IEEE P802.11  
Wireless LANs

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| LB234 Misc CIDs | | | | |
| Date: 2018-12-16 | | | | |
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Abstract

This document proposes resolution to several CIDs in LB234.

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| --- | --- | --- | --- | --- |
| 3373 | 347.00 | 29.2.2 | The parameter "EDMG\_BRP\_MIN\_SC\_BLOCKS" is conditioned on EDMG\_TRN\_LEN>0. | for EDMG\_BRP\_MIN\_SC\_BLOCKS, under column "Condition", add "EDMG\_TRN\_LEN>0"  for EDMG\_BRP\_MIN\_SC\_BLOCKS, under column "Value", delete "if EDMG\_TRN\_LEN is greater than 0" and "This parameter is reserved if EDMG\_TRN\_LEN is 0" |

Proposed Resolution: **Accept**

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| --- | --- | --- | --- | --- |
| 3374 | 350.00 | 29.2.2 | DMG\_TRN is conditioned on NUM\_TX\_CHAINS = 1. | for DMG\_TRN, under column Condition, add "NUM\_TX\_CHAINS = 1"  for DMG\_TRN, under column Value, delete "The parameter is valid only when the NUM\_TX\_CHAINS parameter is equal to 1." |

Proposed resolution: **Revised**

**Discussion:**

Its is enough to add the condition on one column. DMG\_TRN is also limited to the case of single channel bonding.

***TGay Editor: Modify the condition column of the DMG\_TRN line of table 43 (TXVECTOR and RXVECTOR parameters) as follows:***

|  |
| --- |
| FORMAT is EDMG,  NUM\_TX\_CHAINS=1, |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3690 | 182.00 | 10.6.7.7 | The list of TXVECTOR constraints for control frames seems not to be complete. | Add e.g. "A STA shall not transmit a Control frame with the TXVECTOR parameter PSK\_APPLIED set to PSK\_APPLIED or LDPC\_SUPERIMPOSED set to 0" |

Proposed Resolution**: Revised**

**Discussion:**

With the exception of the Block Ack Schedule, all control frames are transmitted using EDMG MCSs 1-4, so PSK\_APLLIED or LDPC\_SUPERIMPOSED are not relevant, as is NUC\_APPLIED, so we proposed to remove the NUC\_APPLIED sentence.

***TGay Editor: remove P182L22 as follows:***

***TGay Editor: Add the following text at the end of 10.6.7.2***

The rules in this subclause and in subclause 10.6.7.7 do not apply to Block Ack Schedule frames carried within an A-MPDU. The rate selection rules that apply to a BlockAck Scehdule frame are those applying to Data frames (see 10.6.7.4).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3032 |  |  | Transmit and Receiver specifications in IEEE 802.11-2016 need to updated with 11ay specifications. | Add a commented |

Proposed Resolution: **Reject**

**Discussion:**

It is not clear what is missing, 11ay has the right requirements for RX and TX (as 11ad has).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3206 | 403.00 | 29.3.8 | It is not specified for how long the signal has to be above the MCS1+20dB for CCA indication busy to be activated | Add a sentence at the of the paragraph saying that the signal should exceed the CCA level for at least aDMGCCAEDDetectTime where aDMGCCAEDDetectTime will be defined as 4usec |

Proposed Resolution: **Revised**

***TGay Editor: Modify P407L5-7 as follows:***

CCA.indication(BUSY) shall be maintained for the duration of the PPDU. The receiver shall issue the PHY-CCA.indication(BUSY) for any signal 20 dB above the minimum sensitivity for a 2.16 GHz PPDU using SC MCS 1 for at least aDMGCCAEDDetectTime.

***TGay Editor: Modify P407L513-15 as follows:***

the PHY-CCA.indication(BUSY,primary/secondary/secondary1/secondary2) for any signal 20 dB above the minimum sensitivity for a 2.16 GHz PPDU using SC MCS 1 at any of the channels (primary/secondary/secondary1/secondary2) the receiver is open to receive in for at least aDMGCCAEDDetectTime.

***TGay Editor: Add the following as a last line to table 153 —EDMG PHY characteristics:***

|  |  |
| --- | --- |
| aDMGCCAEDDetectTime | 4 usec |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3475 | 437.00 | 29.5.9.3 | When dot11MACPrivacyEnabled is equal to true and the MAC address changes, the scrambler needs to be reset. 11aq added "If dot11MACPrivacyActivated is true, the initial state of the scrambler shall be reset when the STA's MAC address is changed." to clause 17 for the OFDM PHY. This change needs to be ported to the 11ay PHY. | Add similar text for 11ay in the most appropriate place. |

Proposed Resolution: **Revised**

**Discussion**

There are some issues with the proposed text. The scrambler is supposed to be initialized to a pseudo-random value, what does reset mean? How does the PHY know that the MAC address have changed? We propose to add a TXVECTOR parameter SCRMABLER\_RESET and a MIB variable dot11ScrmablerResetValue which is implementation dependent. This MIB variable will be defined in 11md, as it needs to cover the same issue in HT PHY.

***TGay Editor: add the following line to the table 43 - Table 43 —TXVECTOR and RXVECTOR parameters:***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SCRAMBLER\_RESET | FORMAT is EDMG or FORMAT is NON\_EDMG | Indicates that the scrambler has to be reset before the start of the PPDU  Enumerated Type:  RESET\_SCRAMBLER: The scrambler has to be reset  NO\_SCRAMBLER\_RESET: The scrambler does not have to be reset. | Y | N |

***TGay Editor: add the following text after P338L1 (beginning of 20 20. Directional multi-gigabit (DMG) PHY specification)***

**20.2.2 TXVECTOR and RXVECTOR parameters**

*Add the following line to Table 20-1—TXVECTOR and RXVECTOR parameters*

|  |  |  |  |
| --- | --- | --- | --- |
| SCRAMBLER\_RESET | Indicates that the scrambler shall be reset before the start of the PPDU  Enumerated Type:  RESET\_SCRAMBLER: The scrambler should be reset  NO\_SCRAMBLER\_RESET: The scrambler should not be reset. | Y | N |

**20.3.9 Scrambler**

*Modify the text in 20.3.9 (3rd paragraph) as follows:*

For each PPDU, the transmitter shall select a nonzero seed value for the scrambler (bits x1 to x7). The seed value should be selected in a pseudorandom fashion. If the SCRAMBLER\_RESET parameter is set to RESET\_SCRAMBLER and dot11MACPrivacyActivated is true, the scrambler seed should be set to dot11ScramblerResetValue. The seed value is sent in the Scrambler Initialization field of the PHY header. Each data bit in the data field of the PPDU is then XORed with the scrambler output (x4 x7) and then the scrambler content is shifted once.

**References:**