IEEE P802.11
Wireless LANs

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| CC40 CR for CIDs 52, 365 and 449 |
| Date: 2022.07.08 |
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Abstract

This submission contains the proposed comment resolutions for the CIDs 52, 365, 449.

R0: initial document

## CID 365

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| --- | --- | --- | --- | --- | --- |
| CID | Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 365 | 84.25 | 11.21.20.3.2 | "The Transmit Beam Index axis represents the Beam Index used bythe STA to transmit and receive the monostatic sensing PPDU and the Receive Beam Index axis will not bepresent. Each beam index in the TX Beam List is an index into the list of beams the sensing responder publishedin their Sensing Beam Descriptor elements for TX and RX." The Transmit/Receive Beam Index axis is not mentioned anywhere in the current text. | Provide the definition of the Monostatic and coordinated monostatic setup that provides rules on configuration of the relevant setup parameters and refers to the relevant capabilities. | REVISED.The “transmit/receive Index axis” is a typo and the word ‘axis’ should be removed.TGbf Editor make changes specified in 0980r0. |

***Instructions to the editor: please make the following changes to P84L19 in the subclause 11.21.20.3.2 Monostatic and coordinated monostatic in D0.1 as shown below:***

In coordinated monostatic sensing, the sensing initiator may request the sensing responder(s) to transmit and receive monostatic PPDUs to specific directions by indicating the TransmitReceive beams to be used in each DMG sensing measurement setup. The Num TX Beams field and the Num RX Beams field shall be equal to the number of transmit beams and receive beams that are listed in the Beam List subelements. The Num TX Beams field shall be set equal to the Num RX Beams field. The Transmit Beam Index (#365) represents the Beam Index used by the STA to transmit and receive the monostatic sensing PPDU and the Receive Beam Index (#365) will not be present. Each beam index in the TX Beam List is an index into the list of beams the sensing responder published in their Sensing Beam Descriptor elements for TX and RX.

## CID 449 and 52

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| --- | --- | --- | --- | --- | --- |
| CID | Page.Line | Clause Number | Comment | Proposed Change | Resolution |
| 449 | 84.20 | 11.21.20.3.2 | It is not clear what is the process to achieve what is done in this paragraph. This is a description of what a STA may do but how does it do it is not clear | submission will be provided | REVISED.TGbf Editor make changes specified in 0980r0. |
| 52 | 84.21 | 11.21.20.3.2 | How to determined the "sepcific directions". | In order to improve the quality of sensing results, AP can assign each STA to use the Tx/Rx sector/beam directions that do not interfere with each other for coordinated sensing. | REVISED.TGbf Editor make changes specified in 0980r0. |

**Discussion 1**

The CIDs mainly discuss the behaviour of sensing instance and relevant paragraph should be added to 11.21.20.5.2 Coordinated monostatic DMG sensing instance.

**Discussion 2**

Motion 102 (already passed) is related to the DMG monostatic sensing and coordinated monostatic sensing.

Motion 102 is described as follows:

* TRN based sensing should be adopted as one of the operating modes in DMG monostatic sensing and coordinated monostatic sensing.
* TRN based sensing is an optional operating mode for DMG monostatic sensing and coordinated monostatic sensing.

Based on motion 102 and CID 449, 52, an optional operating mode could be added as an example to describe the DMG coordinated monostatic sensing.

***Instructions to the editor: please make the following changes to P85L5 in the subclause 11.21.20.5.2 Coordianted monostatic DMG sensing instance in D0.1 as shown below:***

A coordinated monostatic DMG sensing instance is a DMG sensing instance of a DMG sensing procedure of

sensing type coordinated monostatic.

A coordinated monostatic sensing instance is initiated by a set of DMG Sensing Requests answered by DMG sensing reponses. It is then followed by a set of sensing PPDUs transmitted and received by the sensing responders. The measurement covers the number of transmit/receive AWV indicated by the number Tx Beams Per Instance field within the DMG Sensing Scheduling subelement of the DMG Sensing Measurement elmemt. The sensing initiator shall determine the parameters of the sensing PPDUs transmitted by the sensing reponders in a way which is compatible with the sensing responders’ capabilities and covers all the desired transmit/receive beams. The first beam used by sensing responders to transmit and receive sensing PPDUs in sensing instance is indicated by the First Beam Index field. The sensing responders will go through the Num TX Beams Per Intance beams to transmit and receive the sensing PPDUs. If the sounding phase of multiple responders in coordinated monostatic sensing instance happens in parallel, sensing initiator should assign different Transmit/Receive beams to different responders to avoid the interference across multiple responders by setting TX Beam List subelement in the DMG Sensing Measurement Setup element and indicating the First Beam Index field in TDD Beamforming Information field of DMG Sensing Request frame. If the Repeat Per Instance field of the Scheduling subelement (*NRI*) is greater than 1, the sensing responder will cover the Num TX beams Per Instance Beams in instance *NRI* times. All the sensing PPDUs transmitted and received by the sensing responders shall be separated by SIFS. If report is configured in the sensing instance, sensing responders shall report no longer than SIFS after the last monostatic PPDU or after the polling by sensing initiator. The report may be based on Channel Measurement Feedback elements or DMG Sesnsing Report elements. The presence and type of the report is indicated by the Report Control field of the DMG Sensing Report Element (#52, #449).

Any PPDU could be used for coordinated monostatic sensing and sensing with TRN field in a PPDU constructed acoording to the non-EDMG or EDMG PHY specifications is an optional mode for the coordinated monostatic sensing. If the coordinated monostatic sensing is performed with TRN field, the negotiation of the TRN related parameters is TBD (motion 102).