Cl **FM** *SC* **FM** *P* **1** *L* **10** # I-157

Dawe, Piers J G — NVIDIA

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

Missing amendment number

SuggestedRemedy

Insert amendment number or a placeholder if the number is not known yet. Also on page 30 line 3. It would help if the placeholders were in the template.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #83.

Cl **FM** *SC* **FM** *P* **1** *L* **34** # I-82

Grow, Robert — RMG Consulting

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

Don't forget to update copyright year here, next page, and in the footer when producing the next draft

SuggestedRemedy

Update framemaker variable and inspect front pages and footer to to assure all use the vairable and if not, update.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM** *SC* **FM** *P* **4** *L* **32** # I-123

Healey, Adam — Broadcom Inc.

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

The "Important Notices and Disclaimers Concerning IEEE Standards Documents" does not align with the latest template.

SuggestedRemedy

Update the frontmatter to be consistent with the latest template. Note changes to the second paragraph of "Notice and Disclaimer of Liability Concerning the Use of IEEE Standards Documents", two additional paragraphs under "Patents", and other minor changes.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM** *SC* **FM** *P* **11** *L* **3** # I-83

Grow, Robert — RMG Consulting

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

Missing Amendment #.

SuggestedRemedy

Amendment 5

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement with editorial license.

Cl **FM** *SC* **FM** *P* **11** *L* **17** # I-84

Grow, Robert — RMG Consulting

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

Slight differences from P802.3/D3.0 front matter.

SuggestedRemedy

Update Introduction text to match the most recent P802.3 draft.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #123.

Cl **FM** *SC* **FM** *P* **13** *L* **3** # I-85

Grow, Robert — RMG Consulting

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

No amendment numbers on descriptions of amendments 3 through 5

SuggestedRemedy

Add Amendment number as on Amendment 1 through Amendment 2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement suggested remedy with editorial license.

Cl **FM** *SC* **FM** *P* **13** *L* **9** # I-86

Grow, Robert RMG Consulting

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

PHY is the acronym for Physical Layer Device, not Physical Layer. The self description in P802.3db/D2.1 deletes "(PHY)".

SuggestedRemedy

Delete "(PHY)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The description in 802.3db D2.1 appears to have fixed this error.
Update the decription to match the description in 802.3db.

Cl **FM** *SC* **FM** *P* **13** *L* **20** # I-87

Grow, Robert RMG Consulting

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

While the integrety of copying self descriptions exactly is to be commended, perhaps changing 2018 to 202x on Amendment 2 could be done. Multiple comments were submitted on P802.3de/D2.1 about the 2018 date of the base standard in the self description (proposed accept). P802.3cs/D3.0 has a significantly different self description.

SuggestedRemedy

When producing the latest draft, check for updates to the self descriptions of Amendments 2 and 3. Update the P802.3de reference to 2018 in any case. Delete the note.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The decriptions and amendment numbers should be updated to match the amendments. However, errors in these decriptions should be addressed by comments against each amendment.
Update the amendment descriptions to match the desciption in the latest draft for each amendment.

Cl **FM** *SC* **FM** *P* **30** *L* **47** # I-158

Dawe, Piers J G NVIDIA

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

As this is an amendment to 802.3dc, P802.3cn and P802.3cu have gone, and new readers need not know of them. Further, the editor's note would be more use to reviewers and editor if it listed the actual amendments that the editor has noted as running in parallel and affecting this draft, not just the concept. Also, it helps to state which amendments running in parallel are believed not to affect the draft, so the reviewer knows they have been considered. Apparently, only P802.3db affects this draft, but others might.

SuggestedRemedy

Change "(e.g., IEEE P802.3cn and IEEE P802.3cu)" to "(IEEE P802.3db; no impact is noted from IEEE P802.3dd, P802.3de, or IEEE P802.3cs)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The list of prior amendments should be updated to list only relevant ones. However, the list of prior amendments is for example only and is not meant to be exhaustive.
Change "(e.g., IEEE P802.3cn and IEEE P802.3cu)" to "(e.g., IEEE P802.3db)"

Cl **FM** *SC* **FM** *P* **30** *L* **48** # I-159

Dawe, Piers J G NVIDIA

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

"the same text and tables" so clashing edits to figures are OK?

SuggestedRemedy

Change to "the same portions of the draft standard".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The text in this editor's note is consistent with the amendment template. However, it would be good to correct this statement.
Update the text based on the suggested remedy and guidance from the template author with editorial license.

Cl **0** *SC* **0** *P* **0** *L* **0** # I-18

Brown, Matthew — Huawei Technologies Canada

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

Keep this draft in line with the new revision (802.3dc) and any amendments that precede 802.3ck.

SuggestedRemedy

Align the next draft with the latest versions of the new revision (802.3df) and any preceding amendments.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement with editorial license.

Cl **1** *SC* **1.3** *P* **32** *L* **12** # I-37

Ran, Adee — Cisco Systems, Inc.

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

The references for QSFP-DD and for SFP-DD don't have periods at the end, unlike other references.

SuggestedRemedy

Add final periods for these two references.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **1** *SC* **1.4** *P* **32** *L* **51** # I-38

Ran, Adee — Cisco Systems, Inc.

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

For consistency, URLs should be formatted in blue and underlined.

SuggestedRemedy

Apply URL format in four URL instances on this page.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **1** *SC* **1.4** *P* **32** *L* **65** # I-118

Ghiasi, Ali — Ghiasi Quantum LLC,Marvell Semiconductor, Inc.

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

SFP-DD operates at 50G and with SFP-DD112 there is no reason to include SFP-DD

SuggestedRemedy

Please remvoe SFP-DD

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **30** *SC* **30.5.1.1.16** *P* **36** *L* **39** # I-39

Ran, Adee — Cisco Systems, Inc.

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

The fourth paragraph of 30.5.1.1.16 has been changed by 802.3dc to the following text:

If a Clause 45 MDIO Interface is present, then this attribute maps to the FEC enable bit or to the RS-FEC enable bit in the appropriate FEC control register based upon the PHY type and the FEC operating mode (see 45.2.10.3, 45.2.1.108, and 45.2.1.116).;

This removes the need for the changes in this paragraph in the 802.3ck draft.

SuggestedRemedy

Remove the fourth paragraph of 30.5.1.1.16.

Change the editorial instruction from "Change remainder of 30.5.1.1.16 as follows" to "change the three subsequent paragraphs as follows".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **30** *SC* **30.5.1.1.16** *P* **36** *L* **39** # I-122

Healey, Adam — Broadcom Inc.

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

IEEE P802.3ck will be an amendment to the next revision of IEEE Std 802.3. The changes shown in the last paragraph of the "BEHAVIOR DEFINED AS:" section do not correspond to the text in the latest revision draft (D3.0).

SuggestedRemedy

Specify the changes relative to the text in IEEE P802.3 (IEEE 802.3dc) D3.0.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #39

Cl **30** *SC* **30.5.1.1.16** *P* **36** *L* **39** # I-5

Marris, Arthur — Cadence Design Systems, Inc.

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

Reconcile the last paragraph of 30.5.1.1.16 with the text in the revision standard.

SuggestedRemedy

Make it so the last paragraph of 30.5.1.1.16 is identical to the revision standard so it reads:

"If a Clause 45 MDIO Interface is present, then this attribute maps to the FEC enable bit or to the
RS-FEC enable bit in the appropriate FEC control register based upon the PHY type and the FEC
operating mode (see 45.2.10.3, 45.2.1.108, and 45.2.1.116).;"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #39

Cl **30** *SC* **30.5.1.1.17** *P* **37** *L* **8** # I-226

Ben-Artsi, Liav — Marvell Semiconductor, Inc.

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

Historically speeds were stated lowest first, this 10/1Gboa-PRX should be changed to 1/10Gbase-PRX

SuggestedRemedy

change to 1/10Gbase-PRX

Proposed Response *Response Status* **W**

PROPOSED REJECT.
This comment refers to text in the base standard that is not relevant to the P802.3ck project and so is out of scope for comment. Also making this change might have side effects by requiring a similar change in 45.2.3.43.

Cl **30** *SC* **30.5.1.1.18** *P* **37** *L* **22** # I-227

Ben-Artsi, Liav — Marvell Semiconductor, Inc.

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

Historically speeds were stated lowest first, this 10/1Gboa-PRX should be changed to 1/10Gbase-PRX

SuggestedRemedy

Change to 1/10Gbase-PRX

Proposed Response *Response Status* **W**

PROPOSED REJECT.
This comment refers to text in the base standard that is not relevant to the P802.3ck project and so is out of scope for comment. Also making this change might have side effects by requiring a similar change in 45.2.3.43.

Cl **45** *SC* **45.2.1.6** *P* **40** *L* **12** # I-228

Ben-Artsi, Liav — Marvell Semiconductor, Inc.

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

How 1011111 is defined? Should be reserved.

SuggestedRemedy

Add 1011111 as reserved

Proposed Response *Response Status* **W**

PROPOSED REJECT.
1011111 is not reserved but defined to be "400GBASE-SR8 PMA/PMD" in the base standard. As the row is unchanged there is no need to include it in the 802.3ck standard.

Cl **45** *SC* **45.2.1.21** *P* **42** *L* **3** # I-7

Marris, Arthur — Cadence Design Systems, Inc.

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

Align 45.2.1.21 with 802.3db draft 2.1 and also 45.2.1.24 and any other subclauses as appropriate

SuggestedRemedy

Change editing instruction from:
"Change Table 45–23 as follows (some unchanged rows not shown):"
To:
"Change Table 45–24 (as modified by IEEE 802.3db-202x) as follows (some unchanged rows not shown):"

In Table 45-24 show reserved row as crossed out and change bits to "1.23:8:7" to match 802.3db

Change "Insert 45.2.1.21.1a and 45.2.1.21.1b after 45.2.1.21.1 as follows:"
to:
"Insert 45.2.1.21.1c and 45.2.1.21.1d after 45.2.1.21.1b (as inserted by IEEE 802.3db-202x) as follows:"

Renumber 45.2.1.21.1a and 45.2.1.21.1b to 45.2.1.21.1c and 45.2.1.21.1d

In Table 45-27 show reserved row as crossed out and change bits to "1.26:1:0" to match 802.3db

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.21** *P* **42** *L* **11** # I-160

Dawe, Piers J G — NVIDIA

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

P802.3db has changed this table, so the next row above is 200GBASE-VR2 ability not "Reserved".

SuggestedRemedy

Show the row above and below the rows this project adds so the context can be reviewed and some clashes spotted easily.
Change
1.23.14:9x7/x Reserved Value always 0 RO
to
1.23.9 200GBASE-VR2 ability 1 = PMA/PMD is able to perform 200GBASE-VR2 0 = PMA/PMD is not able to perform 200GBASE-VR2 RO
Adjust the instructions at line 3 to mention the preceding amendment(s) that affect this table (P802.3db).
Similarly for Table 45-27.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #7

Cl **45** *SC* **45.2.1.21** *P* **42** *L* **18** # I-229

Ben-Artsi, Liav — Marvell Semiconductor, Inc.

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

"ability 1" is "1" a typo?

SuggestedRemedy

If a typo, erase

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
"1" is a typo so erase it

Cl **45** *SC* **45.2.1.116** *P* **45** *L* **22** # I-161

Dawe, Piers J G NVIDIA

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

Misplaced "only"

SuggestedRemedy

Change "only applicable for PHYs that include multiple FEC sublayers" to "applicable only for PHYs that include multiple FEC sublayers"

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The grammar is not incorrect as written.
The following reference indicates "only applicable" is the more common usage by a factor of two.
https://textranch.com/32323/is-applicable-only/or/is-only-applicable/

Cl **45** *SC* **45.2.1.131a** *P* **56** *L* **33** # I-162

Dawe, Piers J G NVIDIA

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

Table layout

SuggestedRemedy

Make the second column wider and the third, narrower.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.7.13.1** *P* **64** *L* **48** # I-3

Marris, Arthur Cadence Design Systems, Inc.

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

Bit 7.49.6 needs its own subclause

SuggestedRemedy

Insert new subclause "45.2.7.13.A RS-FEC-Int negotiated (7.49.6)" and make it contain the this text currently in 45.2.7.13.1:

"When the Auto-Negotiation process has completed as indicated by the AN complete bit (7.1.5), bit 7.49.6
indicates that Forward Error Correction codeword-interleaved (RS-FEC-Int) operation as defined in
Clause 161 has been negotiated. This bit is set only if RS-FEC-Int operation has been negotiated for a
100GBASE-P PHY supporting negotiation of RS-FEC-Int operation."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.7.13.1** *P* **64** *L* **49** # I-75

Slavick, Jeff Broadcom Inc

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

Bit 6 is related to the negotation of FEC operation and not the Port Type. So the first paragraph that begins with "When the Auto-Negotiation" should be its own sub-clause similar to 45.2.7.12.2

SuggestedRemedy

Revert the text of 45.2.7.13.1 to original baseline text.

Make the first paragraph of 45.2.7.13.1 its own new sub-clause

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #3

Cl **73** *SC* **73.6.4** *P* **71** *L* **3** # I-230

Ben-Artsi, Liav Marvell Semiconductor, Inc.

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

What is the reason to shorten this field? I'd rather have a 24-bit field instead. More software friendly.

SuggestedRemedy

Change to 24 bit

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The field was shortened to accommodate the extra FEC capability bit F4

Cl **73** *SC* **73.6.5** *P* **71** *L* **33** # I-80

Lusted, Kent — Intel Corporation

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

The text describing the use of bit F4 in 73.6.5 differs enough from Cl 73.6.5.a to imply that many 100G PHYs have the RS-FEC-Int capability. At this time, there are only two: 100GBASE-CR1 and 100GBASE-KR1. With the exception of 100GBASE-KP4, these are all 100GBASE-P PHY types and improved wording would make it more clear and align it with the title of 73.6.5.a.

SuggestedRemedy

Change the last sentence of the last paragraph to "F4 is used by 100GBASE-P PHYs where RS-FEC-Int (see Clause161) is an alternative to the default RS-FEC (see Clause91)."

Additionally, change item (e) in the list of Cl 73.6.5 to be "F4 is 100GBASE-P RS-FEC-Int requested"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **80** *SC* **80.1.3** *P* **76** *L* **41** # I-2

Marris, Arthur — Cadence Design Systems, Inc.

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

Add:
"Clause 167 for 100GBASE-VR1 and 100GBASE-SR1"

on line 42 for the case of single lane datapath as added by 802.3db

SuggestedRemedy

Add: "Clause 167 for 100GBASE-VR1 and 100GBASE-SR1" on line 42 showing appropriate changes from the text in 802.3db

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add: "-- Clause 167 for 100GBASE-VR1 and 100GBASE-SR1" after "-- in Clause163 for 100GBASE-KR1"

Cl **80** *SC* **80.1.3** *P* **76** *L* **41** # I-93

Parsons, Earl — CommScope, Inc.

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

Include 100GBASE-SR1 and 100GBASE-VR1 from 802.3db.

SuggestedRemedy

Insert a line below the Clause 140 line in item i):

"-- Clause 167 for 100GBASE-VR1 and 100GBASE-SR1"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #2.

Cl **80** *SC* **80.1.3** *P* **76** *L* **42** # I-81

Lusted, Kent — Intel Corporation

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

there is an extra "in" at the start of the bullets for Clause 162 and Clause 163 list items.

SuggestedRemedy

in 80.1.3, list item i) change:
"in Clause 162 for 100GBASE-CR1" to " Clause 162 for 100GBASE-CR1" and "in Clause163 for 100GBASE-KR1" to "Clause163 for 100GBASE-KR1"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **80** *SC* **80.1.5** *P* **80** *L* **14** # I-19

Brown, Matthew — Huawei Technologies Canada

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

100GAUI-1 C2C and C2M are listed in Table 80-5 as optional for 100GBASE-VR1 and 100GBASE-SR1, but the sublayer table in Clause 167 does not list these.

SuggestedRemedy

Import Clause 167 and Table 167-1, adding 100GBASE-1 C2C and C2M.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #36.

Cl **80** *SC* **80.2.3** *P* **80** *L* **33** # I-88

Grow, Robert RMG Consulting

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

Capitalization of "forward error correction" has been made consistent in P802.3/D3.0.

SuggestedRemedy

A search and replace will find 8 places where capitalization needs to be corrected to lower case in subclause headings and text.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **116** *SC* **116.1.2** *P* **95** *L* **24** # I-231

Ben-Artsi, Liav Marvell Semiconductor, Inc.

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

400GBASE-SR4.2 seems to have a nomanclature very different than all others - find one which is more aligned with all others

SuggestedRemedy

Proposed Response *Response Status* **W**

PROPOSED REJECT.
This nomenclature reflects the nomenclature in the base standard. Changes to this text are out of scope for 802.3ck.

Cl **116** *SC* **116.1.3** *P* **96** *L* **34** # I-94

Parsons, Earl CommScope, Inc.

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

802.3db modifies Table 116-2. 400GBASE-VR4 now comes before 400GBASE-SR16.

SuggestedRemedy

Replace the 400GBASE-SR16 row with 400GBASE-VR4.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **116** *SC* **116.1.4** *P* **98** *L* **18** # I-95

Parsons, Earl CommScope, Inc.

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

200GBASE-VR2 and 200GBASE-SR2 should be in this table.

SuggestedRemedy

Add rows to Table 116-4 for 200GBASE-VR2 and 200GBASE-SR2. 200GBASE-VR2 should be the new top row and 200GBASE-SR2 should be between 200GBASE-SR4 and 200GBASE-DR4. Add the appropriate columns too.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **116** *SC* **116.1.4** *P* **99** *L* **18** # I-96

Parsons, Earl CommScope, Inc.

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

400GBASE-VR4 and 400GBASE-SR4 should be in Table 116-5.

SuggestedRemedy

Add new rows and columns for 400GBASE-VR4 and 400GBASE-SR4. 400GBASE-VR4 should be the new top row. 400GBASE-SR4 should be between 400GBASE-SR8 and 400GBASE-SR4.2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **116** *SC* **116.2.5** *P* **99** *L* **42** # I-97

Parsons, Earl CommScope, Inc.

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

Add reference to Clause 167 to these two sentences.

SuggestedRemedy

The 200GBASE-R PMDs and their corresponding media are specified in Clause 121, Clause 122, and
Clause 136 through Clause 138, Clause 162, Clause 163, and Clause 167. The 400GBASE-R PMDs and their
corresponding media are specified in Clause 122 through Clause 124, Clause 138, and Clause 150,
Clause 162, Clause 163, and Clause 167.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **116** *SC* **116.4** *P* **101** *L* **17** # I-98

Parsons, Earl — CommScope, Inc.

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

802.3db added 400GBASE-VR4 to Table 116-7 above 400GBASE-SR16

SuggestedRemedy

Replace the 400GBASE-SR16 row with 400GBASE-VR4.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **116** *SC* **116.5** *P* **102** *L* **13** # I-99

Parsons, Earl — CommScope, Inc.

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

Add references to Clause 167.3.2 to Table 116-8 and Table 116-9 as in D2.1 of 802.3db

SuggestedRemedy

Per comment

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **120** *SC* **120.5.11.2.a** *P* **110** *L* **46** # I-42

Ran, Adee — Cisco Systems, Inc.

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

Equation (120–1) and Figure 120-6a are placed after a large block of text and a full pattern, and seem to be out of context. The block could be broken to two paragraph so the equation and figure are placed after their reference, and are in the right context.

SuggestedRemedy

Break the paragraph into two after "Equation(120–1)", and have the equation, note, and figure follow the first paragraph.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The proposed changes to not improve the accuracy and do not improve the clarity of the text.

Cl **120F** *SC* **120F.1** *P* **237** *L* **43** # I-91

Grow, Robert — RMG Consulting

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

Similar misuses of "comprise" have been rewritten using "compose" in P802.3/D3.0.

SuggestedRemedy

The C2M interface is composed of independent transmit and receive data paths.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change: "The C2C interface comprises independent data paths in each direction."
To: "The C2M interface is composed of independent transmit and receive data paths."

Cl **120F** *SC* **120F.4.2** *P* **248** *L* **20** # I-24

Brown, Matthew — Huawei Technologies Canada

Comment Type **T** *Comment Status* **D** *Channel ILdd (bucket2)*

The sentence specifying insertion loss refers to a maximum value, but the equation is an inequality. Reword the specify to be of the for used in 120G.4.1.

SuggestedRemedy

Change: "The channel differential-mode to differential-mode insertion loss should be equal to or less than Equation (120F–2)."
To: "The channel differential-mode to differential-mode insertion loss should meet Equation (120F-2)."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **120F** *SC* **120F.4.2** *P* **248** *L* **26** # I-25

Brown, Matthew — Huawei Technologies Canada

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

To be consistent with other similar specifications in this draft the units should be in the variable definition not the equation.

SuggestedRemedy

In Equation 120F-2, delete "(dB)"
Change the definition of ILdd to "is the channel differential-mode to differential-mode insertion loss in dB"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **120G** *SC* **120G.1** *P* **256** *L* **11** # I-92

Grow, Robert — RMG Consulting

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

Similar misuses of "comprise" have been rewritten using "compose" in P802.3/D3.0.

SuggestedRemedy

The C2M interface is composed of independent transmit and receive data paths.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change: "The C2M interface comprises independent data paths in each direction."
To: "The C2M interface is composed of independent transmit and receive data paths."

Cl **120G** *SC* **120G.3.1** *P* **258** *L* **17** # I-155

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "Steady-state voltage, v_f (max)" in Table 120G-1.

SuggestedRemedy

Add a PICS entry for "Steady-state voltage" per Table 120G-1 with a reference to 120G.5.3.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add new PICS item with editorial license.

Cl **120G** *SC* **120G.3.1.5** *P* **260** *L* **19** # I-26

Brown, Matthew — Huawei Technologies Canada

Comment Type **T** *Comment Status* **D** *configuration VNA (bucket2)*

Figure 120G-6 includes a VNA at the input to the measurement receiver, yet there are nor measurements defined that require a VNA.

SuggestedRemedy

Change "VNA or scope" to "Scope".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Note also that the acronym VNA (presumably Vector Network Analyzer) is never defined (except remotely in Annex 149A).
Implement the suggested remedy.
Also, in Figure 120G-7 change "VNA or scope" to "Scope"

Cl **120G** *SC* **120G.3.3.5.1** *P* **265** *L* **50** # I-112

Ghiasi, Ali — Ghiasi Quantum LLC,Marvell Semiconductor, Inc.

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

Not sure why you are referencing Table 120F-3, maybe the intention was Figure 120F-3!

SuggestedRemedy

Please change to Figure 120F-3

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The cross reference should be be pointing to Figure 120F-3 not Table 120F-3.
Implement the suggested remedy.

Cl **120G** *SC* **120G.3.3.5.1** *P* **265** *L* **52** # I-113

Ghiasi, Ali — Ghiasi Quantum LLC,Marvell Semiconductor, Inc.

Comment Type **TR** *Comment Status* **D** *HI SIT PG (bucket2)*

What is the intention of defining no equalization state, I don't see it being used!

SuggestedRemedy

This sentence is either incomplete or should be remvoed.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The "no equalization" state is requested in 120G.3.3.5.2 step a).

Cl **120G** *SC* **120G.3.3.5.1** *P* **266** *L* **40** # I-28

Brown, Matthew — Huawei Technologies Canada

Comment Type **T** *Comment Status* **D** *configuration VNA (bucket2)*

Figure 120G-9 includes a VNA (vector network analyzer) at the output of the pattern generator, yet there are measurements defined that require a VNA.

SuggestedRemedy

Delete the VNA box and the switch that connects to it.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Note also that the acronym VNA (presumably Vector Network Analyzer) is never defined (except remotely in Annex 149A).
Implement the suggested remedy.

Cl **120G** *SC* **120G.3.4** *P* **269** *L* **12** # I-29

Brown, Matthew — Huawei Technologies Canada

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

Table 120G-9 is titled "Module input characteristics" thus it is obvious that all specifications in this table relate to the module input. To match the other specifications in this table the word "input" should be removed from the parameter "Differential pk-pk input voltage tolerance (min)"

SuggestedRemedy

Change " "Differential pk-pk voltage tolerance (min)"
To "Differential pk-pk voltage tolerance (min)"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change "Differential pk-pk input voltage tolerance (min)"
To "Differential pk-pk voltage tolerance (min)"

Cl **120G** *SC* **120G.3.4.3.1** *P* **270** *L* **44** # I-30

Brown, Matthew — Huawei Technologies Canada

Comment Type **T** *Comment Status* **D** *configuration VNA (bucket2)*

Figure 120G-10 includes a VNA at the output of the frequency-dependent attenuator, but there are no measurements defined that require the use of a VNA.

SuggestedRemedy

Delete the VNA box and the associated switch.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Note also that the acronym VNA (presumably Vector Network Analyzer) is never defined (except remotely in Annex 149A).
Implement the suggested remedy.

Cl **120G** *SC* **120G.3.4.3.2** *P* **271** *L* **4** # I-69

Ran, Adee — Cisco Systems, Inc.

Comment Type **T** *Comment Status* **D** *SIT transition time (bucket2)*

In module stressed input calibration, the transition time should be defined with no Tx equalization in the pattern generator, as in the host stressed input calibration, 120G.3.3.5.2.

SuggestedRemedy

Change from
"The pattern generator is set to generate a PRBS13Q pattern (see 120.5.11.2.1) with transition time (see 120G.3.1.4) at the output of the pattern generator as specified in Table 120G–10"
To
"The pattern generator is set to generate a PRBS13Q pattern (see 120.5.11.2.1). The transition time (see 120G.3.1.4) measured at the output of the pattern generator when configured to “no equalization” is as specified in Table 120G–10".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the reponse to comment #200.

Cl **120G** *SC* **120G.3.4.3.2** *P* **271** *L* **4** # I-200

Dawe, Piers J G — NVIDIA

Comment Type **T** *Comment Status* **D** *SIT transition time (bucket2)*

120G.3.3.5.2 says that "The pattern generator is set to generate a PRBS13Q pattern (see 120.5.11.2.1). The transition time (see 120G.3.1.4) measured at TP4a with the pattern generator output equalization configured for "no equalization" is as specified in Table 120G-8." This says "The pattern generator is set to generate a PRBS13Q pattern (see 120.5.11.2.1) with transition time (see 120G.3.1.4) at the output of the pattern generator as specified in Table 120G-10."
The point about neutral emphasis (so it's really rise time not transition time) applies to both. D2.2 comment 133. (The terminology problem is in the base document: generally, the parameter Tr is not a "transition time" as defined, but can be called a rise time.)

SuggestedRemedy

Change
"(see 120.5.11.2.1) with transition time (see 120G.3.1.4) at the output of the pattern generator as specified in Table 120G-10." to
"(see 120.5.11.2.1). The transition time (see 120G.3.1.4) measured at the output of the pattern generator, with the pattern generator output equalization configured for "no equalization", is as specified in Table 120G-10."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement the suggested remedy with editorial license.
Also, align the punctuation (commas) on page 267 line 2.

Cl **121** *SC* **121.1** *P* **115** *L* **19** # I-233

Ben-Artsi, Liav — Marvell Semiconductor, Inc.

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

120-F and 120G have a different format than the line above - Same applies for table 122-1 on page 116

SuggestedRemedy

aline formats between the three and write: 120F-Chp-to-chip 200GAUI-2 and 120G-Chip-to-module 200GAUI-2. Fix also table 122-1

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The newly inserted 200GAUI-2 C2C and C2M are consistent with the nomenclature in the corresponding Annexes and other PMD clauses. The description used for the other AUIs as written in the base standard; addressing these is outside the scope of 802.3ck.

Cl **124** *SC* **124.1** *P* **118** *L* **19** # I-234

Ben-Artsi, Liav — Marvell Semiconductor, Inc.

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

120-F and 120G have a different format than the line above

SuggestedRemedy

aline formats between the three and write: 120F-Chp-to-chip 200GAUI-2 and 120G-Chip-to-module 200GAUI-2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
The newly inserted 200GAUI-2 C2C and C2M are consistent with the nomenclature in the corresponding Annexes and other PMD clauses. The description used for the other AUIs as written in the base standard; addressing these is outside the scope of 802.3ck.

Cl **135** *SC* **135.5.7.2** *P* **123** *L* **48** # I-235

Ben-Artsi, Liav — Marvell Semiconductor, Inc.

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

Stating the GAUI lane amounts in an increasing order makes more sense

SuggestedRemedy

Replace 100GAUI-1 and 100GAUI-2 order on lines 47 and 51

Proposed Response *Response Status* **W**

PROPOSED REJECT.
It is common practice to list in order of lane rate. The proposed changes do not improve the accuracy or clarity of the draft.

Cl **154** *SC* **154.1** *P* **133** *L* **0** # I-35

Ran, Adee — Cisco Systems, Inc.

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

Clause 154 (recently added to 802.3dc) defines the 100GBASE-ZR PHY, which may use the 100GAUI-1 C2C/C2M interfaces, in addition to the 100GAUI-2 and other interfaces currently listed.

SuggestedRemedy

Add Clause 154 and 154.1 to the draft.

Amend Table 154–1 to include 100GAUI-1 C2C and 100GAUI-1 C2M, both optional.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement the suggested remedy and also update Clause 80 appropriately.
Implement with editorial license.

Cl **162** *SC* **162.5** *P* **157** *L* **17** # I-125

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the max delays listed in Table 162-4.

SuggestedRemedy

Add a PICS entry "The sum of the transmit and the receive delay at one end of the link shall be no more than the maximum delays listed in Table 162-4" with a reference to clause 162.5.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
Following the precedent from Clause 136.14, the table in Clause 162.14.3 contains an entry for delay requirements that refers back to Clause 162.5 and specifies that the delay constraints be met.

Cl **162** *SC* **162.6.1** *P* **158** *L* **1** # I-126

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP3 for 100GBASE-CR1 less than 54ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP3 for 100GBASE-CR1 shall be less than 54ns" with a reference to clause 162.6.1.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 162.6 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses.

Cl **162** *SC* **162.6.1** *P* **158** *L* **4** # I-127

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP4 for 100GBASE-CR1 less than 134ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP4 for 100GBASE-CR1 shall be less than 134ns" with a reference to clause 162.6.1.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 162.6 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses.

Cl **162** *SC* **162.6.1** *P* **158** *L* **8** # I-128

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP5 for 100GBASE-CR1 less than 145ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP5 for 100GBASE-CR1 shall be less than 145ns" with a reference to clause 162.6.1.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 162.6 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses.

Cl **162** *SC* **162.6.2** *P* **158** *L* **23** # I-129

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP3 for 200GBASE-CR2 and 400GBASE-CR4 less than 54ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP3 for 200GBASE-CR2 and 400GBASE-CR4 shall be less than 54ns" with a reference to clause 162.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 162.6 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses.

Cl **162** *SC* **162.6.2** *P* **158** *L* **23** # I-130

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew variation at SP3 for 200GBASE-CR2 and 400GBASE-CR4 less than 600ps.

SuggestedRemedy

Add a PICS entry "The Skew Variation at SP3 for 200GBASE-CR2 and 400GBASE-CR4 shall be less than 600ps" with a reference to clause 162.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 162.6 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses.

Cl **162** *SC* **162.6.2** *P* **158** *L* **26** # I-131

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP4 for 200GBASE-CR2 and 400GBASE-CR4 less than 134ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP4 for 200GBASE-CR2 and 400GBASE-CR4 shall be less than 134ns" with a reference to clause 162.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 162.6 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses.

Cl **162** *SC* **162.6.2** *P* **158** *L* **26** # I-132

Hidaka, Yasuo Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew variation at SP4 for 200GBASE-CR2 and 400GBASE-CR4 less than 3.4ns.

SuggestedRemedy

Add a PICS entry "The Skew Variation at SP4 for 200GBASE-CR2 and 400GBASE-CR4 shall be less than 3.4ns" with a reference to clause 162.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 162.6 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses.

Cl **162** *SC* **162.6.2** *P* **158** *L* **30** # I-134

Hidaka, Yasuo Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew variation at SP5 for 200GBASE-CR2 and 400GBASE-CR4 less than 3.6ns.

SuggestedRemedy

Add a PICS entry "The Skew Variation at SP5 for 200GBASE-CR2 and 400GBASE-CR4 shall be less than 3.6ns" with a reference to clause 162.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 162.6 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses.

Cl **162** *SC* **162.6.2** *P* **158** *L* **30** # I-133

Hidaka, Yasuo Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP5 for 200GBASE-CR2 and 400GBASE-CR4 less than 145ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP5 for 200GBASE-CR2 and 400GBASE-CR4 shall be less than 145ns" with a reference to clause 162.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 162.6 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses.

Cl **162** *SC* **162.7** *P* **158** *L* **37** # I-135

Hidaka, Yasuo Credo Semiconductor

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

PICS entry seems missing for "shall" for mapping of MDIO variables and registers.

SuggestedRemedy

Add a PICS entry "MDIO shall map MDIO variables and registers to PMD variables as shown in Table 162-5 through Table 162-7" with a reference to clause 162.7.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The PICS table in Clause 162.14.3 contains an entry for MDIO capability with reference to subclause 162.7 and Value/Comment entry of "Device implements Clause 45 MDIO." Including specific reference to Clause 162.7 in the Value/Comment field would provide additional clarity to the requirement.
Change "Device implements Clause 45 MDIO" to "Device implements Clause 45 MDIO with the variable mapping in Clause 162.7."

Cl **162** *SC* **162.8.1** *P* **161** *L* **53** # I-169

Dawe, Piers J G NVIDIA

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

"The channel (see 162.11) is defined between the transmitter (TP0) and receiver (TP5) blocks to include the transmitter and receiver differential controlled impedance printed circuit board (PCB) differential-mode to differential-mode insertion loss and the cable assembly differential-mode to differential-mode insertion loss, as illustrated in Figure 162-2" - but discussing insertion loss is going off topic, it's not keeping to what the channel includes and we define other things about the channel, principally COM.

SuggestedRemedy

Change to "The channel (see 162.11) is defined between the transmitter (TP0) and receiver (TP5) blocks to include the transmitter and receiver differential controlled impedance printed circuit boards (PCBs), and the cable assembly, as illustrated in Figure 162-2."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change to "The channel (see 162.11) is defined between the transmitter (TP0) and receiver (TP5) blocks to include the transmitter and receiver differential controlled impedance printed circuit boards (PCBs) and the cable assembly, as illustrated in Figure 162-2."

Cl **162** *SC* **162.9.2** *P* **165** *L* **45** # I-89

Grow, Robert — RMG Consulting

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

Similar misuses of "comprise" have been rewritten using "compose" in P802.3/D3.0. This text also contradicts other text where a path is composed of one or more lanes. In general in 802.3 a data path is composed of a set of signals (e.g., xMII), one or more lanes in other sublayer descriptions , etc. Here, it states that a "path corresponds to one MDI lane"yet on p. 256, l. 12 it says "Each 100GAUI-1, 200GAUI-2, and 400GAUI-4 C2M data path contains one, two, or four differential lanes." This subclause is titled signal path, yet the text uses path without qualifier. In other parts of the document "channel signal path" is used. This in general is confusing!

SuggestedRemedy

162.9.2 MDI connections

The MDI transmit and receive data paths are point-to-point connections. Each MDI data path is composed of one or more MDI lane(s). Each MDI lane is composed of two complementary signals, forming a balanced differential pair.

For 100GBASE-CR1, there is one differential lane in each direction for a total of two pairs, or four
connections. For 200GBASE-CR2, there are two differential lanes in each direction for a total of four pairs, or eight connections. For 400GBASE-CR4, there are four differential lanes in each direction for a total of eight pairs, or sixteen connections.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
The text in Clause 162 follows the precedent set in Clause 136, although "composed" is used rather than "comprised" in 802.3dc. However, the suggested remedy provides a clearer description of the signal paths.
Implement the suggested remedy.

Cl **162** *SC* **162.9.3** *P* **166** *L* **34** # I-50

Ran, Adee — Cisco Systems, Inc.

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

"peak" in Rpeak should be a subscript.

SuggestedRemedy

Format per comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **162** *SC* **162.9.4.1** *P* **174** *L* **4** # I-20

Brown, Matthew — Huawei Technologies Canada

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

This paragraph provides the nominal value for the UI. This is not provided in 162 for KR, in 120F for C2C, or in 120G for C2M. It is not necessary to specify this number since it is easily determined by the nominal signaling rate. To be consistent with other similar PMD/AUI clauses this sentence should be removed.

SuggestedRemedy

Remove the following sentence: "This translates to a nominal unit interval of approximately 18.8235 ps."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **162** *SC* **162.11** *P* **181** *L* **18** # I-232

Ben-Artsi, Liav — Marvell Semiconductor, Inc.

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

The term twinaxial cabling os used in multiple places, but never defined.

SuggestedRemedy

Suggest changing twinaxial cable to "twinaxial shielded balanced copper cable", which would explain it a bit better

Proposed Response *Response Status* **W**

PROPOSED REJECT.
1.4 Definitions includes twinaxial cable used in clauses characterizing this cable assembly type. See 1.4.480 twinaxial cable: A cable similar to coaxial cable in construction but containing two insulated inner conductors rather than one.

Cl **162** *SC* **162.11.2** *P* **182** *L* **6** # I-22

Brown, Matthew — Huawei Technologies Canada

Comment Type **T** *Comment Status* **D** *Channel ILdd (bucket2)*

The specified for ILDD says the value "should be greater than or equal" to Equation 162-17, but Equation 162-17 is an inequality. Change the wording to the form used in 120G.4.1.

SuggestedRemedy

Change: "The measured differential-mode to differential-mode insertion loss of a cable assembly shall be greater than or equal to the minimum cable assembly differential-mode to differential-mode insertion loss given in Equation (162–17) and illustrated in Figure 162–7."
To: "The channel differential-mode to differential-mode insertion loss shall meet Equation (162-17), which is illustrated in Figure 162-7."
In Equation 162-17 change ILddmin to ILdd.
Change the description of ILddmin (now ILdd) to "is the cable assembly differential-mode to differential-mode insertion loss in dB".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #56

Cl **162** *SC* **162.11.2** *P* **182** *L* **12** # I-56

Ran, Adee — Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **D** *Channel ILdd (bucket2)*

The text specifying the minimum insertion loss and equation 162-17 are inconsistent: The text says the ILDD shall be lower than the limit defined by the equation, but the equation has "ILDD_min(f) >="; this reads as if the limit is anywhere below the line defined by the equation, so the limit is not defined.

The suggested remedy is a minimal change. Alternatively, the definition can be changed to state that ILDD "shall meet the equation" and have the equation in terms of ILDD instead of ILDDmin, as done in other similar cases.

SuggestedRemedy

In equation 162-17, change ">=" to "=".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change ILddmin(f)>/=(equation 162-17) to ILdd(f)>/= ILddmin(f)=(equation 162-17)
Add
ILdd(f) is the measured cable assembly differential-mode to differential-mode insertion loss in dB

Cl **162** *SC* **162.11.7** *P* **185** *L* **46** # I-138

Hidaka, Yasuo — Credo Semiconductor

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

The meaning of "any channel within the cable assembly" is not clear.

SuggestedRemedy

Change "any channel" to "any lane".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **162** *SC* **162.11.7** *P* **187** *L* **3** # I-182

Dawe, Piers J G — NVIDIA

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

Empty cells

SuggestedRemedy

If unitless, use a long dash

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **162** *SC* **162.11.7.1** *P* **187** *L* **43** # I-58

Ran, Adee — Cisco Systems, Inc.

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

"The scattering parameters for a PCB transmission line are calculated using the method defined in 93A.1.2.3 using Equation (93A-13), Equation (93A-14) and the parameter values given in Table 162–20"

93A.1.2.3 (in the base document) includes equations 93A-13 and 93A-14, so there is no need to include these references in addition, with repetitive "using".

(If they are to be retained, a serial comma should be inserted after Equation (93A-14))

SuggestedRemedy

Change the quoted sentence to
"The scattering parameters for a PCB transmission line are calculated using the method defined in 93A.1.2.3 with the parameter values given in Table 162–20".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Implement the suggested remedy.
Also, in Table 162-20 row 5 change the parameter "t" back to Greek letter Tau.

Cl **162** *SC* **162.11.7.2** *P* **189** *L* **35** # I-59

Ran, Adee — Cisco Systems, Inc.

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

The sentence "Annex 162C specifies the MDIs for 100GBASE-CR1, 200GBASE-CR2, 400GBASE-CR4." seems unnecessary and out of place here (subclause title is "Signal and crosstalk paths used in calculation of COM").

The same sentence appears in the next subclause 162.12, MDI specifications, where it makes more sense, so it may be an unintended leftover.

SuggestedRemedy

Consider deleting this sentence.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Delete the sentence referenced in the comment.

Cl **162** *SC* **162.14.3** *P* **192** *L* **32** # I-60

Ran, Adee — Cisco Systems, Inc.

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

In item FEC100, "RS(544,514)" is larger than surrounding text.
Other items that include large text (different text) are CA2, CA5, CA6.

SuggestedRemedy

Make text size match the surrounding text.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **162** *SC* **162.14.4.2** *P* **194** *L* **17** # I-137

Hidaka, Yasuo — Credo Semiconductor

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

Item PC6 refers to clause 136.8.11.4.1.

SuggestedRemedy

Change the reference of PC6 from 136.8.11.4.1 to 162.9.3.1.3.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **162** *SC* **162.14.4.5** *P* **196** *L* **8** # I-139

Hidaka, Yasuo — Credo Semiconductor

Comment Type **T** *Comment Status* **D** *PICS (bucket2)*

The meaning of "all channels within the cable assembly" is not clear.

SuggestedRemedy

Change "all channels" with "all lanes".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **162A** *SC* **162A** *P* **284** *L* **9** # I-213

Dawe, Piers J G NVIDIA

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

I wondered why 162.9.3 was referring to an annex whose title seemed to be nothing to do with the subject...
The title of this annex is "TP0 and TP5 test point parameters and channel characteristics ..." yet it contains recommended transmitter and receiver characteristics, which aren't mentioned in 162A.1 Overview, "This annex provides information on..." either. I don't recognise "test point parameters" as including transmitter IC recommendations.

SuggestedRemedy

Change the title from
TP0 and TP5 test point parameters and channel characteristics for 100GBASE-CR1, 200GBASE-CR2, and 400GBASE-CR4
to
Transmitter, receiver and channel recommendations at test points TP0 and TP5 for 100GBASE-CR1, 200GBASE-CR2, and 400GBASE-CR4
Change the first sentence from
This annex provides information on parameters associated with test points TP0 and TP5 that might not be testable in an implemented system.
to
This annex provides information on transmitter, receiver and channel parameters associated with test points TP0 and TP5 that might not be
testable in an implemented system.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Change the title from
TP0 and TP5 test point parameters and channel characteristics for 100GBASE-CR1, 200GBASE-CR2, and 400GBASE-CR4
to
Transmitter, receiver and channel parameters associated with test points TP0 and TP5 for 100GBASE-CR1, 200GBASE-CR2, and 400GBASE-CR4
Change the first sentence
from
This annex provides information on parameters associated with test points TP0 and TP5 that might not be testable in an implemented system.
to
This annex provides information on transmitter, receiver and channel parameters associated with test points TP0 and TP5 that might not be testable in an implemented system.

Cl **162A** *SC* **162A** *P* **284** *L* **15** # I-214

Dawe, Piers J G NVIDIA

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

"TP0 and TP5 that might not be testable": see style guide

SuggestedRemedy

TP0 and TP5, which might not be testable

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **162A** *SC* **162A.4** *P* **285** *L* **1** # I-215

Dawe, Piers J G NVIDIA

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

ILPCBmin

SuggestedRemedy

ILddPCBmin

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **162B** *SC* **162B.2.1** *P* **291** *L* **3** # I-216

Dawe, Piers J G NVIDIA

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

Please make it easier for the reader to judge the size of these losses. Also, it's test fixture reference ... loss as in the text, not reference test fixture ... loss.

SuggestedRemedy

Please put ILddcatf on Figure 162B-1, and label the two lines (e.g. make one dashed), change figure title to "reference differential-mode to differential-mode insertion losses of test fixtures", refer to it from 162B.3, delete Figure 162B-2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Graph ILddcatf on Figure 162B-1; delete Figure 162B-2.
Change figure 162B-1 title to " Test fixtures PCB reference differential-mode to differential-mode insertion losses"

Cl **162B** *SC* **162B.2.1** *P* **291** *L* **49** # I-217

Dawe, Piers J G NVIDIA

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

fixtures

SuggestedRemedy

fixture

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #216

Cl **162C** *SC* **162C.1** *P* **303** *L* **14** # I-219

Dawe, Piers J G NVIDIA

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

As these aren't proper names, according to the house style they don't get capitals (except at the beginning of a sentence, cell or similar)

SuggestedRemedy

Change "Transmitter Inverted Data Input" to "Transmitter inverted data input" and so on.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
In Table 162C-3 description column fix the capitalization with editorial license.

Cl **163** *SC* **163.5** *P* **199** *L* **51** # I-141

Hidaka, Yasuo Credo Semiconductor

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

PICS entry seems missing for "shall" for the max delays listed in Table 163-4.

SuggestedRemedy

Add a PICS entry "The sum of the transmit and receive delays at one end of the link shall be no more than the maximum delays listed in Table 163-4" with a reference to clause 163.5.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "DC"

Cl **163** *SC* **163.6.1** *P* **201** *L* **18** # I-142

Hidaka, Yasuo Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP3 for 100GBASE-KR1 less than 54ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP3 for 100GBASE-KR1 shall be less than 54ns" with a reference to clause 163.6.1.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 163.6.1 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses. Align with similar comments against 162.

Cl **163** *SC* **163.6.1** *P* **201** *L* **21** # I-143

Hidaka, Yasuo Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP4 for 100GBASE-KR1 less than 134ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP4 for 100GBASE-KR1 shall be less than 134ns" with a reference to clause 163.6.1.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 163.6.1 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses. Align with similar comments against 162.

Cl **163** *SC* **163.6.1** *P* **201** *L* **25** # I-144

Hidaka, Yasuo Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP5 for 100GBASE-KR1 less than 145ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP5 for 100GBASE-KR1 shall be less than 145ns" with a reference to clause 163.6.1.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 163.6.1 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses. Align with similar comments against 162.

Cl **163** *SC* **163.6.2** *P* **201** *L* **40** # I-146

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew variation at SP3 for 200GBASE-KR2 and 400GBASE-KR4 less than 600ps.

SuggestedRemedy

Add a PICS entry "The Skew Variation at SP3 for 200GBASE-KR2 and 400GBASE-KR4 shall be less than 600ps" with a reference to clause 163.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 163.6.1 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses. Align with similar comments against 162.

Cl **163** *SC* **163.6.2** *P* **201** *L* **40** # I-145

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP3 for 200GBASE-KR2 and 400GBASE-KR4 less than 54ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP3 for 200GBASE-KR2 and 400GBASE-KR4 shall be less than 54ns" with a reference to clause 163.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 163.6.1 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses. Align with similar comments against 162.

Cl **163** *SC* **163.6.2** *P* **201** *L* **43** # I-148

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew variation at SP4 for 200GBASE-KR2 and 400GBASE-KR4 less than 3.4ns.

SuggestedRemedy

Add a PICS entry "The Skew Variation at SP4 for 200GBASE-KR2 and 400GBASE-KR4 shall be less than 3.4ns" with a reference to clause 163.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 163.6.1 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses. Align with similar comments against 162.

Cl **163** *SC* **163.6.2** *P* **201** *L* **43** # I-147

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP4 for 200GBASE-KR2 and 400GBASE-KR4 less than 134ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP4 for 200GBASE-KR2 and 400GBASE-KR4 shall be less than 134ns" with a reference to clause 163.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 163.6.1 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses. Align with similar comments against 162.

Cl **163** *SC* **163.6.2** *P* **201** *L* **46** # I-150

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew variation at SP5 for 200GBASE-KR2 and 400GBASE-KR4 less than 3.6ns.

SuggestedRemedy

Add a PICS entry "The Skew Variation at SP5 for 200GBASE-KR2 and 400GBASE-KR4 shall be less than 3.6ns" with a reference to clause 163.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 163.6.1 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses. Align with similar comments against 162.

Cl **163** *SC* **163.6.2** *P* **201** *L* **46** # I-149

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the skew at SP5 for 200GBASE-KR2 and 400GBASE-KR4 less than 145ns.

SuggestedRemedy

Add a PICS entry "The Skew at SP5 for 200GBASE-KR2 and 400GBASE-KR4 shall be less than 145ns" with a reference to clause 163.6.2.

Proposed Response *Response Status* **W**

PROPOSED REJECT.
There is already a PICS entry "SC" to cover multiple requirements in 163.6.1 (denoted by shall statements). This is consistent with preceding 100G Ethernet and faster PMD clauses. Align with similar comments against 162.

Cl **163** *SC* **163.9.2.6** *P* **206** *L* **53** # I-152

Hidaka, Yasuo — Credo Semiconductor

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

PICS entry seems missing for "shall" for the residual intersymbol interference ISI_RES.

SuggestedRemedy

Add a PICS entry for residual intersymbol interference per Table 163-5 with a reference to clause 163.9.2.6.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add new PICS item with editorial license.

Cl **163** *SC* **163.9.2.7** *P* **207** *L* **7** # I-62

Ran, Adee — Cisco Systems, Inc.

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

In "p(k)", p and k should be italicized, as in line 18 and in 162.9.3.1.1.

SuggestedRemedy

Apply formatting per comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163** *SC* **163.9.2.7** *P* **207** *L* **9** # I-153

Hidaka, Yasuo — Credo Semiconductor

Comment Type **E** *Comment Status* **D** *AC CM noise (bucket2)*

PICS entry seems missing for "shall" for signal to AC common-mode noise ratio.

SuggestedRemedy

Add a PICS entry for signal to AC common-mode noise ratio per Table 163-5 with a reference to clause 163.9.2.7.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Add new PICS item with editorial license.

Cl **163** *SC* **163.9.2.7** *P* **207** *L* **10** # I-154

Hidaka, Yasuo — Credo Semiconductor

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

Table 163-11 does not define SCMR.

SuggestedRemedy

Change the reference to Table 163-11 with a reference to Table 163-5.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163** *SC* **163.9.2.7** *P* **207** *L* **10** # I-21

Brown, Matthew — Huawei Technologies Canada

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

This table incorrectly points to Table 163-11 for the SCMR value.

SuggestedRemedy

Change "Table 163-11" to "Table 163-5".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163** *SC* **163.9.2.7** *P* **207** *L* **10** # I-63

Ran, Adee — Cisco Systems, Inc.

Comment Type **TR** *Comment Status* **D** *AC CM noise (bucket2)*

The peak-to-peak common-mode noise measured can be significantly increased by mismatched cabling in the test setup or routing in the test fixture. A difference of 1 mm between single-ended path translates to ~25% of a UI. This would cause significant conversion of the differential signal to CM signal and degradation the SCMR. This common-mode signal would be correlated to the data pattern, but so far we have not separated the CM specification to correlated and uncorrelated components.

Also, there are no conversion loss specifications for test fixture (even if we had, they would be difficult to measure). Poorly designed test fixtures may cause a good device to fail the test even in a well-calibrated test setup. This may make SCMR seem difficult to meet.

It may be possible to calibrate the measurement for differences between cables, mitigating some of the problem. But we may not want to provide an open ticket to full deskew of the single-ended signals, because it can "correct" problems in the DUT as well as in the test system.

As a minimum remedy to this problem, it is suggested to add a note informing the reader that good matching of the test fixture and calibration of the test setup is recommended.

Alternatively, the CM measurement could be separated to correlated and uncorrelated, and SCMR calculated only for the uncorrelated component. This would be preferable if there is consensus for this path.

SuggestedRemedy

Add an informative NOTE at the end of this subclause:
NOTE—SCMR measurement may be sensitive to mismatches between the single-ended paths in the test fixture and the test setup. Careful design and calibration of the test system is recommended.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add an informative NOTE at the end of this subclause:
NOTE—SCMR measurement may be sensitive to mismatches between the single-ended paths in the test fixture and the test setup. Careful design and calibration of the test system is recommended.

Cl **163** *SC* **163.9.2.7** *P* **207** *L* **11** # I-64

Ran, Adee — Cisco Systems, Inc.

Comment Type **E** *Comment Status* **D** *AC CM noise (bucket2)*

Incorrect cross-reference to Table 163-11 - SCMR (min) is specified in Table 163–5.

Also, this subclause is also referred to by Table 120F–1 and maybe others in the future. To separate definition from required limit, the "shall" statement should be placed at the end of the subclause, as done in 163.9.2.6.

SuggestedRemedy

In the sentence "The signal to AC common-mode noise ratio shall meet the specification for SCMR (min) in Table 163–11", change Table 163–11 to Table 163–5.

Move this sentence to the end of the subclause, after equation 163-2 and its variable list.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163** *SC* **163.9.2.7** *P* **207** *L* **11** # I-34

Wu, Mau-Lin — MediaTek Inc.

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

The specification for SCMR (min) is defined in Table 163-5, instead of Table 163-11.

SuggestedRemedy

Change Table 163-11 to Table 163-5. Correct the hyperlink as well.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163** *SC* **163.10.2** *P* **214** *L* **16** # I-23

Brown, Matthew — Huawei Technologies Canada

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

The sentence specifying insertion loss refers to a maximum value, but the equation is an inequality. Reword the specify to be of the for used in 120G.4.1.

SuggestedRemedy

Change: "The maximum recommended differential-mode to differential-mode insertion loss of the channel is given by Equation (163–6)."
To: "The channel differential-mode to differential-mode insertion loss should meet Equation (163-6)."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163** *SC* **163.11** *P* **218** *L* **37** # I-90

Grow, Robert RMG Consulting

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

Similar misuses of "comprise" have been rewritten using "compose" in P802.3/D3.0.

SuggestedRemedy

"The MDI is composed of…"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163** *SC* **163.13.4.3** *P* **222** *L* **49** # I-151

Hidaka, Yasuo Credo Semiconductor

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

"peak" is missing.

SuggestedRemedy

Change "Difference linear fit pulse ratio" to "Difference linear fit pulse peak ratio".

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163** *SC* **163.13.4.3** *P* **222** *L* **51** # I-140

Hidaka, Yasuo Credo Semiconductor

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

The border between TC9 and TC10 is thick.

SuggestedRemedy

Make the border between TC9 and TC10 same as other rows.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163A** *SC* **163A** *P* **316** *L* **1** # I-220

Dawe, Piers J G NVIDIA

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

annex Annex ... and ...

SuggestedRemedy

annexes Annex ... and ...

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163A** *SC* **163A.3.1.1** *P* **317** *L* **49** # I-72

Ran, Adee Cisco Systems, Inc.

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

In expressions that include italics, parentheses and numbers should be set in upright font. This line includes some instances, and there are many others.

SuggestedRemedy

Format per comment, apply throughout the document.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163A** *SC* **163A.3.1.3** *P* **319** *L* **24** # I-221

Dawe, Piers J G NVIDIA

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

Eq 163A-5 is part of step b, and Eq 163A-4 is part of step d, is after b.

SuggestedRemedy

Swap equations 163A-5 and 4

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163A** *SC* **163A.3.2.1** *P* **320** *L* **9** # I-73

Ran, Adee Cisco Systems, Inc.

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

Equation 163A–7 is truncated from the top.

SuggestedRemedy

Fix it.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **163A** *SC* **163A.3.2.1** *P* **320** *L* **24** # I-74

Ran, Adee Cisco Systems, Inc.

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

Equation 163A-6 and Equation 163A-10 use the reference voltage terms v_f(ref) and v_peak(ref). These are not defined here but in 163A.3.1.1. A cross-reference would help.

SuggestedRemedy

Add a paragraph at the end of this subclause: "v_f(ref) and v_peak(ref) are defined in 163A.3.1.1."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **167** *SC* **167** *P* **225** *L* **1** # I-100

Parsons, Earl CommScope, Inc.

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

Include modification to Clause 167 (from 802.3db).

SuggestedRemedy

Show modified Table 167-1 and Table 167-2 with rows for 120F--100GAUI-1 C2C and 120G--100GAUI1 C2M.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Resolve using the response to comment #36.

Cl **167** *SC* **167.1** *P* **225** *L* **0** # I-36

Ran, Adee Cisco Systems, Inc.

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

Clause 167 (part of 802.3db) defines six new PHY with optical PMDs that use 53.125 GBd signaling. These PHYs may use the 100GAUI-1, 200GAUI-2, and 400GAUI-4 C2C/C2M interfaces, in addition to the interfaces currently listed.

Since 802.3db is scheduled to be published before 802.3ck, this should be an amendment of clause 167.

SuggestedRemedy

Add Clause 167 and 167.1 to the draft.

Amend Table 167–1 to include 100GAUI-1 C2C and 100GAUI-1 C2M, both optional.

Amend Table 167–2 to include 200GAUI-2 and 400GAUI-4, each with C2C and C2M, all optional.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.