IEEE P802.11
Wireless LANs

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| Proposed Changes to D2.0 on the HE TB NDP feedback |
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Abstract

This submission proposes changes to the TGax Draft 2.0.

* 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 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.***

**Discussions:** In the UL OFDMA transmission, the subcarrier indices that HE-STF and the pre-HE-STF portion are populated on are tied to the RU where HE portion are populated. However the HE TB NDP feedback PPDU doesn’t have RU concept in the PPDU because of NDP. The pre-HE portion is clear in the spec: “The L-STF, L-LTF, L-SIG, RL-SIG, HE-SIG-A, and HE-SIG-B fields are referred to as the Pre-HE modulated fields, while the HE-STF, HE-LTF and Data fields are referred to as the HE modulated fields.
In the HE TB PPDU, the pre-HE modulated fields, which include L-STF, L-LTF, L-SIG, RL-SIG and HESIG-A fields, are sent only on the 20 MHz channels where the STA's HE modulated fields are located.”

But futher clarifications are needed for the HE-STF portion when HE TB NDP PPDU is transmitted.

**Proposed changes to D2.0:**

*To the TGax Editor: modify P.L. 435.32 as following:*

For an OFDMA transmission, the coefficients in Equation (28-22) to Equation (28-31) are set to zero if those values are corresponding to tone indices that fall within RUs that have no users assigned to them. For a HE TB NDP feedback transmission, the coefficients in Equation (28-27) to Equation (28-31) are set to the values that fall within the 20MHz channel where the HE-LTF tones, which is defined in Equation (28-49), are allocated.

*In addition,* *add the following sentence on P.L. 485.30 as following:*

The HE TB NDP feedback PPDU has the following properties:
- Uses the HE TB PPDU format but without the Data field and with PE\_duration = 0

- Has two 4x HE-LTF symbols

- 4x HE-LTF, *TGI4,Data* is the only HE-LTF mode and GI duration combination for the HE-LTF

- The generation of HE-LTF symbols for the HE TB NDP feedback PPDU was defined in 28.3.10.10 (HE-LTF)

- The HE-STF and the pre-HE portion are always transmitted only on the 20MHz channel where the HE-LTF tones, which is defined in Equation (28-49), are allocated.