**IEEE P802.15**

**Wireless Personal Area Networks**

|  |  |  |
| --- | --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | **Proposed Resolution for CID – 102, 110, 111** | |
| Date Submitted | May 2024 | |
| Sources | Aniruddh Rao Kabbinale (Samsung), Frank Leong (NXP), Dag Wisland, Kristian Granhaug (Novelda)  [aniruddh.rao@samsung.com](mailto:aniruddh.rao@samsung.com) |  |
| Re: |  | |
| Abstract |  | |
| Purpose | To propose resolution for comments related to Sensing CIDs – 102, 110, 111for “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. | |

Rev 0: Initial version.

***Comment Indices in 15-24-0010-00-04ab-consolidated-comments-draft-c related to sensing:***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Index#** | **Pg** | **Sub-Clause** | **Ln** | **Comment** | **Proposed Change** | **Disposition** | **Disposition detail** |
| Pooria Pakrooh | 102 | 123 | 10.39.7.1 | 20 | Receiver orientation should be based on its rotation around each axis: Roll, Pitch and Yaw. | Change to: "The Receiver Orientation field value when one is requesting a report of the receiver orientation in terms of roll, pitch and yaw." | Rejected | Keep the terminology in line with terminology used for AOA in 4z with transmitter as reference point. The proposed terminology is used more in airborne radar/satellite not common to use cases for UWB. |
| Pooria Pakrooh | 110 | 132 | 10.39.7.6 | 18 | Receiver orientation should be based on its rotation around each axis: Roll, Pitch and Yaw. | Change the fields "Receiver orientation Azimuth/Elevation/Rotation (3 octets)" to "Receiver orientation: Roll/Pitch/Yaw (3 Bytes)" | Rejected | Keep the terminology in line with terminology used for AOA in 4z with transmitter as reference point. The measurements are relative to transmitter as mentioned in the description for Figure 153 |
| Pooria Pakrooh | 111 | 133 | 10.39.7.6 | 27 | |  | | --- | | Make the description clear and edit the typos. | | | Change to:" An example for the span report is to include the span of taps with amplitude larger than 10% of peak amplitude of the CIR Taps." | Accepted | Text to be updated as per proposed change |

**Discussion:**

For comments 102,110 – Comment by Pooria that Azimuth, elevation and rotation instead of pitch, roll and yaw may be technically incorrect.

Authors comment - Azimuth, Elevation and Rotation representation is used for orientation representation and is also technically correct.

Further discussion – Reject the comment, keep the orientation as is. Note that the parameters are for receiver orientation and would be updated if any changes are required in next draft revision.

**Text changes**：Highlighted in Yellow

**For CID 111**

**Change at Page 133, line 27**

The Delay Span field is an 8-bit per target information about the delay span for the target. ~~An example filter 27 for delay span calculation would be 10% of the peak amplitude of the CIR taps.~~ An example for the span report is to include the span of taps with magnitude larger than 10% of peak magnitude of the CIR Taps