IEEE P802.11
Wireless LANs

|  |
| --- |
| LB253 Resolution to some CID set6 |
| Date: 2021-07-02 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Assaf Kasher | Qualcomm |  |  | assaf.kasher@gmail.com |
|  |  |  |  |  |

Abstract

Editor instruction based on D3.1

CIDs resolved: 5148, 5464, 5408, 5418, 5150

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 5148 | 222.00 | 27.2.2 | The "PSDU\_LENGTH" apears twice in table 27-1 with different conditions | select one of the the ways for PSDU\_LENGTH definition | Revise***TGaz Editor:*** *perform changes shown in https://mentor.ieee.org/802.11/dcn/21/11-21-1156-03-00az-lb253-resoluiton-to-cid-set6.docx* |
| 5464 | 222.00 | 27.2.2 | There are two rows for PSDU\_LENGTH in the TX/RXVECTOR table. | Keep only one row for PSDU\_LENGTH | Revise***TGaz Editor:*** *perform changes shown in https://mentor.ieee.org/802.11/dcn/21/11-21-1156-03-00az-lb253-resoluiton-to-cid-set6.docx* |
| 5408 |   | 27.2.2 | There are two parameters in Table 27-1 with the name PSDU\_LENGTH | Remove or combine the two parameters PSDU\_LENGTH | Revise***TGaz Editor:*** *perform changes shown in https://mentor.ieee.org/802.11/dcn/21/11-21-1156-03-00az-lb253-resoluiton-to-cid-set6.docx* |

***TGaz Editor: Delete the two lines of “PSDU LENGTH” from Table 27-1 (page 229)***

***TGaz Editor: Insert the following text after Table 27-1 (P230L3):***

***Editor: Change the line of PSDU\_LENGTH in table 27-1 as follows:***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| PSDU\_LENGTH | FORMAT is HE\_SU, HE\_MU, HE\_ER, HE\_ER\_SU or HE\_TB | Indicates the number of octets in the PSDU in the range of 0 to *aPSDUMaxLength* octets (see Table 27-54). A value of 0indicates an HE sounding NDP, an HE Ranging NDP or an HE TB Ranging NDP. | N | Y |
| Otherwise | See corresponding entry in Table 21-1 (RXVECTOR and RXVECTOR parameters). |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ~~5419~~ | ~~233.00~~ | ~~7~~ | ~~27.3.18d~~ | ~~Need to define some detection requirements for Secure HE-LTF. The system security is determined by both Tx and Rx side. Besides defining a Secure HE-LTF, the detection requirements are also important to meet a certain level of security.~~ | ~~Define secure HE-LTF detection requirements~~ | **~~Reject~~**~~The standard tends not to define Rx requirements except Frame Error Rate (with/without adjacent channels). It is not even clear what is a good Rx performance that can be tested.~~  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 5418 | 237.00 | 27.3.19.2 | The intent of the last sentence in the paragraph was to not measure spectral flatness when the Flat Top window (for improved security) is used at the transmitter. Since nothing has changed for the rectangular window for 802.11ax, i.e., same windowing, 64 QAM, etc. 802.11az are still expected to meet the spectral flatness when the rectangular window is used | Rewrite sentence as follows: "Spectral flatness shall not be measured when the Ranging NDP uses a secure LTF with a frequency domain flat top window. Spectral flatness is shall be measured when the Ranging NDP uses a secure LTF with a frequency domain rectangular window" |  Revise:TGaz Editor: delete subclause 27.3.19.2 and the preceding editor instruction from the draft.Insert the following text: “Editor: Change clause 27.3.21 as follows” at the same place |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ~~5470~~ | ~~238.00~~ | ~~27.3.21~~ | ~~"Transmission of the PHY preamble may start if TIME\_OF\_DEPARTURE\_REQUESTED is false"This does not convey any useful information.Also, "Transmission of the PHY preamble ... shall start immediately if TIME\_OF\_DEPARTURE\_REQUESTED is true".Does this mean we have to transmit even if the channel is busy?~~ | ~~If the intent is to say that transmit even if the channel is busy (which I do not recomment):Change "Transmission of the PHY preamble may start if TIME\_OF\_DEPARTURE\_REQUESTED is false2 and shall start immediately if TIME\_OF\_DEPARTURE\_REQUESTED is true" to"Transmission of the PHY preamble of HE Ranging NDP or HE Ranging TB NDP shall start immediately if TIME\_OF\_DEPARTURE\_REQUESTED is true"If the intent is to still wait for the channel to be idle before transmitting, I don't have suggested text, but the current text seems erroneous.~~ | ~~Revise:~~~~TGaz Editor: delete the text in P247L4-6~~ |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ~~5472~~ | ~~238.00~~ | ~~27.4.3~~ | ~~What is the TXTIME for HE Ranging NDP and HE Ranging TB NDP?~~ | ~~Define TXTIME for HE Ranging NDP and HE Ranging TB NDP.~~ | ~~Revise~~***~~TGaz Editor:~~*** *~~perform changes shown in https://mentor.ieee.org/802.11/dcn/21/11-21-1156-03-00az-lb253-resoluiton-to-cid-set6.docx~~* |
| ~~5375~~ | ~~238.00~~ | ~~27.3.21~~ | ~~TXTIME computation needs to be updated for repetition case and multi-user Secure HE-DL-NDP case, refer to 27.4.3 section in 11ax draft 8.0 for details~~ | ~~as in comment~~ | ~~Revise~~***~~TGaz Editor:~~*** *~~perform changes shown in https://mentor.ieee.org/802.11/dcn/21/11-21-1156-03-00az-lb253-resoluiton-to-cid-set6.docx~~* |

***~~TGaz Editor: Insert the following before clause 28 (P247L29)~~***

**~~27.4.3 TXTIME and PSDU\_LENGTH calculation~~**

***~~Editor: Insert a new after equation (27-136) and the following text as follows:~~***

 ~~TXTIME = 20 +~~ *~~T~~*~~HE-PREAMBLE~~ ~~+~~ *~~N~~~~SYM~~~~T~~~~SYM~~ ~~+ Σ\_m=1^NUMUSR N~~*~~LTF-REP~~*~~N~~~~MA~~~~N~~*~~HE-LTF~~~~(m)~~*~~T~~*~~HE-LTF-SYM~~ ~~+~~ *~~T~~~~PE~~~~+SignalExtension~~*

*~~Where~~*

 *~~T~~*~~HE-PREAMBLE~~ ~~is defined as in Equation (27-121)~~

*~~SignalExtension~~* ~~takes the value of aSignalExtension as defined in Table 27-54~~

*~~N~~*~~LTF-REP~~ ~~is equal to N\_LTF\_REP (see 27.3.18a) for HE ranging NDP and HE TB ranging NDP and set to 1 otherwise~~

~~For an HE sounding NDP, and HE TB feedback NDP, HE ranging NDP and HE TB ranging NDP, there is no Data field and~~ *~~NSYM~~* ~~= 0.~~

***~~TGaz Editor: Change the text in P236L20 (converting N\_HE\_LTF to N~~*~~HE~~*~~\_~~*~~LTF~~*~~)~~***

~~HE-LTF symbols~~ *~~N~~*~~HE\_LTF~~ ~~and the number of LTF repetitions LTF\_REP.~~

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 5150 | 218.00 | 27 | 11az introduces many changes to the clause 27 HE PHY and these changes break the baseline text. For example, many descriptions in 11ax D8.0 27.3.11.10 HE LTF section don't apply to insecure and secure LTF used in the HE ranging NDP and TB Ranging NDPs like LTF repetition, LTF sequene, modulation, pilot, etc. | In the minimum, need to update HE LTF section to highlight which part doesn't apply to the HE-LTF used in ranging NDP and TB Ranging NDPs. May also consider update the 27.1.1 Introduction to PHY to highlight the mandatory/optional support requirement for the ranging NDPs like number of spatial streams to support, number of repetition, suppports of secure LTF, etc. | **REVISED**Resolutions for CID 5473, 5468 and 5474 have already made text updates addressing the issues identified by the commenter.Note to TGaz editor:  No further text changes are required by this CID. |

**References: DraftP802.11az\_D3.1**