IEEE P802.11  
Wireless LANs

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | D3.0 Comment Resolution for MU-MIMO PHY | | | | | | Date: 2023-03-08 | | | | | | Author(s): | | | | | | Name | Affiliation | Address | Phone | email | | Sameer Vermani | Qualcomm |  |  | svverman@qti.qualcomm.com | | Vamsi Amalladinne | Qualcomm |  |  | vamsia@qti.qualcomm.com | |

Abstract

This submission proposes resolutions for the following comments on P802.11be D3.0: Comments in 36.3.3

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 CIDs 16454, 17194, 17195, 18332

# CID 16454

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 16454 | 36.3.3.2.1 | 726.26 | "The key difference from SU-MIMO is that in UL MU-MIMO, the transmitted streams originate from multiple non-AP STAs." reads like an unfinished sentence. | Change to "The key difference from SU-MIMO is that in UL MU-MIMO, the transmitted streams originate from multiple non-AP STAs instead of only the AP. | Revised.  Agree to the comment that this sentence needs to be modified. We propose modifying the sentence as given below for improved readability.  Instruction to editor:  *Please make changes for CID 16454* *as shown in document 11-23/0396r0* |

***Instructions to the editor:***

**Please make the changes to P726L26 as shown below for CID 16454:**

The key difference however is that in SU-MIMO, all the transmitted streams originate from the same STA, while in UL MU- MIMO, they originate from multiple non-AP STAs.

# CID 17194

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 17194 | 36.3.3.1.1 | 725.8 | "Supported RU or MRU sizes in DL MU-MIMO" only specifies what needs to be supported if the Partial Bandwidth DL MU-MIMO subfield is 1. For completeness, also add what support is expected when this subfield is 0. | See comment | Rejected  The intent of clause 36.3.3.1.1 is to indicate that the minimum size of RU or MRU a STA can  receive, when it supports the reception of a DL MU-MIMO transmission on an RU or MRU in an EHT MU PPDU  , where the RU or MRU does not span the entire PPDU bandwidth is 242. A description of what support is  needed when Partial Bandwidth DL MU-MIMO subfield is set to 0 is not within the scope of this clause. |

# CID 17195

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 17195 | 36.3.3.2.2 | 726.32 | "Supported RU or MRU sizes in UL MU-MIMO" only specifies what needs to be supported if the Partial Bandwidth UL MU-MIMO subfield is 1. For completeness, also add what support is expected when this subfield is 0. | See comment | Rejected  The intent of clause 36.3.3.2.2 is to indicate that the minimum size of RU or MRU an AP can  receive, when it supports the reception of EHT TB PPDU on an RU or MRU where MU-MIMO is employed and  where the RU or MRU does not span the entire nonpunctured portion of the PPDU bandwidth is 242. A description of what support is  needed when Partial Bandwidth UL MU-MIMO subfield is set to 0 is not within the scope of this clause. |

# CID 18332

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| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 18332 | 36.3.3.2.3 | 727.18 | The term 'without pilots' is not clear. Need better definition | Replace 'without pilots' by 'with zero energy on pilot tones' | Revised  Agree to the comment that the term ‘without pilots’ is unclear. However, it cannot be replaced with ‘zero energy on pilot tones’ since for an EHT TB PPDU with 1x EHT-LTF, pilot subcarriers are not present in the EHT-LTF field. In view of this, we propose a modification to this sentence as given below.  Instruction to editor:  *Please make changes for CID 18332 as shown in the document 11-23/0396r0* |

***Instructions to the editor:***

**Please make the changes to P727L18 as shown below for CID 18332:**

A non-AP STA shall support, for UL MU-MIMO transmissions in an EHT TB PPDU, transmission of 1 EHT-LTFs with no pilot subcarriers and transmission of 2 and 4 EHT-LTFs with single stream pilots.