### **IEEE P802.11Wireless LANs**

|  |
| --- |
| PDT Additional EHT PHY Capability Signaling  |
| Date: 2021-03-15 |
| Author(s): |
| Name | Affiliation | Address | Phone | Email |
| Steve Shellhammer | Qualcomm |  |  | shellhammer@ieee.org |
| Rui Cao | NXP |  |  | rui.cao\_2@nxp.com |
| Wook Bong Lee | Samsung |  |  | wookbong.lee@samsung.com |
| Junghoon Suh | Huawei |  |  | junghoon.suh@huawei.com |
| Bin Tian | Qualcomm |  |  | btian@qti.qualcomm.com |
| Yan Zhang | NXP |  |  | yan.zhang\_5@nxp.com |
| Bo Gong | Huawei |  |  | gongbo8@hisilicon.com |
| Genadiy Tsodik | Huawei |  |  | genadiy.tsodik@huawei.com |
| Mengshi Hu | Huawei |  |  | humengshi@huawei.com |

**Introduction**

This document provides proposed draft text for Subclause 9.4.2.295c.1 EHT PHY Capabilities Information field, in IEEE 802.11be D0.5.

***TGbe editor: Please modify the Reserved Bits in Figure 9-788el—EHT PHY Capabilities Information field format as shown below:***

|  |  |
| --- | --- |
|  | B57 B63 |
|  | Reserved |
| Bits: | 7 |

***TGbe editor: To the following as shown below:***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | B57 | B58 | B59 | B60 | B61 | B62 | B63 |
|  | Non-OFDMAUL MU-MIMO(BW ≤ 80 MHz) | Non-OFDMAUL MU-MIMO(BW = 160 MHz) | Non-OFDMAUL MU-MIMO(BW = 320 MHz) | MU Beamformer(BW $\leq $ 80 MHz) | MU Beamformer(BW = 160 MHz) | MU Beamformer(BW = 320 MHz) | Reserved |
| Bits: | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

***TGbe editor: Please add the following rows to the end of Table 9-322ao—Subfield of the EHT PHY Capabilities Information field as shown below:***

|  |  |  |
| --- | --- | --- |
| **Subfield** | **Definition** | **Encoding** |
| Non-OFDMA UL MU-MIMO(BW $\leq $ 80 MHz) | For an AP, indicates support for non-OFDMA UL MU-MIMO reception of an EHT TB PPDU, for PPDU bandwidths of 20, 40 and 80 MHz (UL MU-MIMO). | For an AP STASet to 0 if not supported.Set to 1 if supported.If the maximum number of spatial streams indicated for reception, for any MCS, in the Supported MCS and Nss Set Field, for (BW $\leq $ 80 MHz, Excluding 20 MHz-Only STAs) is greater or equal to four, then set to 1.Reserved for a non-AP STA. |
| Non-OFDMA UL MU-MIMO(BW = 160 MHz) | For an AP, indicates support for non-OFDMA UL MU-MIMO reception of an EHT TB PPDU, for PPDU with bandwidth of 160 MHz (UL MU-MIMO). | For an AP STASet to 0 if not supported.Set to 1 if supported.If the maximum number of spatial streams indicated for reception, for any MCS, in the Supported MCS and Nss Set Field, for (BW = 160 MHz) is greater or equal to four, then set to 1.Reserved for a non-AP STA. |
| Non-OFDMA UL MU-MIMO(BW = 320 MHz) | For an AP, indicates support for non-OFDMA UL MU-MIMO reception of an EHT TB PPDU, for PPDU with bandwidth of 320 MHz (UL MU-MIMO). | For an AP STASet to 0 if not supported.Set to 1 if supported.If the maximum number of spatial streams indicated for reception, for any MCS, in the Supported MCS and Nss Set Field, for (BW = 320 MHz) is greater or equal to four, then set to 1.Reserved for a non-AP STA. |
| MU Beamformer(BW $\leq $ 80 MHz) | For an AP, indicates the support for non-OFDMA DL MU-MIMO transmission and the required MU sounding, for PPDU bandwidths of 20, 40 and 80 MHz. | For an AP STASet to 0 if not supported.Set to 1 if supported.If the maximum number of spatial streams indicated for transmission, for any MCS, in the Supported MCS and Nss Set Field, for (BW $\leq $ 80 MHz, Excluding 20 MHz-Only STAs) is greater or equal to four, then set to 1.Reserved for a non-AP STA. |
| MU Beamformer(BW = 160 MHz) | For an AP, indicates the support for non-OFDMA DL MU-MIMO transmission and the required MU sounding, for PPDU bandwidth of 160 MHz. | For an AP STASet to 0 if not supported.Set to 1 if supported.If the maximum number of spatial streams indicated for transmission, for any MCS, in the Supported MCS and Nss Set Field, for (BW = 160 MHz) is greater or equal to four, then set to 1.Reserved for a non-AP STA |
| MU Beamformer(BW = 320 MHz) | For an AP, indicates the support for non-OFDMA DL MU-MIMO transmission and the required MU sounding, for PPDU bandwidth of 320 MHz. | For an AP STASet to 0 if not supported.Set to 1 if supported.If the maximum number of spatial streams indicated for transmission, for any MCS, in the Supported MCS and Nss Set Field, for (BW = 320 MHz) is greater or equal to four, then set to 1.Reserved for a non-AP STA |

***TGbe editor: Please modify the MU Beamformer entry of Table 9-322ao — Subfields of the EHT PHY Capabilities Information field, as shown below:***

|  |  |  |
| --- | --- | --- |
| **Subfield** | **Definition** | **Encoding** |
| MU Beamformer | Indicates support for operation as an MU beamformer. | For an AP:Set to 0 if not supported.Set to 1 if the SU Beamformer field is 1 and operation as an MU beamformer is supported.Set to 0 for a non-AP STA.NOTE— Set to 1 if any of following subfields, MU Beamformer (BW <= 80 MHz), MU Beamformer (BW = 160 MHz), MU Beamformer (BW = 320 MHz), is 1 . |