IEEE P802.11
Wireless LANs

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| Text changes on EDMG A-PPDU format |
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Abstract

This document modifies the text describing definition of EDMG A-PPDU format.

1.

30.3 Common parameters

30.3.1 Introduction

30.3.2 EDMG PPDU format

30.3.2.1 General

A single PPDU format is defined for all EDMG PHYs: the EDMG PPDU format. Figure 102 shows the EDMG PPDU format and all possible fields. Not all fields are transmitted in an EDMG PPDU. Fields are included depending on whether the PPDU is a SU PPDU, a MU PPDU, or A-PPDU.



1. —EDMG PPDU format

The fields of the EDMG PPDU format are summarized in Table 27.

*Modify Table 27 as follow:*

1. —Fields of the EDMG PPDU

|  |  |
| --- | --- |
| Field | Description |
| L-STF | Non-EDMG Short Training field |
| L-CEF | Non-EDMG Channel Estimation field |
| L-Header | Non-EDMG Header field |
| EDMG-Header-A | EDMG Header A field |
| EDMG-STF | EDMG Short Training field |
| EDMG-CEF | EDMG Channel Estimation field |
| EDMG-Header-B | EDMG Header B field |
| Data | The Data field carriers the PSDU(s)~~, except that in an A-PPDU it also carries additional EDMG-Header-A fields (see 3)~~ |
| TRN | Training sequences field |

The EDMG-Header-A, EDMG-STF, EDMG-CEF and EDMG-Header-B fields exist only in EDMG PPDUs.

30.3.2.2 EDMG A-PPDU

*Replace subclause 30.3.2.2 as follows:*

~~In an EDMG A-PPDU, EDMG-Header-B is not present and the Data field is formatted as shown in Figure 70. Each Data~~*~~iPPDU~~* ~~field (1 ≤~~ *~~i~~~~PPDU~~* ~~≤~~ *~~N~~~~PPDU~~*~~, where~~ *~~i~~~~PPDU~~* ~~represents the index number of the~~ *~~i~~~~PPDU~~*~~th~~ ~~EDMG PPDU and~~ *~~N~~~~PPDU~~* ~~represents the total number of EDMG PPDUs aggregated into an EDMG A-PPDU) represents a PSDU being aggregated into the A-PPDU. The EDMG-Header-A field preceding a Data field describes the characteristics of the PSDU contained in the Data field.~~

An EDMG A-PPDU format is defined as a concatenation of a plurality of the general EDMG PPDUs defined in 30.3.2.1. The EDMG A-PPDU shall be transmitted to a single user and shall not be transmitted to multiple users. Figure 103 shows the EDMG A-PPDU format and all possible fields. The 1st PPDU of the EDMG A-PPDU includes L-STF, L-CEF, L-Header field, EDMG-Header-A field, EDMG-STF, EDMG-CEF, and Data field, and each subsequent PPDU includes EDMG-Header-A and Data fields only. TRN field is appended only once at the end of the EDMG A-PPDU. Not all fields are transmitted in an EDMG A-PPDU. Fields are included depending on *NCB* and *NSTS*. The EDMG-Header-A field preceding a Data field defines the parameters of the PSDU transmitted in the Data field.



1. —EDMG A-PPDU format

~~In an A-PPDU, the transmission bandwidth of each EDMG-Header-A~~~~i-PPDU~~ ~~field and Data~~~~i-PPDU~~ ~~field, for 2 ≤~~ *~~i-PPDU~~* ~~≤~~ *~~N~~~~PPDU~~*~~, shall be the same. For~~ *~~i-PPDU~~* ~~= 1, EDMG-Header-A~~~~1~~ ~~field shall be transmitted over a 2.16 GHz channel for N~~~~CB~~~~=1 or using 4.32 GHz, 6.48GHz or 8.64GHz non-EDMG duplicate format for 2 ≤ N~~~~CB~~ ~~≤ 4. The Data~~~~1~~ ~~field shall be transmitted over a 2.16 GHz, 4.32 GHz, 6.48 GHz or 8.64 GHz channel for 1 ≤ N~~~~CB~~ ~~≤ 4.~~

30.3.3 EDMG preamble

30.3.3.1 General

*Modify 30.3.3.1 as follows:*

This subclause defines the EDMG format preamble, which includes a non-EDMG portion and an EDMG portion.

For a single PPDU transmission, ~~T~~the fields of the non-EDMG portion of the EDMG format preamble and the EDMG-Header-A field of the EDMG portion of the EDMG format preamble form the pre-EDMG modulated fields, and the subsequent fields in the PPDU are referred to as EDMG modulated fields (see ~~Figure 103~~Figure 102).

For an EDMG A-PPDU transmission, the fields of the non-EDMG portion of the EDMG format preamble and the EDMG-Header-A field of the EDMG portion of the EDMG format preamble of the 1st EDMG PPDU form the pre-EDMG modulated fields, and subsequent fields in the EDMG A-PPDU are refered to as EDMG modulated fields (see Figure 103).

For 4.32 GHz, 6.48 GHz and 8.64 GHz EDMG PPDU transmissions, the pre-EDMG modulated fields shall be transmitted using the non-EDMG duplicate format (30.5.10).

The pre-EDMG modulated fields when transmitted on each secondary channel shall have a relative delay with respect to the corresponding fields transmitted over the primary channel that is between zero (inclusive) and *Tc* (inclusive), where *Tc*=1/1.76 GHz. The relative delay applicable to each secondary channel transmission may be different from each other, so long as it follows the aforementioned rule.

30.3.3.3.2.3 Definition for EDMG SC mode and EDMG OFDM mode PPDUs

*Modify the 7th paragraph as follows:*

In case of an EDMG A-PPDU, the SU/MU Format field shall be set to 0. Except for the PSDU Length, EDMG-MCS, EDMG TRN Length, and Additional EDMG PPDU fields, all fields in an EDMG-Header-A contained in an EDMG A-PPDU shall have the same value as in the EDMG-Header-A of the preceding EDMG PPDU within the A-PPDU, if any. ~~The TRN field is appended only once at the end of the EDMG A-PPDU.~~The EDMG TRN Length field shall be set to 0 for all EDMG PPDU except for the last EDMG PPDU where it can be nonzero.

**References:**

1. Draft P802.11ay\_D0.8

**Straw Poll**

* Do you agree to include the proposed text changes describing EDMG A-PPDU frame format in 11-17/1677r1 to the Draft amendment?