IEEE P802.11
Wireless LANs

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| CR for CIDs on 36.3.2.2 – part 1 |
| Date: 2021-04-29 |
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This submission includes resolutions for comments on Subsection 36.3.2.2 of P802.11be D0.3. The related 25 CIDs are: 1243, 1285, 1287, 1288, 1289, 1544, 1545, 1548, 1549, 1550, 1551, 1552, 1986, 1987, 2017, 2020, 2021, 2022, 2023, 2604, 2782, 2783, 3096, 3097, 3268.

##### Revision history:

##### R0 – initial version. Resolutions of 23 CIDs

R1 – add the resolutions for CIDs #1288 and #1289

R2 - modify the resolutions for CIDs #1288 and #1289

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **1243** | 36.3.2.2 | 184 | 11 | This statement " An EHT AP shall be able to allocate an RU (see 36.3.2.1 (Subcarriers and resource allocation for wideband) or MRU (see 36.3.2.3 (Subcarriers and resource allocation for multiple RUs)) on one 80 MHz channel within the BSS bandwidth in a 160 MHz or 320 MHz EHT MU or EHT TB PPDU to an 80 MHz operating non-AP EHT STA." is not accurate. May want to break into two statements: shall be able to allocate ... in pri 80MHz. May allocate to non-primary 80 if STA support SST | As in comment | REVISEDAgree with the comment in principle with modification of text.The revised text has been discussed in 692r2. TGbe editor: Please edit the revised text as resolved in the 9th paragraph of 36.3.2.2 in 692r2).  |
| **1287** | 36.3.2.2 | 184 | 15 | To maintain efficiency in a wide bandwidth BSS with lots of 80M operating STAs (even if they only carry with intermittent traffic), the AP must be able to use SST to move such STAs across the BSS bandwidth. | Make SST mandatory for 80M operating STAs | REJECTEDAs discussed in 692r2, an 80 MHz operating non-AP EHT STA may (rather than shall) operate in any 80 MHz channel within Primary 160 MHz of the BSS bandwidth. |
| **1548** | 36.3.2.2 | 184 | 16 | SST operation is not defined in 11be. Define the SST operation in EHT. | As in comment | REVISEDAs discussed in 692r2, an 80 MHz operating non-AP EHT STA may operate in any 80 MHz channel within Primary 160 MHz of the BSS bandwidth.TGbe editor: Please edit the revised text as resolved in the 9th paragraph of 36.3.2.2 in 692r2). |
| **1549** | 36.3.2.2 | 184 | 17 | if SST is not supported, 80MHz operating STA should be operated in primary 80MHz. Delete the TBD | As in comment | RevisedTGbe editor: this has been resolved in 692r2. No further changes needed. |
| **2020** | 36.3.2.2 | 184 | 17 | I agree the text. | Delete '(TBD)' | RevisedTGbe editor: this has been resolved in 692r2. No further changes needed. |

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **2604** | 36.3.2.2 | 184 | 6 | Default operating channel for 80/160 MHz operating non-AP STAs is not specified when specifying support for wide bandwidth operation. | Include the following sentence:"A 80 MHz operating non-AP EHT STA shall operate in the primary 80 MHz channel with exception TBD. A 160 MHz operating non-AP EHT STA shall operate in the primary 80 MHz channel with exception TBD." | REVISEDNote: this CID should be on P184L8TGbe editor: Please edit the revised text as resolved in the 9th paragraph and last 3 paragraphs of 36.3.2.2 in 692r2. |

**CID 1550, 1986, 2021**

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **1550** | 36.3.2.2 | 184 | 29 | the 80MHz operating non-AP STA can support the All RUs or MRUs in 80MHz. Delete the (some restrictions TBD) | As in comment | REVISEDTGbe editor: Please edit the revised text as resolved in the 13th paragraph of 36.3.2.2 in 692r2. |
| **1986** | 36.3.2.2 | 184 | 28 | Delete (some restrictions TBD) to minimize redundant TBDs since how to deal or restrict the allocation outside of primary 80MHz is already being covered in other place (3rd paragraph in p184) that will be resolved in the next version of draft. | As in comment | REVISEDThe same resolution as for CID #1550 |
| **2021** | 36.3.2.2 | 184 | 28 | I don't know what is some restrictions. | delete the text '(some restrictions TBD)' | REVISEDThe same resolution as for CID #1550 |

**CID 1551, 2022**

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **1551** | 36.3.2.2 | 184 | 37 | 160MHz operating non-AP STA should operate the primary 160MHz channel if SST operation is not supported. Delete the TBD. | As in comment | REVISEDTGbe editor: Please edit the revised text as resolved in the 14th paragraph of 36.3.2.2 in 692r2. |
| **2022** | 36.3.2.2 | 184 | 37 | I agree the text. | Delete '(TBD)' | REVISEDThe same resolution as for CID #1551 |

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **1285** | 36.3.2.2 | 183 | 39 | I don't think that this definition is correct, or at least the cross-reference to the mandatory/option features is misleading since "operating" describes the mode that the STA is in currently, and might be less than it is capable or what it must support: "A 20 MHz, 80 MHz, or 160 MHz operating non-AP EHT STA is a non-AP EHT STA that supports for 20 MHz, 80 MHz, or 160 MHz channel width, respectively (see 36.1.1 (Introduction to the EHT PHY))." | Perhaps try "A 20 MHz, 80 MHz, or 160 MHz operating non-AP EHT STA is a non-AP EHT STA whose CHANNEL\_WIDTH parameter has been configured by a PHYCONFIG.request primitive to 20 MHz, 80 MHz, or 160 MHz channel width, respectively (see 36.2.4 (PHY CONFIG\_VECTOR)." | REVISED TGbe Editor: Please make the changes as shown in 744r3. |

***Discussion***

In 36.2.4 PHY CONFIG\_VECTOR, “The PHYCONFIG\_VECTOR carried in a PHY-CONFIG.request primitive for an EHT PHY contains an OPERATING\_CHANNEL parameter, which identifies the operating or primary channel. The PHY shall set dot11CurrentPrimaryChannel to the value of this parameter.”

PHY CONFIG\_VECTOR provides a specific OPERATING\_CHANNEL parameter on the operating or primary channel while the definition of a 20 MHz, 80 MHz, or 160 MHz operating non-AP EHT STA is more general and depends on how wide the channel width a 20 MHz, 80 MHz, or 160 MHz operating non-AP EHT STA can support.

TGbe editor: please revise the text in P183L39 in D0.3 as shown below.

A 20 MHz, 80 MHz, or 160 MHz operating non-AP EHT STA is a non-AP EHT STA whose current operating mode supports up to 20 MHz, 80 MHz, or 160 MHz channel width, respectively (see 36.1.1 (Introduction to the EHT PHY)).

**CIDs 1552, 1987, 2023**

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **1552** | 36.3.2.2 | 184 | 49 | if SST is not supported, 80MHz operating STA should be operated in primary 80MHz. Delete the TBD | As in comment | REVISEDNote: This CID should be for the paragraph P184L8 in D0.3.TGbe editor: Please edit the revised text as resolved in the 9th paragraph of 36.3.2.2 in 692r2. |
| **1987** | 36.3.2.2 | 184 | 49 | Delete (some restrictions TBD) to minimize redundant TBDs since how to deal or restrict the allocation outside of primary 160MHz is already covered in other place (7th paragraph in p184) that will be resolved in the next version of draft. | As in comment | REVISEDTGbe editor: Please edit the revised text as resolved in the last paragraph of 36.3.2.2 in 692r2. |
| **2023** | 36.3.2.2 | 184 | 49 | I don't know what is some restrictions. | delete the text '(some restrictions TBD)' | REVISEDThe same resolution as for CID #1987 |

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **2782** | 36.3.2.2 | 184 | 13 | "An EHT AP shall not allocate an RU outside of the primary 80 MHz in a 160 MHz or 320 MHz EHT MU or EHT TB PPDU to an 80 MHz operating non-AP EHT STA if the 80 MHz operating non-AP EHT STA has not set up SST operation on the nonprimary 80 MHz channel with the EHT AP". What is not clear is whether support of non-primary 80 is mandatory is SST operation has been set up.Similar comment for 160 MHz. | Clarify | REVISEDSST operations have been discussed in 692r2. TGbe editor: Revised text related to SST operations is the same as resolved in 692r2. |

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **1544** | 36.3.2.2 | 183 | 42 | define the EHT Capabilities element in 9.4.2.295c.1 | As in comment | REVISEDD0.4 has specified supported channel width in EHT PHY Capabilities Information field 9.4.2.295c.3 (EHT PHY Capabilities Information field)TGbe editor: Please edit the revised text as resolved in the 1st paragraph of 36.3.2.2 in 692r2). |
| **1545** | 36.3.2.2 | 183 | 43 | Define the OM Control subfield in 9.2.4.6a.2 (OM Control) | As in comment | REVISEDTGbe editor: Please edit the revised text as resolved in the 1st paragraph of 36.3.2.2 in 692r2. |
| **2017** | 36.3.2.2 | 183 | 43 | 9.2.4.6a.2 OM Control doesn't support wide bandwidth. So we need to update the section | Update OM Control and delete TBD | REVISEDThe same resolution for CID#1545. |

**Discussion:**

In P.66 of D0.4, how to use The Channel Width Extension subfield in the Channel Width subfield is specified as below. In Table 9-22a (Control ID subfield values), Operating mode (OM) is indicated to be defined in 9.2.4.6a.2 (OM Control). However, 9.2.4.6a.2 (OM Control) is a placeholder and has not been specified in D0.4.



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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **2783** | 36.3.2.2 | 184 | 56 | Improve wording "An EHT STA shall be allowed to be assigned with more than one Resource Unit (RU)." | Change to e.g. "It shall be possible to assign more than one Resource Unit (RU) to an EHT STA." | REVISEDNote to TGbe editor: this CID is related to 36.3.2.3TGbe editor: please revise the text as shown in 744r3. |

TGbe editor: please revise P184L56 in D0.3 as shown below.

The EHT PHY supports the usage of Multiple Resource Unit (MRU) in an EHT PPDU.

**CIDs 3096, 3097**

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **3096** | 36.3.2.2 | 184 | 26 | An 80 MHz operating non-AP STA should be An 80 MHz operating non-AP EHT STA | As in comment | ACCEPTED |
| **3097** | 36.3.2.2 | 184 | 46 | A 160 MHz operating non-AP STA should be A 160 MHz operating non-AP EHT STA | As in comment | ACCEPTED |

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **3268** | 36.3.2.2 | 184 | 8 | no comma between 320 MHz and EHT DL and UL OFDMA transmissions. | "320 MHz, EHT DL and UL OFDMA transmissions" should be "320 MHz EHT DL and UL OFDMA transmissions" | ACCEPTED |

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **1288** | 36.3.2.2 | 184 | 19 | P184L19-30 is out of order wrt P184L8-18, and then tends to read as some kind of duplication of P184L8-9 | Move to before "An EHT AP ..." at P184L8, and make these three paras into sub-bullets | REJECTED |

**Discussion**

Paragraphs 8-10 in 692r2 (located before P184L19-30 and described as paragraphs 11-13 in 692r2) provide general descriptions on 80 MHz operating non-AP EHT STA. The paragraphs in P184L19-30 in D0.3 highlight further on how an 80 MHz operating non-AP STA to support RU or MRU, to transmit the preamble and data in the allocated RU or MRU, and to support the reception of the preamble and data in the allocated RU or MRU. Note: The text in three paragraphs in P184L19-30 in D0.3 has been revised in 692r2 (see paragraphs 11-13 in 692r2).

Propose to keep the order of paragraphs and the text in the PDT 692r2 for 36.3.2.2 unchanged.

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| **1289** | 36.3.2.2 | 184 | 19 | P184L39-50 is out of order wrt P184L31-32, and then tends to read as some kind of duplication of P184L31-32 | Move to before "An EHT AP ..." at P184L32, and make these three paras into sub-bullets | REJECTED |

**Discussion**

Paragraph 14 in 692r2 (located before P184L39-50 (described as paragraphs 15-17 in 692r2) provides general descriptions on 160 MHz operating non-AP EHT STA. The paragraphs in P184L39-50 in D0.3 highlight further on how a 160 MHz operating non-AP STA to support RU or MRU, to transmit the preamble and data in the allocated RU or MRU, and to support the reception of the preamble and data in the allocated RU or MRU. Note: The text in three paragraphs in P184L39-50 in D0.3 has been revised in 692r2 (see paragraphs 15-17 in 692r2).

Propose to keep the order of paragraphs and the text in the PDT 692r2 for 36.3.2.2 unchanged.