802.11ba Draft Specification

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| Proposed Spec Text for clause 32.2.7 |
| Date: 2018-07-09 |
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Abstract

This submission proposes the spec text to be incorporated in IEEE802.11ba D1.0 related to the following clauses 32.2.7 Mathematical description of signals

Revision History:

* Rev 0: Initial version of the document

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

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

**TGba Editor: *Instruction: Modify the following text in 32.2.7 Mathematical description of signals, as suggested below***

32.2.7 Mathematical description of signals

~~For each of the L-STF, L-LTF, L-SIG, BPSK-Mark fields and subfields of the WUR-Sync and WUR-Data,
the baseband signal is obtained by taking the Inverse Discrete Fourier Transform (IDFT) as described
below.~~

~~Equation is TBD.~~

**TGba Editor: *Instruction: Add the following text in 32.2.7 Mathematical description of signals, as suggested below***

For the legacy preamble fileds (L-STF, L-LTF and L-SIG), the baseband signal is constructed as described in 22.3.7.4. For the BPSK-Mark field, the baseband signal is constructed as described in 32.2.8.2.

For the WUR Sync ON symbols and WUR Data MC-OOK ON symbols (SymLDROn and SymHDROn), the baseband signal can be obtained by taking the Inverse Discrete Fourier Transform (IDFT) as described below.

 (32-xx)

Where

 is the number of transmit chains as defined in Table 32-4;

 is a windowing function. A suggested windowing function for 4 us symbol (SymLDROn) is given in 18.3.2.5.

 is the subcarrier frequency spacing and is given in Table 32-3;

 is the length of cyclic prefix. For 4 us symbol (SymLDROn), = 0.8 us and for 2 us symbol (SymHDROn and WUR Sync ON), = 0.4 us

 is the cyclic shift applied to the signal from transmit chain and a suggested value is specified in Annex X;;

 are the subcarrier coefficients and suggested values are specified in Annex X;;

 is the FFT size and it is equal to 64;

Note: The expression in equation (32-xx) is provided for a single 20 MHz WUR channel.