**IEEE P802.15**

**Wireless Personal Area Networks**

|  |  |  |
| --- | --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | Draft-C Proposed Comment Resolutions for CIDs 223, 431, 666 | |
| Date Submitted | May 2024 | |
| Sources | Pooria Pakrooh (Qualcomm) |  |
| Re: |  | |
| Abstract | Resolution to comments: 223, 431, 666 | |
| Purpose | To propose comments resolution for “P802.15.4ab™/D (pre-ballot) C Draft Standard for Low-Rate Wireless Networks” | |
| Notice | This document does not represent the agreed views of the IEEE 802.15 Working Group or IEEE 802.15.4ab Task Group. It represents only the views of the participants listed in the “Sources” field above.It is offered as a basis for discussion and is not binding on the contributing individuals. The material in this document is subject to change in form and content after further study. The contributors reserve the right to add, amend or withdraw material contained herein. | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Sub-Clause** | **Page** | **Line** | **Comment** | **Proposed Change** |
| 223 | Billy Verso | 10.39.7.1 | 116 | 18 | This is breaking the MAC which should send an ACK when AR is set and nothing else. also IE's such as these are not typically directly ACTED ON BY the MAC layer. i.e. upper layer should receive the IE and decide what MAC configuration to change. It would be bad policy to change the ACK method, like this since the radio/MAC may be shared/used for multiple protocols. | DELETE THIS FUNCTIONITY. |

**Discussion:** Agree with the commenter. The same goal can be achieved by making this functionality independent of AR request in the MAC, and at the same time, enable it for a protocol layer above the MAC.

**Resolution: Revised**

Replace the existing paragraph on p116 lines 18,19,20 wit the following:

“The MMRA field when set to one is indicating a request that the RMMRC IE (defined in 10.35.2.1) be utilised for confirming the receipt of Data frames, and when zero that RMMRC IE is requested not to be used.

Note – This is independent of acknowledgement of frames solicited using the AR field.”

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Sub-Clause** | **Page** | **Line** | **Comment** | **Proposed Change** |
| 666 | Rojan Chitrakar | 10.39.7.1 | 112 | 2 | PHY parameters e.g., channel, preamble code etc. used for sensing are missing. | Add PHY parameters e.g., channel, preamble code etc. used for sensing. |

***Resolution: Revised***

***Proposed text changes on P802.15.4ab™/D (pre-ballot) C:***

1. *Line 2 on Page 117 (Table 134): Change bit 4 description to "Sensing PHY parameters present".*
2. *Line 2 on Page 117 (Table 134): add a field at the end “Sensing PHY parameters”, with the length of “0/variable”.*
3. *Line 11 on Page 117, add the description: “The Sensing PHY Parameters Present field when one indicates that the Sensing PHY Parameters field is present, or when zero that it is not present.”*
4. *Page 126, add a table, and the descriptions as below:*

*“*The Sensing PHY Parameters field is formatted as per Figure XX1.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Bits: 0-1* | *2-4* | *5-7* | *Octets:0* | *3* |
| *Number of segments* | *Number of symbols* | *Reserved* | *UWB Channel* | *Sensing/Preamble Code index* |

*The number of segments field specifies the number of SENS segments, according to table XX2.*

|  |  |
| --- | --- |
| *Value* | *Number of segments* |
| *0* | *One segment* |
| *1* | *Two segments* |
| *2* | *Three segments* |
| *3* | *Four segments* |

*Table XX2: Number of segments field*

*The number of symbols field specifies the number of SENS segments, according to Table XX3.*

|  |  |
| --- | --- |
| *Value* | *Number of symbols* |
| *0* | *16* |
| *1* | *32* |
| *2* | *64* |
| *3* | *128* |
| *4* | *256* |
| *5* | *512* |

*Table XX3: Number of symbols field*

*The UWB channel field specifies the UWB channel to be used, according to equation XX (New equation for new UWB channel numbers).*

*The Sensing/Preamble Code index represents the code index used for the SENS and SHR fields, where values 9-24 are length 127 sequences according to table 16-8, and values 25-32 represent length 91 sequences according to table 16-9.”*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Sub-Clause** | **Page** | **Line** | **Comment** | **Proposed Change** |
| 431 | Bin Qian | 10.39.7.1 | 126 | 2 | It is not clear which channel is used to transmit the report, and the report should be associated to the channel number | As in the comment |

**Discussion:**

As for which channel is used for sending the report, even for the baseline sensing mode (non-stitching), we do not specify the report channel in 4ab, as it can be OOB or in-band.

As for what channel the report is associated with, the resolution to CIDs (105, 109, etc.) proposes to add channel ID to CIR report IE for frequency stitching (See DCN 114/r3).

**Resolution: Revised**

The resolution for CIDs 105, 108, 109, etc. in DCN 114/r3 addresses the concern here.