IEEE P802.11  
Wireless LANs

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| Comment Resolutions for 11be D4.0 Sub-clause 3.2.2 and 3.2.6.1 | | | | |
| Date: 2023-03-11 | | | | |
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Abstract

This submission provisions with resolutions to the following 8 CIDs for clause 36.2.2 and 5 CIDs for clause 36.2.6.1 regarding TXVECTOR and RXVECTOR parameters in IEEE P802.11be D4.0 in WG LB 275, including suggested spec text modification to IEEE P802.11be D4.0 to TGbe editor:

* CIDs: 19017, 19042, 19086, 19087, 19088, 19142, 19143, 19144, 19153, 19154, 19155, 19176, and 19532

Revisions:

* R0: comment resolutions initial draft
* R1: correct typos
* R2: updated resolutions to CID 19142/19143/19176/19532

Interpretation of a Motion to Adopt

A motion or majority supported straw poll to approve this submission means that the editing instructions and any changed or added material are actioned in the TGbe Draft. When the baseline spec draft is an unapproved version, a majority supported straw poll to approve this submission means that the editing instructions and any changed or added material are actioned in the unapproved TGbe Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGbe Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGbe Editor: Editing instructions preceded by “TGbe Editor” are instructions to the TGbe editor to modify existing material in the TGbe draft. As a result of adopting the changes, the TGbe editor will execute the instructions rather than copy them to the TGbe Draft.***

***Comments for sub-clause 36.2.2: 8 comments***

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| **CID** | **Pg/Ln** | **Clause** | **Comment** | **Proposed Changed** | **Resolution** |
| 19017 | 665.55 | 36.2.2 | Integer: range 0 to 15. MCS14 is not supported for TB PPDU | suggest to differentiate MU and TB PPDU | **Revised**  **Discussion:**  Agree on the comment in principle. A note is suggested to explain the missing MCS14 for EHT TB PPDU.  **Instruction to TGbd Editor:**  Please add a new paragraph as below at the end of the text in the “VALUE” column for the raw “FORMAT is EHT\_MU or EHT\_TB” in Table 36-1 at P665/L57:  “NOTE – the value 14 is reserved when FORMAT is EHT\_TB.” |
| 19042 | 670.17 | 36.2.2 | The EHT-SIG content channels per 80 MHz frequency subblock are allowed to carry different information when EHT MU PPDU bandwidth for OFDMA transmission is wider than 80 MHz. This needs to be supported in the RU\_ALLOCATION parameter o fthe TXVECTOR. For 160 MHz and above, the number of bits indicated should be for every 80 MHz frequency subblock. See Annex Z.9 showing that 72 bits RU allocation field for the lower and upper 80 MHz may be different so 144 bits is actually needed for the 160 MHz case. | Change "72 bits for a 160 MHz PPDU; 144 bits for a 320 MHz PPDU." to "72 bits for every 80 MHz frequency subblock of a 160 MHz PPDU; 144 bits for every 80 MHz frequency subblock of a 320 MHz PPDU." | **Accepted**  **Discussion:**  Agree on the comment and its analysis. |
| 19086 | 662.34 | 36.2.2 | Table 36-1 in D4.0 and D4.0\_redline\_D3.0 is not the same for 'L\_DATARATE' | please fix the table. | **Accepted**  **Discussion:**  The D4.0\_redline\_D3.0 is correct and the modification is the implementation of an approved resolution for CID 15327 as in 11-23/0741r2 for D3.0. An editorial correction is needed. |
| 19087 | 665.45 | 36.2.2 | measure ->measurement | modify 'measure' to 'measurement' | **Rejected**  **Reason:**  The “measure” here means a measured quantity and it’s a proper expression. |
| 19153 | 662.56 | 36.2.2 | "Contains a vector in the number of all the subcarriers in an RU or MRU that is assigned to this user. The vector for each subcarrier contains feedback matrices as defined in 36.3.17.2 (EHT beamforming feedback matrix V) based on the channel measured during the training symbols of previous EHT sounding NDPs, HE sounding NDPs or VHT NDPs" how a TB PPDU can have BFing feedback? | remove "The vector for each subcarrier contains feedback matrices as defined in 36.3.17.2 (EHT beamforming feedback matrix V) based on the channel measured during the training symbols of previous EHT sounding NDPs, HE sounding NDPs or VHT NDPs." | **Rejected**  **Reason:**  The addressed sentence means the transmitting of an EHT TB PPDU may use the feedback report from previous sounding procedure for current beamforming transmission. It should not be interpreted as a BFing feedback caused or carried by the EHT TB PPDU. |
| 19154 | 668.20 | 36.2.2 | "TXOP\_DURATION = UNSPECIFIED: TXOP = 127." | TXOP = 127: TXOP\_DURATION = UNSPECIFIED | **Rejected**  **Reason:**  The addressed sentence is to explain how to map TXOP\_DURATION to TXOP subfield. Therefore the condition is TXOP\_DURATION = UNSPECIFIED and the map result is TXOP = 127. It’s a reverse mapping procedure for a TXVECTOR against to a RXVECTOR parameter. |
| 19155 | 671.18 | 36.2.2 | "For an RU or MRU with a single user allocated, set to 1 if a beamforming steering matrix is applied to this non-MU MIMO allocation and set to 0 otherwise." TB PPDU cannot indicate BFing status. | change to not present | **Rejected**  **Reason:**  The addressed sentence is to explain how to use TXVECTOR parameter BEAMFORMED in transmitting an EHT TB PPDU. It should not be interpreted as to indicate BFing status to a receiver. |
| 19532 | 666.35 | 36.2.2 | For 320 MHz, the enumerated values for CH\_BANDWIDTH are CBW320-1 and CBW320-2. However, in numerous places throughout the spec "CBW320" is still used (e.g. P679L22, P739L12, P740L10, P750L7, P752L33, P754L7, P877L5, P56, P470-473, ...). Sometimes alone, sometimes in addition to CBW320-1 and CBW320-2. The use of CBW320 should probably be removed and made consistent with the allowed values of CH\_BANDWIDTH. Currently it is not consistent with the definition of allowed CH\_BANDWIDTH values. | Replace any usage of "CBW320" with "CBW320-1 or CBW320-2". (or find another way to make usage consistent throughout the spec) NOTE: this will require a global search for "CBW320" to find all occurences. | **Revised**  **Discussion:**  Agree on the comment that at some places “CBW320” is not well used. In current spec, “CBW320” is a value defined for CH\_BANDWIDTH\_IN\_NON\_HT for Non\_HT\_Dup PPDUs; while “CBW320-1” and “CBW320-2” are values defined for “CH\_BANDWIDTH” for EHT PPDUs. When “CBW320” is used, it refers to the context of Non\_HT\_Dup PPDU. But at some places, “CBW320” is incorrectly used for EHT PPDU .  **TGbe Editor:**  Replace “CBW320” with “CBW320-1 or CBW320-2” at following places:   * P56/L46 * P56/54 * P752/L12 * 3 places at P753/L10   Replace “CBW320” with “320 MHz bandwidth” at P691/L39  Replace “if CH\_BANDWIDTH is CBW320, CBW320-1, CBW320-2” with “if CH\_BANDWIDTH\_IN\_NON\_HT is CBW320, or CH\_BANDWIDTH is CBW320-1 or CBW320-2” at P763/L7 and P767/L7.  Replace “CH\_BANDWIDTH” with “CH\_BANDWIDTH/CH\_BANDWIDTH\_IN\_NON\_HT” from Table 36-27 at P765/L18 and P765/L22. And remove “CBW320,” from the last raw of Table 36-27 and create a new raw for “CBW320” with the same γ(k,BW) value as that for “CBW320-1, CBW320-2”.  Replace “CH\_BANDWIDTH set to CBW320” with “CH\_BANDWIDTH set to CBW320-1 or CBW320-2 or CH\_BANDWIDTH\_IN\_NON\_HT set to CBW320”.  Replace “cbw320(4)” with “cbw320-1(4), cbw320-2(5)”. |
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***Comments for sub-clause 36.2.6.1: 5 comments***

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| **CID** | **Pg/Ln** | **Clause** | **Comment** | **Proposed Changes** | **Resolution** |
| 19088 | 680.18 | 36.2.6.1 | in 'Clause 19' box, transmission 'only' on 20MHz | add 'only' | **Accepted**  **Discussion:**  To keep the description consistent inside Figure 36-1. |
| 19142 | 703.10 | 36.2.6.1 | According to the statement at p704/l11, the Label "FORMAT = NON\_HT " is not correct in Figure 36-1. | Add "and NON\_HT\_MODULATION != OFDM or NON\_HT\_DUP\_OFDM" | **Revised**  **Discussion:**  The comment is technically correct but the referred statement should be P681/L4. And a modification different from the proposed changes are proposed.  **Instruction to TGbd Editor:**  Please replace the label “FORMAT = NON\_HT” in Figure 36-1 with “FORMAT = NON\_HT, NON\_HT\_MODULATION != NON\_HT\_DUP\_OFDM”. |
| 19143 | 703.10 | 36.2.6.1 | According to the statement at p704/l11, the Label "FORMAT = NON\_HT NON\_HT\_MODULATION NON\_HT\_DUP\_OFDM" is not correct in Figure 36-1. | Change to "and NON\_HT\_MODULATION = OFDM or NON\_HT\_DUP\_OFDM" | **Accepted**  **Discussion:**  The comment is technically correct but the referred statement should be P681/L4. And a modification different from the proposed changes are proposed.  **Instruction to TGbd Editor:**  Please replace the label “FORMAT = NON\_HT NON\_HT\_MODULATION NON\_HT\_DUP\_OFDM” in Figure 36-1 with “FORMAT = NON\_HT, NON\_HT\_MODULATION = NON\_HT\_DUP\_OFDM”. |
| 19144 | 703.33 | 36.2.6.1 | The label "Clause 36" should be in a solid-lined box in Figure 36-2. | Update Figure 36-2 accordingly | **Rejected**  **Discussion:**  Figure 36-2 is expressed in the same way as used in previous 802.11 amendments and it covers all receiving procedure of an EHT PPDU. |
| 19176 | 680.08 | 36.2.6.1 | The comma sign are missing, | Format=NON\_HT,  NON\_HT\_MODULATION and NON\_HT\_DUP\_OFDM | **Revised**  **Discussion:**  Agree on the comment that the addressed text is not clear. But the proposed changes don’t provide a proper correction since NON\_HT\_MODULATION and NON\_HT\_DUP\_OFDM are not valid value of the FORMAT parameter. The addressed issue could be resolved by the resolution for CID 19143.  **Instruction to TGbd Editor:**  Please implement the proposed modification as the resolution to CID 19143. |

**References:**

1. **IEEE P802.11be/D4.0, Jul 2023.**