IEEE P802.11
Wireless LANs

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| Comment Resolutions for clause 36.3.13 Coding Part II |
| Date: 2021-04-01 |
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Abstract: This document contains proposed resolutions for comments in *Clauses 36.3.12* from 11be D0.4 with 5 CID below

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| ***Clause 36.3.13.3**** 2646, 2647, 2652, 2653,

***Clause 36.3.13.6**** 2657
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| 2646 | 36.3.12.3.1 | 288.34 | Reword FEC for multi-link for better clarity | Edit as follows: When conducting FEC encoding for multi-link operation, one FEC encoder is applied to one PSDU per STA for each link. For multi-link operation, FEC encoding is done independently per PSDU per STA on each link | **Revised.**Agree with commentor to add text for clarity. TGbe editor: Incorporate the changes in [https://mentor.ieee.org/802.11/dcn/21/11-21-0566-00-00be- comment-resolutions-for-clause-36-3-12-3-coding-part-ii.docx](https://mentor.ieee.org/802.11/dcn/21/11-21-0566-00-00be-%20comment-resolutions-for-clause-36-3-12-3-coding-part-ii.docx) |

be editor: please make changes *in D0.4 clause 36.3.13.3.1*

* On P392L9 (CID #2646):

When conducting FEC encoding for multi-link operation, one FEC encoder is applied to one PSDU per STA for each link, and the FEC encoding process is done independently for each PSDU per STA per link

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| 2647 | 36.3.12.3.2 | 288.40 | Text suggests that BCC support is optional for RU/MRU size larger than 242 tones - need to clarify that support for BCC is limited to RU/MRU size of 242 tones or less. | Edit as follows: Support for BCC coding is limited to less than or equal to four spatial streams, EHT-MCSs 0 to 9 and EHT-MCS 15 (BPSK+DCM with ) (per user in the case of MU-MIMO), and RUs or MRUs of size less than or equal to 242 tones. BCC support is mandatory (for both transmit and receive) for the cases where it is defined. RU or MRU sizes less than or equal to a 242-tone RU | **Revised.**Agree with commentor to add a limitation of the RU/MRU sizes which BCC coding is applied to. TGbe editor: Incorporate the changes in [https://mentor.ieee.org/802.11/dcn/21/11-21-0566-00-00be- comment-resolutions-for-clause-36-3-12-3-coding-part-ii.docx](https://mentor.ieee.org/802.11/dcn/21/11-21-0566-00-00be-%20comment-resolutions-for-clause-36-3-12-3-coding-part-ii.docx) |

be editor: please make changes *in D0.4 clause 36.3.13.3.2*

* On P392L16 (CID #2647): Please replace BPSK+DCM with BPSK-DCM in 36.3.12.3.2 BCC coding

Support for BCC coding is limited to less than or equal to four spatial streams, EHT-MCSs 0 to 9, EHT-MCS 15 (BPSK-DCM with $N\_{SS,u}=1$ ) (per user in the case of MU-MIMO), and RU or MRU size less than or equal to 242-tone RU. For RU or MRU sizes to which BCC coding can be applied, BCC support is mandatory (for both transmit and receive).

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If EHT-MCS 15 (BPSK-DCM with ) is used in a 106-tone RU, 242-tone RU, or 106+26-tone …

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| 2652 | 36.3.12.3.5 | 293.42 | No reference to how BCC encoding is actually done for BCC users in an EHT MU PPDU, unlike LDPC for which there is a reference to 19.3.11.7.5 | After equation (36-58), add following text: For each user with BCC encoding, perform BCC encoding using the above calculated parameters according to | **Rejected.**In draft D0.3, the subclause 36.3.12.3.5 Encoding process for an EHT MU PPDU covers both LDPC and BCC encoding. Equations (36-42) to (36-44), (36-50) to (36-51), (36-53) to (36-57), and (36-58) applies to BCC encoding. This subclause does not only apply to LDPC coding as commentor understands. Subclause 19.3.11.7.5 is not a reference for LDPC encoding process. Instead, it is used as reference for checking the conditions if LDPC extra symbol segment listed in the subclause 36.3.12.3.5.  |

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| 2653 | 36.3.12.3.5 | 294.01 | Reference to EHT MU encoding process for EHT TB PPDU encoding needs to be qualified with "as applied to a single-user transmission" | Edit as follows: For an EHT TB PPDU with BCC encoding, follow the EHT MU padding and encoding process as described in 36.3.12.3.5 (Encoding process for an EHT MU PPDU) as applied to a single-user transmission, with initial parameters as follows: For an EHT TB PPDU with LDPC encoding, follow the EHT MU padding and encoding process as described in 36.3.12.3.5 (Encoding process for an EHT MU PPDU) as applied to a single-user transmission, with initial parameters as follows: | **Revised.**Since an EHT MU PPDU can be transmitted to either a single user or multiple user, subclause 36.3.12.3.5 Encoding process for an EHT MU PPDU applies to transmission to a single user as well as to multiple users. And all equations in subclause 36.3.12.3.5 Encoding process apply to both a single user and multiple users. There is no differentiation between single user case and multiple users cases. To make it clear to the reader, clarification text are added in 36.3.12.3.5 Encoding process for an EHT MU PPDU.TGbe editor: Incorporate the changes in [https://mentor.ieee.org/802.11/dcn/21/11-21-0566-00-00be- comment-resolutions-for-clause-36-3-12-3-coding-part-ii.docx](https://mentor.ieee.org/802.11/dcn/21/11-21-0566-00-00be-%20comment-resolutions-for-clause-36-3-12-3-coding-part-ii.docx) |

be editor: please make changes *in D0.4 clause 36.3.13.3.5*

* On P393L31 (CID #2653): Please add the following sentence before the first paragraph of clause 36.3.13.3.5.

The encoding process described in this subclause applies to both transmission of an EHT MU PPDU to a single user and transmission of an EHT MU PPDU to multiple users.

For an EHT MU PPDU, all the users shall use a common value of pre-FEC padding factor *a* and a common value of $N\_{SYM}$. The padding process is described as follows

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| 2657 | 36.3.12.6 | 298.35 | There could be a reference to the BCC interleavers section of the 11ax standard for small RUs | Add a reference to 27.3.12.8 BCC interleavers for other RU sizes' interleaver parameters | **Revised.**Agree with commentor that BCC interleavers for other RU sizes should also be referred in 36.3.12.6 BCC interleavers.TGbe editor: Incorporate the changes in [https://mentor.ieee.org/802.11/dcn/21/11-21-0566-00-00be- comment-resolutions-for-clause-36-3-12-3-coding-part-ii.docx](https://mentor.ieee.org/802.11/dcn/21/11-21-0566-00-00be-%20comment-resolutions-for-clause-36-3-12-3-coding-part-ii.docx) |

be editor: please make changes *in D0.4 clause 36.3.13.6*

* On P402L2 (CID #2657):

A BCC encoder can be applied to small size RUs and MRUs. The BCC encoded bits are interleaved over the RU or the whole MRU. The interleaver parameters for BCC encoded RUs are shown in Table 27-35 (BCC interleaver parameters), and the interleaver parameters for BCC encoded MRUs are shown in Table 36-48 (Joint BCC interleaver parameters for small size MRUs).