IEEE P802.11
Wireless LANs

|  |
| --- |
| 11be D2.0 Comment Resolution for CID 11852, 13453 |
| Date: December 2022 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Li-Hsiang Sun | MediaTek |  |  |  |
| Frank Hsu |  |  |  |  |
| James Yee |  |  |  |  |

Abstract

The submission proposes text changes to resolve the following CIDs

11852, 13453

Please see discussion notes below for a review of introduced changes.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Page** | **Line** | **Comment** | **Proposed Change** | **Proposed Resolution** |
| 11852 | 294 | 26 | The derivation of the maximum a-mpdu length is becoming confusing. We have the length exponent in ht, vht, he caps, and then we have extensions in he and eht caps, not always present. please provide a table on the presence of these values in different bands and amendment. Possibly for the MPDU size as well. | As in comment. | RevisedDiscussion: the commenter is correct, the text in 11be 10.12.2 is not very clear about which fields are used to decide the maximum A-MPDU size in various PPDU types and bands. The usage of HT Capabilitites, VHT Capabilitties and HE 6 GHz Band Capabilities to decide the maximum MPDU leghth is described in **Table 9-34—Maximum data unit sizes (in octets) and durations (in microseconds)**. TGbe editor to make changes in THIS DOCUMET with lable 11852 |
| 13453 | 294 | 26 | The 2.4GHz bnad and 5GHz band should be separatelydescribed. | As in comment. | **Revised****Discussion: the commenter is correct, the text in 11be 10.12.2 is not very clear about which fields are used to decide the maximum A-MPDU size in various PPDU types and bands****TGbe editor to make changes in THIS DOCUMET with lable 13453** |

Discussion:

A table describing which fields are used to decide the maximum A-MPDU size in various PPDU types and bands is added

In addition, the current text in 35.6 does not support a PSDU in an EHT PPDU transmitted in 2.4GHz using (40MHz and Nss>2) or using (20MHz and Nss>4)

For example EHT PPDU using 40MHz, MCS 13 and Nss=4, the PSDU size can be

4680 (N\_DBPS)\*396 (symbols) /8 (bits/byte) \* 4(Nss) = 926640 bytes = 2^(19.822)

For example EHT PPDU using 20MHz, MCS 13 and Nss=5, the PSDU size can be

2340 (N\_DBPS)\*396 (symbols) /8 (bits/byte) \* 5(Nss) = 579150 bytes = 2^(19.144)

The text for a 2.4 GHz EHT STA that does not send a VHT Capabilities element but sends an HT Capabilities element, an HE Capabilities element and an EHT capability element is added

### 10.12.2 A-MPDU length limit rules

TGbe editor: Add the following table after the 1st paragraph in ***10.12.2 A-MPDU length limit rules*** (#11852, 13453):

**Table xxx — Fields used for calculating the maximum A-MPDU size of various PPDU Types in different bands**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Maximum A-MPDU per PPDU Type and Band** | Maximum A-MPDU Length Exponent field in HT Capabilities | Maximum A-MPDU Length Exponent field in VHT Capabilities | MaximumA-MPDULengthExponentExtension in HE Capabilities | Maximum A-MPDU Length Exponent field in HE 6G Capabilities | MaximumA-MPDULengthExponentExtension in EHT Capabilities | Maximum A-MPDU Length Exponent field in DMG Capabilities | Maximum A-MPDU Length Exponent field in EDMG Capabilities |
| **Maximum A-MPDU in HT PPDU of 2.4 GHz band** | Y | NA | NA | NA | NA | NA | NA |
| **Maximum A-MPDU in HE PPDU of 2.4 GHz band** | Y | NA | Y | NA | NA | NA | NA |
| **Maximum A-MPDU in EHT PPDU of 2.4 GHz band** | Y | NA | Y | NA | Y | NA | NA |
| **Maximum A-MPDU in HT PPDU of 5 GHz band** | Y | NA | NA | NA | NA | NA | NA |
| **Maximum A-MPDU in VHT PPDU of 5 GHz band** | NA | Y | NA | NA | NA | NA | NA |
| **Maximum A-MPDU in HE PPDU of 5 GHz band** | NA | Y | Y | NA | NA | NA | NA |
| **Maximum A-MPDU in EHT PPDU of 5 GHz band** | NA | Y | Y | NA | Y | NA | NA |
| **Maximum A-MPDU in HE PPDU of 6 GHz band** | NA | NA | Y | Y | NA | NA | NA |
| **Maximum A-MPDU in EHT PPDU of 6 GHz band** | NA | NA | Y | Y | Y | NA | NA |
| **Maximum A-MPDU in DMG PPDU**  | NA | NA | NA | NA | NA | Y | NA |
| **Maximum A-MPDU in EDMG PPDU** | NA | NA | NA | NA | NA | NA | Y |

### **35.6** **A-MPDU operation in an EHT PPDU**

TGbe editor: Add the following table after the 6th paragraph in 35.6 A-MPDU operation in an EHT PPDU (#11852, 13453):

An EHT STA that does not send a VHT Capabilities element but sends an HT Capabilities element, an HE Capabilities element and an EHT Capabilities element with Maximum A-MPDU Length Exponent Extension subfield greater than 0 shall support in reception of an EHT PPDU with an A-MPDU pre-EOF padding with maximum length as defined in 10.12.2(A-MPDU length limit rules), except that the maximum length for the A-MPDU pre-EOF padding shall be equal 2(19 + Maximum A-MPDU Length Exponent Extension) – 1. An EHT STA that sets the Maximum A-MPDU Length Exponent Extension subfield in the EHT Capabilities element to a value greater than 0 shall set the Maximum A-MPDU Length Exponent subfield of the HT Capabilities element to 3 and the Maximum A-MPDU Length Exponent Extension subfield of the HE Capabilities element to 3.