IEEE P802.11
Wireless LANs

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| LB276 - Comment resolutions for DMG part 2 |
| Date: 2023-10-30 |
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This submission includes the resolutions for the following three comments to P802.11bf D2.0:

##### 3270, 3330, 3522

##### Revision history:

##### R0 – initial version

**CID: 3270**

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| 3270 | 11.55.3.5 | 173 | 22 | The first sentence does not read well. It reads better if the comma is removed I believe | remove the comma or rephrase the sentence. | REJECTED |

*Discussion:*

Modification of the related text has been addressed in the resolution for CID#3123 in 23/1502r1. The related motion#419 has passed. The revised text has been included in P802.11bf D2.1. There is no need to further change this paragraph.

**CID: 3330**

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| 3330 | 28.9.3.43 | 203 | 43 | As shown in Line 42 of page 203 in the subclause 28.9.3.4.3, the Sync pad subfield is composed of N\_pad Golay sequences of length TRN\_BL x N\_CB. The following calculation on the number of SC blocks with the same duration of Sync field in Line 43 should also take N\_CB into account. | Calculation of N\_(blk\_SYNC) should be corrected accordingly. | WITHDRAWN  |

*Discussion:*

As specified in 28.9.3.4 (EDMG multistatic sensing PPDU Sync field) in P802.11bf D2.0, the total length of a multistatic Sync field is the length of the Sync subfield plus the length of the Sync Pad subfield, i.e., $TRN\\_BL×N\_{CB}×(N\_{pad}+N\_{STA}×L\_{SYNC})$. In EDMG, the number of symbols per SC symbol block is defined in 28.5.2.2 (Timing-related parameters) in P802.11-REVme/D4.0 as $512×N\_{CB}$. A duration of a multistatic Sync field is equivalent to a duration of integer number of SC symbol blocks in EDMG, i.e., $N\_{blk\\_SYNC}=(TRB\\_BL×N\_{CB}×\left(N\_{pad}+N\_{STA}×L\_{SYNC}\right))/(512×N\_{CB})$ which is defined correctly in 28.9.3.4.3 (Sync pad definition) in P802.11bf D2.0.

**CID: 3522**

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| CID | Clause | Page | Line | Comment | Proposed Change | Proposed resolution |
| 3522 | 9.3.3.5 | 45 | 22 | DMG Sensing Capabilities element and DMG Sensing Beam Descriptor element are optionally present in (Re)Association Request/Response, Probe Request/Response, DMG Beacon. But these 2 elements need to be exchanged before the DMG Sensing Measurement Request frame. So, to ensure the exchange of these elements, do we need to make them mandatory present in some frames ? | Clarify how DMG Sensing Capabilities element and DMG Sensing Beam Descriptor element are exchange before station transmit the DMG Sensing Request frame. | REVISEDTGbf editor: please revise subclause 11.55.3.3 in 802.11bf D2.1 with the added text proposed in 11-23/1859r0. |

*Discussion:*

A DMG sensing procedure requires both a DMG sensing initiaor and a DMGsensing responder exchange DMG Sensing Capabilities and/or DMG Sensing Beam Descriptor information before the start of a DMG sensing measurement session.

As specified in subclause 11.55.3.3 in P802.11bf D2.0, “A DMG sensing session is established when a DMG STA and a DMG PCP/AP have completed an association.” How to transmit the DMG Sensing Short Capabilities element and the DMG Sensing Short Capabilities element has been specified in same subclause.

DMG Sensing Beam Descriptor element (subclause 9.4.2.324) contains a set of descriptors of the beam patterns. The DMG Sensing Beam Descriptor element is present in frames in which the DMG Sensing Capabilities element (see 9.4.2.323 (DMG Sensing Capabilities element)) is present and has been defined to be optionally present in DMG Beacon frame (subclause 9.3.4.2), Announce frame (subclause 9.6.21.2), Probe Request frame (subclause 9.3.3.9), Probe Response frame (subclause 9.3.3.10), Association Request frame (subclause 9.3.3.5), Association Response frame (subclause 9.3.3.6), Reassociation Request frame (subclause 9.3.3.7), Reassociation Response frame (subclause 9.3.3.8). A sensing capable PCP/AP STA may include the DMG Sensing Beam Descriptor element in at least one of DMG Beacon, Announce, Probe Response, and (Re)Association Response frames. A sensing capable DMG STA may include the DMG Sensing Capabilities element in at least one of Probe Request and (Re)Association Request frames.

TGbf editor: please modify subclause 11.55.3.3 in 802.11bf D2.1 as follows

**11.55.3.3 DMG sensing capabilities exchange**

DMG sensing capabilities include the types of DMG sensing and the roles the STA may assume for each of

the supported DMG sensing types. The DMG Sensing Short Capabilities element (see 9.4.2.325 (DMG

Sensing Short Capabilities element)) and the DMG Sensing Capabilities element (see 9.4.2.323 (DMG

Sensing Capabilities element)) contain the sensing capabilities of a DMG STA.

A sensing capable PCP/AP STA shall convey the DMG Sensing Short Capabilities element in the DMG

Beacon and Announce frames. A sensing capable DMG STA shall include the DMG Sensing Capabilities

element (see 9.4.2.323 (DMG Sensing Capabilities element)) in probe and association frames.

DMG Sensing Beam Descriptor element (see 9.4.2.324 (DMG Sensing Beam Descriptor element)) includes a set of descriptors of the beam patterns of a DMG STA. A sensing capable PCP/AP STA may include the DMG Sensing Beam Descriptor element in at least one of DMG Beacon, Announce, Probe Response, and (Re)Association Response frames. A sensing capable DMG STA may include the DMG Sensing Capabilities element in at least one of Probe Request and (Re)Association Request frames.

A DMG sensing session is established when a DMG STA and a DMG PCP/AP have completed an association.

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