IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Resolution-to-some-XDMG-CIDs | | | | |
| Date: 2020-06-21 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Assaf Kasher | Qualcomm |  |  | akasher@ati.qualcomm.com |
|  |  |  |  |  |

Abstract

This document proposes resolution to some SB1 CIDs. The resolutions are based on D3.3

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 4238 | 3132.00 | 20.9.2.2.3 | "A value of 0 in the PPDU Type(#1379) field and a value of 0 in the Beam Tracking Request field indicate a  BRP-RX PPDU(#1379)." is not clear. It might mean that either condition makes a PPDU into a BRP-RX PPDU, or that both conditions need to be met | Change to "A value of 0 in both the PPDU Type(#1379) field and the Beam Tracking Request field indicates a  BRP-RX PPDU(#1379)." | Accept |
| 4239 | 3132.00 | 20.9.2.2.3 | "A value of 0 in the PPDU Type(#1379) field and a value of 0 in the Beam Tracking Request field indicate a  BRP-RX PPDU(#1379)." is not clear. It might mean that either condition makes a PPDU into a BRP-RX PPDU, or that both conditions need to be met | Change to "A value of 0 in both the PPDU Type(#1379) field indicates a  BRP-RX PPDU(#1379). A value of 0 in the Beam Tracking Request field indicates a  BRP-RX PPDU(#1379)." | Revise: Change to "A value of 0 in both the PPDU Type(#1379) field and the Beam Tracking Request field indicates aBRP-RX PPDU(#1379)." |

***Editor: in P3126L28 change the text as follows:***

A value of 0 in both the PPDU Type(#1379) field and the Beam Tracking Request field indicates a BRP-RX PPDU(#1379).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 4463 | 3097.00 | 20.3.5.1 | "Tc (SC)" -- the "(SC)" is spurious | Delete the "(SC)". Also at 3462.61 | **Revise** |

Discussion

The correct resolution is to accept, however there are other issues in table 20-4

***Editor: Modify the following lines in table 20-4 (P3089)***

|  |  |
| --- | --- |
| Parameter | value |
| *Fc*: chip rate | 1760 MHz |
| *Tc*: chip time | (#4504) 1 / *Fc* (~0.57 ns) |
| *Tseq* | (#4504) 128 × *Tc* (~72.7 ns) |
| *TSTF*: Detection sequence duration | (#4504) 17× *Tseq* (~1236 ns) |
| *TCE*: Channel Estimation sequence duration | (#4504) 9 × *Tseq* (~655 ns) |
| *THEADER*: header duration | (#1180) 2 × aSCBlockSize × *Tc* (~0.582 μs)  (#2018)NOTE—aSCGIBlockSize is defined  in Table 20-30 (DMG PHY characteristics) |
|  |  |
|  |  |
| (#1348)*TSTF-CM*: control mode short training field duration | (#4504) 50 × *Tseq* (~3.636 μs) |
| (#1348)*TCE-CM*: control mode channel estimation field duration | (#4504) *TCE* (~655 ns) |
| *TData* | (#1180)(*NBLKS* × aSCBlockSize +  aSCGILength) × *Tc*  NOTE—*NBLKS* is defined in 20.5.3.2.3.3  (LDPC encoding process) (#1180)and  aSCBlockSize and aSCGILength are defined  (#4504)in Table 20-30 (DMG PHY  characteristics). |

***Editor: Modify the following lines in table 24-4 (P3468):***

|  |  |
| --- | --- |
| *NGI* | 64 |
| *NSPB* | 448 |
| *Fc*: chip rate | 880 MHz |
| *Tc*: chip time | 1 / *Fc* (~1.14 ns) |
|  |  |
| *Tseq* | 128 × *Tc* (~146 ns) |
| *TSTF:* Detection sequence duration | 18 × *Tseq* (~2618.2 ns) |
| *TCE:* Channel estimation sequence duration | 9 × *Tseq* (~1309.1 ns) |
| *THEADER*: header duration | 3 × 512 × *Tc* (~1.75 μs) |
| *~~F~~~~CCP~~~~:~~* ~~Control mode chip rate~~ | ~~880 MHz~~ |
| *~~T~~~~CCP~~~~:~~* ~~Control mode chip time~~ | ~~1.14 ns = 1/~~*~~FCP~~* |
| *TSTF-CP:* Control mode short training field duration | 50 *× Tseq* (~7.2727 μs) |
| *TCE-CP:* Control mode channel estimation field duration | *TCE* (~1309.1 ns) |
| *TData* | (*NBLKS* × aSCBlockSize + aSCGILength) × *Tc*  NOTE—*NBLKS* is defined in 20.5.3.2.3.3  (LDPC encoding process) and  aSCBlockSize and aSCGILength are defined  (#4504)in Table 20-30 (DMG PHY  characteristics). |

***Editor Modify the following lines in table 25-3 (and add one line -******NDFT)***

|  |  |  |  |
| --- | --- | --- | --- |
| *TS* | 1/ *FS* (~1.515 ns) | 1/ *FS* (*~*0.758 ns) | OFDM sample time |
| *FC* | 440 MHz = 2/3 *FS* | 880 MHz = 2/3 *FS* | SC chip rate |
| *TC* | 1/ *FC* (~2.273 ns) | 1/ *FC*(~1.136 ns) | SC chip time |
| *NDFT* | 256 | 512 | DFT length |
| *ΔF* | *FS* / *NDFT* = 2.578125 MHz | | Subcarrier frequency spacing |
| *TDFT* | *NDFT ×TS* (~387.879 ns) | | IDFT/DFT period |
| *TGI* | *TDFT* /4 (~96.97 ns) | | Guard interval duration |
| *TGIS* | *TDFT* /8 (~48.485 ns) | | Short guard interval duration |
| *TSYML* | *TDFT* + *TGI* = 1.25 *TDFT* (#2126) (~484.8 ns) | | Long GI symbol interval |
| *TSYMS* | *TDFT* + *TGI* = 1.125 *TDFT* (#2126) (~436.4 ns) | | Short GI symbol interval |
| *(#2025)TSYM* | (#2126) *TSYML* or *TSYMS* depending on the GI used | | Symbol interval |
| *Tseq* | 256 *TC* (~581.8 ns) | | ZCZ block duration |
| *TCSTF* | 14 *Tseq* (~8145.5 ns) | | Short training field duration for  control mode |
| *TSTF* | 14 *Tseq* (~8145.5 ns) | | Short training field duration *n*  for SC/OFDM mode |
| *TCEF* | 4 *Tseq* (~2327.3 ns) | | Channel estimation field  duration |
| *TSIG* | 4 *Tseq* (~2327.3 ns) | | SIGNAL field duration |
| *TOSTF* | *TSYMS* (~484.8 ns) | | Duration of each OSTF |
| *TOCEF* | *TSYMS* (~484.8 ns) | | Duration of each OCEF |

***Editor: change P3534L46 as follows:***

estimation in a MIMO transmission. The duration of the OSTF is TOSTF regardless of the Short GI field

***Editor: change P3434L28 (formula) as follows:***

is defiend in 25.3.4.4 (Definitions of tone rotations for OFDM mode transmission)

***Editor: Make the same change (replacing lower case gamma () with upper case in the following locations: P3537L54***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 4692 | 20 | CID 2036 follow-up, are the 128s in Figures 20-4/8 correct | As it says in the comment | Reject – they are correct |
| 4693 | 24 | CID 2036 follow-up, are the 128s in Figures 24-2/5 correct? | As it says in the comment | Reject – they are correct |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 4714 | 3504.00 | 25.3.9.1 | Table 25-7---Fields in the CMMG SIG field needs the same changes as made under CID 1351. However Assaf reports that it "requires (a lot of) more work because the scrambling is not mentioned in the encoding process." | Ask Assaf to kindly to the more work | Revise |

***Editor: make the following changes to table 25-7***

|  |  |  |  |
| --- | --- | --- | --- |
| **Bit** | **Fields** | **Number**  **of bits** | **Description** |
| B0–B6 | Scrambler Initialization | 7 | Bits X1-X7 of the initial scrambler state (see 25.3.7). |

**References:**