IEEE P802.11
Wireless LANs

|  |
| --- |
| LB272-DMG-CIDs-set1 |
| Date: 2023-04-14 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Alecsander Eitan | Qualcomm |  |  | eitana@qti.qualcomm.com |
|  |  |  |  |  |

Abstract

This document proposes resolution to several LB272 CIDs:

1323, 1326, 1369, 1370, 1375, 1388, 2057, 2058 and 1410.

The changes are relative to IEEE P802.11-REVme/D1.0, December 2021

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Section** | **Page****Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1323 | 9.4.2.322 | P119L24 | In the paragraph it is stated four-dimention Range-Doppler-Direction. | To avoid confusion, add here the details as in prev paragraphs that direction is 2D since it includes Tx and Rx. | Revised: TGbf Editor make changes as in:https://mentor.ieee.org/802.11/dcn/23/11-23-0647-00-00bf-lb272-dmg-cids-set1.docx |

**Discussion:**

The commenter is asking for a clarification to explain how “Range-Doppler-Direction” is four-dimention.

While section 9.4.2.329.3 DMG Sensing Image Report Data Subelement clearly states what are the four dimensions it make sense to add a note to clarify the issue.

*TGbf Editor: Please add the text at P119L24 in subclause 9.4.2.322 in D1.0 as follows.*

The DMG Sensing Image Range-Doppler-Direction subfield is set to 1 to indicate the capability to report

four-dimension Range-Doppler-Direction image as a sensing responder. (Note that Direction includes TX and RX Beam indexes)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Section** | **Page****Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1326 | 9.4.2.329.4 | P136L32 | The Target report parameters are missing the Target power values | Add target Power value to "Figure 9-1002cj--Target field format" | Revised: TGbf Editor make changes as in:https://mentor.ieee.org/802.11/dcn/23/11-23-0647-00-00bf-lb272-dmg-cids-set1.docx |

**Discussion:**

The commenter is asking to add the power value for each reported target. It makes sense to add the power value to the report to help the initiator understand better the target.

*TGbf Editor: Please update Figure 9-1002cj at P136L31-45 in subclause 9.4.2.329.4 in D1.0 as follows.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  | Target Index | Range | Range Span | Azimuth | Azimuth Span | Elevation |
| Bits | 8 | 0 or 16 | 0 or 6 | 0 or 11 | 0 or 5 | 0 or 10 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  | Elevation Span | Radial Velocity | Azimuth Velocity | Elevation Velocity | Power |
| Bits | 0 or 5 | 0 or 12 | 0 or 12 | 0 or 12 | 8 |

**Figure 9-1002cj—Target field format**

*TGbf Editor: Please add the following text at P137L48 in subclause 9.4.2.329.4 in D1.0 as follows.*

The Power field is an unsigned integer indicating the received power from the target, in 1 dB units relative to -255dBm.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Section** | **Page****Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1369 | 9.4.2.327 | P127L37 | "Each value is 16 bits representing therange in units of 1 mm/s." It should be "the Doppler" | replace "range" with "Doppler" in P127L38 | Accepted |
| 1370 | 9.4.2.328 | P127L44 | "The DMG Sensing Report Control element is sent in a Sensing Report frame if the frame is sent by a DMG STA." - Incorrect it is sent in a "DMG Sensing Measurement Report frame" | replace "The DMG Sensing Report Control element is sent in a Sensing Report frame if the frame is sent by a DMG STA" with "The DMG Sensing Report Control Element is sent within a DMG Sensing Measurement Report frame" | Accepted |
| 1375 | 9.4.2.329.2 | P132L27 | "The AoA subfield indicates the AoA measurement result" - wrong article | replace with "The AoA subfield indicates an AoA measurement result" | Accepted |
| 1388 | 11.55.3.5 | P201L50 | "To measure low velocity Doppler shifts measurements," - language | replace with "To enable low velocity Doppler shifts measurements," | Accepted |
| 2057 | 9.4.2.329.3 | P133L31 | The Reflection Power Bias Subelement' should be 'The Reflection Power Bias field' and the 'i' should be removed. | As in comment. | Accepted |
| 2058 | 9.4.2.329.3 | P133L36 | The Reflection Power Slope Subelement' should be 'The Reflection Power Slope field'. | As in comment. | Accepted |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Section** | **Page****Line** | **Comment** | **Proposed Change** | **Resolution** |
| 1410 | 9.4.2.329.3 | P133L8 | For the use cases where breathing or heart rates need to be measured, sensing responders report vibration rate axis instead of Doppler axis in image type of report. | Add a bit to signal presence of Vibration rate instead of Doppler in Figure 9-1002cd--Axis Present field format | Revised: TGbf Editor make changes as in:https://mentor.ieee.org/802.11/dcn/23/11-23-0505-01-00bf-lb272-dmg-cids-phase-report.docx |

**Discussion:**

The commenter is fine with the solution provided in:

[https://mentor.ieee.org/802.11/dcn/23/11-23-0505-01-00bf-lb272-dmg-cids-phase-report.docx](https://mentor.ieee.org/802.11/dcn/23/11-23-0505-00-00bf-lb272-dmg-cids-phase-report.docx)

Where Phase was added to all DMG Sensing Image report cases.

Straw Poll:

Do you agree with the proposed resolutions in revision 0 of this document?

Y/N/A