IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CR on HE-SIG-B part 3 | | | | |
| Date: 2018-03-04 | | | | |
| 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 D2.2.

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

* The submission provides resolutions to 4 CIDs:   
  13368, 11408, 11410, 13370

Revisions:

* Rev 0: Initial version of the document.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **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 11-18-0324-01-00ax CR on HE-SIG-B part 3. |
| 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 11-18-0324-01-00ax CR on HE-SIG-B part 3. |
| 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 11-18-0324-01-00ax CR on HE-SIG-B part 3. |

***To TGax editor:*** ***P444L39*** *replace the current text with the proposed changes below.****------------- Begin Text Changes ---------------***

The 80 MHz PPDU contains two HE-SIG-B content channels each of which are duplicated once as shown in Figure 28-28 (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). ~~HE-SIG-B con tent channel 1 occupies the tones [-500:-259] and is duplicated on tones [17: 258]. HE-SIG-B content channel 2 occupies tones [-258:-17] and is duplicated on tones [259: 500].~~ HE-SIG-B content channel 1 occupies the first 20 MHz segment that is lowest in frequency and is duplicated on the third lowest 20 MHz segment. HE-SIG-B content channel 2 occupies the second 20 MHz segment that is lowest in frequency and is duplicated on the fourth lowest 20 MHz segment. (#13368, #11408)

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

***To TGax editor:*** ***P445L31*** *replace the current text with the proposed changes below.****------------- Begin Text Changes ---------------***

The 160 MHz PPDU contains two HE-SIG-B content channels each of which are duplicated four times as shown in Figure 28-29 (Mapping of the two HE-SIG-B content channels and their duplication in a 160 MHz PPDU when the SIGB Compression field in the HE-SIG-A field of an HE MU PPDU is set to 0). ~~HE-SIG-B con tent channel 1 occupies the tones [-500:-259] and is duplicated on tones [17: 258]. HE-SIG-B content channel 2 occupies tones [-258:-17] and is duplicated on tones [259: 500]. HE-SIG-B content channel 1 occupies subcarriers [-1012:-771] and is replicated on subcarriers [-495:-254], [12:253] and [529:770]. HE-SIG-B content channel 2 occupies subcarriers [-770:-529] and is replicated on subcarriers [-253:-12], [254:495] and [771:1012].~~ HE-SIG-B content channel 1 occupies the first 20 MHz segment that is lowest in frequency and is duplicated on the third, fifth and seventh lowest 20 MHz segments. HE-SIG-B content channel 2 occupies the second 20 MHz segment that is lowest in frequency and is duplicated on the fourth, sixth and eighth lowest 20 MHz segments. (#13368, #11410)

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CID** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 13370 | 426.31 | In the context of HE-SIG-B, "users" most of the time refer to active users plus "dummy" users, while the HE part of the frame interprets "users" always as active users. For example, the user index u covers active users only. This differentiation has to be explicitly made in the HE-SIG-B context, possibly at multiple places to make the RU allocation /assignment concept itself clear. | Make it more explicit and clear. | Rejected  I agree that many sub-clauses explicitly indicate active users as one of examples by index *u*. First of all, the index *u* is not present in the corresponding equations in the time domain representation of the signal for HE MU PPDU as shown in 28.3.10.8.4 Time domain encoding. Moreover, currently this sub-clause already has mentioned which user is not active with 1) STA-ID field setting to 2046 for no user in User field and 2) 01110001, 01110010 and 01110011 of entries in RU Allocation subfield in Common field for no users or no User fields assigned in corresponding HE-SIG-B content channel.    I don’t see any technical reason more clarification is needed because it seems not to give more useful information in terms of either implementation or understanding aspects. |