IEEE P802.11
Wireless LANs

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| Comment Resolution SA1 – Various Part 4 |
| Date: 2022-01-06 |
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Abstract

This submission proposes the comment resolution of CIDs 7077; as part of SA1, changes are relative to Draft 4.0.

Revisions:

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** |
| **7077** | 229.12 | 26.16 | 11az D4.0 P236L28-31 states that the NSTS And Mid-amble Periodicity field of the HE-SIG-A1 is encoded based on either the TXVECTOR parameter NUM\_STS[1] or NUM\_STS. However, the NSTS And Mid-amble Periodicity field of the HE-SIG-A1 has two way of encoding, one when Doppler=0 and another when Doppler=1. It needs to be clarified which mode the encoding should use for Ranging NDP. | Add subclause 26.16 (Midamble parameter setting rules) to the 11az draft, and add language effectively stating that the TXVECTOR parameter DOPPLER shall be set to 0 when transmitting a Ranging NDP. | **Revised** |
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11.21.6.4.6 Transmission of a ranging NDP

TGaz Editor: Change the text on page 180 starting at line 20 as follows

An RSTA transmitting an HE Ranging NDP to one or more peer ISTAs shall set the TXVECTOR parameter as follows:

* The FORMAT parameter is set to HE\_SU
* The RANGING\_FLAG is set to 1
* The UPLINK\_FLAG parameter is set to 0
* The APEP\_LENGTH parameter is set to 0
* The SECURE\_LTF\_FLAG is set as follows:
	+ Is set to 0 in the TB ranging measurement exchange ([11.21.6.4.3](#H11o21o6o4o3)) and non-TB ranging measurement exchange ([11.21.6.4.4](#H11o21o6o4o4)).
	+ Is set to 1 in the TB ranging measurement exchange with secure LTF ([11.21.6.4.5.2](#H11o21o6o4o5o2)) and the non-TB ranging measurement exchange with secure LTF ([11.21.6.4.5.3](#H11o21o6o4o5o3)).
* The TX\_WINDOW\_FLAG is set to 1 if the SECURE\_LTF\_FLAG is set to 1 and the RSTA and ISTA have negotiated to use the optional frequency domain Tx window for R2I NPDs; it is set to 0 otherwise.
* In the TB ranging measurement exchange with secure LTF ([11.21.6.4.5.2](#H11o21o6o4o5o2)), the NUM\_USERS parameter is set to the number of ISTAs that the HE Ranging NDP is transmitted to. (#**3264**)
* In the Non-TB ranging measurement exchange ([11.21.6.4.4](#H11o21o6o4o4)), the TXPWR\_LEVEL\_INDEX parameter is set to a value that matches the Tx Power value indicated in the R2I NDP Tx Power field in the following LMR frame, except if the value in the R2I NDP Tx Power field was set to a reserved value. (#**3883**)
* The DOPPLER parameter is set to 0 (#7077)
* The NUM\_STS parameter is set as follows:

TGaz Editor: Change the text on page 182 starting at line 28 as follows

An ISTA transmitting an HE Ranging NDP shall set the TXVECTOR parameter as follows:

* The FORMAT parameter is set to HE\_SU
* The RANGING\_FLAG is set to 1
* The UPLINK\_FLAG parameter is set to 1
* The APEP\_LENGTH parameter is set to 0
* The SECURE\_LTF\_FLAG is set as follows:
	+ Is set to 0 in the non-TB ranging measurement exchange ([11.21.6.4.4](#H11o21o6o4o4)).
	+ Is set to 1 in the non-TB ranging measurement exchange with secure LTF ([11.21.6.4.5.3](#H11o21o6o4o5o3)),
* The TX\_WINDOW\_FLAG is set to 1 if the SECURE\_LTF\_FLAG is set to 1 and the RSTA and ISTA have negotiated to use the optional frequency domain Tx window for I2R NPDs; it is set to 0 otherwise. (#**5204**)
* The DOPPLER parameter is set to 0 (#7077)
* The NUM\_STS parameter is set to the same value as the I2R N\_STS subfield in the STA Info field in the preceding Ranging NDP Announcement frame plus 1.

TGaz Editor: Change the text on page 183 starting at line 29 as follows

An ISTA transmitting an HE TB Ranging NDP to an RSTA shall set the TXVECTOR parameter as follows:

* The FORMAT parameter is set to HE\_TB
* The RANGING\_FLAG is set to 1
* The APEP\_LENGTH parameter is set to 0
* The SECURE\_LTF\_FLAG is set as follows:
	+ Is set to 0 in the TB ranging measurement exchange ([11.21.6.4.3](#H11o21o6o4o3)).
	+ Is set to 1 in the TB ranging measurement exchange with secure LTF ([11.21.6.4.5.2](#H11o21o6o4o5o2)).
* The TX\_WINDOW\_FLAG is set to 1 if the SECURE\_LTF\_FLAG is set to 1 and the RSTA and ISTA have negotiated to use the optional frequency domain Tx window for I2R NPDs; it is set to 0 otherwise. (#**5204**)
* The DOPPLER parameter is set to 0 (#7077)
* The NUM\_STS parameter is set to the same value as the Number Of Spatial Streams subfield in the SS Allocation field in the User Info field in the preceding Ranging Sounding Trigger frame.

TGaz Editor: Change the text on page 229 starting at line 6 as follows

26.15.2 PPDU format selection

***Change the last paragraph in 26.15.2 PPDU format selection as follows: (#3412)***

During an EDCA FTM session, an ~~An~~ HE STA should send an Ack frame that is the response to a Fine Timing Measurement frame carried in a VHT PPDU or HT PPDU in the same PPDU format as the PPDU carrying the Fine Timing Measurement frame. It shall also send an Ack frame that is the response to a Fine Timing Measurement frame carried in an HE SU PPDU format in an HE SU PPDU; see [26.17.2](#H26o17o2) (HE BSS operation in the 6 GHz band).

TGaz Editor: Insert the following text on page 229 starting at line 12 as follows

26.16 Midamble parameter setting rules

***Insert the following at the end of 26.16: (#7077)***

A STA shall set the TXVECTOR parameter DOPPLER to 0 when transmitting an HE Ranging NDP or HE TB Ranging NDP.