Cl **178B** *SC* **178B.5.2** *P* **839** *L* **46** # 19

Brown, Matt — Alphawave Semi

Comment Type **E** *Comment Status* **D** *(bucketp) (CI) (bucket2)*

The phrase "whose values (0, 1,,2, 3) correspond to the possible values of the tx_symbol and rx_symbol variables of the sublayer service interface" seems to be rather unecessary and insignificant information. It is not even clear why this sentence is necessary here.

SuggestedRemedy

Change sentence to "The training frame is a sequence of PAM4 symbols with values 0, 1, 2, 3." or delete the sentence.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: “The training frame is a sequence of PAM4 symbols whose values (0, 1, 2, 3) correspond to the possible values of the tx_symbol and rx_symbol variables of the sublayer service interface."

To: “The training frame is a sequence of PAM2 or PAM4 symbols.”

Cl **181** *SC* **181.9.5** *P* **492** *L* **44** # 146

Ghiasi, Ali — Ghiasi Qunatum/Marvell

Comment Type **TR** *Comment Status* **D** *)ECQ method (CO) (bucket2)*

TDECQ mission mode test definition should be made more clear

SuggestedRemedy

Propsoed text
TDECQ is defined with all receive xAUI-n lanes when instantiated in operation using test pattern 3 or 5 (see Table 180–13). xAUI-n lanes operate with receiver jitter tolerance condition defined by applicable instantiated xAUI-n.
The received test patterns shall be asynchronous to the pattern used to test the transmitter, and shall
have power levels as specified in Table 180–8 for the aggressor lanes in the stressed receiver
sensitivity test.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Resolve using the response to comment #144.

Cl **181** *SC* **181.9.5** *P* **492** *L* **44** # 147

Ghiasi, Ali — Ghiasi Qunatum/Marvell

Comment Type **TR** *Comment Status* **D** *)ECQ method (CO) (bucket2)*

TDECQ mission mode test definition should be made more clear

SuggestedRemedy

Propsoed text
TDECQ is defined with all receive xAUI-n lanes when instantiated in operation using test pattern 3 or 5 (see Table 180–13). xAUI-n lanes operate with receiver jitter tolerance condition defined by applicable instantiated xAUI-n.
The received test patterns shall be asynchronous to the pattern used to test the transmitter, and shall
have power levels as specified in Table 180–8 for the aggressor lanes in the stressed receiver
sensitivity test.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Resolve using the response to comment #144.

Cl **182** *SC* **182.9.5** *P* **524** *L* **27** # 148

Ghiasi, Ali — Ghiasi Qunatum/Marvell

Comment Type **TR** *Comment Status* **D** *)ECQ method (CO) (bucket2)*

TDECQ mission mode test definition should be made more clear

SuggestedRemedy

Propsoed text
TDECQ is defined with all receive xAUI-n lanes when instantiated in operation using test pattern 3 or 5 (see Table 180–13). xAUI-n lanes operate with receiver jitter tolerance condition defined by applicable instantiated xAUI-n.
The received test patterns shall be asynchronous to the pattern used to test the transmitter, and shall
have power levels as specified in Table 180–8 for the aggressor lanes in the stressed receiver
sensitivity test.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Resolve using the response to comment #144.

Cl **183** *SC* **183.9.5** *P* **555** *L* **32** # 149

Ghiasi, Ali — Ghiasi Qunatum/Marvell

Comment Type **TR** *Comment Status* **D** *)ECQ method (CO) (bucket2)*

TDECQ mission mode test definition should be made more clear

SuggestedRemedy

Propsoed text
TDECQ is defined with all receive xAUI-n lanes when instantiated in operation using test pattern 3 or 5 (see Table 180–13). xAUI-n lanes operate with receiver jitter tolerance condition defined by applicable instantiated xAUI-n.
The received test patterns shall be asynchronous to the pattern used to test the transmitter, and shall
have power levels as specified in Table 180–8 for the aggressor lanes in the stressed receiver
sensitivity test.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Resolve using the response to comment #144.

Cl **181** *SC* **181.9.5** *P* **492** *L* **37** # 180

El-Chayeb, Ahmad — Keysight Technologies (ahmad.el-chayeb@keysight.c

Comment Type **TR** *Comment Status* **D** *TDECQ (CO) (bucket2)*

The current TDECQ calculated at a pre-FEC target SER is intended to correlate to receiver sensitivity, not link performance

SuggestedRemedy

Add a new CER TDECQ metric that esitimates the power penalty at a target CER (codeword error ratio) to have better correlation with link performance. The definition for this CER TDECQ and suggested wording will be provided in a supporting presentation.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Resolve using the response to comment #179.

Cl **182** *SC* **182.9.5** *P* **524** *L* **20** # 181

El-Chayeb, Ahmad — Keysight Technologies (ahmad.el-chayeb@keysight.c

Comment Type **TR** *Comment Status* **D** *TDECQ (CO) (bucket2)*

The current TDECQ calculated at a pre-FEC target SER is intended to correlate to receiver sensitivity, not link performance

SuggestedRemedy

Add a new CER TDECQ metric that esitimates the power penalty at a target CER (codeword error ratio) to have better correlation with link performance. The definition for this CER TDECQ and suggested wording will be provided in a supporting presentation.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Resolve using the response to comment #179.

Cl **183** *SC* **183.9.5** *P* **555** *L* **20** # 182

El-Chayeb, Ahmad — Keysight Technologies (ahmad.el-chayeb@keysight.c

Comment Type **TR** *Comment Status* **D** *TDECQ (CO) (bucket2)*

The current TDECQ calculated at a pre-FEC target SER is intended to correlate to receiver sensitivity, not link performance

SuggestedRemedy

Add a new CER TDECQ metric that esitimates the power penalty at a target CER (codeword error ratio) to have better correlation with link performance. The definition for this CER TDECQ and suggested wording will be provided in a supporting presentation.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Resolve using the response to comment #179.

Cl **178B** *SC* **178B.3** *P* **835** *L* **49** # 235

Mi, Guangcan — Huawei Technologies Co., Ltd

Comment Type **ER** *Comment Status* **D** *(bucketp) (CI) (bucket2)*

definition of Interface, should be specified, not quantified

SuggestedRemedy

chagne "quantified" to "specified".

Proposed Response *Response Status* **W**

PROPOSED REJECT.

The word qualified (as written in the draft text) is indeed an appropriate word. Per Merriam Webster "to characterize by naming an attribute : describe".

Cl **178B** *SC* **178B.5** *P* **837** *L* **43** # 326

Mascitto, Marco Nokia

Comment Type **E** *Comment Status* **D** *(bucketp) (CI) (bucket2)*

"If training is available" makes it seem like training is optional for ISLs that require training.

SuggestedRemedy

Replace:
If training is available on the interface the behavior is as follows:

With:
For those interfaces that require training, the behavior is as follows:

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change: “If training is available on the interface the behavior is as follows:”
To: “If training is enabled for the interface (mr_training_enable is true) the behavior is as follows:”

And in page 838 line 9:
Change: “If training is not available on an interface (disabled or not defined for the interface type) the behavior is as follows:”
To: “If training is disabled for the interface (mr_training_enable = false) the behavior is as follows:”

Implement with editorial license

Cl **178** *SC* **178.9.3.4.2** *P* **381** *L* **32** # 345

Simms, William NVIDIA

Comment Type **E** *Comment Status* **D** *(bucketp) (E) (bucket2)*

Difficult to tell when exceptions begin and end

SuggestedRemedy

Add an additional indent for the exceptions

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The remainder of the subclause consists of exceptions to the calculation of COM.

Change "the exceptions described below" to "the exceptions contained in the remainder of this subclause".

Cl **180** *SC* **180.3** *P* **447** *L* **45** # 398

Ran, Adee Cisco Systems

Comment Type **E** *Comment Status* **D** *(bucketp) (O) (bucket2)*

The title "Physical Medium Dependent (PMD) service interface" is unnecessarily wordy. The acronym "PMD" has already been expanded in 180.1, and is not more familiar to readers.
Also in other optical PMD clauses.

SuggestedRemedy

Change the title to "PMD service interface".
Apply also in clauses 181-183, 185, 187.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

The acronym PMD is not defined prior to the subclause. But per style manual should have been defined in the first paragraph of 180.1. The subclause heading in 180.3 is the only one that fully spells out PMD. This is inconsistent with many other subclauses headings, e.g., 180.5.2 through 180.5.7.

In 180.1, on page 443 line 8 change "PMDs" to "Physical Medium Dependent (PMD) types"

Change the title of 180.3 to "PMD service interface"

Apply similar changes, as necessary, in clauses 181, 182, 183, 185, and 187.

Implement with editorial license.

Cl **178B** *SC* **178B.5.1.1** *P* **839** *L* **18** # 467

Slavick, Jeff Broadcom

Comment Type **TR** *Comment Status* **D** *(bucketp) (CI) (bucket2)*

We should not be defining a limit of the clock accuracy in this Clause.

SuggestedRemedy

Remove the 50ppm from Figure 178B-3

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Remove the accuracy from the figure as requested and add a new paragraph after the first paragraph in 178B.5.1.1 that says: “The local clock shall meet the rate and tolerance specified for the AUI component or PMD.”

Implement with editorial license.

Cl **178B** *SC* **178B.5.1.1** *P* **839** *L* **13** # 468

Slavick, Jeff — Broadcom

Comment Type **TR** *Comment Status* **D** *(bucketp) (Cl) (bucket2)*

The dotted lines for the clocks going to the PLLs optional? Required? Implementation choice?

SuggestedRemedy

Add the following NOTE to Figure 178B-3
"The dotted lines represent clocking connections that are needed within a retimer for ILT operations."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Implement the suggested remedy with editorial license.

Cl **170** *SC* **170.1** *P* **213** *L* **12** # 499

Opsasnick, Eugene — Broadcom

Comment Type **E** *Comment Status* **D** *(bucketp) (L) (bucket2)*

The update from D2.0 to the first line sentenc+F7e of 170.1 is a little cluncky. It shoud be able to be clean it up. Please update with editorial license to make it sound better. The proposed change is one option.

SuggestedRemedy

Change the first sentence of 170.1
From:
"This clause defines the characteristics of the Reconciliation Sublayers (RS) for 800 Gb/s and 1.6 Tb/s, the 800 Gb/s Media Independent Interface (800GMII), and the 1.6 Tb/s Media Independent Interface (1.6TMII)."
To:
"This clause defines the characteristics of the Reconciliation Sublayers (RS) and Media Independent Interfaces (800GMII and 1.6TMII) for 800 Gb/s and 1.6 Tb/s PHYs."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change the first sentence of 170.1...
From:
"This clause defines the characteristics of the Reconciliation Sublayers (RS) for 800 Gb/s and 1.6 Tb/s, the 800 Gb/s Media Independent Interface (800GMII), and the 1.6 Tb/s Media Independent Interface (1.6TMII)."
To:
"This clause defines the characteristics of the Reconciliation Sublayer (RS) and Media Independent Interface for 800 Gb/s and 1.6 Tb/s PHYs."

Change the second sentence of 170.1...
From:
"Figure 170–1 shows the relationship of the RS and, 800GMII, and 1.6TMII to the ISO/IEC OSI reference model."
To:
"Figure 170–1 shows the relationship of the RS and Media Independent Interface to the ISO/IEC OSI reference model. Note that there are two variants of the Media Independent Interface defined in this clause, the 800 Gb/s Media Independent Interface (800GMII) and the 1.6 Tb/s Media Independent Interface (1.6TMII)."

Implement with editorial license.

Cl **175** *SC* **175.1.3** *P* **299** *L* **11** # 507

Opsasnick, Eugene Broadcom

Comment Type **T** *Comment Status* **D** *(bucketp) (L) (bucket2)*

In the summary list of PCS functions "FEC degrade detection and signaling" was changed to "FEC degrade signaling" because only the signaling is required and detection is optional. However, the FEC degrade detection is a significant optional feature that is described in this clause and it should be added back to the list. The introductory sentence to this list should state is a list of PCS functino, no just a list of functions required by thje MAC and RS.

SuggestedRemedy

Change: "FEC degrade signaling" to "FEC degrade detection and signaling"

Also change the first sentence of 175.1.3
From:
"The 1.6TBASE-R PCS provides all services required by the MAC and RS, including the following:"
To:
"The 1.6TBASE-R PCS provides the following functions including all services required by the MAC and RS:"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Both detection and signalling should be listed as functions of FEC degrade but also make it clear that part of it is optional since all other list items are required.

Change: "FEC degrade signaling" to "FEC degrade signaling (required) and detection (optional) "

Cl **177** *SC* **177.3** *P* **342** *L* **16** # 509

Opsasnick, Eugene Broadcom

Comment Type **TR** *Comment Status* **D** *(bucketp) (L) (bucket2)*

The NOTE under table 177-2 talks about PMD:IS_UNITDATA_i.indication provided to the Inner FEC possibly being invalid, but the Table 177-2 is about the generation of PMD:IS_SIGNAL.request which is in the opposite direction and would correspond to the PMD:IS_UNITDATA.request. Also, it is ambigous which "SIGNAL_OK" the note is referring to, "FEC:IS_SIGNAL.request(SIGNAL_OK) or the PMD:IS_SIGNAL.request(SIGNAL_OK).

SuggestedRemedy

It seems this note is referring to SIGNAL_OK from the PMD and the UNITDATA from the PMD. Move this NOTE to subcluse 177.2 just below Table 177-1 and change the text make it clear which SIGNAL_OK is being referenced.

Change the text of the NOTE,
From:
"NOTE—SIGNAL_OK = OK does not guarantee that the stream provided to the Inner FEC sublayer through PMD:IS_UNITDATA_i.indication is a valid signal."
To:
"NOTE—PMD:IS_SIGNAL.indication(SIGNAL_OK) = OK does not guarantee that the stream provided to the Inner FEC sublayer through PMD:IS_UNITDATA_i.indication is a valid signal."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Move this NOTE to subclause 177.2 just below Table 177-1 and change the text of the NOTE...
From: "NOTE—SIGNAL_OK = OK does not guarantee that the stream provided to the Inner FEC sublayer through PMD:IS_UNITDATA_i.indication is a valid signal."
To: "NOTE— A value of OK for the SIGNAL_OK parameter of the PMD:IS_SIGNAL.indication primitive does not guarantee that the stream provided to the Inner FEC sublayer through PMD:IS_UNITDATA_i.indication is a valid signal."

Implement with editorial license.