IEEE P802.11  
Wireless LANs

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | LB271 Comment Resolution on U-SIG Part 2 | | | | | | Date: 2023-03-08 | | | | | | Author(s): | | | | | | Name | Affiliation | Address | Phone | email | | Alice Chen | Qualcomm |  |  | alicel@qti.qualcomm.com | | Sameer Vermani | Qualcomm |  |  | svverman@qti.qualcomm.com | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |

Abstract

This submission proposes resolutions for the following LB271 comments on P802.11be D3.0: Comments in 36.3.12.7.2.

NOTE – Set the Track Changes Viewing Option in the MS Word to “All Markup” to clearly see the proposed text edits.

**Revision History:**

R0: Initial version. Resolve CID 15278, 15772, 16349, 16355, 17203, 17204, 17933.

R1: Minor revisions.

# CID 16349, 16355

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 16349 | 36.3.12.7.2 | 763.22 | Comma is a typo. Should be "The U\_SIG field includes 5 version..." | as in comment | Accepted. |
| 16355 | 36.3.12.7.2 | 763.22 | Remove the comma | Please change to "The U\_SIG field includes 5 version independent fields..." | Accepted.  Note to editor:This CID 16355 is resolved in the resolution to CID 16349. No need to make any change. |

# CID 15772, 17203, 17204

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 17203 | 36.3.12.7.2 | 763.24 | "version independent CRC and Tail fields". It doesn't make a lot of sense to refer to CRC and Tail bits as either version dependent or independent. | Change "and version independent CRC and Tail fields" to "and CRC and Tail fields" | Revised.  Clarification on the CRC and Tail fields was added in resolutions to LB266 comments. The location, bitwidth and polynomial of the CRC field, and location and bitwidth of the Tail field need to be consistent across different PHY versions for U-SIG decoding. Therefore, they satisfy the definition of version independent fields in P763L17 (i.e., consistent in location and interpretation). Without clarifying this in spec, readers may question how to ensure the version independent fields to be correctly decoded and interpreted across different PHY versions. Consider that these two fields are different from other fields in terms of the functionality, we could change the sentence as suggested by the commenter, and add one sentence for clarification.  Instruction to editor: Change "and version independent CRC and Tail fields" to "and CRC and Tail fields". And add a next sentence as following: "The location, bitwidth and polynomial of the CRC field, and location and bitwidth of the Tail field need to be consistent across different IEEE 802.11 PHY clauses that are defined for 2.4, 5, and 6 GHz spectrum from Clause 36 (Extremely high throughput (EHT) PHY specification) onwards." |
| 15772 | 36.3.12.7.2 | 763.37 | Since this sentence does not include any condition for deferring for the duration of PPDU, it seems ambiguous. Add the condition or clarify it. | As in comment | Revised.  Agree to the comment. The condition of this sentence is when the U-SIG field is in an ER preamble.  Instruction to editor: Change “Regardless of the value of the PHY Version Identifier field in U-SIG field” to “Regardless of the value of the PHY Version Identifier field in U-SIG field of an ER preamble”. |
| 17204 | 36.3.12.7.2 | 763.41 | " (...) and terminate the reception of the PPDU.". This only applies when an ER preamble is detected. | Add the words "When an ER preamble is detected, " to the beginning of the sentence. | Revised.  Agree to the comment and accept the idea of proposed change but adopted different wording.  Instruction to editor: This CID 17204 is resolved in the resolution to CID 15772. No need to make any change. |

# CID 17933

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 17933 | 36.3.12.7.2 | 768.21 | A period should be added at the end of the sentence "0 for EHT sounding NDP" | Adding a period at the end of the sentence "0 for EHT sounding NDP" | Revised.  Agree to the comment and proposed change. Ditto a few more locations in Table 36-29.  Instruction to editor: In Table 36-29, please add a period at the end of the sentences “DL OFDMA (including non-MU-MIMO and MU-MIMO)” in P767L40, “0 for EHT sounding NDP” in P767L47 and P768L21, “DL non-OFDMA MU-MIMO” in P767L54, and “Validate” in P767L56 and P768L23. |

# CID 15278

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 15278 | 36.3.12.7.2 | 768.41 | It is better to clarify why the puncture pattern is related to an RU or MRU. | Suggest adding the description that the RU/MRU index shown here is allocated to the corresponding non-OFDMA users. | Revised.  Agree to the comment and accept the idea of the proposed change. One sentence is added to the description of the Punctured Channel Information field for clarification.  Instruction to editor: Please make changes for CID 15278 as shown in the following document:  [https://mentor.ieee.org/802.11/dcn/23/11-23-0349-01-00be-lb271-comment-resolution-on-u-sig-part-2.docx](https://mentor.ieee.org/802.11/dcn/23/11-23-0349-00-00be-d3.0-comment-resolution-on-u-sig-part-2.docx) |

***Instructions to the editor:***

**Please make the changes to P766L7-L52 in 802.11be spec D3.0 for resolution to CID 15278 as shown below:**

**Table 36-28—U-SIG field of an EHT MU PPDU *(continued)***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Two parts of U-SIG** | **Bit** | **Field** | **Number of bits** | **Description** |
|  | B3–B7 | Punctured Channel Information | 5 | If the PPDU Type And Compression Mode field is set to 1 regardless of the value of the UL/DL field, or the PPDU Type And Compression Mode field is set to 2 and the UL/DL field is 0:  Indicates the puncturing information of this non-OFDMA transmission. See [Table 36-30 (Definition of the Punctured Channel Information field in the U-SIG for an EHT MU PPDU using non-](file:///C:\Users\alicel\AppData\Local\Temp\Temp1_Draft%20P802.11be_D3.0%20-%20Word.zip\TGbe_Cl_36.doc#bookmark105) [OFDMA transmissions)](file:///C:\Users\alicel\AppData\Local\Temp\Temp1_Draft%20P802.11be_D3.0%20-%20Word.zip\TGbe_Cl_36.doc#bookmark105) for the definition. Note that each defined puncturing pattern corresponds to an RU or MRU allocation in the non-OFDMA transmission, as shown in Table 36-30. Undefined values of this field are Validate.  If the PPDU Type And Compression Mode field is set to 0 and the UL/DL field is 0:  If the Bandwidth field is set to a value between 2 and 5, which indicates an  80 MHz, 160 MHz or 320 MHz PPDU,  then B3–B6 is a 4-bit bitmap that indicates which 20 MHz subchannel is punctured in the 80 MHz frequency subblock where U-SIG processing is performed. The 4-bit bitmap is indexed by the 20 MHz subchannels in ascending order with B3 indicating the lowest frequency 20 MHz subchannel. For each of the bits B3–B6, a value of 0 indicates that the corresponding 20 MHz channel is punctured, and a value of 1 is used otherwise. The following allowed punctured patterns (B3–B6) are defined for an 80 MHz frequency subblock: 1111 (no puncturing), 0111, 1011, 1101, 1110,  0011, 1100, and 1001. Any field values  other than the allowed punctured patterns are Validate. Field value may be varied from one 80 MHz to the other.  If the Bandwidth field is set to 0 or 1, which indicates a 20/40 MHz PPDU, B3–B6 are set to all 1s. Other values are Validate.  B7 is set to 1 and Disregard.  For further information on punctured channels, refer to [36.3.12.11 (EHT preamble](file:///C:\Users\alicel\AppData\Local\Temp\Temp1_Draft%20P802.11be_D3.0%20-%20Word.zip\TGbe_Cl_36.doc#bookmark172) [of preamble punctured EHT MU PPDU)](file:///C:\Users\alicel\AppData\Local\Temp\Temp1_Draft%20P802.11be_D3.0%20-%20Word.zip\TGbe_Cl_36.doc#bookmark172). |