IEEE P802.11  
Wireless LANs

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| LB253 Resolution to some CID set2 | | | | |
| Date: 2021-02-24 | | | | |
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Abstract

Editor instruction based on D3.0

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| 5219 | 133.00 | 36 | 11.21.6.3.7 | AoA Results could be used for non-DMG devices | Add text that enables AoA for non-DMG devices | **Revise**,  TGaz Editor: perform the instructions in <https://mentor.ieee.org/802.11/dcn/21/11-21-0564-00-00az-lb253-resolution-to-cid-set2.docx> |

***TGaz Editor: Modify the text in P81L33 as follows:***

element).

***TGaz Editor: Modify the text in P82L23-27 as follows:***

If the STA sending the frame containing the element is a DMG STA, and the frame containing the Direction Measurement Result element follows an ISTA PPDU that enabled AOD by containing TRN-T subfields, the Best AWV ID field contains the index of the TRN-T subfield that was received with the highest SNR. If the ISTA PPDU than enabled AOD contained EDMG TRN-T subfields, the AWV ID field contains the AWV ID (see 28.9.2.2.5 (TRN field definition)) of the TRN subfields that were received with the highest SNR.

If the STA sending the frame containing the element is a non-DMG STA, the Best AWV ID field is reserved.

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| 5400 | 142.00 | 27 | 11.21.6.4.2.1.6 | Meaningless sentence "When an ISTA transmits an EDMG secure ranging PPDU, it shall include the Ack frame in a control response of the received Protected FTM" frame. | Remove the sentence | **Revise**,  TGaz Editor: perform the instructions in [https://mentor.ieee.org/802.11/dcn/21/11-21-0564-00-00az-lb253-resolution-to-cid-set2.docx](https://mentor.ieee.org/802.11/dcn/21/11-21-0364-00-00az-lb253-resolution-to-cid-set2.docx) |

TGaz Editor: Modify the text in P142L27 as follows:

An ISTA shall transmits an Ack frame to the received Protected FTM frame as an EDMG secure ranging PPDU.

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| 5400 | 142.00 | 27 | 11.21.6  .4.2.1.6 | Meaningless sentence "When an ISTA transmits an EDMG secure ranging PPDU, it shall include the Ack frame in a control response of the received Protected FTM" frame. | Remove the sentence | **Revise**,  TGaz Editor: perform the instructions in <https://mentor.ieee.org/802.11/dcn/21/11-21-0564-00-00az-lb253-resolution-to-cid-set2.docx> |

In a Direction Measurement FTM pair that agreed on R2I AOA, the RSTA shall add a TRN field to the FTM frames in the exchanges specified by the Direction Measurement Density field by setting the TRN\_LEN/EDMG\_TRN\_LEN to the value of the L\_RX field sent by the ISTA and PPDU\_TYPE/EDMG\_PPDU\_TYPE to 0. In a first path AWV FTM exchange the RSTA shall also set the FIRST\_PATH\_AWV\_TRN TXVECTOR parameter to FIRST\_PATH\_AWV\_ON\_TRN in the Fine Timing Measurement frames it sends to the ISTA. The ISTA may receive the TRN field using implementation dependent AWV settings.(#**2347**,#**1444**)

In a Direction Measurement FTM pair that agreed on I2R AOA, the ISTA shall add a TRN field to the Ack frames in the exchanges specified by the Direction Measurement Density field by setting the TRN\_LEN/EDMG\_TRN\_LEN to the value of the L\_RX field of the DMG Direction Measurement Parameters received from the RSTA and PPDU\_TYPE/EDMG\_PPDU\_TYPE to 0. In a first path AWV FTM exchange the ISTA shall also set the FIRST\_PATH\_AWV\_TRN TXVECTOR parameter to FIRST\_PATH\_AWV\_ON\_TRN in the Ack frames it sends to the RSTA. The RSTA may receive the TRN field using implementation dependent AWV setting. The RSTA shall provide the AOA measurement results in the Direction Measurement Result element included in the next FTM frame sent to the ISTA.

In a Direction Measurement FTM pair that agreed on R2I AOD, the RSTA shall add a TRN field to the FTM frames in the exchanges specified by the Direction Measurement Density field by setting the TRN\_LEN/EDMG\_TRN\_LEN to a non-zero value and PPDU\_TYPE/EDMG\_PPDU\_TYPE to 1. In a first path AWV FTM exchange the RSTA shall also set the FIRST\_PATH\_AWV\_TRN TXVECTOR parameter to FIRST\_PATH\_AWV\_ON\_TRN in the Fine Timing Measurement frames it sends to the ISTA. The ISTA shall receive the TRN field using the first path AWV setting. The RSTA may use implementation dependent AWV (such as sectors) in the TRN field.

In a Direction Measurement FTM pair that agreed on I2R AOD, the ISTA shall add a TRN field to the Ack frames in the exchanges specified by the Direction Measurement Density by setting the TRN\_LEN/EDMG\_TRN\_LEN to a non-zero value and PPDU\_TYPE/EDMG\_PPDU\_TYPE to 1. In a first path AWV FTM exchange the ISTA shall also set the FIRST\_PATH\_AWV\_TRN TXVECTOR parameter to FIRST\_PATH\_AWV\_ON\_TRN in the Ack frames it sends to the RSTA. The RSTA shall receive the TRN field using the first path AWV setting. The ISTA may use implementation dependent AWV (such as sectors) in the TRN field. The RSTA shall set the Best AWV Id field in the Fine Timing Measurement frames sent to the ISTA following these Ack frames to the AWV Id or the Best Sector Index of the TRN field (if the Ack was an EDMG/DMG PPDU respectively). If the RSTA has set the AOD Channel Measurement Feedback subfield to 1 in the DMG Direction Measurement Capabilities field, it shall also include a Channel Measurement Feedback Type field and a Channel Measurement Feedback field in the Fine Timing Measurement frames sent to the ISTA following the reception of the Ack frames that its RXVECTOR PPDU\_TYPE parameter equal to TRN-T or EDMG\_PPDU\_TYPE equal to EDMG-TRN-T, and TRN-LEN greater than 0 or EDMG-TRN-LEN greater than 0.

**References: DraftP802.11az\_D3.0**