IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CRs for 20 MHz-only STA – Part 3 | | | | |
| Date: 2017-05-08 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Sungeun Lee | Cypress Semiconductor Corporation | Hazlet, NJ, 07730 |  | sungeun.lee at cypress.com |
| Lochan Verma | Qualcomm | 5775 Morehouse Dr. San Diego, CA, USA |  | lverma at qti.qualcomm.com |
| Ron Porat | Broadcom Limited |  |  | ron.porat at broadcom.com |

Abstract

* The submission provides resolution to comment related to a 20 MHz-only non-AP HE STA
* This document contains comment resolution for 1 CID:
  + CID 5251
* The proposed changes are based on **P802.11ax D1.2 on clauses 9.4.2.218.3**

Rev. 0 initial version of the document

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGax Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGax Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGax Editor: Editing instructions preceded by “TGax Editor” are instructions to the TGax editor to modify existing material in the TGax draft. As a result of adopting the changes, the TGax editor will execute the instructions rather than copy them to the TGax Draft.***

* Technical comments for 28.3.3.6 of P802.11ax D1.0

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **CID** | **Page** | **Clause Number** | **Comment** | **Proposed Change** | **Resolution** |
| Dorothy Stanley | 5251 | 237.57 | 28.3.3.5 | Make this mandatory to increase flexibility of the scheduler. | as in comment | **Revised**  Understand the commenter’s request to make 242-tone RU mapping mandatory to simplify the scheduler and to eliminate the capability ambiguity for a non-AP HE STA with 20 MHz operating channel width. However, it is still recommended to keep 242-tone RU support as optional because 1) a 242-tone RU support capability is already signalled in HE Capability element (see Clause 9.4.2.218.3 in P802.11ax D1.2) and 2) additional effort is required for a non-AP HE STA to handle/demodulate 242-tone RUs in 40/80/80/160/80+80 MHz HE PPDU due to an RU misalignment. Meantime, in order tosimplify the indication of 242-tone RU capability for a non-AP STA with 20 MHz operating channel width, so called both for permanent 20MHz-only non-AP STA and temporary 20MHz non-AP STA with OMI, the capability table is updated to accommodate both 20 MHz-only non-AP HE STA as well as a non-AP STA reducing its operating channel width to 20 MHz using OMI.  *TGax Editor*: make changes as in **doc.: IEEE 802.11-17/0769r0** to update the capability. |

**Discussion**

The modification resolves the CID

**Changes on Section 9.4.2.218.3**

***To TGax editor:*** ***P85L06 of P802.11ax D1.2*** *update the current text with the proposed changes below.*

***------------- Begin Text Changes ---------------***

|  |  |  |
| --- | --- | --- |
| * Subfields of the HE PHY Capabilities Information field | | |
| Subfield | Definition | Encoding |
| Channel Width Set | B0 indicates support for a 40 MHz channel width in the 2.4 GHz band.(#6416)  B1 indicates support for a 40 MHz and 80 MHz channel width in the 5 GHz band.(#6417)  B2 indicates support for a 160 MHz channel width in the 5 GHz band.  B3 indicates support for a 160/80+80 MHz channel width in the 5 GHz band.  Ifa non-AP STA operates with 20 MHz operating channel width, then B4 indicates support for 242-tone RUs in a 40 MHz HE MU PPDU in the 2.4 GHz band. Otherwise, B4 is reserved.(#6418, #9795)  Ifa non-AP STA operates with 20 MHz operating channel width, then B5 indicates support for 242-tone RUs in a 40 MHz, 80 MHz, 160 MHz, and 80+80 MHz HE MU PPDU in the 5 GHz band. Otherwise, B5 is reserved.(#6419, #9795)  B6 is reserved.  B0 and B4 are applicable to 2.4 GHz band operation and reserved for 5 GHz band operation.(#6420)  B1, B2, B3 and B5 are applicable to 5 GHz band operation and reserved for 2.4 GHz band operation.(#3475)(#7377) | B0 is set to 0 if not supported. B0 set to 1 if supported.  B1 is set to 0 if not supported, i.e., it indicates a 20-MHz non-AP HE STA in 5 GHz. B1 set to 1 if supported.  NOTE—For an AP, B1 is set to 1.(#4562)  B2 is set to 0 if not supported. B2 set to 1 if supported. If B2 set to 1 then B1 is set to 1.  B3 is set to 0 if not supported. B3 is set to 1 if supported. If B3 set to 1 then B2 is set to 1.  B4 is set to 0 if not supported. B4 set to 1 if supported.  B5 set to 0 if not supported. B5 set to 1 if supported. |

***------------- End Text Changes ---------------***