622.zip) **Draft CR for TS 38.101-3 to add UL DC\_1A\_n78A support for DC\_1A-3A-20A-38A\_n78A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Abstract:**

This paper is to provide draft CR for TS 38.101-3 to add UL DC\_1A\_n78A support for DC\_1A-3A-20A-38A\_n78A

**Decision: Endorsed.**

[**R4-2201061**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201061.zip) **TP for TR 37.717-41-11 DC\_2-7-29-66\_n78**

*Type: pCR For: Approval  
 37.717-41-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Samsung, Telus, Bell Mobility*

**Decision: Approved.**

[**R4-2201733**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201733.zip) **TP for TR 37.717-41-11 to include DC\_2-5-7-66\_n78**

*Type: pCR For: Approval  
 37.717-41-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-41-11 to include DC\_2-5-7-66\_n78

**Decision: Revised to R4-2202173 (from R4-2201733).**

**[R4-2202173](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201733.zip) TP for TR 37.717-41-11 to include DC\_2-5-7-66\_n78**

*Type: pCR For: Approval  
 37.717-41-11 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-41-11 to include DC\_2-5-7-66\_n78

**Decision: Return to.**

#### 5.17.2 EN-DC requirements with FR2 band

[**R4-2201909**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201909.zip) **draft CR 38101-3 to add DC\_2A-5A-30A-66A\_n260M**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 38101-3 to add DC\_2A-5A-30A-66A\_n260M

**Decision: Endorsed.**

[**R4-2201910**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201910.zip) **draft CR 38101-3 to add DC\_2A-12A-30A-66A\_n260M**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 38101-3 to add DC\_2A-12A-30A-66A\_n260M

**Decision: Endorsed.**

### 5.18 DC of 5 bands LTE inter-band CA (5DL/1L) and 1 NR band (1DL/1UL)

**[101-bis-e][106] NR\_Baskets\_Part\_2, AI 5.7, 5.14, 5.15, 5.16, 5.17, 5.18 – Iwo Angelow**

#### 5.18.1 UE RF requirements

### 5.19 DC of x bands (x=1,2, 3, 4) LTE inter-band CA and 2 bands NR inter-band CA

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

[**R4-2200789**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200789.zip) **TR 37.717-11-21 v0.8.0 TR update: LTE(xDL/1UL)+ NR(2DL/1UL) DC in Rel-17**

*Type: draft TR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: LG Electronics France*

**Abstract:**

Provide TR to update DC band combinations for LTE(xDL/1UL)+ NR(2DL/1UL) in Rel-17

**Decision: Not pursued.**

[**R4-2200791**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200791.zip) **Revised WID on LTE (xDL/UL x=1.2,3,4) with NR 2 bands (2DL/1UL) DC in Rel-17**

*Type: WID revised For: Endorsement  
 Source: LG Electronics France*

**Abstract:**

Revised WID to update the status on each DC band combination for LTE (xDL/UL x=1.2,3,4) with NR 2 bands (2DL/1UL) DC in Rel-17.

**Decision: Not pursued.**

[**R4-2200792**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200792.zip) **Introduction CR on new NR DC LTE(xDL/1UL)+ NR(2DL/1UL) band combinations in Rel-17**

*Type: CR For: Agreement  
 38.101-3 v17.4.0 CR-0675 rev Cat: B (Rel-17)  
  
 Source: LG Electronics France*

**Abstract:**

Big CR to introduce new NR DC band combinations in TS38.101-3 in Rel-17.

**Decision: Not pursued.**

#### 5.19.1 EN-DC requirements including NR inter CA without FR2 band

[**R4-2200225**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200225.zip) **TP for TR 37.717-11-21: EN-DC\_1-8\_n28-n79**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200226**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200226.zip) **TP for TR 37.717-11-21: EN-DC\_1-8\_n77-n79**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200227**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200227.zip) **TP for TR 37.717-11-21: EN-DC\_3-8\_n77-n79**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200228**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200228.zip) **TP for TR 37.717-11-21: EN-DC\_8\_n1-n3**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200231**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200231.zip) **TP for TR 37.717-11-21: EN-DC\_8-41\_n3-n77**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200232**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200232.zip) **TP for TR 37.717-11-21: EN-DC\_8-42\_n1-n77**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200233**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200233.zip) **TP for TR 37.717-11-21: EN-DC\_41\_n1-n77**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200234**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200234.zip) **TP for TR 37.717-11-21: EN-DC\_42\_n1-n3**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200236**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200236.zip) **TP for TR 37.717-11-21: EN-DC\_11\_n3-n79**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200716**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200716.zip) **TP to TR 37.717-11-21: DC\_13-66\_n5-n77**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Approved.**

[**R4-2200717**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200717.zip) **TP to TR 37.717-11-21: DC\_2-66\_n5-n77**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Approved.**

[**R4-2200718**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200718.zip) **TP to TR 37.717-11-21: DC\_2-13\_n66-n77**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Approved.**

[**R4-2200719**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200719.zip) **TP to TR 37.717-11-21: DC\_2-66\_n66-n77**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Approved.**

[**R4-2200720**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200720.zip) **TP to TR 37.717-11-21: DC\_2-5-66\_n66-n77**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Approved.**

[**R4-2200721**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200721.zip) **TP to TR 37.717-11-21: DC\_2-2-13-66\_n66-n77**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Approved.**

[**R4-2200722**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200722.zip) **TP to TR 38.717-05-01: CA\_n2-n5-n48-n66-n77**

*Type: pCR For: Approval  
 38.717-05-01 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Approved.**

[**R4-2200723**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200723.zip) **TP to TR 38.717-04-02: CA\_n2-n5-n66-n77**

*Type: pCR For: Approval  
 38.717-04-02 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Noted.**

[**R4-2200725**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200725.zip) **draftCR 38.101-3 introduction of 2LTE and 2NR bandcombinations**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Verizon*

**Decision: Endorsed.**

[**R4-2200794**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200794.zip) **MSD test results and test configurations for new NR DC band combinations**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: LG Electronics France*

**Abstract:**

Add MSD test results and test configurations for LTE(xDL/1UL)+ NR(2DL/1UL) DC in Rel-17.

**Decision: Approved.**

[**R4-2201092**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201092.zip) **draftCR to add DC\_3\_n1A-n78(2A) to 38.101-3**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, BT*

**Decision: Endorsed.**

[**R4-2201093**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201093.zip) **draftCR to add DC\_3\_n28A-n78(2A) to 38.101-3**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, BT*

**Decision: Endorsed.**

[**R4-2201237**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201237.zip) **TP for TR 37.717-11-21: DC\_3A-32A\_n1A-n28A and DC\_3C-32A\_n1A-n28A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Approved.**

[**R4-2201238**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201238.zip) **TP for TR 37.717-11-21: DC\_20A-32A\_n1A-n28A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Approved.**

[**R4-2201239**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201239.zip) **TP for TR 37.717-11-21: DC\_3A-20A-32A\_n1A-n28A and DC\_3C-20A-32A\_n1A-n28A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Approved.**

[**R4-2201240**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201240.zip) **TP for TR 37.717-11-21: DC\_1A\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Revised to R4-2202193 (from R4-2201240).**

[**R4-2202193**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201240.zip) **TP for TR 37.717-11-21: DC\_1A\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Return to.**

[**R4-2201241**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201241.zip) **TP for TR 37.717-11-21: DC\_3A\_n28A-n75A and DC\_3C\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Revised to R4-2202194 (from R4-2201241).**

[**R4-2202194**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201241.zip) **TP for TR 37.717-11-21: DC\_3A\_n28A-n75A and DC\_3C\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Return to.**

[**R4-2201242**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201242.zip) **TP for TR 37.717-11-21: DC\_1A-3A\_n28A-n75A and DC\_1A-3C\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Revised to R4-2202195 (from R4-2201242).**

[**R4-2202195**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201242.zip) **TP for TR 37.717-11-21: DC\_1A-3A\_n28A-n75A and DC\_1A-3C\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Return to.**

[**R4-2201243**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201243.zip) **TP for TR 37.717-11-21: DC\_3A-20A\_n28A-n75A and DC\_3C-20A\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Revised to R4-2202196 (from R4-2201243).**

[**R4-2202196**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201243.zip) **TP for TR 37.717-11-21: DC\_3A-20A\_n28A-n75A and DC\_3C-20A\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Return to.**

[**R4-2201244**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201244.zip) **TP for TR 37.717-11-21: DC\_1A-20A\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Revised to R4-2202197 (from R4-2201244).**

**[R4-2202197](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201244.zip) TP for TR 37.717-11-21: DC\_1A-20A\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Return to.**

[**R4-2201245**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201245.zip) **TP for TR 37.717-11-21: DC\_1A-3A-20A\_n28A-n75A and DC\_1A-3C-20A\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Revised to R4-2202198 (from R4-2201245).**

[**R4-2202198**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201245.zip) **TP for TR 37.717-11-21: DC\_1A-3A-20A\_n28A-n75A and DC\_1A-3C-20A\_n28A-n75A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Return to.**

[**R4-2201246**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201246.zip) **Draft CR for 38.101-3 to add UL configuration DC\_3C\_n1A and DC\_3C\_n78A for DC\_3C-7C\_n1A-n78A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

**Decision: Endorsed.**

[**R4-2201350**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201350.zip) **TP for TR 37.717-11-21: DC\_1A\_n3A-n78A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Abstract:**

This band combination has existed in current Spec 38.101-3 v17.4.0. Moderator recommends it is noted.

**Decision: Noted.**

[**R4-2201351**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201351.zip) **TP for TR 37.717-11-21\_DC\_1A-38A\_n3A-n78A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Decision: Approved.**

[**R4-2201352**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201352.zip) **TP for TR 37.717-11-21\_DC\_7A-38A\_n3A-n78A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Decision: Approved.**

[**R4-2201353**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201353.zip) **TP for TR 37.717-11-21\_DC\_20A\_n3A-n78A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Abstract:**

This band combination has existed in current Spec 38.101-3 v17.4.0. Moderator recommends it is noted.

**Decision: Noted.**

[**R4-2201354**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201354.zip) **TP for TR 37.717-11-21\_DC\_20A-38A\_n3A-n78A.**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Decision: Approved.**

[**R4-2201355**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201355.zip) **TP for TR 37.717-11-21\_DC\_38A\_n3A-n78A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Decision: Revised to R4-2202199 (from R4-2201355).**

[**R4-2202199**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201355.zip) **TP for TR 37.717-11-21\_DC\_38A\_n3A-n78A**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Decision: Return to.**

[**R4-2201519**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201519.zip) **TP for TR 37.717-11-21: DC\_2-7-66\_n66-n77**

*Type: pCR For: Approval  
 37.717-11-21 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon, Bell Mobility, Telus*

**Decision: Approved.**

[**R4-2201570**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201570.zip) **TP for TR 37.717-11-21 to include DC\_20\_n1-n67**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_20\_n1-n67

**Decision: Noted.**

[**R4-2201571**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201571.zip) **TP for TR 37.717-11-21 to include DC\_20\_n3-n67**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_20\_n3-n67

**Decision: Noted.**

[**R4-2201572**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201572.zip) **TP for TR 37.717-11-21 to include DC\_3\_n20-n67**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_3\_n20-n67

**Decision: Revised to R4-2202200 (from R4-2201572).**

**[R4-2202200](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201572.zip) TP for TR 37.717-11-21 to include DC\_3\_n20-n67**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, BT plc*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_3\_n20-n67

**Decision: Return to.**

[**R4-2201576**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201576.zip) **TP for TR 37.717-11-21 to include DC\_2\_n25-n66**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Bell Mobility*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2\_n25-n66

**Decision: Approved.**

[**R4-2201577**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201577.zip) **TP for TR 37.717-11-21 to include DC\_2-66\_n25-n66**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Bell Mobility*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2-66\_n25-n66

**Decision: Approved.**

[**R4-2201734**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201734.zip) **draft CR 38.101-3 to add new configurations for DC\_2\_n66-n78 and DC\_2\_n71-n78**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

draft CR 38.101-3 to add new configurations for DC\_2\_n66-n78 and DC\_2\_n71-n78

**Decision: Endorsed.**

[**R4-2201735**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201735.zip) **TP for TR 37.717-11-21 to include DC\_5\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_5\_n2-n78

**Decision: Approved.**

[**R4-2201736**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201736.zip) **TP for TR 37.717-11-21 to include DC\_66\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_66\_n2-n78

**Decision: Approved.**

[**R4-2201737**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201737.zip) **TP for TR 37.717-11-21 to include DC\_12\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_12\_n2-n78

**Decision: Approved.**

[**R4-2201738**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201738.zip) **TP for TR 37.717-11-21 to include DC\_2-5\_n66-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2-5\_n66-n78

**Decision: Approved.**

[**R4-2201739**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201739.zip) **TP for TR 37.717-11-21 to include DC\_2-5\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2-5\_n2-n78

**Decision: Approved.**

[**R4-2201740**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201740.zip) **TP for TR 37.717-11-21 to include DC\_2-66\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2-66\_n2-n78

**Decision: Approved.**

[**R4-2201741**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201741.zip) **TP for TR 37.717-11-21 to include DC\_5-66\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_5-66\_n2-n78

**Decision: Approved.**

[**R4-2201742**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201742.zip) **TP for TR 37.717-11-21 to include DC\_2-7\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2-7\_n2-n78

**Decision: Approved.**

[**R4-2201743**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201743.zip) **TP for TR 37.717-11-21 to include DC\_2-7\_n71-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2-7\_n71-n78

**Decision: Approved.**

[**R4-2201744**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201744.zip) **TP for TR 37.717-11-21 to include DC\_2-12\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2-12\_n2-n78

**Decision: Approved.**

[**R4-2201745**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201745.zip) **TP for TR 37.717-11-21 to include DC\_2-12\_n66-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2-12\_n66-n78

**Decision: Approved.**

[**R4-2201746**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201746.zip) **TP for TR 37.717-11-21 to include DC\_2-66\_n71-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2-66\_n71-n78

**Decision: Approved.**

[**R4-2201747**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201747.zip) **TP for TR 37.717-11-21 to include DC\_2-71\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2-71\_n2-n78

**Decision: Approved.**

[**R4-2201748**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201748.zip) **TP for TR 37.717-11-21 to include DC\_2-71\_n66-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_2-71\_n66-n78

**Decision: Approved.**

[**R4-2201749**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201749.zip) **TP for TR 37.717-11-21 to include DC\_5-7\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_5-7\_n2-n78

**Decision: Approved.**

[**R4-2201750**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201750.zip) **TP for TR 37.717-11-21 to include DC\_5-7\_n66-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_5-7\_n66-n78

**Decision: Approved.**

[**R4-2201751**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201751.zip) **TP for TR 37.717-11-21 to include DC\_7-12\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_7-12\_n2-n78

**Decision: Approved.**

[**R4-2201752**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201752.zip) **TP for TR 37.717-11-21 to include DC\_7-12\_n66-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_7-12\_n66-n78

**Decision: Approved.**

[**R4-2201753**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201753.zip) **TP for TR 37.717-11-21 to include DC\_7-66\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_7-66\_n2-n78

**Decision: Approved.**

[**R4-2201754**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201754.zip) **TP for TR 37.717-11-21 to include DC\_7-66\_n71-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_7-66\_n71-n78

**Decision: Approved.**

[**R4-2201755**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201755.zip) **TP for TR 37.717-11-21 to include DC\_7-71\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_7-71\_n2-n78

**Decision: Approved.**

[**R4-2201756**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201756.zip) **TP for TR 37.717-11-21 to include DC\_7-71\_n66-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_7-71\_n66-n78

**Decision: Approved.**

[**R4-2201757**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201757.zip) **TP for TR 37.717-11-21 to include DC\_12-66\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_12-66\_n2-n78

**Decision: Approved.**

[**R4-2201758**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201758.zip) **TP for TR 37.717-11-21 to include DC\_66-71\_n2-n78**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, Rogers*

**Abstract:**

TP for TR 37.717-11-21 to include DC\_66-71\_n2-n78

**Decision: Approved.**

#### 5.19.2 EN-DC requirements including NR inter CA with FR2 band

[**R4-2200793**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200793.zip) **TP on summary of self-interference analysis for new NR DC LTE(xDL/1UL)+ NR(2DL/1UL) DC in Rel-17**

*Type: pCR For: Approval  
 37.717-11-21 v0.7.0 CR- rev Cat: (Rel-17)  
  
 Source: LG Electronics France*

**Abstract:**

Add the self-interference analysis results in TR37.717-11-21.

**Decision: Approved.**

### 5.20 DC of x bands (x=1,2) LTE inter-band CA (xDL/xUL) and y bands (y=3-x) NR inter-band CA

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

#### 5.20.1 UE RF requirements

### 5.21 DC of x bands (x=1,2,3) LTE inter-band CA (xDL/1UL) and 3 bands NR inter-band CA (3DL/1UL)

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

#### 5.21.1 UE RF requirements

[**R4-2200187**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200187.zip) **Draft CR for 38.101-3: the support of n77(2A) in DC\_8A\_n3A-n77-n79A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: SoftBank Corp.*

**Abstract:**

n77(2A) support is added to DC\_8A\_n3A-n77-n79A.

**Decision: Endorsed.**

[**R4-2200224**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200224.zip) **TP for TR 37.716-11-31: EN-DC\_1-8\_n3-n77-n79**

*Type: pCR For: Approval  
 37.717-11-31 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200229**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200229.zip) **TP for TR 37.717-11-31: EN-DC\_8\_n3-n28-n79**

*Type: pCR For: Approval  
 37.717-11-31 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2200230**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200230.zip) **TP for TR 37.717-11-31: EN-DC\_8\_n28-n77-n79**

*Type: pCR For: Approval  
 37.717-11-31 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

[**R4-2201438**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201438.zip) **TP for TR 37.717-11-31: support of DC\_3\_n1-n8-n78, DC\_3-3\_n1-n8-n78, DC\_7\_n1-n8-n78, DC\_7-7\_n1-n8-n78**

*Type: pCR For: Approval  
 37.717-11-31 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CHTTL*

**Decision: Approved.**

[**R4-2201439**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201439.zip) **TP for TR 37.717-11-31: support of DC\_3-7\_n1-n8-n78, DC\_3-3-7\_n1-n8-n78, DC\_3-7-7\_n1-n8-n78, DC\_3-3-7-7\_n1-n8-n78**

*Type: pCR For: Approval  
 37.717-11-31 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CHTTL*

**Decision: Approved.**

### 5.22 DC of x bands (x=2,3,4) LTE inter-band CA (xDL/1UL) and 1 NR FR1 band (1DL/1UL) and 1 NR FR2 band (1DL/1UL)

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

#### 5.22.1 UE RF requirements

### 5.23 DC of x bands (x=1,2,3) LTE inter-band CA (xDL/1UL) and 4 bands NR inter-band CA (4DL/1UL)

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

#### 5.23.1 UE RF requirements

[**R4-2200223**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200223.zip) **TP for TR 37.717-11-41: EN-DC\_1\_n3-n28-n77-n79**

*Type: pCR For: Approval  
 37.717-11-41 v0.0.1 CR- rev Cat: (Rel-17)  
  
 Source: SoftBank Corp.*

**Decision: Approved.**

### 5.24 Band combinations for SA NR supplementary uplink (SUL) NSA NR SUL, NSA NR SUL with UL sharing from the UE perspective (ULSUP)

**[101-bis-e][107] NR\_Baskets\_Part\_3, AI 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 5.19, 5.20, 5.21, 5.22, 5.23, 5.24 –Johannes Hejselbaek**

#### 5.24.1 UE RF requirements

[**R4-2200188**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200188.zip) **CR for TS 38.101-1: Applicability correction for SUL\_n41-n97**

*Type: CR For: Endorsement  
 38.101-1 v17.4.0 CR-0985 rev Cat: F (Rel-17)  
  
 Source: MediaTek Inc.*

**Abstract:**

This CR is for endorsement

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

### 5.25 Band combinations for Uu and V2X con-current operation

**[101-bis-e][108] NR\_LTE\_V2X\_PC5\_combos, AI 5.25 – Yuan Gao**

[**R4-2202208**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202208.zip) **Email discussion summary for [101-bis-e][108] NR\_LTE\_V2X\_PC5\_combos**

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

**Abstract:**

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

**Decision: Revised to R4-2202308 (from R4-2202208).**

[**R4-2202308**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202208.zip) **Email discussion summary for [101-bis-e][108] NR\_LTE\_V2X\_PC5\_combos**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.25.1 UE RF requirements

[**R4-2200144**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200144.zip) **TR37.875, Band combinations of V2X con-current operation**

*Type: draft TR For: Approval  
 37.875 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: CATT*

**Abstract:**

[Email Approval]

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

[**R4-2200145**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200145.zip) **TP on coexistence study of V2X\_n8A-n47A, V2X\_8A\_n47A and V2X\_n8A\_47A**

*Type: pCR For: Approval  
 37.875 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: CATT*

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

[**R4-2200146**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200146.zip) **Draft CR for TS 38.101-1, Introduce new band combinations of V2X\_n8A-n47A**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200147**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200147.zip) **Draft CR for TS 38.101-3, Introduce new band combination of V2X\_n8A\_47A and V2X\_8A\_n47A**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200508**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200508.zip) **Calculation of MSD for V2X\_1A-n47A and V2X\_n1A-47A and accompanying TP**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Abstract:**

Outlines MSD for n79 for V2X\_n79A-n47A and V2X\_n79A-47A

**Decision: Revised to** [**R4-2202155**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202155.zip) **(from** [**R4-2200508**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200508.zip)**).**

**[R4-2202155](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202155.zip) Calculation of MSD for V2X\_1A-n47A and V2X\_n1A-47A and accompanying TP**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Abstract:**

Outlines MSD for n79 for V2X\_n79A-n47A and V2X\_n79A-47A

**Decision: Return to.**

### 5.26 Adding channel bandwidth support to existing NR bands

**[101-bis-e][109] NR\_bands\_R17\_BWs, AI 5.26 – Dominique Evereare**

[**R4-2202209**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202209.zip) **Email discussion summary for [101-bis-e][109] NR\_bands\_R17\_BWs**

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

**Abstract:**

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

**Decision: Revised to R4-2202309 (from R4-2202209).**

[**R4-2202309**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202209.zip) **Email discussion summary for [101-bis-e][109] NR\_bands\_R17\_BWs**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.26.1 UE RF requirements

[**R4-2200922**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200922.zip) **On new channel bandwidths narrower than 40 MHz of n79**

*Type: discussion For: Discussion  
 Source: Samsung*

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

[**R4-2200923**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200923.zip) **Draft LS on CORESET#0 impact of CBW narrower than 40MHz of n79**

*Type: LS out For: Approval  
 to RAN1, cc RAN2  
 Source: Samsung*

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

##### 5.26.1.1 Addition of bandwidth and Tx/Rx requirements

[**R4-2201335**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201335.zip) **Equation Based for FR1 Minimum Output Power**

*Type: other For: Approval  
 Source: ZTE Corporation, Skyworks Solutions Inc.*

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

[**R4-2201336**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201336.zip) **Draft CR to TS38.101-1: Some corrections for the tables due to introduction of 35MHz\_45MHz CBW**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: ZTE Corporation, Skyworks Solutions Inc.*

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

##### 5.26.1.2 NR-U 100MHz bandwidth

[**R4-2200177**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200177.zip) **Further discussion on co-existence proposal between NR-U 100 MHz channel raster and Wi-Fi in 5 GHz (n46)**

*Type: Work Plan For: Approval  
 Source: Charter Communications, Inc*

**Decision: Revised to** [**R4-2202156**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202156.zip) **(from** [**R4-2200177**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200177.zip)**).**

[**R4-2202156**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202156.zip) **Further discussion on co-existence proposal between NR-U 100 MHz channel raster and Wi-Fi in 5 GHz (n46)**

*Type: Work Plan For: Approval  
 Source: Charter Communications, Inc*

**Decision: Return to.**

[**R4-2200437**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200437.zip) **On intra-carrier guard bands for the 100MHz NR-U channel**

*Type: discussion For: Decision  
 Source: Apple*

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

[**R4-2200505**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200505.zip) **NR-U Punctured Channel SEM for 100 MHz Bandwidth**

*Type: discussion For: Approval  
 Source: CableLabs*

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

#### 5.26.2 BS RF requirements

### 5.27 Introduction of bandwidth combination set 4 (BCS4) for NR

**[101-bis-e][110] NR\_BCS4\_MSD\_Inter\_Band\_ENDC, AI 5.27, 5.28 – Peng Zhang**

[**R4-2202210**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202210.zip) **Email discussion summary for [101-bis-e][110] NR\_BCS4\_MSD\_Inter\_Band\_ENDC**

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

**Abstract:**

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

**Decision: Revised to R4-2202310 (from R4-2202210).**

**[R4-2202310](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202210.zip) Email discussion summary for [101-bis-e][110] NR\_BCS4\_MSD\_Inter\_Band\_ENDC**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.27.1 UE RF requirements for BCS4/BCS5

[**R4-2200462**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200462.zip) **Handling of maximum aggregated channel bandwidth for BCS4/5**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This contribution discusses handling of maximum aggregated channel bandwidth for BCS4/5.

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

[**R4-2200463**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200463.zip) **MSD table improvements**

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

**Abstract:**

This contribution discusses handling of MSD table based on the approved WF of [[R4-2119878](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2119878.zip)].

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

[**R4-2200464**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200464.zip) **Draft CR: Clarification on no simultaneous signalling of BCS4 and 5 for 38.101-1**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

The draft CR clarifies that BCS4 and BCS5 are not allowed to be signalled simultaneously.

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

[**R4-2200465**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200465.zip) **Draft CR: Clarification on no simultaneous signalling of BCS4 and 5 for 38.101-3**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

The draft CR clarifies that BCS4 and BCS5 are not allowed to be signalled simultaneously.

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

[**R4-2200619**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200619.zip) **Draft CR to TS 38.307 on Release independence of band combination set 4 and 5**

*Type: draftCR For: Endorsement  
 38.307 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Abstract:**

This paper is to provide draft CR to TS 38.307 on Release independence of band combination set 4 and 5

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

[**R4-2201251**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201251.zip) **Discussion on simplifying extended MSD table**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

[**R4-2201252**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201252.zip) **Draft CR for 38.307 to introduce release independent method for BCS4/5**

*Type: draftCR For: Endorsement  
 38.307 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

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

[**R4-2201296**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201296.zip) **TP for TR 38.862 on the maximum aggregated bandwidth for intra-band CA with BCS4/BCS5**

*Type: pCR For: Approval  
 38.862 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Xiaomi*

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

[**R4-2202040**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202040.zip) **Discussion on NR-CA and EN-DC MSD Table Simplifications**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

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

#### 5.27.2 Discussion of LS on NR CA capability for BCS5 (R2-1209073)

[**R4-2201295**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201295.zip) **Reply LS on NR CA capability for BCS5**

*Type: LS out For: Approval  
 to RAN2  
 Source: Xiaomi*

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

### 5.28 Addition of MSD (Maximum Sensitivity Degradation) for inter-band EN-DC combinations (1 band LTE+1 band NR FR1) due to added channel bandwidths

#### 5.28.1 UE RF requirements

[**R4-2201253**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201253.zip) **Draft CR for 38.101-3 to introduce MSD requirements for missing bandwidths**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

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

### 5.29 High-power UE operation for fixed-wireless/vehicle-mounted use cases in Band 12, Band 5, Band 13, Band n5, Band n13, and Band n71

**[101-bis-e][111] LTE\_NR\_HPUE\_FWVM, AI 5.29 – Man Hung Ng**

[**R4-2202211**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202211.zip) **Email discussion summary for [101-bis-e][111] LTE\_NR\_HPUE\_FWVM**

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

**Abstract:**

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

**Decision: Revised to R4-2202311 (from R4-2202211).**

**[R4-2202311](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202211.zip) Email discussion summary for [101-bis-e][111] LTE\_NR\_HPUE\_FWVM**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.29.1 General

[**R4-2200703**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200703.zip) **TR 37.828 v0.1.0**

*Type: draft TR For: Approval  
 37.828 v0.0.1 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

In the Copyright Notification section, update the copyright year to 2022.

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

#### 5.29.2 Feasibility study

##### 5.29.2.1 Coexistence study between B5 and adjacent bands

[**R4-2200410**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200410.zip) **TP to TR 37.828: Coexistence study for High-power UE Vs adjacent channel Public Safety operation for fixed-wireless/vehicle-mounted use cases in Band 5 and Band n5**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This contribution provides some discussion on the coexistence studies between HPUE in Band 5 and adjacent channel public safety operation in the same geographical area, and a text proposal is provided below to record the discussion into the TR 37.828 [2]

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

##### 5.29.2.2 Coexistence study between B13/n13 and adjacent bands

##### 5.29.2.3 Filter with smaller duplex for B13, n13 and n71

##### 5.29.2.4 PA related to MPR and A-MPR for B13, n13, and n71

#### 5.29.3 UE RF requirements

##### 5.29.3.1 UE REFSENS

##### 5.29.3.2 UE Tx requirements (MOP, MPR, A-MPR, and ACLR)

[**R4-2200704**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200704.zip) **MPR study for PC1 FWA device**

*Type: pCR For: Approval  
 37.828 v0.0.1 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

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

### 5.30 High power UE (power class 2) for NR inter-band Carrier Aggregation with 2 bands downlink and 2 bands uplink

**[101-bis-e][112] NR\_PC2\_SUL\_CA\_lowMSD, AI 5.30, 5.32 – Bo Liu**

[**R4-2202212**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202212.zip) **Email discussion summary for [101-bis-e][112] NR\_PC2\_SUL\_CA\_lowMSD**

*Type: other For: Information  
 Source: Moderator (China Telecom)*

**Abstract:**

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

**Decision: Revised to R4-2202312 (from R4-2202212).**

[**R4-2202312**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202212.zip) **Email discussion summary for [101-bis-e][112] NR\_PC2\_SUL\_CA\_lowMSD**

*Type: other For: Information  
 Source: Moderator (China Telecom)*

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

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[**R4-2200768**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200768.zip) **Draft TR 38.841 v0.6.0: High power UE for NR inter-band Carrier Aggregation with 2 bands downlink and x bands uplink (x =1,2)**

*Type: draft TR For: Approval  
 38.841 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: China Telecom*

**Abstract:**

[Email Approval] draft TR for email approval

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

[**R4-2200769**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200769.zip) **Draft CR to 38.101-1 Introduce RF requirements for HPUE CA with 2 bands downlink and x bands uplink (x =1,2)**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: China Telecom*

**Abstract:**

draft big CR for email approval

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

#### 5.30.1 UE RF requirements

[**R4-2200304**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200304.zip) **DraftCR to 38.101-1 for HPUE CA with 2 bands downlink and x bands uplink (x =1,2)**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Verizon Denmark*

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

[**R4-2201225**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201225.zip) **Draft CR to 38.101-1 corrections on Tx power configuration on IMD requirement for high power UE inter-band CA**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Xiaomi*

**Abstract:**

For PC2 IMD requirments, MSD value is derived by assuming 3dB higher Tx power that that for PC3, therefore current Tx power configuration shall be change to min(+23 dBm, PCMAX\_L,f,c) for PC2 case.

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

[**R4-2201680**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201680.zip) **TP for TR 38.841 Addition of CA\_n29-n77**

*Type: pCR For: Approval  
 38.841 v0.5.0 CR- rev Cat: (Rel-17)  
  
 Source: AT&T*

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

[**R4-2201717**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201717.zip) **DraftCR to 38.101-1 for HPUE CA with 2 bands downlink and x bands uplink (x =1,2)**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Verizon, AT&T*

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

[**R4-2202041**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202041.zip) **Power Class notation for BCSs**

*Type: discussion For: Approval  
 Source: T-Mobile USA*

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

[**R4-2202042**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202042.zip) **Draft CR for 38.101-1: Addition of PC2 and PC1.5 for DL CA\_n41(2A) UL n41**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: T-Mobile USA*

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

[**R4-2202043**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202043.zip) **Draft CR for 38.101-1: Addition of PC2 and PC1.5 for combinations with n25 and n41**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: T-Mobile USA*

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

[**R4-2202044**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202044.zip) **Draft CR for 38.101-1: Addition of PC2 and PC1.5 for combinations with n41 and n66**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: T-Mobile USA*

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

[**R4-2202045**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202045.zip) **Draft CR for 38.101-1: Addition of PC2 and PC1.5 for combinations with n41 and n71**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: T-Mobile USA*

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

### 5.31 High power UE (power class 2) for EN-DC with 1 LTE band + 1 NR TDD band

**[101-bis-e][113] NR\_PC2\_EN-DC, AI 5.31, 5.33 – Per Lindell**

[**R4-2202213**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202213.zip) **Email discussion summary for [101-bis-e][113] NR\_PC2\_EN-DC**

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

**Abstract:**

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

**Decision: Revised to R4-2202313 (from R4-2202213).**

**[R4-2202313](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202213.zip) Email discussion summary for [101-bis-e][113] NR\_PC2\_EN-DC**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.31.1 UE RF requirements

[**R4-2200305**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200305.zip) **TP for TR 37.826 for DL DC\_48\_n77**

*Type: discussion For: Approval  
 Source: Verizon Denmark*

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

### 5.32 Power Class 2 UE for NR inter-band CA and SUL configurations with x (x>2) bands DL and y (y=1, 2) bands UL

**[101-bis-e][112] NR\_PC2\_SUL\_CA\_lowMSD, AI 5.30, 5.32 – Bo Liu**

[**R4-2202020**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202020.zip) **MSD update needed for PC2 and PC1.5 UL configurations**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

In R4#101 e-meeting two CRs [1,2] added single UL PC2 and PC1.5 configurations to the intra-band and inter-band RC CA combinations and configurations. At this point it is unclear if a new or increased MSD has been considered for these higher power UL conf

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

#### 5.32.1 UE RF requirements

### 5.33 Power Class 2 for EN-DC with xLTE band + yNR DL with 1LTE+1(TDD) NR UL band (x= 2, 3, 4, y=1; x=1, 2, y=2)

**[101-bis-e][113] NR\_PC2\_EN-DC, AI 5.31, 5.33 – Per Lindell**

#### 5.33.1 UE RF requirements

[**R4-2200303**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200303.zip) **DraftCR to add EN-DC PC2 band combinations with more than 2 bands**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Verizon Denmark*

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

[**R4-2200306**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200306.zip) **TP for TR 37.827 for DC\_2-5\_n2-n77**

*Type: discussion For: Approval  
 Source: Verizon, Samsung*

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

[**R4-2200308**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200308.zip) **TP for TR 37.827 for DC\_2-5\_n66-n77**

*Type: discussion For: Approval  
 Source: Verizon Denmark*

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

[**R4-2200309**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200309.zip) **TP for TR 37.827 for DC\_2-5-66\_n2-n77**

*Type: discussion For: Approval  
 Source: Verizon Denmark*

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

[**R4-2200310**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200310.zip) **TP for TR 37.827 for DC\_2-5-66\_n66-n77**

*Type: discussion For: Approval  
 Source: Verizon, Samsung*

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

[**R4-2200311**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200311.zip) **TP for TR 37.827 for DC\_2-5-66\_n77**

*Type: discussion For: Approval  
 Source: Verizon, Samsung*

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

[**R4-2200313**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200313.zip) **TP for TR 37.827 for DC\_2-13\_n66-n77**

*Type: discussion For: Approval  
 Source: Verizon, Samsung*

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

[**R4-2200314**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200314.zip) **TP for TR 37.827 for DC\_2-13-66\_n66-n77**

*Type: discussion For: Approval  
 Source: Verizon, Samsung*

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

[**R4-2200315**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200315.zip) **TP for TR 37.827 for DC\_2-13-66\_n77**

*Type: discussion For: Approval  
 Source: Verizon, Samsung*

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

[**R4-2200316**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200316.zip) **TP for TR 37.827 for DC\_2-66\_n66-n77**

*Type: discussion For: Approval  
 Source: Verizon, Samsung*

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

[**R4-2200317**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200317.zip) **TP for TR 37.827 for DC\_5-66\_n2-n77**

*Type: discussion For: Approval  
 Source: Verizon, Samsung*

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

[**R4-2200318**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200318.zip) **TP for TR 37.827 for DC\_5-66\_n66-n77**

*Type: discussion For: Approval  
 Source: Verizon, Samsung*

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

[**R4-2200319**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200319.zip) **TP for TR 37.827 for DC\_5-66\_n77**

*Type: discussion For: Approval  
 Source: Verizon, Samsung*

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

[**R4-2200320**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200320.zip) **TP for TR 37.827 for DC\_13-66\_n66-n77**

*Type: discussion For: Approval  
 Source: Verizon, Samsung*

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

[**R4-2201684**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201684.zip) **DraftCR 38.101-3 Addition of PC2 EN-DC Combinations**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: AT&T*

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

### 5.34 High power UE for NR TDD intra-band carrier aggregation in frequency range FR1

#### 5.34.1 UE RF requirements

### 5.35 Increasing UE power high limit for CA and DC

**[101-bis-e][114] NR\_Power\_Limit\_CA\_DC, AI 5.35 – Gene Fong**

[**R4-2202214**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202214.zip) **Email discussion summary for [101-bis-e][114] NR\_Power\_Limit\_CA\_DC**

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

**Abstract:**

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

**Decision: Revised to R4-2202314 (from R4-2202214).**

**[R4-2202314](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202214.zip) Email discussion summary for [101-bis-e][114] NR\_Power\_Limit\_CA\_DC**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.35.1 General and work plan

#### 5.35.2 Feasibility and impact study

[**R4-2200454**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200454.zip) **Comparison between variants of “the sum method”**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This contribution addresses the issues captured in the approved WF of [R4-2120064](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2120064.zip).

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

[**R4-2200494**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200494.zip) **Implementation aspects of increasing MOP for PC2 inter-band ULCA**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

In this contribution, we further examine the different PC2 inter-band cases with a focus on the cases where one band is based on a 2Tx PC2 or PC1.5 implementation.

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

[**R4-2200852**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200852.zip) **Increasing UE power high limit for CA and DC by existing signaling**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

In this contribution we propose to reuse existing signaling mechanism to increase the power limit for CA and DC

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

[**R4-2200965**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200965.zip) **Further discussion on the increasing UE power high limit for CA and DC**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201278**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201278.zip) **R17 UE power class high limit**

*Type: discussion For: Approval  
 Source: OPPO*

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

[**R4-2201334**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201334.zip) **Further discussion on increase UE maximum power for NR uplink inter band CA**

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

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

[**R4-2201836**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201836.zip) **On Increasing MOP for NR inter-band CA**

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

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

#### 5.35.3 UE RF requirements

[**R4-2200440**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200440.zip) **UE maximum output power for inter-band UL CA**

*Type: other For: Approval  
 Source: Apple*

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

[**R4-2200455**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200455.zip) **UE RF requirements for the sum method**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This contribution shares concrete examples of the requirements for PC2+PC3 based on the respective option 2 and 3 [[R4-2200454](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200454.zip)].

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

[**R4-2201229**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201229.zip) **Discussion on increasing UE maximum power high limit**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

[**R4-2201265**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201265.zip) **RF requirements impact for Increased MOP for CA and DC**

*Type: other For: Approval  
 Source: InterDigital, Inc.*

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

[**R4-2201856**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201856.zip) **Higher output power for CA and DC**

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

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

### 5.36 High power UE (power class 2) for NR FDD band

**[101-bis-e][115] NR\_PC2\_UE\_FDD, AI 5.36 – Basaier Jialade**

[**R4-2202215**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202215.zip) **Email discussion summary for [101-bis-e][115] NR\_PC2\_UE\_FDD**

*Type: other For: Information  
 Source: Moderator (China Unicom)*

**Abstract:**

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

**Decision: Revised to R4-2202315 (from R4-2202215).**

**[R4-2202315](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202215.zip) Email discussion summary for [101-bis-e][115] NR\_PC2\_UE\_FDD**

*Type: other For: Information  
 Source: Moderator (China Unicom)*

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.36.1 General and work plan

#### 5.36.2 UE RF requirements

[**R4-2200908**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200908.zip) **Hybrid duplex operation for PC2 FDD bands**

*Type: other For: Approval  
 Source: Apple*

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

[**R4-2201226**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201226.zip) **Discussion on HP UE for FDD bands**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

##### 5.36.2.1 UE maximum output power and power tolerance

##### 5.36.2.2 A-MPR requirements

[**R4-2200444**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200444.zip) **HPUE A-MPR Proposal for NS\_05**

*Type: discussion For: Approval  
 Source: Apple*

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

[**R4-2200445**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200445.zip) **HPUE A-MPR Proposal for NS\_48**

*Type: discussion For: Approval  
 Source: Apple*

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

[**R4-2200446**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200446.zip) **HPUE A-MPR Proposal for NS\_49**

*Type: discussion For: Approval  
 Source: Apple*

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

[**R4-2200447**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200447.zip) **HPUE A-MPR Proposal for NS\_100**

*Type: discussion For: Approval  
 Source: Apple*

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

[**R4-2201834**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201834.zip) **On A-MPR requirements for PC2 FDD bands**

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

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

[**R4-2202008**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202008.zip) **A-MPR for Bandwidth Parts**

*Type: discussion For: Discussion  
 Source: Lenovo, Motorola Mobility*

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

##### 5.36.2.3 PC2 MSD requirements (investigation for HD-FDD)

[**R4-2200441**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200441.zip) **NR FDD HPUE MSD and system performance analyses**

*Type: other For: Discussion  
 Source: Apple*

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

[**R4-2200964**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200964.zip) **Further discussion on half duplex operation under HPUE**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201070**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201070.zip) **MSD analysis for PC2 FDD UE**

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

**Abstract:**

In this contribution, we provide expected sensitivity degradation for PC2 FDD UE in NR band n1 and n3.

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

[**R4-2201338**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201338.zip) **Discussion on HPUE FDD MSD**

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

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

[**R4-2201835**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201835.zip) **On MSD requirements for PC2 FDD bands**

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

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

### 5.37 Additional NR bands for UL-MIMO

**[101-bis-e][116] LTE\_NR\_Other\_WI, AI 5.37, 5.38, 5.39, 8.7, 8.9.2, 8.9.3 – Jin Wang**

[**R4-2202216**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202216.zip) **Email discussion summary for [101-bis-e][116] LTE\_NR\_Other\_WI**

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

**Abstract:**

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

**Decision: Revised to R4-2202316 (from R4-2202216).**

**[R4-2202316](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202216.zip) Email discussion summary for [101-bis-e][116] LTE\_NR\_Other\_WI**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.37.1 UE RF requirements

[**R4-2201759**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201759.zip) **Draft CR for n24 and n99 UL-MIMO PC3**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ligado Networks*

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

### 5.38 Downlink interruption for band combinations to conduct dynamic Tx Switching

**[101-bis-e][116] LTE\_NR\_Other\_WI, AI 5.37, 5.38, 5.39, 8.7, 8.9.2, 8.9.3 – Jin Wang**

[**R4-2200770**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200770.zip) **Draft CR to 38.101-1 Introduce DL interruption clarification for CA conduting Tx Switching**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: China Telecom*

**Abstract:**

draft big CR for email approval

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

#### 5.38.1 Determination of inter-band uplink CA and EN-DC combinations for which DL interruption is not allowed

### 5.39 Simultaneous Rx/Tx band combinations for CA, SUL, MR-DC and NR-DC

**[101-bis-e][116] LTE\_NR\_Other\_WI, AI 5.37, 5.38, 5.39, 8.7, 8.9.2, 8.9.3 – Jin Wang**

[**R4-2200566**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200566.zip) **Clarification on per-band-pair simultaneous RxTx capability**

*Type: other For: Approval  
 Source: NTT DOCOMO INC.*

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

#### 5.39.1 MSD threshold principle

[**R4-2200354**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200354.zip) **Discussion on the simultaneous Rx/Tx capability for FR1+FR1 FDD-TDD band combination**

*Type: other For: Approval  
 Source: SoftBank Corp.*

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

[**R4-2201067**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201067.zip) **Discussion on simultaneous RxTx capability for FR1 FDD-TDD band combination**

*Type: discussion For: Approval  
 Source: Samsung*

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

[**R4-2201230**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201230.zip) **Discussion on principle for simultaneous Rx Tx band combinations for CA, SUL, MR-DC and NR-DC**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

[**R4-2201340**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201340.zip) **Simultaneous Rx/Tx capability for FR1+FR1 FDD-TDD band combination**

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

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

[**R4-2201954**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201954.zip) **Further consideration on the MSD principle for FR1 FDD-TDD band combination**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

[**R4-2201955**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201955.zip) **TP for TR 38.839: Principles for simultaneous RxTx capability**

*Type: pCR For: Approval  
 38.839 v0.1.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

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

#### 5.39.2 FR2 band combinations with simultaneous Rx/Tx

[**R4-2200567**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200567.zip) **View on FR2 simultaneous Tx/Rx discussion**

*Type: discussion For: Approval  
 Source: MediaTek Beijing Inc.*

**Abstract:**

Proposal: Add NOTE to clarify the minimum requirements apply only when there is non-simultaneous Rx/Tx operation for CA\_n257-n259 and CA\_n258-n260, as CA\_n260-n261.

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

[**R4-2201341**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201341.zip) **DRAFT CR to TS 38.101-2: On Simultaneous RxTx capability for FR2 inter-band CA**

*Type: draftCR For: Endorsement  
 38.101-2 v16.10.0 CR- rev Cat: F (Rel-16)  
  
 Source: ZTE Corporation*

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

[**R4-2201342**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201342.zip) **DRAFT CR to TS 38.101-2: On Simultaneous RxTx capability for FR2 inter-band CA**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: A (Rel-17)  
  
 Source: ZTE Corporation*

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

[**R4-2201343**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201343.zip) **Draft CR to TS38.101-2[R17] On Simultaneous RxTx capability for FR2 inter-band CA\_n257-n259 and CA\_n258-n260**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: ZTE Corporation*

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

[**R4-2201956**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201956.zip) **Further consideration on the simultaneous Rx/Tx capability for FR2 TDD-TDD band combination**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

### 5.40 4Rx support for NR band n8

**[101-bis-e][117] NR\_4Rx\_Bn8\_FWA, AI 5.40 – Jinqiang Xing**

[**R4-2202217**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202217.zip) **Email discussion summary for [101-bis-e][117] NR\_4Rx\_Bn8\_FWA**

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

**Abstract:**

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

**Decision: Revised to R4-2202317 (from R4-2202217).**

**[R4-2202317](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202217.zip) Email discussion summary for [101-bis-e][117] NR\_4Rx\_Bn8\_FWA**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 5.40.1 UE RF requirements (delta\_R\_IB,4Rx)

[**R4-2201347**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201347.zip) **On band n8 support 4Rx**

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

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

[**R4-2201372**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201372.zip) **draft CR for 4 Rx antenna ports support of band n8**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: CHTTL*

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

#### 5.40.2 Release independency

[**R4-2201413**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201413.zip) **Discussion on release independent for 4Rx support for NR band**

*Type: discussion For: Approval  
 Source: CHTTL*

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

## 6 Rel-17 non-spectrum related work items for NR

### 6.1 Multiple Input Multiple Output (MIMO) Over-the-Air (OTA) requirements for NR UEs

#### 6.1.1 General

#### 6.1.2 Performance requirements

##### 6.1.2.1 Performance Requirements for FR1

##### 6.1.2.2 Performance Requirements for FR2

##### 6.1.2.3 MU assessment for FR1 and FR2

#### 6.1.3 Testing methodologies

##### 6.1.3.1 Testing parameters for Performance

##### 6.1.3.2 Optimization of test methodologies

##### 6.1.3.3 Channel model validation

### 6.2 Introduction of UE TRP (Total Radiated Power) and TRS (Total Radiated Sensitivity) requirements and test methodologies for FR1 (NR SA and EN-DC)

#### 6.2.1 General and work plan

#### 6.2.2 Test methodology

##### 6.2.2.1 SA test methodology

##### 6.2.2.2 EN-DC test methodology

##### 6.2.2.3 UE with multiple antennas test methodology

##### 6.2.2.4 Test time reduction

#### 6.2.3 Performance requirements

##### 6.2.3.1 Framework for lab alignment and requirements

##### 6.2.3.2 SA requirements

##### 6.2.3.3 EN-DC requirements

### 6.3 RF requirements enhancement for NR frequency range 1 (FR1)

#### 6.3.1 General

**[101-bis-e][118]** **NR\_RF\_FR1\_enh\_IntraHPUE, AI 6.3.1, 6.3.2 – Ye Liu**

[**R4-2202218**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202218.zip) **Email discussion summary for [101-bis-e][118] NR\_RF\_FR1\_enh\_IntraHPUE**

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

**Abstract:**

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

**Decision: Revised to R4-2202318 (from R4-2202218).**

[**R4-2202318**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202218.zip) **Email discussion summary for [101-bis-e][118] NR\_RF\_FR1\_enh\_IntraHPUE**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

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[**R4-2200019**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200019.zip) **draft CR: UL MIMO coherence for Tx switching**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: China Telecom*

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

[**R4-2200499**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200499.zip) **Requirement and signaling aspect of features requiring two transmit paths**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

In this contribution, we highlight all the relevant cases for varying feature implementations with two transmit paths (TxD, UL MIMO, intra-band ULCA) and their R17 status, while identifying missing requirements. We also provide further clarification and g

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

[**R4-2200958**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200958.zip) **TP for TR 38.837 on Power Class clarification**

*Type: pCR For: Approval  
 38.837 v0.2.0 CR- rev Cat: (Rel-17)  
  
 Source: vivo*

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

[**R4-2201228**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201228.zip) **PC2 PA configuration and signalling**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

[**R4-2201590**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201590.zip) **3GPP TR 38.837 v0.3.0**

*Type: draft TR For: Approval  
 38.837 v0.2.0 CR- rev Cat: (Rel-17)  
  
 Source: vivo*

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

#### 6.3.2 RF core requirements

##### 6.3.2.1 UL MIMO configuration for SUL band configurations

##### 6.3.2.2 HPUE for TDD intra-band contiguous UL CA

[**R4-2200334**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200334.zip) **Requirements for different architectures and their capabilities**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

[**R4-2200497**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200497.zip) **Signaling for contiguous ULCA cases**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

Although the MPR values are correct, some signaling aspects related to enabling implementations with 2LO with two PC2 PAs require additional consideration. In this contribution, we provide further clarification and guidance on related signaling aspects.

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

[**R4-2201593**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201593.zip) **Draft CR TS 38.101-1 R17: Introduction of PC2 contiguous ULCA MPR for 2Tx**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

Correction of Signaling aspects and addition of 2Tx MPR.

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

##### 6.3.2.3 HPUE for TDD intra-band non-contiguous UL CA

[**R4-2200335**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200335.zip) **draft CR to remove dualPA from Rel-16 specs**

*Type: draftCR For: Endorsement  
 38.101-1 v16.10.0 CR- rev Cat: (Rel-16)  
  
 Source: Qualcomm Incorporated*

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

[**R4-2200336**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200336.zip) **2CC LO location reportting and dualPA capability in rel-16**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

[**R4-2200498**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200498.zip) **Requirement and signaling aspect of non-contiguous ULCA**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

PC2 non-contiguous ULCA MPR for 1LO architectures were agreed in [1], there was also an open aspect on how to differentiate 1LO and 2LO architectures that have a different MPR requirement. In this contribution, we provide further clarification on related

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

[**R4-2201674**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201674.zip) **Draft CR TS 38.101-1 R17: Addition of PC2 non-contiguous ULCA MPR requirements**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

PC2 non-contiguous ULCA MPR is captured for 1LO and 2LO architectures based on WF agreements.

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

[**R4-2201943**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201943.zip) **Big CR for PC2 intra-band non-contiguous UL CA**

*Type: CR For: Agreement  
 38.101-1 v17.4.0 CR-0987 rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon, Qualcomm*

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

[**R4-2201944**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201944.zip) **Consideration on signalling to differentiate MPR for different architectures**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

##### 6.3.2.4 Intra-band UL contiguous CA for UL MIMO (n41C and n78C)

[**R4-2200493**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200493.zip) **Signalling on PC2 intra-band NC UL CA for FR1**

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

**Abstract:**

This contribution discusses signalling aspects based on approved WF of [[R4-2119955](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2119955.zip)].

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

[**R4-2200495**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200495.zip) **MPR for PC2 intra-band contiguous ULCA&MIMO 26+23 case**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

In this contribution, we provide additional measured data for 2Tx PC2 contiguous UL CA for 26+23dBm PA architecture, compare them to PC2 1Tx and 23+23 2Tx results and make MPR proposals.

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

[**R4-2200956**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200956.zip) **Discussion on MPR applicability and reference architectures for CA +UL MIMO and TxD**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201069**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201069.zip) **MPR and capability signaling for 2Tx PC2 intra-band contiguous UL CA with UL MIMO**

*Type: discussion For: Approval  
 Source: Samsung*

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

[**R4-2201270**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201270.zip) **R17 FR1 UL CA and UL MIMO MPR**

*Type: discussion For: Approval  
 Source: OPPO*

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

[**R4-2201800**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201800.zip) **DraftCR on TS 38.101-1 on ULCA + ULMIMO**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Wistron Telecom AB*

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

[**R4-2201946**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201946.zip) **On RF requirements for PC2 intra-band UL CA with UL MIMO**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

[**R4-2201947**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201947.zip) **Big CR for TS 38.101-1: contiguous CA with UL MIMO for power class 2**

*Type: CR For: Agreement  
 38.101-1 v17.4.0 CR-0988 rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

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

##### 6.3.2.5 Solution preventing transmission power dropping on cell with lower priority

[**R4-2200337**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200337.zip) **Solution for SCell dropping**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

[**R4-2200957**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200957.zip) **Further discussion on Scell dropping**

*Type: discussion For: Discussion  
 Source: vivo*

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

###### 6.3.2.5.1 FR1 related

[**R4-2200853**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200853.zip) **Further details on resolving the Scell dropping (power prioritization) problem by power limits**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

Further background to the solution of the Scell power prioritization problems by means of serving cell power limits (both FR1 and FR2 explained)

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

[**R4-2200854**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200854.zip) **Introduction of power limits for serving cells of UL CA**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Draft CR to introduce power limits for serving cells of UL CA to prevent power reduction of serving cells for power limited UEs when the power reduction is enabled (FR1)

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

[**R4-2201068**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201068.zip) **Discussion on transmission power dropping on cell with low priority**

*Type: discussion For: Approval  
 Source: Samsung*

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

[**R4-2201945**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201945.zip) **On SCell dropping**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

###### 6.3.2.5.2 FR2 related

[**R4-2200855**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200855.zip) **Introduction of power limits for serving cells of UL CA**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Draft CR to introduce power limits for serving cells of UL CA to prevent power reduction of serving cells for power limited UEs when the power reduction is enabled (FR2)

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

#### 6.3.3 RRM core requirements

#### 6.3.4 RRM performance requirements

### 6.4 NR RF requirement enhancements for frequency range 2 (FR2)

#### 6.4.1 General

**[101-bis-e][119] NR\_RF\_FR2\_enh2\_Part\_1, AI 6.4.1, 6.4.2 – Petri Vasenkari**

[**R4-2202219**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202219.zip) **Email discussion summary for [101-bis-e][119] NR\_RF\_FR2\_enh2\_Part\_1**

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

**Abstract:**

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

**Decision: Revised to R4-2202319 (from R4-2202219).**

[**R4-2202319**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202219.zip) **Email discussion summary for [101-bis-e][119] NR\_RF\_FR2\_enh2\_Part\_1**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**GTW on Jan-18**

**Issue 4-1-1: The requirement definition for inter-band DL CA between different band groups should only be based on multi-chain architecture.**

* Proposals
  + Option 1: Yes
  + Option 2: Also single chain architecture needs to be considered
* Moderator comment
  + Both options got support. RAN4#99 agreement
    - *RAN4 agrees to define CBM requirements in such manner that both single chain and multi chain architectures are possible.*

**Discussion:**

Qualcomm: Agree with the moderator that there is agreement. At least for CA between frequency groups, it is not feasible to have single chain design. We would like to further discuss it.

Nokia: it is proposed to define the refsen with minimum degradation.

Apple: Support Option 1. Single chain is not feasible considering different frequency band based on CBM.

DOCOMO: Support Option 1.

Mediatek: Echo Apple. It will not limit UE implementation.

Samsung: The issue here seems a little confusing. There is misunderstanding. Some companies only consider CA in the different frequency groups. The issue here is for framework.

Huawei: Agree with Nokia. We should consider both architectures. Now we discuss how to define the requirements. We do not need go back and forth about the architeure.

Nokia: If going with Option1, the requirement design would be difficult.

Ericsson: Appreciate NTT DOCOMO intention to minimize the degradation. Revisiting the early agreement makes it difficult to complete it in Rel-17. We propose to stick with the previous agreement.

OPPO: agree with sticking with the previous agreement. The only possibility to reuse the existing design is to follow single panel. Multiple panels which seem difficult.

Vivo: Option 1.

Sony: Stick to previous agreement. When defining the requirements, we should base on multiple-chains.

Mediatek: We understand intention. The key is that we do know single chain is difficult for different band group. We can discuss the reasonable requirement.

Apple: multi-chain was introduced to support CBM for different frequency groups. The same frequency assumes single chains. The requirements based on multi=chain does not contradict with the previous agreement.

ZTE: stick to previous agreement.

Xiaomi: stick with the previous agreements.

Samsung: Option 2 does not mandate UE to support single chain.

Qualcomm: should we define to capability to indicate the tolerance of high PSD?

Nokia: we should focus on requirements.

**Issue 4-2-1: REFSENS**

* Proposals
  + Option 1: The PSD different between the two CCs for CBM sensitivity test should be minimized while it shall ensure the devices can meet sensitivity requirement on both CCs simultaneously.
  + Option 2: PSD difference can be the same as IBM, i.e., set the power level of untested band as spherical coverage requirement.
  + Option 3: For CBM sensitivity requirements (peak EIS and EIS spherical coverage), adopt normalized equal PSD (CC1 and CC2 achieve sensitivity status simultaneously).
* Moderator comment
  + Option 2 and 3 got support (note 1 is very similar to 3). If above quoted RAN4#99 agreement on UE architecture is respected, then option 2 is not possible hence option 3 should be selected.

**Discussion:**

Qualcomm: Option 2 and Option 3 are dramatically different and it seems difficult to converge.

Samsung: If following the previous agreement, Option 2 is precluded. We can make middle way between Option 1 and Option 3.

Nokia: We do not prefer the capability for applying option 2 and option 3. Option 1 and 3 are fine for us.

OPPO: agree with Nokia and Samsung. Support Option 1 and 3.

VIVO: this is related to previous one. If both architectures are feasible, Option 3 is OK. Otherwise no big difference …

Huawei: PSD could be different for different implementation. PSD difference is for different deployment scenario. Capability should not limit the deployment.

Ericsson: Go with Option 1 or 3. For beam management, beam correspondence should be supported in co-located scenario. PSD should be equal. We agree with Nokia.

Sony: Support Option 1 and accept middle ground between 1 and 3.

Qualcomm: we can go with 1 and 3.

Xiaomi: the test configuration should distinguish the frequency groups. Considering CBM for inter-band CA within the same frequency group, we prefer 1 and 3.

Mediatek: although CBM requirements are derived from collocated, the path loss would be different. Similar PSD difference assumption is not reasonable. We prefer Option 2.

Huawei: for non-collocated scenario, we need consider option 2 as well.

VIVO: we have the same concern as Huawei. Equal PSD cannot be guaranteed in the real network.

Apple: we agree with Nokia and Ericsson. For FR1, we never discuss the requirement with PSD difference.

**Tentative agreement:** Define the minimum CBM sensitivity requirements on the condition of normalized equal PSD.

* It does not limit the CBM to collocated scenario with equal PSD.
* ~~It does not preclude other scenarios where PSD is unequal.~~

**Issue 4-2-4: Maximum input level**

* Proposals
  + Option 1: If max input level of CBM is to be defined per-band, 3dB relaxation per-band is needed
  + Option 2: If max input level of CBM is to be defined as summed power of DL CCs among bands, the same requirement as single carrier apply
* Moderator comment
  + Both options give same outcome, proponent prefers option 1 for simplicity. Seek approval for option 1.

**Agreement:** for maximum input level, agree on Option 1.

**Issue 4-2-5: ACS and IBB**

* Proposals
  + Option 1: in-gap exemption for ACS and IBB apply for FR2 inter-band CA no matter IBM or CBM.
  + Option 2: Other
* Moderator comment
  + Unanimous support for option 1. Seek approval for option 1.

**Discussion:**

Qualcomm: We can treat IBM and CBM separately.

Samsung: if removing IBM, the previous agreement has covered CBM already.

Qualcomm: it change what the filter is required, if aligning with CBM. We would like focus on finalizing the requirement for CBM.

**Sub-topic 4-3: BMRS**

**Issue 4-3-1: Configuration and side condition**

* Proposals (Can support more than one)
  + Option 1: Configuration and side condition of reference signal of the Band\_with\_BMRS is as single-band beam correspondence operation
  + Option 2: “QCLed with the other CC in Band\_with\_BMRS” shall be applied for the reference signal of Band\_without\_BMRS.
  + Option 3: LS to RAN1 to raise the requirement on “SSB QCLed with the other CC in Band\_with\_BMRS” for the reference signal of Band\_without\_BMRS.
  + Option 4: Reference signal power level of the two bands, Band\_with\_BMRS and Band\_without\_BMRS, shall be equal for CBM.
  + Option 5: The reference signal configuration, side condition, power level and QCLed behavior are applied for both “different frequency groups” and “within same frequency group” based on CBM.
  + Option 6: No need to specify the BMRS side condition for CBM in R17 and only inform RAN5 that the BMRS type is the same as IBM.
* Moderator comment
  + 1 and 5 seems to be agreeable to most
    - Option 1: Configuration and side condition of reference signal of the Band\_with\_BMRS is as single-band beam correspondence operation
    - Option 5: The reference signal configuration, side condition, power level and QCLed behavior are applied for both “different frequency groups” and “within same frequency group” based on CBM.
  + Also 2 got support but one company had issue with wording, new wording was provided
    - “QCLed with the other CC in Band\_with\_BMRS” shall be applied for the SSB and/or CSI-RS of Band\_without\_BMRS.
  + If we cannot get consensus above then option 6 is only choice and we should agree it in this GTW
    - Option 6: No need to specify the BMRS side condition for CBM in R17 and only inform RAN5 that the BMRS type is the same as IBM.

**Discussion:**

Huawei: need clarification on the condition for option 5?

Mediatek: for band with BMRS, single band condition is applied. The key difference is that band with BMRS needs sync while UE copy the sync information from band with BMRS on the band without BMRS.

Huawei: Option 2 and 6 should be considered too. The test can be left to RAN5.

OPPO: for option 2, what is the reference signal? We do not find the definition.

Mediatek: SSB and/or CSI-RS.

VIVO: Option 3 needs further discussion.

Mediatek: Option 1~5 are agreeable.

Qualcomm: the working needs more discussion.

**Agreement:**

* Agree on Option 1 and Option 5.
* Further discussion Option 2, 3 and 6.

**Sub-topic 4-4: Verification**

**Issue 4-4-1: verification rules for inter-band CA supporting ‘both’**

* Proposals (Can support more than one)
  + Option 1: if the measured sensitivity of CBM has already satisfied the delta\_RIB requirements of IBM, then the IBM sensitivity verification is not necessary
  + Option 2: if the max input level is already met with IBM requirements, then it is not necessary to verify the CBM requirements
  + Option 3: ACS and IBB can be verified with either IBM or CBM
* Moderator comment
  + No objection to option 3.

**Discussion:**

Samsung: we propose to agree on Option 3. Besides, we can agree on for the inter-band CA supporting both RAN4 can further discuss the verification rules.

Ericsson: It is more question for RAN5 for conformance test. We can assist RAN5 which test will be run.

Oppo: Option 2 can be agreed. If UE can meet the input level requirement it can also meet CBM requirement.

Nokia: Agree with Ericsson. We need to do verification reduction. RESFENS should be applied for both IBM and CBM. For others we prefer Option 3.

Sony: we are positive to further discuss the verification. Some high level requirement is agreement.

**Agreement:** Agree on Option 2 and Option 3.

* For the inter-band CA supporting both RAN4 can further discuss the verification rules.
* FFS Option 1.

**Sub-topic 4-5: Beam management capabilities**

**Issue 4-5-1: UE-centric description is adopted in IBM and CBM definition.**

* Proposals
  + Option 1: refine the IBM and CBM definition to highlight the per-BC characteristics to avoid confusion.
  + Option 2: Not needed
* Moderator comment
  + Companies support option 1 but need to see concreate text proposal. Intent can be agreed and further discuss the text in this meeting.

**Discussion:**

**Agreement:** Agree on Option 1 in principle but need check the concrete wording.

**Issue 3-1-1: Fs\_Inter capability**

* Proposals
  + Option 1: Is introduced
  + Option 2: Is introduced. No additional EIS relaxation specific for frequency separation factor is acceptable,
  + Option 3: Introduce Fs\_inter\_CBM with MSD\_Fs\_inter\_CBM = {2dB, 4dB, 6dB, 8dB, …} to indicate addition DL spectrum that suffer from the hardware limitation
  + Option 4: Is not introduced
  + Option 5: Is not introduced but Delta\_RIB together with EIS relaxation for Fs\_inter are defined
* Moderator comment
  + All options got support

**Discussion:**

Nokia: no operators raised the request.

Qualcomm: we have strong concern. It breaks the definition of inter-band CA.

OPPO: Regarding FS\_inter\_capability, this is introduced for single chain UE. In intra-band CA case, we use the EIS relaxation. For inter-band CBM case, we can follow the same approach. We can do spec without capability.

DOCOMO: We prefer Option 3 and 5. UE should support all the options for CA. We may consider limitation of implementation. Option 3 is compromise.

Huawei: it is necessary to introduce the capability to consider the UE implementation. We can follow intra-band case. For option 3, we have concern.

Ericsson: It would be beneficial to clarify what the capability implies and what the implemetation limitation is. It would be very complicated to configure it, if capability is defined. If the performance difference is very large, we can consider different requirement. If the performance cannot be guaranteed, UE can report not to support.

Sony: we do not see the need to introduce the capability.

VIVO: Option 3 could be compromise. UE can report the degradation and network can get the whole picture of the UE performance. If the degradation is acceptable to network, network can still schedule.

Qualcomm: It is possible to define Delta\_RIB based on worse case of frequency separation.

Apple: it is not necessary to introduce the capability. But the requirement with relaxation can be defined for different separation.

OPPO: Option 5 is preferred.

Mediatek: We have agreement to define CBM for multi-chain and single chain. Option 3 would be middle.

Samsung: Agree with Nokia. It is better to be careful to introduce the signaling. CBM requirement should follow IBM framework except for Delta-RIB. It is better to look into the worse case. If it is compareable with IBM, UE can follow IBM framework.

Nokia: we do not support introduce Fs\_Inter-capability. We wonder what the purpose is to introduce the signaling.

Huawei: one concern is to introduce the separation capability. We can consider option 2.

Qualcomm: For NC intra-band CA, the enhancement is how much bandwidth UE can support. The separation is used for UE to indicate how much enhancement is. For inter-band, the enhancement is how many bands UE can support.

Sony: Not to introduce the Fs does not mean we do not address the different implementation.

Ericsson: agree with Nokia. There is no value to indicate 2dB in conformance testing.

Mediatek: we can have partial support. We are OK to have Fs but no any relaxation.

Huawei: We disagree with Qualcomm. For NC CA we also need consider the gap between CCs which is limited by UE hardware limitation.

OPPO: combine Fs and Delta-RIB together for discussion.

LGE: we can define the new terminology if inter-band CA term is broken.

**Agreement:** Further discuss the following options:

* Option 2: Fs\_Inter capability is introduced. No additional EIS relaxation specific for frequency separation factor is acceptable
* Option 4a: Fs\_Inter capability is not introduced. Define Delta\_RIB based on worse case of frequency separation

**Sub-topic 3-2: Requirement setting within same f-group**

**Issue 3-2-1: How CBM requirements are defined**

* Proposals
  + Option 1: per band combination
  + Option 2: per frequency separation
* Moderator comment
  + Most companies supported option 1, seek approval for option 1.

**Discussions:**

OPPO: Option 1 is OK generally. But we need further discussion on Delta-RIB. Maybe frequency separation is needed.

Apple: if going with Option 1, the worst case of frequency separation needs be considered.

**Agreement:** Agree on Option1 and define the requirements considering the worst case of frequency separation.

* FFS whether Option 2 is needed depending on the outcome of Issue 3-1-1 for Fs\_inter\_capability.

**Issue 3-2-2: RAN4 shall define the requirement of CBM UEs within the same frequency group based on an example band in Rel-17 using n258+261**

* Proposals
  + Option 1: Yes
  + Option 2: No
* Moderator comment
  + Majority support option 2 as no operator request.

**Discussions:**

LGE: need clarification. If the capability is defined, then the agreement can be changed or not?

Nokia: Issue 3-2-2 is the only band combination mentioned as example band combination. If we do not agree on it, then there is no need to define requirement for CBM within the same frequency group.

Huawei: That is the example band combination. RAN4 needs define the general requirements.

**Issue 6-1-4: Total power handling**

* Proposals
  + Option 1:
    - No total power concepts (i.e., no extra handling other than P-MPR for the sake of power consumption issues)
  + Option 2:
    - 1 dB relaxation
  + Option 3
    - 2 dB relaxation
  + Option 4:
    - Equal or more than 3 dB relaxation
  + Option 5:
    - Others
* Moderator comment
  + Most support for option 1 so far.

**Discussion:**

Huawei: we disagree that we do not need consider total power.

Vivo: we can first agree that there is no upper power limitation.

Mediatek: FR2 needs the same concept. We do not block high power UE.

Qualcomm: What is physical argument to support the total power concept? For FR2 there is no regulation to limit per UE power. UL CA is optional capability. How to handle the thermal is left to UE.

Nokia: Agree with Qualcomm. There is no reason to limit FR2 as the FR1. What is benefit for network to configure power according to upper power limit?

OPPO: Regarding Option 1, P-MPR cannot be used for this purpose of power consumption. Option 1 provides the reason about the power consumption and heating.

Mediatek: from UE design perspective, we have same budget concept. If we have 3dB power higher for FR2, it is difficult to design UE.

Huawei: Heating issue is important. We should consider the total power.

**Issue 6-1-1: MOP/MPR framework**

* Proposals
  + Option 1:
    - CA MOP = single carrier MOP – X&Y
    - CA MPR = max { MPRPA-PA, MPRwaveform&modulation&BW&etc }
  + Option 2:
    - CA MOP = single carrier MOP
    - CA MPR = max { X&Y, MPRPA-PA, MPRwaveform&modulation&BW&etc }
* Moderator comment
  + Most support for option 1 so far.

**Discussions:**

Apple: we support option 2 too. We has concern on double counting.

Qualcomm: we have list all the mechanism techniques to be addressed.

Mediatek: we can further discuss to avoid double counting issue. We would like to follow the

Huawei: we agree with Qualcomm.

Agreement: Agree on Option1.

**Issue 6-1-3: MBR handling**

* Proposals
  + Option 1:
    - MBR is part of X&Y
  + Option 2:
    - MBR is part of single carrier MOP
* Moderator comment
  + Most support for option 1 so far.

**Conclusions after 2nd round**

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[**R4-2200699**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200699.zip) **TR38.851 v0.3.0**

*Type: draft TR For: Approval  
 38.851 v0.2.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

In the Copyright Notification section, update the copyright year to 2022.

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

#### 6.4.2 UE RF requirements for inter-band CA

##### 6.4.2.1 Inter-band DL CA requirements

[**R4-2200361**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200361.zip) **Sensitivity requirements for inter-band CA with CBM**

*Type: other For: Approval  
 Source: NTT DOCOMO, INC.*

**Abstract:**

To discuss PSD condition for sensitivity requirements.

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

[**R4-2200940**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200940.zip) **Discussion on introducation of Fs, inter\_CBM**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201970**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201970.zip) **dCR to 38.101-2 on requirements for UEs that support inter-band CA with CBM**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell, Qualcomm Incorporated*

**Abstract:**

Cat B feature CR in draft form

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

###### 6.4.2.1.1 CA configurations within the same frequency group based on CBM

[**R4-2200362**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200362.zip) **UE capability for CA within same frequency group with CBM**

*Type: other For: Approval  
 Source: NTT DOCOMO, INC.*

**Abstract:**

To discuss UE capability for frequency separation with CBM.

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

[**R4-2200466**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200466.zip) **UE requirements for CBM for the same frequency group**

*Type: other For: Decision  
 Source: Sony, Ericsson*

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

[**R4-2200554**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200554.zip) **Discussion on CBM based inter-band DL CA within same frequency group**

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

**Abstract:**

It discusses RF requirements for CBM based inter-band DL CA.

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

[**R4-2200579**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200579.zip) **Reference signal and Fs\_intern\_CBM of FR2 inter-band DL CA within same frequency group based on CBM**

*Type: discussion For: Approval  
 Source: MediaTek Beijing Inc.*

**Abstract:**

Observation: Reference signal discussion shall be applied for both “different frequency groups” and “within same frequency group” based on CBM. Hence, we explain and propose the details in our paper of agenda item “6.4.2.1.2 CA configurations between diff

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

[**R4-2200939**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200939.zip) **Discussion on CBM within same frequency group**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201275**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201275.zip) **R17 FR2 CBM inter-band DL CA**

*Type: discussion For: Approval  
 Source: OPPO*

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

[**R4-2201337**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201337.zip) **Discussion on CBM for FR2 Inter-band DL CA**

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

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

[**R4-2201968**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201968.zip) **On delta(RIB) for n258+n261 DL inter-CA**

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

**Abstract:**

Inter-band CA for band-pairs within the same frequency group is a special case, as it allows a single receiver shared across both bands to become attractive and practical. We provide analysis for an example band combination from the same frequency group

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

###### 6.4.2.1.2 CA configurations between different frequency groups based on CBM

[**R4-2200439**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200439.zip) **Views on FR2 inter-band DL CA CBM for different band groups**

*Type: discussion For: Approval  
 Source: Apple*

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

[**R4-2200467**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200467.zip) **Requirements for CBM UEs between different frequency group**

*Type: other For: Decision  
 Source: Sony, Ericsson*

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

[**R4-2200577**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200577.zip) **Reference signal of FR2 inter-band DL CA between different frequency groups based on CBM**

*Type: discussion For: Approval  
 Source: MediaTek Beijing Inc.*

**Abstract:**

Proposal1: Configuration and side condition of reference signal of the Band\_with\_BMRS is as single-band beam correspondence operation

Proposal2: “QCLed with the other CC in Band\_with\_BMRS” shall be applied for the reference signal of Band\_without\_BMRS.

Pr

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

[**R4-2200700**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200700.zip) **TP to TR 38.851: Agreements made for CA configurations between frequency groups using CBM**

*Type: pCR For: Approval  
 38.851 v0.2.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

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

[**R4-2200735**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200735.zip) **Discussion on requirements of FR2 inter-band DL CA**

*Type: discussion For: Discussion  
 Source: Samsung*

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

[**R4-2200941**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200941.zip) **Discussion on CBM between different frequency group**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201299**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201299.zip) **Rx requirements for inter-band DL CA with CBM**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

[**R4-2201969**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201969.zip) **On delta(RIB) for DL inter-CA with CBM in n260+n261**

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

**Abstract:**

delta(RIB) proposal for an example band combination, along with relevant considerations

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

###### 6.4.2.1.3 Feasibility study for DL inter-band CA for IBM within the same frequency group

###### 6.4.2.1.4 Rx beam switch value

[**R4-2200701**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200701.zip) **Discussion on UE Rx beam switch delay**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

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

[**R4-2200945**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200945.zip) **Discussion on Rx beam switch time**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201594**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201594.zip) **Discussion on UE Rx beam switch delay**

*Type: other For: Approval  
 Source: Nokia*

**Abstract:**

Revision of [R4-2200701](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200701.zip)

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

##### 6.4.2.2 Inter-band UL CA requirements

###### 6.4.2.2.1 Inter-band UL CA for two bands

[**R4-2200345**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200345.zip) **FR2 inter-band UL CA framework**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Relexation framework is discussed without assuming total power concept.

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

[**R4-2200468**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200468.zip) **UE UL CA requirements based on IBM**

*Type: other For: Decision  
 Source: Sony, Ericsson*

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

[**R4-2200736**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200736.zip) **Discussion on requirements of FR2 inter-band UL CA**

*Type: discussion For: Discussion  
 Source: Samsung*

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

[**R4-2200942**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200942.zip) **Discussion on inter-band UL CA**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201276**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201276.zip) **R17 FR2 Inter-band UL CA requirements**

*Type: discussion For: Approval  
 Source: OPPO*

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

[**R4-2201291**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201291.zip) **Discussion on inter-band UL CA requirements**

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

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

[**R4-2201300**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201300.zip) **Tx requirements for inter-band UL CA between different frequency groups based on IBM**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

###### 6.4.2.2.2 CA configuration CA\_n257A-n259A based on IBM

[**R4-2200346**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200346.zip) **TP to TR 38.851 to introduce FR2 UL CA\_n257A-n259A**

*Type: pCR For: Approval  
 38.851 v0.2.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

Text proposal to TR 38.851 is to included the spec impact of FR2 UL CA to TS 38.101-2.

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

[**R4-2200555**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200555.zip) **RF requirements for CA\_n257A\_n259A based on IBM**

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

**Abstract:**

It discusses RF requirements for IBM based inter-band UL CA\_n257-n259.

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

[**R4-2200569**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200569.zip) **View on factor of FR2 inter-band UL CA relaxation**

*Type: discussion For: Approval  
 Source: MediaTek Beijing Inc.*

**Abstract:**

Proposal: Detailed factors and values for inter-band UL CA relaxation value calculation shall base on below table.

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

[**R4-2201292**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201292.zip) **Discussion on relaxation value X&Y for CA\_n257A\_n259A**

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

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

[**R4-2201967**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201967.zip) **On UL power for FR2 inter-band ULCA**

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

**Abstract:**

We evaluate if it is justified to defined non-zero flat reductions in min. peak EIRP for FR2+FR2 inter-band ULCA and share our MPR proposal based on measurements

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

#### 6.4.3 UL gaps for self-calibration and monitoring

**[101-bis-e][120] NR\_RF\_FR2\_enh2\_Part\_2, AI 6.4.3, 6.4.6.3 – Yang Tang**

[**R4-2202220**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202220.zip) **Email discussion summary for [101-bis-e][120] NR\_RF\_FR2\_enh2\_Part\_2**

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

**Abstract:**

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

**Decision: Revised to R4-2202320 (from R4-2202220).**

[**R4-2202320**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202220.zip) **Email discussion summary for [101-bis-e][120] NR\_RF\_FR2\_enh2\_Part\_2**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**GTW on Jan-19**

**Sub-topic 1-1: delta P-MPR reporting**

* + Option 1: delta P-MPR should be tested (Nokia)
  + Option 2: delta P-MPR should not be tested (vivo, OPPO)
  + Option 3: it is optional to report P-MPR (Ericsson, Sony)

**Discussions:**

OPPO: what is the additional benefit compared to delta EIPR requirement defined. There is problem for testing such that gain cannot be shown. We should not test delta P-MPR.

VIVO: Agree with OPPO. The P-MPR is just range which does not help for verification.

Ericsson: Agree with OPPO.

Qualcomm: Why won’t UE report? There would be conflict. But we can go with majority views.

AT&T: Prefer Option 1. It is completed solution.

Ericsson: This different options making different prerequisite. We propose Option 3. With or without gap, if network reduces the duty cycle, UE should not report P-MPR. We should not mandate reporting P-MPR when UE supports UL gap. Network has multiple way to handle.

Apple: In last meeting, we agreed that UE should report P-MPR. The ambiguous part is UE behavior. In our view, UE behavior should report P-MPR. We are fine with either way. With either option, we won’t introduce the new signaling, i.e., delta-PMPR. UE just reports P-MPR. To Ericsson, the comment makes sense to us. But I wonder if it is directly related to delta P=MPR issue.

Nokia: Delta P-MPR should be tested.

Qualcomm: To Ericsson, we cannot say UE is forced to report. P-MPR reporting capability should be mandated for this feature. We prefer Option 1.

DOCOMO: at least P-MPR is defined as minimum requirement for UL-gap. For option 3, we are not sure if we understand it correctly. We do not support Option 3. For delta P-MPR, Option 1 is better for us. We can accept Option 2.

Ericsson: For P-MPR, the conformance requirements on EIPR. There is 3dB gain. How can we make sure if UE is capable device? How can we ensure UE gets 3dBm gain when gap is not configured. Many devices can meet the requirement with a large margin.

OPPO: we do not know difference between delta-peak EIRP and delta-P-MPR. We are not clear how to test delta P-MPR.

Apple: how can we ensure UE to report P-MPR when the gap is not configured? During the test, we should pick up the suitable duty cycle. This is important aspect. But we do not need combine it with delta-PMPR testing. We can create another topic for it.

Ericsson: when gap is supported, there is most beneficial for high duty cycle. We would like to verify the case when there is lower duty cyles. UE should not reply on higher duty cyles.

**Sub-topic 1-2: On Tx OFF**

* + Support measuring UE in-band Tx power during the gaps (Nokia, ZTE)
  + The maximum value for TX\_OFFduring gap FFS (Nokia)

**Discussions:**

Moderator: the spurious emission may be beyond the Tx-off power.

Apple: we are fine with the first bullet.

Huawei: We have concern to the position about the -33. We are not sure if such low level can be use to detect the body.

DOCOMO: Support measuring the power during the gap. Our concern is that we cannot specify other values than Tx\_off power. We cannot relax requirement.

Qualcomm: We have agreed it already. We were discussing some solutions. The changing power can change the whole design.

Huawei: we can compromise.

**Agreement:**

* Support measuring UE in-band Tx power during the gaps
  + The maximum value is TX\_OFF power

**Sub-topic 1-3: on time duration for peak EIRP measurement**

Proposal: When UL gap is activated or de-activated and non-zero P-MPR is applied, the peak EIRP measurement should be averaged across UL slots with PUSCH transmission over [4]s.

**Discussions:**

Intel: we have concern. For 42-95GHz, it is 2s. For 24-42GHz, it is 4s.

Apple: 4s is aligned with FCC requirement. 4s is not just for that purpose. With 4s with the current gap configuration, UE can have enough to sense. We can deal with false alarm. If we reduce the time too much, basically the false alarm will dominate the eventual result. 4s serves two purposes.

**Agreement:** When UL gap is activated or de-activated and non-zero P-MPR is applied, the peak EIRP measurement should be averaged across UL slots with PUSCH transmission over 4s.

**Sub-topic 1-4: on related UE capability**

Discuss the related UE capability in

* Option 1: support of UL gaps for MPE is a UE capability. (Ericsson, Sony, vivo)
* Option 2: UL gap UE capability as per band reported and configured. (OPPO)

**Discussions:**

OPPO: UL gap capability should be per-band. Not all the bands have MPE issue.

Mediatek: Discussing with RAN2, we share the similar view as OPPO.

VIVO: RAN2 never discuss it. For UE with single RF chain the gap should be per-UE.

ZTE: Such UE capability should be per UE level. This level should be aligned with MPE capability.

Apple: all FR2 has MPE requirement. Which bands we do not have MPE requirement?

OPPO: it is not related MPE requirement. It is related to MPE issue. For some band, UE may not need power backoff.

Qualcomm: Our reference is for per-band. MPE is defined as power density. For some band UE does not need gap. It may waste the uplink reporting resources if defining as per-UE.

Sony: Capability is for UE to use gap for BPS. In this case, UE implementation should be valid for all the bands. We do not have strong view. We can compromise to per-band.

Apple: even if we define per-UE, it does prevent UE vendor not use it for a certain band. The requirement applies to all the bands.

VIVO: our concern to use per-band is that it is too complicated. But we can compromise.

Qualcomm: if defining per UE, the network thinks UE needs the gap. Gap may wastes a lot of uplink resources. It should not up to UE to decide whether to use it or not.

Apple: UE can request the activation or deactivation of the gap.

**Agreement:** UL gap UE capability should be defined per band.

**Sub-topic 2-1: Optionality of Gap configurations**

* Option 1: All UL gap configurations are optional, and UE reports the supported UL gap configurations through UE capability report. (Apple)
* Option 2: All UL gap configurations are mandatory (Nokia)

**Discussions:**

Ericsson: Share the similar view as Nokia. If going with Option 1, network should support all the gaps. We can mandate a number of gap.

Nokia: Agree with Ericsson. We also find some compromise here.

Apple: We can work in the direction. Based on the last couple of meetings, different companies may have different preference for a certain gaps. We are OK to mandate #0 and #1.

Qualcomm: We do not support option 2. We cannot mandate pattern, which should be left to UE implementation.

Nokia: what if UE requests something but network cannot support.

VIVO: Although we supports Option 1 we are OK to compromise.

Qualcomm: the gap pattern has nothing to do with UE behavior. What is the technique reason behind to mandate some patterns?

OPPO: even if we mandate some patterns, UE may not follow. What is the meaning to mandate?

Nokia: Mandating means those patterns should be supported and allocate the pattern to the UE. When allocating DL gap, UE may or may not use it. For gap, UE is not expect to be scheduled and network won’t schedule.

Apple: Agree with Qualcomm and OPPO views. This is really implementation dependent. To Nokia, from network perspective, it is matter of complexity.

Nokia: main problem here is that network has to accomondate different implementaions.

**Sub-topic 2-2: On gap configuration #3 to support SCS=60kHz**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ULGP #3 | 120kHz | 0.125 | 1 | 5 | 40 | 2.5% |
| Option-A: 60kHz | 0.25 | 1 | 5 | 20 | 5% |
| Option-B: 60kHz | 0.25 | 1 | 10 | 40 | 2.5% |

(Qualcomm)

Option 1: When UGL is shorter than a slot length with respect to an activated UL BWP’s SCS on a serving cell where UL gap is configured and activated, the configured UGL and UGRP are adjusted. For ULGP#3, when an SCS of active BWP is 60kHz, UGL and UGRP are adjusted to Option-A in Table 1

**Discussions:**

Qualcomm: UL GP is half slot length. Whether we should adjust the length? Better to keep the same periodicity.

**Agreement:** When UGL is shorter than a slot length with respect to an activated UL BWP’s SCS on a serving cell where UL gap is configured and activated, the configured UGL and UGRP are adjusted. For ULGP#3, when an SCS of active BWP is 60kHz, UGL and UGRP are adjusted to Option-A in Table 1

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ULGP #3 | 120kHz | 0.125 | 1 | 5 | 40 | 2.5% |
| Option-A: 60kHz | 0.25 | 1 | 5 | 20 | 5% |
| Option-B: 60kHz | 0.25 | 1 | 10 | 40 | 2.5% |

**Sub-topic 2-3: MAC-CE based activation and deactivation**

* Option 1: Enable dynamic activation and de-activation of UL gap via either MAC CE (Apple, Nokia)
* Option 2: Do not introduce MAC-CE based activation/deactivation (ZTE, vivo, Ericsson)

**Discussions:**

Moderator: Option 2 got majority view.

Apple: Option 1 can make UL gap feature more efficient. Overhead is not trivial. We should save the uplink resource.

ZTE: We prefer Option2. Some update is needed. We do not need such dynamic method to update. Reusing RRC signalling is enough.

Ericsson: the gain is not higher than RRC based. We prefer to RRC based.

Qualcomm: Similar view as Ericsson. Regarding overhead, RRC is typically with larger periodicity. The difference is not much. For latency, RRC based can also be lower. 5ms vs 16ms between MAC-CE based and RRC based.

Huawei: similar view as Apple. MAC-CE makes gap more efficient. It can save uplink resource.

OPPO: agree with Huawei and Apple. MAC-Ce can provide more flexibility. We also want to say in the SCell dropping topic people want to use DCI based.

Qualcomm: Those items are different totally. DCI is defined in RAN1. We do not introduce new. For this, the thing is whether we should define the new thing.

Apple: Basically like Ericsson the gain of PRMP is based on traffic. If the traffic is lower, there is purely loss. We would like to have a dynamic approach to adapt.

Vivo: the benefit is minor. We do not see the strong motivation.

Qualcomm: Framework. If UE active the gap, there would be some traffic for UE. For deactivation, the 16ms does not matter.

Apple: basically UE can request gap via RRC. It should make decision on many other aspects. The framework does not limit network to do configuration only based on UE request.

Huawei: We know that RAN2 is discussing this topic. We can refer to RAN2 and leave it to RAN2.

**Sub-topic 2-4: Procedures to be prioritized over UL gap**

**Agreement:** Regarding Procedures to be prioritized over UL gap,

* All the RACH procedure should be prioritized
* FFS for other procedure

**Sub-topic 2-5: UE indication to NW on “need for UL gap” and “no need for UL gap”**

* Follow the WF agreement to enable UE explicit indication to NW on “need for UL gap” and “no need for UL gap” (Apple)
* The UE indicates need for activating an UL Gap using the PHR. The PH and P-MPR values will indicate to the gNB whether the UE needs UL gaps or not. (Nokia)

**Discussions:**

Apple: PHR is not enough.

Nokia: we can follow the FW. But with PHR, UE can provide necessary information.

**Issue 3-1: side conditions of RF requirements**

* Define the RF requirement for UL coherent MIMO as 40-degree difference of relative phase error and 4dB difference of relative power error when side condition happens, and UL gap for coherent MIMO is triggered. (Apple)
* Requirements for coherent UL MIMO also need to be applicable to the side condition including DRX on, BWP switching, SRS switching, DL measurement gap, etc. (Huawei)

**Discussions:**

Ericsson: we do not support to introduction of this gap in general. This can be done by UE in autonomous way.

Huawei: We think the UL gap for coherent UL MIMO has been confirmed last meeting. In this meeting, we should not discuss the need for gap.

Moderator: what Huawei said is correct. In RAN we agreed to move the second phase. We understand the Ericsson point. We might need to define the side condition. The first issue is not very related to configured gap or autonomous gap.

Ericsson: we do not support introduction.

**Issue 3-2: gap configure/deconfigure and activation/deactivation**

* UL gaps for coherent UL MIMO are configured/ deconfigured by the network using RRC configuration. (Huawei)
* The UL gaps can be activated when configured (using RRC signalling), and The UL gaps are deactivated when deconfigured (using RRC signalling). (Huawei)
* With the agreement that UE can explicitly indicate to NW on “need for UL gap” and “no need for UL gap”, RAN4 will leave the detailed signaling design to RAN2. (Huawei)
* Enable implicit triggering of the UL gap for UL coherent MIMO, by defining K2\_min\_cal which include the PUSCH preparation time plus the calibration time. (Apple)

**Discussions:**

Moderators: suggest proponent shows to gain to Ericsson compared to autonomous gap.

**Conclusions after 2nd round**

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[**R4-2200353**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200353.zip) **Discussion of UL gap in FR2 RF enhancement for RAN2 LS**

*Type: discussion For: Discussion  
 Source: Mediatek India Technology Pvt.*

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

[**R4-2201693**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201693.zip) **Discussion on LS on UL gap in FR2 RF enhancement**

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

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

##### 6.4.3.1 UE Tx power management

[**R4-2200253**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200253.zip) **UL gaps for Tx power management RF aspect**

*Type: discussion For: Discussion  
 Source: Apple*

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

[**R4-2200255**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200255.zip) **Draft CR for UL gap for Tx power management RF aspect**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Apple*

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

[**R4-2200383**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200383.zip) **Requirements and test cases of UE FR2 UL Gap for UE Tx power enhancement**

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

**Abstract:**

UE FR2 UL Gap for UE Tx power enhancement

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

[**R4-2200589**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200589.zip) **Discussion on UL gap for Tx power management**

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

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

[**R4-2200856**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200856.zip) **On UE Tx power management for MPE compliance**

*Type: other For: Approval  
 Source: Ericsson, Sony*

**Abstract:**

In this constribution we make proposals on the Tx power manangement for MPE and P-MPR in particular

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

[**R4-2200943**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200943.zip) **Discussion and reply LS on FR2 UL gap**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201274**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201274.zip) **R17 FR2 UL gap for power management**

*Type: discussion For: Approval  
 Source: OPPO*

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

[**R4-2201443**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201443.zip) **Discussion on Tx power management**

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

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

##### 6.4.3.2 Coherent UL-MIMO

[**R4-2200254**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200254.zip) **UL gaps for coherent UL MIMO**

*Type: discussion For: Discussion  
 Source: Apple*

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

[**R4-2201442**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201442.zip) **Draft CR to 38.101-2 on requirements for coherent UL MIMO**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Huawei,HiSilicon*

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

[**R4-2201444**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201444.zip) **Discussion on UL coherent MIMO**

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

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

#### 6.4.4 DC location for intra-band UL CA with > 2 CCs for both FR2 and FR1

**[101-bis-e][121] NR\_RF\_FR2\_enh2\_Part\_3, AI 6.4.4, 6.4.5 – Sanjun Feng**

[**R4-2202221**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202221.zip) **Email discussion summary for [101-bis-e][121] NR\_RF\_FR2\_enh2\_Part\_3**

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

**Abstract:**

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

**Decision: Revised to R4-2202321 (from R4-2202221).**

[**R4-2202321**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202221.zip) **Email discussion summary for [101-bis-e][121] NR\_RF\_FR2\_enh2\_Part\_3**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**GTW on Jan-19**

**Issue 1-1-1: Whether the multiple DC location should be completed in R17?**

* Proposals
  + Option 1: The Rel-17 DC location method will support only one DC location reporting.
  + Option 2: At least 2 DC location case based on the capability *dual-PA architecture* should be completed in R17.
  + Option 3: Others
* Recommended WF
  + TBA

**Discussions:**

OPPO: last meeting we agree to introduce at least one DC location. Option 2 does not apply the FR2.

Apple: the intention here is R16 has already covered two CC and two DC locations cases, which are applicable to FR1 and FR2. For Rel-17 we do not see the new configurations in FR1 which needs additional signalling. So Rel-17 should be applicable for FR2. For FR2 the architecture may only require one DC location.

Nokia: This is enhancement over Rel-16. Rel-16 can cover up to two DC locations and two CCS. We are discussing more than two CCs. We can go with Rel-17. If going with Option 2, we may have too many capabilities.

Qualcomm: For FR2 we do not have two DC locations at all. We should do it for one. There is no test for second LO. Should we need the information of second LO? How to do those two locations? We can look at issue 1-1-2 first.

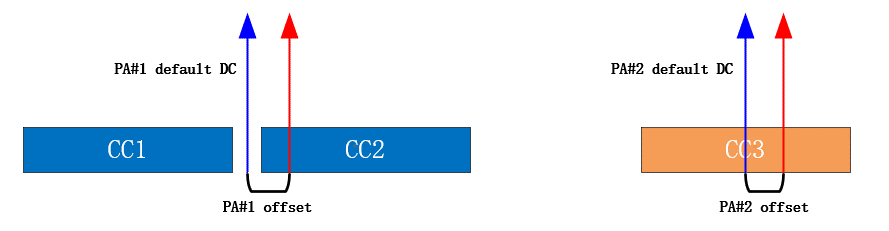
Vivo: new DC location reporting method is quite different from Rel-16. It should be used from Rel-17. Rel-16 method is based on assumption of two PA.

OPPO: dual PA architecture has been discussed. For FR2, intra-band NC CA, there is possibility for UE to use two DC location. It should cover Rel-16. From Rel-17 onward, we should use the new signalling. In this regards we should cover two DC location.

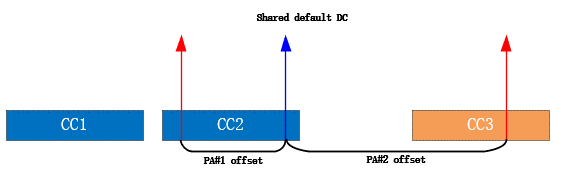
Nokia: Dual PA is tied to DC location from Rel-16. Dual PA architecture elements is independent of frequency.

**Issue 1-1-2: Which reporting framework of multiple DC is preferred?**

* Proposals
  + Option 1:



* + Option 2:



* + Option 3: Others
* Recommended WF
  + TBA

**Discussions:**

OPPO: with information sent to RAN2, Option 2 is the easier way. UE can report DC offset to actual DC location.

VIVO: we also support Option 2. If going with Option 1, we need more clarification on PA and..

Nokia: We do not agree with OPPO and VIVO. If going with Option 2, what is the point for UE to report frequency elements? There is no relation between DC location and frequency.

Huawei: Option 2 is easier way to go. Last meeting we agree to send LS to RAN2. If going with Option 1, we need more information to align between UE and network. Besides, this issue is related to the next one.

OPPO: Regarding Nokia comment on the relation to default DC location, network configures CC#1~3 to UE. UE will take all the configurations to decide the default DC location. If UE uses one DC location, UE reports one… It is aligned with the same logic in RAN2. There is no some issue to connecting the default and component.

Apple: the example configuration with three carriers and two gaps does not exist in FR1 now. But it exists in FR2. The architecture for FR1 and FR2 are different. For FR1, three PA is needed. The framework is not sufficient. Based on current available CA configuration, we do not think the framework is needed.

Qualcomm: why do we have two DC location? How the network has the knowledge about which CC is associated with which DC locations.

OPPO: to Apple, we check that two PA architecture is included for three CC cases.

Apple: Agree that we have dual PA architecture, but for FR2 we do not have it.

**Issue 1-2-1: How to consider the offset range?**

* Proposals
  + Option 1: To cover multiple DC reporting case and leave more flexibility for UE, 1.5 GHz offset range is preferred.
  + Option 2: It is proposed to define UE DC offset ranges as +/-20MHz from the default DC location.
  + Option 3: Reuse the 12 bit length of the original signalling for DC location offset report > 2CCs and adopt the following mapping relationship.
  + Option 4: Others
* Recommended WF
  + TBA

**Discussions:**

OPPO: The offset range is connected with architecture. If option2 is chosen the range would be large. If we use two DC locations, we will have the smaller one.

Qualcomm: For option 2, FR1 the 400MHz can be available, and why the 20Mhz is used as offset.

Huawei: For option 3, our preference is for one location with a number of offsets to cover two DC location cases. If going with Option 2 in the previous topic, the larger range is needed. 1.5GHz is waste.

OPPO: Regarding Qualcomm question, our understanding is DC offset is used in scenario UE face narrow band interference. We do not see why we need 1.5Ghz, which means DC location is far from the center. Otherwise the filter would cover the double ranges which leads to performance loss.

Nokia: if the conclusion of the previous sub-topics, we disagree with Option 1 if option 1 is chosen for the previous topics.

VIVO: Our proposal is to indicate the larger offset is needed. We are open to 1.5Ghz value.

Qualcomm: To Huawei comment, what does it really mean?

Huawei: my intention is for real DC 1.5GHz shift is not logical. We prefer lower number.

Qualcomm: 1.5GHz comes from that we have larger range of frequency bands. How can we conclude the number for FR2?

Huawei: in my previous comment, for single LO location, lower offset range is enough. For dual LO location, we can discuss the larger number.

OPPO: this one is connected to the previous one.

Qualcomm: we have opposite understanding as Huawei.

**Issue 2-1: How to define the new CA BW classes and fall back behaviour?**

**Discussions:**

Nokia: before agreeing which option, we should consider the number of combination + FR1, which may lead to many combinations. We need discuss whether something new is needed.

Xiaomi: Support Nokia comment. RAN4 should clarify the rule for new bandwidths. Option 4 is too complicated. We prefer to Option 2.

Ericsson: we do not agree that Option 4 is more complex than others. Actually it is more converge.

Xiaomi: by saying complex, I means that we cannot get the combination easily. It is math problem. Option 4 covers the aggregations which overlaps with the existing ones.

Apple: option 4 is reasonable one, which requires the same number as Option 2. Option 4 provides more fall back. There is no meaning to consider 15MHz. Option 4 can be further simplified.

Ericsson: for 15Mhz, we include it in CR. If no operators require block size with 15MHz, we can remove it.

**Agreement:** down-select to Option 2 and Option 4

* FFS which options among 2 and 4 should be chosen or further simplified, considering the number of new band combinations.

**Conclusions after 2nd round**

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[**R4-2200333**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200333.zip) **Further details and optimizations on DC location**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

[**R4-2200456**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200456.zip) **Handling of multiple DC locations for intra-band configuration**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This contribution shares our views on how to handle multiple DC locations for intra-band configuration.

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

[**R4-2200944**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200944.zip) **Discussion on DC location**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201273**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201273.zip) **R17 FR2 DC reporting**

*Type: discussion For: Approval  
 Source: OPPO*

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

[**R4-2201959**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201959.zip) **Further study on DC location reporting**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

#### 6.4.5 CA BW classes

**[101-bis-e][121] NR\_RF\_FR2\_enh2\_Part\_3, AI 6.4.4, 6.4.5 – Sanjun Feng**

##### 6.4.5.1 New FR2 CA BW classes

[**R4-2200857**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200857.zip) **FR2 bandwidth classes covering up to 1600 MHz aggregated bandwidth with mixed carrier bandwidths**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

In this contribution we propose to reconsider the BW classes of the WF agreed at RAN4#100 in view of deployment aspects and number of CCs supported.

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

[**R4-2200858**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200858.zip) **FR2 CA BW classes up to 1600 MHz aggregated BW with mixed channel bandwidths**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Draft CR to introduce FR2 CA BW classes up to 1600 MHz aggregated BW with mixed channel bandwidths.

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

[**R4-2200909**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200909.zip) **Alternatives of FR2 new CA BW classes**

*Type: other For: Discussion  
 Source: Apple*

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

[**R4-2201297**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201297.zip) **Draft CR for TS 38.101-2 to introduction of FR2 new CA BW classesV, MF,ME, MD and MA**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Xiaomi*

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

##### 6.4.5.2 Fallback group

[**R4-2200302**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200302.zip) **FR2 bandwidth class and fallback group**

*Type: discussion For: Approval  
 Source: Verizon, Qualcomm, MediaTek*

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

[**R4-2200620**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200620.zip) **Further considerations on FR2 fallback group**

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

**Abstract:**

In this paper, we further provide our opinion on FR2 fallback group.

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

[**R4-2201298**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201298.zip) **Discussion on fallback group for FR2 new CA BW classes**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

#### 6.4.6 RRM core requirements

##### 6.4.6.1 Inter-band DL CA requirements for CBM

###### 6.4.6.1.1 MRTD requirements

###### 6.4.6.1.2 Other RRM requirements

##### 6.4.6.2 Inter-band UL CA for IBM

##### 6.4.6.3 UL gaps for self-calibration and monitoring

**[101-bis-e][120] NR\_RF\_FR2\_enh2\_Part\_2, AI 6.4.3, 6.4.6.3 – Yang Tang**

[**R4-2200256**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200256.zip) **UL gaps for Tx power management RRM aspect and draft reply LS**

*Type: discussion For: Discussion  
 Source: Apple*

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

[**R4-2200257**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200257.zip) **Draft CR for UL gap for Tx power management RRM aspect**

*Type: draftCR For: Endorsement  
 38.133 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Apple*

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

[**R4-2200384**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200384.zip) **Network impact of UE FR2 UL Gap for UE Tx power enhancements**

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

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

[**R4-2200427**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200427.zip) **UL gaps for self-calibration and monitoring**

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

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

[**R4-2200590**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200590.zip) **Discussion on RRM impact of UL gap for Tx power management**

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

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

[**R4-2200605**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200605.zip) **Discussion on RRM impacts of UL gaps for self-calibration and monitoring**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201377**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201377.zip) **Discussion on UL gaps for self calibration and monitoring**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribution, we provide our views on UL gaps for self-calibration and monitoring and its impacts on other RRM requirements.

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

### 6.5 NR repeater

#### 6.5.1 General

##### 6.5.1.1 System parameters

##### 6.5.1.2 Repeater Class/Type

##### 6.5.1.3 TDD repeater switching requirements

##### 6.5.1.4 Others

#### 6.5.2 Conductive RF core requirements

##### 6.5.2.2 Emission requirements

##### 6.5.2.3 Others

#### 6.5.3 Radiated RF core requirements

##### 6.5.3.1 Transmitted power related requirements

##### 6.5.3.2 Emission requirements

##### 6.5.3.3 Others

#### 6.5.4 EMC core requirements

### 6.6 Introduction of DL 1024QAM for NR FR1

#### 6.6.1 General

#### 6.6.2 UE RF requirements maintenance

#### 6.6.3 BS TX RF requirements maintenance

#### 6.6.4 BS RF conformance testing

#### 6.6.5 Demodulation and CSI requirements

##### 6.6.5.1 General

##### 6.6.5.3 SDR requirements

##### 6.6.5.4 CQI requirements

### 6.7 UE RF requirements for Transparent Tx Diversity (TxD) for NR

**[101-bis-e][122]** **NR\_TxD, AI 6.7 – Ville Vintola**

[**R4-2202222**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202222.zip) **Email discussion summary for [101-bis-e][122] NR\_TxD**

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

**Abstract:**

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

**Decision: Revised to R4-2202322 (from R4-2202222).**

**[R4-2202322](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202222.zip) Email discussion summary for [101-bis-e][122] NR\_TxD**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 6.7.1 General

[**R4-2201941**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201941.zip) **Big CR for TS 38.101-1 Tx diversity requirements**

*Type: CR For: Agreement  
 38.101-1 v17.4.0 CR-0986 rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon, Qualcomm, vivo*

**Abstract:**

reserved CR for phase 2 requirements

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

#### 6.7.2 UE RF requirements for phase 1 (38.101-1)

[**R4-2201772**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201772.zip) **Draft CR TS 38.101-1 R17: moving 2Tx MPR to clause 6.2D and amending PC2 2TX MPR**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

Solving merge issue of [R4-2119971](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2119971.zip) Draft CR on MPR of Tx Diversity (TxD) PC2 for two PC3 PA architecture and [R4-2119977](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2119977.zip) Draft CR TS 38.101-1: Move PC1.5 MPR to Clause 6.2G. and clarify signaling aspects

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

##### 6.7.2.1 UL MIMO requirement for TxD except ULFPTx

[**R4-2200340**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200340.zip) **Draft CR for fixing MPRs in suffix D**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

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

[**R4-2201267**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201267.zip) **R17 FR1 TxD requirements and signaling**

*Type: discussion For: Approval  
 Source: OPPO*

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

[**R4-2201269**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201269.zip) **Draft R17 CR on UL MIMO falllback to TxD**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: OPPO*

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

#### 6.7.3 UE RF requirements for phase 2 (38.101-1)

##### 6.7.3.1 SRS antenna switching related

[**R4-2200341**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200341.zip) **SRS virtualization for antenna switching**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

[**R4-2200484**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200484.zip) **Relation of TxD and SRS antenna switching**

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

**Abstract:**

This contribution discusses relation between TxD and SRS antenna switching based on [[R4-2120065](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2120065.zip)].

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

[**R4-2200859**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200859.zip) **SRS antenna switching with antenna virtualization**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

In this contribution we discuss SRS swiching with virtualization (TxD) and FP UL-MIMO and propose corrections to the configured power for SRS with switching

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

[**R4-2200860**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200860.zip) **Pcmax for SRS usage set as antenna switching for TxD and UL-MIMO features**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Draft CR to correct the Pcmax for SRS used for antenna switching for antenna virtualization and full-power UL-MIMO

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

[**R4-2200959**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200959.zip) **Further discussion on SRS antenna switching for TxD**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2200960**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200960.zip) **Draft CR on SRS antenna switching for TxD**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: vivo*

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

[**R4-2201227**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201227.zip) **Discussion on Tx diversity SRS antenna switching**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

[**R4-2201271**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201271.zip) **R17 SRS IL for TxD**

*Type: discussion For: Approval  
 Source: OPPO*

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

[**R4-2201272**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201272.zip) **Draft R17 CR on SRS IL for TxD**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: OPPO*

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

[**R4-2201799**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201799.zip) **Further discussion on SRS antenna switching requirements for TxD**

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

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

[**R4-2201940**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201940.zip) **On SRS relaxation**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

##### 6.7.3.2 ULFPTx related

[**R4-2200483**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200483.zip) **Relation of MOP between TxD and ULFPTx**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This contribution discusses relation of MOP between TxD and ULFPTx specifically for the case that a UE is scheduled for single antenna-port PUSCH transmission by DCI format 0\_0 or by DCI format 0\_1 for single antenna port codebook based transmission based

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

[**R4-2200861**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200861.zip) **Single-antenna falback for TxD and UL-MIMO (including ULFPTx)**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

In this contribution we propose single-antenna port fall-back requirements and discuss the importance of consistent virtualization for SRS and PUSCH

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

[**R4-2200862**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200862.zip) **TxD and UL-MIMO requirements for single-port antenna transmission**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Draft CR to correct the single-port requirements to accommodate TxD and (full-power) UL-MIMO modes

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

[**R4-2200961**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200961.zip) **Discussion on ULFPTx with TxD**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201268**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201268.zip) **R17 FR1 TxD and ULFPTx**

*Type: discussion For: Approval  
 Source: OPPO*

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

[**R4-2201762**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201762.zip) **Further Discussion on Transparent TxD – ULFPTx related**

*Type: discussion For: Discussion  
 Source: Samsung*

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

[**R4-2201798**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201798.zip) **Further discussion on ULFPTx with TxD**

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

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

[**R4-2201942**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201942.zip) **On ULFPTx and applicable MPR requirements for different PA configurations**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

[**R4-2202051**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202051.zip) **ULFPTX Mode 2 and TxD**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

### 6.8 Enhancement for NR high speed train scenario in FR1

#### 6.8.1 General

#### 6.8.2 RRM core requirements

##### 6.8.2.1 Intra-frequency measurements

##### 6.8.2.2 Inter-frequency measurements

##### 6.8.2.3 L1-SINR measurements

##### 6.8.2.4 Others

#### 6.8.3 UE demodulation requirements (38.101-4)

##### 6.8.3.1 General

##### 6.8.3.2 PDSCH requirements for CA scenarios

### 6.9 NR support for high speed train scenario in FR2

#### 6.9.1 General

**[101-bis-e][123] NR\_HST\_FR2, AI 6.9.1, 6.9.3 – He Wang**

[**R4-2202223**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202223.zip) **Email discussion summary for [101-bis-e][123] NR\_HST\_FR2**

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

**Abstract:**

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

**Decision: Revised to R4-2202323 (from R4-2202223).**

[**R4-2202323**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202223.zip) **Email discussion summary for [101-bis-e][123] NR\_HST\_FR2**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**GTW on Jan-19**

**Issue 2-1-1: Spherical coverage requirement framework – Requirement for one panel**

**Discussions:**

Ericsson: we supports one panel case. This is mounted on train. One panel UE can be done by declaration. Operators can be aware of the type of device.

Qualcomm: from UE vendors, the scenario for one panel is quite limited.

Samsung: we share the similar view. Two side deployment for high speed train is needed. We do not prefer Option 2.

Verizon: same view as Qualcomm and Samsung. Two panels were agreed long time ago.

Ericsson: We do not quite agree with the limitation.

Huawei: we share the similar view as Qualcomm and Samsung.

ZTE: We share the same view as Qualcomm and Verizon. There was an agreement in #98. We should only define the spherical coverage for two panels. For network, either unidirectional or bidirectional will be deployed. UE should support both.

**Agreement:** RAN4 shall not define core requirement for one-panel based spherical coverage requirement.

**Issue 2-1-2: Spherical coverage requirement – Coordination system**

**Discussions:**

Nokia: the train mounted CPE can be tilted. How can we use absolute coordination system?

Samsung: Last meeting, we agree that UE has freedom to point panel to any direction. By using wording here, we want to make sure reader be clear enough what the direction is.

Qualcomm: Coordination system maps to tracks. If looking at the Note of 6.2.1.6-4.

Mediatek: we have comment on Theta values.

**Agreement:** use the absolution coordination system as well as Qualcomm proposals below as baseline

* The minimum EIRP measured over the evaluation area specified below is defined as the spherical coverage requirement and is found in Table 6.2.1.6-3 below. The evaluation area is found in table 6.2.1.6-4 below, in the reference coordinate system in Annex J.1. The requirement is verified with the test metric of EIRP (Link= TBD grid, Meas=Link angle).
  + 0 degree of azimuth angle is along the tracks

Table 6.2.1.6-3: UE spherical coverage for power class 6

|  |  |
| --- | --- |
| Operating band | Min EIRP over the areas required for spherical coverage (dBm) |
| n257 | TBD |
| n258 | TBD |
| n259 | TBD |
| NOTE 1:   Minimum EIRP over the areas required for spherical coverage is defined as the lower limit without tolerance  NOTE 2:   The requirements in this table are verified only under normal temperature conditions as defined in Annex E.2.1. | |

Table 6.2.1.6-4: UE spherical coverage area for power class 6

|  |  |
| --- | --- |
| Theta range (deg) | Phi range (deg) |
| 90 - (90-theta\_elev) | -phi\_az to + phi\_az |
| 90 to (90-theta\_elev) | 180-phi\_az to 180+ phi\_az |
| NOTE 1: When testing power class 6 UEs, DUT orientation can be determined according to the evaluation area, not necessarily following default alignment in J.1-2 or positioning guidelines in J.3. | |

**Issue 2-1-3: Spherical coverage requirement framework - Coverage region**

**Discussions:**

Samsung: for Option 2, we should guarantee that UE needs follow the RRM enhancement requirements. For elevation plane Option 1 and Option 2 are not too much different.

**Agreement:** network signaling is provided to configure UE to follow enhanced RRM requirement Set 2.

**Issue 2-2-1: Side Condition for FR2 Power Class 6 UE Beam Correspondence Requirement**

**Agreement:**

* After RAN4 obtained PC6 EIS spherical coverage requirement, the side conditions for beam correspondence requirement can be derived according by:
  + Minimum SSB\_RP = EIS spherical coverage(PC6, n259, 50MHz) - 10\*log10(nrofRBs x 12) – SNR(at Refsens) + SSB Ês/Iot + ΔMBS

**Conclusions after 2nd round**

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[**R4-2201696**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201696.zip) **TR for FR2 HST**

*Type: draft TR For: Information  
 38.854 v0.1.1 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell, Samsung*

**Abstract:**

dradt TR 38.854; the version (v0.1.0) need to be checked and possibly increased to (v0.2.0).

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

#### 6.9.2 High speed train deployment scenario in FR2

#### 6.9.3 UE RF core requirements

**[101-bis-e][123] NR\_HST\_FR2, AI 6.9.1, 6.9.3 – He Wang**

[**R4-2200327**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200327.zip) **On FR2 HST RF Requirements**

*Type: discussion For: Discussion  
 Source: Qualcomm, Inc.*

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

##### 6.9.3.1 UE Tx requirements

[**R4-2201764**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201764.zip) **Draft CR to introduce UE RF requirement for FR2 Power Class 6**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Samsung*

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

###### 6.9.3.1.1 UE RF framework and power class

[**R4-2200347**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200347.zip) **UE RF requirement framework for FR2 HST**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

remaining issue on UE RF assumption is discussed.

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

###### 6.9.3.1.2 Spherical coverage requirements

[**R4-2200348**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200348.zip) **UE spherical coverage requirement for FR2 HST**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

spherical coverage shall be based on declaration of boresight beam

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

[**R4-2200836**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200836.zip) **Discussion on Spherical coverage requirements for HST\_FR2**

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

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

[**R4-2201525**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201525.zip) **FR2 HST UE requirements**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

Remaining UE issues

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

[**R4-2201763**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201763.zip) **Further Discussion on Spherical Coverage Requirement for FR2 HST UE**

*Type: discussion For: Discussion  
 Source: Samsung*

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

###### 6.9.3.1.3 Beam correspondence

[**R4-2201765**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201765.zip) **Side Conditions for FR2 HST UE Beam Correspondence Requirement**

*Type: discussion For: Discussion  
 Source: Samsung*

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

##### 6.9.3.2 UE Rx requirements

#### 6.9.4 RRM core requirements

##### 6.9.4.1 General

##### 6.9.4.2 Number of RX beams

##### 6.9.4.3 RRC Idle/Inactive and connected state mobility requirements

##### 6.9.4.4 Timing requirements

##### 6.9.4.5 Signalling characteristics requirements

##### 6.9.4.6 Measurement procedure requirements

#### 6.9.5 Demodulation requirements

##### 6.9.5.1 General

##### 6.9.5.2 UE demodulation requirements

###### 6.9.5.2.1 PDSCH requirements under Uni-directional scenario

###### 6.9.5.2.2 PDSCH requirements under Bi-directional scenario

##### 6.9.5.3 BS demodulation requirements

###### 6.9.5.3.1 PUSCH requirements

###### 6.9.5.3.2 PUSCH with UL timing adjustment requirements

###### 6.9.5.3.3 PRACH requirements

### 6.10 Further RRM enhancement for NR and MR-DC

#### 6.10.1 General

#### 6.10.2 RRM core requirements

##### 6.10.2.1 SRS antenna port switching

##### 6.10.2.2 HO with PSCell

##### 6.10.2.3 PUCCH SCell activation/deactivation

### 6.11 NR and MR-DC measurement gap enhancements

#### 6.11.1 General

#### 6.11.2 RRM core requirements

##### 6.11.2.1 Pre-configured MG pattern(s)

##### 6.11.2.2 Multiple concurrent and independent MG patterns

##### 6.11.2.3 Network Controlled Small Gap

### 6.12 Further enhancement on NR demodulation performance

#### 6.12.1 General

#### 6.12.2 UE demodulation and CSI requirements

##### 6.12.2.1 MMSE-IRC receiver for inter-cell interference

###### 6.12.2.1.1 PDSCH requirements

###### 6.12.2.1.2 CQI requirements

##### 6.12.2.2 MMSE-IRC receiver for intra-cell inter-user interference

##### 6.12.2.3 CRS-IM receiver in scenarios with overlapping spectrum for LTE and NR

###### 6.12.2.3.1 General

###### 6.12.2.3.2 Necessity of Network assistant signaling

###### 6.12.2.3.3 Test set-up

#### 6.12.3 BS demodulation requirements

##### 6.12.3.1 PUSCH demodulation requirements for FR1 256QAM

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

#### 6.13.1 General

##### 6.13.1.1 System parameters

##### 6.13.1.2 NTN Satellite Access Node Class/Type

##### 6.13.1.3 Regulatory information

##### 6.13.1.4 Others

#### 6.13.2 Coexistence aspects

##### 6.13.2.1 NTN coexistence scenarios and simulations

##### 6.13.2.2 HAPS coexistence scenarios and simulations

##### 6.13.2.3 ACLR/ACS proposals

#### 6.13.3 Satellite Access Node RF requirements

##### 6.13.3.1 TX requirements for radiated characteristics

##### 6.13.3.2 RX requirements for radiated characteristics

##### 6.13.3.3 Tx requirements for conducted characteristics

##### 6.13.3.4 Rx requirements for conducted characteristics

#### 6.13.4 UE RF requirements

##### 6.13.4.1 TX requirements

##### 6.13.4.2 RX requirements

#### 6.13.5 RRM core requirements

##### 6.13.5.1 General

##### 6.13.5.2 GNSS-related requirements

##### 6.13.5.3 Mobility requirements

##### 6.13.5.4 Timing requirements

##### 6.13.5.5 Measurement procedure requirements

#### 6.13.6 Demodulation requirements

##### 6.13.6.1 General

##### 6.13.6.2 Satellite Access Node demodulation requirements

##### 6.13.6.3 UE demodulation requirements

### 6.14 UE Power Saving Enhancements for NR

#### 6.14.1 General

#### 6.14.2 RRM core requirements

##### 6.14.2.1 UE measurements relaxation for RLM and/or BFD

### 6.15 NR Sidelink enhancement

#### 6.15.1 General

**[101-bis-e][124] NRSL\_enh\_Part\_1, AI 6.15.1, 6.15.2 – Suhwan Lim**

[**R4-2202224**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202224.zip) **Email discussion summary for [101-bis-e][124] NRSL\_enh\_Part\_1**

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

**Abstract:**

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

**Decision: Revised to R4-2202324 (from R4-2202224).**

[**R4-2202324**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202224.zip) **Email discussion summary for [101-bis-e][124] NRSL\_enh\_Part\_1**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

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[**R4-2200833**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200833.zip) **TR38.785 v0.5.0 TR Update for SL enhancement in Rel-17**

*Type: draft TR For: Approval  
 38.785 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: LG Electronics France*

**Abstract:**

[Email Approval] Provide revised TR to include these approved TPs in this meeting.

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

[**R4-2200946**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200946.zip) **TP for TR 38.785: Addition of definitions and symbols to Chapter 3**

*Type: pCR For: Approval  
 38.785 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: vivo*

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

#### 6.15.2 UE RF requirements for NR SL enhancement

**[101-bis-e][124] NRSL\_enh\_Part\_1, AI 6.15.1, 6.15.2 – Suhwan Lim**

[**R4-2200842**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200842.zip) **TP on RF requirements for NR PS UE in n14 for NRSL\_enh WI in Rel-17**

*Type: pCR For: Approval  
 38.785 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: LG Electronics France*

**Abstract:**

Propose TP to add the NR PS UE RF requirements in TR38.785 in Rel-17.

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

[**R4-2200848**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200848.zip) **Draft CR on RF requirements for SL enhancement for public safety service in n14**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: LG Electronics France*

**Abstract:**

Introduce NR PS UE RF requirements in TS38.101-1 in Rel-17.

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

##### 6.15.2.1 Configured Tx power requirements

##### 6.15.2.2 REFSENS requirements

[**R4-2200509**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200509.zip) **n14 REFSENS for PS in licensed band**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Abstract:**

Presents REFSENSE numbers for n14 PS

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

##### 6.15.2.3 Other RF requirements

[**R4-2200138**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200138.zip) **Draft CR for TS 38.101-1, Correction on MOP requirements for inter-band V2X con-current operation (Rel-17)**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: CATT*

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

[**R4-2200139**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200139.zip) **Draft CR for TS 38.101-1, Correction on MOP requirements for inter-band V2X con-current operation (Rel-16)**

*Type: draftCR For: Endorsement  
 38.101-1 v16.10.0 CR- rev Cat: F (Rel-16)  
  
 Source: CATT*

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

[**R4-2200140**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200140.zip) **Draft CR for TS 38.101-3, Correction on MOP requirements for inter-band V2X con-current operation (Rel-17)**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: CATT*

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

[**R4-2200141**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200141.zip) **Draft CR for TS 38.101-3, Correction on MOP requirements for inter-band V2X con-current operation (Rel-16)**

*Type: draftCR For: Endorsement  
 38.101-3 v16.10.0 CR- rev Cat: F (Rel-16)  
  
 Source: CATT*

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

[**R4-2201952**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201952.zip) **TP for 38.785: TxD requirements for NR V2X**

*Type: pCR For: Approval  
 38.785 v0.2.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

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

[**R4-2201953**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201953.zip) **Big CR: introduction of TxD requirements for NR V2X**

*Type: CR For: Agreement  
 38.101-1 v17.4.0 CR-0989 rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

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

#### 6.15.3 Intra-band con-current operation between NR SUL and NR Uu

**[101-bis-e][125] NRSL\_enh\_Part\_2, AI 6.15.3 – Yuan Gao**

[**R4-2202225**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202225.zip) **Email discussion summary for [101-bis-e][125] NRSL\_enh\_Part\_2**

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

**Abstract:**

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

**Decision: Revised to R4-2202325 (from R4-2202225).**

[**R4-2202325**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202225.zip) **Email discussion summary for [101-bis-e][125] NRSL\_enh\_Part\_2**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

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[**R4-2200841**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200841.zip) **Draft CR on RF requirements for intra-band con-current V2X operation in Rel-17**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: LG Electronics France*

**Abstract:**

Introduce RF core requirements for the intra-band con-current V2X UE in TS38.101-1 in Rel-17

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

##### 6.15.3.1 RF requirements for intra-band V2X con-current (including MPR)

[**R4-2200143**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200143.zip) **TP on configured transmitted power for intra-band V2X con-current operation**

*Type: pCR For: Approval  
 38.785 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: CATT*

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

[**R4-2200556**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200556.zip) **MPR for NR V2X intra-band con-current operation with Uu**

*Type: discussion For: Approval  
 Source: LG Electronics*

**Abstract:**

It provides MPR for NR V2X intra-band con-current operation with Uu.

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

[**R4-2200834**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200834.zip) **RF requirements for intra-band con-current V2X operation in licensed band**

*Type: other For: Approval  
 Source: LG Electronics France*

**Abstract:**

This is a discussion and decision paper to finalize the ON/OFF time mask and configured Tx power for intra-band con-current V2X operation in the licensed band.

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

[**R4-2200840**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200840.zip) **TP on RF requirements for intra-band con-current V2X operation in licensed band**

*Type: pCR For: Approval  
 38.785 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: LG Electronics France*

**Abstract:**

Propose the ON/OFF time mask, MPR requirements, and configured Tx power for intra-band con-current V2X operation in the licensed band.

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

[**R4-2200947**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200947.zip) **Remaining issues for intra-band con-current operation**

*Type: discussion For: Approval  
 Source: vivo*

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

[**R4-2201496**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201496.zip) **draft CR for TS 38.101-1 correctiron on intra-band concurrent operation**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Xiaomi*

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

[**R4-2201500**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201500.zip) **further discussion on configured power for intra-band concurrent operation**

*Type: discussion For: Discussion  
 Source: Xiaomi*

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

[**R4-2201949**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201949.zip) **Draft CR for TS 38.101-1: configured transmitted power for intra-band con-current operation**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon*

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

[**R4-2201950**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201950.zip) **MPR for intra-band con-current operation**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

##### 6.15.3.2 Synchronous operation between SL and Uu (including switching time mask, SL transmission timing)

[**R4-2200142**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200142.zip) **Discussion on time mask for Uu and SL switching**

*Type: discussion For: Approval  
 Source: CATT*

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

[**R4-2200510**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200510.zip) **RF switching time for V2X intra-band con-current operation with different carriers in TDD bands and time masks for same carrier switching**

*Type: discussion For: Approval  
 38.101-2 v CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Abstract:**

RF switching requirements for intra-band con-current operation with different carrier is presented

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

[**R4-2201021**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201021.zip) **TP on sync issue for intra-band V2X operation**

*Type: pCR For: Approval  
 38.785 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: CATT*

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

[**R4-2201497**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201497.zip) **draft CR for TS 38.101-1 on switching time mask between SL and Uu**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Xiaomi*

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

[**R4-2201502**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201502.zip) **further discussion on switching time mask between SL and Uu**

*Type: discussion For: Discussion  
 Source: Xiaomi*

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

[**R4-2201948**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201948.zip) **On SL switching time mask**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

#### 6.15.4 High power UE(PC2) for SL

**[101-bis-e][126] NRSL\_enh\_Part\_3, AI 6.15.4 – Liehai Liu**

[**R4-2202226**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202226.zip) **Email discussion summary for [101-bis-e][126] NRSL\_enh\_Part\_3**

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

**Abstract:**

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

**Decision: Revised to R4-2202326 (from R4-2202226).**

**[R4-2202326](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202226.zip) Email discussion summary for [101-bis-e][126] NRSL\_enh\_Part\_3**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

##### 6.15.4.1 TX requirements (Power class)

[**R4-2201498**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201498.zip) **draft CR for TS 38.101-3 on Pcmax definition on inter-band V2X UE**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: F (Rel-17)  
  
 Source: Xiaomi*

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

[**R4-2201501**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201501.zip) **further discussion on Pcmax definition on inter-band V2X UE**

*Type: discussion For: Discussion  
 Source: Xiaomi*

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

##### 6.15.4.2 Coexistence study

[**R4-2201499**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201499.zip) **further discussion on co-existence issue for HPUE**

*Type: discussion For: Discussion  
 Source: Xiaomi*

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

[**R4-2201708**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201708.zip) **Co-channel existing**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

In this paper, we present our views on co-channel interference aspect

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

[**R4-2201951**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201951.zip) **On co-channel existence issue in RAN4**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

##### 6.15.4.3 Others

#### 6.15.5 RRM core requirements

##### 6.15.5.1 Intra-band con-current V2X operation

##### 6.15.5.2 SL-DRX

##### 6.15.5.3 Others

### 6.16 Extending current NR operation to 71GHz

#### 6.16.1 General

**[101-bis-e][127] NR\_ext\_to\_71GHz\_Part\_1, AI 6.16.1, 6.16.2, 6.16.6, 6.16.8 – Aida L Vera Lopez**

[**R4-2202227**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202227.zip) **Email discussion summary for [101-bis-e][127] NR\_ext\_to\_71GHz\_Part\_1**

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

**Abstract:**

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

**Decision: Revised to R4-2202327 (from R4-2202227).**

[**R4-2202327**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202227.zip) **Email discussion summary for [101-bis-e][127] NR\_ext\_to\_71GHz\_Part\_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 1st round**

**Conclusions after 2nd round**

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[**R4-2200469**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200469.zip) **Views on sensing beam selection on the UE side**

*Type: other For: Discussion  
 Source: Sony*

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

[**R4-2200847**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200847.zip) **Draft LS on sensing beam characteristics to RAN1**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

In this contribution we present some technical background related to beam quality properties previously discussed in RAN4 and our view on the need for beam quality requirements and corresponding test aspects relevant for BS and UE operating within the fre

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

[**R4-2200948**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200948.zip) **Draft CR for TS 38.101-2: Introduction of system parameters for FR2-2**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: vivo*

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

[**R4-2201410**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201410.zip) **Discussion and draft reply LS on sensing beam selection from RAN1**

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

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

[**R4-2201533**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201533.zip) **Discussion and draft reply LS on sensing beam selection from RAN1**

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

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

[**R4-2201923**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201923.zip) **CR work split and UE feature list for NR ext. to 71GHz**

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

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

#### 6.16.2 Operation bands and system parameters (channelization, raster, CBW, etc)

**[101-bis-e][127] NR\_ext\_to\_71GHz\_Part\_1, AI 6.16.1, 6.16.2, 6.16.6, 6.16.8 – Aida L Vera Lopez**

[**R4-2200080**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200080.zip) **Discussion of channelization for up to 71 GHz**

*Type: other For: Approval  
 Source: CATT*

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

[**R4-2200081**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200081.zip) **Draft LS for the channelization for up to 71 GHz**

*Type: other For: Approval  
 Source: CATT*

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

[**R4-2200282**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200282.zip) **Channel and Sync rasters for NR operation in 52.6GHz - 71GHz**

*Type: discussion For: Discussion  
 Source: Apple*

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

[**R4-2200321**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200321.zip) **draft CR to 38.101-2 60 GHz UE general clauses**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Abstract:**

n263 CA, max TX BW, channel BWs added

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

[**R4-2200863**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200863.zip) **Channel arrangement and channel bandwidths for n263**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Draft CR to introduce channel and synchronisation rasters and channel bandwidths for n263

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

[**R4-2200949**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200949.zip) **Further discussion on channel raster and sync raster for 52.6~71 GHz**

*Type: discussion For: Approval  
 Source: vivo*

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

[**R4-2201490**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201490.zip) **Draft CR to TS 38.104: Section 5.4 Channel arrangement**

*Type: draftCR For: Endorsement  
 38.104 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Introduction of Channel Arrangement for NR extension to 71 GHz

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

[**R4-2201491**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201491.zip) **52.6-71 GHz System Parameters**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

This contribution will further highlight the design details of Option 1C and Option 1D using the above agreements as benchmarking criteria.

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

[**R4-2201592**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201592.zip) **60GHz channel and synchronization raster**

*Type: discussion For: Approval  
 Source: LG Electronics Finland*

**Abstract:**

Channel raster and SSB raster for 57-71GHz frequency range is discussed and proposals for both are made.

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

[**R4-2201598**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201598.zip) **System parameters for a NR band in the range 52.6GHz – 71GHz**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

In this contribution synchronization raster, carrier aggregation and spectrum utilization in FR2-2 are discussed.

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

[**R4-2201924**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201924.zip) **Views on channelization for 52.6 to 71 GHz**

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

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

[**R4-2201985**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201985.zip) **Channelization and synchronization raster for 60GHz**

*Type: discussion For: Discussion  
 Source: MediaTek (Chengdu) Inc.*

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

[**R4-2202023**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202023.zip) **Discussion on the channel raster and sync raster in FR2-2**

*Type: discussion For: Discussion  
 Source: Huawei*

**Abstract:**

This contribution provides our views and proposals about channel raster and sync raster for band n263, and the possible licensed band in 66-71 GHz spectrum.

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

#### 6.16.3 UE RF requirements

**[101-bis-e][128] NR\_ext\_to\_71GHz\_Part\_2, AI 6.16.3 – Phil Coan**

[**R4-2202228**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202228.zip) **Email discussion summary for [101-bis-e][128] NR\_ext\_to\_71GHz\_Part\_2**

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

**Abstract:**

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

**Decision: Revised to R4-2202328 (from R4-2202228).**

[**R4-2202328**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202228.zip) **Email discussion summary for [101-bis-e][128] NR\_ext\_to\_71GHz\_Part\_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 1st round**

**Conclusions after 2nd round**

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[**R4-2200438**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200438.zip) **UE antenna module with 60 GHz integration**

*Type: discussion For: Approval  
 Source: Apple*

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

##### 6.16.3.1 TX requirements

[**R4-2200067**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200067.zip) **Views on UE antenna elements for FR2-2**

*Type: discussion For: Discussion  
 Source: Murata Manufacturing Co Ltd.*

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

[**R4-2200238**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200238.zip) **60GHz UE TX**

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

**Abstract:**

Discuss various UE TX requirements

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

[**R4-2200312**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200312.zip) **draft CR to 38.101-2 60 GHz UE TX**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Abstract:**

EIRP, spherical coverage, SEM, ALCR, TX PSD requirements added

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

[**R4-2200453**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200453.zip) **Remaining issues with transient requirements for FR2-2**

*Type: discussion For: Discussion  
 Source: Apple*

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

[**R4-2200470**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200470.zip) **UE Array, EIRP level and Spherical Coverage at 60 GHz**

*Type: other For: Decision  
 Source: Sony, Ericsson*

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

[**R4-2200570**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200570.zip) **View on TX requirements of FR2-2**

*Type: discussion For: Approval  
 Source: MediaTek Beijing Inc.*

**Abstract:**

Proposal: Antenna quantity assumption and Pout per RF chain assumption shall be agreed together as a package.

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

[**R4-2200950**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200950.zip) **Further discussion on handheld UE EIRP and spherical coverage requirements for 52.6~71 GHz**

*Type: discussion For: Approval  
 Source: vivo*

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

[**R4-2201073**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201073.zip) **On UE Tx RF aspects for a NR band in the range 52.6GHz – 71GHz**

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

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

[**R4-2201209**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201209.zip) **Discussion on Tx RF requirements in FR2-2**

*Type: discussion For: Discussion  
 Source: LG Electronics Finland*

**Abstract:**

Views on Tx RF requirements for FR2-2

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

[**R4-2201411**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201411.zip) **On 60GHz UE Tx RF requirements**

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

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

[**R4-2201534**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201534.zip) **On 60GHz UE Tx RF requirements**

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

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

[**R4-2201925**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201925.zip) **UE Tx requirements for 52.6 to 71 GHz**

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

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

##### 6.16.3.2 RX requirements

[**R4-2200239**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200239.zip) **60 GHz UE RX**

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

**Abstract:**

Discuss various UE RX requirements

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

[**R4-2200307**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200307.zip) **draft CR to 38.101-2 60GHz UE RX**

*Type: draftCR For: Endorsement  
 38.101-2 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Abstract:**

define PC1, PC3 REFSENS and EIS spherical coverage

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

[**R4-2200360**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200360.zip) **Handheld UE antenna assumption for FR2-2**

*Type: other For: Approval  
 Source: NTT DOCOMO, INC.*

**Abstract:**

To discuss antenna assumption for FR2-2 UE.

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

[**R4-2200951**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200951.zip) **Further discussion on handheld UE EIS requirements for 52.6~71 GHz**

*Type: discussion For: Approval  
 Source: vivo*

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

[**R4-2201171**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201171.zip) **Discussion on Rx RF requirements in FR2-2**

*Type: discussion For: Discussion  
 Source: LG Electronics Finland*

**Abstract:**

Views on Rx RF requirements for FR2-2.

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

[**R4-2201412**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201412.zip) **On 60GHz UE EIS requirements**

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

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

[**R4-2201535**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201535.zip) **On 60GHz UE EIS requirements**

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

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

[**R4-2201926**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201926.zip) **UE EIS requirements for FR2-2**

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

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

#### 6.16.4 BS RF requirements

##### 6.16.4.1 TX requirements

##### 6.16.4.2 RX requirements

#### 6.16.5 Co-existence simulations

**[101-bis-e][129] NR\_ext\_to\_71GHz\_Part\_3, AI 6.16.5 – Huiping Shan**

[**R4-2202229**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202229.zip) **Email discussion summary for [101-bis-e][129] NR\_ext\_to\_71GHz\_Part\_3**

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

**Abstract:**

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

**Decision: Revised to R4-2202329 (from R4-2202229).**

[**R4-2202329**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202229.zip) **Email discussion summary for [101-bis-e][129] NR\_ext\_to\_71GHz\_Part\_3**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

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[**R4-2200039**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200039.zip) **Discussions on coexistence requirements for 60GHz**

*Type: other For: Discussion  
 Source: Qualcomm CDMA Technologies*

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

[**R4-2200082**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200082.zip) **Discussion on ACIR requirement for 71 GHz**

*Type: other For: Approval  
 Source: CATT*

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

[**R4-2200413**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200413.zip) **Proposals on coexistence simulation for extending current NR operation to 71 GHz**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This contribution provides some preliminary simulation results based on the proposed assumptions and parameters in the approved WF and provides some proposals on coexistence simulation for extending current NR operation to 71.

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

[**R4-2200578**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200578.zip) **Discussion on ACIR requirements for 52.6-71 GHz**

*Type: discussion For: Discussion  
 Source: Korea Testing Laboratory*

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

[**R4-2200846**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200846.zip) **Update of coexistence simulation results relevant for NR extension to 71 GHz**

*Type: other For: Approval  
 Source: Ericsson*

**Abstract:**

In this contribution we present additional results and summarize the current situation and propose a compromise to settle ACLR and ACS requirement for BS and UE.

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

[**R4-2200952**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200952.zip) **Discussion on DL/UL ACIR and BS/UE ACLR/ACS for FR2-2**

*Type: discussion For: Approval  
 Source: vivo*

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

[**R4-2201455**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201455.zip) **Coexistence simulation results for 52.6-71GHz**

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

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

#### 6.16.6 FR1+FR2-2 DC/CA band combinations

**[101-bis-e][127] NR\_ext\_to\_71GHz\_Part\_1, AI 6.16.1, 6.16.2, 6.16.6, 6.16.8 – Aida L Vera Lopez**

[**R4-2201599**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201599.zip) **How to introduce FR2-2 bands into 38.101-2 and combinations into 38.101-3**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

In RAN4#101-e the changes to general parts of specifications due to introduction of FR2-2 was discussed and some draft CRs were endorsed. One of the open items was whether to separate FR2-2 bands and band combinations into separate tables and/or create fu

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

[**R4-2201916**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201916.zip) **Discussion on FR2-2 DC/CA with FR1 anchor**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

Discussion on FR2-2 DC/CA with FR1 anchor

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

[**R4-2201917**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201917.zip) **draft CR 38.101-3 on FR2-2 DC/CA with FR1 anchor**

*Type: draftCR For: Endorsement  
 38.101-3 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

draft CR 38.101-3 on FR2-2 DC/CA with FR1 anchor

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

#### 6.16.7 RRM core requirements

##### 6.16.7.1 General

##### 6.16.7.2 Timing requirements

##### 6.16.7.3 Interruption requirements

##### 6.16.7.4 Active BWP switching delay requirements

##### 6.16.7.5 Measurement gap interruption requirements

##### 6.16.7.6 LBT impacts on RRM requirements

#### 6.16.8 Others

**[101-bis-e][127] NR\_ext\_to\_71GHz\_Part\_1, AI 6.16.1, 6.16.2, 6.16.6, 6.16.8 – Aida L Vera Lopez**

[**R4-2200083**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200083.zip) **Discussion on the LBT requirement and the reply LS for sensing beam selection**

*Type: other For: Approval  
 Source: CATT*

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

[**R4-2200084**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200084.zip) **Draft CR for TS 37.107: introduction of LBT requirements for FR2-2**

*Type: draftCR For: Endorsement  
 37.107 v16.3.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200085**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200085.zip) **Draft CR for TS 37.106: introduction of LBT requirements for FR2-2**

*Type: draftCR For: Endorsement  
 37.106 v16.1.0 CR- rev Cat: B (Rel-17)  
  
 Source: CATT*

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

[**R4-2200953**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200953.zip) **Discussion and draft reply LS on sensing beam selection**

*Type: discussion For: Approval  
 Source: vivo*

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

[**R4-2201600**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201600.zip) **Sensing beam for LBT in FR2-2**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

In this contribution we discuss LBT and sensing beam from RAN4 perspective and propose a how to handle it in RAN4.

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

### 6.17 Enhancements to Integrated Access and Backhaul (IAB) for NR

#### 6.17.1 General

#### 6.17.2 RF requirements

##### 6.17.2.1 Impact for Simultaneous operation of IAB child and parent links

##### 6.17.2.2 Impact for Timing enhancement

##### 6.17.2.3 Others

#### 6.17.3 RRM core requirements

#### 6.17.4 Others

### 6.18 NR coverage enhancements

#### 6.18.1 General and CR structure

**[101-bis-e][130] NR\_cov\_enh, AI 6.18.1, 6.18.2 – Shan Yang**

[**R4-2202230**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202230.zip) **Email discussion summary for [101-bis-e][130] NR\_cov\_enh**

*Type: other For: Information  
 Source: Moderator (China Telecom)*

**Abstract:**

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

**Decision: Revised to R4-2202330 (from R4-2202230).**

[**R4-2202330**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202230.zip) **Email discussion summary for [101-bis-e][130] NR\_cov\_enh**

*Type: other For: Information  
 Source: Moderator (China Telecom)*

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

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[**R4-2200020**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200020.zip) **Updated RAN4 RF work plan for NR coverage enhancements WI**

*Type: Work Plan For: Approval  
 Source: China Telecom*

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

[**R4-2200339**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200339.zip) **draft CR for EVM based requriements**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

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

[**R4-2201706**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201706.zip) **simulation updated results for phase tolerance for PUSCH repetition**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

In this paper, we present our updated simulation results

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

#### 6.18.2 UE RF requirements

**[101-bis-e][130] NR\_cov\_enh, AI 6.18.1, 6.18.2 – Shan Yang**

[**R4-2201986**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201986.zip) **Some remaining open issues on coverage enhancements**

*Type: discussion For: Discussion  
 Source: MediaTek (Chengdu) Inc.*

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

##### 6.18.2.1 Requirements for non-scheduled gap

[**R4-2200021**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200021.zip) **RF requirements for the non-zero gap in between PUSCH/PUCCH transmissions**

*Type: discussion For: Discussion  
 Source: China Telecom*

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

[**R4-2200343**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200343.zip) **OFF power requirement for the gap in TX on case**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

[**R4-2201705**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201705.zip) **RF impact on non-scheduled gap**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

In this paper, we present our view on the RF requirement aspect of phase continuity.

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

##### 6.18.2.2 Tolerance for power consistency/phase continuity

[**R4-2200022**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200022.zip) **On phase continuity and power consistency tolerance**

*Type: discussion For: Discussion  
 Source: China Telecom*

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

[**R4-2200338**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200338.zip) **Discussion on UE requirement for JCE**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

[**R4-2200471**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200471.zip) **Views on phase continuity and power consistency for PUSCH and PUCCH repetition**

*Type: other For: Discussion  
 Source: Sony*

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

[**R4-2200926**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200926.zip) **Discussion on testability of coverage enhancement requirements**

*Type: discussion For: Approval  
 Source: ROHDE & SCHWARZ*

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

[**R4-2201704**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201704.zip) **On JCE phase continuity and power consistency tolerance for PUCCH and PUSCH**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

In this paper, we present our view on the RF requirement aspect on JCE phase continuity and power consistency tolerance for PUCCH and PUSCH repetition continuity

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

[**R4-2201840**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201840.zip) **Feasibility of proposed test methods for phase continuity and power consistency tolerance measurements**

*Type: discussion For: Approval  
 Source: Anritsu Limited*

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

[**R4-2201958**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201958.zip) **On phase continuity for multiple transmissions**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

##### 6.18.2.3 Maximum duration for joint channel estimation

[**R4-2200023**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200023.zip) **On maximum duration for joint channel estimation**

*Type: discussion For: Discussion  
 Source: China Telecom*

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

[**R4-2201707**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201707.zip) **LS reply On maximum duration of phase continuity and power consistency for PUCCH and PUSCH repetition**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

In this paper, we present our view on the FFS aspects of phase continuity and also our view on the LS questions.

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

##### 6.18.2.4 Others

[**R4-2200024**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200024.zip) **On UE autonomous adjustment and DL reception in-between transmission**

*Type: discussion For: Discussion  
 Source: China Telecom*

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

[**R4-2200344**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200344.zip) **Maximum duration handling for JCE**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

[**R4-2201703**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201703.zip) **On measurement of the TX coherent transmission**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

In this paper, we present our view on the RF requirement measurement aspect of phase /power discontinuity tolerance.

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

#### 6.18.3 BS demodulation requirements

### 6.19 Further enhancements on MIMO for NR

#### 6.19.1 General

**[101-bis-e][131] NR\_feMIMO, AI 6.19.1, 6.19.2 – Taekhoon Kim**

[**R4-2202231**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202231.zip) **Email discussion summary for [101-bis-e][131] NR\_feMIMO**

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

**Abstract:**

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

**Decision: Revised to R4-2202331 (from R4-2202231).**

[**R4-2202331**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202231.zip) **Email discussion summary for [101-bis-e][131] NR\_feMIMO**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

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[**R4-2200276**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200276.zip) **Discussion on Impact to RF and RRM requirements with simultaneous reception**

*Type: discussion For: Discussion  
 Source: Apple*

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

[**R4-2200534**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200534.zip) **Discussion on FR2 simultaneous reception in NR FeMIMO**

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

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

[**R4-2200924**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200924.zip) **FR2 UE with the capability of simultaneous reception with different QCL Type-D RSs**

*Type: discussion For: Discussion  
 Source: Samsung*

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

[**R4-2201266**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201266.zip) **Requirements for Simultaneous Reception in FR2**

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

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

[**R4-2201386**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201386.zip) **Discussion on Simultaneous reception with different QCL-type D**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this contribtuion, we discuss RRM requirements for simultaneous reception of channel/RS with different QCL type D

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

#### 6.19.2 UE RF requirements

**[101-bis-e][131] NR\_feMIMO, AI 6.19.1, 6.19.2 – Taekhoon Kim**

[**R4-2200925**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200925.zip) **On RF requirements for further enhancements on MIMO**

*Type: discussion For: Discussion  
 Source: Samsung*

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

##### 6.19.2.1 Additional requirement for multi-panel reception

[**R4-2200568**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200568.zip) **View on additional FR2 FeMIMO multi-panel reception requirement**

*Type: discussion For: Approval  
 Source: MediaTek Beijing Inc.*

**Abstract:**

Proposal: No need to specify additional reception requirement for multi-panel reception UE.

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

[**R4-2200591**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200591.zip) **Discussion on Additional requirement for multi-panel reception**

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

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

[**R4-2200962**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200962.zip) **Further discussion on impact of multi-panel reception requirements**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201957**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201957.zip) **RF requirements for further enhancements on MIMO**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

##### 6.19.2.2 Impact of MPE enhancements

[**R4-2200301**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200301.zip) **On per beam based P-MPR reporting in FeMIMO**

*Type: discussion For: Discussion  
 Source: Apple*

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

[**R4-2200592**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200592.zip) **Discussion on Impact of MPE enhancements**

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

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

[**R4-2200963**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200963.zip) **Further discussion on impact of MPE requirements**

*Type: discussion For: Discussion  
 Source: vivo*

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

##### 6.19.2.3 SRS related impact

[**R4-2200342**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200342.zip) **Two sets of SRS sets and GP needed in between**

*Type: other For: Approval  
 Source: Qualcomm Incorporated*

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

#### 6.19.3 RRM core requirements

##### 6.19.3.1 Unified TCI for DL and UL

##### 6.19.3.2 Inter-cell beam management

##### 6.19.3.3 Others

#### 6.19.4 UE Demodulation and CSI requirements

### 6.20 Support of reduced capability NR devices

#### 6.20.1 General

**[101-bis-e][132] NR\_RedCap, AI 6.20.1, 6.20.2 – Chunhui Zhang**

[**R4-2202232**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202232.zip) **Email discussion summary for [101-bis-e][132] NR\_RedCap**

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

**Abstract:**

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

**Decision: Revised to R4-2202332 (from R4-2202232).**

[**R4-2202332**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202232.zip) **Email discussion summary for [101-bis-e][132] NR\_RedCap**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

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[**R4-2200407**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200407.zip) **On NR RedCap general BS demodulation performance requirements**

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

**Abstract:**

In this contribution, we have provided an overview of RedCap-related features and scenarios. We see that there is no potential impact on the BS demodulation performance.

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

#### 6.20.2 UE RF requirements

**[101-bis-e][132] NR\_RedCap, AI 6.20.1, 6.20.2 – Chunhui Zhang**

##### 6.20.2.1 FR1

[**R4-2201250**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201250.zip) **Draft CR for 38.101-1 to introduce RF requirements for RedCap UE**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei, HiSilicon, CMCC, OPPO, CBN*

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

[**R4-2201988**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201988.zip) **RedCap general UE RF requirements aspects**

*Type: discussion For: Discussion  
 Source: MediaTek (Chengdu) Inc.*

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

###### 6.20.2.1.1 Tx requirements (power class)

[**R4-2200496**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200496.zip) **RedCap UL Architecture and power class**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

A number of power class agreements were achieved in last meeting and, in this contribution, we further discuss the potential for PC2 implementations and preferred approach.

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

[**R4-2201279**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201279.zip) **R17 FR1 Redcap UE**

*Type: discussion For: Approval  
 Source: OPPO*

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

[**R4-2201301**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201301.zip) **Discussion on Tx requirements for FR1 Redcap UE**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

[**R4-2201345**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201345.zip) **On FR1 Redcap UE 2Tx**

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

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

[**R4-2201709**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201709.zip) **CR on RedCap UE FR1-TX**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

CR on general and Tx part for RedCap UE is introduced

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

###### 6.20.2.1.2 Rx requirements (REFSENS, etc)

[**R4-2200442**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200442.zip) **RedCap UE HD-FDD REFSENS requirements**

*Type: discussion For: Approval  
 Source: Apple*

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

[**R4-2200472**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200472.zip) **Considerations on REFSENS for RedCap FR1**

*Type: other For: Decision  
 Source: Sony*

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

[**R4-2201248**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201248.zip) **Discussion on FR1 REFSENS requirements for RedCap UE**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

[**R4-2201344**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201344.zip) **Further discussion on FR1 RedCap related requirements**

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

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

[**R4-2201710**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201710.zip) **CR on RedCap UE FR1-RX**

*Type: draftCR For: Endorsement  
 38.101-1 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

CR on general and RX part for RedCap UE is introduced

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

##### 6.20.2.2 FR2

[**R4-2201249**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201249.zip) **Discussion on FR2 RF requirements for RedCap UE**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

###### 6.20.2.2.1 Tx requirements (power class, UE type)

[**R4-2200473**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200473.zip) **Considerations on RF architecture for RedCap FR2**

*Type: other For: Decision  
 Source: Sony*

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

[**R4-2200571**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200571.zip) **View on FR2 RedCap**

*Type: discussion For: Approval  
 Source: MediaTek Beijing Inc.*

**Abstract:**

Proposal1: For FR2 wearable, use “watch” as the typical assumption for requirement discussion.

Proposal2: Throughput, battery life, and UE implementation feasibility shall be considered together before specifying FR2 requirements for wearable.

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

[**R4-2200978**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200978.zip) **Discussion on FR2 RedCap Tx requirements**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201302**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201302.zip) **Discussion on Tx requirements for FR2 Redcap UE**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

[**R4-2201346**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201346.zip) **Discussion on FR2 RedCap UE**

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

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

[**R4-2201713**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201713.zip) **RF impact On FR2 RedCap**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

In this paper, we present our view on the FR2 RedCap RF impact.

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

[**R4-2201972**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201972.zip) **On Redcap FR2-1 UE Tx RF assumptions**

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

**Abstract:**

Discussion on Tx topology, benefit of a lower TRP limit for a UE that is expected at the outset to be a low power device

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

###### 6.20.2.2.2 Rx requirements

[**R4-2200979**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200979.zip) **Discussion on FR2 RedCap Rx requirements**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201303**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201303.zip) **Discussion on Rx requirements for FR2 Redcap UE**

*Type: discussion For: Approval  
 Source: Xiaomi*

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

[**R4-2201712**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201712.zip) **On single polarization receiving on FR2 RedCap UE**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

In this paper, we present our view on single polarization receiving

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

[**R4-2201971**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201971.zip) **On Redcap FR2-1 UE Rx RF assumptions**

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

**Abstract:**

Discussion on whether a dual pol. receiver is appropriate for a RedCap UE

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

##### 6.20.2.3 Others

[**R4-2201711**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201711.zip) **RedCap FR1 Operating band n79**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

In this paper, we present our view on Redcap UE band n79

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

#### 6.20.3 RRM core requirements

##### 6.20.3.1 Impacts from UE complexity reduction

###### 6.20.3.1.1 General

###### 6.20.3.1.2 Mobility requirements

###### 6.20.3.1.3 Timing requirements

###### 6.20.3.1.4 Signalling characteristics

###### 6.20.3.1.5 Measurement procedure

##### 6.20.3.2 Extended DRX enhancements

##### 6.20.3.3 RRM measurement relaxations

##### 6.20.3.4 Others

#### 6.20.4 UE demodulation and CSI requirements

### 6.21 Positioning enhancements for NR

#### 6.21.1 General

#### 6.21.2 RRM core requirements

##### 6.21.2.1 UE Rx/Tx and/or gNB Rx/Tx timing delay mitigation

##### 6.21.2.2 Latency reduction of positioning measurement

##### 6.21.2.3 Measurement in RRC\_INACTIVE state

##### 6.21.2.4 Impact on existing UE positioning and RRM requirements

##### 6.21.2.5 Enhancements of A-GNSS positioning

##### 6.21.2.6 Others

### 6.22 Multi-Radio Dual-Connectivity enhancements

#### 6.22.1 General

#### 6.22.2 RRM core requirements

##### 6.22.2.1 Efficient activation/de-activation mechanism for SCells

##### 6.22.2.2 Efficient activation/de-activation mechanism for one SCG

##### 6.22.2.3 Conditional PSCell change and addition

##### 6.22.2.4 Others

### 6.23 Enhanced IIoT and URLLC support

#### 6.23.1 General

#### 6.23.2 RRM core requirements

##### 6.23.2.1 Propagation delay compensation enhancements

##### 6.23.2.2 Reference point for Te requirements

##### 6.23.2.3 Others

### 6.24 NR Sidelink Relay

#### 6.24.1 General

#### 6.24.2 RRM core requirements

### 6.25 NR small data transmissions in INACTIVE state

#### 6.25.1 General and work plan

#### 6.25.2 RRM core requirements

### 6.26 Support for Multi-SIM devices for LTE/NR

#### 6.26.1 General and work plan

#### 6.26.2 RRM core requirements

## 7 Rel-17 Study Items for NR

### 7.1 Study on enhanced test methods for FR2 in NR

#### 7.1.1 Maintenance on objectives 1~6

#### 7.1.2 OTA test methods for UE RF, RRM and demodulation for 52.6~71GHz

##### 7.1.2.1 General

###### 7.1.2.1.1 Test system assumption

###### 7.1.2.1.2 UE types

###### 7.1.2.1.3 MU assessment

###### 7.1.2.1.4 Others

##### 7.1.2.2 Test methodology for UE RF

##### 7.1.2.3 Test methodology for RRM

##### 7.1.2.4 Test methodology for UE demodulation and CSI

### 7.2 Study on Efficient utilization of licensed spectrum that is not aligned with existing NR channel bandwidths

**[101-bis-e][133] FS\_NR\_eff\_BW\_util, AI 7.2 – Esther Sienkiewicz**

[**R4-2202233**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202233.zip) **Email discussion summary for [101-bis-e][133] FS\_NR\_eff\_BW\_util**

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

**Abstract:**

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

**Decision: Revised to R4-2202333 (from R4-2202233).**

**[R4-2202333](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202233.zip) Email discussion summary for [101-bis-e][133] FS\_NR\_eff\_BW\_util**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 7.2.1 General and TR

[**R4-2201485**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201485.zip) **draft TR 38.844 v0.0.6**

*Type: draft TR For: Approval  
 38.844 v0.0.6 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

draft TR 38.844 v0.0.6 with implemented TPs from RAN4 #101-e.

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

[**R4-2201794**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201794.zip) **Revision on TR 38.344 Section 6.2.3**

*Type: pCR For: Approval  
 38.844 v0.0.6 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Wistron Telecom AB*

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

[**R4-2202046**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202046.zip) **TP for TR 38.844: Proposal for n12 and n85**

*Type: pCR For: Approval  
 38.844 v0.0.6 CR- rev Cat: (Rel-17)  
  
 Source: T-Mobile USA*

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

#### 7.2.2 Evaluation of use of larger channel bandwidths than licensed bandwidth

[**R4-2200913**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200913.zip) **Discussion on the widerCBW approach**

*Type: discussion For: Discussion  
 Source: China Telecom*

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

[**R4-2201509**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201509.zip) **On the applicability of wider channel bandwidth**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

##### 7.2.2.1 Channel filter assumptions and RB blanking with impacts on UE (ACS, blocking)

[**R4-2200911**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200911.zip) **Further input on performance when using the next larger channel**

*Type: pCR For: Decision  
 38.844 v0.0.6 CR- rev Cat: (Rel-17)  
  
 Source: Apple*

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

##### 7.2.2.2 Signaling and configuration (RAN1/RAN2 impacts) aspects

[**R4-2201486**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201486.zip) **TP to TR 38.844: Section 6.1.2 Signalling for Larger Channel BW Approach**

*Type: pCR For: Approval  
 38.844 v0.0.6 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Based upon the LS Reply from RAN2 the following is a text proposal to include inputs for completeness.

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

[**R4-2201795**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201795.zip) **Further discussion on the WiderCBW approach**

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

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

[**R4-2201880**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201880.zip) **Views on signalling for Wider CBW method**

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

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

##### 7.2.2.3 Other aspects such as detailed solution, complexity, legacy UE, etc

[**R4-2201995**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201995.zip) **On wider CBW open issues**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

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

#### 7.2.3 Evaluation of use of overlapping UE channel bandwidths

##### 7.2.3.1 Overlapping CBWs from network perspective

[**R4-2200912**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200912.zip) **Further corrections to the solution based on overlapping channels from the network perspective**

*Type: pCR For: Decision  
 38.844 v0.0.6 CR- rev Cat: (Rel-17)  
  
 Source: Apple*

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

[**R4-2201510**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201510.zip) **Signaling aspect for overlapping from network perspective**

*Type: pCR For: Approval  
 38.844 v0.0.5 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

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

[**R4-2201511**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201511.zip) **On overlapping CBWs from Network perspective**

*Type: pCR For: Approval  
 38.844 v0.0.5 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

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

##### 7.2.3.2 Combined UE CBWs (one cell)

###### 7.2.3.2.1 Signaling and configuration (RAN1/RAN2 impacts) aspects

[**R4-2201488**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201488.zip) **TP to TR 38.844: Section 6.1.2 Signalling for Overlapping Channel BW from UE perspective Approach**

*Type: pCR For: Approval  
 38.844 v0.0.6 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Based upon the LS Reply from RAN2 the following is a text proposal to include inputs for completeness.

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

[**R4-2201883**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201883.zip) **Views on Overlapping UE CBWs method**

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

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

[**R4-2201993**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201993.zip) **TP to TR 38.844: on combined UE CBW (one cell) – signalling aspects**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

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

###### 7.2.3.2.2 Other aspects such as detailed solution, complexity, legacy UE, etc

[**R4-2201994**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201994.zip) **On combined UE CBW (one cell) gNB channel filter and UE requirements**

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

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

##### 7.2.3.3 Overlapping CA (two cells)

###### 7.2.3.3.1 Signaling and configuration (RAN1/RAN2 impacts) aspects

[**R4-2201487**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201487.zip) **TP to TR 38.844: Section 6.1.2 Signalling for Overlapping CA Approach**

*Type: pCR For: Approval  
 38.844 v0.0.6 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

Based upon the LS Reply from RAN2 the following is a text proposal to include inputs for completeness.

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

[**R4-2201884**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201884.zip) **Views on Overlapping CA method**

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

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

###### 7.2.3.3.2 Other aspects such as detailed solution, complexity, legacy UE, etc

[**R4-2201333**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201333.zip) **TP to TR 38.844: Section 6.5.1 Overlapping CA (two cells)**

*Type: pCR For: Approval  
 38.844 v0.0.6 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson*

**Abstract:**

This TP is sugegsting text update to the overlapping CA / RAN1-RAN2 impact section for completeness

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

[**R4-2201512**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201512.zip) **RF requirements for overlapping CA**

*Type: pCR For: Approval  
 38.844 v0.0.5 CR- rev Cat: (Rel-17)  
  
 Source: Huawei, HiSilicon*

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

##### 7.2.3.4 Overall method comparisons

[**R4-2200817**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200817.zip) **Discussion on overall method comparisons for irregular bandwidth**

*Type: discussion For: Decision  
 Source: CMCC*

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

[**R4-2200921**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200921.zip) **Considerations for wider CBW and overlapping UE CBW solutions**

*Type: discussion For: Discussion  
 Source: China Telecom*

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

[**R4-2201264**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201264.zip) **Comparison of Different Schemes**

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

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

[**R4-2201492**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201492.zip) **Comparison Between Methods for Irregular BWs**

*Type: discussion For: Discussion  
 Source: Ericsson*

**Abstract:**

This contribution further discusses the evaluation matrix introduced several meetings as a means to evaluate each method.

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

[**R4-2201513**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201513.zip) **Overall method comparisons**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

[**R4-2201885**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201885.zip) **TP to TR 38.844: Wider CBW method**

*Type: pCR For: Approval  
 38.844 v0.0.6 CR- rev Cat: (Rel-17)  
  
 Source: Intel Corporation*

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

[**R4-2201992**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201992.zip) **Irregular bandwidth – comparison between options**

*Type: discussion For: Discussion  
 Source: MediaTek (Chengdu) Inc.*

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

### 7.3 Study on band combination handling in RAN4

**[101-bis-e][134] FS\_BC\_handling, AI 7.3 – Zhifeng Ma**

[**R4-2202234**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202234.zip) **Email discussion summary for [101-bis-e][134] FS\_BC\_handling**

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

**Abstract:**

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

**Decision: Revised to R4-2202334 (from R4-2202234).**

**[R4-2202334](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202234.zip) Email discussion summary for [101-bis-e][134] FS\_BC\_handling**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 7.3.1 General and TR

[**R4-2200613**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200613.zip) **TR 38.862 V050 Band combination handling**

*Type: draft TR For: Approval  
 38.862 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Abstract:**

This paper is to provide TR 38.862 V050 for band combination handling to include the approved TP in this meeting.

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

[**R4-2200614**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200614.zip) **Motivation on further study on band combination handling in Rel-18**

*Type: discussion For: Decision  
 Source: ZTE Corporation*

**Abstract:**

In this paper, we’d like to provide our opinions on the next phase of study for band combination handling in Rel-18.

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

[**R4-2200615**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200615.zip) **Draft New SID on further study on band combination handling in RAN4**

*Type: SID new For: Discussion  
 Source: ZTE Corporation*

**Abstract:**

In this paper, we’d like to provide a draft SID for further study on band combination handling in Rel-18.

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

#### 7.3.2 Information of rules and guidelines of specifying band combinations (TP format, notation, band configurations, BCS)

[**R4-2200553**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200553.zip) **Adding contributions not for block approval**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

**Abstract:**

In this contribution, we provide a status of the band combinations not for block approval and the related frameworks and formulate proposals to include in rules and guidelines of specifying band combinations TR for these cases.

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

[**R4-2200618**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200618.zip) **TP to TR38.862 on introdution to BCS4 and BCS5**

*Type: pCR For: Approval  
 38.862 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation, Xiaomi*

**Abstract:**

In this proposal, a TP to capture the related agreements and some guidelines for BCS4/5 definition is proposed.

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

###### 7.3.2.1.1 Signaling and configuration (RAN1/RAN2 impacts) aspects

[**R4-2201881**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201881.zip) **Views on Signalling for Overlapping CBW from Network Perspective**

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

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

###### 7.3.2.1.2 Other aspects such as detailed solution, complexity, legacy UE, etc

[**R4-2201882**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201882.zip) **Views on BS TX Channel BW Filters for Overlapping CBW**

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

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

#### 7.3.3 Improving RAN4 specification structures and reducing redundant contents

##### 7.3.3.1 Optimization of delta TIB and delta RIB

[**R4-2200617**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200617.zip) **Band category for rule based approach for delta TIB and RIB**

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

**Abstract:**

In this paper we discuss the band category for rule based approach for delta TIB and RIB.

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

[**R4-2200705**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200705.zip) **Statistics of dTib and dRib**

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

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

##### 7.3.3.2 Optimizations for other redundancy

[**R4-2200616**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200616.zip) **TP to TR38.862 on simplification for DC configuration table in Rel-18**

*Type: pCR For: Approval  
 38.862 v0.4.0 CR- rev Cat: (Rel-17)  
  
 Source: ZTE Corporation*

**Abstract:**

In this paper, we would like to further discuss the possible optimizations for DC configuration table on the basis of [3] in the timeframe of Rel-18.

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

### 7.4 Optimizations of pi/2 BPSK uplink power in NR

**[101-bis-e][135] FS\_NR\_Opt\_pi2BPSK, AI 7.4 – Chan Fernando**

[**R4-2202235**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202235.zip) **Email discussion summary for [101-bis-e][135] FS\_NR\_Opt\_pi2BPSK**

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

**Abstract:**

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

**Decision: Revised to R4-2202335 (from R4-2202235).**

**[R4-2202335](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202235.zip) Email discussion summary for [101-bis-e][135] FS\_NR\_Opt\_pi2BPSK**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 7.4.1 General and TR

[**R4-2200506**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200506.zip) **TR skeleton for SI on optimizations of pi\_2 BPSK uplink power**

*Type: other For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Abstract:**

Workplan for ‘Optimizations of pi/2 BPSK uplink power in NR’ is presented

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

[**R4-2200507**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200507.zip) **TP for Pi/2 BPSK study item for TR38.868**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Abstract:**

Presents items from company contributions that are to be included in TR38.868

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

#### 7.4.2 UE Tx power and related issues

[**R4-2200443**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200443.zip) **MPR region proposal for PI/2 BPSK power boosting**

*Type: discussion For: Approval  
 Source: Apple*

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

[**R4-2200727**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200727.zip) **Transmitter performance for pi/2 BPSK with spectral shaping**

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

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

[**R4-2200954**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200954.zip) **Discussion on pi/2 BPSK UE Tx power**

*Type: discussion For: Discussion  
 Source: vivo*

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

[**R4-2201837**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201837.zip) **On the remaining issues for Pi/2 BPSK Optimisations**

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

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

[**R4-2201879**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201879.zip) **Pi/2 BPSK combined Tx and Rx Link performance**

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

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

[**R4-2202029**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202029.zip) **PC2 Pi/2 BPSK Power Boosting Measurements**

*Type: discussion For: Approval  
 38.101-1 v CR- rev Cat: (Rel-17)  
  
 Source: Skyworks Solutions Inc.*

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

#### 7.4.3 Evaluation of filter requirements applicable to identified new UE power capability

[**R4-2200511**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200511.zip) **Spectral flatness requirements**

*Type: discussion For: Approval  
 38.101-2 v CR- rev Cat: (Rel-17)  
  
 Source: Qualcomm Incorporated*

**Abstract:**

Discussion on timing for SL transmission in Rel-17

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

[**R4-2200728**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200728.zip) **Shaping filter characteristics including transmitter and link performance**

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

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

#### 7.4.4 Link level simulations

[**R4-2200726**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200726.zip) **Receiver performance for pi/2 BPSK with spectral shaping**

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

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

[**R4-2200955**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200955.zip) **Link level Simulation results for pi/2 BPSK**

*Type: other For: Discussion  
 Source: vivo*

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

#### 7.4.5 SAR analysis

#### 7.4.6 Identify RAN4 requirements

[**R4-2200729**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200729.zip) **Identify?potential changes for?RAN4 requirements**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

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

## 8 Rel-17 Work Items for LTE

### 8.1 LTE inter-band Carrier Aggregation for 2 bands DL with 1 band UL

**[101-bis-e][136] LTE\_Baskets, AI 8.1, 8.2, 8.3, 8.4, 8.5 – Per Lindell**

[**R4-2202236**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202236.zip) **Email discussion summary for [101-bis-e][136] LTE\_Baskets**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 8.1.1 UE RF with harmonic, close proximity and isolation issues

#### 8.1.2 UE RF without specific issues

[**R4-2200349**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200349.zip) **TP to TR 36.717-02-01: CA\_2-38**

*Type: pCR For: Approval  
 36.717-02-01 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

CA\_2A-38A is introduced.

**Decision: Approved.**

[**R4-2201911**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201911.zip) **TP for TR 36.717-02-01 to include CA\_30A-48A**

*Type: pCR For: Approval  
 36.717-02-01 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 36.717-02-01 to include CA\_30A-48A

**Decision: Revised to R4-2202240 (from R4-2201911).**

[**R4-2202240**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201911.zip) **TP for TR 36.717-02-01 to include CA\_30A-48A**

*Type: pCR For: Approval  
 36.717-02-01 v0.6.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 36.717-02-01 to include CA\_30A-48A

**Decision: Return to.**

[**R4-2201912**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201912.zip) **TP for TR 36.717-02-02 to include CA\_30A-48A**

*Type: pCR For: Approval  
 36.717-02-02 v0.3.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 36.717-02-02 to include CA\_30A-48A

**Decision: Revised to R4-2202241 (from R4-2201912).**

**[R4-2202241](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201912.zip) TP for TR 36.717-02-02 to include CA\_30A-48A**

*Type: pCR For: Approval  
 36.717-02-02 v0.3.0 CR- rev Cat: (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

TP for TR 36.717-02-02 to include CA\_30A-48A

**Decision: Return to.**

[**R4-2201914**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201914.zip) **draft CR 36101 to add CA\_2A-2A-46E**

*Type: draftCR For: Endorsement  
 36.101 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 36101 to add CA\_2A-2A-46E

**Decision: Endorsed.**

### 8.2 LTE inter-band Carrier Aggregation for 3 bands DL with 1 band UL

#### 8.2.1 UE RF with harmonic, close proximity and isolation issues

#### 8.2.2 UE RF without specific issues

[**R4-2200350**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200350.zip) **TP to TR 36.717-03-01: CA\_2-7-38**

*Type: pCR For: Approval  
 36.717-03-01 v0.5.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

CA\_2A-7A-38A and CA\_2A-7C-38A are introduced.

**Decision: Approved.**

[**R4-2200707**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200707.zip) **DraftCR 36.101: Addition CA\_5A-7A-7A-28A**

*Type: draftCR For: Endorsement  
 36.101 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Telefonica*

**Decision: Endorsed.**

[**R4-2201915**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201915.zip) **draft CR 36101 to add CA\_2A-2A-29A-66A**

*Type: draftCR For: Endorsement  
 36.101 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 36101 to add CA\_2A-2A-29A-66A

**Decision: Endorsed.**

### 8.3 LTE inter-band Carrier Aggregation for x bands DL (x=4, 5) with 1 band UL

#### 8.3.1 UE RF with 4 LTE bands CA

[**R4-2200708**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200708.zip) **DraftCR 36.101: Addition CA\_1A-5A-7A-7A-28A**

*Type: draftCR For: Endorsement  
 36.101 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Telefonica*

**Decision: Endorsed.**

[**R4-2200709**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200709.zip) **DraftCR 36.101: Addition CA\_3A-5A-7A-7A-28A**

*Type: draftCR For: Endorsement  
 36.101 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Telefonica*

**Decision: Endorsed.**

[**R4-2201913**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201913.zip) **draft CR 36101 to add CA\_2A-2A-29A-30A-66A**

*Type: draftCR For: Endorsement  
 36.101 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Ericsson, AT&T*

**Abstract:**

draft CR 36101 to add CA\_2A-2A-29A-30A-66A

**Decision: Endorsed.**

#### 8.3.2 UE RF with 5 LTE bands CA

[**R4-2200710**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200710.zip) **DraftCR 36.101: Addition CA\_1A-3A-5A-7A-7A-28A**

*Type: draftCR For: Endorsement  
 36.101 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Nokia, Telefonica*

**Decision: Endorsed.**

### 8.4 LTE inter-band Carrier Aggregation for 2 bands DL with 2 band UL

#### 8.4.1 UE RF with harmonic, close proximity and isolation issues

#### 8.4.2 UE RF without specific issues

### 8.5 LTE inter-band Carrier Aggregation for x bands DL (x= 3, 4, 5) with 2 band UL

[**R4-2200773**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200773.zip) **TR 36.717-03-02 v0.6.0 TR update for LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL in Rel-17**

*Type: draft TR For: Approval  
 36.717-03-02 v0.5.0 CR- rev Cat: (Rel-17)  
  
 Source: LG Electronics France*

**Abstract:**

Draft TR to update CA band combinations in Rel-17

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

[**R4-2200775**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200775.zip) **Revised WID on LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL in Rel-17**

*Type: WID revised For: Endorsement  
 Source: LG Electronics France*

**Abstract:**

Revised WID to update the status on the LTE-A CA band combinations in Rel-17

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

[**R4-2200776**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200776.zip) **Introduction of LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL to TS36.101**

*Type: CR For: Agreement  
 36.101 v17.4.0 CR-5847 rev Cat: B (Rel-17)  
  
 Source: LG Electronics France*

**Abstract:**

Introduce new LTE-A CA band combinations in TS36.101 in rel-17

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

#### 8.5.1 UE RF with MSD

#### 8.5.2 UE RF without MSD

### 8.6 RRM for LTE CA basket WIs

#### 8.6.1 RRM Core (36.133)

#### 8.6.2 RRM Perf (36.133)

### 8.7 New WID on Additional LTE bands for UE category M1&M2 and/or NB1&NB2 in Rel-17

**[101-bis-e][116] LTE\_NR\_Other\_WI, AI 5.37, 5.38, 5.39, 8.7, 8.9.2, 8.9.3 – Jin Wang**

#### 8.7.1 RF requirements

#### 8.7.2 Others

[**R4-2201716**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201716.zip) **AMPR simulation results for Cat-M1 for B48**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

This paper presents results of A-MPR simulations for LTE Band 24 CAT-M1 UE with full-RB and sub-PRB allocation.

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

### 8.8 Upper 700MHz A Block new E-UTRA band in US

**[101-bis-e][137] LTE\_Upper\_700MHz, AI 8.8 – Michal Szydelko**

[**R4-2202237**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202237.zip) **Email discussion summary for [101-bis-e][137] LTE\_Upper\_700MHz**

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

**Abstract:**

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

**Decision: Revised to R4-2202337 (from R4-2202237).**

[**R4-2202337**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202237.zip) **Email discussion summary for [101-bis-e][137] LTE\_Upper\_700MHz**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

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[**R4-2200766**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200766.zip) **TR skeleton for TR 36.779**

*Type: draft TR For: Approval  
 36.779 v0.0.3 CR- rev Cat: (Rel-17)  
  
 Source: Puloli*

**Abstract:**

In the Copyright Notification section, update the copyright year to 2022. Revised based on comments received from RAN4#101-e

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

#### 8.8.1 General

[**R4-2200765**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200765.zip) **Work plan for LTE\_upper\_700MHz\_A WI**

*Type: Work Plan For: Approval  
 Source: Puloli*

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

[**R4-2200771**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200771.zip) **TP to TR 36.779 on Frequency band arrangements and regulatory background**

*Type: pCR For: Approval  
 36.779 v0.0.3 CR- rev Cat: (Rel-17)  
  
 Source: Puloli*

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

[**R4-2200772**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200772.zip) **TP to TR 36.779 on Operating band, channel bandwidths, channel numbering**

*Type: pCR For: Approval  
 36.779 v0.0.3 CR- rev Cat: (Rel-17)  
  
 Source: Puloli*

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

[**R4-2202025**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202025.zip) **Draft CR to TS 36.104: exemplary implementation of LTE\_upper\_700MHz\_A band**

*Type: draftCR For: Endorsement  
 36.104 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Huawei*

**Abstract:**

Based on related discussion paper, we provide an exemplary implementation of the LTE\_upper\_700MHz\_A band into the TS 36.104.

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

#### 8.8.2 Study for co-existence requirements

[**R4-2202024**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202024.zip) **Further discussion on the BS RF requirements for LTE\_upper\_700MHz\_A**

*Type: discussion For: Discussion  
 Source: Huawei*

**Abstract:**

In this contribution we provide updated analysis of the co-location and co-ex requirements for BS RF.

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

#### 8.8.3 UE RF requirements

[**R4-2200004**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200004.zip) **Introduction of upper 700MHz A block into TS 36.101**

*Type: CR For: Agreement  
 36.101 v17.4.0 CR-5846 rev Cat: B (Rel-17)  
  
 Source: Puloli*

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

[**R4-2200774**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200774.zip) **TP to TR 36.779 on Analysis on UE requirements for upper 700MHz A block**

*Type: pCR For: Approval  
 36.779 v0.0.3 CR- rev Cat: (Rel-17)  
  
 Source: Puloli*

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

[**R4-2200790**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200790.zip) **draftCR to TS 36.101: Introduction of upper 700MHz A block**

*Type: draftCR For: Endorsement  
 36.101 v17.4.0 CR- rev Cat: B (Rel-17)  
  
 Source: Puloli*

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

#### 8.8.4 BS RF requirements

[**R4-2200457**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200457.zip) **draft CR on introduction of upper 700MHz A block for 36.104**

*Type: draftCR For: Endorsement  
 36.104 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Baicells*

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

[**R4-2200458**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200458.zip) **draft CR on introduction of upper 700MHz A block for 37.104**

*Type: draftCR For: Endorsement  
 37.104 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Baicells*

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

[**R4-2200459**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200459.zip) **draft CR on introduction of upper 700MHz A block for 37.105**

*Type: draftCR For: Endorsement  
 37.105 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Baicells*

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

[**R4-2200460**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200460.zip) **draft CR on introduction of upper 700MHz A block for 38.104**

*Type: draftCR For: Endorsement  
 38.104 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Baicells*

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

[**R4-2200461**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200461.zip) **TP to TR 36.779 on BS aspect issues**

*Type: discussion For: Approval  
 Source: Baicells*

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

[**R4-2201071**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201071.zip) **TP to TR 36.779 on Analysis on BS requirements for upper 700MHz A block**

*Type: discussion For: Approval  
 Source: Baicells*

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

#### 8.8.5 Others

### 8.9 Additional enhancements for NB-IoT and LTE-MTC

#### 8.9.1 General and work plan

#### 8.9.2 Support of 16QAM in NB-IoT

**[101-bis-e][116] LTE\_NR\_Other\_WI, AI 5.37, 5.38, 5.39, 8.7, 8.9.2, 8.9.3 – Jin Wang**

##### 8.9.2.1 BS RF requirements

[**R4-2200415**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200415.zip) **Proposals on BS RF requirements for support of 16QAM in NB-IoT**

*Type: other For: Approval  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This contribution provides further proposals on BS RF requirements for the support of 16-QAM in NB-IoT unicast in UL and DL according to the approved WF at TSG RAN4#98-bis-e and the agreements in RAN1.

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

[**R4-2201714**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201714.zip) **BS RF impact analysis on R17 NB\_IoT**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

In this paper, we present our view on the BS RF impact on NB-IoT for this objective.

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

[**R4-2201831**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201831.zip) **Remaining issues for NB-IoT 16QAM BS RF requirements**

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

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

[**R4-2201832**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201832.zip) **Draft CR to TS36104 Addition of NB-IoT 16QAM**

*Type: draftCR For: Endorsement  
 36.104 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei,HiSilicon*

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

[**R4-2201833**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201833.zip) **Draft CR to TS36141 Addition of NB-IoT 16QAM**

*Type: draftCR For: Endorsement  
 36.141 v17.4.0 CR- rev Cat: (Rel-17)  
  
 Source: Huawei,HiSilicon*

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

##### 8.9.2.2 UE RF requirements

#### 8.9.3 Support of power reduction for PRACH, PUCCH, and full-PRB PUSCH in MTC

**[101-bis-e][116] LTE\_NR\_Other\_WI, AI 5.37, 5.38, 5.39, 8.7, 8.9.2, 8.9.3 – Jin Wang**

##### 8.9.3.1 UE RF requirements

[**R4-2201287**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201287.zip) **On max power reduction for PRACH, PUCCH, and full-PRB PUSCH**

*Type: other For: Decision  
 Source: Sony*

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

[**R4-2201715**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201715.zip) **RF impact analysis on R17 eMTC WID**

*Type: discussion For: Approval  
 Source: Ericsson*

**Abstract:**

In this paper, we present our view on the RF impact for the Rel-17 eMTC.

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

#### 8.9.4 RRM core requirements

##### 8.9.4.1 Neighbour cell measurement in RRC Connected state for NB-IoT

#### 8.9.5 Others

#### 8.9.6 Demodulation requirements

##### 8.9.6.1 General

##### 8.9.6.2 Demodulation requirements for NB-IoT

###### 8.9.6.2.1 UE demodulation requirements

###### 8.9.6.2.2 BS demodulation requirements

##### 8.9.6.3 Demodulation requirements for MTC

## 9 Liaison and output to other groups

### 9.1 R17 related

**[101-bis-e][138] NR\_reply\_LS\_UE\_RF, AI 9.1.1, 9.1.2, 9.1.3 – Steven Chen**

[**R4-2202238**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202238.zip) **Email discussion summary for [101-bis-e][138] NR\_reply\_LS\_UE\_RF**

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

**Abstract:**

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

The following topics will be treated in this email thread:

1) Beam correspondence for SDT: [R4-2201484](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201484.zip), [R4-2201973](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201973.zip)

2) Reply LS to RAN5 for REFSENS: [R4-2201247](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201247.zip)

3) FR2 power control for NR-DC: [R4-2201277](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201277.zip)

**Decision: Revised to R4-2202338 (from R4-2202238).**

**[R4-2202338](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202238.zip) Email discussion summary for [101-bis-e][138] NR\_reply\_LS\_UE\_RF**

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

**Abstract:**

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

**Decision: Return to.**

**Conclusions after 1st round**

**Conclusions after 2nd round**

#### 9.1.1 LS reply for beam correspondence with SDT in RRC\_INACTIVE

[**R4-2200252**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200252.zip) **Discussion on RAN2 LS (R2-2108861) on gap handling for MUSIM**

*Type: discussion For: Discussion  
 Source: Apple*

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

[**R4-2201484**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201484.zip) **Discussion on reply LS on Beam correspondence with Small Data Transmission in Inactive State**

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

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

[**R4-2201973**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201973.zip) **On beam correspondence requirements and SDT**

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

**Abstract:**

RAN1 has enquired about the beam correspondence functionality in context of the SDT feature. We provide our views on UE RF requirements for this type of feature

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

#### 9.1.2 RAN5 response LS on LTE REFSENS exception simplification (R5-215803)

[**R4-2201247**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201247.zip) **Discussion and draft LS on LTE REFSENS exception simplification**

*Type: other For: Approval  
 Source: Huawei, HiSilicon*

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

#### 9.1.3 Others

[**R4-2201277**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201277.zip) **R17 FR2 power control for NR-DC and draft LS**

*Type: discussion For: Approval  
 Source: OPPO*

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

**-------------------------------- Not treated in this meeting--------------------------------**

[**R4-2201339**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201339.zip) **Discussion on reply LS on configuration of p-MaxEUTRA and p-NR-FR1**

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

**Abstract:**

Session Chair: This contribution (Rel-15 related) will not be treated in this meeting.

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

[**R4-2201974**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201974.zip) **On reply to RAN5 on FR2 requirement applicability over ETC**

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

**Abstract:**

Session Chair: This contribution will not be treated in this meeting. RAN4 must first establish common understanding on any subject before responding externally.

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

**-------------------------------- Not treated in this meeting--------------------------------**

## 10 Any other business

[**R4-2200172**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200172.zip) **Motivation for new WI on air-to-ground network for NR**

*Type: WID new For: Information  
 Source: CMCC*

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

[**R4-2200173**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200173.zip) **New WID on air-to-ground network for NR**

*Type: WID new For: Information  
 Source: CMCC*

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

[**R4-2200174**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200174.zip) **Motivation for new WID on Home Base Station for NR**

*Type: WID new For: Information  
 Source: CMCC*

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

[**R4-2200175**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200175.zip) **New WID on Home Base Station for NR**

*Type: WID new For: Information  
 Source: CMCC*

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

[**R4-2200287**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200287.zip) **Rel-18 proposal on FR2 coverage/performance enhancements**

*Type: discussion For: Information  
 Source: Apple*

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

[**R4-2200299**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200299.zip) **Motivation paper for R18 RRM enhancement**

*Type: discussion For: Information  
 Source: Apple*

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

[**R4-2200451**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200451.zip) **Views on handling ETC applicability to FR2 UE RF requirements**

*Type: discussion For: Information  
 Source: Apple*

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

[**R4-2200545**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200545.zip) **Views on RAN4 Rel-18 scope**

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

**Decision:** The document was **not treated**.

[**R4-2200546**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200546.zip) **Views on RAN4 Rel-18: FR2 multi-beam reception**

*Type: discussion For: Information  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

[**R4-2200547**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200547.zip) **Views on RAN4 Rel-18: RRM enhancements**

*Type: discussion For: Information  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

[**R4-2200548**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200548.zip) **Views on RAN4 Rel-18: Demodulation enhancements**

*Type: discussion For: Information  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

[**R4-2200549**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200549.zip) **Draft New WID: Requirements for NR FR2 UEs with multi-Rx chain DL reception**

*Type: WID new For: Information  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

[**R4-2200550**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200550.zip) **Draft New WID: NR and MR-DC RRM requirements enhancements**

*Type: WID new For: Information  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

[**R4-2200551**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200551.zip) **Draft New WID: NR and MR-DC Measurement Gap further enhancements**

*Type: WID new For: Information  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

[**R4-2200552**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2200552.zip) **Draft New WID: NR demodulation requirements enhancements**

*Type: WID new For: Information  
 Source: Intel Corporation*

**Decision:** The document was **not treated**.

[**R4-2201193**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201193.zip) **[Draft] WID on FR2 RRM requirements evaluation**

*Type: WID new For: Information  
 Source: Huawei, Hisilicon*

**Decision:** The document was **not treated**.

[**R4-2201280**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201280.zip) **R18 Motivation of 3Tx handheld UE**

*Type: discussion For: Approval  
 Source: OPPO*

**Decision:** The document was **not treated**.

[**R4-2201281**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201281.zip) **R18 New WID on 3Tx handheld UE for NR**

*Type: WID new For: Approval  
 Source: OPPO*

**Decision:** The document was **not treated**.

[**R4-2201360**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201360.zip) **Motivation on basket WID on 4Rx and 8Rx bands**

*Type: other For: Information  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

[**R4-2201361**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201361.zip) **New WID on 4Rx\_8Rx support for NR bands**

*Type: other For: Information  
 Source: ZTE,China Telecom*

**Decision:** The document was **not treated**.

[**R4-2201648**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201648.zip) **Motivation for FR2 RRM requirement enhancement**

*Type: discussion For: Information  
 Source: Huawei, Hisilicon*

**Decision:** The document was **not treated**.

[**R4-2201650**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201650.zip) **Views on small A-MPR for Rel-18 RAN4 led WI**

*Type: discussion For: Information  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

This contribution shares our views on smaller A-MPR, which is one of the topics in moderator summary in [RP-212682].

**Decision:** The document was **not treated**.

[**R4-2201653**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201653.zip) **New WID on Low MSD for CA and DC band combinations**

*Type: WID new For: Information  
 Source: Nokia, Nokia Shanghai Bell*

**Abstract:**

A possible objective for a new WI for low MSD is shared.

**Decision:** The document was **not treated**.

[**R4-2201675**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201675.zip) **Motivation of new WID on High Altitude Platform Station (HAPS) for NR**

*Type: discussion For: Information  
 Source: China Unicom*

**Decision:** The document was **not treated**.

[**R4-2201677**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201677.zip) **Rel-18 Draft New WID on High Altitude Platform Station (HAPS) for NR**

*Type: WID new For: Information  
 Source: China Unicom*

**Decision:** The document was **not treated**.

[**R4-2201678**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201678.zip) **Draft Rel-18 new basket WID on high power UE (power class 2) for NR FDD band**

*Type: WID new For: Information  
 Source: China Unicom*

**Decision:** The document was **not treated**.

[**R4-2201679**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201679.zip) **Draft Rel-18 new basket WID on High power UE (power class 1.5) for NR inter-band CA with 2 UL bands**

*Type: WID new For: Information  
 Source: China Unicom*

**Decision:** The document was **not treated**.

[**R4-2202047**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202047.zip) **R18 New WID on NR MIMO OTA**

*Type: WID new For: Approval  
 Source: CAICT, OPPO*

**Decision:** The document was **not treated**.

[**R4-2202050**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2202050.zip) **R18 New WID on FR1 TRP TRS**

*Type: WID new For: Approval  
 Source: OPPO, CAICT*

**Decision:** The document was **not treated**.

[**R4-2201477**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201477.zip) **Support of ATG for 5G Advanced**

*Type: other For: Information  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

[**R4-2201478**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201478.zip) **Motivation on study on NR NTN RF requirement for coexistence with TN standalone NB-IoT**

*Type: other For: Information  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

[**R4-2201479**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201479.zip) **New SI proposal: Study on NR NTN RF requirement for coexistence with TN standalone NB-IoT**

*Type: other For: Information  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

[**R4-2201480**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201480.zip) **Views on NR UE RF enhancement in Rel-18**

*Type: other For: Information  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

[**R4-2201481**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201481.zip) **Views on NR BS RF enhancement in Rel-18**

*Type: other For: Information  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

[**R4-2201482**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201482.zip) **Views on NR UE RRM enhancement in Rel-18**

*Type: other For: Information  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

[**R4-2201483**](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_101-bis-e/Docs/R4-2201483.zip) **Motivation on the support of CRS-IM for Redcap UE**

*Type: other For: Information  
 Source: ZTE Corporation*

**Decision:** The document was **not treated**.

## 11 Close of the E-meeting

Report prepared by: MCC

## BACKUP

**R4-22ABABA Big CR for TS 3x.1xx (Rel-13)**

*Type: CR For: Agreement  
 38.1xx-0y v16.2.0 CR- rev Cat: F (Rel-1x)  
  
 Source: XXXX*

**Decision: Return to.**

**R4-22AAAAA Email discussion summary for [101-bis-e][10x] x**

*Type: other For: Information  
 Source: Moderator (xxx)*

**Abstract:**

This contribution provides the summary of email discussion and recommended summary.

**[101-bis-e][10x] R17\_Maintenance, AI x.x.x – XX**

**Conclusions after 1st round**

**Conclusions after 2nd round**

**Decision: Return to.**

**R4-22AABBA WF on**

*Type: other For: Approval  
 Source: XXXX*

**Abstract:**

*Type: CR For: Agreement  
 38.1xx-0y v16.2.0 CR- rev Cat: F (Rel-1x)*

**Decision: Return to.**