IEEE P802.11
Wireless LANs

|  |
| --- |
| EDMG Multi-static PPDU Struct Update |
| Date: 2022-07-09 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Assaf Kasher | Qualcomm |  |  | akasher@qti.qualcomm.com |
|  |  |  |  |  |

Abstract

This document proposes an update to 11-22-1112 and resolves some TBDs.

***TGbf Editor: Modify the text in subclause 28.9.3.2 starting in P118L34 of D0.3 as follows***

An EDMG Multi-Static Sensing PPDU is an EDMG BRP PPDU in which a Sync field is inserted between the data field and the TRN field. The Sync field includes two or more Sync subfields and a Sync PAD subfield. An EDMG Multi-Static Sensing PPDU enables sensing by STAs, using the same PPDU, where is value of the Multi-Static Sensing NSTA field in the EDMG-A header. If sensing is performed on a 4.32 GHz, 6.48 GHz, or 8.64 GHz channel, the Sync field and the TRN field in the EDMG Multi-Static Sensing PPDUs shall occupy 2, 3, or 4 contiguous 2.16 GHz channels, respectively. See Figure 1.



Figure 1: EDMG Multi-Static PPDU structure

Note: A STA that is participating in an EDMG Multi-static Sensing Instance as a receiver may ignore all the PPDU fields preceding the Sync field and use its intended Sync Subfield for synchronization.

***TGbf Editor: Modify the text in subclause 28.9.3.3 starting on P118L52 as follows:***

An EDMG Multi-Static sensing PPDU is indicated by setting the Multi-Static Sensing field of the EDMG-A header to 1. The number of Sync fields in the PPDU is indicated by the Multi-Static Sensing NSTA field of the EDMG-A header.

The PSDU Length field and the EDMG MCS field shall be set to values such that the duration of the Data field , as interpreted from the EDMG-A header of the PPDU (see 28.12.3.3 TXTIME calculation for EDMG SC mode) is equal to the duration of the Data field (plus the duration of the Sync field.

The fields RX TRN-Units per Each TX TRN-Unit, the EDMG TRN-Unit P, EDMG TRN-Unit M and EDMG TRN-Unit N are used in the same way as in an EDMG BRP frame (see 28.9.2.2.3). However, subfields which are of the EDMG TRN-Unit M are used in a different way, as defined in 28.9.4.5, where have the values in the Multi-Static Sensing NSTA and EDMG TRN-Unit P fields in the header respectively. EDMG TRN-Unit P and EMDG TRN-Unit M () are set so that .

The EDMG TRN Length field is used to indicate the length of the training fields. The value in the EDMG TRN Length is set to the value used to describe the TRN field (number of TRN units).

The Beam Tracking Request field and the EDMG Beam Tracking Request field shall be set to 0 in an EDMG Multi-Static sensing PPDU.

Bits B37 and B46 of the L-Header shall be set to 1 to indicate an EDMG A-MPDU.

***TGbf Editor: Modify the text in subclause 28.9.3.4.3 starting on P120L8 of D0.3 as follows***

The Sync pad subfield is composed of sequences such that is the smallest integer that is greater than or equal to and is a multiple of 4. is equal to 18

***TGbf Editor: Insert new subclause:***

**28.12.3.3 TXTIME calculation for EDMG SC mode**

***Editor: Insert the following text after the paragraph:***  *μs.*

If EDMG\_MS\_SENSING is set to 1, when is the value of EDMG\_MS\_SENSING\_NSTA and and are defined in 28.9.4.4.2 Sync Pad definition.

**References:**

**[1] Draft P802.11bf\_D0.2**

**[2] Draft P802.11REVme\_D1.3**

**[3] 11-22-1112-01-00bf-Multi-Static-PPDU-sync-field**