IEEE P802.11
Wireless LANs

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| Spec Text on HE-LTF Capabilities  |
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Abstract

This submission contains spec text to be incorporated in P802.11ax D0.3 related to HE-LTF Capabilities as discussed per 11/16-894r0.

***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 or insert 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.***

**TGax Editor: *Instruction:*** *change the paragraph in 26.3.9.10 in page 125 of D0.2.*

**26.3.9.10 HE-LTF**

…….. In an HE SU PPDU ~~and~~, an HE extended range SU PPDU, or an HE MU PPDU with a single RU (the RU having an MU-MIMO allocation or an SU allocation), the number of HE-LTF symbols, *N*HE-LTF, is a function of the total number of space-time streams *NSTS* as shown in Table 26-6 (Frequently used parameters). In an HE MU PPDU, *N*HE-LTF is indicated in the HE-SIG-A field. In an HE MU PPDU with more than one RU, ~~and~~ or an HE trigger-based PPDU, *N*HE-LTF may take any value among one, two, four, six or eight, which is greater than or equal to the maximum value of the function in Table 26-6 when it is calculated for each NSTS,r,total separately. ~~As a result the HE-LTF field consists of one, two, four, six or eight symbols.~~

A HE PPDU supports 3 HE-LTF modes, which are 1x HE-LTF, 2x HE-LTF, and 4x HE-LTF. It is optional to support 1x HE-LTF in an HE SU PPDU, HE extended range SU PPDU and HE MU PPDU. It is mandatory to support transmission of 1x HE-LTF in an uplink MU-MIMO PPDU over the full bandwidth, for a STA declaring support for uplink MU-MIMO. 1x HE-LTF is disallowed in an HE MU PPDU or in an HE Trigger-based PPDU with more than one RUs, and is also disallowed in an HE MU PPDU with one RU whenever the RU has an MU-MIMO allocation. In an HE SU PPDU, HE MU PPDU or HE extended range SU PPDU, the combination of HE-LTF modes and GI duration is indicated in HE-SIG-A field. In an HE trigger-based PPDU, the combination of HE-LTF modes and GI duration is indicated in the Trigger frame that triggers the transmission of the PPDU. The mandatory combinations of HE-LTF modes and GI duration are:

—2x HE-LTF, *TGI1,Data*(#2498)

—2x HE-LTF, *TGI2,Data*(#2496)

—4x HE-LTF, *TGI4,Data*(#2497)

The optional combinations of HE-LTF mode and GI duration are:

—1x HE-LTF, *TGI1,Data*(#2499) in an(#2829) HE SU PPDU or HE extended SU PPDU

—1x HE-LTF, *TGI1,Data*(#2500) in a non-OFDMA, MU-MIMO HE MU PPDU

—1x HE-LTF, *TGI2,Data*(#2501) in a non-OFDMA, MU-MIMO HE trigger-based PPDU