

Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

Submission Title: 802.15.4 2020 Cor1 OFDM PHR Consolidated Proposal

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Re: 802.15.4 2020 Cor1 OFDM PHR Consolidated Proposal

Abstract:

Opening Report for 802.15.4 2020 Cor1 OFDM PHR Consolidated Proposal

Purpose: Provide information which kind of changes are needed to the standard.

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OFDM PHR Issue

- Inconsistency in the description of the OFDM PHY header in section 20.2.4 of IEEE 802.15.4-2020. The description is ambiguous.

Proposals Heard:

- SUN OFDM PHY PHR – doc#171rev0
- SUN-OFDM PHR MCS ambiguity problem and the resolution – Doc#305rev2
- Resolution to OFDM PHY PHR – Doc#386rev0
- Proposal for OFDM PHR Clarifications – Doc#393Rev1
- Comparison of SUN OFDM PHR proposals– doc#29rev0
- Candidates for SUN-OFDM PHR of New Low Rates– Doc# 37rev0

Consolidated Proposal

20.2.4 PHR

Change the second paragraph as follows:

The PHR occupies symbols for each OFDM options as described in Table 20-9, for phyOfdmInterleaving PIB attribute. The PHR shall be transmitted using the lowest supported MCS level, as described in Table 20-10, for the option being used, except for OFDM option 3 and OFDM Option 4, the PHR shall be transmitted using MCS1 and MCS2 respectively. For OFDM Option 1 and OFDM Option 2, the PHR shall be transmitted using MCS0. For OFDM Option 3, MCS0, the PHR shall be transmitted using MCS0, and for MCS1 or higher, the PHR shall be transmitted using MCS1. For OFDM Option 4, MCS0 and MCS1, the PHR shall be transmitted using MCS0, and for MCS2 and higher, the PHR shall be transmitted using MCS2. The PHR ~~is~~ sent to the convolutional encoder starting from the leftmost bit in Figure 20-5 to the rightmost bit.