IEEE P802.11  
Wireless LANs

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| LB276 comment resolutions for DMG part 1 | | | | |
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Abstract

This submission contains the proposed comment resolutions for the CIDs 3113, 3114, 3510, 3511, 3512 and 3514.

R0: initial document

# CID 3113, 3114

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| --- | --- | --- | --- | --- | --- |
| CID | Page.  Line | Clause Number | Comment | Proposed Change | Resolution |
| 3113 | 95.36 | 9.4.2.330.1 | The sentence "For linear polarization, this subfield is set to 1, 2, 3 and 4 to indicate that ...." specify that one of the values (1..4) is used, hence the sentence shall be "For linear polarization, this subfield is set to 1, 2, 3 or 4 to indicate that..." Same method is used on page 88 line 12. | Replace the "and" with "or" | Accepted. |
| 3114 | 95.42 | 9.4.2.330.1 | The sentence "For circular polarization, this field is set to 1, 2, 3 and 4 for different ...." specify that one of the values (1..4) is used, hence the sentence shall be "For linear polarization, this subfield is set to 1, 2, 3 or 4 to indicate that..." Same method is used on page 88 line 12. | Replace the "and" with "or" | Accepted. |

***Instructions to the editor: please make the following changes to the paragraph from P95L34 to P95L45 in the subclause 9.4.2.330.1 General in D2.0 as shown below:***

The Polarization Mode field is set to 0 to indicate that the sensing results contained in the DMG Sensing Report element has no polarization information. For linear polarization, this subfield is set to 1, 2, 3 or 4 to indicate that sensing results contained in the DMG Sensing Report element were obtained by transmitting with horizontal polarization and receiving with horizontal polarization, transmitting with horizontal polarization and receiving with vertical polarization, transmitting with vertical polarization and receiving with vertical polarization, or transmitting with vertical polarization and receiving with horizontal polarization, respectively. For circular polarization, this field is set to 1, 2, 3 or 4 for different transmitting and receiving circular polarization combinations. This field is set to 5 to indicate the sensing results contained in the DMG Sensing Report element is the fused result based on different polarization results.

# CID 3510

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| CID | Page.  Line | Clause Number | Comment | Proposed Change | Resolution |
| 3510 | 91.40 | 9.4.2.327 DMG Sensing Image Range Axis LUT element | Since Unassociated STA is not considered in DMG sensing, the 'USID' in DMG related subclause shall be removed. The USID in Figure 9-1002ca and corresponding description shall be removed. | As in comments. | Revised.  TGbf Editor make changes specified in 1669r0.  (<https://mentor.ieee.org/802.11/dcn/23/11-23-1669-00-00bf-lb276-comment-resolutions-for-dmg-part-1.docx>) |

***Instructions to the editor: please make the following changes to Figure 9-1002ca—DMG Sensing Image Range Axis LUT element format and the paragraph from P91L47 to P91L50 in subclause 9.4.2.327 DMG Sensing Image Range Axis LUT element in D2.0 as shown below:***



**Figure 9-1002ca – DMG Sensing Image Range Axis LUT element format**

The AID field uniquely identifies the sensing responder to whom the DMG Sensing Image Range Axis LUT element belongs.

# CID 3511

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| CID | Page.  Line | Clause Number | Comment | Proposed Change | Resolution |
| 3511 | 92.12 | 9.4.2.328 DMG Sensing Image Doppler Axis LUT element | The USID in Figure 9-1002cb and corresponding description shall be removed. | As in comments. | Revised.  TGbf Editor make changes specified in 1669r0.  (<https://mentor.ieee.org/802.11/dcn/23/11-23-1669-00-00bf-lb276-comment-resolutions-for-dmg-part-1.docx>) |

***Instructions to the editor: please make the following changes to Figure 9-1002cb—DMG Sensing Image Doppler Axis LUT element format and the paragraph from P92L17 to P92L19 in subclause 9.4.2.328 DMG Sensing Image Doppler Axis LUT element in D2.0 as shown below:***



**Figure 9-1002cb – DMG Sensing Image Doppler Axis LUT element format**

The AID field uniquely identifies the sensing responder to whom the DMG Sensing Image Doppler Axis LUT element belongs.

# CID 3512

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| CID | Page.  Line | Clause Number | Comment | Proposed Change | Resolution |
| 3512 | 92.42 | 9.4.2.329 DMG Sensing Report Control element | The USID in Figure 9-1002cc and corresponding description shall be removed. | As in comments. | Revised.  TGbf Editor make changes specified in 1669r0.  (<https://mentor.ieee.org/802.11/dcn/23/11-23-1669-00-00bf-lb276-comment-resolutions-for-dmg-part-1.docx>) |

***Instructions to the editor: please make the following changes to Figure 9-1002cc—DMG Sensing Report Control element format and the paragraph from P92L47 to P92L49 in subclause 9.4.2.329 DMG Sensing Report Control element in D2.0 as shown below:***



**Figure 9-1002cc—DMG Sensing Report Control element format**

The AID field uniquely identifies the sensing responder to whom the DMG Sensing Report Control element belongs.

# CID 3514

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| CID | Page.  Line | Clause Number | Comment | Proposed Change | Resolution |
| 3514 | 179.64 | 11.55.3.6.2.3 Parallel coordinated monostatic DMG sensing instance | If the sensing initiator does not receive a response within the duration of a DMG Sensing Response frame plus a SIFS after a DMG Sensing Request frame, it shall send the next DMG Sensing Request frame, the duration of a DMG Sensing Response frame plus 2XSIFS, after the DMG Sensing Request frame.' When SP field is set to 0, this behavior may leads to TXOP loss. Some normative behaviors should be added. | Commenter will provide a contribution for this CID. | Revised.  TGbf Editor make changes specified in 1669r0.  (<https://mentor.ieee.org/802.11/dcn/23/11-23-1669-00-00bf-lb276-comment-resolutions-for-dmg-part-1.docx>) |

Discussion

In the coordinated DMG sensing, sensing initiator may not able to receive the DMG sensing response due to some reasons (e.g. blocked by the moving target, or sensing responder does not want to pariciapte in this DMG sensing exchange). In current draft 1.1 if the sensing initiator dose not receive a DMG Sensing Response frame within SIFS time, it shall not send the next DMG Sensing Request frame until the duration of a DMG Sensing Response frame plus 2SIFS after the DMG Sensing Request frame.



In this case, no PPDU is transmitted within a duration of DMG Sensing Resposne + 2\*SIFS. This may lead to the TXOP loss when SP field in Measurement Session Control field (within DMG Sensing Measurement Session element) equals to 0 (i.e. CBAP mode is adopted).

To avoid TXOP loss, this transmitting rule could be slightly adjusted as follows.



The provide enough time for the swtich of transmitting/receiving and the channel occupation, ‘PIFS’could be adopted.

The ‘Filler’ part in the above figure is just an example and it can be a separated PPDU.

Discussion end

***Instructions to the editor: please make the following changes to the paragraph in P179L55 to P179L65 in subclause 11.55.3.6.2.3 Parallel coordinated monostatic DMG sensing instance in D2.0 as shown below:***

# In the initiation phase, the sensing initiator shall send a DMG Sensing Request frame to each intended sensing responder to request them to participate in the coordinated monostatic DMG sensing instance. The STA ID field of the DMG Session Request frame shall indicate the order of DMG Sensing Request frames and the Monostatic Sounding Mode field shall be set to 0 to identify the parallel sounding mode. Each sensing responder shall respond by sending a DMG Sensing Response frame a SIFS after the request. When SP field in the DMG Sensing Measurement Request frame is set to 1, if the sensing initiator does not receive a response within the duration of a DMG Sensing Response frame plus a SIFS after a DMG Sensing Request frame, it shall send the next DMG Sensing Request frame, the duration of a DMG Sensing Response frame plus 2 × SIFS, after the DMG Sensing Request frame. When SP field in the DMG Sensing Measurement Request frame is set to 0, if the sensing initiator does not receive a response within PIFS after a DMG Sensing Request frame, it may transmit a filler transmission to keep the medium occupied till the time of the next DMG Sensing Request frame or the start of the monostatic sensing PPDU. The filler transmission method is implementation specific.

# SP

Do you support resolutions to the following CIDs and incorporate the text changes into the latest TGbf draft: 3113, 3114, 3510, 3511, 3512 and 3514 in 11-23/1669r0?

Y/N/A