IEEE P802.11
Wireless LANs

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| D3.0 CR for PHY 28.3.4/28.3.16/28.3.17 |
| Date: 2018-11-06 |
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Abstract

This submission proposes resolutions for the following comments on PHY PPDU formats of TGax D3.0:

* 16060, 16534, 16537, 16792, 16981

Revisions:

* Rev 0: Initial version of the document. Use D3.1 as baseline spec text.
* Rev 1: Minor revisions on the Resolutions. The motions for CID 16060, 16534, 16537, 16792 are based on this version.
* Rev 2: Revision on the resolution for CID 16981 based on D3.2.
* Rev 3: Revision on the resolution for CID 16981 based on D3.2.

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.***

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| **CID** | **Clause Number** | **Page** | **Comment** | **Proposed Change** | **Resolution** |
| 16060 | 28.3.16 | 547.36 | "the Nsts field in HE SIG-A" -- there is no such field | Change the cited text to "the NSTS AndMidamble Periodicity field in HE-SIG-A" | **Revised.***TGax Editor*: Please implement the proposed change from commenter in 551.36 in D3.1 |
| 16534 | 28.3.4 | 425.42 | "This format is usedfor a transmission that is a response to a Trigger frame." Also response to A-control frame | "This format is usedfor a transmission that is a response to a Trigger frameor frame carrying a TRS Control subfield from the AP". see pg 420 line 28 for similar language | **Revised.**Agree. Correct a typo in the proposed change. *TGax Editor*: Please replace the text "This format is usedfor a transmission that is a response to a Trigger frame." with ***“*** This format is used for a transmission that is a response to a Trigger frame or frame carrying a TRS Control subfield from the AP.” in ***D3.1 P429Ln41*** |
| 16537 | 28.3.17 | 548.01 | the HE TB NDP feedback PPDU Has two 4x HE-LTF symbols but no data symbols. If there is no data symbol, why is there a need to transmit the LTF. | Clarify the need for the HE-LTF symbols transmitted or explicity say in a NOTE that it will not be processesd. | **Rejected.**As described in 28.3.17, HE TB NDP feedback PPDU is used to carry NDP feedback report information instead of data symbols. The NDP feedback report is carried in HE-LTF symbols as explained in 27.5.6.  |
| 16792 | 28.3.4 | 426.28 | Change "The duration of the PE field" to "the definition of the PE field" | See comment | **Revised.**Agree. Correct a typo in the proposed change. *TGax Editor*: Replace “duration” with “definition” in ***D3.1 P430Ln28***  |
| 16981 | 28.3.16 | 547.49 | "If the Tx BF field in HE-SIG-A of an HE NDP PPDU is 1, then the receiver of the HE NDP PPDU shall notperform channel smoothing when generating the compressed beamforming feedback report."NDP is not supposed to be BFed when requesting SU or MU type feedback. The sentence confuses people. | remove this sentence. | **Revised.**Discussions: RX behavior (smoothing or not) typically not specified in the spec text. For example: Rx smoothing or not is not specified for SU PPDU. However, for HE NDP PPDU, some AP may want to know that the sounding feedback is not smoothed. This can be signaled by setting the beamformed bit to 1 in HE-SIG-A of HE NDP PPDU. We propose to convert this sentence to a note that reminds the Rx side that smoothing shall not be performed. *TGax Editor*: Please make changes to IEEE P802.11ax D3.2 according to the proposed text changes as resolution to CID 16981 in 11-18/1534r3 |

**Discussions:**

The sounding feedback is ordered by Bfmer. If Bfmer want to get raw data of channel feedback, it is better for Bfmee to follow the order. So add a note of recommendation as shown in option 1 to remind Bfmee is helpful.

On the other hand, for some cases, even Beamformed bit set to 1, Bfmee side smoothing may have some benefit. For example: Ng=4, 2xLTF, Bfmee side detected channel is smooth. Bfmee side smoothing can use more information from half of the LTF tones. To avoid misleading people, delete the whole sentence is another option.

Option1:

NOTE: If the Beamformed field(#16038) in HE-SIG-A of an HE NDP PPDU is 1, then it is not recommended for the receiver of the HE NDP PPDU ~~shall not~~ to perform channel smoothing when generating the compressed beamforming feedback report.

Option 2: Delete the whole sentence.

~~If the Beamformed field(#16038) in HE-SIG-A of an HE NDP PPDU is 1, then the receiver of the HE NDP PPDU perform channel smoothing when generating the compressed beamforming feedback report.~~

**SP: Which option do you prefer?**

**Option 1: 6**

**Option 2: 4**

***TGax Editor: please modify ax D3.2 P444Ln6 as below as resolution to CID 16981:***

NOTE: If the Beamformed field(#16038) in HE-SIG-A of an HE NDP PPDU is 1, then it is not recommended for the receiver of the HE NDP PPDU ~~shall not~~ to perform channel smoothing when generating the compressed beamforming feedback report.