IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Comment Resolution on OBSS\_PD Conditions in 25.9.3 | | | | |
| Date: 2016-07-24 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | Email |
| James Wang | Mediatek, Inc. | 2840 Junction Avenue, San Jose, CA 95134 | 408 526-1899 | [James.Wang@Mediatek.com](mailto:James.Wang@Mediatek.com) |
| Po-Kai Huang | Intel |  |  |  |
| Yuichi Morioka | Sony |  |  |  |
| Laurent Cariou | Intel |  |  |  |
| Jun Luo | Huawei |  |  |  |

Abstract

This document provides resolutions for the following CID on Clause 25.9.3. The baseline for this comment resolution document is 802.11ax Draft 0.1.

* CIDs: 706

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Number** | **Page** | **Line** | **Comment** | **Proposed Change** | **Resolution** |
| 706 | 25.9.3 | 63 | 57 | "an HE STA is allowed to adjust the OBSS\_PD threshold in conjunction with transmit power control" should be modified based on the SFD DCN132-16 P37L35 "adjustment rules formula | Please update the adjustment rules for OBSS\_PD trhehsold and transmit power as stated. | Revised. OBSS\_PD level adjustment rules are included.  Instruction to editor:  Please modify the text according to the changes under CID 706 |

**Red Lined Text Change for the Proposed Resolutions:**

**Changes to D0.1 Related to CID 706**

In Clause 25.9.2, the additional TBD conditions at P63L46are described in Clause 25.9.3. Additionally, the adjustment rules for adjusting OBSS\_PD level is provided in 5.1 of SFD.

***Instructions for Editor:***

P49L43 ***TGax editor: Remove the following sentence starting in line 41, page 63 of 11ax D0.1;***

P50L1

A STA should regard an inter-BSS PPDU with a valid PHY header and with the received power measured based on the legacy preamble below the OBSS PD level used by the receiving STA and does not meet any of the three conditions, as not having been received at all (e.g., should not update its NAV), except that the medium condition shall indicate BUSY during the period of time that is taken by the receiving STA to validate that the PPDU is from an inter-BSS, but not longer than the time indicated as the length of the PPDU payload.

* The three conditions are:BSS Color field in the HE-SIG-A is set to 0.
* If a public action frame is carried in non-HT PPDU that is individually addressed and its RA match the receiving STA’s MAC address
* If a public action is carried in non-HT PPDU that is group addressed.

A STA should revise the NAV depending on TBD conditions at the recipient of the ongoing OBSS frame.

25.9.3 Adaptive CCA and transmit power control

When the color code based CCA rule is used, an HE STA is allowed to adjust the OBSS\_PD level in conjunction with transmit power control to improve the system level performance and the utilization of the spectrum resources based on the following adjustment rules:

where where TX\_PWRref is the reference power level at TBD [dBm], TX\_PWR is transmission power in dBm for the Class A HE STA as defined in 26.3.12.4.6 or transmission power in dBm + TBD [dBm] for the Class B HE STA, OBSS\_PDmin is the minimum receives sensitivity level, OBSS\_PDmax is TBD, and ,if the transmit bandwidth differs from 20MHz, both OBSS\_PDmax and OBSS\_PDmin shall be adjusted based on the following formula:



If a STA chooses a specific OBSS\_PDlevel during its operation under SR mode, it can calculate the allowable SR\_maximum\_transmit\_power, based on the equation below:

* If OBSS\_PDlevel equal OBSS\_PDmin, no additional SR constraint on the\_STA’s maximum\_transmit\_power.
* If OBSS\_PDmax ≥OBSS\_PDlevel > OBSS\_PDmin, the SR\_maximum\_transmit\_power is equal to

Maximum transmit power =TX\_PWRref –(OBSS\_PDlevel – OBSS\_PDmin )