IEEE P802.11  
Wireless LANs

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| CR for 11be D1.0 | | | | |
| Date: 2020-07-22 | | | | |
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Abstract

This submission proposes text changes of TGbe Draft 1.0 for CIDs:

4666

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Revisions:

* Rev 0: Initial version of the document.
* Rev 1: CID 8146 is transferred to Bo.
* Rev 2: updated to solve the comments received in the CC.

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGbe Draft 1.01. 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.***

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| **CID** | **Clause Number** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 4666 | 36.3.22 | 547.62 | indicates a HE-PPDU | "indicates an HE-PPDU" (i.e. from an aitch-ee- PPDU). Perform a case-sensitive search for "a HE" throughout the draft since 3 instances in total have crept in. | Accepted |
| 4913 | 36.3.21 | 543.23 | In figure 36-80, change Code OFDM with Coded OFDM. | As in comment | Accepted  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 4913. |
| 6096 | 36.3.21 | 543.21 | Incorrect legend for EHT-SIG | Remove "BPSK, rate 1/2" line below EHT-SIG symbol | Accepted  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 6096. |
| 6151 | 36.3.21 EHT transmit procedure | 543.23 | "Code" should be "Coded". Five typos. | "Code" should be "Coded". | Accepted  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 6151. |
| 6819 | 36.3.22 | 547.12 | Text in block "Detect SIG for non-HT, HT, VHT and HE". HE is not detected in that block. | Detect SIG for non-HT, HT and VHT | Accepted  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 6819. |
| 6820 | 36.3.22 | 547.32 | In block following E1: "Set PHY\_CCA indication() in accordance with 36.3.19.6", Section 36.3.19.6 not found |  | Revised  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 6820. |
| 6821 | 36.3.22 | 547.38 | In block following E2: Reference to incorrect Equation 36-105 and 3Equation 36-104 | Should be Equation 36-108 and Equation 36-109 | Revised  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 6821. |
| 6908 | 36.3.22 | 548.34 | "the LENGTH field value in L-SIG is a not a multiple of three" should be "the LENGTH field value in L-SIG is not an multiple of three" | As in comment | Revised  TGbe editor please change the concerned sentence as “the LENGTH field value in L-SIG is not a multiple of three” |
| 6912 | 36.3.22 | 547.13 | "and HE" in "Detec SIG for non-HT, HT, VHT and HE" should be removed since HE PPDU carries RL-SIG as well. | As in comment | Revised-  Resolved in CID 6819 |
| 7270 | 36.3.21 | 543.16 | Figure 36-80: scrambling and encoding should not include post-FEC padding | Correct figure | Reivsed  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 7270. |
| 7271 | 36.3.21 | 543.16 | Figure 36-81: scrambling and encoding should not include post-FEC padding | Correct figure | Revised  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 7271. |
| 7272 | 36.3.21 | 544.01 | "The transmit procedure for NON\_HT, HT\_MF, HT\_GF, VHT, and HE formats are specified in 36.2.6". 36.2.6 does not describe transmit pocedures. May be better to refer to 27.3.21. | See comment | Revised  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 7272. |
| 7273 | 36.3.21 | 544.16 | There is no mention of the signal PHY-TXSTART.confirm() in transmit procedure description. It is shown in Figure 36-80. | Add description. | Revised  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 7273. |
| 7274 | 36.3.21 | 544.29 | "The SERVICE field and PSDU are encoded as described in 36.3.6 (Transmitter block diagram).". The paragrah above already mentions coding. Also, 36.3.6 doesn't seem related to SERVICE field or PSDU. | Delete "The SERVICE field and PSDU are encoded as described in 36.3.6 (Transmitter block diagram)." | Revised  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 7274. |
| 7275 | 36.3.22 | 547.16 | Figure 36-85: "CRC Fail" coming out of "SIGCombine L-SIG and RL-SIG.". There is no CRC in L-SIG. | Replace with "Rate and Parity check fails" | Revised  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 7275. |
| 7276 | 36.3.22 | 549.33 | Change "If the CRC checks in U-SIG valid" to "If the CRC check in U-SIG is valid" | See comment | Accepted |
| 7277 | 36.3.22 | 549.33 | Change "each indicates" to "all indicate" | See comment | Accepted |
| 7278 | 36.3.22 | 549.39 | "If the received PPDU is EHT MU PPDU, ..." is in bold. | Change to normal font | Accepted |
| 7279 | 36.3.22 | 549.39 | "If the received PPDU is EHT TB PPDU, ..." is in bold. | Change to normal font | Accepted |
| 7280 | 36.3.22 | 550.50 | PHY-RXEND.indication(NoError, RXVECTOR) signal shown in Figure 36-83 and 36-84 is not explained or mentioned in the text. | Add description. | Revised  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 7280. |
| 8143 | 36.3.21 | 543.23 | delete the BPSK below EHT-SIG in Figure 36-80. modulation level should be BPSK, QPSK and 16QAM depending on a value of EHT-SIG-MCS field. | as in comment | Revised-  Resolved in CID 6096 |
| 8144 | 36.3.21 | 543.48 | add UL EHT-MCS indicated in EHT variant User Info field format in Trigger frame after Coded OFDM | as in comment | Revised-  TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 8144. |
| 8145 | 36.3.21 | 544.26 | NUM\_NSTS should be NUM\_STS as in Table 36-1 | as in comment | Accepted |
| 8147 | 36.3.22 | 546.49 | add UL EHT-MCS indicated in EHT variant User Info field format in Trigger frame after Coded OFDM | as in comment | Revised-  MCS is indicated by local MAC via PHY-Trigger.Req(). TGbe editor please refer to the changes in DCN 1227r2 under heading that include CID 8147. |
| 8148 | 36.3.22 | 547.40 | Equation (36-105) and Equation (36-104) are wrong references. Correct it. | as in comment | Revised-  Resolved in CID 6821 |
| 8149 | 36.3.22 | 548.44 | PHY version identifier should be PHY Version Identifier field to improve the text | as in comment | Accepted |
| 8150 | 36.3.22 | 550.29 | what equation should be used among between (36-109) and (36-108) is not clear. Equation (36-108) should be used in case Equation (36-109) is not valid because values in Equation (36-109) are not valid. This rule which applied to 11ax should be applied to 11be. take a look at the form of TXTIME in Equation (36-110) | as in comment | Rejected-  The rule here is the same as 11ax. The two equations are clarified both in text and state machine. |

**Proposed changes for CID 4913,6096,6151,7270:**

*To the TGbe Editor:* **replace “Figure 36-80—PHY transmit procedure for an EHT MU PPDU” with the figure below.**



**Proposed changes for CID 7271,8144:**

*To the TGbe Editor:* **replace “Figure 36-81—PHY transmit procedure for an EHT TB PPDU” with the figure below.**



**Proposed changes for CID 6819, 6820, 6821,7275**

*To the TGbe Editor:* **replace “Figure 36-85—PHY receive state machine” with the figure below.**



**Proposed changes for CID 7272:**

*To the TGbe Editor: Change P.L. 566.01 as following:*

NOTE 2—The transmission of NON\_HT, HT\_MF, HT\_GF, VHT, and HE formats is specified in 36.2.6  
(Support for non-HT, HT, VHT, and HE formats).

**Proposed changes for CID 7273:**

*To the TGbe Editor: change P.L. 566.4 as following:*

In all options, in order to transmit data, the MAC generates a PHY-TXSTART.request primitive, which  
causes the PHY entity to respond with a PHY-TXSTART.confirm primitive and enter the transmit state. Further, the PHY is set to operate at the appropriate frequency through station management via the PLME, as specified in 36.4.

**Proposed changes for CID 7280:**

*To the TGbe Editor: change P.L. 572.45 as following:*

After the reception of the final bit of the last PSDU octet, and possible padding and tail bits, the PHY entity shall check whether packet extension and/or signal extension is applied. If packet extension and/or signal extension is applied, the PHY entity shall wait until the packet extension and/or signal extension expires before issuing a PHY-RXEND.indication

(NoError, RXVECTOR) and returning to the RX IDLE state, as shown in Figure 36-85

*In addition, change P.L. 571.56 as following:*

If the CRC in the Common field of EHT-SIG is valid, the PHY entity shall search for intended  
STA-ID in each User field. If an intended STA-ID is detected in a user block field or in the first encoding block of EHT-SIG (STA-ID can be present in the first encoding block of EHT-SIG only if the PPDU type and compression mode and UL/DL indicate a DL non-OFDMA transmission) with valid CRC, and an unsupported mode or a Validate EHT-SIG indication is not indicated, the PHY entity shall continue receiving the EHT-STF right after the EHT-SIG.

**Proposed changes for CID 8147**

*To the TGbe Editor:* **replace “Figure 36-84—PHY receive procedure for an EHT TB PPDU” with the figure below.**



***Proposed changes for CID 7274:***

***P.L. 566.30***

After the PHY preamble transmission is started, the PHY entity immediately initiates scrambling and  
encoding of the SERVICE field and PSDU. The encoding method for the Data field is based on the FEC\_CODING, CH\_BANDWIDTH, NUM\_NSTS, MCS, and NUM\_USERS parameters of the TXVECTOR, as described in 36.3.4 (EHT PPDUformats).  
The data  
shall be exchanged between the MAC and the PHY through a series of PHY-DATA.request(DATA)  
primitives issued by the MAC, and PHY-DATA.confirm primitives issued by the PHY. PHY padding bits are  
appended to the PSDU to make the number of bits in the coded PSDU an integral multiple of the number of  
coded bits per OFDM symbol.

***In addition, change the following:***

***P.L. 571.43***

If the CRC in the Common field of EHT-SIG is valid, for all supported modes, unsupported modes and Validate indication, the PHY entity shall maintain PHY-CCA.indication(BUSY, channellist) primitive for the predicted duration of the transmitted PPDU, as defined by RXTIME in Equation (36-109)(#2624), unless it receives a PHY-CARESET.request primitive before the end of the PPDU for instance during spatial reuse operation as described in 35.9 (Spatial reuse operation). A Validate EHT-SIG indication is defined as a field value of a subfield either in the EHT-SIG common field or in the receiver’s own user field being set to a Validate state.