Interpretation Number: 2-03/10

Topic: 10GBASE-T PBO schedule implementation accuracy
Relevant Clause: Clause 55.4.3.1
Classification: Request for Interpretation

Interpretation Request

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IEEE Standards Interpretation Request

Requests for interpretations should only be submitted for seeking clarification of:

- − The meaning of portions of standards as they relate to specific applications; and/or
- − The exact nature of the contents of the standard.

If the interpretation request meets the above criteria, complete the following and send to the Manager, Governance.

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IEEE Std: 802.3-2008

Standard Title: 10GBASE-T

Topic: PBO schedule implementation accuracy

Clause 55.4.3.1, page 500, first paragraph.

Implementing the PBO table correctly is key to operating 10GBase-T in deployments with multiple 10GBase-T PHYs in the same bundle (Alien Xtalk). To implement the PBO table correctly each receiver must accurately measure the received signal from remote partner. Currently the estimate accuracy of the power is specified in section 45.2.1 and registers 1.141-4 as 0.5dB, but implementation of this register is optional. From the contents one can assume

that maintaining this 0.5dB accuracy is a mandatory even if the register is not implemented. Otherwise, if the receiver does not have any accuracy requirements max power could be transmitted at any length and 10GBase-T will not co-exist due to Alien Xtalk.

Please clarify whether my understanding is correct: that the accuracy of the received signal power at the MDI still to follow 45.2.1.171 through 45.2.1.174 whether the received signal power is stored in the registers 1.141-1.144 or not.

Interpretation for request titled "PBO schedule implementation accuracy"

The standard is unambiguous.

PBO is normatively defined in 55.4.3.1:
"The minimum power backoff level requested shall comply with the power backoff schedule in Table 55–7".