IEEE P802.11
Wireless LANs

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| 11az LB240 Comment Resolution Section 11.22.6.4.4 |
| Date: 2019-04-25 |
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Abstract

This submission proposes the comment resolution of CIDs (2186,2188, 2189, 2190, 2193, 2196, 2201, 2202, 2514, 2515) in LB240 related to section 11.22.6.4.4

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** |
| 2186 | 59.02 | 11.22.6.4.4.1 | [Re-raising this comment from the comment collection, as it is not possible to determine from 18/1544r8 whether/how it was addressed. References are to the CC draft and hence may be wrong against D1.0.]"for which the responder retains the computed ToA value. " -- what does this mean? | Clarify | **Reject**This sentence is removed in 11az\_D1.0 from section 11.22.6.4.4.1The text means the max time duration RSTA stores the time stamps (t1,t4) before its flushed Refer to 18/1741r3 for resolution |
| 2188 | 60.04 | 11.22.6.4.4.3  | [Re-raising this comment from the comment collection, as it is not possible to determine from 18/1544r8 whether/how it was addressed. References are to the CC draft and hence may be wrong against D1.0.]"The direction(s) of LMR feedback(s) is(are) negotiated at service establishment." -- so can be ISTA-to-RSTA only (unlike HEz)? | Clarify | **Reject**This sentence was removed from 11az\_D1.0 RSTA-to-ISTA feedback is mandatory and ISTA-to-RSTA feedback is negotiated Refer to section 9.4.2.279 (Ranging parameters) in 11az\_D1.0 |
| 2189 | 60.09 | 11.22.6.4.4.3 | [Re-raising this comment from the comment collection, as it is not possible to determine from 18/1544r8 whether/how it was addressed. References are to the CC draft and hence may be wrong against D1.0.]"LMR feedback is reported in the next sounding sequence. " but the Figures 11-xx indicate the LMR feedback is after the sounding sequence, not part of it | Clarify | **Reject**Section 11.22.6.4.4 was rewritten in 18/1741r3Refer to figure 11-36j and 11-36k for corrected figures |
| 2190 | 60.09 | 11.22.6.4.4.3 | [Re-raising this comment from the comment collection, as it is not possible to determine from 18/1544r8 whether/how it was addressed. References are to the CC draft and hence may be wrong against D1.0.]What is the "sounding sequence" for VHTz? Is it the NDPA NDP NDP from Figure 11-xx in 11.22.6.4.4.2? | Clarify | **Reject**Refer to figure 11-36j in 11az\_D1.0 for sounding sequence  |
| 2193 | 61.61 | 11.22.6.4.4.3 | [Re-raising this comment from the comment collection, as it is not possible to determine from 18/1544r8 whether/how it was addressed. References are to the CC draft and hence may be wrong against D1.0.]"TOA and TOD format " -- what is this? | Change "format" to "reporting". Ditto line 14 | **Reject**Two types of ToA feedback are supported 1. First path based
2. Phase shift based (based on average linear phase across subcarriers)

Refer to Section 9.4.2.279 in 11az\_D1.0 for ToA types |
| 2196 | 62.02 | 11.22.6.4.4.5  | [Re-raising this comment from the comment collection, as it is not possible to determine from 18/1544r8 whether/how it was addressed. References are to the CC draft and hence may be wrong against D1.0.]NUM\_STS cannot indicate less than 1 STS | Delete this line. Also line 16 and line 37  | **Reject**See section 11.22.6.4.5 in 11az\_D1.0 for new definition of N\_STS (Page 105, line 25) |
| 2201 | 62.00 | 11.22.6.4.4.5  | [Re-raising this comment from the comment collection, as it is not possible to determine from 18/1544r8 whether/how it was addressed. References are to the CC draft and hence may be wrong against D1.0.]What is the point of the "to a peer STA"/" to one or more peer STAs " in this subclause? NDPs are not addressed, and it's obvious that the intent is to send them so some peer(s) | Delete all of them | **Reject**This text has been removed in 11az\_D1.0Refer to section 11.22.6.4.5 & 11.22.6.4.6for definition ofLTF\_SEQUENCE  |
| 2202 | 63.07 | 11.22.6.4.4.5 | [Re-raising this comment from the comment collection, as it is not possible to determine from 18/1544r8 whether/how it was addressed. References are to the CC draft and hence may be wrong against D1.0.]"addressed to itself" sounds like it's an RNDPA-to-self like a CTS-to-self, but I don't think that's what's intended here | Change "itself" to "it" | **Reject**This text has been removed in 11az\_D1.0Refer to section 11.22.6.4.6.1 (Page 109, line 14) which describes the behaviour of RSTA upon receving a Ranging NDPA |
| 2514 | 101.22 | 11.22.6.4.4.1 | Figure 11-36i defines a new trigger sequence. Existing trigger sequence in 11ax is that the responding PPDU (either HE TB PPDU, or 11a in case of CTS carrying response to MU-RTS) is transmitted 16 usec after the Trigger frame, and is frequency synchronized to the PPDU carrying the Trigger frame. In the new sequence shown in Figure 11-36i, the responding PPDU (DL NDP) is sent 2\*SIFS+Duration\_of\_UL\_NDP after the PPDU carrying the Trigger frame. Or, is 11az defining a PPDU which does not contain a MAC Trigger information, but STA still has to treat as a Trigger frame (e.g. the UL NDP in the figure)? To which PPDU is the DL NDP to be synchronize\d to? NDP-A or UL NDP? Why is there a need to create such a new mode and cause confusion? Similar comment on Figure 11-36m | Insert a Trigger frame in between UL NDP and DL NDP in Figure 11-36i (P101) and Figure 11-36m (P104). | **Reject**This sequence is not trigger based, see name non-TB. It is really based on the current HE sounding protocol (NDP-A, SIFS, NDP, SIFS, feedback), just that now the feedback is replaced by (2nd NDP, SIFS, LMR). It is also a purley unicast protocol and intiated by a non-AP STA (which has to acquire medium access using contention). |
| 2515 | 101.22 | 11.22.6.4.4.1 | Why does LMR need ot be sent SIFS after the DL NDP? What is the hurry? | Remove "SIFS" between DL NDP and LMR from Figure 11-36i (P101) and Figure 11-36m (P104). | **Reject**11az supports both immediate and delayed LMR reporting. The RSTA can opt for delayed feedback if it cannot finish time stamp calculation within current TXOP, but there is always an LMR frame at the end of the sequence (with either current results or last round’s)This is might be used to peer to peer ranging and the peer STA might not be available after the TXOP |