IEEE P802.11
Wireless LANs

|  |
| --- |
| LB 271 Resolution for CIDs received in 35.3.15.1 |
| Date: April 20, 2023 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Abhishek Patil | Qualcomm Technologies Inc. |  |  |  |
| Alfred Asterjadhi |  |  |  |
| Yanjun Sun |  |  |  |

 Abstract

This submission proposes resolutions for following CIDs received for TGbe LB271:

17310 16202 17311 17126 17127 15582 17313 17128 16204 16203

**Revisions:**

* 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 TGbe Draft. This introduction is not part of the adopted material.

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Clause** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 17310 | Alfred Asterjadhi | 35.15.1 | 640.22 | Replace "BSS, indicated by the" with "BSS, and is indicated by the" | As in comment. | **Revised**Agree. Amended as suggested, with some editorial improvements.**TGbe editor: please implement changes as shown in 11-23/304r0 tagged 17310.** |
| 16202 | Ming Gan | 35.15.1 | 640.38 | This sentence is confusing, what is "equal or greater NSS than a higher EHT-MCS" | Please address the issue | **Revised**Agree in principle with the comment. Proposed resolution amends the sentence to clarify the relationship/dependences between MCSs and NSSs.**TGbe editor: please implement changes as shown in 11-23/304r0 tagged 16202.** |
| 17311 | Alfred Asterjadhi | 35.15.1 | 640.40 | What is the alternative if this is a should? I am guessing all the rules are inherited from that subclause. Replace "should" with "shall". | As in comment. | **Revised**Agree. Amended as suggested, with some editorial improvements.**TGbe editor: please implement changes as shown in 11-23/304r0 tagged 17311.** |
| 17126 | Mark RISON | 35.15.1 | 640.51 | "An EHT AP operating in 5 or 6 GHz band" missing article | As it says in the comment | **Revised**Agree with comment. Text is amended for better clarity, including missing articles wherever appropriate.**TGbe editor: please implement changes as shown in 11-23/304r0 tagged 17126.** |
| 17127 | Mark RISON | 35.15.1 | 640.52 | "an BSS" should be "a BSS" | As it says in the comment | **Accepted** |
| 17313 | Alfred Asterjadhi | 35.15.1 | 640.51 | An AP in 2G4 also sets this present subfield to 0. Generalize the sentence so that the otherwise covers 2G4 as well please. | As in comment. | **Revised**Agree with the comment. The paragraph is reorganized as bullets so that each condition (including applicability only to APs operating on 5 or 6 GHz band) is clearly called out.**TGbe editor: please implement changes as shown in 11-23/304r0 tagged 17313.** |
| 16204 | Ming Gan | 35.15.1 | 643.44 | This paragraph is covered by the page 642 line 51. | Redudant, please remove it | **Revised**Agree in principle. Proposed resolution accounts for the suggested change and editorially improves the cited paragraph which attempts to say the same.**TGbe editor: please implement changes as shown in 11-23/304r0 tagged 16204.** |
| 17128 | Mark RISON | 35.15.1 | 640.63 | "In 6 GHz band, " missing article. Next two bullets too | As it says in the comment | **Revised**Agree. Amended as suggested.**TGbe editor: please implement changes as shown in 11-23/304r0 tagged 17128.** |
| 15582 | Chaoming Luo | 35.15.1 | 641.09 | 11me says an HE AP may support 80+80 MHz channel width, whilst this sentence means an EHT AP which is also an HE AP shall not do that, they conflicts with each other. | Remove this sentence, or clarify an EHT AP operating on 320Mhz shall not do that.Otherwise spell it out that the 80+80 feature is deprecated. | **Rejected**The cited statement is not in conflict with 11ax since the “shall not” is a requirement for an EHT AP. In addition, please note that the 80+80 feature is not deprecated (it can still be used by 11ax APs and prior). Therefore, no further changes are needed. |
| 16203 | Ming Gan | 35.15.1 | 641.46 | This paragraph is confusing, is HE PPDU related to EHT Capabilities element? | Please clarify it | **Revised**Agree in principle that the statement is confusing. In 11be the EHT Capabilities element has included a Maximum MPDU length exponent, which is not present in the HE Capabilities element, which was done to align maximum MPDU capabilities along the links. Hence for the 2G4 case all PPDUs are subject to this same constraint. Proposed resolution removes the paragraph and simply generalizes the preceding paragraph that covers the 2G4 case to simply refer to PPDU instead of EHT PPDU.**TGbe editor: please implement changes as shown in 11-23/304r0 tagged 16203.** |

####  EHT BSS operation

######  Basic EHT BSS operation

***TGbe editor: Please update the following paragraph in this subclause as shown below:***

The basic EHT-MCS and NSS set is the set of <EHT-MCS, NSS> tuples that are supported by all EHT STAs that are members of an EHT BSS. The basic EHT-MCS and NSS set is established by the STA that starts the EHT BSS, and is[17310] indicated by the Basic EHT-MCS And NSS Set field of the EHT Operation parameter in the MLME-START.request primitive. Other EHT STAs determine the basic EHT-MCS and NSS set from the Basic EHT-MCS And NSS Set field of the EHT Operation element in the BSS Description derived through the scan mechanism (see 11.1.4.1 (General)).

***TGbe editor: Please update the following paragraphs in this subclause as shown below:***

If an EHT STA supports transmitting or receiving a PPDU, where the PPDU bandwidth is less than 320 MHz, at an <EHT-MCS, NSS> tuple, where the EHT-MCS is equal to the HE-MCS and less than 12, then it shall also support the corresponding transmitting or receiving <HE-MCS, NSS> tuple, respectively. For an EHT-MCS that is less than an HE-MCS, the EHT STA shall support an NSS that is equal or greater to the NSS that it supports for a higher EHT-MCS.[16202]

[17311]An EHT non-AP STA shall follow the procedure in 11.1.3.8.3 (Discovery of a nontransmitted BSSID profile) for efficient discovery during scanning and to save power after association if the peer AP is operating as an EMA AP.

***TGbe editor: Please update the following paragraphs in this subclause as shown below:***

An EHT AP operating [17126]shall set the EHT Operation Information Present subfield in the EHT Operation element to 1 [17126, 17313, 16204]if all the following conditions are satisfied:

* the AP is operating in the 5 GHz or in the 6 GHz band
* the AP announces to EHT non-AP STAs [17127]a BSS operating channel width through the EHT Operation Information field that is different from the BSS operating channel width(s) that it announces to non-EHT non-AP STAs in the same Management frame
* the BSS operating channel width announced to EHT non-AP STAs includes at least one punctured 20 MHz subchannel and/or is 320 MHz.

Otherwise, the EHT AP shall set the EHT Operation Information Present subfield to 0.

[17128]If a BSS operating channel width is announced in the EHT Operation element, then the announced BSS operating channel width is the EHT BSS operating channel width. If a BSS operating channel width is not announced in the EHT Operation element, then:

* In the 6 GHz band, the HE BSS operating channel width announced in the HE Operation element is the EHT BSS operating channel width
* In the 5 GHz band, the HE BSS operating channel width announced by the combination of the HT and VHT Operation elements or announced by the combination of the HT and HE Operation elements with VHT Operation Information field is the EHT BSS operating channel width
* In the 2.4 GHz band, the HE BSS operating channel width announced in the HT Operation element is the EHT BSS operating channel width

***TGbe editor: Please update the following paragraphs in this subclause as shown below:***

[16203]In the 2.4 GHz band, an EHT STA shall not transmit a PPDU to a recipient EHT STA that carries a frame that is not an EHT Compressed Beamforming/CQI frame (see [35.7.3 (Rules for EHT sounding](#bookmark130) [protocol sequences)](#bookmark130)) and that exceeds the maximum MPDU length capability indicated in the EHT Capabilities element or in Reconfiguration Multi-Link element with operation update type equal to 0 last received from the recipient EHT STA.

***TGbe editor: Please delete the following paragraph in this subclause as shown below:***

[16204]