IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CR on HE-SIG-B part 2 | | | | |
| Date: 2018-01-15 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Yujin Noh | Newracom | 9008 Research Dr.  Irvine, CA 92618 |  | yujin.noh at newracom.com |
| Sigurd Schelstraete | Quantenna | 3450 W. Warren Ave  Fremont, CA 94025, USA |  | [sigurd@quantenna.com](mailto:sun.bo1@zte.com.cn) |

Abstract

This submission shows

* Resolution for a comment received from TGax comment collection (TGax Draft D2.0)
* The proposed changes are based on 11ax D2.0.

The submission provides resolutions to comments related to HE-SIG-B field.

* The submission provides resolutions to 6 CIDs:   
  ~~13368, 11408, 11410~~, 13465, 13466, 14076, 13369, 11409, 14077

Revisions:

* Rev 0: Initial version of the document.
* Rev 1:
  + remove 3 CIDs (11368, 11408 and 11410)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| ~~13368~~ | ~~423.00~~ | ~~The notion of "channel 1 occupies the tones" is misleading as HE-SIG-B does not use the tone map. Similar issue exists for the 160MHz part on the same page.~~ | ~~28.3.10.8.2-28.3.10.8.3 is worth re-structuring to make it more clear and consistent~~ | ~~Revised~~  ~~Agreed in principle.~~  ~~Corresponding descriptions on both 80MHz and 160MHz are modified to make it clear.~~  ~~TGax Editor: make changes according to this document 11-18-0051-01-00ax CR on HE-SIG-B part 2.~~ |
| ~~11408~~ | ~~423.01~~ | ~~"HE-SIG-B content channel 1 occupies the tones [-500:-259]". The statement is incorrect, it confuse the HE-SIGB content channel location ( 1st and 2rd 20MHz channel) with the locations of the RU that these content channel carry. There are many samilar error statements in this subclause.~~ | ~~as in the comment~~ | ~~Revised.~~  ~~Same resolution to CID 13368.~~  ~~TGax Editor: make changes according to this document 11-18-0051-01-00ax CR on HE-SIG-B part 2.~~ |
| ~~11410~~ | ~~423.54~~ | ~~"HE-SIG-B content channel 1 occupies subcarriers [-1012:-771]". The statement is incorrect, it confuse the HE-SIGB content channel location ( 1st and 2rd 20MHz channel) with the locations of the RU that these content channel carry.~~ | ~~as in the comment~~ | ~~Revised.~~  ~~Same resolution to CID 13368.~~  ~~TGax Editor: make changes according to this document 11-18-0051-01-00ax CR on HE-SIG-B part 2.~~ |
| 13465 | 423.09 | Change "between" to "in the range of" | See comment | Revised  Agreed in principle.  “between” is replaced with “in the range” to be consistent through this sub-clause.  TGax Editor: make changes according to this document 11-18-0051-01-00ax CR on HE-SIG-B part 2. |
| 14076 | 423.25 | This paragraph is still referring to 80 MHz HE PPDU, but that is not clear because this is a new paragraph. | Clarify that this paragraph is still specific to 80 MHz HE MU PPDU only. | Revised  Agreed in principle.  To make it clear, each paragraph nows marks “the 80MHz PPDU” and apply the same clarification to the paragraph involved in “the 160MHz PPDU”  TGax Editor: make changes according to this document 11-18-0051-01-00ax CR on HE-SIG-B part 2. |
| 13466 | 423.25 | Sentence "The same value for the bit signaling presence of the center 26-tone RU is carried in both HE-SIG-B content channels." is absolutely not clear. Rephrase to make it clear. | Clarify | Revised  Agreed in principle.  In order to clarify, the original text is replaced with “Each signaling for the presence of the User field corresponding to a center 26-tone RU of the 80MHz PPDU carries the same value in both HE-SIG-B content channels.”  TGax Editor: make changes according to this document 11-18-0051-01-00ax CR on HE-SIG-B part 2. |
| 14077 | 423.29 | What does "is carried as the last User field in theThe User Specific field of an HE-SIG-B content channel consists of one or more HE-SIG-B content channel 1." mean? | Clarify the meaning of "is carried as the last User field in theThe User Specific field of an HE-SIG-B content channel consists of one or more HE-SIG-B content channel 1." | Revised.  Agreed in principle.  Irrelevant sentences are mixed up only to make it nonsense.  It needs to say below.  When assigned, the User field corresponding to the center 26-tone RU that spans subcarriers [-16:-4, 4:16] is carried as the last User field in the HE-SIG-B content channel 1.  TGax Editor: make changes according to this document 11-18-0051-01-00ax CR on HE-SIG-B part 2. |
| 11409 | 423.29 | "last User field in theThe User Specific field of an HE-SIG-B content channel consists of one or more ..". Wrong sentence with grammar errror | as in the comment | Revised.  Same resolution to CID 14077.  TGax Editor: make changes according to this document 11-18-0051-01-00ax CR on HE-SIG-B part 2. |
| 13369 | 423.29 | It seems to say: "is carried as the last User field in the User Specific field of an HE-SIG-B content channel" | Revise as suggested | Revised.  Same resolution to CID 14077.  TGax Editor: make changes according to this document 11-18-0051-01-00ax CR on HE-SIG-B part 2. |

***To TGax editor:*** ***P423L01*** *replace the current text with the proposed changes below.****------------- Begin Text Changes ---------------***

The first HE-SIG-B content channel(#10060) appearing in the 20 MHz segments of the 80MHz PPDU carries a Common field(#10060) and User Specific field corresponding to RUs with(#Ed) subcarriers indices overlap those segments. The Common field(#10060) of HE-SIG-B content channel 1 contains the following: an RU Allocation subfield(#10061) for RUs with subcarrier indices in the range [500:259] or overlapping with [500:259] if the RU is larger than 242 subcarriers(#8941), followed by a second RU Allocation subfield(#10061) for RUs with subcarrier indices in the range [17:258] or overlapping with [17:258] if the RU is larger than 242 subcarriers and 1 bit Center 26-tone RU subfield to indicate the presence of the User field corresponding to the center 26-tone RU that spans subcarriers [16:4, 4:16]. (#13465, #14076)

(#8941)The second HE-SIG-B content channel(#10060) of the 80MHz PPDU carries a Common field(#10060) and User Specific field corresponding to RUs with subcarrier indices that fall in those segments(#Ed). The Common field(#10060) of HE-SIG-B content channel 2 contains the following: an RU Allocation subfield(#10061) for RUs whose subcarrier indices fall in the range [258:17] or overlapping with [258:17] if the RU is larger than 242 subcarriers(#8941), followed by a second RU Allocation subfield(#10061) for RUs with subcarrier indices in the range [259:500] or overlapping with [259:500] if the RU is larger than 242 subcarriers(#8941) and 1 bit Center 26-tone RU subfield to indicate presence of the User field corresponding to the center 26-tone RU that spans subcarriers [16:4, 4:16]. (#14076) When an RU overlaps with more than one segment, it has an RU Allocation subfield for each of the segments with which it overlaps

Each signaling for the presence of the User field corresponding to a center 26-tone RU of the 80MHz PPDU carries the same value in both HE-SIG-B content channels (#10060).(# 13466, #14076)When assigned, the User field corresponding to the center 26-tone RU that spans subcarriers [16:4, 4:16] is carried as the last User field in the HE-SIG-B content channel 1.(#14077, #11409, #13369).

(#8941)

|  |
| --- |
| Corresponding figure omitted |
| * Mapping of the two HE-SIG-B content channels and their duplication in an 80 MHz PPDU when the SIGB Compression field in the HE-SIG-A field of an HE MU PPDU is set to 0(#5272)(#5267) |

HE-SIG-B content channel 1 and HE-SIG-B content channel 2 of the 160 MHz PPDU carries RU allocation signaling at 242-tone RU granularity that overlap with the 20 MHz segments in which the content channels are carried (including duplication). The signaling for the presence of the User field corresponding to a center 26-tone RU in the 80 MHz segment with the lower subcarrier index is carried in HE-SIG-B content channel 1 as a 1-bit Center 26-tone RU field after the RU Allocation field in the Common field. Similarly, signaling for the center 26-tone RU in the 80 MHz segment with the higher subcarrier index is carried in HE-SIG-B content channel 2 as 1-bit Center 26-tone RU field after the RU Allocation field in the Common field. When assigned, the User field corresponding to the center 26-tone RU in the 80 MHz segments is carried as the last User field in their respective HE-SIG-B content channels. When RUs greater than 242 subcarriers are signaled in the RU Allocation field in a portion of the bandwidth, the signaling is carried in both HE-SIG-B content channels(#10060) placed in the order of the absolute subcarrier index.(#14076)

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