IEEE P802.11
Wireless LANs

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| Resolution of DMG CID 351, 356 DMG Burst |
| Date: 2022-11-24 |
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Abstract

Resolution of the DMG CIDs 367 and 452

Revisions History:

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| --- | --- | --- | --- | --- | --- | --- |
| CID | Clause | Page | Comment | Proposed Change | Priority | Resolution |
| 367 | 11.21.20.4 | 85.01 | 11.21.20.4 DMG sensing burst. Lack of detailed rules | Provide detailed rules of normative behavior of the initiator/responder(s) and transmitter/receiver(s) during the DMG sensing bursts, specific for each type of DMG sensing. The definition shall refer to the parameters/attributes established by the DMG measurement setup. | High | **Revised**11-22-2058-00-00bf CC40 Resolution of DMG CID 367 452 DMG burst |
| 452 | 11.21.20.4 | 85.03 | A description of what is burst is missing | Add a description of what is a DMG burst. | High | **Revised**11-22-2058-00-00bf CC40 Resolution of DMG CID 367 452 DMG burst |

**11.55.3.5 DMG sensing burst**

**TGbf editor, append the text below to the subclause**

#367 #452

A DMG sensing burst is a set of scheduled DMG sensing instances so that the time difference between the instances inside the burst may be shorter than the time difference between consecutive bursts. A DMG sensing burst allows for coordinated scheduled sensing by one or more responders.

To measure low velocity Doppler shifts measurements, a set of repeated measurements over a long period may be needed. A DMG sensing burst enables such measurement.

At the delivery of the MLME-DMG-SENSMSMTSTART.confirm primitive with the ResultCode equal to SUCCESS the sensing initiator shall start the DMG sensing instances organized in the measurement burst.

The sensing initiator shall assign to each measurement burst a Measurement Burst ID. The Measurement Burst ID shall be unique in the range of the Measurement Burst ID field per a DMG Measurement setup ID (see 9.3.1.25.5 DMG Sensing Request)

Each DMG sensing burst shall be composed of Number of Instances per Burst DMG sensing instances. The beginning of each instance shall be separated from the beginning of the previous instance by an Intra Burst Interval time.

The sensing initiator shall address each sensing responder associated with the DMG Measurement Setup ID at each instance of the burst. The sensing initiator shall access the medium to transmit a DMG Sensing Request frame or a BRP frame to each sensing responder at each instance in a burst. For each responder, the time of the first access in an instance, shall be separated by an Inter Burst Interval time from the first access in the previous instance.

Each instance in a burst is assigned a Sensing Instance SN. The Sensing Instance SN shall be unique per a Measurement Burst ID. The Instance SN in a measurement burst shall increment sequentially. The first instance of the measurement burst shall have Sensing Instance SN equal to 1.

The DMG Sensing Request frames sent to the different responders in the DMG sensing instance shall be indicated with the same Measurement Burst ID, DMG Measurement setup ID, and Instance SN respectively.

If the value of the Report Type subfield in the DMG Measurement setup element (9.4.2.324 DMG Sensing Measurement Setup element) that is associated with the burst is equal to 3, 5, 6, 7 (report types containing Doppler measurements) the sensing initiator shall follow the rules below.

* The DMG sensing instances included in the measurement should not contain a reporting phase except for the first or last instance in a burst. The DMG sensing instance containing the reporting phase may require separate medium access. The Number of Instances per Burst does not include the instance intended for the reporting. (see TBD Reporting subclause)
* The following parameters defined in the DMG Sensing Request frame shall be the same among all DMG sensing instances belonging to the same Measurement Burst ID:
	+ Sensing Type
	+ STA ID
	+ First Beam Index
	+ Num of STAs in Instance
	+ Num of PPDUs in Instance
	+ EDMG TRN Length
	+ RX TRN-Units per Each TX TRN-Unit
	+ EDMG TRN-Unit P
	+ EDMG TRN-Unit M
	+ EDMG TRN-Unit N
	+ TRN Subfield Sequence Length
	+ BW

At the successful transmission of the DMG Sensing Measurement setup Response frame, the Sensing responder that is part of the DMG Measurement setup of the burst shall be available at the medium on the sensing instances at the time scheduled by the Sensing initiator (see 11.21.20.4 DMG measurement setup).

During the DMG sensing burst the sensing transmitter and the sensing responder shall follow the rules of the sensing instances of different DMG sensing types defined in the subclauses 11.55.3.6.2 (Coordinated monostatic DMG sensing instance), 11.55.3.6.3 (Bistatic DMG sensing instance), 11.55.3.6.4 (Coordinated bistatic DMG sensing instance), 11.55.3.6.5 (Multistatic EDMG sensing instance).

**References:**