**3GPP TSG-RAN WG4 Meeting # 99-e R4-210XXXX**

**Electronic Meeting, 19th – 27th May 2021**

**Agenda item:** xx.xx.xx

**Source:** Moderator (RAN4 Chair)

**Title:** Email discussion summary for [99-e][Post-1] Main

**Document for:** Information

# Introduction

This document captures the comments for Tdocs to be email approved in main session for RAN4#99-e.

# Tdocs

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Email thread subject** | **Tdocs for email approval** | **Company** |
| 111 | [99-e][111] NR\_6GHz\_unlic\_EU\_maintenance | R4-2110691 draft TR 38.849 v0.3.0 Nokia | Nokia |
| 117 | [99-e][117] NR\_Baskets\_Part\_2 | R4-2109626 CR introduction completed band combinations for Dual Connectivity (DC) of 5 bands LTE inter-band CA (5DL/1UL) and 1 NR band (1DL/1UL) SamsungR4-2109627 Revised WID on Dual Connectivity (DC) of 5 bands LTE inter-band CA (5DL/1UL) and 1 NR band (1DL/1UL) SamsungR4-2109737 TR 37.717-51-11 update version 0.2.0 SamsungR4-2110580 TR 37.717-11-11 v0.5.0 Rel-17 Dual Connectivity (DC) of 1 LTE band (1DL/1UL) and 1 NR band (1DL/1UL) CHTTLR4-2110595 Revised WID for Rel-17 Dual Connectivity (DC) of 1 LTE band (1DL/1UL) and 1 NR band (1DL/1UL) CHTTLR4-2110658 Revised Rel-17 WID on DC of 4 bands LTE inter-band CA (4DL1UL) and 1 NR band (1DL1UL) Nokia, Nokia Shanghai BellR4-2110665 TR 37.717-21-11 V0.5.0 for DC of 2 LTE band and 1 NR band Huawei, HiSiliconR4-2110666 Revised WID: Dual Connectivity (DC) of 2 bands LTE inter-band CA (2DL/1UL) and 1 NR band (1DL/1UL) Huawei, HiSiliconR4-2110683 CR to introduce new combinations of LTE 4band + NR 1band for TS 38.101-3 Nokia, Nokia Shanghai BellR4-2110714 Big CR for Rel-17 Dual Connectivity (DC) of 1 LTE band (1DL/1UL) and 1 NR band (1DL/1UL) CHTTLR4-2110715 draft TR 37.717-41-11-050 NokiaR4-2111069 Revised WID NR Intra-band Rel-17 EricssonR4-2111070 Revised WID LTE 3DL and one NR band Rel-17 EricssonR4-2111073 CR 38.101-1 new combinations Rel-17 NR Intra-band EricssonR4-2111074 CR 38.101-2 new combinations Rel-17 NR Intra-band EricssonR4-2111079 TR 38.717-01-01 v0.5.0 Rel-17 NR Intra-band EricssonR4-2111080 TR 37.717-31-11 v0.5.0 Rel-17 DC combinations LTE 3DL and one NR band EricssonR4-2110667 CR on introduction of completed EN-DC of 2 bands LTE and 1 band NR from RAN4#99-e and RAN4#98-bis-e into TS 38.101-3 HuaweiR4-2111546 Big CR 38.101-3 new combinations LTE 3DL and one NR band EricssonR4-2110667 CR on introduction of completed EN-DC of 2 bands LTE and 1 band NR from RAN4#99-e and RAN4#98-bis-e into TS 38.101-3 HuaweiR4-2111546 Big CR 38.101-3 new combinations LTE 3DL and one NR band Ericsson | 　 |
| 118 | [99-e][118] NR\_Baskets\_Part\_3 | R4-2110461 Revised WID on Rel-17 NR Inter-band CA\_DC xUL\_2DL (x=1,2) ZTE CorporationR4-2110462 CR to reflect the completed NR inter band CA DC combinations for 2 bands DL with up to 2 bands UL into TS 38.101-1 ZTE CorporationR4-2110463 CR to reflect the completed NR inter band CA DC combinations for 2 bands DL with up to 2 bands UL into TS 38.101-2 ZTE CorporationR4-2110464 CR to reflect the completed NR inter band CA DC combinations for 2 bands DL with up to 2 bands UL into TS 38.101-3 ZTE CorporationR4-2110999 TR 38.717-02-01 v0.5.0 ZTE Wistron Telecom ABR4-2109121 TR 38.717-03-01 on Rel-17 NR inter-band Carrier Aggregation (CA) for 3 Down Link (DL) / 1 Up Link (UL) CATTR4-2109122 Revised WID on Rel-17 NR inter-band CA of 3DL bands and 1UL band CATTR4-2109123 CR on Introducing NR inter-band CA for 3DL Bands and 1UL band for 38.101-1 CATTR4-2109124 CR on Introducing NR inter-band CA for 3DL Bands and 1UL band for 38.101-3 CATTR4-2111071 Revised WID 4 bands NR CA Rel-17 EricssonR4-2111076 CR 38.101-1 new combinations NR Inter-band 4 bands CA EricssonR4-2111077 CR 38.101-3 new combinations NR Inter-band 4 bands CA EricssonR4-2111081 TR 38.717-04-01 v0.5.0 Rel-17 NR Inter-band 4 bands CA EricssonR4-2110465 Revised WID on Rel-17 NR Inter-band Carrier AggregationDual Connectivity for 3 bands DL with 2 bands UL ZTE CorporationR4-2110466 CR to reflect the completed NR inter band CA DC combinations for 3 bands DL with 2 bands UL into TS 38.101-1 ZTE CorporationR4-2107979 CR to reflect the completed NR inter band CA DC combinations for 3 bands DL with 2 bands UL into TS 38.101-3 ZTE CorporationR4-2111000 TR 38.717-03-02 v0.5.0 ZTE Wistron Telecom ABR4-2109770 Revised WID on NR inter-band CA for 5 bands DL with x bands UL (x=1, 2) Huawei, HiSiliconR4-2109772 CR on Introduction of completed 5 bands inter-band CA into TS 38.101-1 Huawei, HiSiliconR4-2109841 TR 37.717-11-21 v0.5.0 TR update: LTE(xDL/1UL)+ NR(2DL/1UL) DC in Rel-17 LG Electronics FranceR4-2109857 Revised WID on LTE (xDL/UL x=1.2,3,4) with NR 2 bands (2DL/1UL) DC in Rel-17 LG Electronics FranceR4-2109875 Introduction CR on new NR DC LTE(xDL/1UL)+ NR(2DL/1UL) band combinations in Rel-17 LG Electronics FranceR4-2110468 Revised WID on Rel-17 Dual Connectivity (DC) x bands (x=1,2) LTE inter-band CA (xDL/xUL) and y bands (y=3-x) NR inter-band CA ZTE CorporationR4-2110469 CR to reflect the completed ENDC combinations for 3 bands DL with 3 bands UL into TS 38.101-3 ZTE CorporationR4-2110470 TR 37.717-33 v0.4.0 ZTE CorporationR4-2110471 Revised WID on Rel-17 Dual Connectivity (DC) of x bands (x=1,2,3) LTE inter-band CA (xDL1UL) and 3 bands NR inter-band CA (3DL1UL) ZTE CorporationR4-2110472 CR to reflect the completed DC of x bands (x=1,2,3) LTE inter-band CA (xDL1UL) and 3 bands NR inter-band CA (3DL1UL) into TS 38.101-3 ZTE CorporationR4-2110473 TR 37.717-11-31\_v0.3.0 ZTE CorporationR4-2109628 CR introduction completed band combinations for Dual Connectivity (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) SamsungR4-2109629 Revised WID on Dual Connectivity (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) SamsungR4-2109738 TR 37.717-21-22 update version 0.2.0 SamsungR4-2109611 CR on introduction of completed NR CA/DC combs with 4DL/2UL within FR1 SamsungR4-2109624 CR on introduction of completed NR CA/DC combs with 4DL/2UL including FR2 SamsungR4-2109625 Revised WID on NR CA/DC with 4DL/2UL SamsungR4-2109736 TR 38.717-04-02 update version 0.5.0 SamsungR4-2109766 Revised WID on Band combinations for SA NR Supplementary uplink (SUL), NSA NR SUL, NSA NR SUL with UL sharing from the UE perspective (ULSUP) HuaweiR4-2109767 TR 37.717-00-00 v0.5.0 HuaweiR4-2109768 CR on Introduction of completed SUL band combinations into TS 38.101-1 HuaweiR4-2109769 CR on Introduction of completed SUL band combinations into TS 38.101-3 Huawei | 　 |
| 119 | [99-e][119] NR\_LTE\_V2X\_PC5\_combos | R4-2107813 Big CR for 38.101, Introduce new band combinations for V2X con-current operation CATTR4-2109043 TR 37.875, Band combinations for V2X con-current operation CATT | CATT |
| 120 | [99-e][120] NR\_bands\_R17\_BWs | R4-2110092 Big CR to TS 38.104: Adding channel BW support in existing NR bands EricssonR4-2110093 Big CR to TS 38.101-1: Adding channel BW support in existing NR bands Ericsson | Ericsson |
| 127 | [99-e][127] NR\_PC2\_CA\_R17\_2BDL\_2BUL | R4-2110051 Draft TR 38.841 v0.4.0: High power UE for NR inter-band Carrier Aggregation with 2 bands downlink and x bands uplink (x =1,2) China TelecomR4-2110052 CR to 38.101-1 Introduce RF requirements for HPUE CA with 2 bands downlink and x bands uplink (x =1,2) China Telecom | China Telecom |
| 128 | [99-e][128] ENDC\_UE\_PC2\_R17\_NR\_TDD | R4-2108937 Big CR on introduction of completed PC2 for EN-DC with 1 LTE band + 1 NR TDD band China Unicom | China Unicom |
| 129 | [99-e][129] NR\_UE\_PC2\_CA\_SUL\_xBDL\_yBUL | R4-2107836 draft TR 38.842 v0.0.2 Huawei | Huawei |
| 130 | [99-e][130] ENDC\_PC2\_R17\_xLTE\_yNR | R4-2111078 CR 38.101-3 EN-DC PC2 Ericsson | Ericsson |
| 133 | [99-e][133] DL\_intrpt\_combos\_TxSW\_R17 | R4-2109031 TR 37.867 v0.3.0 CATTR4-2110071 CR to 38.101-1 Introduce DL interruption clarification for CA conduting Tx Switching China Telecom | CATT, China Telecom |
| 153 | [99-e][153] FS\_NR\_PC2\_UE\_FDD | R4-2108866 TR 38.861 v0.1.0 FS\_NR\_PC2\_UE\_FDD China Unicom | China Unicom |
| 155 | [99-e][155] LTE\_Baskets | R4-2109773 TR 36.717-03-02 v0.4.0 TR update for LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL in Rel-17 LG Electronics FranceR4-2109774 Revised WID on LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL in Rel-17 LG Electronics FranceR4-2109775 Introduction of LTE inter-band Carrier Aggregation for x bands DL (x=4, 5) with 1 band UL to TS36.101 Nokia, Nokia Shanghai BellR4-2109814 Introduction of LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL to TS36.101 LG Electronics FranceR4-2110788 Revised WID: Rel17 LTE inter-band CA for 2 bands DL with 1 band UL Qualcomm IncorporatedR4-2110789 TR 36.717-02-01 Rel-17 LTE inter-band CA for 2 bands DL and 1 band UL CA Qualcomm IncorporatedR4-2111021 Big CR to TS36.101: Rel-17 LTE inter-band CA for 2 bands DL and 1 band UL CA Qualcomm IncorporatedR4-2111208 Revised WID: LTE Advanced inter-band CA Rel-17 for x bands DL (x=4, 5, 6) with 1 band UL Nokia, Nokia Shanghai BellR4-2111392 Introduction of completed R17 3DL band combinations to TS 36.101 Huawei, HiSiliconR4-2111393 Revised WID for LTE inter-band CA for 3 bands DL with 1 bands UL Huawei, HiSiliconR4-2111414 TR 37.717-03-01 0.3.0 Huawei, HiSiliconR4-2111453 Introduction of completed LTE CA for 2 bands DL with 2 bands UL into Rel-17 TS 36.101 Huawei,HiSilicon | 　 |

# Comment collection

Please provide the comments on drafts uploaded into Inbox under the corresponding Tdoc numbers in the following Tables.

## Email thread [111] NR\_6GHz\_unlic\_EU\_maintenance

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2110691 draft TR 38.849 v0.3.0 Nokia | No comment |

## Email thread [117] NR\_Baskets\_Part\_2

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2109626 CR introduction completed band combinations for Dual Connectivity (DC) of 5 bands LTE inter-band CA (5DL/1UL) and 1 NR band (1DL/1UL) Samsung | **Samsung**: Withdrawn. |
| R4-2109627 Revised WID on Dual Connectivity (DC) of 5 bands LTE inter-band CA (5DL/1UL) and 1 NR band (1DL/1UL) Samsung | No comment |
| R4-2109737 TR 37.717-51-11 update version 0.2.0 Samsung | **Samsung**: Withdrawn. |
| R4-2110580 TR 37.717-11-11 v0.5.0 Rel-17 Dual Connectivity (DC) of 1 LTE band (1DL/1UL) and 1 NR band (1DL/1UL) CHTTL | **CHTTL:**Withdrawn |
| R4-2110595 Revised WID for Rel-17 Dual Connectivity (DC) of 1 LTE band (1DL/1UL) and 1 NR band (1DL/1UL) CHTTL | No comment |
| R4-2110658 Revised Rel-17 WID on DC of 4 bands LTE inter-band CA (4DL1UL) and 1 NR band (1DL1UL) Nokia, Nokia Shanghai Bell | **SKT:**It seems that some of SKT’s requests are missing from the draft, R4-2110658.Please check the following band combination configurations for me.

|  |  |  |
| --- | --- | --- |
| New | DC\_1A-3A-5A-7A\_n77A | DC\_1A\_n77A |
| New | DC\_1A-3A-5A-7A\_n77A | DC\_3A\_n77A |
| New | DC\_1A-3A-5A-7A\_n77A | DC\_5A\_n77A |
| New | DC\_1A-3A-5A-7A\_n77A | DC\_7A\_n77A |
| New | DC\_1A-3A-5A-7A\_n77(2A) | DC\_1A\_n77A |
| New | DC\_1A-3A-5A-7A\_n77(2A) | DC\_3A\_n77A |
| New | DC\_1A-3A-5A-7A\_n77(2A) | DC\_5A\_n77A |

**Nokia:**I have updated the combination list to include your request correctly and uploaded a new draft version.2nd draft R4-2110658**SKT:**Thanks a lot, Johannes.3rd draft is fine by me (2nd as well). |
| R4-2110665 TR 37.717-21-11 V0.5.0 for DC of 2 LTE band and 1 NR band Huawei, HiSilicon | No comment |
| R4-2110666 Revised WID: Dual Connectivity (DC) of 2 bands LTE inter-band CA (2DL/1UL) and 1 NR band (1DL/1UL) Huawei, HiSilicon | **Huawei:**Dear all,Please note that the excel sheet have been updated based on the Huawei and ZTE’s revised request. |
| R4-2110683 CR to introduce new combinations of LTE 4band + NR 1band for TS 38.101-3 Nokia, Nokia Shanghai Bell | **Vodafone:**Thanks for the drafts. Very minor comment. I was searching to check 3-7-20-32\_n78 had been added in a previous big CR, but noticed my search failed because of spaces before the underscores:* 3-7-20-32 \_n78
* DC\_3A-7A-20A-32A \_n78A

Please could you correct this?**Nokia:**Thanks for spotting this. I had found the second “space” but missed the first you listed. An updated CR have been uploaded to the draft inbox.2nd draft R4-2110683**Vodafone:**No problem. Many thanks. The update looks good. |
| R4-2110714 Big CR for Rel-17 Dual Connectivity (DC) of 1 LTE band (1DL/1UL) and 1 NR band (1DL/1UL) CHTTL | No comment |
| R4-2110715 draft TR 37.717-41-11-050 Nokia | No comment |
| R4-2111069 Revised WID NR Intra-band Rel-17 Ericsson | No comment |
| R4-2111070 Revised WID LTE 3DL and one NR band Rel-17 Ericsson | **AT&T:**Thanks for the draft Revised WID on Rel-17 Dual Connectivity (DC) of 3 bands LTE inter-band CA (3DL/1UL) and 1 NR band (1DL/1UL).The following AT&T modification requests from RAN4 #98bis-e appear to be missing from the draft revised WID.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Modified | DC\_2A-46D-66A\_n260M | DC\_2A\_n260MDC\_66A\_n260M | N/A | Including FR2 | Marc Grant | AT&T | marc.grant@att.com | Ericsson, Nokia, Qualcomm, Samsung | RAN#88 | DC\_R17\_3BLTE\_1BNR\_4DL2UL-Core | (ongoing) DL\_2A-46C-66A\_n260M\_UL\_2A\_n260M(ongoing) DL\_2A-46C-66A\_n260M\_UL\_66A\_n260M(completed) DL\_46D-66A\_n260M\_UL\_66A\_n260M(completed) DL\_2A-46D\_n260M\_UL\_2A\_n260M(completed) DL\_2A-66A\_n260M\_UL\_2A\_n260M(completed) DL\_2A-66A\_n260M\_UL\_66A\_n260M | Ongoing |
| Modified | DC\_2A-46E-66A\_n260M | DC\_2A\_n260MDC\_66A\_n260M | N/A | Including FR2 | Marc Grant | AT&T | marc.grant@att.com | Ericsson, Nokia, Qualcomm | RAN#88 | DC\_R17\_3BLTE\_1BNR\_4DL2UL-Core | (ongoing) DL\_2A-46D-66A\_n260M\_UL\_2A\_n260M(ongoing) DL\_2A-46D-66A\_n260M\_UL\_66A\_n260M(completed) DL\_46E-66A\_n260M\_UL\_66A\_n260M(completed) DL\_2A-46E\_n260M\_UL\_2A\_n260M(completed) DL\_2A-66A\_n260M\_UL\_2A\_n260M(completed) DL\_2A-66A\_n260M\_UL\_66A\_n260M | Ongoing |
| Modified | DC\_2A-46D-66A\_n5A | DC\_2A\_n5ADC\_66A\_n5A | N/A | Only FR1 | Marc Grant | AT&T | marc.grant@att.com | Ericsson, Nokia, Qualcomm, Samsung | RAN#88 | DC\_R17\_3BLTE\_1BNR\_4DL2UL-Core | (ongoing) DL\_2A-46C-66A\_n5A\_UL\_2A\_n5A(ongoing) DL\_2A-46C-66A\_n5A\_UL\_66A\_n5A(completed) DL\_46D-66A\_n5A\_UL\_66A\_n5A(ongoing) DL\_2A-46D\_n5A\_UL\_2A\_n5A(completed) DL\_2A-66A\_n5A\_UL\_2A\_n5A(completed) DL\_2A-66A\_n5A\_UL\_66A\_n5A | Ongoing |

**Ericsson:**Thanks for checking. I have updated to: draft 2 R4-2111070 Rel-17 revised WID DC of 3 bands LTE and 1 NR band.**AT&T:**Thanks for the update. The revision looks good to me. |
| R4-2111073 CR 38.101-1 new combinations Rel-17 NR Intra-band Ericsson | No comment |
| R4-2111074 CR 38.101-2 new combinations Rel-17 NR Intra-band Ericsson | No comment |
| R4-2111079 TR 38.717-01-01 v0.5.0 Rel-17 NR Intra-band Ericsson | No comment |
| R4-2111080 TR 37.717-31-11 v0.5.0 Rel-17 DC combinations LTE 3DL and one NR band Ericsson | No comment |
| R4-2109626 CR introduction completed band combinations for Dual Connectivity (DC) of 5 bands LTE inter-band CA (5DL/1UL) and 1 NR band (1DL/1UL) Samsung |  |
| R4-2109627 Revised WID on Dual Connectivity (DC) of 5 bands LTE inter-band CA (5DL/1UL) and 1 NR band (1DL/1UL) Samsung | No comment |
| R4-2110667 CR on introduction of completed EN-DC of 2 bands LTE and 1 band NR from RAN4#99-e and RAN4#98-bis-e into TS 38.101-3 Huawei | No comment |
| R4-2111546 Big CR 38.101-3 new combinations LTE 3DL and one NR band Ericsson | Revised to R4-2108111.**Vodafone:**Thanks for providing the big CR drafts.“Big CR 38.101-3 new combinations LTE 3DL and one NR band (R4-2111546)” still appears to be missing the following combinations, the TPs for which were approved in RAN4#97-e:

|  |  |
| --- | --- |
| Combination | Approved TP |
| DC\_7A-20A-32A\_n1A | R4-2014064 |
| DC\_1A-20A-32A\_n28A | R4-2014060 |
| DC\_1A-7A-32A\_n78A | R4-2014059 |
| DC\_1A-20A-32A\_n78A | R4-2014061 |
| DC\_3A-7A-32A\_n78A | R4-2014062 |
| DC\_3A-20A-32A\_n78A | R4-2014063 |

I checked the previous big CRs (RAN4#97-e and RAN4#98-e) and the latest 38.101-3 spec draft, but did not spot them anywhere. Please could you include these or let me know if I have missed something?**Ericsson:**Thanks for checking. I have updated to draft 2 R4-2111546 big CR 38.101-3 new combinations LTE 3DL and one NR band**Vodafone:**Thank you! The update looks good. |

## Email thread [118] NR\_Baskets\_Part\_3

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2110461 Revised WID on Rel-17 NR Inter-band CA\_DC xUL\_2DL (x=1,2) ZTE Corporation | **DISH:**It seems DISH requests for 2DL/x UL are missing from draft R4-2110461 and 3DL/2UL NR CA are missing from draft R4-2110465**ZTE:**Thanks for the comments.Sorry for missing your combs. The missing 2DL/xUL combs have been included in r1 version, i will share it later to address the other companies's comments.  For 3DL/2UL NR CA, i  just noticed that you only request one new configuration:cid:00100000f97818bc1eff106e00001But in the BCS table tab,  there are lots of other 3DL/2UL NR CA configurations are included. So do i only include the CA\_n26A-n66A-n70A? Please confirm. Thanks.cid:00100000f97818bc1eff106e00002**ZTE:**Again, I just found some of your 3DL/2UL NR CA configurations under "NR\_CADC\_R17\_3BDL\_xBUL", it is wrong WID acronym, it should be "NR\_CADC\_R17\_3BDL\_2BUL", so i filter them out in the beginning.  I have corrected the mistakes, and included all of them in the r1 verison. Please check the excel sheet: <https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_99-e/Inbox/Post_meeting/Main/Drafts/R4-2110465%20Band%20combinations%20for%20NR%20CA_DC%203%20band%20DL%20with%202%20band%20UL_r1.xlsx>**Ligado:**Thanks for the draft Revised WID on Rel-17 NR Inter-band CA\_DC xUL\_2DL (x=1,2).I noticed that in Table 6.2A.4.2.3-1 for dTIB, for n24-n41, the two cells associated with n41 in column two need to be merged

|  |  |  |
| --- | --- | --- |
| CA\_n24-n41 | n24 | 0.3 |
| n41 | 0.46 |
|  |  | 0.97 |

Merged

|  |  |  |
| --- | --- | --- |
| CA\_n24-n41 | n24 | 0.3 |
| n41 | 0.46 |
|  | 0.97 |

**AT&T:**Thanks for the draft Revised WID on Rel-17 NR Inter-band CA\_DC xUL\_2DL (x=1,2).The new AT&T combination requests at RAN4#99-e have been captured in the Band Combination Table tab. However, I cannot find the corresponding BCS table entries on the FR1 inter-band BCS table tab. Can you please add them?**ZTE:**Thanks for the commentsI just checked the excel sheets of both yours and mine, it seems i have included the BCS entries of your combs in BCS table tab, would you please check the lines from 1849~1862 in BCS table tab? BTW, i use your request sheet sent out at 12th. May as baseline, any revision??**AT&T:**Sure enough. The BCS entries are there. Sorry for the false alarm. My search in Excel must not have worked properly.I noticed an error in my submission where the 20MHz channel BW is not filled in for NR band n5 for the CA\_n5A-n29A combination in row 1849. Can you please update to include 20MHz CBW in the final version? |
| R4-2110462 CR to reflect the completed NR inter band CA DC combinations for 2 bands DL with up to 2 bands UL into TS 38.101-1 ZTE Corporation | **Charter:**Thanks for your great efforts, guidance and workLooks like draft CR R4-2110462 is missing two agreed Cr’s R4-2107692 and R4-2107693 to be included in the draft.**ZTE:**The two CRs of R4-2107692 and R4-2107693 are formal CR (see below), which means they will be implemented by MCC, not by rapporteur in the big CR.**Samsung:**Thanks a lot for your great efforts on such huge CR/TR.Some value in our draft CR R4-2105250 (98-bis-e) Table 7.3A.6-1 is missing from R4-2110462 Table 7.3A.6-1. Could you help us check it? Thanks in advance.

|  |
| --- |
| **NR Band / Channel bandwidth of the affected DL band** |
| **UL band** | **DL band** | **5MHz (dB)** | **10MHz (dB)** | **15MHz (dB)** | **20MHz (dB)** | **25MHz (dB)** | **30 MHz (dB)** | **40 MHz (dB)** | **50 MHz (dB)** | **60 MHz (dB)** | **70****MHz****(dB)** | **80 MHz (dB)** | **90 MHz (dB)** | **100 MHz (dB)** |
| n1 | n3 | 3 | 2.2 | 1.9 | 1.7 | 1.6 | 1.5 |   |   |   |   |   |   |   |
| n1 | n40 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 |   | 6.6 |   |   |
| n1 | n41 |   | 6.1 | 6.1 | 6.1 |   | **6.1** | 6.1 | 6.1 | 6.1 |   | 6.1 | 6.1 | 6.1 |
| n3 | n41 |   | 0.7 | 0.7 | 0.7 |   | **0.7** | 0.7 | 0.7 | 0.7 |   | 0.7 | 0.7 | 0.7 |
| n38 | n78 |   | 8.3 | 8.3 | 8.3 | 7.3 | 6.5 | 6.3 | 5.3 | 4.5 |   | 4.0 | 3.9 | 3.8 |
| n40 | n1 | 8.3 | 8.3 | 8.3 | 8.3 |   |   |   |   |   |   |   |   |   |
| n41 | n1 | 9.1 | 9.1 | 9.1 | 9.1 | **9.1** | **9.1** | **9.1** | **9.1** |   |   |   |   |   |
| n41 | n3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |   |   |   |   |   |   |   |
| n7 | n3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |   |   |   |   |   |   |
| n41 | n25 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |   |   |   |   |   |   |
| n38 | n25 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |   |   |   |   |   |   |
| n411 | n66 | 3.5 | 3.5 | 3.5 | 3.5 |   |   | 3.5 |   |   |   |   |   |   |
| n41 | n77 |   | 8.3 | 8.3 | 8.3 | 7.3 | 6.5 | 6.3 | 5.3 | 4.5 | 4.3 | 4.0 | 3.9 | 3.8 |
| n41 | n78 |   | 8.3 | 8.3 | 8.3 | 7.3 | 6.5 | 6.3 | 5.3 | 4.5 | 4.3 | 4.0 | 3.9 | 3.8 |
| n78 | n71 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |   |   |   |   |   |
| n78 | n38 | 3.3 | 3.3 | 3.3 | 3.3 |   |   |   |   |   |   |   |   |   |
| n78 | n401 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |   | 4.5 |   |   |
| n78 | n411 |   | 4.5 | 4.5 | 4.5 |   | 4.5 | 4.5 | 4.5 | 4.5 |   | 4.5 | 4.5 | 4.5 |
| n783 | n79 |   |   |   |   |   |   | 2 | 2 | 2 |   | 2 |   | 2 |
| n79 | n783 |   | 2.6 | 2.6 | 2.6 |   |   | 2.6 | 2.6 | 2.6 |   | 2.6 | 2.6 | 2.6 |
| NOTE 1:   Applicable only when harmonic mixing MSD for this combination is not applied.NOTE 2:   VoidNOTE 3:   The requirements only apply for UEs supporting inter-band carrier aggregation with simultaneous Rx/Tx capability. Simultaneous Rx/Tx capability does not apply for UEs supporting band n78 with a n77 implementation.NOTE 4:   The requirements only apply for UEs supporting inter-band carrier aggregation with simultaneous Rx/Tx capability. Simultaneous Rx/Tx capability does not apply for UEs supporting band n78 with a n77 implementation. |

**AT&T:**Thanks for all of the effort to incorporate the draft CRs and TPs into the big CR to reflect the completed NR inter band CA DC combinations for 2 bands DL with up to 2 bands UL into TS 38.101-1 in R4-2110462.Please take note of the following items.1) In Table 5.2A.2.1-1, it seems that CA\_n2-n14 shows as CA\_n2-n12. Can you update based on the green highlighting below?Table 5.2A.2.1-1: Inter-band CA operating bands involving FR1 (two bands)

|  |  |  |  |
| --- | --- | --- | --- |
| NR CA Band | NR Band(Table 5.2-1) | DL interruption allowed (Note 8) |  |
| ... |   |   |  |
| CA\_n2-n12 | n2, n12 |   |  |
| CA\_n2-n14 | n2, n14 |   |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

2) CA\_n2(2A)-n77A with CA\_n2A-n77A UL is listed twice in Table 5.5A.3.1-1. The duplicates are shown in yellow. If the second entry is used, please merge the rows in the first two columns where I have highlighted in blue. I have also shown highlighted in blue where the rows in the first two columns need to be merged for CA\_n14A-n66A, CA\_n30A-n77A, and CA\_n30A-n77(2A).In the draft CR in R4-2107809, the second BCS entry for CA\_n2A-n77(2A) shows as BCS1. Can you update as shown in green highlighting?In the TP for CA\_n30A-n66(3A) in R4-2106717, the BCS for CA\_n66(3A) was incorrectly referring to BCS1 but there is only BCS0. Can you correct the typo for this combination as shown in green below?In the TP for CA\_n30A-n77A and CA\_n30A-n77(2A) in R4-2105238, 15MHz CBW was incorrectly shown for band n30 but it should only have 5 and 10MHz. Can you remove the incorrect CBW as shown in red below?Table 5.5A.3.1-1: NR CA configurations and bandwidth combinations sets defined for inter-band CA (two bands)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NR CA configuration | Uplink CA configuration | NR Band | Channel bandwidth (MHz) (NOTE 3) | Bandwidth combination set |
|   |   |   | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |   |
| ... |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CA\_n2A-n77A | CA\_n2A-n77A | n2 | 5 | 10 | 15 | 20 |   |   |   |   |   |   |   |   |   | 0 |
|   |   | n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |   |
| CA\_n2(2A)-n77A | CA\_n2A-n77A | n2 | See CA\_n2(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 | 0 |
|   |   | n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |   |
| CA\_n2A-n77(2A) | CA\_n2A-n77ACA\_n77(2A)7 | n2 | 5 | 10 | 15 | 20 |   |   |   |   |   |   |   |   |   | 0 |
|   |   | n77 | See CA\_n77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |   |
|   |   | n2 | 5 | 10 | 15 | 20 |   |   |   |   |   |   |   |   |   | 1 |
|   |   | n77 | See CA\_n77(2A) Bandwidth Combination Set 1 in Table 5.5A.2-1 |   |
| CA\_n2A-n77C | CA\_n2A-n77A | n2 | 5 | 10 | 15 | 20 |   |   |   |   |   |   |   |   |   | 0 |
|   |   | n77 | See CA\_n77C Bandwidth Combination Set 0 in Table 5.5A.1-1 |   |
| CA\_n2(2A)-n77A  | CA\_n2A-n77A  | n2 | See CA\_n2(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 | 0 |
|   |   | n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |   |
| CA\_n2(2A)-n77(2A) | CA\_n2A-n77ACA\_n77(2A)7 | n2 | See CA\_n2(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 | 0 |
|   |   | n77 | See CA\_n77(2A) Bandwidth Combination Set 1 in Table 5.5A.2-1 |   |
| ... |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CA\_n14A-n66A | CA\_n14A-n66A | n14 | 5 | 10 |   |   |   |   |   |   |   |   |   |   |   | 0 |
|   |   | n66 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |   |
| ... |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CA\_n30A-n66(3A) | CA\_n30A-n66A | n30 | 5 | 10 |   |   |   |   |   |   |   |   |   |   |   | 0 |
|   |   | n66 | See CA\_n66(3A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |   |
| CA\_n30A-n77A | CA\_n30A-n77A | n30 | 5 | 10 | ~~15~~ |   |   |   |   |   |   |   |   |   |   | 0 |
|   |   | n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100  |   |
| CA\_n30A-n77(2A) | CA\_n77(2A)CA\_n30A-n77A | n30 | 5 | 10 | ~~15~~ |   |   |   |   |   |   |   |   |   |   | 0 |
|   |   | n77 | See CA\_n77(2A) Bandwidth Combination Set 1 in Table 5.5A.2-1 |   |

3) In the TP for CA\_n30A-n77A and CA\_n30A-n77(2A) in R4-2105238, the output power tolerance did not include the superscript 2. I expect that this should be consistent with all of the other combos. Can you add the superscript 2 as shown in green below?Table 6.2A.1.3-1 UE Power Class for uplink inter-band CA (two bands)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Uplink CA Configuration | Class 1 (dBm)    | Tolerance (dB)        | Class 2 (dBm) | Tolerance(dB)        | Class 3 (dBm) | Tolerance (dB)        | Class 4 (dBm) | Tolerance (dB) |
|  |   |   |   |   |   |   |   |   |
| CA\_n30A-n77A |   |   |   |   | 23 | +2/-32 |   |   |

4) In Table 7.3A.4-1 and 7.3A.4-2, can you update the DL band to add “n” to the front of “30” as shown in yellow? The “n” was missing in the original TP in R4-2105238.Table 7.3A.4-1: Reference sensitivity exceptions due to UL harmonic for NR CA FR1

|  |
| --- |
| MSD due to harmonic exception for the DL band |
| UL band | DL band | 5 MHz | 10 MHz | 15 MHz | 20 MHz | 25 MHz | 30 MHz | 40 MHz | 50 MHz | 60 MHz | **70**MHz | 80 MHz | 90 MHz | 100 MHz |
|   |   | dB | dB | dB | dB | dB | dB | dB | dB | dB |   | dB | dB | dB |
| ... |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| n77 | n308 | 10.4 | 10.4 |   |   |   |   |   |   |   |   |   |   |   |

 Table 7.3A.4-2: Uplink configuration for reference sensitivity exceptions due to UL harmonic interference for NR CA, FR1

|  |
| --- |
| NR Band / Channel bandwidth of the high band |
| UL band | DL band | 5 MHz | 10 MHz | 15 MHz | 20 MHz | 25 MHz | 30 MHz | 40 MHz | 50 MHz | 60 MHz | 70MHz | 80 MHz | 90 MHz | 100 MHz |
| ... |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| n77 | n30 | 12 | 25 |   |   |   |   |   |   |   |   |   |   |   |

 5) In Table 6.5A.3.2.3-1, Band 48 is shown in the first row and not the row where exceptions apply which does not match the approved TP for CA\_n12-n30 in R4-2107694. Can you update the table as below where red is used for deletion and green is used for addition? Table 6.5A.3.2.3-1: Requirements for uplink inter-band carrier aggregation (two bands)

|  |  |
| --- | --- |
| NR CA combination | Spurious emission |
|   | Protected Band | Frequency range (MHz) | Maximum Level (dBm) | MBW (MHz) | NOTE |
| ... |   |   |   |   |   |   |   |
|  CA\_n12-n30 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 27, 30, 41, ~~48,~~ 53, 71 | FDL\_low  | - | FDL\_high | -50 | 1 |   |
| E-UTRA Band 4, 48, 66, 70,NR Band n77 | FDL\_low  | - | FDL\_high | -50 | 1 | 2 |
| E-UTRA Band 12, 85 | FDL\_low  | - | FDL\_high | -50 | 1 | 4 |

**ZTE:**It seems some mistakes are existed in the original TP. For CA\_n2(2A)-n77A with CA\_n2A-n77A UL, it seems different companies submited contributions in different meetings but for the same configuration... I have fixed all the issues in r2 version (share it later to address other companies' comments together).**AT&T: (ZTE reply inline by red font)**Thanks for the revised draft big CR and for addressing some of issues with the original input. This definitely helps to minimize CRs in the future.In the revised draft CR, I have noted that the following items remain.1) For CA\_n2(2A)-n77A with CA\_n2A-n77A UL in Table 5.5A.3.1-1, please merge the rows in the first two columns.[Wubin]. Such formatting like a 'joke' to me... I will correct it.2) In the TP for CA\_n30A-n77A and CA\_n30A-n77(2A) in R4-2105238, the output power tolerance did not include the superscript 2. I expect that this should be consistent with all of the other combos. Can you add the superscript 2 as shown in green below?Table 6.2A.1.3-1 UE Power Class for uplink inter-band CA (two bands)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Uplink CA Configuration | Class 1 (dBm)    | Tolerance (dB)        | Class 2 (dBm) | Tolerance(dB)        | Class 3 (dBm) | Tolerance (dB)        | Class 4 (dBm) | Tolerance (dB) |
| ... |   |   |   |   |   |   |   |   |
| CA\_n30A-n77A |   |   |   |   | 23 | +2/-32 |   |   |

[Wubin]. In your TP, no footnote was applied, which means NOTE 2 is not applied. That's the correct one.Actually, in this meeting, there is a discussion paper to discuss the MOP telorance at the band edge for band combination, although the paper is noted, there were some CRs based on the proposals were agreed. However, before it, there no guidance on the  MOP telorance at the band edge for band combination.By using the samilar proposals, some corrections should be done for the MOP telorance at the band edge for some band combination. I plan to bring a CR to correct them.Since the MOP telorance at the band edge is not applied for both single band n30 and and n77, so +2/-3 is correct one. 3) In Table 6.5A.3.2.3-1, Band 48 is shown in the first row and not the row where exceptions apply which does not match the approved TP for CA\_n12-n30 in R4-2107694. Can you update the table as below where red is used for deletion and green is used for addition?[Wubin]. It seems such error is existed in your TP. But for me, it look like a technical correction as you proposed below. So i would like to keep it as it is, and you can bring a draft CR to correct it. Is it ok for you? Table 6.5A.3.2.3-1: Requirements for uplink inter-band carrier aggregation (two bands)

|  |  |
| --- | --- |
| NR CA combination | Spurious emission |
|   | Protected Band | Frequency range (MHz) | Maximum Level (dBm) | MBW (MHz) | NOTE |
| ... |   |   |   |   |   |   |   |
|  CA\_n12-n30 | E-UTRA Band 2, 5, 13, 14, 17, 24, 25, 26, 27, 30, 41, ~~48,~~ 53, 71 | FDL\_low  | - | FDL\_high | -50 | 1 |   |
| E-UTRA Band 4, 48, 66, 70,NR Band n77 | FDL\_low  | - | FDL\_high | -50 | 1 | 2 |
| E-UTRA Band 12, 85 | FDL\_low  | - | FDL\_high | -50 | 1 | 4 |

**AT&T:**Thanks for addressing the editorial issue. Sorry to bother you with it.For item #2, I am OK to leave as is and I also think that this is correct. I am glad to see that there is an effort to correct the other combinations in the future.For item #3, the error did not exist in our original approved TP in R4-2107694. Here is a screenshot of the table in our original TP. Can you please update?cid:image001.png@01D75858.CE255B40**ZTE:**I checked your TP again, yes, you are right. The errors are fixed in r3 version.https://www.3gpp.org/ftp/tsg\_ran/WG4\_Radio/TSGR4\_99-e/Inbox/Post\_meeting/Main/Drafts/draft%20R4-2110462\_CR%20NR%20inter%20band%20CA%20DC%202%20bands%20DL%20with%20up%20to%202%20bands%20UL%20into%20TS%2038.101-1\_r3.docx**AT&T:**Thanks for the update. The r3 version looks good to me.**Samsung: (ZTE reply inline by red font)**Thanks very much for your great efforts on merging such huge CR and TP. Commets are below, could you help us check them? Thanks in advance.1. It seems that Note 20/21 of Table 6.2.3.3-2(R4-2105056/5057/0462/5252,98-bis-e) are missing from the big CR(R4-2110462) Table 6.5A.3.2.3-1, also R4-2105056 is misssing in R4-2110462 summary of change. [Wubin]. I didn't aware note 20/21 are new NOTEs. Sorry. But next time, if the NOTE (s) is(are) new added, please using x, y. Don't use the specific NOTE number. Thanks

|  |  |
| --- | --- |
| **UL NR CA Configuration** | **Spurious emission**  |
| **Protected band** | **Frequency range (MHz)** | **Maximum Level (dBm)** | **MBW (MHz)** | **NOTE** |
| CA\_n1-n74 | E-UTRA Band 1, 5, 7, 8, 18, 19, 20, 26, 28, 31, 38, 40, 41, 42, 43, 52, 65, 67, 68NR Band n78 | FDL\_low | - | FDL\_high | -50 | 1 |   |
| NR Band n77, n79 | FDL\_low | - | FDL\_high | -50 | 1 | 2 |
| E-UTRA Band 3, 34 | FDL\_low | - | FDL\_high | -50 | 1 | 4 |
| Frequency range | 1880 | - | 1895 | -40 | 1 | 4, 6 |
| Frequency range | 1895 | - | 1915 | -15.5 | 5 | 4, 6, 7 |
| Frequency range | 1915 | - | 1920 | +1.6 | 5 | 4, 6, 7 |
| Frequency range | 1884.5 | - | 1915.7 | -41 | 0.3 | 3 |
| Frequency range | 1400 | - | 1427 | -32 | 27 | 4, 20 |
| Frequency range | 1475 | - | 1488 | -50 | 1 | 21 |
| Frequency range | 1488 | - | 1518 | -50 | 1 | 4 |
| NOTE 2:   As exceptions, measurements with a level up to the applicable requirements defined in Table 6.5.3.1-2 are permitted for each assigned NR carrier used in the measurement due to 2nd, 3rd, 4th or 5th harmonic spurious emissions. Due to spreading of the harmonic emission the exception is also allowed for the first 1 MHz frequency range immediately outside the harmonic emission on both sides of the harmonic emission. This results in an overall exception interval centred at the harmonic emission of (2 MHz + N x LCRB x RBsize kHz), where N is 2, 3, 4, 5 for the 2nd, 3rd, 4th or 5th harmonic respectively. The exception is allowed if the measurement bandwidth (MBW) totally or partially overlaps the overall exception interval.NOTE 3:   Applicable when co-existence with PHS system operating in 1884.5 - 1915.7 MHz.NOTE 4:   These requirements also apply for the frequency ranges that are less than FOOB (MHz) in Table 6.5.3.1-1 from the edge of the channel bandwidth.NOTE 6:   This requirement is applicable for channel bandwidths up to 20 MHz within the range 1920 - 1980 MHz with the following restriction: for carriers of 15 MHz bandwidth when the carrier centre frequency is within the range 1927.5 - 1929.5 MHz and for carriers of 20 MHz bandwidth when the carrier centre frequency is within the range 1930 - 1938 MHz the requirement is applicable only for an uplink transmission bandwidth less than or equal to 54 RB.NOTE 7: For these adjacent bands, the emission limit could imply risk of harmful interference to UE(s) operating in the protected operating band.**NOTE 20: Applicable for cases and when the lower edge of the assigned NR UL channel bandwidth frequency is greater than or equal to 1427 MHz + the channel BW assigned for 5 and 10 MHz bandwidth, and when the lower edge of the assigned NR UL channel bandwidth frequency is greater than or equal to 1440 MHz for 15 and 20 MHz bandwidth.****NOTE 21: Applicable for 5 MHz bandwidth, and when the upper edge of the assigned NR UL channel bandwidth frequency is less than or equal to 1467 MHz assigned for 10 MHz bandwidth, and when the upper edge of the assigned NR UL channel bandwidth frequency is less than or equal to 1463.8 MHz for 15 MHz bandwidth, and when the upper edge of the assigned NR UL channel bandwidth**  |

2. Table 5.5A.3.1-1, a minor formatting problem: need to merge cells

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CA\_n74A-n78A | CA\_n74A-n78A | n74 | 5 | 10 | 15 | 20 |   |   |   |   |   |   |   |   |   | 0 |
|   |   | n78 |   | 10 | 15 | 20 |   |   | 40 | 50 | 60 |   | 80 | 90 | 100 |   |

 [wubin]. Done.3. There is a little typo in  R4-2110462 Table 6.2A.1.3-1,there are two lines for CA\_n18A-n77A, the second line should be CA\_n18A-n78A

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CA\_n18A-n77A |   |   |   |   | 23 | +2/-32 |   |   |
| CA\_n18A-n77A |   |   |   |   | 23 | +2/-32 |   |   |

  [wubin]. Done.4. In R4-2110462 Table 7.3A.5-1, It should be IMD4

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CA\_n18-n789 | n18 | N/A | N/A | N/A | N/A | N/A | FDD | **IMD4/5** |
| n78 | N/A | N/A | N/A | N/A | N/A | TDD | N/A |

  [wubin]. Done.and the note8 should be like this in line with our contribution R4-2105247, I think maybe the below wording is more clear to clarify why the MSD(dB) is N/A.  [wubin]. Done

|  |  |
| --- | --- |
| **Operating band / Channel bandwidth / NRB / Duplex mode** | **Source of IMD** |
| **CA****Configuration** | **Operating band** | **UL Fc(MHz)** | **UL/DL BW (MHz)** | **UL LCRB** | **DL Fc (MHz)** | **MSD (dB)** |
| CA\_n18A-n77A8 | n18 | N/A | N/A | N/A | N/A | N/A | IMD4/5 |
| n77 | N/A | N/A | N/A | N/A | N/A | N/A |
| **NOTE8:    There is no IMD4/5 products in band n18 downlink for n77 operating in 3520 – 3560 MHz, 3700 – 3800MHz and 4000 - 4100MHz frequency range.** |

5. BCS2 of CA\_n3-n41 (R4-2105250,98-bis-e) is missing from R4-2110462 Table 5.5A-3.1-1 [wubin]. Done.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CA\_n3A-n41A | CA\_n3A-n41A | n3 | 5 | 10 | 15 | 20 | 25 | 30 |   |   |   |   |   |   |   |
| n41 |   | 10 | 15 | 20 |   |   | 40 | 50 | 60 |   | 80 | 90 | 100 |
| n3 | 5 | 10 | 15 | 20 | 25 | 30 |   |   |   |   |   |   |   |
| n41 |   | 10 | 15 | 20 |   |   | 40 | 50 | 60 |   |   |   |   |
| n3 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n41 |   | 10 | 15 | 20 |   | 30 | 40 | 50 | 60 |   | 80 | 90 | 100 |

**ZTE:**Thanks for carefully checking.Sorry for the mistakes. Also, see my reply below.Also another issue in your email:Some value in our draft CR R4-2105250 (98-bis-e) Table 7.3A.6-1 is missing from R4-2110462 Table 7.3A.6-1[wubin]. Done. Seems i only include the new UL configuration, but miss the new MSD vaulesYour comments are all addressed, please check the r1 version at: <https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_99-e/Inbox/Post_meeting/Main/Drafts/draft%20R4-2110462_CR%20NR%20inter%20band%20CA%20DC%202%20bands%20DL%20with%20up%20to%202%20bands%20UL%20into%20TS%2038.101-1_r1.docx>**Samsung:**Thanks very much for the revison, it looks good to me.Next time i wil using x,y for new note, sorry for using specific number this time and thanks a lot for your kind remind.**Skyworks:**Sorry for the late feedback but I found an issue with my CR for the new IMD tests points for intra-band UL CA UL configuraions:In Table 7.3A.5-1: the IMD order (yellow highlight) is missing for CA\_n3-n77 (2A case in table below)): should have been IMD7 but I missed it in my CR which I will have to update.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | n3 | N/A | 5 | N/A | 1877.5 | [2.2] | FDD | IMD7 |
|  | n77 | 3455 | 10 | 1 (RBstart=10) | 3455 | N/A | TDD | N/A |
|  |  | 3945 | 10 | 1 (RBstart=0) | 3945 |  |  |  |

But since R4-2107982 is not a draft CR, I thought it would be implemented by MCC. Separately I did not have the CR number either so I should send a revision of that CR. So I don’t know what is the best way to go: either revise my CR and you remove it from your big CR or make everything right in your Big CR.Carolyn, Xizeng, please advise for the best way forward and I am really sorry for the inconvenience. **ZTE:**Actually, when i implemented the big CR, i was hesitate to include your R4-2107982, since i found there was no CR number. I am not sure whether it is a draft CR or formal CR. But i supposed it is draft CR, so i included it in the big CR. Regarding the missing IMD7 in the table, for me, it is ok to keep this CR in the big CR and add 'IMD7' in the table. But if there are guidances from Chair/MCC, as you mentioned, "either revise my CR and you remove it from your big CR or make everything right in your Big CR.", i am also fine.**Skyworks:**Here is R4-2108117.zip the revision of R4-2107982 CR with the CR number and added the missing “IMD7”. Sorry for the mistakes.Hope this is acceptable as it covers combinations that would be incomplete without these IMDs specified and can be implemented by MCC. If not acceptable I will bring a CR in August.Wubin, sorry for inconvenience but this will be added separately from your big CR**ZTE:**Thanks for your guidance.So i remove this CR(R4-2107982) from our big CR(draft R4-2110462) since CR(R4-2107982) might be revised by adding the CR number, i leave it to MCC. Thanks.**Ericsson:**We have the following comments on the draft R4-2110462 CR:CA\_n2A-n77(2A): The BCS value in the rightmost column should be changed 0 -> 1 for the second BCSCA\_n2(2A)-n77A: Two BCSs are defined at two different places in the table. The two BCSs should be merged into one CA\_n2(2A)-n77A table entry, and the second BCS id should be changed to 1.CA\_n41(2A)-n66A: Exists as two entries in the table now. Should be merged into one CA\_n41(2A)-n66A entry with two BCSs.CA\_n30A-n66(3A) references to n66(3A) BCS#1 which does not exist. Should be BCS#0Shifted columns for the CA\_n25-n48 configurations:CA\_n25A-n48A has n25 and n48 shifted one step to the rightCA\_n25A-n48(2A) has n25 shifted one step to the rightCA\_n25A-n48C has n25 shifted one step to the right**ZTE:**Thanks for the commentsI have fixed all the mistakes except this one:*CA\_n2(2A)-n77A: Two BCSs are defined at two different places in the table. The two BCSs should be merged into one CA\_n2(2A)-n77A table entry, and the second BCS id should be changed to 1.*[Wubin]: As we can seen from the table, the two CA\_n2(2A)-n77A are totally the same, so it should remove one, not correct BCS 0->1 for the second oneI have checked what's happen:1. In draft CRR4-2105245 in #98bis meeting,  CA\_n2(2A)-n77A with BCS0 was introduced.2.  In draft CRR4-2107809 in #98bis meeting,  CA\_n2(2A)-n77A with BCS0 was also introduced.They are totally the same. (Sorry, i didn't aware it in the beginning but i put them separately.)So i decide to remove the first one. cid:00100000f978c6e13a6a1ba200001**Huawei:**The “underline” for CA\_n28A-n71A can be removed in the configurations’ table.cid:image004.png@01D757D9.2D97ECD0**ZTE:**Since some additonal comments were received from ATT, Ligado, Ericsson and Huawei, so i revised draft R4-2110462 as r2 version. Also some additional formatting issues are fixed.Here is the r2 version.https://www.3gpp.org/ftp/tsg\_ran/WG4\_Radio/TSGR4\_99-e/Inbox/Post\_meeting/Main/Drafts/draft%20R4-2110462\_CR%20NR%20inter%20band%20CA%20DC%202%20bands%20DL%20with%20up%20to%202%20bands%20UL%20into%20TS%2038.101-1\_r2.docxAlso, the basket WID EXCEL for xUL/2DL NR CADC (draft R4-2110461) are revised to r1 version to address DISH and ATT's comments. Here is the revision.<https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_99-e/Inbox/Post_meeting/Main/Drafts/draft%20R4-2110461%20Band%20combinations%20for%20NR%20CA_DC%202%20band%20DL%20with%20up%20to%202%20band%20UL_r1.xlsx>**Huawei:**Thanks for your great efforts. The updated version looks fine to me.**Nokia:**Thanks for your efforts. We are happy with the updates.**DISH:**Revision r1 looks good, thanks.**Ericsson:**Dear WubinThanks for your efforts. We are happy with the updates. |
| R4-2110463 CR to reflect the completed NR inter band CA DC combinations for 2 bands DL with up to 2 bands UL into TS 38.101-2 ZTE Corporation | No comment |
| R4-2110464 CR to reflect the completed NR inter band CA DC combinations for 2 bands DL with up to 2 bands UL into TS 38.101-3 ZTE Corporation | No comment |
| R4-2110999 TR 38.717-02-01 v0.5.0 ZTE Wistron Telecom AB | No comment |
| R4-2109121 TR 38.717-03-01 on Rel-17 NR inter-band Carrier Aggregation (CA) for 3 Down Link (DL) / 1 Up Link (UL) CATT | **AT&T**Thanks for the draft TR 38.717-03-01 on Rel-17 NR inter-band Carrier Aggregation (CA) for 3 Down Link (DL) / 1 Up Link (UL) in R4-2109121.Please find my comments below. A number of the items are editorial issues with the original TPs. I hope that you can update them in the final version so that we do not need further editorial CRs to address them in the future.1) In the TPs for CA\_n2-n30-n66, CA\_n5-n30-n66, CA\_n2-n30-n77, CA\_n12-n30-n77, CA\_n14-n30-n77, and CA\_n5-n30-n77, NR band n30 was incorrectly listed as a TDD band in the Operating bands for CA table (Table 6.X.1-1). Can you correct this editorial issue for these combinations and update n30 to FDD?2) In Table 6.57.2-1, CA\_n5A-n30A-n66(2A) has been incorporated as a n5(2A) based combination which does not match the request. Can you update the table as follows in green to match the approved TP in R4-2107705?Table 6.57.2-1: Supported channel bandwidths per CA configuration for 3DL inter-band CA

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **NR CA Configuration** | **UL Config** | **NR Band** | **5** | **10** | **15** | **20** | **25** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **BCS** |
|  |  | n5 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  |  |
| CA\_n5A-n30A-n66A | - | n30 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  | 0 |
|  |  | n66 | 5 | 10 | 15 | 20 |  |  | 40 |  |  |  |  |  |  |  |
| CA\_n5A-n30A-n66(2A) | - | n5 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  | 0 |
| n30 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  |
| n66 | See CA\_n66(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 in TS 38.101-1 |

3) In the approved TP for CA\_n30A-n66A-n77A, 15MHz and 20MHz CBWs were incorrectly shown for band n30 but it should only have 5 and 10MHz. Can you remove the incorrect CBWs as shown in red below?Table 6.81.2-1: Supported channel bandwidths per CA configuration for 3DL inter-band CA

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **NR CA Configuration** | **UL Config** | **NR Band** | **5** | **10** | **15** | **20** | **25** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **BCS** |
|  |  | n30 | 5 | 10 | ~~15~~ | ~~20~~ |   |   |   |   |   |   |   |   |   |  |
| CA\_n30-n66-n77 | - | n66 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   | 0 |
|  |  | n77 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |  |

4) In the approved TP for CA\_n14-n30-n77, 15MHz CBW was incorrectly shown for band n14 but it should only have 5 and 10MHz. Can you remove the incorrect CBW as shown in red below?Table 6.71.2-1: Supported channel bandwidths per CA configuration for 3DL inter-band CA

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **NR CA Configuration** | **UL Config** | **NR Band** | **5** | **10** | **15** | **20** | **25** | **30** | **40** | **50** | **60** | **70** | **80** | **90** | **100** | **BCS** |
|  |  | n14 | 5 | 10 | ~~15~~ |  |  |  |  |  |  |  |  |  |  |  |
| CA\_n14A-n30A-n77A | - | n30 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  | 0 |
|  |  | n77 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |  |

**AT&T:**Thanks for revised TR and big CR and for addressing the editorial items. I have noted the following items below in the latest revisions. v2 draft TR 38.717-03-01 on Rel-17 NR inter-band Carrier Aggregation (CA) for 3 Down Link (DL) / 1 Up Link (UL): 1) In the TPs for CA\_n2-n30-n66, CA\_n5-n30-n66, CA\_n2-n30-n77, CA\_n12-n30-n77, CA\_n14-n30-n77, and CA\_n5-n30-n77, NR band n30 was incorrectly listed as a TDD band in the Operating bands for CA table (Table 6.X.1-1). Can you correct this editorial issue for all of the listed combinations and update n30 to FDD? I have shown CA\_n2-n30-n66 as an example below for the update. Please apply similar update to the appropriate tables for the other combinations.Table 6.56.1-1: 3DL Inter-band CA operating bands

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   **NR CA Band** |   **NR Band** |   **Uplink (UL) operating band** |   **Downlink (DL) operating band** |   **Duplex Mode** |
|   **BS receive / UE transmit** |   **BS transmit / UE receive**  |
|   **FUL\_low  –  FUL\_high** |   **FDL\_low  –  FDL\_high** |
|   CA\_n2-n30-n66 |   n2 |   1850 MHz |   – | 1910 MHz |   1930 MHz |   – | 1990 MHz |   FDD |
|   n30 |   2305 MHz |   – | 2315 MHz |   2350 MHz |   – | 2360 MHz |   FDD |
|   n66 |   1710 MHz |   – | 1780 MHz |   2110 MHz |   – | 2200 MHz |   FDD |

 |

  v1 draft big CR on Introducing NR inter-band CA for 3DL Bands and 1UL band for 38.101-1: 1) In the approved TP for CA\_n14A-n30A-n77A, 15MHz CBW was incorrectly shown for band n14 in Table 5.5A.3.2-1 but it should only have 5 and 10MHz. Can you remove the incorrect CBW as shown in red below? **Table 5.5A.3.2-1: NR CA configurations and bandwidth combinations sets defined for inter-band CA (three bands)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  NR CA configuration | Uplink CA configuration | NR Band | Channel bandwidth (MHz) (NOTE 3) | Bandwidth combination set |
|   |   |   | 5 | 10 | 15 | 20 | 25 | 30   | 40 | 50 | 60 | 70MHz | 80 | 90 | 100 |   |
| ..  . |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CA\_n14A-n30A-n77A | - | n14 | 5 | 10 | ~~15~~ |   |   |   |   |   |   |   |   |   |   | 0 |   |
|   | n30 | 5 | 10 |   |   |   |   |   |   |   |   |   |   |   |   |
|   | n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |   |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

 |

**CATT:**Further comments from Ron, Ojas and Per are all taken.Please find updated version for 38.101-1 big CR and TR at [Draft\_R4-2109123\_CR for 38.101-1\_v3.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_99-e/Inbox/Post_meeting/Main/Drafts/R17%20inter-band%20CA_3DL1UL/Draft_R4-2109123_CR%20for%2038.101-1_v3.zip) [Draft\_R4-2109121\_38.717-03-01\_v3.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_99-e/Inbox/Post_meeting/Main/Drafts/R17%20inter-band%20CA_3DL1UL/Draft_R4-2109121_38.717-03-01_v3.zip)  |
| R4-2109122 Revised WID on Rel-17 NR inter-band CA of 3DL bands and 1UL band CATT | **DISH:**It seems DISH requests for 3Dl/1UL NR CA are missing from draft R4-2109122. |
| R4-2109123 CR on Introducing NR inter-band CA for 3DL Bands and 1UL band for 38.101-1 CATT | **Samsung:**Thanks a lot for your great efforts on merging the big CR and TPIt seems that our contribution R4-2105072(98-bis-e) is missing from the big CR R4-2109123, and it was included in the TR.Could you help us check it? Thanks in advance.**CTC:**Many thanks for capturing our request into the table. I found the following combo was in Band combination table,  but the corresponding channel bandwidths were not seen in BCS table.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|   | New | CA\_n5A-n8A-n28A | - | 0 | Only FR1 | Bo Liu |   |
| **NR CA configuration** | **Uplink CA configuration** | **NR Band** | **SCS (kHz)** | **5 MHz** | **10 MHz** | **15 MHz** | **20 MHz** | **25 MHz** | **30 MHz** |
| CA\_n5A-n8A-n28A | CA\_n5A-n8ACA\_n5A-n28ACA\_n8A-n28A | n5 | 15 | Yes | Yes | Yes | Yes | 　 | 　 |
| 30 | 　 | Yes | Yes | Yes | 　 | 　 |
| 60 | 　 | 　 | 　 | 　 | 　 | 　 |
| n8 | 15 | Yes | Yes | Yes | Yes | 　 | 　 |
| 30 | 　 | Yes | Yes | Yes | 　 | 　 |
| 60 | 　 | 　 | 　 | 　 | 　 | 　 |
| n28 | 15 | Yes | Yes | Yes | Yes7 | 　 | Yes7 |
| 30 | 　 | Yes | Yes | Yes7 | 　 | Yes7 |
| 60 | 　 | 　 | 　 | 　 | 　 | 　 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Could you help to check and update?**AT&T**Thanks for the draft big CR on Introducing NR inter-band CA for 3DL Bands and 1UL band for 38.101-1 in R4-2109123.Please find my comments below. A number of the items are editorial issues with the original TPs. I hope that you can update them in the final version so that we do not need further editorial CRs to address them in the future.For all of the combinations added for the AT&T combinations, the same updates with the additional UL configs are added in the big CR for 3DL/2UL. Should the overlapping items be removed from your big CR in Table 5.5A.3.2-1 since it is also updated in the big CR for 3DL/2UL from ZTE?Other items that I have noted are listed below. I have listed the Table 5.5A.3.2-1 items below but if you choose to remove them due to the ZTE big CR, please ignore those items.1) In Table 5.2A.2.2-1, it looks like CA\_n2-n5-n30, CA\_n2-n5-n66, and CA\_n2A-n5A-n77A are listed in the opposite order.2) In Table 5.5A.3.2-1, it looks like CA\_n2A-n5A-n77A is in the wrong order since it shows up prior to CA\_n2-n5-n30.3) For many of the BCS references for the intra-band CA configurations in Table 5.5A.3.2-1, the alternate format from the CA request has been used as opposed to the format used in the corresponding TPs.For example, “CA\_n2(2A)” is used where the corresponding TP shows “See CA\_n2(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1”. It seems that the rest of the table uses the latter format. Is the plan to use the alternate format going forward?4) For the CA\_n2-n5-n66 related combinations, the NR bands listed in the Table 5.5A.3.2-1 show as n1, n20, and n78. Please update as shown below in green.CA\_n5(2A)-n30A-n66A has been incorporated which does not match the request. Can you delete those rows associated with CA\_n5(2A)-n30A-n66A in the table as shown in red?In the approved TP for CA\_n14A-n30A-n77A, 15MHz CBW was incorrectly shown for band n14 but it should only have 5 and 10MHz. Can you remove the incorrect CBW as shown in red below?In the approved TP for CA\_n30A-n66A-n77A, 15MHz and 20MHz CBWs were incorrectly shown for band n30 but it should only have 5 and 10MHz. Can you remove the incorrect CBWs as shown in red below?Table 5.5A.3.2-1: NR CA configurations and bandwidth combinations sets defined for inter-band CA (three bands)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| NR CA configuration | Uplink CA configuration | NR Band | Channel bandwidth (MHz) (NOTE 3) | Bandwidth combination set |
|  |  |  | 5 | 10 | 15 | 20 | 25 | 30  | 40 | 50 | 60 | 70MHz | 80 | 90 | 100 |  |
| ... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CA\_n2A-n5A-n66A | - | n2 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  | 0 |
| n5 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  |
| n66 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |  |  |  |  |  |  |
| CA\_n2(2A)-n5A-n66A | - | n2 | CA\_n2(2A) | 0 |
| n5 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  |
| n66 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |  |  |  |  |  |  |
| CA\_n2A-n5A-n66(2A) | - | n2 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  | 0 |
| n5 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  |
| n66 | CA\_n66(2A) |  |
| ... |  |  |  |  |
| CA\_n5A-n30A-n66A | - | n5 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  | 0 |
| n30 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  |
| n66 | 5 | 10 | 15 | 20 |  |  | 40 |  |  |  |  |  |  |
| ~~CA\_n5(2A)-n30A-n66A~~ | ~~-~~ | ~~n5~~ | ~~CA\_n5(2A)~~ | ~~0~~ |
| ~~n30~~ | ~~5~~ | ~~10~~ |  |  |  |  |  |  |  |  |  |  |  |
| ~~n66~~ | ~~5~~ | ~~10~~ | ~~15~~ | ~~20~~ |  |  | ~~40~~ |  |  |  |  |  |  |
| CA\_n5A-n30A-n66(2A) | - | n5 | 5 | 10 | 15 | 20 |  |  |  |  |  |  |  |  |  | 0 |
| n30 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  |
| n66 | CA\_n66(2A) |
| ... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
| CA\_n14A-n30A-n77A | - | n14 | 5 | 10 | ~~15~~ |  |  |  |  |  |  |  |  |  |  | 0 |   |
|  | n30 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  |   |
|  | n77 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |   |
| ... |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |
| CA\_n30A-n66A-n77A | - | n30 | 5 | 10 | ~~15~~ | ~~20~~ |   |   |   |   |   |   |   |   |   | 0 |   |
| n66 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |   |
| n77 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |   |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

5) For the CA\_n2-n30-n77, the NR bands listed in the Table 6.2A.4.2.4-1 show as 0.6, 0.3, and 0.8. Please update as shown below in green.For CA\_n5-n12-n77, the Inter-band CA combination column shows CA\_n5-n14-n77. Please update as shown below in green.Table 6.2A.4.2.4-1: ΔTIB,c due to NR CA (three bands)

|  |  |  |
| --- | --- | --- |
| Inter-band CA combination | NR Band | ΔTIB,c (dB) |
| ... |  |  |
| CA\_n2-n30-n77 | n2 | 0.6 |
| n30 | 0.3 |
| n77 | 0.8 |
| ... |  |  |
| CA\_n5-n12-n77 | n5 | 0.8 |
| n12 | 0.4 |
| n77 | 0.5 |
| CA\_n5-n14-n77 | n5 | 0.5 |
| n14 | 0.3 |
| n77 | 0.8 |

6) For the CA\_n12-n30-n77, the NR bands listed in the Table 5.2A.2.2-1 show as n12, n66, and n77. Please update as shown below in green.Table 5.2A.2.2-1: Inter-band CA operating bands involving FR1 (three bands)

|  |  |
| --- | --- |
| NR CA Band | NR Band(Table 5.2-1) |
| ... |  |
| CA\_n12-n30-n77 | n12, n30, n77 |
| CA\_n12-n66-n77 | n12, n66, n77 |

**Ligado:**Thank you for consolidating the approved TPs into the CR for NR 3DL/1U.I noticed that in draft version of R4-2109123, n24-n41-n48 has been incorporated. However, the associated TP (R4-2108995) was not pursued at RAN4#99e since work on some of the fall back modes is still ongoing.I also noticed that some of the text (highlighted in red below) is missing from draft R4-2109123.  This also seems to be case for other combinations being introduced.  I am not sure if going forward we will be using the shortened reference or if it is an oversight.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CA\_n24A-n41A-n77A | - | n24 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| n41 |   | 10 | 15 | 20 |  | 30 | 40 | 50 | 60 |  | 80 | 90 | 100 |
| n77 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n24A-n41(2A)-n77A | - | n24 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| n41 | See CA\_n41(2A) BCS1 in Table 5.5A.2-1 from 38.101-1 |
| n77 |  | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n24A-n41A-n77(2A) | - | n24 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| n41 |   | 10 | 15 | 20 |  | 30 | 40 | 50 | 60 |  | 80 | 90 | 100 |
| n77 | See CA\_n77(2A) BCS0 in Table 5.5A.2-1 from 38.101-1 |
| CA\_n24A-n41(2A)-n77(2A) | - | n24 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| n41 | See CA\_n41(2A) BCS1 in Table 5.5A.2-1 from 38.101-1 |
| n77 | See CA\_n77(2A) BCS0 in Table 5.5A.2-1 from 38.101-1 |
| CA\_n25A-n29A-n66A | CA\_n25-n66A | n25 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |  |  |  |  |  |  | 0 |

**Nokia:**We have the following comments on the Draft\_R4-2109123\_CR:CA\_n2A-n5A-n66A, CA\_n2(2A)-n5A-n66A and CA\_n2A-n5A-n66(2A) have the wrong band information in the third column (n1, n20, n78)It would be good if references to intra-band combinations is made in a consistent way. There are quite a few examples of different ways now used: "CA\_77(2A)""See CA\_n77(2A) Bandwidth Combination Set 1 in Table 5.5A.2-1"“See CA\_n78(2A) Bandwidth Combination Set 2 in Table 5.5A.2-1 in TS 38.101-1”**CATT:**Thank you for all the comments. I have uploaded revised version for the big CR and TR 38.717-03-01 as below. Please double check. Thanks[Draft\_R4-2109121\_38.717-03-01\_v1.zip](https://protect2.fireeye.com/v1/url?k=a33510ab-fcae29ce-a3349be4-000babff32e3-6fe908274851e149&q=1&e=d0f3852e-d358-4ffa-adcb-10a5ee2ec67d&u=https%3A%2F%2Furldefense.com%2Fv3%2F__https%3A%2Fwww.3gpp.org%2Fftp%2Ftsg_ran%2FWG4_Radio%2FTSGR4_99-e%2FInbox%2FPost_meeting%2FMain%2FDrafts%2FR17%2A20inter-band%2A20CA_3DL1UL%2FDraft_R4-2109121_38.717-03-01_v1.zip__%3BJSU%21%21BhdT%21wlGKR-CTO2Idqt3DYz5bOtNKW6PgFAsUO-99DSoTNMyod2S3TC5AEklWljcmhQ%24)[Draft\_R4-2109123\_CR for 38.101-1\_v1.zip](https://protect2.fireeye.com/v1/url?k=1a15d8ee-458ee18b-1a1453a1-000babff32e3-10d3c12607ab9740&q=1&e=d0f3852e-d358-4ffa-adcb-10a5ee2ec67d&u=https%3A%2F%2Furldefense.com%2Fv3%2F__https%3A%2Fwww.3gpp.org%2Fftp%2Ftsg_ran%2FWG4_Radio%2FTSGR4_99-e%2FInbox%2FPost_meeting%2FMain%2FDrafts%2FR17%2A20inter-band%2A20CA_3DL1UL%2FDraft_R4-2109123_CR%2A20for%2A2038.101-1_v1.zip__%3BJSUlJQ%21%21BhdT%21wlGKR-CTO2Idqt3DYz5bOtNKW6PgFAsUO-99DSoTNMyod2S3TC5AEkmsX8QIOA%24) Regarding the revised WID and the SR for completed combinations, I will upload a version later today to include all the requests. Thanks**Nokia:**Thanks for your efforts. We are happy with these updates.We need to make one more comment.Below combinations are all missing a “n” in the reference to the intra-band combinations.Would you please add “n” before uploading the final CR?CA\_25(2A) -> CA\_n25(2A)CA\_77(2A) -> CA\_n77(2A)and so on…..

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CA\_n7A-n25(2A)-n77A | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   | 0 |
| n25 | See CA\_25(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n7A-n25A-n77(2A) | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   | 0 |
| n25 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n77 | See CA\_77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7A-n25(2A)-n77(2A) | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   | 0 |
| n25 | See CA\_25(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n77 | See CA\_77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7(2A)-n25A-n77A | - | n7 | See CA\_7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 | 0 |
| n25 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n7(2A)-n25(2A)-n77A | - | n7 | See CA\_7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 | 0 |
| n25 | CA\_25(2A) |
| n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n7(2A)-n25A-n77(2A) | - | n7 | See CA\_7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 | 0 |
| n25 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n77 | See CA\_77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7(2A)-n25(2A)-n77(2A) | - | n7 | See CA\_7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 | 0 |
| n25 | See CA\_25(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n77 | See CA\_77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |

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| CA\_n7A-n66A-n77A | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   | 0 |
| n66 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n7A-n66(2A)-n77A | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   | 0 |
| n66 | See CA\_66(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n7A-n66A-n77(2A) | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   | 0 |
| n66 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n77 | See CA\_77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7A-n66(2A)-n77(2A) | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   | 0 |
| n66 | See CA\_66(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n77 | See CA\_7 (2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7(2A)-n66A-n77A | - | n7 | See CA\_7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 | 0 |
| n66 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n7(2A)-n66(2A)-n77A | - | n7 | See CA\_7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 | 0 |
| n66 | See CA\_66(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n7(2A)-n66A-n77(2A) | - | n7 | See CA\_7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 | 0 |
| n66 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n77 | See CA\_77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7(2A)-n66(2A)-n77(2A) | - | n7 | See CA\_7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 | 0 |
| n66 | See CA\_66(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n77 | See CA\_77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |

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**Samsung:**We have same concern with Per. Could you help us add missing "n" to R4-2109123 Table 5.5A.3.2-1And there are some typos in Table 6.2A.4.2.4-1 and Table 7.3A.3.2.3-1 like this:CA\_n7\_n25-n77 -> CA\_n7-n25-n77I just list one of them, could you help us change them? Many thanks!**CATT:**Thanks for the careful check. The CR is further updated at Draft\_R4-2109123\_CR for 38.101-1\_v2.zipAnd please find the revised WID including all combinations at Draft\_R4-2109122\_Rel-17 NR inter-band CA of 3 DL bands and 1UL band\_rev1.zip**Nokia:**Thanks for your efforts.Below channel BW’s are listed in the wrong order.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CA\_n3A-n28A-n79A | - | n3 | 5 | 10 | 15 | 20 | 25 | 30 |  |  |  |  |  |  |  | 0 |
| n28 | 10 | 15 | 20 | 5 |  |  |  |  |  |  |  |  |  |
| n79 |  |  |  |  |  |  | 40 | 50 |  |  | 80 |  | 100 |

There is a space missing after “Set” in below combinations.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CA\_n24A-n41A-n77(2A) | - | n24 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| n41 |   | 10 | 15 | 20 |  | 30 | 40 | 50 | 60 |  | 80 | 90 | 100 |
| n77 | See CA\_n77(2A) Bandwidth Combination Set0 in Table 5.5A.2-1 |  |
| CA\_n24A-n41(2A)-n77(2A) | - | n24 | 5 | 10 |  |  |  |  |  |  |  |  |  |  |  | 0 |
| n41 | See CA\_n41(2A) Bandwidth Combination Set 1 in Table 5.5A.2-1 |
| n77 | See CA\_n77(2A) Bandwidth Combination Set0 in Table 5.5A.2-1 |

**AT&T:**Thanks for the updated draft Revised WID on Rel-17 NR inter-band CA of 3DL bands and 1UL band. The AT&T combination requests and corresponding BCS table entries have been captured.For revised draft big CR and TR, please see my separate request for a few remaining items. Sorry for getting the comments to you after you posted the new revision.**Ligado:**Thank you for the updates and a revised version.I notice that you still have n24-n41-n48 specified in the following tables that need to be removed:Table 5.2A.2.2-1, 6.2A.4.2.4-1 and 7.3A.3.2.3-1Also, the coversheet is still referencing n24-n41-n48.**Telstra:**Thanks for including [R4-2111160](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_99-e/Docs/R4-2111160.zip) into the draft BIG CR [Draft\_R4-2109124\_CR for 38.101-3.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_99-e/Inbox/Post_meeting/Main/Drafts/R17%20inter-band%20CA_3DL1UL/Draft_R4-2109124_CR%20for%2038.101-3.zip).We have some comments about NR 3DL 1 UL band combinations with CA\_n7B-n78A-n258A to M. There was editorial error that had been approved and needed to be corrected and should reference the intra-band CA for CA\_n7B rather than listing all the individual bandwidth supported which is incorrect.For all the n7B entries, this should reference “See CA\_n7B Bandwidth Combination Set 0 in Table 5.5A.1-1 from 38.101-1" rather than have individual entries for bandwidth support, could this be updated?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CA\_n7B-n78A-n258A | CA\_n7A-n258ACA\_n78A-n258ACA\_n7A-n78ACA\_n7B | n7 | See CA\_n7B Bandwidth Combination Set 0 in Table 5.5A.1-1 from 38.101-1 | 0 |
| n78 |   | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |   |   |
| n258 |   |   |   |   |   |   |   | Yes |   |   |   |   | Yes | Yes | Yes |

Thank you**CATT:**Since this is based on the approved TP and there seems too much to be updated, I propose to fix it by CR in the next meeting. Further, the approved TP also is not using the new format, e.g. filling “channel bandwidth” instead of “yes”.Can the proponent present a draft CR to correct this in the next meeting given the deadline has already past?**Telstra:**Thanks for your feedback. Understand, we will fix this in a future meeting.**CATT:**Thank you Jeremy for the understanding.**Samsung:** Thanks a lot for your revison and there are some typos in R4-2109123\_r3, could you help us correct them in line with our proposals.Thanks in adcance.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  CA\_n7A-n25A-n77A | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   |
| n25 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n7A-n25(2A)-n77A | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   |
| n25 | See CA\_n25(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n7A-n25A-n77(2A) | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   |
| n25 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n77 | See CA\_n77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7A-n25(2A)-n77(2A) | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   |
| n25 | See CA\_n25(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n77 | See CA\_n77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7(2A)-n25A-n77A | - | n7 | See CA\_n7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n25 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n7(2A)-n25(2A)-n77A | - | n7 | See CA\_n7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n25 | CA\_25(2A) |
| n77 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| CA\_n7(2A)-n25A-n77(2A) | - | n7 | See CA\_n7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n25 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n77 | See CA\_n77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7(2A)-n25(2A)-n77(2A) | - | n7 | See CA\_n7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n25 | See CA\_n25(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| n77 | See CA\_n77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7A-n25A-n78A | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   |
| n25 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n78 |   | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 704 | 80 | 904 | 100 |
| CA\_n7A-n25A-n78(2A) | - | n7 | 5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 |   |   |   |   |   |
| n25 | 5 | 10 | 15 | 20 | 25 | 30 | 40 |   |   |   |   |   |   |
| n78 | See CA\_n78(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CA\_n7A-n66A-n77A | - |  n7 |  5 |  10 |  15 |  20 |  25 |  30 |  40 |  50 |    |    |    |    |    |
|  n66 |  5 |  10 |  15 |  20 |  25 |  30 |  40 |    |    |    |    |    |    |
|  n77 |    |  10 |  15 |  20 |  25 |  30 |  40 |  50 |  60 |  70 |  80 |  90 |  100 |
| CA\_n7A-n66(2A)-n77A | - |  n7 |  5 |  10 |  15 |  20 |  25 |  30 |  40 |  50 |    |    |    |    |    |
|  n66 |  See CA\_n66(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
|  n77 |    |  10 |  15 |  20 |  25 |  30 |  40 |  50 |  60 |  70 |  80 |  90 |  100 |
| CA\_n7A-n66A-n77(2A) | - |  n7 |  5 |  10 |  15 |  20 |  25 |  30 |  40 |  50 |    |    |    |    |    |
|  n66 |  5 |  10 |  15 |  20 |  25 |  30 |  40 |    |    |    |    |    |    |
|  n77 |  See CA\_n77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7A-n66(2A)-n77(2A) | - |  n7 |  5 |  10 |  15 |  20 |  25 |  30 |  40 |  50 |    |    |    |    |    |
|  n66 |  See CA\_n66(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
|  n77 |  See CA\_n7 (2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7(2A)-n66A-n77A | - |  n7 |  See CA\_n7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
|  n66 |  5 |  10 |  15 |  20 |  25 |  30 |  40 |    |    |    |    |    |    |
|  n77 |    |  10 |  15 |  20 |  25 |  30 |  40 |  50 |  60 |  70 |  80 |  90 |  100 |
| CA\_n7(2A)-n66(2A)-n77A | - |  n7 |  See CA\_n7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
|  n66 |  See CA\_n66(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
|  n77 |    |  10 |  15 |  20 |  25 |  30 |  40 |  50 |  60 |  70 |  80 |  90 |  100 |
| CA\_n7(2A)-n66A-n77(2A) | - |  n7 |  See CA\_n7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
|  n66 |  5 |  10 |  15 |  20 |  25 |  30 |  40 |    |    |    |    |    |    |
|  n77 |  See CA\_n77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
| CA\_n7(2A)-n66(2A)-n77(2A) | - |  n7 |  See CA\_n7(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
|  n66 |  See CA\_n66(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |
|  n77 |  See CA\_n77(2A) Bandwidth Combination Set 0 in Table 5.5A.2-1 |

For R4-2109123-r3, Could you help us change n78 to n77 in line with our proposal? Thanks a lot. Sorry i just found that.

|  |  |  |
| --- | --- | --- |
| CA\_n7-n66-n78 | n7 | 0.5 |
| n66 | 0.6 |
| n77 | 0.8 |

**CATT:**Thanks. I uploaded version 4 to align with the approved TP mentioned below.**Samsung:**Thanks very much for preparing such huge CR and TR, and apologize again for my late comments.The revision looks good to me. Thanks again. |
| R4-2109124 CR on Introducing NR inter-band CA for 3DL Bands and 1UL band for 38.101-3 CATT | No comment |
| R4-2111071 Revised WID 4 bands NR CA Rel-17 Ericsson | **AT&T:**Thanks for the draft Revised WID: Rel-17 NR inter-band Carrier Aggregation for 4 bands DL with 1 band UL.All of the new AT&T combination requests from RAN4 #98bis-e appear to be missing from the draft revised WID. Can you please check?**Ericsson:**Thanks for checking. I have updated to: draft 2 R4-2111071 Rel-17 revised WID 4 bands NR CA**AT&T:**Thanks for the update. The revision looks good to me. |
| R4-2111076 CR 38.101-1 new combinations NR Inter-band 4 bands CA Ericsson | No comment |
| R4-2111077 CR 38.101-3 new combinations NR Inter-band 4 bands CA Ericsson | **Ericsson:**Withdrawn |
| R4-2111081 TR 38.717-04-01 v0.5.0 Rel-17 NR Inter-band 4 bands CA Ericsson | No comment |
| R4-2110465 Revised WID on Rel-17 NR Inter-band Carrier AggregationDual Connectivity for 3 bands DL with 2 bands UL ZTE Corporation | **DISH:**It seems DISH requests for 2DL/x UL are missing from draft R4-2110461 and 3DL/2UL NR CA are missing from draft R4-2110465**ZTE:**Thanks for the comments.Sorry for missing your combs. The missing 2DL/xUL combs have been included in r1 version, i will share it later to address the other companies's comments.  For 3DL/2UL NR CA, i  just noticed that you only request one new configuration:cid:image001.png@01D75797.B4F12620But in the BCS table tab,  there are lots of other 3DL/2UL NR CA configurations are included. So do i only include the CA\_n26A-n66A-n70A? Please confirm. Thanks.cid:image002.png@01D75797.B4F12620**ZTE:**Again, I just found some of your 3DL/2UL NR CA configurations under "NR\_CADC\_R17\_3BDL\_xBUL", it is wrong WID acronym, it should be "NR\_CADC\_R17\_3BDL\_2BUL", so i filter them out in the beginning.  I have corrected the mistakes, and included all of them in the r1 verison. Please check the excel sheet: <https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_99-e/Inbox/Post_meeting/Main/Drafts/R4-2110465%20Band%20combinations%20for%20NR%20CA_DC%203%20band%20DL%20with%202%20band%20UL_r1.xlsx>**DISH:**Thanks! Looks good. |
| R4-2110466 CR to reflect the completed NR inter band CA DC combinations for 3 bands DL with 2 bands UL into TS 38.101-1 ZTE Corporation | **AT&T**Thanks for the draft big CR to reflect the completed NR inter band CA DC combinations for 3 bands DL with 2 bands UL into TS 38.101-1 in R4-2110466. FYI, I sent a message to Yuexia concerning the overlapping changes in Table 5.5A.3.2-1 in the draft big CR for 3DL/1UL. Since your table contains the 2UL configurations, I think that your table would be used in the final implementation.Please find a couple of items to update in the draft big CR below.1) On the coversheet, the list of completed band combinations of inter-band CA for 3DL with 2 bands UL added from RAN4 #99-emeeting shows the withdrawn Tdoc number for CA\_n5A-n12A-n77A. Can you update to the approved TP in R4-2109408? 7.      R4-2109408         TP to TR 38.717-03-02 Addition of CA\_n5A-n12A-n77A AT&T, Nokia2) In Table 7.3A.5-2, the test configurations for CA\_n5-n12-n77 and CA\_n5-n14-n77 have duplicate rows. The last 3 rows are the same as the first 3 rows. Please remove the extra rows shown in red below.Table 7.3A.5-2: 3DL/2UL interband Reference sensitivity QPSK PREFSENS and uplink/downlink configurations

|  |  |
| --- | --- |
| Band / Channel bandwidth / NRB / Duplex mode | Source of IMD |
| NR CA band combination | NR band | UL Fc (MHz) | UL/DL BW (MHz) | UL CLRB | DL Fc (MHz) | MSD (dB) | Duplex mode |   |
| ... |   |   |   |   |   |   |   |   |
| CA\_n5-n12-n77 | n5 | 835 | 5 | 25 | 880 | 3.9 | FDD | IMD5 |
|   | n12 | 707.5 | 5 | 25 | 737.5 | N/A | FDD | N/A |
|   | n77 | 3710 | 10 | 50 | 3710 | N/A | TDD | N/A |
|   | n5 | 835 | 5 | 25 | 880 | N/A | FDD | N/A |
|   | n12 | 710 | 5 | 25 | 740 | 4.4 | FDD | IMD5 |
|   | n77 | 4080 | 10 | 50 | 4080 | N/A | TDD | N/A |
|   | n5 | 830 | 5 | 25 | 875 | N/A | FDD | N/A |
|   | n12 | 707.5 | 5 | 25 | 737.5 | N/A | FDD | N/A |
|   | n77 | 3905 | 10 | 50 | 3905 | 4.4 | TDD | IMD5 |
|   | ~~n5~~ | ~~835~~ | ~~5~~ | ~~25~~ | ~~880~~ | ~~3.9~~ | ~~FDD~~ | ~~IMD5~~ |
|   | ~~n12~~ | ~~707.5~~ | ~~5~~ | ~~25~~ | ~~737.5~~ | ~~N/A~~ | ~~FDD~~ | ~~N/A~~ |
|   | ~~n77~~ | ~~3710~~ | ~~10~~ | ~~50~~ | ~~3710~~ | ~~N/A~~ | ~~TDD~~ | ~~N/A~~ |
| CA\_n5-n14-n77 | n5 | 835 | 5 | 25 | 880 | 3.9 | FDD | IMD5 |
|   | n14 | 793 | 5 | 25 | 763 | N/A | FDD | N/A |
|   | n77 | 4052 | 10 | 50 | 4052 | N/A | TDD | N/A |
|   | n5 | 846.5 | 5 | 25 | 891.5 | N/A | FDD | N/A |
|   | n14 | 795.5 | 5 | 25 | 765.5 | 11.6 | FDD | IMD41 |
|   | n77 | 3305 | 10 | 50 | 3305 | N/A | TDD | N/A |
|   | n5 | 835 | 5 | 25 | 880 | N/A | FDD | N/A |
|   | n14 | 793 | 5 | 25 | 763 | N/A | FDD | N/A |
|   | n77 | 3298 | 10 | 50 | 3298 | 10.3 | TDD | IMD41 |
|   | ~~n5~~ | ~~835~~ | ~~5~~ | ~~25~~ | ~~880~~ | ~~3.9~~ | ~~FDD~~ | ~~IMD5~~ |
|   | ~~n14~~ | ~~793~~ | ~~5~~ | ~~25~~ | ~~763~~ | ~~N/A~~ | ~~FDD~~ | ~~N/A~~ |
|   | ~~n77~~ | ~~4052~~ | ~~10~~ | ~~50~~ | ~~4052~~ | ~~N/A~~ | ~~TDD~~ | ~~N/A~~ |

Everything looks good in the draft revised TR 38.717-03-02 v0.5.0 in R4-2111000.**ZTE:**It seems the draft CR was already implemented with the correct one R4-2109408 (I already change it in the CR cover.). For your second comments, it was done. It seems i miscalaulated the row number.Here is the r1 revison for draft R4-2110466:<https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_99-e/Inbox/Post_meeting/Main/Drafts/draft%20R4-2110466_CR%20NR%20inter%20band%20CA%20DC%203%20bands%20DL%20with%202%20bands%20UL%20into%20TS%2038.101-1_r1.docx>**AT&T:**Thanks for the revised draft.It seems that you changed the Tdoc number on the CA\_n2A-n12A-n77A combination but R4-2109408 should apply to the CA\_n5A-n12A-n77A combination in line 7. Can you update line 7 and change the Tdoc number for CA\_n2A-n12A-n77A in line 4 back to the previous number? 7. R4-2109408 TP to TR 38.717-03-02 Addition of CA\_n5A-n12A-n77A AT&T, NokiaThe updates to Table 7.3A.5-2 look good to me.**ZTE:**Thanks for your carefully checking.I have corrected the CR cover in my next version. Thanks. |
| R4-2107979 CR to reflect the completed NR inter band CA DC combinations for 3 bands DL with 2 bands UL into TS 38.101-3 ZTE Corporation | No comment |
| R4-2111000 TR 38.717-03-02 v0.5.0 ZTE Wistron Telecom AB | No comment |
| R4-2109770 Revised WID on NR inter-band CA for 5 bands DL with x bands UL (x=1, 2) Huawei, HiSilicon | No comment |
| R4-2109772 CR on Introduction of completed 5 bands inter-band CA into TS 38.101-1 Huawei, HiSilicon | No comment |
| R4-2109841 TR 37.717-11-21 v0.5.0 TR update: LTE(xDL/1UL)+ NR(2DL/1UL) DC in Rel-17 LG Electronics France | No comment |
| R4-2109857 Revised WID on LTE (xDL/UL x=1.2,3,4) with NR 2 bands (2DL/1UL) DC in Rel-17 LG Electronics France | No comment |
| R4-2109875 Introduction CR on new NR DC LTE(xDL/1UL)+ NR(2DL/1UL) band combinations in Rel-17 LG Electronics France | **Telstra**:Thank you for looking after these work item baskets.There are two contributions from RAN4#98bis that appear to be missing from R4-2109875, would you be able to check if they can be added?R4-2106758 for in DL DC\_1A-7C-28A\_n3A-n78A and UL configurationsR4-2106757 for draftCR adding in DL configurations for DC\_1A-7C-28A\_n3A and DC\_1A-7C\_n3A-n78A including some UL configurations.**LGE:**Sorry for those missing DC combinations in Big CR. I added DC\_1A-7C-28A\_n3A-n78A and UL configurations in big CR and also added the draft CR contents in big CR.So, we can find updated CR as follow.Draft\_R4-2109875\_Big CR\_v01.docx**Huawei:**Thanks for your great efforts on the big CR.DC\_3C-7A-20A\_n1A-n78A can be added back to fix an editorial error which was caused by implementing CR in last meeting.And UL configuration DC\_3C\_n1A can be changed into DC\_3C\_n28A for DC\_3C-7A-20A\_n28A-n78A.cid:image010.png@01D75862.5D63F470**LGE:**Dear henry and All,Sorry for those missing DC combinations in Big CR. I added DC\_3C-7A-20A\_n1A-n78A and UL configurations in big CR and also revised to DC\_3C\_n28A in big CR.So, we can find updated CR as followDraft\_R4-2109875\_Big CR\_v02.docx**Huawei:**Dear Suhwan,It looks fine to me. Many thanks. |
| R4-2110468 Revised WID on Rel-17 Dual Connectivity (DC) x bands (x=1,2) LTE inter-band CA (xDL/xUL) and y bands (y=3-x) NR inter-band CA ZTE Corporation | No comment |
| R4-2110469 CR to reflect the completed ENDC combinations for 3 bands DL with 3 bands UL into TS 38.101-3 ZTE Corporation | No comment |
| R4-2110470 TR 37.717-33 v0.4.0 ZTE Corporation |  |
| R4-2110471 Revised WID on Rel-17 Dual Connectivity (DC) of x bands (x=1,2,3) LTE inter-band CA (xDL1UL) and 3 bands NR inter-band CA (3DL1UL) ZTE Corporation | No comment |
| R4-2110472 CR to reflect the completed DC of x bands (x=1,2,3) LTE inter-band CA (xDL1UL) and 3 bands NR inter-band CA (3DL1UL) into TS 38.101-3 ZTE Corporation | No comment |
| R4-2110473 TR 37.717-11-31\_v0.3.0 ZTE Corporation | No comment |
| R4-2109628 CR introduction completed band combinations for Dual Connectivity (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) Samsung | **Samsung**: Withdrawn. |
| R4-2109629 Revised WID on Dual Connectivity (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) Samsung | **Samsung**: Withdrawn. |
| R4-2109738 TR 37.717-21-22 update version 0.2.0 Samsung | **Samsung**: Withdrawn. |
| R4-2109611 CR on introduction of completed NR CA/DC combs with 4DL/2UL within FR1 Samsung | No comment |
| R4-2109624 CR on introduction of completed NR CA/DC combs with 4DL/2UL including FR2 Samsung | **Samsung**: Withdrawn. |
| R4-2109625 Revised WID on NR CA/DC with 4DL/2UL Samsung | **Samsung:**According to comments recivded offline for the revised WID(38.717-04-02), I corrected the status to "onging" for the request of the band combs approved at RAN#91e, Please see draft R4-2109625\_rev1. |
| R4-2109736 TR 38.717-04-02 update version 0.5.0 Samsung | No comment |
| R4-2109766 Revised WID on Band combinations for SA NR Supplementary uplink (SUL), NSA NR SUL, NSA NR SUL with UL sharing from the UE perspective (ULSUP) Huawei | No comment |
| R4-2109767 TR 37.717-00-00 v0.5.0 Huawei | No comment |
| R4-2109768 CR on Introduction of completed SUL band combinations into TS 38.101-1 Huawei | **Ligado:**Thank for putting together the big CRs.I noticed couple of omissions related to R4-2109768.In tables 5.2c-1 and 5.2c-2, for SUL\_n77-n99 and SUL\_n77(\*)-n99 combinations, the superscript to note 2 is missing.SUL\_n77-n99 à SUL\_n77-n992SUL\_n77(\*)-n99 à SUL\_n77(\*)-n992**Huawei:**Thanks for your comments.Please find the updated version 2 as below.draft R4-2109768 CR on Introduction of completed SUL band combinations into TS 38.101-1 V2.docx |
| R4-2109769 CR on Introduction of completed SUL band combinations into TS 38.101-3 Huawei | **Huawei:**Huawei: This t-doc can be withdrawn due to no contributions for ENDC. |

## Email thread [119] NR\_LTE\_V2X\_PC5\_combo

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2107813 Big CR for 38.101, Introduce new band combinations for V2X con-current operation CATT | **Qualcomm:**As we have not agreed on the MSD for n79 and the BWs that are applicable for n79 and n47/b47 for combinations V2X\_n79-n47 and V2X\_n79-47 we do not want them included in R4-2107813 and R4-2109043. We think that only the agreed combinations should be captured in these documents and V2X\_n79-n47 and V2X\_n79-47 can be captured when the MSD is finalized.**CATT:**We have agreements on MSD for SL band captured in paper R4-2107815. As for the MSD for n79, we have achieved consensus and will have further discussion in next meeting. The study on MSD for Uu band is not expected to impact the introduction of new band combinations. We just need to keep the uncompleted part, i.e. MSD for Uu band, for further study instead of blocking the whole introduction of band combinations.**Qualcomm:**Thank you for your email. We thought it better to introduce this combination once everything was agreed rather than introduce it with partial agreements in place.**CATT:**I could understand your point so that V2X\_n79A-n47A and V2X\_n79A-47A were removed in the scope part (as presented in the TP R4-2107814, Scope of NR V2X R17 combinations). But as for the main body, we have agreed the TP (R4-2104769) and CRs (R4-2105368 and R4-2105367) for V2X\_n79A-n47A and V2X\_n79A-47A in RAN4#98-bis-e meeting and also added the MSD for SL band in RAN4#99-e meeting. These agreed TPs and CRs should be implemented as per the normal procedure.**Qualcomm:**In draft R4-2107813 table 5.3E.2-1 for V2X band combination n78A-n47A is 5 MHz a valid BW for n78?**CATT:**The CBW for band n78 should follow that for NR Uu so 5MHz is not a valid CBW for n78. Please find the updated CR uploaded.Draft R4-2107813\_Big CR for 38.101-1, Introduce new band combinations for V2X con-current operation\_v1.docx |
| R4-2109043 TR 37.875, Band combinations for V2X con-current operation CATT | **CATT:**I have added V2X\_n78\_n47 and V2X\_n78\_47 in Table 1-1 as such two band combinations was already agreed. Please find the updated TR uploaded.Draft R4-2109043\_TR 37.875, Band combinations for V2X con-current operation\_v1.docx |

## Email thread [120] NR\_bands\_R17\_BWs

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2110092 Big CR to TS 38.104: Adding channel BW support in existing NR bands Ericsson | No comment |
| R4-2110093 Big CR to TS 38.101-1: Adding channel BW support in existing NR bands Ericsson | No comment |

## Email thread[127] NR\_PC2\_CA\_R17\_2BDL\_2BUL

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2110051 Draft TR 38.841 v0.4.0: High power UE for NR inter-band Carrier Aggregation with 2 bands downlink and x bands uplink (x =1,2) China Telecom | No comment |
| R4-2110052 CR to 38.101-1 Introduce RF requirements for HPUE CA with 2 bands downlink and x bands uplink (x =1,2) China Telecom | No comment |

## Email thread[128] ENDC\_UE\_PC2\_R17\_NR\_TDD

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2108937 Big CR on introduction of completed PC2 for EN-DC with 1 LTE band + 1 NR TDD band China Unicom | No comment |

## Email thread[129] NR\_UE\_PC2\_CA\_SUL\_xBDL\_yBUL

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2107836 draft TR 38.842 v0.0.2 Huawei | No comment |

## Email thread[130] ENDC\_PC2\_R17\_xLTE\_yNR

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2111078 CR 38.101-3 EN-DC PC2 Ericsson | **Ericsson:**Due to comments received offline from Verizon, we have made updates to DC\_66A-66A\_n5A-n77A and DC\_13A-66A\_n66A-n77A in the CR. This was needed to be aligned with the status in the approved TP’s. |

## Email thread[133] DL\_intrpt\_combos\_TxSW\_R17

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2109031 TR 37.867 v0.3.0 CATT | No comment |
| R4-2110071 CR to 38.101-1 Introduce DL interruption clarification for CA conduting Tx Switching China Telecom | No comment |

## Email thread[153] FS\_NR\_PC2\_UE\_FDD

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2108866 TR 38.861 v0.1.0 FS\_NR\_PC2\_UE\_FDD China Unicom | No comment |

## Email thread[155] LTE\_Baskets

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2109773 TR 36.717-03-02 v0.4.0 TR update for LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL in Rel-17 LG Electronics France | No comment |
| R4-2109774 Revised WID on LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL in Rel-17 LG Electronics France | See comments under R4-2109814. |
| R4-2109775 Introduction of LTE inter-band Carrier Aggregation for x bands DL (x=4, 5) with 1 band UL to TS36.101 Nokia, Nokia Shanghai Bell | **Nokia:**R4-2109755 is withdrawn |
| R4-2109814 Introduction of LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL to TS36.101 LG Electronics France | **Huawei:**Thank you for your preparation on Big CR and Revised WID. Here are some comments:* As for R4-2109814,  there is one requirement to add UL configuration CA\_1A-3A for CA\_1A-3C-20A which is endorsed on R4-2105144 in RAN4#98bis and adopted in cover sheet of the Big CR but missed in main text.

In RAN4#98bis Chairman’s note:cid:image007.png@01D75862.5D63F470In R4-2109814:cid:image008.png@01D75862.5D63F470Furthermore, there are some mistake on the cover sheet of R4-2109814:1. in cover sheet CA\_1A-3A-7A-338 should be changed to CA\_1A-3A-7A-38A2. in cover sheet RAN4 #98e should be changed to RAN4 #99e3. in cover sheet CA\_1A-3A-8A-20A/CA\_1A-3C-8A-20A should add configuration UL CA\_1A-8A and CA\_3A-8A4. in cover sheet CA\_1A-3A-7A-8A-38A should add UL configuration CA\_1A-8A and CA\_3A-8A5. in cover sheet CA\_1A-3A-8A-20A-38A should add UL configuration  CA\_1A-8A and CA\_3A-8A* As for R4-2109774, Revised WID on LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL in Rel-17, the status of following band combination should be completed not ongoing:

BC: CA\_1A-7A-8A-38A    UL:CA\_1A-8A TP:R4-2105155 CR to RAN: R4-2109814BC: CA\_3A-7A-8A-38A    UL:CA\_3A-8A TP: R4-2105161 CR to RAN: R4-2109814BC: CA\_3A-8A-20A-38A   UL:CA\_3A-8A TP: R4-2105163 CR to RAN: R4-2109814Hope this information is helpful to you. Best wishes.**LGE:**Thanks for comment on CR and revised WID.Based on your request, I updated big CR and revised WID for the LTE-A CA basket WI in [153] e-mail thread as followDraft\_R4-2109774\_Revised WID\_v01.zipDraft\_R4-2109814\_BigCR v01.DOCX**Huawei:**Dear Suhwan,Thank you for your great efforts. The updated big CR and revised WID look fine to me. |
| R4-2110788 Revised WID: Rel17 LTE inter-band CA for 2 bands DL with 1 band UL Qualcomm Incorporated | **Qualcomm**:I just found that one band combo (CA\_30A-48A) which was requested by AT&T in RAN#91e is missing. I added this combo back in the revision marketed as red.https://www.3gpp.org/ftp/tsg\_ran/WG4\_Radio/TSGR4\_99-e/Inbox/Post\_meeting/Main/Drafts/draft\_R4-2110788%20Revised%20WID%20Rel17%20LTE%20inter-band%20CA%20for%202%20bands%20DL%20with%201%20band%20UL\_v2.zipPlease let me know if you have any comment.**AT&T:**The update looks good to me. |
| R4-2110789 TR 36.717-02-01 Rel-17 LTE inter-band CA for 2 bands DL and 1 band UL CA Qualcomm Incorporated | No comment |
| R4-2111021 Big CR to TS36.101: Rel-17 LTE inter-band CA for 2 bands DL and 1 band UL CA Qualcomm Incorporated | **Qualcomm:**Withdrawn. |
| R4-2111208 Revised WID: LTE Advanced inter-band CA Rel-17 for x bands DL (x=4, 5, 6) with 1 band UL Nokia, Nokia Shanghai Bell | No comment |
| R4-2111392 Introduction of completed R17 3DL band combinations to TS 36.101 Huawei, HiSilicon | Withdrawn |
| R4-2111393 Revised WID for LTE inter-band CA for 3 bands DL with 1 bands UL Huawei, HiSilicon | **Huawei:**According to the offline comment received, I further update the revised WID for inter-band LTE 3DL/1UL CA: |
| R4-2111414 TR 37.717-03-01 0.3.0 Huawei, HiSilicon | **Ligado:**It is seems you might have overlooked approved combination in R4-2107707. It has not been incorporated into R4-2111414. |
| R4-2111453 Introduction of completed LTE CA for 2 bands DL with 2 bands UL into Rel-17 TS 36.101 Huawei,HiSilicon | No comment |

# Decision for Tdocs

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| **Tdoc number** | **Title** | **Source** | **Status**  |
| R4-2110691 | draft TR 38.849 v0.3.0 | Nokia | Agreed |
| R4-2109626 | CR introduction completed band combinations for Dual Connectivity (DC) of 5 bands LTE inter-band CA (5DL/1UL) and 1 NR band (1DL/1UL) | Samsung | Withdrawn |
| R4-2109627 | Revised WID on Dual Connectivity (DC) of 5 bands LTE inter-band CA (5DL/1UL) and 1 NR band (1DL/1UL)  | Samsung | Endorsed |
| R4-2109737 | TR 37.717-51-11 update version 0.2.0  | Samsung | Withdrawn |
| R4-2110580 | TR 37.717-11-11 v0.5.0 Rel-17 Dual Connectivity (DC) of 1 LTE band (1DL/1UL) and 1 NR band (1DL/1UL)  | CHTTL | Withdrawn |
| R4-2110595 | Revised WID for Rel-17 Dual Connectivity (DC) of 1 LTE band (1DL/1UL) and 1 NR band (1DL/1UL)  | CHTTL | Endorsed |
| R4-2110658 | Revised Rel-17 WID on DC of 4 bands LTE inter-band CA (4DL1UL) and 1 NR band (1DL1UL) | Nokia, Nokia Shanghai Bell | Endorsed |
| R4-2110665 | TR 37.717-21-11 V0.5.0 for DC of 2 LTE band and 1 NR band  | Huawei, HiSilicon | Agreed |
| R4-2110666 | Revised WID: Dual Connectivity (DC) of 2 bands LTE inter-band CA (2DL/1UL) and 1 NR band (1DL/1UL)  | Huawei, HiSilicon | Endorsed |
| R4-2110683 | CR to introduce new combinations of LTE 4band + NR 1band for TS 38.101-3  | Nokia, Nokia Shanghai Bell | Agreed |
| R4-2110714 | Big CR for Rel-17 Dual Connectivity (DC) of 1 LTE band (1DL/1UL) and 1 NR band (1DL/1UL)  | CHTTL | Agreed |
| R4-2110715 | draft TR 37.717-41-11-050  | Nokia | Agreed |
| R4-2111069 | Revised WID NR Intra-band Rel-17  | Ericsson | Endorsed |
| R4-2111070 | Revised WID LTE 3DL and one NR band Rel-17  | Ericsson | Endorsed |
| R4-2111073 | CR 38.101-1 new combinations Rel-17 NR Intra-band  | Ericsson | Agreed |
| R4-2111074 | CR 38.101-2 new combinations Rel-17 NR Intra-band  | Ericsson | Agreed |
| R4-2111079 | TR 38.717-01-01 v0.5.0 Rel-17 NR Intra-band  | Ericsson | Agreed |
| R4-2111080 | TR 37.717-31-11 v0.5.0 Rel-17 DC combinations LTE 3DL and one NR band  | Ericsson | Agreed |
| R4-2110667 | CR on introduction of completed EN-DC of 2 bands LTE and 1 band NR from RAN4#99-e and RAN4#98-bis-e into TS 38.101-3  | Huawei | Agreed |
| R4-2108111 (Rev of R4-2111546) | Big CR 38.101-3 new combinations LTE 3DL and one NR band  | Ericsson | Agreed |
| R4-2110461 | Revised WID on Rel-17 NR Inter-band CA\_DC xUL\_2DL (x=1,2)  | ZTE Corporation | Endorsed |
| R4-2110462 | CR to reflect the completed NR inter band CA DC combinations for 2 bands DL with up to 2 bands UL into TS 38.101-1 | ZTE Corporation | Agreed |
| R4-2110463 | CR to reflect the completed NR inter band CA DC combinations for 2 bands DL with up to 2 bands UL into TS 38.101-2  | ZTE Corporation | Agreed |
| R4-2110464 | CR to reflect the completed NR inter band CA DC combinations for 2 bands DL with up to 2 bands UL into TS 38.101-3 | ZTE Corporation | Agreed |
| R4-2110999 | TR 38.717-02-01 v0.5.0  | ZTE Wistron Telecom AB | Agreed |
| R4-2109121 | TR 38.717-03-01 on Rel-17 NR inter-band Carrier Aggregation (CA) for 3 Down Link (DL) / 1 Up Link (UL)  | CATT | Agreed |
| R4-2109122 | Revised WID on Rel-17 NR inter-band CA of 3DL bands and 1UL band  | CATT | Endorsed |
| R4-2109123 | CR on Introducing NR inter-band CA for 3DL Bands and 1UL band for 38.101-1  | CATT | Agreed |
| R4-2109124 | CR on Introducing NR inter-band CA for 3DL Bands and 1UL band for 38.101-3  | CATT | Agreed |
| R4-2111071 | Revised WID 4 bands NR CA Rel-17  | Ericsson | Agreed |
| R4-2111076 | CR 38.101-1 new combinations NR Inter-band 4 bands CA  | Ericsson | Agreed |
| R4-2111077 | CR 38.101-3 new combinations NR Inter-band 4 bands CA  | Ericsson | Withdrawn |
| R4-2111081 | TR 38.717-04-01 v0.5.0 Rel-17 NR Inter-band 4 bands CA  | Ericsson | Agreed |
| R4-2110465 | Revised WID on Rel-17 NR Inter-band Carrier Aggregation Dual Connectivity for 3 bands DL with 2 bands UL  | ZTE Corporation | Endorsed |
| R4-2110466 | CR to reflect the completed NR inter band CA DC combinations for 3 bands DL with 2 bands UL into TS 38.101-1 | ZTE Corporation | Agreed |
| R4-2107979 | CR to reflect the completed NR inter band CA DC combinations for 3 bands DL with 2 bands UL into TS 38.101-3  | ZTE Corporation | Agreed |
| R4-2111000 | TR 38.717-03-02 v0.5.0  | ZTE Wistron Telecom AB | Agreed |
| R4-2109770 | Revised WID on NR inter-band CA for 5 bands DL with x bands UL (x=1, 2)  | Huawei, HiSilicon | Endorsed |
| R4-2109772 | CR on Introduction of completed 5 bands inter-band CA into TS 38.101-1  | Huawei, HiSilicon | Agreed |
| R4-2109841 | TR 37.717-11-21 v0.5.0 TR update: LTE(xDL/1UL)+ NR(2DL/1UL) DC in Rel-17  | LG Electronics France | Agreed |
| R4-2109857 | Revised WID on LTE (xDL/UL x=1.2,3,4) with NR 2 bands (2DL/1UL) DC in Rel-17  | LG Electronics France | Endorsed |
| R4-2109875 | Introduction CR on new NR DC LTE(xDL/1UL)+ NR(2DL/1UL) band combinations in Rel-17  | LG Electronics France | Agreed |
| R4-2110468 | Revised WID on Rel-17 Dual Connectivity (DC) x bands (x=1,2) LTE inter-band CA (xDL/xUL) and y bands (y=3-x) NR inter-band CA  | ZTE Corporation | Endorsed |
| R4-2110469 | CR to reflect the completed ENDC combinations for 3 bands DL with 3 bands UL into TS 38.101-3  | ZTE Corporation | Agreed |
| R4-2110470 | TR 37.717-33 v0.4.0  | ZTE Corporation | Agreed |
| R4-2110471 | Revised WID on Rel-17 Dual Connectivity (DC) of x bands (x=1,2,3) LTE inter-band CA (xDL1UL) and 3 bands NR inter-band CA (3DL1UL)  | ZTE Corporation | Endorsed |
| R4-2110472 | CR to reflect the completed DC of x bands (x=1,2,3) LTE inter-band CA (xDL1UL) and 3 bands NR inter-band CA (3DL1UL) into TS 38.101-3  | ZTE Corporation | Agreed |
| R4-2110473 | TR 37.717-11-31\_v0.3.0  | ZTE Corporation | Agreed |
| R4-2109628 | CR introduction completed band combinations for Dual Connectivity (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)  | Samsung | Withdrawn |
| R4-2109629 | Revised WID on Dual Connectivity (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)  | Samsung | Withdrawn |
| R4-2109738 | TR 37.717-21-22 update version 0.2.0  | Samsung | Withdrawn |
| R4-2109611 | CR on introduction of completed NR CA/DC combs with 4DL/2UL within FR1 | Samsung | Agreed |
| R4-2109624 | CR on introduction of completed NR CA/DC combs with 4DL/2UL including FR2  | Samsung | Withdrawn |
| R4-2109625 | Revised WID on NR CA/DC with 4DL/2UL  | Samsung | Endorsed |
| R4-2109736 | TR 38.717-04-02 update version 0.5.0  | Samsung | Agreed |
| R4-2109766 | Revised WID on Band combinations for SA NR Supplementary uplink (SUL), NSA NR SUL, NSA NR SUL with UL sharing from the UE perspective (ULSUP)  | Huawei | Endorsed |
| R4-2109767 | TR 37.717-00-00 v0.5.0  | Huawei | Agreed |
| R4-2109768 | CR on Introduction of completed SUL band combinations into TS 38.101-1  | Huawei | Agreed |
| R4-2109769 | CR on Introduction of completed SUL band combinations into TS 38.101-3  | Huawei | Withdrawn |
| R4-2107813 | Big CR for 38.101, Introduce new band combinations for V2X con-current operation  | CATT | Agreed |
| R4-2109043 | TR 37.875, Band combinations for V2X con-current operation  | CATT | Agreed |
| R4-2110092 | Big CR to TS 38.104: Adding channel BW support in existing NR bands  | Ericsson | Agreed |
| R4-2110093 | Big CR to TS 38.101-1: Adding channel BW support in existing NR bands  | Ericsson | Agreed |
| R4-2110051 | Draft TR 38.841 v0.4.0: High power UE for NR inter-band Carrier Aggregation with 2 bands downlink and x bands uplink (x =1,2)  | China Telecom | Agreed |
| R4-2110052 | CR to 38.101-1 Introduce RF requirements for HPUE CA with 2 bands downlink and x bands uplink (x =1,2)  | China Telecom | Agreed |
| R4-2108937 | Big CR on introduction of completed PC2 for EN-DC with 1 LTE band + 1 NR TDD band  | China Unicom | Agreed |
| R4-2107836 | draft TR 38.842 v0.0.2  | Huawei | Agreed |
| R4-2111078 | CR 38.101-3 EN-DC PC2  | Ericsson | Agreed |
| R4-2109031 | TR 37.867 v0.3.0  | CATT | Agreed |
| R4-2110071 | CR to 38.101-1 Introduce DL interruption clarification for CA conduting Tx Switching  | China Telecom | Agreed |
| R4-2108866 | TR 38.861 v0.1.0 FS\_NR\_PC2\_UE\_FDD  | China Unicom | Agreed |
| R4-2109773 | TR 36.717-03-02 v0.4.0 TR update for LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL in Rel-17  | LG Electronics France | Withdrawn |
| R4-2109774 | Revised WID on LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL in Rel-17  | LG Electronics France | Endorsed |
| R4-2109775 | Introduction of LTE inter-band Carrier Aggregation for x bands DL (x=4, 5) with 1 band UL to TS36.101  | Nokia, Nokia Shanghai Bell | Withdrawn |
| R4-2109814 | Introduction of LTE-A inter-band CA for x bands (x=3,4,5) DL with 2 bands UL to TS36.101  | LG Electronics France | Agreed |
| R4-2110788 | Revised WID: Rel17 LTE inter-band CA for 2 bands DL with 1 band UL  | Qualcomm Incorporated | Endorsed |
| R4-2110789 | TR 36.717-02-01 Rel-17 LTE inter-band CA for 2 bands DL and 1 band UL CA | Qualcomm Incorporated | Agreed |
| R4-2111021 | Big CR to TS36.101: Rel-17 LTE inter-band CA for 2 bands DL and 1 band UL CA  | Qualcomm Incorporated | Withdrawn |
| R4-2111208 | Revised WID: LTE Advanced inter-band CA Rel-17 for x bands DL (x=4, 5, 6) with 1 band UL  | Nokia, Nokia Shanghai Bell | Endorsed |
| R4-2111392 | Introduction of completed R17 3DL band combinations to TS 36.101  | Huawei, HiSilicon | Withdrawn |
| R4-2111393 | Revised WID for LTE inter-band CA for 3 bands DL with 1 bands UL  | Huawei, HiSilicon | Endorsed |
| R4-2111414 | TR 37.717-03-01 0.3.0  | Huawei, HiSilicon | Agreed |
| R4-2111453 | Introduction of completed LTE CA for 2 bands DL with 2 bands UL into Rel-17 TS 36.101  | Huawei, HiSilicon | Agreed |