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

Submission Title: [Comment resolutions for SFD – Part I]

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Re: []

Abstract: [This document provides resolutions to part of comments for SFD]

Purpose: [This document provides resolutions to comments of LB51]

SFD CID 829

- Comment: Distinguish between 2-FSK and 4-FSK in Table 27 or remove the "symbols" column entirely, since each PHY has a unique way of converting from octets to symbols anyway..
- Response: Accept in principle
- Resolution: Change Table 27 to

Table 27—SFD field length

PHY	Length	
MR-FSK	2 octets	16 bits

SFD CID 830

- Comment: Recommend that a guideline be produced to help distinguish between bits, symbols and also bits/s - coded or uncoded.
- Response: Accept
- Resolution: Guide line will be provided by Gilb. Resolved as CID829

SFD CID 837

- Comment: First sentence: "The MR-FSK SFD field consists of 2 bytes" (1) "octet" is the appropriate term for 8-bit entity, and (2) 2 octets is the same as 16 bits as stated in the next sentence, so the first sentence is redundant.
- Response: Accept
- Resolution: Change the text to 'The SFD used by the MR-FSK PHY shall be a 16-bit sequence selected from the list of values shown in Table 28a.' by deleting the first sentence

SFD CID 1118

- Comment:. rename the attribute as "phySUNMRFSKMode"
- Response:Reject
- Resolution:The atrribute “phySUNMRFSKSFD” defines which SFD pair to be used. It is not to specify “Mode”. It would be fine to change to “phySUNMRFSKSFD”.

SFD CID 840

- Comment:. The meaning of this sentence is not at all clear: "Devices which do not support FEC shall be capable of supporting the SFD associated with a value of zero for the PIB attribute phyMRFSKSFD (see Table 31) and uncoded (PHR+PSDU) (Table 28a). Devices which support FEC shall be capable of supporting the SFDs associated with a value of zero for the PIB attribute phyMRFSKSFD."
- Response: Accept in principle
- Resolution: change the text to

'The SFD used by the MR-FSK PHY shall be a 16-bit sequence selected from the list of values shown in Table 28a. Devices which do not support FEC shall be capable of supporting the SFD associated with a value of zero for the PIB attribute *phyMRFSKSFD and* uncoded (PHR+PSDU) as shown in Table 28a. Devices which support FEC shall be capable of supporting the SFDs associated with a value of zero for the PIB attribute *phyMRFSKSFD* in Table 28a. Devices which do not support FEC may support the SFD associated with a value of one for the PIB attribute *phyMRFSKSFD and* uncoded (PHR+PSDU) as shown in Table 28a. Devices which support FEC may support the SFDs associated with a value of one for the PIB attribute *phyMRFSKSFD* as shown in Table 28a. The SFD is transmitted starting from the leftmost bit.'

SFD CID 848

- Comment:.

  The parameter phyMRFSKSFD shows which SFD to transmit, but does it signal which SFD pair to search for? - or must the RX search for all 4 SFD's(848)

- Response: Accept in principle
  - Clarification is given through resolution to CID 840

SFD CID 839, 845, 846, 847, 1117, 1119

- Comment:.

  Change table 28a so col 1 says "not FEC coded" and "FEC coded"; Remove PIB attribute phyMRFSKSFD.(839)

  Remove the second row of table 28a(845)

  If a second SFD is necessary it should use the same RX structure as the first(846)

  Remove optional pair of SFDs (associated with a value of phyMRFSKSFD == 1) (847)

  This seems to be unnecessary complexity. It should be only one set of values not two or more. Suggest to select only one set and adopt it.(1117)

  If a second SFD is necessary it should use the same RX structure as the first (1119)

- Resolution:Reject.
  - The network integrator has the freedom to choose the SFD pair that will work best in his network. It is out of the scope of this standard to specify the receiver implementation.