IEEE P802.11
Wireless LANs

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| SB0 Comment Resolutions for CID 8037/8155/8160/8165  |
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Abstract

This submission provides Sponsor Ballot CID resolutions contained in multiple sections of Clause 24 TGah Draft 5.0.

CIDs: 8037, 8155, 8160, 8165

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| --- | --- | --- | --- | --- | --- |
| **CID** | **Pg/Ln** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 8037 | 387/46 | 24.1.4 | "An S1G MU PPDU carries one or more PSDUs to one or more STAs and shall only be an S1G\_LONG PPDU." -- "shall only" is ambiguous. Also "only" is unnecessary here. | Replace cited text with: "An S1G MU PPDU carries one or more PSDUs to one or more STAs and shall be an S1G\_LONG PPDU." | Accepted |
| 8155 | 437/40 |  | the "Coding" field is not really a field, but a collection of two bits.The fact that the description of and references have to talk about "B17" of the Coding field (or is that B0?) highlight this fact. | Change into two one-bit fields and update references. | Revised |
| 8160 | 460/4 |  | "Set to 1 to indicate traveling pilots usage in packet." But the field is called "Doppler". The name does not express its function. | Rename the field to "Traveling pilots". | Accepted |
| 8165 | 488/1 |  | "shall be a conformant OFDM signal, unsynchronized with thesignal in the channel under test, and shall have a minimum duty cycle of 50%. For a conforming OFDM " -- but it is not \*the\* OFDM PHY (802.11a). We are resolving the same comment on REVmc on HT and VHT text, which this has faithfully copied. | Replace OFDM with S1G (twice).Do the same at the bottom of page 488. | Accepted |

**Discussion:**

For CID 8155, the comment makes sense that the “Coding sub-field” is combining legacy “Coding sub-field” and the indication especially for LDPC extra symbol. Since the addressed issue exists not only in the description of long preamble but also in that of the short preamble and 1M PPDU preamble , I suggest to modify all these texts and text referring to Coding sub-field to keep the spec text consistent.

*Please TGah editor to replace Figure 24-7 – SIG-1 structure in ln29/pg436 in 802.11ah spec D5.0 with below figure:*

 B0 B1 B2 B3 B4 B5 B6 B7 B15 B16 B17 B18 B19 B22 B23

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Reserved | STBC | Uplink Indication | BW | Nsts | ID | SGI | Coding | LDPC Extra | MCS | Smoothing |

**Figure 24-7 – SIG-1 structure**

*Please TGah editor to modify the text in ln40/pg437 in Table 24-11 – Fields in the SIG field of short preamble in 802.11ah spec D5.0 as below:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Symbol** | **Bit** | **Field** | **Number of bits** | **Description** |
| SIG-1 | … | … | … | … |
| B17 ~~– B18~~ | Coding | 1~~2~~ | ~~B17 s~~Set to 0 for BCC and 1 for LDPC~~If B17 is 1, B18 is set to 1 if the LDPC PPDUC encoding process (of an SU PPDU), results in an extra OFDM symbol (or symbols) as described in 22.3.10.5.4 (LDPC coding), otherwise set to 0.~~~~If B17 is 0, B18 is reserved and set to 1.~~ |
| B18 | LDPC Extra | 1 | If Coding field is 1, set to 1 if the LDPC PPDUC encoding process (of an SU PPDU), results in an extra OFDM symbol (or symbols) as described in 22.3.10.5.4 (LDPC coding), otherwise set to 0.If Coding field is 0, this field is reserved and set to 1. |
| … | … | … | … |

*Please TGah editor to replace Figure 24-11 – SIG-A-1 structure for SU PPDU in ln15/pg444 in 802.11ah spec D5.0 with below figure:*

 B0 B1 B2 B3 B4 B5 B6 B7 B15 B16 B17 B18 B19 B22 B23

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MU/SU | STBC | Uplink Indication | BW | Nsts | ID | SGI | Coding | LDPC Extra | MCS | Beam-Change/ Smoothing Indication |

**Figure 24-11 – SIG-A-1 structure for SU PPDU**

*Please TGah editor to modify the text in ln37/pg445 in Table 24-14 – Fields in the SIG-A field of S1G\_LONG preamble SU PPDU in 802.11ah spec D5.0 as below:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Symbol** | **Bit** | **Field** | **Number of bits** | **Description** |
| SIG-A-1 | … | … | … | … |
| B17 ~~– B18~~ | Coding | 1~~2~~ | ~~B17 s~~Set to 0 for BCC and 1 for LDPC~~If B17 is 1, B18 is set to 1 if the LDPC PPDUC encoding process (of an SU PPDU), results in an extra OFDM symbol (or symbols) as described in 22.3.10.5.4 (LDPC coding), otherwise set to 0.~~~~If B17 is 0, B18 is reserved and set to 1.~~ |
| B18 | LDPC Extra | 1 | If Coding field is 1, set to 1 if the LDPC PPDU encoding process (of an SU PPDU), results in an extra OFDM symbol (or symbols) as described in 22.3.10.5.4 (LDPC coding). Set to 0 otherwise. |
| … | … | … | … |

*Please TGah editor to replace Figure 24-16 – Structure of the 6 symbol SIG field of S1G\_1M PPDU in ln48/pg458 in 802.11ah spec D5.0 with below figure:*

 B0 B1 B2 B3 B4 B5 B6 B7 B10 B11 B12 B20 B21 B22 B23 B24 B25 B26 B29 B30 B35

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Nsts | SGI | Coding | LDPC Extra | STBC | reserved | MCS | Aggregation | Length | Response Indication | Smoothing | Doppler | NDP Indication | CRC | Tail |

**Figure 24-11 – SIG-A-1 structure for SU PPDU**

*Please TGah editor to modify the text in ln17/pg459 in Table 24-18 – Fields in the SIG field of S1G\_1M PPDU in 802.11ah spec D5.0 as below:*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Symbol** | **Bit** | **Field** | **Number of bits** | **Description** |
| SIG-A-1 | … | … | … | … |
| B3 ~~– B4~~ | Coding | 1~~2~~ | ~~B3 s~~Set to 0 for BCC and 1 for LDPC~~If B17 is 1, B18 is set to 1 if the LDPC PPDUC encoding process (of an SU PPDU), results in an extra OFDM symbol (or symbols) as described in 22.3.10.5.4 (LDPC coding), otherwise set to 0.~~~~If B17 is 0, B18 is reserved and set to 1.~~ |
| B4 | LDPC Extra | 1 | If Coding field is 1, set to 1 if the LDPC PPDU encoding process (of an SU PPDU), results in an extra OFDM symbol (or symbols) as described in 22.3.10.5.4 (LDPC coding), Set to 0 otherwise. |
| … | … | … | … |

*Please TGah editor to modify the text in ln60/pg463 in clause 24.3.9.4.4.2 Padding for LDPC in 802.11ah spec D5.0 as below:*

In both cases, if *N*SYM *> N*SYM, init, the ~~second bit in Coding or Coding-I~~ LDPC Extra subfield of SIG field or SIG-A field shall be set to 1 (see 24.3.8.2.1.4 (SIG definition), 24.3.8.2.2.1.5 (SIG-A definition), and 24.3.8.3.4 (SIG definition)).

*Please TGah editor to modify the text in ln4/pg502 in clause 24.3.19 PHY receive procedure in 802.11ah spec D5.0 as below:*

where

LENGTH is the value indicated by the LENGTH subfield of SIG or SIG-A field

LDPC Extra OFDM Symbol is the value indicated by ~~Coding[1]~~LDPC Extra subfield in SIG or SIG-A field

STBC is the value indicated by the STBC subfield in SIG or SIG-A field