According to the SA Editors, the "IMPORTANT NOTICE" is not needed and can be deleted.

**Suggested Remedy**

Delete lines 16 through 27.

**Proposed Response**

PROPOSED ACCEPT.
# D3.0 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Auto

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**Comment Type**: E = Editorial, TR = Technical, G = General

**Comment Status**: D = Dispatched, A = Accepted, R = Rejected, Z = Withdrawn

**Response Status**: O = Open, W = Written, C = Closed, U = Unsatisfied

---

**Comment 45**

"When the transmitter is in test mode 2, bits 1.2313.1:0 control the pattern of the jitter test signal." - what these bits do when the transmitter is not in test mode 2 is not specified...

**Suggested Remedy**

Suggest to add a new second sentence immediately following the quoted one, to read as follows: "When the transmitter is not in test mode 2, the setting of bits 1.2313.1:0 have no effect."

**Proposed Response**

Fix subject/verb agreement in proposal: Add the sentence "When the transmitter is not in test mode 2, the setting of bits 1.2313.1:0 has no effect." **Proposed Accept in Principle.**

---

**Comment 45**

In Table 45-3 the Subclause for register 1.2317 should be 45.2.1.200

**Suggested Remedy**

Change "Subclause" for "Register address" 1.2317 from "45.2.1.199" to "45.2.1.200".

**Proposed Response**

**Proposed Accept.**

---

**Comment 45**

When the transmitter is in test mode 2, bits 1.2313.1:0 control the pattern of the jitter test signal. - what these bits do when the transmitter is not in test mode 2 is not specified...

**Suggested Remedy**

Suggest to add a new second sentence immediately following the quoted one, to read as follows: "When the transmitter is not in test mode 2, the setting of bits 1.2313.1:0 have no effect."

**Proposed Response**

Fix subject/verb agreement in proposal: Add the sentence "When the transmitter is not in test mode 2, the setting of bits 1.2313.1:0 has no effect."

**Proposed Accept in Principle.**

---

**Comment 45**

Table 45-244 should appear on page 47 following this text: "Change Table 45-244 as follows:"

**Proposed Response**

**Proposed Accept.**

---

**Comment 45**

Editing instruction has been separated from the table that it is editing.

**Suggested Remedy**

Make editing instruction stay with Table 45-341

**Proposed Response**

**Proposed Accept.**

---

**Comment 45**

149.3.2.2.18 doesn’t describe Reed Solomon interleaving, it describes the PCS Scrambler. The correct reference is 149.3.2.2.15. The same issue exists in 45.2.1.195.1 page 39 line 38.

**Suggested Remedy**

Change cross reference from 149.3.2.2.18 to 149.3.2.2.15 (or appropriate link if renumbered) in both 45.2.1.194.1 and 45.2.1.195.1

**Proposed Response**

**Proposed Accept.**
Clause 97 is in the draft, but is shown as an external cross reference. It should be an active cross reference.

**Suggested Remedy**
Change external "Clause 97" reference to an active cross reference

**Proposed Response**
PROPOSED ACCEPT.

"The MultiGBASE-T1 OAM information is exchanged between two 2.5GBASE-T1, 5GBASE-T1, or 10GBASE-T1 PHYs out-of-band." - the concept of whether this is out-of-band in the frequency domain or does not consume the bit rate for the ethernet payload has caused repeated confusion - some improved wording here might help.

**Suggested Remedy**
Suggest change "out-of-band." to "out-of-band, that is, outside of the specified 2.5, 5, or 10 Gb/s Ethernet data stream."

**Proposed Response**
PROPOSED ACCEPT.

"(The duration of the superframe is L x 320/ S ns.)" has no need to be a parenthetical phrase - this seems to have been left over from previous wording where the sentence structure was more complex. It is now its own stand-alone sentence.

**Suggested Remedy**
Remove the parentheses around "The duration of the superframe is L x 320/ S ns."

**Proposed Response**
PROPOSED ACCEPT.

"The minimum link segment characteristics, EMC requirements, and test modes are specified in 149.5." - the link segment characteristics are specified in 149.7, not 149.5, and there are no EMC requirements in this document. Further, this subclause is supposed to be describing the PMA, not the other things.

**Suggested Remedy**
Suggest replacing "The minimum link segment characteristics, EMC requirements, and test modes are specified in 149.5." with "The electrical parameters of the PMA, i.e., test modes, and electrical specifications for the transmitter and receiver, are specified in 149.5."

**Proposed Response**
PROPOSED ACCEPT.

Parameter L is introduced, without reference to the definition of L.

**Suggested Remedy**
Change "L" to "A number, L."

**Proposed Response**
PROPOSED ACCEPT.
Inconsistency in document. Sometimes "true" and sometimes "TRUE".

SuggestedRemedy

Also, change "True" to "TRUE" on P136 L19.

PROPOSED ACCEPT IN PRINCIPLE.

... symboCut off number on top of "pi" symbol is... PROPOSED ACCEPT.

... expected applications are often asymmetric... PROPOSED ACCEPT.
"PHYs with the EEE capability support transition to the LPI mode when the PHY has successfully completed training and pcs_data_mode is TRUE and subject to the timing requirements of 46.3.1.5." There are no timing requirements for the PHY transitioning in 46.3.1.5. It appears this is meant to reference 46.1.7 which requires the link be operational for at least one second before transitioning to LPI.

**Suggested Remedy**

Change cross reference to 46.3.1.5 to 46.1.7

**Proposed Response**

Proposed ACCEPT.

---

Consider rewording to remove "ensure". Remove unnecessary explanatory language.

**Suggested Remedy**

Delete: that is used to ensure refresh signals and alert start times are appropriately offset between the link partners

**Proposed Response**

Proposed ACCEPT.

---

Consider replacing "maximize" per IEEE Mandatory Editorial Coordination comment. Note: This is part of the "common" wording used throughout 802.3. See 97.3.5.1, 113.3.5.1, 126.3.5.1, etc. The reasons for synchronizing refresh intervals is not required for the spec.

**Suggested Remedy**

Delete: To maximize power savings, maintain link integrity, and ensure interoperability,

**Proposed Response**

Proposed ACCEPT.

---

Change: refresh signaling to maximize power savings. To: refresh signaling.

**Proposed Response**

Proposed ACCEPT.
Comment Type: E  Comment Status: D  EZ
LP_BLOCK_R is not consistent with other comment names.

Suggested Remedy
Change "LP_BLOCK_R" to "LPBLOCK_R" to be consistent with other comment names.
Also make the same change on P113 L7.

Proposed Response: Response Status: W  PROPOSED ACCEPT.

Comment Type: E  Comment Status: D  EZ
I_BLOCK_R is not consistent with other comment names.

Suggested Remedy
Change "I_BLOCK_R" to "IBLOCK_R" to be consistent with other comment names. Also make the same change on P125 L14.

Proposed Response: Response Status: W  PROPOSED ACCEPT.

Comment Type: T  Comment Status: D  EZ
DECODE (rx_symb<64:0>) - the text says that the argument is rx_coded<64:0>. rx_symb is what is passed by the PMA_UNITDATA indication, before the descrambler, blocking and RS-FEC decoder (see 149.3.2.3). rx_coded is what seems to be needed by this function according to the description.

Suggested Remedy
Change DECODE (rx_symb<64:0>) to DECODE(rx_coded<64:0>)

Proposed Response: Response Status: W  PROPOSED ACCEPT.
**Comment Status**

**Response Status**

**Proposed Response**

**Comment Type**

**Suggested Remedy**

**Zimmerman, George**
ADI, APL Group, Aquantia, BMW, Cisco, CommScop

**Comment**

"super frame" - in most places, the term is "superframe" without a space.

**Suggested Remedy**

replace "super frame" with "superframe" at P128 L37, L46, L51, L53; P129 L7, and PICS OAM2 description (P185 L11, L13, L15)

**Proposed Response**
PROPOSED ACCEPT.

**Comment**

The use of "0s" is not consistent with other 802.3 Clauses.

**Suggested Remedy**

Change "0s" to "0's". Also make the same change on P129 L27 and P185 L20.

**Proposed Response**
PROPOSED ACCEPT.

**Comment**

"These 32 bits are set by the PHY to convey its status in the mr_tx_message[95:64] to the receiver (link partner)." - why is (link partner) in parentheses? I think what is meant is "to the link partner." Of course it's conveyed to a receiver. When you're transmitting a message, where else would it go?

**Suggested Remedy**

change "to the receiver (link partner)" to "to the link partner."

**Proposed Response**
PROPOSED ACCEPT.

**Comment**

"when the EEE is implemented" To "when EEE is implemented."

**Suggested Remedy**

"toggling" not "togging"

**Proposed Response**
PROPOSED ACCEPT.
Comment Type: E  Comment Status: D  EZ

Suggested Remedy:
- Add space after "is occurring concurrently and bi-directionally."

Proposed Response  Response Status: W  PROPOSED ACCEPT.

Comment Type: E  Comment Status: D  EZ

Suggested Remedy:
- Change "over receive pair" to "over the receive pair."

Proposed Response  Response Status: W  PROPOSED ACCEPT.

Comment Type: E  Comment Status: D  EZ

Suggested Remedy:
- Consider replacing "ensure" per IEEE recommendation. It is not required to explain why this requirement exists.

Proposed Response  Response Status: W  PROPOSED ACCEPT.

Comment Type: E  Comment Status: D  EZ

Suggested Remedy:
- Consider replacing "guarantees" per IEEE Mandatory Editorial Coordination comment.

Proposed Response  Response Status: W  PROPOSED ACCEPT.
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SuggestedRemedy

Change: To ensure the total alien NEXT loss and alien FEXT loss coupled between link segments is limited, power sum alien near-end crosstalk (PSANEXT) loss and power sum alien attenuation to crosstalk ratio far-end (PSAACR-F) is specified. To: Power sum alien near-end crosstalk (PSANEXT) loss and power sum alien attenuation to crosstalk ratio far-end (PSAACR-F) are specified to limit the total alien NEXT and alien FEXT coupled between link segments.

Proposed Response  Response Status  W

PROPOSED ACCEPT.

SuggestedRemedy

Change: In order to limit the alien crosstalk at the near end of a link segment, the differential pair-to-pair near-end crosstalk (NEXT) loss between the disturbed link segment and the disturbing link segment is specified to meet the bit error ratio objective by limiting the alien crosstalk at the near end of a link segment.

Proposed Response  Response Status  W

PROPOSED ACCEPT.

SuggestedRemedy

The subclause '149.8.2.2 MDI coupling attenuation' has no content and there has been no proposal for content. It should be removed.

Proposed Response  Response Status  W

PROPOSED ACCEPT.
The intention of subclause 149.8.2.2 was to provide a measurement setup and electrical requirements for a proper shield termination of the link segment to the MDI. As for today, there is not enough experience / data for a solid description of this test. Suggestion would be to leave this question to the implementer for now.

Suggested Remedy
Suggest to remove subclause 149.8.2.2 from the standard due to a lack of information.

Proposed Response Response Status W
PROPOSED ACCEPT.

ISO 167540-5 is a typo copied from Clause 96, ISO 16750-5 is the correct reference

Suggested Remedy
Change "ISO 167540-5" to "ISO 16750-5"

Proposed Response Response Status W
PROPOSED ACCEPT.

Section title should be "PCS Receive" not "PCS Transmit"

Suggested Remedy
Change "PCS Transmit" to "PCS Receive"

Proposed Response Response Status W
PROPOSED ACCEPT.

This also ensures that connectors and cable are matched in terms of balance and shielding, in order to reach sufficient accuracy to measure coupling and screening attenuation. To: In order to reach sufficient accuracy to measure coupling and screening attenuation, the connectors and cable should be matched in terms of balance and shielding.

Proposed Response Response Status W
PROPOSED ACCEPT.
Comment Type: "PHY TempWarning" for D5 doesn't match the bit name in 149B.3.3, "Internal temperature warning"

Suggested Remedy: change "PHY TempWarning" to "Internal temperature warning"

Proposed Response: "TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general"

Comment Type: E missing definition for ++ operator

Suggested Remedy: page204 line 33 add text: "The notation ++ after a counter or integer variable indicates that its value is to be incremented."

Proposed Response: "PROPOSED ACCEPT."