IEEE P802.11
Wireless LANs

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| Comment Resolution SA1 – CID 7300 |
| Date: 2022-05-11 |
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Abstract

This submission proposes the comment resolution of CIDs 7300; as part of SA1, changes are relative to Draft 4.2.

Revisions:

1. Updated to draft 4.2

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 TGaz Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

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

**The text preceded by “Discussion” is not part of the adopted changes.**

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| **CID** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| **7300** | 245.8 | 27.3.18a.4 | Add figure for secure HE-LTF generation, Refer to figure27-32, 27-33 in 11ax Draft 8.0 | as in comment | **Revised**TGaz editor make changes depicted in[https://mentor.ieee.org/802.11/dcn/22/](https://mentor.ieee.org/802.11/dcn/22/11-22-0643-02-00az-comment-resolution-sa1-cid-7296-and-7336.docx)11-22-0758-01-00az-comment-resolution-sa1-cid-7300.docx |

**Resolution:**

27.3.18a.4 Construction of secure HE-LTF

TGaz Editor: Change the following paragraphs on page 251 as follows

The construction of the Secure HE-LTF field is as follows:

1. Sequence generation: Generate the randomized LTF sequence in frequency domain over the bandwidth indicated by CH\_BANDWIDTH as described in [[27.3.18a.3](#H27o3o18ao3)](#H27o3o18c) (Generation of Randomized LTF Sequence).
2. A frequency domain window function is applied to all the tones of the secure HE-LTF sequence. When the TXVECTOR parameter TX\_WINDOW\_FLAG is set to 0, the Rectangular window is used, where for all the tones in all channel bandwidths. When the TXVECTOR parameter TX\_WINDOW\_FLAG is set to 1, the flat top window is used; it is defined as: (#**5216**)

 (27-126d)

where
and the impulse response p(n) is given by:

 (27-126e)
where

a0 = 0.21557895,
a1 = -0.41663158,
a2 = 0.277263158,
a3 = -0.083578947,
a4 = 0.006947368 and
NWinFT = 20.

Note that the shall be normalized to have unit RMS power.
In Equations ([27-126d](#E27o126d)) and ([27-126e](#E27o126e)), the LTF subcarrier values , where is secure HE-LTF sequence constructed after step c). (#**7138**)

1. There is no spatial mapping, the Q matrix is a block identity matrix.
2. IDFT: Compute the inverse discrete Fourier transform.
3. Insert zero power GI: Prepend values of zero of length indicated by the TXVECTOR parameter GI\_TYPE.
4. Analog and RF: Upconvert the resulting complex baseband waveform associated with each transmit chain to an RF signal according to the center frequency of the desired channel and transmit. Refer to 27.3.10 (Mathematical description of signals). (#**7085** #**7139**)

TGaz Editor: Insert the following paragraph and figure on page 252 as follows

The generation of the time domain secure HELTF symbol per repetition for symbol k and tone index l is shown in Figure 27-46h (Generation of secure HE-LTF symbols per repetition in a HE Ranging NDP PPDU)



Figure 27-46h – Generation of secure HE-LTF symbols per repetition in a HE Ranging NDP PPDU