Text Proposal for EEE Quiet Signalling

Contribution to IEEE 802.3cy

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Introduction

- Previous contribution jonsson_majomard_3cy_01_05_03_22 suggested simple changes to the excising EEE text to help clarify the transition to quiet mode
- This presentation proposes an updated text for the quiet signaling

Proposed Updates for the 802.3cy EEE Text

In 802.3cy, the text from 149.3.6.2 should be changed to

When entering quiet mode, the receiver shall ignore the first 330 ns (one RS-frame). During this time, the transmitter may output any signal within the bounds of PMA electrical limitations described 165.5.3. After this transition, the PCS transmitter shall pass all zeros to the PMA and the PMA shall transmit silence on the MDI.

149.3.6.2 Quiet period signaling

During the quiet period the PCS transmitter shall pass zeros to the PMA via the PMA_UNITDATA.request primitive.

From:
https://www.ieee802.org/3/cy/public/adhoc/jonsson_majomard_3cy_01_05_03_22.pdf

NOTE – referenced slide said 149.3.6.2, should say 165.3.6.2

Proposed Updates for the 802.3cy EEE Text

Change the text in 165.3.6.2 to

During the quiet period the PCS transmitter shall pass zeros to the PMA via the PMA_UNITDATA.request primitive. <u>The receiver shall ignore transmissions during first 332.8 ns (one RS-FEC frame period) following the transition to the quiet period and shall ignore transmissions outside of the specified refresh and ALERT intervals.</u>

Proposed Updates for the 802.3cy EEE Text

Change the text in 165.4.3.1 to

The symbols to be transmitted by the PMA are denoted by tx_symb. When the tx_mode is SEND_N, tx_symb represents the 25GMII data stream, and PMA Transmit generates a pulse-amplitude modulated signal on each pair in the following form:

$$s(t) = \sum_{n=0}^{\infty} a_n h_T(t - nT) \qquad\qquad (165-12)$$

In Equation (165–12), a_n is the PAM4 modulation symbol from the set $\{-1, -1/3, +1/3, +1\}$ to be transmitted at time nT, and $h_T(t)$ denotes the system symbol response at the MDI. This symbol response shall comply with the electrical specifications given in 165.5.6.(165–12). During training or quiet-refresh signalling, tx_mode is SEND_Z or SEND_T, and tx_symb is SEND_Z, SEND_T. During training or quiet-refresh signalling, PMA Transmit the value of a_n is a PAM modulation symbol $\{+1, 0, -1\}$. NOTE – during the first 332.8 (one RS-FEC frame) following a transition to quiet-refresh signalling, the output of the transmitter is ignored by the receiver.

Straw Poll

I support adopting the proposed clarifying text updates on slides 3 and 4 of this presentation

Y: N:

Motion

Move to adopt the text updates on slides 3 and 4 of this presentation with editorial license to implement

M: Ragnar Jonsson
S:

Technical (>=75%)
Y: D: A:
Motion Passes/Fails