IEEE P802.11
Wireless LANs

|  |
| --- |
| Resolution for CIDs in Clause 36.3.2.2.3 |
| Date: July 26, 2022 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Jianhan Liu | MediaTek |  |  | Jianhan.Liu@mediatek.com |
| You-Wei Chen |  |  | you-wei.chen@mediatek.com |

 Abstract

This submission proposes resolutions for following 27 CIDs received for TGbe LB266:

11339 12150 12182 12355 12867 13207 10330 11198 11632 11975 12267 13564 12142 11200 12183 12143 11201 12184 12863 12144 11202 11203 11199 12015 10335 12198 11204

**TGbe editor: The baseline for this document is 11be D2.0. In the resolution, the page and line in D2.1 are also added as a note to the editor.**

# CID 11339, 12150, 12182, 12355, 12867, 13207, 10330, 11198, 11632, 11975, 12267, 13564

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Pg/Ln** | **Comment** | **Proposed Change** | **Resolution** |
| 11339 | 36.3.2.2.3 | 588.21 | Figure 36-12 996+484 tone MRU 3 and MRU4 are swapped. For MRU 3, it should be RU996 + 40MHz hole+ RU484. See table 36-14 996+484 MRU 3 and 4 definition | as in the comment | Revised11be Editor: please swap the positions of schematic drawings of MRU 3 and MRU 4 in Figure 36-12. The indices of MRU 3 and MRU 4 should not be changed. Modifications in D2.1 (Page/Line) P600/L21. |
| 12150 | 36.3.2.2.3 | 588.21 | In Figure 36-12(Allowed 996+484-tone MRUs in a non-OFDMA 160 MHz EHT PPDU), MRU 3 shall be punctured the third 484-tone RU, MRU 4 shall be punctured the fouth 484-tone RU. | swap the positions of schematic drawings of MRU 3 and MRU 4 in Figure 36-12. | Accepted11be Editor: same resolution as CID 11339 in doc IEEE 802.11-22/1549r1. |
| 12182 | 36.3.2.2.3 | 588.22 | In Figure 36-12, MRU3 and 4 are swapped. Need to correct. | as in the comment. | Revised11be Editor: same resolution as CID 11339 in doc IEEE 802.11-22/1549r1. |
| 12355 | 36.3.2.2.3 | 588.22 | In Figure 36-12, MRU3 and 4 are swapped. Need to correct. | as in the comment. | Revised11be Editor: same resolution as CID 11339 in doc IEEE 802.11-22/1549r1. |
| 12867 | 36.3.2.2.3 | 588.22 | In Figure 36-12, MRU3 and 4 are swapped. |   | Revised11be Editor: same resolution as CID 11339 in doc IEEE 802.11-22/1549r1. |
| 13207 | 36.3.2.2.3 | 588.22 | In Figure 36-12, there are typos representing MRU3 and 4 | as in the comment. | Revised11be Editor: same resolution as CID 11339 in doc IEEE 802.11-22/1549r1. |
| 10330 | 36.3.2.2.3.1 | 588.21 | The MRUs 3 and 4 in this figure are not consistent with the definitions in the MRU table. Should exchange the last two rows. | Exchange the last two rows of the figure. | Accepted11be Editor: same resolution as CID 11339 in doc IEEE 802.11-22/1549r1. |
| 11198 | 36.3.2.2.3.1 | 588.26 | The positions of the RU484 component for 996+484 MRUs 3 and 4 in Fig 36-12 should be swapped. | As in comment | Revised11be Editor: same resolution as CID 11339 in doc IEEE 802.11-22/1549r1. |
| 11632 | 36.3.2.2.3.1 | 588.08 | In figure 36-12 MRU 3 and MRU 4 are incorrect. Not aligned with other figures in the same section and indices in table 36-14 | Swap between MRU 3 and MRU 4 in the figure | Accepted11be Editor: same resolution as CID 11339 in doc IEEE 802.11-22/1549r1. |
| 11975 | 36.3.2.2.3.1 | 588.21 | 996+484-tone MRU 3 & 996+484-tone MRU 4 should be swapped Current figure is not consistent with the definition in the RU Allocation subfield entries 144-159 (table 36-34) and also with the definition in Table 36-14 | Correct figure 36-12 so that MRU 3 is 996-[]-484 and MRU 4 is 996-484-[] | Accepted11be Editor: same resolution as CID 11339 in doc IEEE 802.11-22/1549r1. |
| 12267 | 36.3.2.2.3.1 | 588.21 | 996+484-tone MRU 3 & 996+484-tone MRU 4 Are not consistent with other large MRUs | In figure 36-12 replace MRU-3 description from 996-484-[] to 996-[]-484 and MRU-4 description from 996-[]-484 to 996-484-[] | Accepted11be Editor: same resolution as CID 11339 in doc IEEE 802.11-22/1549r1. |
| 13564 | 36.3.2.2.3.1 | 588.21 | 996+484-tone MRU 3 and 4 are in wrong order | Switch the order | Accepted11be Editor: same resolution as CID 11339 in doc IEEE 802.11-22/1549r1. |

# CID 12142, 12183 and 11200

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 12142 | 36.3.2.2.3 | 593.24 | “Gap-484/996-tone RU” does not appear in Table 36-13 which is regarding 80 MHz EHT PPDU | In NOTE 1 of Table 36-13, change “Gap-242/484/996-tone RU” to “Gap-242-tone RU”In NOTE 2 of Table 36-13, change “...”gap-242/484/996-tone RU” indicates that one or more 20 MHz subchannels corresponding to “gap-242/484/996-tone RU” are punctured and is to help indicate the frequency order of the MRU in an 80/160/320 MHz PPDU.” To “... “gap-242-tone RU” indicates that one 20 MHz subchannel corresponding to “gap-242-tone RU” is punctured and is to help indicate the frequency order of the MRU in an 80 MHz EHT PPDU”In NOTE 3 of Table 36-13, change “In OFDMA transmission, “gap-242/484/996-tone RU” indicates that one or more 20 MHz subchannels corresponding to “gap-242/484/996-tone RU” are punctured or unassigned or used for data transmission by assigning one or multiple RU or MRU and is to help indicate the frequency order of the MRU within an 80/160/240/320 MHz subband.” To “In OFDMA transmission, “gap-242-tone RU” indicates that one 20 MHz subchannel corresponding to “gap-242-tone RU” is punctured or unassigned or used for data transmission by assigning one or multiple Rus or MRUs and is to help indicate the frequency order of the MRU within an 80 MHz EHT PPDU.” | **Revised:**Agreed in principle. Notes in Table 36-13 are not accurate. 11be Editor: Please see instruction in the “Text modifications in Table 36-13” in doc IEEE 802.11-22/1549r1. Note: Modifications in D2.1 (Page/Line) P605/L24 |
| 12183 | 36.3.2.2.3.3 | 593.24 | In NOTE 1, NOTE 2 and NOTE 3, for 80 MHz EHT PPDU, only one 20 MHz can be punctured or unassigned. Need to update the NOTE to remove 484 and 996. | Change “Gap-242/484/996” to “Gap-242”; change “one or more” to “one”; change “80/160/240/320 MHz subband” to “80 MHz bandwidth” | **Revised**Agree in general.11be Editor: same resolution as CID 12142 in doc IEEE 802.11-22/1549r1. |
| 11200 | 36.3.2.2.3.3 | 593.32 | Table 36-13 NOTE 3 needs to be reworded for clarity: i) avoid using the term "multiple RU" to convey a plurality of RUs, ii) clarify that these are "other" RUs or MRUs than the MRU being described, iii) omit 240MHz subband since the hole location is relative to the entire 80/160/320 subband (any unoccupied 80MHz subblock is already indicated as gap-996). | Reword as: "In OFDMA transmission, "gap-242/484/996-tone RU" indicates that one or more 20MHz subchannels corresponding to "gap-242/484/996-tone RU" are either punctured or unassigned or assigned to other RUs or MRUs for data transmission, and is to help indicate the frequency order of the MRU within an 80/160/320 MHz subband" | **Revised**Agree in general. gap-242-tone RU can be assigned to other RUs or MRUs in OFDMA. 11be Editor: Please see instruction in the “Text modifications in Table 36-13” in doc IEEE 802.11-22/1549r1. |

**Text modifications in Table 36-13:**

NOTE 1—“Gap-242~~/484/996~~-tone RU” is not part of a MRU and is used to indicate the size of a gap between RUs that form the MRU.

NOTE 2—In non-OFDMA transmission, “gap-242~~/484/996~~-tone RU” indicates that one ~~or more~~ 20 MHz subchannel~~s~~ corresponding to “gap-242~~/484/996~~-tone RU” ~~are~~ is punctured and is to help indicate the frequency order of the MRU in an 80~~/160/320~~ MHz EHT PPDU.

NOTE 3—In OFDMA transmission, “gap-242~~/484/996~~-tone RU” indicates that one ~~or more~~ 20 MHz subchannel~~s~~ corresponding to “gap-242~~/484/996~~-tone RU” ~~are~~ is either punctured or unassigned or assigned to other RUs or MRUs for data transmission, ~~used for data transmission by assigning one or multiple Rus or MRUs~~ and is to help indicate the frequency order of the MRU within an 80~~/160/240/320~~ MHz EHT PPDU ~~subband~~.

# CID 12143, 11201, 12184, 12863

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 12143 | 36.3.2.2.3 | 595.29 | “Gap-996-tone RU” does not appear in Table 36-14 which is regarding 160 MHz EHT PPDU | In NOTE 1 of Table 36-14, change “Gap-242/484/996-tone RU” to “Gap-242/484-tone RU”In NOTE 2 of Table 36-14, change “...”gap-242/484/996-tone RU” indicates that one or more 20 MHz subchannels corresponding to “gap-242/484/996-tone RU” are punctured and is to help indicate the frequency order of the MRU in an 80/160/320 MHz PPDU.” To “... “gap-242/484-tone RU” indicates that one or more 20 MHz subchannels corresponding to “gap-242/484-tone RU” are punctured and is to help indicate the frequency order of the MRU in a 160 MHz EHT PPDU”In NOTE 3 of Table 36-14, change “In OFDMA transmission, “gap-242/484/996-tone RU” indicates that one or more 20 MHz subchannels corresponding to “gap-242/484/996-tone RU” are punctured or unassigned or used for data transmission by assigning one or multiple RU or MRU and is to help indicate the frequency order of the MRU within an 80/160/240/320 MHz subband.” To “In OFDMA transmission, “gap-242/484-tone RU” indicates that one or more 20 MHz subchannels corresponding to “gap-242/484-tone RU” are punctured or unassigned or used for data transmission by assigning one or multiple Rus or MRUs and is to help indicate the frequency order of the MRU within a 160 MHz EHT PPDU.” | **Revised**Agreed in principle. Notes in Table 36-14 are not accurate. 11be Editor: Please see instruction in the “Text modifications in Table 36-14” in doc IEEE 802.11-22/1549r1. Modifications in D2.1 (Page/Line) P607/L29 |
| 11201 | 36.3.2.2.3.3 | 595.37 | Table 36-14 NOTE 3 needs to be reworded for clarity: i) avoid using the term “multiple RU” to convey a plurality of Rus, ii) clarify that these are “other” Rus or MRUs than the MRU being described, iii) omit 240MHz subband since the hole location is relative to the entire 80/160/320 subband (any unoccupied 80MHz subblock is already indicated as gap-996). | Reword as: “In OFDMA transmission, “gap-242/484/996-tone RU” indicates that one or more 20MHz subchannels corresponding to “gap-242/484/996-tone RU” are either punctured or unassigned or assigned to other Rus or MRUs for data transmission, and is to help indicate the frequency order of the MRU within an 80/160/320 MHz subband” | **Revised**Agree in general. gap-242/484/996-tone RU can be assigned to other RUs or MRUs in OFDMA. 11be Editor: Please see instruction in the “Text modifications in Table 36-14” in doc IEEE 802.11-22/1549r1 |
| 12184 | 36.3.2.2.3.3 | 593.24 | In NOTE 1, NOTE 2 and NOTE 3, for 160 MHz EHT PPDU, only one 20/40 MHz can be punctured or unassigned. Need to update the NOTE to remove “996”. | Change “Gap-242/484/996” to “Gap-242/484”; change “80/160/240/320 MHz subband” to “80/160 MHz subband” | **Revised**Agreed in principle. 11be Editor: Please see instruction in the “Text modifications in Table 36-14” in doc IEEE 802.11-22/1549r1. Note: Modifications in D2.1 (Page/Line) P607/L29 |
| 12863 | 36.3.2.2.3.3 | 593.24 | In NOTE 1, NOTE 2 and NOTE 3, for 160 MHz EHT PPDU, only one 20/40 MHz can be punctured or unassigned. Need to update the NOTE to remove “996”. | Change “Gap-242/484/996” to “Gap-242/484”; change “80/160/240/320 MHz subband” to “80/160 MHz subband” | **Revised**Agreed in principle. 11be Editor: Please see instruction in the “Text modifications in Table 36-14” in doc IEEE 802.11-22/1549r1. Note: Modifications in D2.1 (Page/Line) P607/L29 |

**Text modifications in Table 36-14:**

NOTE 1—“Gap-242/484~~/996~~-tone RU” is not part of a MRU and is used to indicate the size of a gap between RUs that form the MRU.

NOTE 2—In non-OFDMA transmission, “gap-242/484~~/996~~-tone RU” indicates that one or more 20 MHz subchannels corresponding to “gap-242/484~~/996~~-tone RU” are punctured and is to help indicate the frequency order of the MRU in a~~n 80/~~160~~/320~~ MHz EHT PPDU.

NOTE 3—In OFDMA transmission, “gap-242/484~~/996~~-tone RU” indicates that one or more 20 MHz subchannels corresponding to “gap-242/484~~/996~~-tone RU” are either punctured or unassigned or assigned to other RUs or MRUs for data transmission, ~~used for data transmission by assigning one or multiple Rus or MRUs~~ and is to help indicate the frequency order of the MRU within a~~n 80/~~160~~/240/320~~ MHz EHT PPDU ~~subband~~.

# CID 12144 and 11202

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 12144 | 36.3.2.2.3 | 598.41 | Table 36-15 is specific to 320 MHz EHT PPDU; and NOTE 2 and NOTE 3 needs to be modified accordingly. | In NOTE 2 of Table 36-15, change “...in an 80/160/320 MHz PPDU.” To “...in a 320 MHz EHT PPDU”In NOTE 3 of Table 36-15, change “... the MRU within an 80/160/240/320 MHz subband.” To “... the MRU within a 320 MHz EHT PPDU.” | RevisedAgree. 11be Editor: Please see instruction in the “Text modifications in Table 36-14” in doc IEEE 802.11-22/1549r1.Note: Modifications in D2.1 (Page/Line) P610/L41 |
| 11202 | 36.3.2.2.3.3 | 598.45 | Table 36-15 NOTE 3 needs to be reworded for clarity: i) avoid using the term “multiple RU” to convey a plurality of Rus, ii) clarify that these are “other” Rus or MRUs than the MRU being described, iii) omit 240MHz subband since the hole location is relative to the entire 80/160/320 subband (any unoccupied 80MHz subblock is already indicated as gap-996). | Reword as: “In OFDMA transmission, “gap-242/484/996-tone RU” indicates that one or more 20MHz subchannels corresponding to “gap-242/484/996-tone RU” are either punctured or unassigned or assigned to one or more other Rus or MRUs for data transmission, and is to help indicate the frequency order of the MRU within an 80/160/320 MHz subband” | **Revised**Agree in general. gap-242/484/996-tone RU can be assigned to other RUs or MRUs in OFDMA. 11be Editor: Please see instruction in the “Text modifications in Table 36-14” in doc IEEE 802.11-22/1549r1 |

**Text modifications in Table 36-15:**

NOTE 2—In non-OFDMA transmission, “gap-242/484/996-tone RU” indicates that one or more 20 MHz subchannels corresponding to “gap-242/484/996-tone RU” are punctured and is to help indicate the frequency order of the MRU in a~~n~~ ~~80/160/~~320 MHz EHT PPDU.

NOTE 3—In OFDMA transmission, “gap-242/484/996-tone RU” indicates that one or more 20 MHz subchannels corresponding to “gap-242/484/996-tone RU” are either punctured or unassigned or assigned to other RUs or MRUs for data transmission, ~~used for data transmission by assigning one or multiple RUs or MRUs~~ and is to help indicate the frequency order of the MRU within a~~n~~ ~~80/160/240/~~320 MHz ~~subband~~ EHT PPDU.

# CID 11203 and 11204

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 11203 | 36.3.2.2.3.3 | 594.13 | Table 36-14: 484+242 RU is applicable to OFDMA only in 160 MHz | Modify as: "484+242-tone RU (only for OFDMA)" | Accepted11be Editor: Please make the change as commenter proposed. Note: Modifications in D2.1 (Page/Line) P606/L13 |
| 11204 | 36.3.2.2.3.3 | 596.13 | Table 36-15: 484+242, 996+484 RUs are applicable to OFDMA only in 320 MHz | Modify as: "484+242-tone RU (only for OFDMA)" and "996+484-tone RU (only for OFDMA)" | Accepted11be Editor: Please make the change as commenter proposed. Note: Modifications in D2.1 (Page/Line) P608/L13 and P608/L58 |

**CID 11199**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 11199 | 36.3.2.2.3.2 | 592.12 | There are 8 (not 4) allowed combinations for 996+484 MRU in 320 MHz OFDMA. | Modify as: "For OFDMA transmission in 320 MHz, the allowed combinations for a 996+484-tone MRU in a OFDMA 160 MHz EHT PPDU are allowed in the primary 160 MHz channel and the secondary 160 MHz channel." | **Accepted.**11be Editor: Please make the change as commenter proposed. Note: Modifications in D2.1 (Page/Line) P604/L12.   |

**CID 10335 and 12198**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 12198 | 36.3.2.2.3.2 | 592.49 | Add 'a' before '320 MHz channel' | Add an 'a' before '320 MHz channel', so it says '3x996+484-tone MRU in a 320 MHz channel...'. | Accepted11be Editor: Please make the change as commenter proposed.Note: Modifications in D2.1 (Page/Line) P604/L49 |
| 10335 | 36.3.2.2.3.3 | 593.13 | Here gap-242-tone RU is used to indicate it is not part of MRU. What is the difference beween this one and the "[]" used in the RU allocation table. Suggest being consistent. | Change "gap" into "[]" for consitency. | Rejected“gap” has been adopted in the draft 2.1.  |

**CID 12015**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 12015 | 36.3.2.2.3.2 | 592.15 | Similar to the non-OFDMA transmission, the first or the last 80 MHz channel shall be punctured to use 2x996+484 MRU in the 320 MHz OFDMA transmission. | Add description like "the first or the last 80 MHz shall be punctured to use 2x996+484 MRU in the 320 MHz OFDMA transmission". | **Rejected.** The first or the last 80 MHz (996 RU) can be either punctured or unassigned or assigned to other RUs or MRUs for data transmission. |