IEEE P802.11
Wireless LANs

|  |
| --- |
| TGba D1.0 Comment Resolutions for Sec. 32.2.10 (WUR FDMA PPDU Padding) |
| Date: 2019-01-14 |
| Author(s): |
| Name | Affiliation | Address | Phone | Email |
| Rui Cao | Marvell  | 5488 Marvell Ln, Santa Clara, CA 95054 | 408-222-0975 | ruicao@marvell.com |

Abstract

This submission proposes resolutions for comments received on FDMA Padding of TGba D1.0. The following is the list of CIDs:

* 200, 268, 678, 679, 838

***CIDs for Clause 32.2.10***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **Page.Line** | **Comment** | **Proposed Change** | **Resolution** |
| 200 | 32.2.10 | 84.65 | Need to add definitions to many variables in equation 32-6, like TSymiBW, etc. | as in the comment | Revised.The variables are defined in 32.3.1. Move the definition to 32.2.10.TGba editor to make the changes shown in 11-19/0015r0. |
| 268 | 32.2.10 | 84.63 | BPSK-Mark was defined as repeated L-SIG. As in 11ax, use "RL-SIG" instead of "BPSK-Mark". | Change "r\_BPSK-Mark" to "r\_RL-SIG" in Equation 32-6. | Accepted. |
| 678 | 32.2.10 | 84.55 | The text reads "The FDMA padding waveform is generated by repeating the MC-OOK waveform of HDR information bit 1." This is informative text. It should be normative since the padding bits have been chosen to minimize false detections by other WURs | Change "is" to "shall be" in the text: "The FDMA padding waveform shall be generated by repeating the MC-OOK waveform of HDR information bit 1." | Accepted. |
| 679 | 32.2.10 | 84.55 | The text reads "The phase and CSD randomization needs to continue in WUR FDMA Padding field." There is no support for CSD randomization in the spec. This sentence refers to the symbol randomizer 32.2.3.4, and therefore it should refer explicitly to that subclause. | Change the sentence to "The symbol randomizer 32.2.3.4 shall to be used for the WUR FDMA padding field." | Revised.As symbol randomizer is not mandatory for WUR, change to “should” instead of “shall”.TGba editor to make the changes shown in 11-19/0015r0. |
| 838 | 32.2.10 | 84.52 | I think we mean WUR FDMA PPDU padding field. | As in comment. | Revised.TGba editor to make the changes shown in 11-19/0015r0. |

**Discussion:**

Since the variable definition of Eq. (32-6) in Sec. 32.2.10 is defined in later equation Eq. (32-11) in Sec. 32.3.1, make the corresponding changes in both sections.

*TGba Editor: Please make the following changes (in red) in Section 32.2.10 WUR FDMA padding and 32.3.1 TXTIME and PSDU length calculation of D1.0:*

* WUR Padding field for FDMA PPDU

For WUR FDMA PPDU, if padding is needed on any 20MHz sub-channels, the padding waveform shall be generated by repeating the MC-OOK waveform of HDR information bit 1. The symbol randomizer as described in 32.2.3.4 (Symbol Randomizer) should be used in the padding field continued from the WUR-Data field.

For a non-punctured WUR FDMA 20MHz subchannel, , the number of padding HDR bits is calculated as:

where

is the index of occupied 20MHz sub-channel, , and is the number of 20 MHz subchannels in the bandwidth indicated by dot11CurrentChannelWidth.

and are and defined in Table 32-3 (Timing-related constants) for 20MHz sub-channel .

is the number of OOK symbols in the WUR-Data field for 20MHz sub-channel . It is a function of the length of WUR MAC frame in the WUR-Data field (WUR\_MPDU\_LENGTH) for 20MHz sub-channel and *N*SPDB as defined in Equation (32-8).

* WUR PLME
* TXTIME and PSDU length calculation

The value of the TXTIME parameter shall be calculated for a WUR PPDU as follows:

*

where

TL-STF, TL-LTF, TL-SIG, , TWUR-Sync, and TSym are defined in Table 32-3 (Timing-related constants), and NSym is the number of OOK symbols in the WUR-Data field.

For the FDMA transmission, the value of the TXTIME and PSDU\_LENGTH for each WUR transmission in a 20 MHz sub-channel shall be calculated according to the longest WUR transmissions among all 20 MHz sub-channels.

The value of the TXTIME parameter for WUR FDMA transmission shall be calculated as follows:

where

 is the set of 20MHz sub-channels that are occupied.

, and are defined in 32.2.10 (WUR padding field for FDMA PPDU)