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** *(bucket4)*

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 IN PRINCIPLE.

Remove "SFP-DD" from footnote 4 with editorial license.

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** *(bucket4)*

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** *(bucket4)*

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 IN PRINCIPLE.

There are some formatting errors in the suggested remedy, but these can be addressed with editorial license.

Align with 802.3db per the suggested remedy with editorial license.

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

Dawe, Piers J G NVIDIA

Comment Type **E** *Comment Status* **D** *(bucket4)*

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

Dawe, Piers J G NVIDIA

Comment Type **E** *Comment Status* **D** *(bucket4)*

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 ACCEPT.

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

Parsons, Earl CommScope, Inc.

Comment Type **E** *Comment Status* **D** *(bucket4)*

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

Grow, Robert RMG Consulting

Comment Type **E** *Comment Status* **D** *(bucket4)*

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.3.1** *P* **239** *L* **13** # I-106

Mellitz, Richard Samtec, Inc.

Comment Type **TR** *Comment Status* **D** *AC CM noise (bucket4)*

DER0 for 120F is 1e-5 and DER0 for 163 is 1e-4. The reference to 163.9.2.7 need a reference to adjust for DER0.

SuggestedRemedy

Add a footnote to SCMR(min) to compute V_CMPP to with the distribution range to be between 0.000005 to 0.999995. (1.e. 1e-5).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment i-101.

Cl **120F** *SC* **120F.3.1** *P* **239** *L* **13** # I-102

Mellitz, Richard — Samtec, Inc.

Comment Type **TR** *Comment Status* **D** *AC CM noise (bucket4)*

Low frequency CM will not be very dependent on a test fixture. Signal to AC common-mode noise ratio, SCMR (min), is related to the Peak Pulse and used to compensate for test fixture loss. Since the low frequency the loss is very small the tp0v compensation is not correct. As demonstrated in mellitz_3k_adhoc_01_120821 noise originating from a power supply or other low frequency sources can be detrimental,

SuggestedRemedy

Add a new line to table 120F-1 called maximum low frequency AC common mode max peak to peak noise (V_CMPP) and set to 30 mV. Create a new section for such indicating the a low pass 4th order Bessel Thomson filter with a 3 dB point of 10 MHz is to be applied to the CM measurement. Additionally in section 163.9.2.7 indicate that the a high pass 4th order Bessel Thomson filter with a 3 dB point of 10 MHz is to be applied to the AC CM measurement and set SCMR (min) to 10.7 dB. See presentation.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment i-101.

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

Grow, Robert — RMG Consulting

Comment Type **E** *Comment Status* **D** *(bucket4)*

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* **13** # I-104

Mellitz, Richard — Samtec, Inc.

Comment Type **TR** *Comment Status* **D** *AC CM noise (bucket4)*

RMS is poor indicator for CM mode noise. See CM histograms in mellitz_3k_adhoc_01_120821, mellitz_3ck_01a_0721, and mellitz_3ck_adhoc_01_121620. Clause 163.9.2.7 defines a more meaningful parameter V_CMPP as the peak-to-peak AC common-mode voltage.

SuggestedRemedy

Replace "AC common-mode output voltage (max, RMS)" with V_CMPP as the peak-to-peak AC common-mode voltage and set to 213 mV but define the distribution range to be between 0.000005 to 0.999995. (1.e. 1e-5) See presentation.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment i-103.

Cl **120G** *SC* **120G.3.2** *P* **261** *L* **7** # I-105

Mellitz, Richard — Samtec, Inc.

Comment Type **TR** *Comment Status* **D** *AC CM noise (bucket4)*

RMS is poor indicator for CM mode noise. See CM histograms in mellitz_3k_adhoc_01_120821, mellitz_3ck_01a_0721, and mellitz_3ck_adhoc_01_121620. Clause 163.9.2.7 defines a more meaningful parameter V_CMPP as the peak-to-peak AC common-mode voltage.

SuggestedRemedy

Replace "AC common-mode output voltage (max, RMS)" with V_CMPP as the peak-to-peak AC common-mode voltage and set to 213 mV but define the distribution range to be between 0.000005 to 0.999995. (1.e. 1e-5). See presentation

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment i-103.

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

Grow, Robert — RMG Consulting

Comment Type **ER** *Comment Status* **D** *(bucket4)*

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* **162.9.4.3** *P* **174** *L* **24** # I-191

Dawe, Piers J G — NVIDIA

Comment Type **T** *Comment Status* **D** *RITT (CC) (bucket4)*

Improving the wording, bearing in mind that 802.3 is not a test spec nor does it mandate how compliance is achieved. At present, the introductory sentence gives the opposite impression because it says something "is measured". Other parameter definition/explanation/detail subclauses that aren't receiver interference tolerance, jitter tolerance or stressed input tolerance don't do this.
Improving consistency.
It seems that any of these would work but there may be a reason for choosing one that I have not seen yet:
measurement procedure
measurement method
procedure
method

SuggestedRemedy

Use a format similar to 162.9.3.3, Output SNDR. "The transmitter SNDR is defined by the measurement method..."
Here and in 162.9.4.4.1, change "Receiver interference tolerance is measured according to the procedure..." to "Receiver interference tolerance is defined by the measurement { procedure | method }..."
Similarly in 163 and 120F.
In 120G.3.3.5, Host stressed input tolerance, change
Host stressed input tolerance is measured according to the procedure...
to
Host stressed input tolerance is defined by the measurement { procedure | method }...
And similarly in 120G.3.4.3, Module stressed input tolerance.
For consistency, in 162.9.3.5, Transmitter effective return loss (ERL), "ERL of the transmitter at TP2 is computed using the procedure...", change "is computed using" to "is defined by" (there's more to it than calculation, an S-parameter measurement is needed too, as mentioned in 93A.5.1).
After we have said that a section is a definition rather than a requirement to test, it's OK to describe the procedure as a test as we do, so no further change is needed for this.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

[Editor's note: Changed page/line from 265/31 to 174/24]
[Editor's note: CC: 120G, 162]

The opening sentence in 163.9.3.5 and 120F.3.2.4 are already written in the form proposed by this comment. So no changes are required there.

In 162.9.4.3...
Change "Receiver interference tolerance is measured according to the procedure described in 162.9.4.3.1 through 162.9.4.3.5."
To: "Receiver interference tolerance is defined by the procedure described in 162.9.4.3.1

through 162.9.4.3.5."

In 162.9.4.4...
Add the following sentence:
To: "Receiver jitter tolerance is defined by the procedure described in 162.9.4.4.1 and 162.9.4.4.2."

In 120G.3.3.5
Change "Host stressed input tolerance is measured according to the procedure described in 120G.3.3.5.1 through 120G.3.3.5.3."
To "Host stressed input tolerance is defined by the procedure described in 120G.3.3.5.1 through 120G.3.3.5.3."

In 120G.3.4.3
Change "Module stressed input tolerance is measured according to the procedure described in 120G.3.4.3.1 through 120G.3.4.3.3."
To "Module stressed input tolerance is defined by the procedure described in 120G.3.4.3.1 through 120G.3.4.3.3."

In 162.9.3.5...
Change "ERL of the transmitter at TP2 is computed using the procedure in 93A.5"
To "ERL of the transmitter at TP2 is defined by the procedure in 93A.5"

Implement with editorial license.

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

Hidaka, Yasuo — Credo Semiconductor

Comment Type **T** *Comment Status* **D** *(bucket4)*

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* **162.14.4.5** *P* **196** *L* **8** # I-139

Hidaka, Yasuo — Credo Semiconductor

Comment Type **T** *Comment Status* **D** *PICS (bucket4)*

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 IN PRINCIPLE.

The PICS language should align with the normative text.

Change "all channels" to "any lane"

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

Dawe, Piers J G — NVIDIA

Comment Type **E** *Comment Status* **D** *(bucket4)*

fixtures

SuggestedRemedy

fixture

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

A similar change is necessary on page 290 line 49.

Change "fixtures" to "fixture" on page 209 line 49 and on page 291 line 49.

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

Grow, Robert — RMG Consulting

Comment Type **E** *Comment Status* **D** *(bucket4)*

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.