**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | **Proposed resolution for comments on multiple RCMs and RSS** |
| Date Submitted | November 2024 |
| Sources | Mickael Maman (STMicroelectronics), Sven Zeisberg (Zigpos)  |  |
| Re: |   |
| Abstract | Resolution of comments: #1070 and #1271 |
| Purpose | To propose comments resolution for “P802.15.4ab™/D01 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. |

***Comment Index #1070 in 15-24-0371-01-04ab-consolidated-comments-draft-1-0***

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| Commenter | Index # | page | Sub-Clause | Line | Comment | Proposed Change |
| Billy Verso | 1070 | 42 | 10.32.2 | 23 | "other ranging slots" worries me now, since the sending of an RCM is defining slot zero, how can the receiving node know these are not resetting to slot 0. or perhaps each controller sending RCM is defining its local slot 0... This is worrying me... Unless it is very well described and consistent with the base standard, I fear this new stuff is breaking the pre-existing stuff in the 15.4 standard. | Suggest to back-out this feature entirely and leave it to be defined in some higher layer protocol where can be done in a way that actually makes sense. |

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**Discussion of comment ID 1070:**

The time structure definition allows the RCMs to be sent sequentially by different controllers during the Ranging Control Phase (RCP). The scheduling order of these RCMs is managed by the higher layer.

**Proposed resolution:**

**Revised**

**Proposed text changes on P802.15.4ab™/D01 for comment 1070:**

Ranging Control Message (RCM): A message transmitted by a controller to configure ranging parameters of the ranging round. An RCM is transmitted in slot zero, the first slot of a ranging round. Additional RCMs may be transmitted by other devices in subsequent ranging slots of the ranging round, extending the ranging control phase. The scheduling order of these RCMs is managed by the higher layer.

***Comment Index #1271 in 15-24-0371-01-04ab-consolidated-comments-draft-1-0***

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| Commenter | Index # | page | Sub-Clause | Line | Comment | Proposed Change |
| Billy Verso | 1271 | 177 | 10.45.2 | 15 | We should not limit RSS to the 2.4 GHz band, since 4ab is adding O-QPSK channels in 5.8 and 6 GHz bands, RSS should be able to use these bands so that a 4ab devices with these channels can also be deployed in the dense industrial environments described in 15-22-0077.  | Change the sentence to: "Devices operating in RSS mode utilise the O-QPSK PHY specified in Clause 13, communicate in the 2450 MHz band at 250 kb/s, or in the 5800 MHz and 6200 MHz bands at 250 kb/s or optionally at the higher data rates defined Table 45." |



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**Discussion of comment ID 1271:**

This RSS scheme is generic, and it may be able in principle to operate with any companion PHY. The proposed extensions of the TSCH oriented RSS channel access scheme to the 5800 MHz and 6200 MHz bands and to optional higher data rate modes are possible.

**Proposed resolution:**

**Revised**

**Proposed text changes on P802.15.4ab™/D01 for comment 1271:**

Devices operating in RSS mode ~~with O-QPSK~~ are communicating ~~at 250 kb/s on radio channels in the 2.400-2.482 GHz frequency band~~ using O-QPSK specified in Clause 13.