IEEE P802.11
Wireless LANs

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| Proposed resolutions for misc CIDs |
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Abstract

Submission for P802.11af draft text. This document contains proposed resolutions for miscellaneous comments from LB189. (9 CIDs: 13, 14, 18, 60, 994, 995, 64, 368, 992).

The baseline of this text is P802.11af\_D2.0.

## 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 TGaf Draft. This introduction is not part of the adopted material.

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

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

The editing instructions are shown in ***bold italic***. Four editing instructions are used: ***change, delete, insert, and replace***. Change is used to make corrections in existing text or tables. The editing instruction specifies the location of the change and describes what is being changed by using ~~strikethrough~~ (to remove old material) and underscore (to add new material). ***Delete*** removes existing material. ***Insert*** adds new material without disturbing the existing material. Insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. ***Replace*** is used to make changes in figures or equations by removing the existing figure or equation and replacing it with a new one. Editorial notes will not be carried over into future editions because the changes will be incorporated into the base standard.

**Relevant comments and discussion**

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Proposed resolution** |
| 13 | 237.47 | 23.3.6 | What is the parameter? | include parameter in the table for the fourth and fifth rows | Revised |

**Discussion:**

The parameters for the fourth and fifith row of column “parameter’ are currently blank. They should be subcarrier index.



Subcarrier index

Subcarrier index

**Propose:**

REVISE

*Instruct editor to insert subcarrier index in both row 4 and row 5, column “parameter” of table 23-4*

Proposed editorial instructions are included in this document.

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Proposed resolution** |
| 14 | 241.58 | 23.3.8.1.1 |  There is no normative statement about what is done with the correction factor |  add a normative statement that one divides the CSD values in Table 22-10 by the correction factor. |  |

**Discussion:**

The commenter is correct in pointing out that no normative statement regarding the correction factor is given. The CSD delay values should be multiplied by the corresponding correction factor.

**Propose:**

REVISE.

*Instruct the editor to insert the normative statement at the end of paragraph P241L56.*

... with a correction factor to account for the change in sampling clock fre­quency. The CSD delay values shall be multiplied by the corresponding correction values for the 6, 7, and 8 MHz channels, respectively.

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Proposed resolution** |
| 18 | 249.18 | 23.3.18.1 | Use multiplication factor rather than scaling factor | as in comment |  |

**Discussion:**

The the term “scaling factor” can be replaced with frequency scaling factor. Additionally, a normative description should be provided on how to use the scaling factor.

**Propose:**

REVISE

*Instruct the editor to modify the paragraph P249L20.*

For transmission in TVHT\_MODE\_1, TVHT\_MODE\_2C and TVHT\_MODE\_4C, the transmit spectral mask shall be as described for 40 MHz mask PPDU in 22.3.18.1 with the frequency axis multiplied by the frequency scaling factor as defined in Table 23-12 (Spectral mask frequency scaling for contiguous transmission).

*Instruct the editor to modify the paragraph P249L42.*

For transmission in mode TVHT\_MODE\_2N and TVHT\_MODE\_4N, the transmit spectral mask shall be as described for 80+80 MHz mask PPDU in 22.3.18.1 (Transmit spectrum mask) with the frequency axis multiplied by the frequency scaling factor as defined in Table 23-13 (Spectral mask frequency scaling for non-contiguous transmission)

*Additonally Instruct the editor to modify “scaling” to” frequency scaling factor” in the first row of Table 23-12 and 23-13 in P249L28 and P249L49, respectively.*

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Proposed resolution** |
| 60 | 230.34 | 23.2.2 | The use of the term "NON\_HT" is confusing since it means specific format which is not applicable for TVHT. | Need to find a suitable name other than NON\_HT |  |
| 994 | 230.19 | 23.1.4 | non-HT format in TVHT seems to different from the non-HT format for HT. It is confusing to use the same name to define two different concepts. | Need to find a suitable name other than NON\_HT |  |
| 995 | 230.34 | 23.2.2 | The use of the term "NON\_HT" is confusing since it means specific format which is not applicable for TVHT. | Need to find a suitable name other than NON\_HT |  |

**Discussion:**

The term NON-HT has been used in 11n and 11ac for the same signal format. It has the same name to be compatible.

**Propose:**

*REJECTED*

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Proposed resolution** |
| 64 | 242.34 | 23.3.8.1.4 | Not clear how to set the Rate and the Length fields in L-SIG. | Clarify |  |
| 368 | 242.34 | 23.3.8.1.4 | It is not clear how to set the Rate and the Length fields in L-SIG, which needs to be justified. | Please clarify it. |  |

**Discussion:**

In 11ac, the length field of the L-sig field is defined by the following:

Length =

Here the (aPreambleLength + aPLCPHeaderLength) time of 20 microseconds and the aSymbolLength of 4 microseconds should be scaled (multiplied) by the corresponding correction factors (from 23.3.8.1.1) of the 6 MHz, 7MHz, or 8MHz channel widths to account for the change in the sampling clock.

Note that in 11ac, the Rate field in VHT format is set to a default value of 1101 representing 6 Mb/s in the 20 MHz channel spacing column of Table 18-6. Some receivers check the value of this field to determine whether the received packet is 11ac or not before enabling subsequent checking. In TV\_NON\_HT format, the Rate field is used to indicate the data rate.

**Propose:**

REVISE

*Instruct the editor to insert the following paragragh for lendth field into P242L37 and put the correction factor text sentence at the other places where timing equations are corrected.*

In a TVHT PPDU, the RATE field shall be set to the value corresponding to 6 Mb/s in the 20 MHz channel spacing column of Table 18-6 (Contents of the SIGNAL field).

In a NON\_HT\_DUP PPDU, the RATE field is defined in 18.3.4.2 (RATE field) using the L\_DATARATE parameter in the TXVECTOR.

The LENGTH field shall be set to the value given by Equation (23-?).

Length = (23-?)

where the correction factors as defined in 23.3.8.1.1 and the TXTIME is defined in 23.4.3. In a non-HT duplicate PPDU, the LENGTH field is defined in 18.3.4.3 (PLCP LENGTH field) using the L\_LENGTH parameter in the TXVECTOR.

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| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Proposed resolution** |
| 992 | 34.31 | 7.3.5.11.2 | Figure 7-1a doesn't correctly represent non-adjacent single and double width channels, TVHT\_W+W and TVHT\_2W+2W | Add a second Figure where TVHT\_W+W and TVHT2W+2W are correctly marked. |  |

**Discussion:**

The commenter is correct in pointing out a second figure is needed for TVHT\_W+W and TVHT2W+2W.

**Propose:**

REVISE

For a TVHT STA, the relationship of the channel-list parameter elements to the TVHT\_W, TVHT\_2W, and TVHT\_4W TVHT BSS operating channel is illustrated by example in Figure 7-1a (TVHT channel-list parameter element for W, 2W, 4W channel bandwidths). The relationship of the channel-list parameter elements to the TVHT\_W+W and TVHT\_2W+2W TVHT BSS operating channel is illustrated by example in Figure 7-1b and Figure 7-1c (TVHT channel-list parameter element for W+W and 2W+2W channel widths).

secondaryTVHT\_W

primaryTVHT\_W

secondaryTVHT\_2W

TVHT\_W

TVHT\_2W

TVHT\_4W

**Figure 7-1a—TVHT channel-list parameter element for TVHT\_W, TVHT\_2W, and TVHT\_4W channel widths**

primaryTVHT\_W

secondaryTVHT\_W

TVHT\_W+W

**Figure 7-1b—TVHT channel-list parameter element for TVHT\_W+W channel width**

primaryTVHT\_W

secondaryTVHT\_W

secondaryTVHT\_2W

TVHT\_2W+2W

**Figure 7-1c—TVHT channel-list parameter element for TVHT\_2W+2W channel width**