IEEE P802.11
Wireless LANs

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| Comment Resolutions on Clause 32.2.4.8 (Construction of the WUR-Sync and WUR-Data for the FDMA transmission)  |
| Date: 2019-01-15 |
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Abstract

This submission proposes resolutions for the following 6 comments on Clause 32.2.4.8 of TGba D1.0 [1]:

187, 257, 921, 922, 961, 1056

Revisions:

* 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 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 existing 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.***

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| **CID** | **Clause Number** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 187 | 32.2.4.8 | 76.18 | In FDMA case, is there any phase rotation among the WUR portation in each 20MHz subchannel? Otherwise, the PAPR may be too large | as in the comment | RejectedIt is not clear how big the PAPR may be an issue for 40 MHz or 80 MHz WUR FDMA transmission, and not clear what the commenter’s proposal on phase rotation is.  |
| 257 | 32.2.4.8 | 75.56 | Conventional 802.11 system uses phase rotation to reduce the PAPR in a wide bandwidth transmission. | Add a phase rotation step to the construction of the WUR-Sync and WUR-Data for the FDMA transmission. | RejectedIt is not clear how big the PAPR may be an issue for 40 MHz or 80 MHz WUR FDMA transmission, and not clear what the commenter’s proposal on phase rotation is.  |
| 921 | 32.2.4.8 | 76.14 | "... non-punctured 20MHz sub-channel is shorter than L\_LENGTH described in 32.3.1 ....". The usage of "shorter than L\_LENGTH" is not accurate as L\_LENGTH is the the calculated length based on 6Mbps rate. | Change to "... non-punctured 20MHz sub-channel is shorter than the length indicated by the L\_LENGTH described in 32.3.1 ...." | RevisedTGba Editor to make the changes shown in IEEE 802.11-19/0xxxr0 under the tag with CID 921. |
| 922 | 32.2.4.8 | 76.15 | "..., the padding is used to align the length indicated ...", add a reference to the Padding genertion section will read more clear. | Change to "..., generate the padding according to Section 32.2.10 to align the length indicated ..." | Accepted |
| 961 | 32.2.4.8 | 76.02 | There seems to be an unwanted "HDR" in the sentence regarding the Sync Field | Remove the "HDR" in the sentence "...Sync field by using either HDR On-WG or Off-WG ..." | Accepted |
| 1056 | 32.2.4.8 | 76.21 | The order of steps f) and g) need to be reversed. The description says that window function is applied after adding the baseband signals. However, window fucntion will be different for channels with different WUR\_DATARATE. Windowing needs to be applied on each sub-channel, and the outputs are to be added.Replace the steps f) and g) with the following:"f) Apply windowing for each 20 MHz sub-channelg) The outputs per each 20 MHz sub-channel are added across the 20 MHz sub-channels, sample by sample" | As shown in the comment. | RevisedWindowing with the different window size need to be applied according to the pulse width determined by the WUR\_DATARATE.TGba Editor to make the changes shown in IEEE 802.11-19/0xxxr0 under the tag with CID 1056. |

***TGba Editor: Please edit D1.0, Pg 76, ln 13-16 in section 32.2.4.8 as follows:***

Append the padding on non-punctured 20MHz sub-channel: If the duration of WUR transmission on any non-punctured 20MHz sub-channel is shorter than ~~L\_LENGTH described in 32.3.1 (TXTIME and PSDU length calculation)~~ the length indicated by the L\_LENGTH described in 32.3.1 (TXTIME and PSDU length calculation) (#921), ~~the padding is used~~ generate the padding according to Section 32.2.10 (#922) to align the length indicated by the LENGTH field in the L-SIG, and the padding is not applied to the punctured 20MHz sub-channel.

***TGba Editor: Please edit D1.0, Pg 76, ln 1-3 in section 32.2.4.8 as follows:***

Generate the MC-OOK waveform for the WUR-Sync field by using either ~~HDR~~ (#961) On-WG or Off-WG according to the Sync-bit for each 20MHz sub­channel.

***TGba Editor: Please edit D1.0, Pg 76, ln 17-21 in section 32.2.4.8 as follows:***

f) ~~The outputs per each 20 MHz sub-channel are added across the 20 MHz sub-channels, sample by sample.~~ Apply windowing for each 20 MHz sub-channel.

g) ~~Windowing: Apply windowing.~~ The outputs per each 20 MHz sub-channel are added across the 20 MHz sub-channels, sample by sample. (#1056)

***TGba Editor: Please replace the Figure 32-8 in D1.0, Pg 73 by the following figure: (#1056)***



**References:**

1. **IEEE P802.11baTM/D1.0, Sep 2018.**