**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | Ack CI 188 72 190 191 | |
| Date Submitted | 27 May 2024 | |
| Source | Billy Verso (Qorvo), | billy.verso at qorvo.com |
| Re: | Comment Resolutions for CI 188 72 190 191 | |
| Abstract | Comment Resolutions for selected comments on the Pre-Ballot Draft C of the P802.15.4ab amendment. | |
| Purpose | This document provides text changes intended to be part of the final IEEE Std 802.15.4ab (amendment to IEEE Std 802.15.4), as part of resolving selected consolidated comments spreadsheet (doc 15-24-0010) that have been assigned to the author to resolve. | |
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| Patent Policy | The contributor is familiar with the IEEE-SA Patent Policy and Procedures:  <http://standards.ieee.org/guides/bylaws/sect6-7.html#6> and  <http://standards.ieee.org/guides/opman/sect6.html#6.3>.  Further information is located at <http://standards.ieee.org/board/pat/pat-material.html> and  <http://standards.ieee.org/board/pat>. | |

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| --- | --- | --- | --- | --- | --- |
| **Index** | **Page** | **clause** | **Line** | **Comment** | Proposed Change |
| 188 | 17 | 6.6.3.3 | 13 | In general ACK is a little broken, and this change is not helping, so should be backed out. | Remove this change completely, and work on repairing ACK in a more complete way, |
| 72 | 17 | 6.6.3.3 | 17 | Edit this per approved document 539/r2. The text in the document is more clear in restricting AIFS to imm-ack for HRP-EMDEV. Also, listing mandatory and optional value would make this clear for the reader (as per DCN 539/r2). | Use the paragraph suggested in DCN 539/r2. |
| 190 | 17 | 6.6.3.3 | 23 | To interwork with 4z (which includes optional support for 31.2 Mb/s with K=7 encoding) the HRP-EMDEV needs to be able to support ACK frames with the 4z timing. | Add appropriate configuration possibilities allow for this interworking and change the text / here appropriately to not mandate such incompatible operation. |
| 191 | 17 | 6.6.3.3 | 25 | The HRP-EMDEV is not a PHY therefore the "for all other PHYs" needs change. | Change to "for all other PHYs and modes." |

**Discussion:**

While 15-24-0312 proposed a more significant revision of the ack specification, in the interest of progressing to WG ballot, it is expedient to leave those wider issues to be addressed later with a more complete solution proposal.

A “**Revised**” resolution is proposed, with the changes as described below.

***Update the description in Table 8-35 as shown:*** (Insertions green underlined, deletions ~~red strikeout~~)

**Table 8-35—MAC PIB attributes*Change the following MAC PIB attribute in Table 8-94******“MAC PIB attributes” as shown:***

| Attribute | Type | Range | Description | Default |
| --- | --- | --- | --- | --- |
| *macEmdevImmAckAifsPeriod* | Integer | 16, 32, 64 | The AIFS period in µs for the HRP‑EMDEV to send an Imm-Ack.  Support for the default value of 64 µs is mandatory, support for values 16 µs or 32 µs is optional.  ~~The minimum time in µs forming an AIFS period for the HRP‑EMDEV.~~ | 64 |

***Update the 3rd paragraph in 6.6.3.3 as shown below:*** (Insertions green underlined, deletions ~~red strikeout~~)

The transmission of an Ack frame in a nonbeacon-enabled PAN or in the CFP shall commence AIFS after the reception of the last symbol of the Data frame or MAC command. The transmission of an Ack frame in the CAP shall commence either AIFS after the reception of the last symbol of the Data frame or MAC command or at a backoff period boundary. In the latter case, the transmission of an Ack frame shall commence between AIFS and (AIFS + *macUnitBackoffPeriod*) after the reception of the last symbol of the Data frame or MAC command. The value of AIFS is 1 ms for the SUN PHYs, LECIM PHYs, or TVWS PHYs. For the HRP-EMDEV sending Imm-Ack, the AIFS shall be equal to the value of the *macEmdevImmAckAifsPeriod* in Table 8-35. ~~Support for the default~~ *~~macEmdevImmAckAifsPeriod~~* ~~value is mandatory, and support for the other values is optional.~~ The value of AIFS is equal to *macSifsPeriod* for all other PHYs and modes.

**<END>**