IEEE P802.11
Wireless LANs

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| Resolve some PHY TBDs in D0.2  |
| Date: 2020-12-14 |
| Author(s): |
| Name | Affiliation | Address | Phone | Email |
| Bin Tian | Qualcomm |  |  | btian@qti.qualcomm.com |

Abstract

This submission proposes the draft text to resolve some TBDs in TGbe D0.2.

The baseline for this text is 802.11be D0.2

1. **Clarification on 240MHz transmission**

**Discussion**

Current D0.2 does not use the term “240MHz transmission” except in one TBD place. It is common understanding that there is no 240MHz PPDU and 240MHz transmission is achieved through 320MHz with puncturing 80MHz. To avoid confusion, suggest not using 240MHz transmission term in the spec.

**TGbe Editor: please find the proposed changes below in P163 line 34**

The 2´996+484 tone MRU is allowed in non-OFDMA 320 MHz EHT PPDU. The 2´996+484 tone MRU is obtained by puncturing either the 1st or the 4th 996-tone RU in a 320 MHz EHT PPDU and puncturing any one of six 484-tone RUs in the remaining 240 MHz . The data subcarriers of a 2´996+484 tone MRU consist of the data subcarriers of the two 996-tone and 484-tone RUs that make up the 2´996+484 tone MRU

1. **Update on Nsts, Nss**

**Discussion**

It is already motioned that 11be doesn’t support STBC, so we need to replace the term “space-time stream” by “spatial stream” and make corresponding changes to the variable names.

Since 11be doesn’t define SU PPDU, there was a discussion in D0.1 to replace parameter Nss by Nss,u so that many equations for SU and MU can be harmonized. However, there is still a need to define parameter Nss since it denotes the total number of spatial streams across all users.

**TGbe Editor:**

Please also make the following changes

P140L12

|  |  |  |  |
| --- | --- | --- | --- |
| NUM\_STS | FORMAT is EHT\_MU | Indicates the number of spatial streams. Note that the EHT PHY does not support STBC, the terms "space time streams" and "spatial streams" are equivalent in EHT.Integer in the range:1–4 per user per MU-MIMO RU in the TXVECTOR1–4 per MU-MIMO RU in the RXVECTOR1–TBD per RU assigned to no more than 1 user in the TXVECTOR and RXVECTORNUM\_STS summed over all users per RU is not greater than TBD. | MU |
| FORMAT is EHT\_TB | Indicates the number of spatial streams. Integer in therange:1–4 for a MU-MIMO RU1–TBD for an RU assigned to no more than 1 user NUM\_STS summed over all users per RU is not greater than TBD. | Y |
| Otherwise | See corresponding entry in Table 21-1 (TXVECTOR and RXVECTOR parameters) or Table 27-1 (TXVECTOR and RXVECTOR parameters). |

P123L51, P170L18, P170 L20, P170L28, P170L35, P170L45, P182L41, P182L4, P183L59, P200L22, P200L24, P200L26, P225L52 and L55, P240L33, P241L6, L8, L25 and L42, P267 L59, P275L47 and L48, P276L37, P277L10 and L13, Change “space-time streams” to “Spatial streams”

P195L50 Eq36-9 Change “NSTS,r,u” to “NSS,r,u”

P196L2 Eq36-10 Change “NSTS,r,u” to “NSS,r,u”

P196L35to38 Change “NSTS,r,u” to “Nss,r,u” and “NSTS,r,total” to “NSS,r,total”

P198L32 Change “NSTS,r,total” to “NSS,r,total”

P198L41 Change “NSTS,r,u” to “NSS,r,u”

P200L25 and 28 Change “NSTS,r,total” to “NSS,r,total”

P225L53 Change “NSTS” to “NSS”.

P226 L45 and Column header in Table 36-29 Change “NSTS” to “NSS”

P233L27, L34 and L37 Change “NSTS” to “NSS”

P240L15 Change “NSTS,r,total” to “NSS,r,total” and “NSTS,r,u” to “Nss,r,u”

P240L32 Change “NSTS,r,u” to “Nss,r,u”

P240L31 Eq 36-32 NSTS,r,total” to “NSS,r,total” and “NSTS,r,u” to “Nss,r,u”

P241L6 and L11 Change “NSTS,r,total” to “NSS,r,total”

P241L8 Change “NSTS,r,u” to “Nss,r,u”

P241L27 Change “NSTS” to “NSS”

P241L35 Change “NSTS,r,total” to “NSS,r,total”

P241L42 Change “NSTS” to “NSS”

P241L47 Change “NSTS,r,total” to “NSS,r,total”

P275L59 Change “NSTS,r,u” to “Nss,r,u”

P276L6 Change “NSTS,r,u” to “Nss,r,u”

P276L54 Change Change “NSTS” to “NSS”

P292L41 In the test, no beamforming steering matrix shall be used.

**TGbe Editor: please find the proposed changes to table 36-14 Frequently used parameters**

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|  |  |
| , , NSS | Number of spatial streams. For the Data field,  is the number of spatial streams at *r*-th RU or MRU for user *u*, , and  is the number of spatial streams for user *u*, .For the Data field of an EHT PPDU, . |
|  | For EHT modulated fields,  is the total number of spatial streams at *r*-th RU or MRU in a PPDU: .For pre-EHT modulated fields,  is undefined. |
|  | Number of transmit chains. |
|  | The number of OFDM symbols in the EHT-LTF field (see 36.3.11.10 (EHT-LTF)). |
|  | The number of OFDM symbols in the EHT-SIG field (see 36.3.11.8 (EHT-SIG)). |
|  | Set of used subcarrier indices in the *r*-th occupied RU or MRU. |
|  |  is the coding rate for user *u*, . |
|  | The sum of the number of spatial streams of users prior to user *u* in RU or MRU *r*. For pre-EHT modulated fields, . For EHT modulated fields,  for  and (Note to editor, please change Nsts,r,u’ to Nss,r,u’), for . |

1. **Table 36-9 (Timing related constants)**

**TGbe Editor: please find the proposed changes below for Table 36-9 P186L16**

|  |  |  |
| --- | --- | --- |
| *TPE* | 0, 4 µs, 8 µs, 12 µs, 16us or 20 µs depending on the actual extension duration used | Duration of the PE field |

**TGbe Editor: please find the proposed changes below for P188L60**.