Cl **FM** *SC* **FM** *P* **1** *L* **10** # 147

Marris, Arthur — Cadence Design Systems

Comment Type **ER** *Comment Status* **A** *Amd*

State this is amendment 11 and list the prior amendments

SuggestedRemedy

"Amendment: 11" - "This draft is an amendment of IEEE Std 802.3-2018 as amended by IEEE Std 802.3cb-2018, IEEE Std 802.3bt-2018, IEEE Std 802.3cd-2018, IEEE Std 802.3cn-2019, IEEE Std 802.3cg-2019, IEEE Std 802.3cq-2020, IEEE Std 802.3cm-2020, IEEE Std 802.3ch-2020, IEEE Std 802.3ca-2020, and IEEE Std 802.3cr-20xx"

Response *Response Status* **C**

ACCEPT.

Group comments #147, 86, 50, 68, 281

Cl **FM** *SC* **FM** *P* **1** *L* **13** # 11

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

Suggest to break title before "and 50"

SuggestedRemedy

Insert line break before "and 50" to make title look a bit better

Response *Response Status* **C**

ACCEPT.

Cl **FM** *SC* **FM** *P* **1** *L* **23** # 50

Lewis, Jon — Dell EMC

Comment Type **ER** *Comment Status* **A** *Amd*

The list of "as amended by" is not up to date.

SuggestedRemedy

Please align with the latest FM template available on the website. This should at a minimum include "IEEE Std 802.3cb-2018, IEEE Std 802.3bt-2018, IEEE Std 802.3cd-2018, IEEE Std 802.3cn-2019, IEEE Std 802.3cg-2019, IEEE Std 802.3cq-2020, and IEEE Std 802.3cm-2020"

Response *Response Status* **C**

ACCEPT.

See #147, use the amendment list in #147 resolution
Group comments #147, 86, 50, 68, 281

Cl **FM** *SC* **FM** *P* **1** *L* **24** # 86

Grow, Robert — RMG Consulting

Comment Type **T** *Comment Status* **A** *Amd*

The paragraph is dated. On the date of this comment, we now have 9 approved amendments, 6 of which are published, and at least 2 amendments likely to receive amendment numbers 10 and 11 that are ahead of the 3 projects in initial WG ballot.

SuggestedRemedy

Add IEEE Std 802.3cr-20xx to the list as the 10th amendment (before IEEE Std 802.3cu-20xx).

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See #147, use the amendment list in #147 resolution
Group comments #147, 86, 50, 68, 281

Cl **FM** *SC* **FM** *P* **1** *L* **24** # 68

Nicholl, Shawn — Xilinx

Comment Type **ER** *Comment Status* **A** *Amd*

Missing some existing amendments in the frontmatter.

SuggestedRemedy

Propose to replace ", and IEEE Std 802.3cd-2018" with ",IEEE Std 802.3cd-2018, IEEE Std 802.3cn-2019, IEEE Std 802.3cg-2019, IEEE Std 802.3cq-2020, IEEE Std 802.3cm-2020" as well as any other relevant in-progress amendments.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See #147, use the amendment list in #147 resolution
Group comments #147, 86, 50, 68, 281

Cl **FM** *SC* **FM** *P* **1** *L* **24** # 51

Lewis, Jon — Dell EMC

Comment Type **E** *Comment Status* **A** *D2p1*

This draft is for Initial Working Group ballot

SuggestedRemedy

Change "Draft D1.3 is prepared for Task Force review [review/balloting stage]" to "Draft D2.1 is prepared for the the first Working Group recirculation ballot"

Response *Response Status* **C**

ACCEPT.

Group comments #51, 12, 283, 284

Cl **FM** *SC* **FM** *P* **1** *L* **24** # 12

Hajduczenia, Marek — Charter

Comment Type **ER** *Comment Status* **A** *D2p1*

This is not draft D1.3

SuggestedRemedy

FM summary must be filled in as well

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
See #51, change to "Draft D2.1 is prepared for the the first Working Group recirculation ballot"
Group comments #51, 12, 283, 284

Cl **FM** *SC* **FM** *P* **1** *L* **24** # 283

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

D1.3

SuggestedRemedy

Would be D2.1 next time

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See #51, change to "Draft D2.1 is prepared for the the first Working Group recirculation ballot"
Group comments #51, 12, 283, 284

Cl **FM** *SC* **FM** *P* **1** *L* **24** # 282

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

[complete]

SuggestedRemedy

Complete it

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Propose to complete this setence as "This amendment adds Physical Layer (PHY) specifications and management parameters for 10 Gb/s, 25 Gb/s, and 50 Gb/s Ethernet bidirectional optical interfaces for operation over single-mode fiber."

Cl **FM** *SC* **FM** *P* **1** *L* **24** # 281

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

[list to be populated during publication process]

SuggestedRemedy

Populate it now, consistent with lines 23-24. If necessary, say that the list may be amended during the publication process.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #147 to populate the latest amendment list
Group comments #147, 86, 50, 68, 281

Cl **FM** *SC* **FM** *P* **1** *L* **25** # 284

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

[review/balloting stage]

SuggestedRemedy

Delete

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM** *SC* **FM** *P* **2** *L* **1** # 99

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *Abs*

Abstract needs to be completed.

SuggestedRemedy

Change: Abstract: This amendment to IEEE Std 802.3-2018 [abstract text].
To: Abstract: This amendment to IEEE Std 802.3-2018 adds bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s Optical Access PHYs.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#6, change abstract to text in #6 resolution
Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88

Cl **FM** *SC* **FM** *P* **2** *L* **1** # 285

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

Abstract

SuggestedRemedy

Write it

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#6, include abstract text in #6 resolution
Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88

Cl **FM** *SC* **FM** *P* **2** *L* **1** # 6

Anslow, Pete — Self

Comment Type **ER** *Comment Status* **D** *Abs*

The abstract and keywords are not populated

SuggestedRemedy

Add appropriate abstract text and suitable keywords

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Add abstract as "This amendment to IEEE Std 802.3-2018 adds Physical Layer specifications and Management Parameters for 10 Gb/s, 25 Gb/s, and 50 Gb/s Ethernet bidirectional optical interfaces for operation over single-mode fiber with reaches of at least 10 km, 20 km, and 40 km."

Add keywords as "Bidirectional (BiDi), Multi-Gigabit Ethernet Bidirectional Physical Layers, 10GBASE-BR10, 10GBASE-BR20, 10GBASE-BR40, 25GBASE-BR10, 25GBASE-BR20, 25GBASE-BR40, 50GBASE-BR10, 50GBAS ()E-BR20, 50GBASE-BR40, forward error correction (FEC), Physical Coding Sublayer (PCS), Physical Medium Attachment (PMA), Physical Medium Dependent (PMD)"

Comment group #6, 13, 87, 88, 99, 100, 148

Cl **FM** *SC* **FM** *P* **2** *L* **1** # 148

Marris, Arthur — Cadence Design Systems

Comment Type **ER** *Comment Status* **D** *Abs*

Missing abstract text

SuggestedRemedy

Add abstract text

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#6, change abstract to text in #6 resolution
Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88

Cl **FM** *SC* **FM** *P* **2** *L* **1** # 87

Grow, Robert — RMG Consulting

Comment Type **E** *Comment Status* **D** *Abs*

Front matter is incomplete.

SuggestedRemedy

Add Abstract.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#6, change abstract to text in #6 resolution
Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88

Cl **FM** *SC* **FM** *P* **2** *L* **1** # 13

Hajduczenia, Marek — Charter

Comment Type **ER** *Comment Status* **D** *Abs*

Abstract and keywords should be filled in at this time

SuggestedRemedy

Please fill in abstract and keywords

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#6, change abstract and keywords in #6 resolution
Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88

Cl **FM** *SC* **FM** *P* **2** *L* **2** # 100

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *Abs*

Keywords need to be completed.

SuggestedRemedy

Change: Keywords: Ethernet; [keywords list].
To: Keywords: Ethernet, rrGBASE-BRx-d, 10GBASE-BR10, 10GBASE-BR20, 10GBASE-BR40, and 10GBASE-BR40+, 25GBASE-BR10, 25GBASE-BR20, 25GBASE-BR40, and 25GBASE-BR40+, 50GBASE-BR10, 50GBASE-BR20, 50GBASE-BR40, and 50GBASE-BR40+, IEEE 802.3cp™

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#6, change keywords in #6 resolution
Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88

Cl **FM** *SC* **FM** *P* **2** *L* **2** # 286

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

Keywords

SuggestedRemedy

List them

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#6, include keywords in #6 resolution
Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88

Cl **FM** *SC* **FM** *P* **2** *L* **3** # 88

Grow, Robert — RMG Consulting

Comment Type **E** *Comment Status* **D** *Abs*

Front matter is incomplete.

SuggestedRemedy

Add Keywords.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#6, change keywords in #6 resolution
Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88

Cl **FM** *SC* **FM** *P* **7** *L* **4** # 89

Grow, Robert — RMG Consulting

Comment Type **E** *Comment Status* **A**

This number of this standard is known.

SuggestedRemedy

802.3cp

Response *Response Status* **C**

ACCEPT.

Cl **FM** *SC* **FM** *P* **7** *L* **9** # 146

Lusted, Kent — Intel Corporation

Comment Type **ER** *Comment Status* **D** *EZ*

The IEEE 802.3 WG Recording Secretary is now "Jon Lewis", not "Pete Anslow"

SuggestedRemedy

Change to "Jon Lewis"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM** *SC* **FM** *P* **7** *L* **9** # 49

Lewis, Jon — Dell EMC

Comment Type **ER** *Comment Status* **A**

Pete Anslow is no longer the 802.3 WG secretary

SuggestedRemedy

Change "Pete Anslow" to "Jon Lewis"

Response *Response Status* **W**

ACCEPT.

Cl **FM** *SC* **FM** *P* **7** *L* **15** # 14

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

When editor is change, it is usual to designate them separately as Phase 1 and Phase 2 editors

SuggestedRemedy

Per comment

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Follow example in 802.3cb, See #231

Cl **FM** *SC* **FM** *P* **7** *L* **19** # 90

Grow, Robert — RMG Consulting

Comment Type **E** *Comment Status* **A**

The WG ballot group list is now known.

SuggestedRemedy

Fill in WG list.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Add WG ballot group member list when D2.0 was announced on Page 7

Cl **FM** *SC* **FM** *P* **9** *L* **4** # 101

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Amendment title is not added in box.

SuggestedRemedy

Change: Amendment: Amendment title (copy from PAR).
To: Amendment: Bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s Optical Access PHYs

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM** *SC* **FM** *P* **9** *L* **29** # 102

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Ammendment identifier not added.

SuggestedRemedy

Change: IEEE Std 802.3xx-20xx
To: IEEE Std 802.3cp-20xx

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM** *SC* **FM** *P* **10** *L* **1** # 15

Hajduczenia, Marek — Charter

Comment Type **ER** *Comment Status* **A**

Front Matter is not up to date

SuggestedRemedy

Update FM text and content to match the latest amendments published. Yes, it is a constant process.

Response *Response Status* **C**

ACCEPT.

Cl **FM** *SC* **FM** *P* **10** *L* **47** # 149

Marris, Arthur — Cadence Design Systems

Comment Type **ER** *Comment Status* **D** *4to10*

This list is missing amaendments 4 to 10

SuggestedRemedy

Add descriptions of amendments 4 to 10

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #7, 109, 108, 103, 106, 105, 107, 52, 158, 150, 149, 91, 104

Cl **FM** *SC* **FM** *P* **10** *L* **48** # 107

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *4to10*

Missing ammendment descriptions

SuggestedRemedy

Add: IEEE Std 802.3ch™-2020
Amendment 8—This amendment includes changes to IEEE Std 802.3-2018 and adds Clause 149, Annex 149A, Annex 149B, and Annex 149C. This amendment adds physical layer specifications and management parameters for operation at 2.5 Gb/s, 5 Gb/s, and 10 Gb/s over a single balanced pair of conductors.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #7, 109, 108, 103, 106, 105, 107, 52, 158, 150, 149, 91, 104

Cl **FM** *SC* **FM** *P* **10** *L* **48** # 104

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *4to10*

Missing ammendment descriptions

SuggestedRemedy

Add: IEEE Std 802.3cg™-2019
Amendment 5—This amendment includes changes to IEEE Std 802.3-2018 and its amendments and adds Clause 146 through Clause 148 and Annex 146A and Annex 146B. This amendment adds 10 Mb/s Physical Layer specifications and management parameters for operation on a single balanced pair of conductors.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #7, 109, 108, 103, 106, 105, 107, 52, 158, 150, 149, 91, 104

Cl **FM** *SC* **FM** *P* **10** *L* **48** # 105

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *4to10*

Missing ammendment descriptions

SuggestedRemedy

Add: IEEE Std 802.3cq™-2020
Amendment 6—This amendment includes editorial and technical corrections, refinements, and clarifications to Clause 33 and related portions of the standard.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #7, 109, 108, 103, 106, 105, 107, 52, 158, 150, 149, 91, 104

Cl **FM** *SC* **FM** *P* **10** *L* **48** # 103

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *4to10*

Missing ammendment descriptions

SuggestedRemedy

Add: IEEE Std 802.3cn™-2019
Amendment 4—This amendment includes changes to IEEE Std 802.3-2018 and adds 50 Gb/s, 200 Gb/s, and 400 Gb/s Physical Layer specifications and management parameters for operation over single-mode fiber with reaches of at least 40 km.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #7, 109, 108, 103, 106, 105, 107, 52, 158, 150, 149, 91, 104

Cl **FM** *SC* **FM** *P* **10** *L* **48** # 108

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *4to10*

Missing ammendment descriptions

SuggestedRemedy

IEEE Std 802.3ca™-2020
Amendment 9—This amendment to IEEE Std 802.3-2018 extends the operation of Ethernet Passive Optical Networks (EPONs) to multiple channels of 25 Gb/s providing both symmetric and asymmetric operation for the following data rates (downstream/upstream): 25/10 Gb/s, 25/25 Gb/s, 50/10 Gb/s, 50/25 Gb/s, and 50/50 Gb/s. This amendment specifies the 25 Gb/s EPON Multi-Channel Reconciliation Sublayer (MCRS), 25GBASE-Nx25G-EPON PHYsical Coding Sublayers (PCSs), Physical Media Attachments (PMAs), and Physical Medium Dependent sublayers (PMDs) that support both symmetric and asymmetric data rates while maintaining backward compatibility with already deployed 10 Gb/s EPON equipment. The EPON operation is defined for distances of at least 20 km, and for a split ratio of at least 1:32.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #7, 109, 108, 103, 106, 105, 107, 52, 158, 150, 149, 91, 104

Cl **FM** *SC* **FM** *P* **10** *L* **48** # 106

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *4to10*

Missing ammendment descriptions

SuggestedRemedy

Add: IEEE Std 802.3cm™-2020
Amendment 7—This amendment includes changes to IEEE Std 802.3-2018 and adds Clause 150. This amendment adds Physical Layer (PHY) specifications and management parameters for 400 Gb/s operation on four pairs (400GBASE-SR4.2) and eight pairs (400GBASE-SR8) of multimode fiber, over reaches of at least 100 m.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #7, 109, 108, 103, 106, 105, 107, 52, 158, 150, 149, 91, 104

Cl **FM** *SC* **FM** *P* **10** *L* **49** # 91

Grow, Robert — RMG Consulting

Comment Type **TR** *Comment Status* **A** *4to10*

Incomplete list of amendment descriptions, including a self description for IEEE Std 802.3cp-20xx which others can copy into their front matter.

SuggestedRemedy

Add amendments 4 through 9 at a minimum, copying from the published or approved drafts. If properly written, this draft should also be dependent on P802.3cu. Recommend using Mr. Laws list of 24 June that has this project as Amendment 12.

Write a descrioption of this amendment.

Response *Response Status* **U**

ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #7, 109, 108, 103, 106, 105, 107, 52, 158, 150, 149, 91, 104

Cl **FM** *SC* **FM** *P* **10** *L* **49** # 109

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *4to10*

Missing description of this ammendment.

SuggestedRemedy

Change: IEEE Std 802.3xx™-20xx
This amendment includes [complete]
To: IEEE Std 802.3cp™-20xx
This amendment includes includes changes to IEEE Std 802.3-2018 and adds Clause 157, Clause 158, Clause 159, and Clause 160. This ammendment adds bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s Optical Access PHYs.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #7, 109, 108, 103, 106, 105, 107, 52, 158, 150, 149, 91, 104

Cl **FM** *SC* **FM** *P* **10** *L* **49** # 52

Lewis, Jon — Dell EMC

Comment Type **E** *Comment Status* **A** *4to10*

Template is still in the draft for additional ammendments.

SuggestedRemedy

Update from line 49 to include prior amendments to the base standard.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #149, 107, 104, 105, 103, 108, 106, 91, 109, 52, 150, 7, 158

Cl **FM** *SC* **FM** *P* **10** *L* **50** # 150

Marris, Arthur — Cadence Design Systems

Comment Type **ER** *Comment Status* **D** *4to10*

Missing description for "IEEE Std 802.3cp™-20xx"

SuggestedRemedy

Replace "[complete]" with suitable text

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #7, 109, 108, 103, 106, 105, 107, 52, 158, 150, 149, 91, 104

Cl **FM** *SC* **FM** *P* **10** *L* **51** # 7

Anslow, Pete — Self

Comment Type **ER** *Comment Status* **D** *4to10*

The amendment summary is not populated

SuggestedRemedy

Add appropriate summary text

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

P10L51, populate Amendments 4-11 and 802.3cp summary as:
IEEE Std 802.3cn™-2019
Amendment 4—This amendment includes changes to IEEE Std 802.3-2018 and adds 50 Gb/s, 200 Gb/s, and 400 Gb/s Physical Layer specifications and management parameters for operation over single-mode fiber with reaches of at least 40 km.

IEEE Std 802.3cg™-2019
Amendment 5—This amendment includes changes to IEEE Std 802.3-2018 and its amendments and adds Clause 146 through Clause 148 and Annex 146A and Annex 146B. This amendment adds 10 Mb/s Physical Layer specifications and management parameters for operation on a single balanced pair of conductors.

IEEE Std 802.3cq™-2020
Amendment 6—This amendment includes editorial and technical corrections, refinements, and clarifications to Clause 33 and related portions of the standard.

IEEE Std 802.3cm™-2020
Amendment 7—This amendment includes changes to IEEE Std 802.3-2018 and adds Clause 150. This amendment adds Physical Layer (PHY) specifications and management parameters for 400 Gb/s operation on four pairs (400GBASE-SR4.2) and eight pairs (400GBASE-SR8) of multimode fiber, over reaches of at least 100 m.

IEEE Std 802.3ch™-2020
Amendment 8—This amendment includes changes to IEEE Std 802.3-2018 and adds Clause 149, Annex 149A, Annex 149B, and Annex 149C. This amendment adds physical layer specifications and management parameters for operation at 2.5 Gb/s, 5 Gb/s, and 10 Gb/s over a single balanced pair of conductors.

IEEE Std 802.3ca™-2020
Amendment 9—This amendment to IEEE Std 802.3-2018 extends the operation of Ethernet passive optical networks (EPONs) to multiple channels of 25 Gb/s providing both symmetric and asymmetric operation for the following data rates (downstream/upstream): 25/10 Gb/s, 25/25 Gb/s, 50/10 Gb/s, 50/25 Gb/s, and 50/50 Gb/s. This amendment specifies the 25 Gb/s EPON Multi-Channel Reconciliation Sublayer (MCRS), Nx25G-EPON Physical Coding Sublayers (PCSs), Physical Media Attachment (PMA) sublayers, and Physical Medium Dependent (PMD) sublayers that support both symmetric and asymmetric data rates while maintaining backward compatibility with already deployed 10 Gb/s EPON

equipment. The EPON operation is defined for distances of at least 20 km, and for a split ratio of at least 1:32.

IEEE Std 802.3cr-20xx
Amendment 10— This amendment includes changes to IEEE Std 802.3-2018 and adds Annex J. This amendment replaces references to the IEC 60950 series of standards (including IEC 60950-1 "Information technology equipment—Safety—Part 1: General requirements") with appropriate references to the IEC 62368 "Audio/video, information and communication technology equipment" series and makes appropriate changes to the standard corresponding to the new references.

IEEE Std 802.3cu-20xx
Amendment 11— This amendment includes changes to IEEE Std 802.3-2018 and its amendments, and adds Clause 151. This amendment adds Physical Layer (PHY) specifications and management parameters for 100 Gb/s and 400 Gb/s operation over single-mode fiber, based on 100 Gb/s per wavelength optical signaling.

IEEE Std 802.3cp™-20xx
This amendment includes changes to IEEE Std 802.3-2018 and its amendments, and adds Clauses 157, Clause 158, Clause 159, and Clause 160. This amendment adds Physical Layer specifications and management parameters for 10 Gb/s, 25 Gb/s, and 50 Gb/s Ethernet bidirectional optical interfaces for operation over single-mode fiber.

Group comments #149, 107, 104, 105, 103, 108, 106, 91, 109, 52, 150, 7, 158

Cl **FM** *SC* **FM** *P* **12** *L* **1** # 110

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

There should not be blank pages in the document.

SuggestedRemedy

Delete blank page (Instruction on how to do this are in the 802.3 template on page 15 of version 4p2
Also delete blank page 16, 20, 38, 64, and 82.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **FM** *SC* **FM** *P* **13** *L* **28** # 287

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

Formatting problem with the contents list for the new clauses. Missing tab in the template?

SuggestedRemedy

Fix

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Use the Content list from FM template

Cl **FM** *SC* **FM** *P* **13** *L* **49** # 92

Grow, Robert — RMG Consulting

Comment Type **E** *Comment Status* **A**

For some reason, a 43 is added to the end of the clause title. Same thing with clause 159 and clause 160. Each ends with "-BR40+", and each has a different number tacked onto the title.

SuggestedRemedy

If this is a FrameMaker "feature" perhaps appending spaces or something to the end of the title may help eliinate the TOC problem. It is a mystery to me though what to do if this is a FrameMaker problem with a title ending in "+".

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Fix these places

Cl **00** *SC* *P* *L* # 2

DeAndrea, John — Finisar/ /II-VI

Comment Type **E** *Comment Status* **A**

Table 159-4 The Table shows a value of -20 dBm for 25GBASE-BR10 and -26 dBm for 25GBASE-BR-10. I believe there is a typo, because the PMD has (4) types, -BR10, -BR20, -BR40, and -BR40+

SuggestedRemedy

Suggest change: add other (2) PMD types and comment for power levels

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See#1, Change text to show -20 dBm is for BR10, -26 dBm is for BR20/40

Cl **00** *SC* **0** *P* **0** *L* **0** # 165

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D**

Editorial comments

SuggestedRemedy

To follow

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Cl **00** *SC* **0** *P* **0** *L* **0** # 164

Dawe, Piers — Nvidia

Comment Type **T** *Comment Status* **D**

Tecehnical comments

SuggestedRemedy

To follow

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Cl **00** *SC* **0** *P* **1** *L* **15** # 159

Maguire, Valerie — The Siemon Company

Comment Type **E** *Comment Status* **D** *EZ*

"50" and "Gb/s" should be on the same line

SuggestedRemedy

Insert non-breaking space between "50" and "Gb/s" in the title of the amendment

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **00** *SC* **0** *P* **7** *L* **9** # 230

Thompson, Geoff — GraCaSI S.A./Independent

Comment Type **ER** *Comment Status* **D** *EZ*

Pete Anslow is no longer 802.3 WG Secretary

SuggestedRemedy

Replace “Pete Anslow” with “Jon Lewis”

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **00** *SC* **0** *P* **7** *L* **15** # 231

Thompson, Geoff — GraCaSI S.A./Independent

Comment Type **ER** *Comment Status* **A** *EZ*

Duane Remein is no longer an editor or this project.

SuggestedRemedy

Remove his name or revise the text.

Response *Response Status* **W**

ACCEPT IN PRINCIPLE.

See #14, follow style in 802.3cb to list Phase I and Phase II editors

Cl **00** *SC* **0** *P* **9** *L* **15** # 232

Thompson, Geoff — GraCaSI S.A./Independent

Comment Type **E** *Comment Status* **D**

The word “Ethernet” in this line is incorrect

SuggestedRemedy

See maintenance request 1350

Proposed Response *Response Status* **W**

PROPOSED REJECT.

This is from the template FM document.

Cl **00** *SC* **0** *P* **10** *L* **49** # 158

Maguire, Valerie — The Siemon Company

Comment Type **E** *Comment Status* **D** *4to10*

Missing the descriptive content for amendments 4 through 11

SuggestedRemedy

Replace content on lines 49 through 52 with descriptive content for amendments 4 through 11 in draft 2.0 of IEEE 802.3cv (lines 49 - 54 on page 10 and lines 1 -50 on page 11)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #7, include a list of amendments and summaries
Group comments #7, 109, 108, 103, 106, 105, 107, 52, 158, 150, 149, 91, 104

Cl **00** *SC* **0** *P* **12** *L* **1** # 53

Lewis, Jon — Dell EMC

Comment Type **E** *Comment Status* **A**

blank page

SuggestedRemedy

Remove the blank page. Also page 16, 20, 38 is blank. Please remove all blank pages in the document. The latest template has instructions for removing blank pages throughout the draft if necessary.

Response *Response Status* **C**

ACCEPT.

Cl **1** *SC* **1.3** *P* **18** *L* **1** # 16

Hajduczenia, Marek — Charter

Comment Type **ER** *Comment Status* **A**

No normative references, no need for 1.3

SuggestedRemedy

Strike 1.3

Response *Response Status* **C**

ACCEPT.

Cl **1** *SC* **1.3** *P* **18** *L* **1** # 111

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

SuggestedRemedy

Delete empty section.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **1** *SC* **1.4** *P* **18** *L* **8** # 228

D'Ambrosia, John — Futurewei, U.S. Subsidiary of Huawei

Comment Type **TR** *Comment Status* **D**

Definition of all PHYs in 1.4, indicate that each PHY includes two different specifications for -D and _U. However, the scope of the approved PAR for 802.3cp states -
The scope of the project defines physical layer specifications and management parameters for symmetric bidirectional 10 Gb/s, 25 Gb/s, and 50 Gb/s operation over single strand of single mode fiber of at least 10 km.
It does not appear that specifications for symmetric bidirectional links were defined, as there are different specifications for upstream and downstream.
Therefore, this specification is not per the scope of the approved PAR.

SuggestedRemedy

It is assumed that different specifications are necessary for upstream / downstream.
Therefore, the scope of the PAR needs to be updated.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

802.3cp BiDi links use different wavelengths for upstream and downstream.

As a good precedent, the PAR of 802.3av says "5.2 Scope of Proposed Standard: The scope of this project is to amend IEEE Std 802.3 to add physical layer specifications and management parameters for symmetric and/or asymmetric operation at 10 Gb/s on point-to-multipoint passive optical networks."

Cl **1** *SC* **1.4** *P* **18** *L* **12** # 288

Dawe, Piers — Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

"The link includes two different specifications": I know this is copied from before but it disagrees with the definition of "link" and anyway a link is a thing not a document; it does not contain specifications.

SuggestedRemedy

Change to "There are different specifications for 10GBASE-BR10-D and 10GBASE-BR10-U; a link connects one to the other." ?

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Need group discussion

Cl **1** *SC* **1.4** *P* **18** *L* **13** # 18

Hajduczenia, Marek Charter

Comment Type **ER** *Comment Status* **A**

Units need to be separated from numeric value/

SuggestedRemedy

Insert a space (non-breaking) before "km"
Scrub the draft

Response *Response Status* **C**

ACCEPT.

Cl **1** *SC* **1.4** *P* **18** *L* **14** # 17

Hajduczenia, Marek Charter

Comment Type **ER** *Comment Status* **A**

We do not reference amendments, but baseline standard

SuggestedRemedy

Change "IEEE Std 802.3cp" to "IEEE Std 802.3", all definitions in 1.4

Response *Response Status* **C**

ACCEPT.

Cl **1** *SC* **1.4** *P* **18** *L* **20** # 229

D'Ambrosia, John Futurewei, U.S. Subsidiary of Huawei

Comment Type **TR** *Comment Status* **D**

Distinct Identiy concerns. Each of the speeds has two PHYs that address at least 40km (BR40 and BR40+) which are noted as differing by -40+ having a larger loss budget, which means that there are two different solutions that can address the lower loss budget.

SuggestedRemedy

Choose 1 solution for 40km for each rate.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#187, Remove BR40+ from .3cp draft, BR40 is the single solution to 40 km reach

Cl **1** *SC* **1.4** *P* **18** *L* **26** # 19

Hajduczenia, Marek Charter

Comment Type **ER** *Comment Status* **A** *40+*

"10GBASE-BR40+-D" looks and reads terrible.

SuggestedRemedy

Change the PMD name to "10GBASE-BR50-D" or any other combination that avoids the use of + followed by - sign
Scrub the draft

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See#187, remove all BR40+ PHYs from .3cp draft

Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **1** *SC* **1.4.52a** *P* **18** *L* **12** # 69

Nicholl, Shawn Xilinx

Comment Type **ER** *Comment Status* **A**

Definitions contain a reference to IEEE Std 802.3cp which should be IEEE Std 802.3 once the amendment is approved.

SuggestedRemedy

Propose to replace "See IEEE Std 802.3cp" with "See IEEE Std 802.3" in this sub-clause and other sub-clauses found in sub-clause 1.4

Response *Response Status* **C**

ACCEPT.

Cl **1** *SC* **1.4.52a** *P* **18** *L* **12** # 289

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

10km

SuggestedRemedy

10 space km Several places

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **1** *SC* **1.4.52d** *P* **18** *L* **24** # 239

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

with a larger loss budget: larger than what?

SuggestedRemedy

with a larger loss budget than 10GBASE-BR40.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Remove BR40+ definition as BR40+ PHYs are removed from .3cp

Cl **1** *SC* **1.4.52d** *P* **18** *L* **24** # 219

Law, David — Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D** *40+*

Please do not use '+' as part of the PHY name, due to its position it is resulting in the string '+-' in PHY names.

SuggestedRemedy

Please clarify the difference between the 40 and 40+ PHYs and based on the difference choose an additional letter to add after the '40' separated with a dash. This would be of the format 10GBASE-BR40-X, with a 10GBASE-BR40-X-D and 10GBASE-BR40-X-U where 'X' is the chosen letter.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See #187, remove all BR40+ PHYs from .3cp
Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **1** *SC* **1.4.52d** *P* **18** *L* **25** # 70

Nicholl, Shawn — Xilinx

Comment Type **TR** *Comment Status* **A** *40+*

Concerns about readability of "+-" in 10GBASE-BR40+-D and 10GBASE-B40+-U PMD names.

SuggestedRemedy

Propose to replace "10GBASE-BR40+" with something else. Perhaps "10GBASE-BR40X", where X is a letter A-Z (perhaps "L" for "Legacy" or "Long"). Perhaps "10GBASE-BR40-X", where X is a number (i.e. in the format of 400GBASE-LR4-6 found in P802.3cu).

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See#187, remove all BR40+ PHYs from .3cp
Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **1** *SC* **1.4.91d** *P* **18** *L* **23** # 233

Thompson, Geoff — GraCaSI S.A./Independent

Comment Type **E** *Comment Status* **D** *40+*

I believe that introducing a new symbol other than dash (and dash has been bad enough) will be problematical over the long haul in the popular press editorial sense.

SuggestedRemedy

Change from ”25GBASE-BR40+” to ”25GBASE-BR40plus” here and throughout the draft.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#187 to remove BR40+ from .3cp
Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **1** *SC* **1.4.128** *P* **18** *L* **45** # 93

Grow, Robert — RMG Consulting

Comment Type **E** *Comment Status* **A**

Insert point is wrong.

SuggestedRemedy

The insert should be after 1.4.128aac which was inserted by IEEE Std 802.3ca-20xx.
Inserts are then numbered 1.4.128aad through 1.4.128aag.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Use the numbers provided by Jon Lewis

Cl **1** *SC* **1.4.128d** *P* **19** *L* **5** # 234

Thompson, Geoff — GraCaSI S.A./Independent

Comment Type **E** *Comment Status* **D** *40+*

I believe that introducing a new symbol other than dash (and dash has been bad enough) will be problematical over the long haul in the popular press editorial sense.

SuggestedRemedy

Change from ”50GBASE-BR40+” to ”50GBASE-BR40plus” here and throughout the draft.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#187 to remove BR40+ from .3cp
Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **30** *SC* **30.5.1.1.2** *P* **21** *L* **16** # 151

Marris, Arthur — Cadence Design Systems

Comment Type **E** *Comment Status* **D** *EZ*

Missing line feed

SuggestedRemedy

Change "...10GBASE-BR10-D" to "…
10GBASE-BR10-D"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **30** *SC* **30.5.1.1.2** *P* **21** *L* **16** # 20

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

Seems like "…" should be in a separate line above?

SuggestedRemedy

Fix the location of "…"

Response *Response Status* **C**

ACCEPT.

Cl **30** *SC* **30.5.1.1.2** *P* **22** *L* **1** # 166

Dudek, Mike — Marvell

Comment Type **T** *Comment Status* **D**

All the other -D Phys are OLT

SuggestedRemedy

Change ONU to OLT

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **30** *SC* **30.5.1.1.2** *P* **22** *L* **14** # 21

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

"

SuggestedRemedy

Fix line spacing in 30.5.1.1.2

Response *Response Status* **C**

ACCEPT.

Cl **45** *SC* **45.2.1** *P* **23** *L* **8** # 40

Zimmerman, George — ADI, Cisco, CommScope, Marvell, SenTekSe

Comment Type **E** *Comment Status* **A**

Editing instruction lists modifying amendments to Table 45-3, and includes "802.3xx" which does not exist. Additionally, omits at least 802.3cg-2019 and 802.3ch-2020, which modified this table. Since most amendments modify this table, the 'modified by' list is generally left out.

SuggestedRemedy

Delete "(as modified by ... 802.3xx)" from editing instruction

Response *Response Status* **C**

ACCEPT.

Cl **45** *SC* **45.2.1** *P* **23** *L* **8** # 112

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Incorrect editor instructions. Cb and cd didn't make any changes that impact the changed rows in cp.

SuggestedRemedy

Make editor instruction: Change Table 45–3 as shown (unchanged rows not shown):

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1** *P* **23** *L* **8** # 152

Marris, Arthur — Cadence Design Systems

Comment Type **E** *Comment Status* **D** *EZ*

What is IEEE Std 802.3xx?

SuggestedRemedy

Delete 802.3xx or correct it to the right amendment

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Delete "(as modified by ... 802.3xx)"

Cl **45** *SC* **45.2.1** *P* **23** *L* **15** # 113

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

missing rows above and below changed rows to show there are rows above and below that aren't changed.

SuggestedRemedy

Add row above and below the contented rows. "straddle" each row then add an "…" - See 45.2.1 in the 802.3 FM template for example.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.6** *P* **24** *L* **12** # 115

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

missing rows above and below changed rows to show there are rows above and below that aren't changed.

SuggestedRemedy

Add row above and below the contented rows. "straddle" each row then add an "…" - See 45.2.1 in the 802.3 FM template for example.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.7** *P* **25** *L* **7** # 41

Zimmerman, George — ADI, Cisco, CommScope, Marvell, SenTekSe

Comment Type **E** *Comment Status* **A**

Tables 45-9 and 45-10 are commonly modified, modifying amendments are generally left out. However, if they are to be included, at least 802.3cg and 802.3ch which modified these tables should be included

SuggestedRemedy

Delete "(as modified by ...)" from editing instructions for Tables 45-9 and 45-10

Response *Response Status* **C**

ACCEPT.

Cl **45** *SC* **45.2.1.7** *P* **25** *L* **18** # 42

Zimmerman, George — ADI, Cisco, CommScope, Marvell, SenTekSe

Comment Type **E** *Comment Status* **A**

130.6.8, 71.6.10, 113.4.2.2, and 137.8.9 should be marked as external references in Table 45-9. Similarly for 130.6.9, 71.6.11, 89.5.9, and 137.8.10 in Table 45-10, and 130.6.5, 71.6.6, 113.4.2.3, and 137.8.10 in Table 45-12

SuggestedRemedy

Change references not in the draft to externals

Response *Response Status* **C**

ACCEPT.

Cl **45** *SC* **45.2.1.7.1** *P* **25** *L* **20** # 240

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

This very long table can be laid out better

SuggestedRemedy

Make the left column wider, at least wide enough to fit the contents, as done for Table 45-12. The right column could be narrower.
Also Table 45-10.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.7.1** *P* **25** *L* **20** # 8

Anslow, Pete — Self

Comment Type **E** *Comment Status* **A**

Table 45-9 and Table 45-10 do not include "and" in any of the existing rows (although Table 45-12 does).

SuggestedRemedy

Delete all instances of "and" from Table 45-9 and Table 45-10

Response *Response Status* **C**

ACCEPT.

Cl **45** *SC* **45.2.1.16** *P* **24** *L* **4** # 153

Marris, Arthur — Cadence Design Systems

Comment Type **E** *Comment Status* **D**

I thought 802.3ct was amending 802.3cp

SuggestedRemedy

Delete reference to 802.3ct and review the changes indicated in the bit description in Table 45-7. Deleting both 11xxxxx and 1111001 does not seem right.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Need to check this out

Cl **45** *SC* **45.2.1.27a** *P* **28** *L* **33** # 167

Dudek, Mike — Marvell

Comment Type **T** *Comment Status* **D** *EZ*

All the other bits are RO this one is blank.

SuggestedRemedy

Make it RO

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **45** *SC* **45.2.1.27a.4** *P* **29** *L* **25** # 168

Dudek, Mike — Marvell

Comment Type **TR** *Comment Status* **D**

25GBASE-BR20-U should not be described in a section titles 25GBASE-BR40-D and it needs its own bit.

SuggestedRemedy

Make this paragraph a different section with its own bit and title and renumber the rest of the sub-clauses.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Make "25GBASE-BR20-U ability (1.34.11)" a subsection

Cl **45** *SC* **45.2.1.27b** *P* **31** *L* **7** # 22

Hajduczenia, Marek — Charter

Comment Type **TR** *Comment Status* **A**

Title says "25G" and all entries show "50GBASE

SuggestedRemedy

Fix the table title to say "50G PMA/PMD"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Use suggested remedy to fix Table 45-31b title. Also fix Table 45-31a title as "10G and 25G..."

Table 45-31a, line 1.34.6. missing RO

Cl **56** *SC* **56.1** *P* **33** *L* **5** # 116

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

The editorial instruction includes (as changed by P802.3ca) which is not the correct way to write this.

SuggestedRemedy

Change: (as changed by P802.3ca)
To: (as modified by IEEE Std 802.3ca-2020)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **56** *SC* **56.1** *P* **33** *L* **5** # 154

Marris, Arthur — Cadence Design Systems

Comment Type **E** *Comment Status* **D** *EZ*

Change P802.3ca to IEEE Std 802.3ca-2020

SuggestedRemedy

Change P802.3ca to IEEE Std 802.3ca-2020

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **56** *SC* **56.1** *P* **33** *L* **14** # 117

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

This should show the changes made by ca.

SuggestedRemedy

Change: and Figure 56–5 for EPoC topologies
To: Figure 56–5 for EPoC topologies, and
Figure 56–5a for Nx25G-EPON topologies.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **56** *SC* **56.1** *P* **33** *L* **38** # 241

Dawe, Piers — Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

Wrong PCS; wrong font. As the lower sublayers are rate-specific too, I don't know that we need to give that detail in the figure.

SuggestedRemedy

Either change to 10GBASE-R PCS 25GBASE-R PCS 50GBASE-R PCS, in the usual font, and make the stacks of boxes wider,
or change to PCS PCS PCS, in the usual font.
Also Fig 157-1.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change PCS blocks in Figures 56-1a and 157-1 into 10GBASE-R PCS, 25GBASE-R PCS, and 50GBASE-R PCS

In 802.3-2018 Fig. 56-1, there are blocks such as "Cu PCS", "100BASE-X PCS", and "1000BASE-X PCS". Those fonts are smaller than the usual.

Cl **56** *SC* **56.1.1** *P* **34** *L* **1** # 23

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

What does text in {} mean?

SuggestedRemedy

Use known designation for text and editorial instructions

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Delete "{from IEEE Std 802.3-2018}."

Cl **56** *SC* **56.1.1.1** *P* **34** *L* **18** # 24

Hajduczenia, Marek — Charter

Comment Type **ER** *Comment Status* **A**

External references (not live) are to be marked in Forest Green - "as defined in >>66.1<<"

SuggestedRemedy

Multiple locations in the draft - please scrub accordingly.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Other locations are Line 18 "66.1", line 20 "66.2"

Cl **56** *SC* **56.1.1.1** *P* **34** *L* **18** # 43

Zimmerman, George — ADI, Cisco, CommScope, Marvell, SenTekSe

Comment Type **E** *Comment Status* **A**

66.1 and 66.2 (line 20) should be external cross references

SuggestedRemedy

Change references not in the draft to externals

Response *Response Status* **C**

ACCEPT.

Cl **56** *SC* **56.1.1.1** *P* **34** *L* **21** # 242

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

Too much "support"

SuggestedRemedy

Change
sublayers are used to support a bit rate
to
sublayers are used for a bit rate
four times

Proposed Response *Response Status* **W**

PROPOSED REJECT.

This type of wording is used throughout 56.1.1 to describe all EFM P2P links. In order to make 56.1.1.1 and 56.1.1.2 the same style, suggest to change "sublayers are used to support a bit rate" to "sublayers support a bit rate" (5 places)

Cl **56** *SC* **56.1.1.1** *P* **34** *L* **24** # 243

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

Should mention the FEC sublayers too where they are required for all variants.

SuggestedRemedy

25GBASE-R PCS, RS-FEC, and PMA sublayers
50GBASE-R PCS, RS-FEC, and PMA sublayers

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Need group review and decision

Cl **56** *SC* **56.1.2.1** *P* **34** *L* **40** # 61

Kramer, Glen — Broadcom

Comment Type **E** *Comment Status* **A**

Subclause number repeated twice

SuggestedRemedy

delete an extra "56.1.2.1"

Response *Response Status* **C**

ACCEPT.

Cl **56** *SC* **56.1.2.1** *P* **34** *L* **40** # 25

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

Seems like subclause number is doubled?

SuggestedRemedy

remove one instance of 56.1.2.1

Response *Response Status* **C**

ACCEPT.

Cl **56** *SC* **56.1.2.2** *P* **34** *L* **44** # 118

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

ca was approved in 2020

SuggestedRemedy

Change: 802.3ca-YYYY
To 802.3ca-2020
Also P36L1

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **56** *SC* **56.1.3** *P* **35** *L* **9** # 26

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

None of the lists added in 56.1.3 need to be lettered, we do not reference them.

SuggestedRemedy

Convert lettered lists into bulleted ones
Other locations include page / line: 39/31,

Response *Response Status* **C**

ACCEPT.

Cl **56** *SC* **56.1.3** *P* **37** *L* # 246

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

RS-FEC is missing. Maybe EEE is missing.

SuggestedRemedy

OAM
EEE
100BASE-LX10 PMD
...
10GBASE-R PCS
25GBASE-R RS-FEC 108
10GBASE-R PMA
10GBASE-BRx PMD
25GBASE-R PCS
10GBASE-R RS-FEC 108
25GBASE-R PMA
25GBASE-BRx PMD
50GBASE-R PCS
50GBASE-R RS-FEC 134
50GBASE-R PMA ...

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

EEE and RS-FEC are mentioned in Tables 158-1, 159-1, 160-1. Align Table 56-2 to the three tables.

Cl **56** *SC* **56.1.3** *P* **37** *L* # 245

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

Order: should go down the layers. Compare Table 44-1, Table 105-2, Table 131-3 and several others

SuggestedRemedy

10GBASE-R PCS
10GBASE-R PMA
10GBASE-BRx PMD
25GBASE-R PCS
25GBASE-R PMA
25GBASE-BRx PMD
50GBASE-R PCS
50GBASE-R PMA
50GBASE-BRx PMD

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **56** *SC* **56.1.3** *P* **37** *L* **18** # 244

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

Sublayer names

SuggestedRemedy

Change:
10GBASE-BRx PMA to 10GBASE-R PMA
10GBASE-BRx PCS to 10GBASE-R PCS
25GBASE-BRx PMA to 25GBASE-R PMA
25GBASE-BRx PCS to 25GBASE-R PCS
50GBASE-BRx PMA to 50GBASE-R PMA
50GBASE-BRx PCS to 50GBASE-R PCS

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Group #244, 203, 204

Cl **56** *SC* **56.1.3** *P* **37** *L* **21** # 203

Law, David Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D**

The title for Clause 49 is 'Physical Coding Sublayer (PCS) for 64B/66B, type 10GBASE-R' therefore the text in the Clause 49 heading in Table 56-2 should read '10GBASE-R PCS'. This matches the existing Clause 66 column wich is labelled '1000BASE-X PCS, PMA' even though the PCS is used to from the 1000BASE-LX10 and 1000BASE-BX10 PHYs. A similar changed needs to be made to the Clause 107 and 133 column headings.

SuggestedRemedy

Change '10GBASE-BRx PCS to read '10GBASE-R PCS' for the Clause 49 column heading, '25GBASE-BRx PCS' to read '25GBASE-R PCS' for the Clause 107 heading, and '50GBASE-BRx PCS' to read '50GBASE-R PCS' for the Clause 133 heading.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Group #244, 203, 204

Cl **56** *SC* **56.1.3** *P* **37** *L* **21** # 204

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D**

The title for Clause 51 is 'Physical Medium Attachment (PMA) sublayer, type Serial' therefore the text in the Clause 51 heading in Table 56-2 should read '10GBASE-R PMA'. This matches the existing Clause 66 column wich is labelled '1000BASE-X PCS, PMA' even though the PCS is used to from the 1000BASE-LX10 and 1000BASE-BX10 PHYs. A similar changed needs to be made to the Clause 109 and 153 column headings.

SuggestedRemedy

Change '10GBASE-BRx PMA' to read '10GBASE-R PMA' for the Clause 51 column heading, '25GBASE-BRx PMA' to read '25GBASE-R PMA' for the Clause 109 heading, and ' 50GBASE-BRx PMA' to read '50GBASE-R PMA' for the Clause 133 heading.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Group #244, 203, 204

Cl **56** *SC* **56.1.4** *P* **37** *L* **50** # 27

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

56.1.4 is empty

SuggestedRemedy

Remove it please

Response *Response Status* **C**

ACCEPT.

Cl **78** *SC* **78.1.4** *P* *L* # 247

Dawe, Piers — Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

Need to modify the EEE clause

SuggestedRemedy

Modify Table 78-1 to show which PHYs may optionally support EEE. For each, footnote b applies: The deep sleep mode of EEE is not supported for this PHY.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Modify Table 78-1 to show 25GBASE-BRx and 50GBASE-BRx BiDi PHYs may optionally support EEE. Footnode b applies to the aformentioned PHYs.

Cl **108** *SC* **108** *P* *L* # 248

Dawe, Piers — Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

Clause 108, Reed-Solomon Forward Error Correction (RS-FEC) sublayer for 25GBASE-R PHYs, will need some modifications for its new use as a 10G FEC.

SuggestedRemedy

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

In Cl. 108, add a new paragrph to the end of 108.1.1 "This RS-FEC sublayer also applies to 10GBASE-BR20 and 10GBASE-BR40+ PHYs, specified in Clause 158. When applying it to 10GBASE-BR20 and 10GBASE-BR40+ PHYs, "25GBASE-R" and "25.78125 GBd" in this clause should be replaced by "10GBASE-BR20 or 10GBASE-BR40+" and "10.3125 GBd", respectively."

Cl **157** *SC* *P* **39** *L* **1** # 4

Baggett, Tim — Microchip

Comment Type **E** *Comment Status* **A**

The term BiDi is used extensively throughout the document, but it there isn't a clear definition, nor is it found anywhere else in the existing standard.

SuggestedRemedy

Consider if BiDi definition should be added to clause 1.4

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Add "BiDi" as an abbreviation for "Bidirectional" in Clause 1.5

Cl **157** *SC* **157** *P* **38** *L* **1** # 28

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

Title missing "and' when listing speeds

SuggestedRemedy

Change to "Introduction to 10 Gbps, 25 Gbps, and 50 Gbps BiDi PHYs"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change to "Introduction to 10 Gb/s, 25 Gb/s, and 50 Gb/s BiDi PHYs"

Cl **157** *SC* **157** *P* **39** *L* **1** # 9

Anslow, Pete — Self

Comment Type **E** *Comment Status* **A**

802.3 uses Gb/s rather than Gbps. See:
http://www.ieee802.org/3/WG_tools/editorial/requirements/words.html#bps
which states: "only Mb/s and Gb/s should be used"

SuggestedRemedy

Change the title of Clause 157 to "Introduction to 10 Gb/s, 25 Gb/s, 50 Gb/s BiDi PHYs"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change to "Introduction to 10 Gb/s, 25 Gb/s, and 50 Gb/s BiDi PHYs"

Cl **157** *SC* **157** *P* **39** *L* **1** # 249

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

802.3 doesn't use Gbps

SuggestedRemedy

Change to Gb/s (3 times)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.1** *P* **38** *L* **11** # 29

Hajduczenia, Marek — Charter

Comment Type **ER** *Comment Status* **A**

Extra "-" in Net-work

SuggestedRemedy

Scrub the draft, there are multiple instances where likely import from Word resulted in spurious "-" characters

Response *Response Status* **C**

ACCEPT.

Cl **157** *SC* **157.1.1** *P* **39** *L* **10** # 144

Lusted, Kent — Intel Corporation

Comment Type **TR** *Comment Status* **A**

the term "BiDi" is used repeatedly throughout the document as an abbreviation for Bidirectional. However, it is not defined as an abbreviation in the base standard.

SuggestedRemedy

Add "BiDi" as an abbreviation for "Bidirectional" in Clause 1.5

Response *Response Status* **W**

ACCEPT.

Cl **157** *SC* **157.1.1** *P* **39** *L* **11** # 250

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

Net-work

SuggestedRemedy

Network

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.1** *P* **39** *L* **11** # 196

Law, David — Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *EZ*

... Net-work ...' should read '... Network ...'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.1** *P* **39** *L* **11** # 71

Nicholl, Shawn — Xilinx

Comment Type **ER** *Comment Status* **A**

Typo "Net-work"

SuggestedRemedy

Replace "Net-work" with "Network"

Response *Response Status* **C**

ACCEPT.

Cl **157** *SC* **157.1.1** *P* **39** *L* **23** # 197

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D**

The PMA sublayer is listed twice, yet the PMD sublayer is missing. In addition the list ends with '... Coding Sublayer (PCS) sublayers and ...'.

SuggestedRemedy

Suggest the text '... Physical Medium Attachment (PMA), Physical Medium Attachment (PMA), forward error correction (FEC), and Physical Coding Sublayer (PCS) sublayers ...' be changed to read '... Physical Coding Sublayer (PCS), forward error correction (FEC), physical medium attachment (PMA), physical medium dependent (PMD) sublayers ...'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.1** *P* **39** *L* **26** # 198

Law, David — Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *EZ*

... model are shown in Table 157–1.' should read '... model are shown in Figure 157–1.'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.2** *P* **38** *L* **31** # 30

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

Seems like "see Clause XXX" should be in (), or at least preceded with a comma

SuggestedRemedy

Add comma before "see" in lines 31, 33, and 35

Response *Response Status* **C**

ACCEPT.

Page number is 39

Cl **157** *SC* **157.1.2** *P* **39** *L* **26** # 223

Trowbridge, Steve — Nokia

Comment Type **E** *Comment Status* **D** *EZ*

Reference to Table 157-1 should be reference to Figure 157-1.

SuggestedRemedy

See comment

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.2** *P* **39** *L* **27** # 251

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

are specified in 44.1.3 (for 10 Gb/s), 105.1.2 (for 25 Gb/s), and 131.1.2 (for 50 Gb/s) apply - not grammatical.

SuggestedRemedy

Delete "are" or "apply"?

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Delete "apply"

Cl **157** *SC* **157.1.2** *P* **39** *L* **28** # 169

Dudek, Mike — Marvell

Comment Type **E** *Comment Status* **D** *EZ*

Sentence isn't correct (has two verbs)

SuggestedRemedy

Delete "apply" on the end of the sentence.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.2** *P* **41** *L* **34** # 222

Trowbridge, Steve — Nokia

Comment Type **E** *Comment Status* **D** *EZ*

The wide rectangle at the top of the XGMII should be against the line for the bottom of the rectangle for the Reconciliation Sublayer, as are those for the other two rates.

SuggestedRemedy

See comment

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **38** *L* **40** # 31

Hajduczenia, Marek — Charter

Comment Type **ER** *Comment Status* **A** *40+*

use the formatting for naming nomenclature defined in 802.3ca - it is way more readable that way

SuggestedRemedy

See 141.2.6 PMD naming for reference

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Follow style in Table 141–6

Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **157** *SC* **157.1.3** *P* **39** *L* **37** # 252

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

Space before "Nomenclature"

SuggestedRemedy

Remove

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **39** *L* **39** # 253

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

Within this clause the Multi-Gigabit Ethernet Bidi PHY device use the following nomenclature.

SuggestedRemedy

For Multi-Gigabit Ethernet Bidi PHYs, the following nomenclature is used.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **39** *L* **39** # 5

Baggett, Tim — Microchip

Comment Type **E** *Comment Status* **A**

There are six occurances of "Bidi" when I suspect the intention is "BiDi".
P39 L39
P44 L11
P44 L17
P44 L27
P44 L38
P44 L45

SuggestedRemedy

Search for "Bidi" and replace with "BiDi"

Response *Response Status* **C**

ACCEPT.

Cl **157** *SC* **157.1.3** *P* **39** *L* **41** # 155

Marris, Arthur — Cadence Design Systems

Comment Type **E** *Comment Status* **D** *40+*

"rr" is hard to decipher in the nomenclature

SuggestedRemedy

Consider changing "rr" to "r"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#31, use a table for .3cp nomenclature
Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **157** *SC* **157.1.3** *P* **39** *L* **47** # 221

Trowbridge, Steve — Nokia

Comment Type **E** *Comment Status* **D**

The "x" should go as the next element of the list other than BR. The text describing x should retain the hanging indent instead of wrapping back to the next line.

SuggestedRemedy

See comment

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#31, use a table similar to Table 141–6 for .3cp nomenclature

---

Cl **157** *SC* **157.1.3** *P* **39** *L* **47** # 254

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

encoding.x refers

SuggestedRemedy

encoding.
x refers

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See #31 to list nomenclature using a table.

Cl **157** *SC* **157.1.3** *P* **39** *L* **47** # 143

Lusted, Kent — Intel Corporation

Comment Type **E** *Comment Status* **D** *EZ*

the variable "x" and its associated text is on the same line as the variable "BR"

SuggestedRemedy

Make the variable "x" and its associated text a separate line

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#31, use a tabel similar to Table 141–6 for .3cp nomenclature

---

Cl **157** *SC* **157.1.3** *P* **39** *L* **47** # 63

Kramer, Glen — Broadcom

Comment Type **T** *Comment Status* **A** *40+*

In Sentence "Bidirectional 64B/66B encoding.x refers to the PHY reach; 10 (10 km), 20 (20 km), 40 (40 km), or 40+ (legacy 40 km)" it is not clear what "legacy 40 km" means. Is legacy 40 km different than a "new 40 km"?

SuggestedRemedy

Either strike the "(legacy 40 km)" or add an explanation of what that means.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
See#187, remove all BR40+ PHYs from .3cp draft

Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **157** *SC* **157.1.3** *P* **39** *L* **47** # 75

Laubach, Mark — Self

Comment Type **E** *Comment Status* **A**

For readability, suggest a tab

SuggestedRemedy

add tabs to align "(40 km)…" under "Bidirectional"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
See #31, use a table as Table 141–6 for .cp nomenclature

Cl **157** *SC* **157.1.3** *P* **39** *L* **48** # 215

Law, David — Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D** *40+*

It is not clear what is mean by '40+ (legacy 40 km)', perhaps it is in reference to the optical budget.

SuggestedRemedy

Please provide a description of the technical difference is between '40' and '40+'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#187, remove all BR40+ PHYs from .3cp
Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **157** *SC* **157.1.3** *P* **39** *L* **53** # 255

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

GMII

SuggestedRemedy

XGMII

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **39** *L* **53** # 170

Dudek, Mike — Marvell

Comment Type **T** *Comment Status* **D**

GMII is for 1G which isn't part of this project.

SuggestedRemedy

Change GMII to XGMII

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **40** *L* **5** # 44

Zimmerman, George — ADI, Cisco, CommScope, Marvell, SenTekSe

Comment Type **E** *Comment Status* **A**

All phy names in Tables 157-1, 157-2, 157-3, and 157-4 have an extra hyphen (e.g., 10G-BASE-BR10-D should be 10GBASE-BR10-D as it is elsewhere).

SuggestedRemedy

Change names in Table 157-1 to remove hyphen after speed

Response *Response Status* **C**

ACCEPT.

Cl **157** *SC* **157.1.3** *P* **40** *L* **5** # 10

Anslow, Pete — Self

Comment Type **E** *Comment Status* **A**

The draft contains 52 instances of "xxG-BASE", which should all be "xxGBASE"
The first example is in Table 157-1 where "10G-BASE-BR10-D" should be "10GBASE-BR10-D"

SuggestedRemedy

Change all 52 instances of "xxG-BASE" to "xxGBASE"

Response *Response Status* **C**

ACCEPT.

Cl **157** *SC* **157.1.3** *P* **40** *L* **5** # 119

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

There are "-" in the names after 10G/25G/50G here that aren't in the rest of the document.

SuggestedRemedy

Remove the "-" after the "G" in each of the names.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **40** *L* **5** # 257

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

This table is too long (spills over onto the next page) and too repetitive.

SuggestedRemedy

Add a sentence of introduction including the common information (over one single-mode fiber), and instead of one Description column with a sentence in each cell, use columns for rate, position (OLT or ONU), coding, reach, and clause reference.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Update table 157-1 to remove all BR40+ rows, this will fit the table into a single paper

Cl **157** *SC* **157.1.3** *P* **40** *L* **5** # 256

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

fi-
ber

SuggestedRemedy

Make the right hand column wider, set the hyphenation fragment length to at least 3.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **40** *L* **12** # 199

Law, David — Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D** *40+*

The description of the 10G-BASE-BR40-D and 10G-BASE-BR40+-D both read '10 Gb/s OLT PHY using 10GBASE-R encoding over one single-mode fiber, with reach up to at least 40 km (see Clause 158).'. This is also the case for the other five BR40 and BR40+ PHYs. As their descriptions are identical it makes it very difficult for a user to decide which of these two PHYs to select.

SuggestedRemedy

Provide a distinct description for BR40 and BR40+ PHYs.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#187, remove all BR40+ PHYs from .3cp draft
Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **157** *SC* **157.1.3** *P* **41** *L* **1** # 258

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

If the table spills over onto a second page, the continuation header should say (continued) in italics.

SuggestedRemedy

There's a correct way to do this.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See #257, try to use one page for this table

Cl **157** *SC* **157.1.3** *P* **41** *L* **22** # 200

Law, David — Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *EZ*

Move the four vertical dots on the right hand side of the layer diagram so that the lowest aligns with the top of the LLC as they do on the left had side.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **41** *L* **37** # 145

Lusted, Kent — Intel Corporation

Comment Type **TR** *Comment Status* **D**

Figure 157-1 uses "10GBASE-X PCS", "25GBASE-X PCS", and "50GBASE-X PCS" in the architectural diagrams, which are not the correct names for these PCS layers. However, the PCS sections referenced in Table 157-2, 157-3, and 157-4 have them correct.

SuggestedRemedy

Change "10GBASE-X PCS" to "10GBASE-R PCS", "25GBASE-X PCS" to "25GBASE-R PCS", and "50GBASE-X PCS" to "50GBASE-R PCS"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **41** *L* **37** # 156

Marris, Arthur — Cadence Design Systems

Comment Type **TR** *Comment Status* **D**

These are BASE-R PCSes

SuggestedRemedy

Change BASE-X to BASE-R in Figure 157-1

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **41** *L* **37** # 202

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D**

The PCS used for all three PHY speeds in a 'BASE-R PCS', not a 'BASE-X PCS'.

SuggestedRemedy

Suggest that the text '10GBASE-X PCS' be changed to read '10GBASE-R PCS', '25GBASE-X PCS' be changed to read '25GBASE-R PCS' and '50GBASE-X PCS' be changed to read '50GBASE-R PCS'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **41** *L* **40** # 211

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D**

The MDI is part of the Physical Layer of the OSI reference model, see IEEE Std 802.3-2018 figure 1-1.

SuggestedRemedy

Move the dotted line from the bottom of the Physical Layer to the bottom of the PMD box to be from the bottom of the Physical Layer to the bottom of the MDI box.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.3** *P* **41** *L* **47** # 32

Hajduczenia, Marek — Charter

Comment Type **ER** *Comment Status* **A**

GMII is defined in Figure 157-1, but not used in the figure. XGMII, 25GMII, and 50GMII are used and not defined

SuggestedRemedy

Fix the xMII definition issues

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

In Figure 157-1, remove "GMII = GIGABIT MEDIA INDEPENDENT INTERFACE", add "XGMII = 10 GIGABIT MEDIA INDEPENDENT INTERFACE", "25GMII = 25 GIGABIT MEDIA INDEPENDENT INTERFACE", and "50GMII = 50 GIGABIT MEDIA INDEPENDENT INTERFACE"
Apply same changes to other figures using XGMII, 25GMII, and 50GMII

Cl **157** *SC* **157.1.4** *P* **42** *L* **5** # 33

Hajduczenia, Marek — Charter

Comment Type **ER** *Comment Status* **A**

In IEEE 802.3 standard, we do not use "must" except for specific cases outlined in Style Manual

SuggestedRemedy

"PHY types must meet the requirements" - change to "shall"?

Response *Response Status* **C**

ACCEPT.

Cl **157** *SC* **157.1.4** *P* **42** *L* **9** # 206

Law, David — Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *EZ*

10G-BASE-BRx' should read '10GBASE-BRx'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.4** *P* **42** *L* **9** # 259

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

10G-BASE

SuggestedRemedy

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Delete "-"

Cl **157** *SC* **157.1.4** *P* **42** *L* **13** # 76

Laubach, Mark — Self

Comment Type **E** *Comment Status* **A**

"158" is indicated forest green, yet it is included in this addendum. Same respective issue on line 41 with "159".

SuggestedRemedy

change clause numbers included in this addendum tp active cross references.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See#34, same change applies to Tables 157-3, and 157-4 for Clauses 159, and 160, respectively

Cl **157** *SC* **157.1.4** *P* **42** *L* **13** # 120

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Clause 158 is in this draft.

SuggestedRemedy

Make the 158 in the heading a crosslink.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.4** *P* **42** *L* **13** # 34

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

Clause 158 should not be marked in gree, but linked live

SuggestedRemedy

Same applies to Tables 157-3, and 157-4 for Clauses 159, and 160, respectively

Response *Response Status* **C**

ACCEPT.

Cl **157** *SC* **157.1.4** *P* **42** *L* **19** # 260

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

As it's Fast Wake only, EEE is above PCS the PCS at least; I believe it's above the RS.

SuggestedRemedy

Move the EEE column to between "Nomenclature" and RS.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Need group review and decision

Cl **157** *SC* **157.1.4** *P* **42** *L* **20** # 201

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D**

As the title for Clause 49 is 'Physical Coding Sublayer (PCS) for 64B/66B, type 10GBASE-R', and since the 'PCS' column for Table 157-3 and 157-4 are labelled '25GBASE-R PCS' and '50GABSE-R PCS' respectively, please change the Table 157-2 'PCS' column to '10GBASE-R PCS'.

SuggestedRemedy

Suggest that the text '64B/66B PCS' be changed to read '10GBASE-R PCS'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.4** *P* **42** *L* **20** # 205

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D**

Clause 46 specifies the XGMII, not the GMII.

SuggestedRemedy

Change the text 'GMII' to read 'XGMII' in the right hand Clause 46 column.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.4** *P* **42** *L* **36** # 235

Thompson, Geoff — GraCaSI S.A./Independent

Comment Type **ER** *Comment Status* **D**

The way Table 157-3 is split across the page break is, at a minimum, confusing. It needs to be controlled appropriately.

SuggestedRemedy

Keep the table on a single page or pro-actively control the row split at a logical point with new column headings on the new page. Change the title on the 2nd piece to Table 157-3 (continued).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Remove all BR40+ items, try to keep table on a single page

Cl **157** *SC* **157.1.4** *P* **42** *L* **36** # 207

Law, David — Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *EZ*

25G-BASE-BRx' should read '25GBASE-BRx'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.4** *P* **42** *L* **41** # 121

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Clause 159 is in this draft.

SuggestedRemedy

Make the 159 in the heading a crosslink.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.4** *P* **43** *L* **1** # 122

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

The table title needs (continued) in it.

SuggestedRemedy

See instructions in 200.1.1.1.1 in the 802.3 FM template.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
Remove all BR40+ items, use instructions in 200.1.1.1.1 of the 802.3 FM template to keep table on a single page

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Cl **157** *SC* **157.1.4** *P* **43** *L* **1** # 209

Law, David — Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *EZ*

25G-BASE-BRx' should read '25GBASE-BRx'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.4** *P* **43** *L* **18** # 208

Law, David — Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D** *EZ*

50G-BASE-BRx' should read '50GBASE-BRx'.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.1.4** *P* **43** *L* **21** # 123

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Clause 160 is in this draft.

SuggestedRemedy

Make the 160 in the heading a crosslink.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.2** *P* **44** *L* **1** # 236

Thompson, Geoff — GraCaSI S.A./Independent

Comment Type **ER** *Comment Status* **D** *EZ*

The definition of “syblayers” is unknown to me.

SuggestedRemedy

Change “syblayers” to “sublayers.”

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.2** *P* **44** *L* **1** # 261

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

syblayers

SuggestedRemedy

sublayers

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.2.1** *P* **44** *L* **11** # 45

Zimmerman, George — ADI, Cisco, CommScope, Marvell, SenTekSe

Comment Type **E** *Comment Status* **A**

Is it BiDi or Bidi...?

SuggestedRemedy

Change Bidi to BiDi on P44, Lines 11, 17, 24, 38, 45, and page 39 line 39

Response *Response Status* **C**

ACCEPT.

Cl **157** *SC* **157.2.2** *P* **44** *L* **15** # 214

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D**

Suggest that '... the MII ...' should be changed to read '... the xMII ...' hear and on line 17.

SuggestedRemedy

See comment.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.2.2** *P* **44** *L* **16** # 65

Kramer, Glen — Broadcom

Comment Type **E** *Comment Status* **A**

The draft uses "sublayer" everywhere except in three places on page 44, where it uses "sub-layer"

SuggestedRemedy

Remove hyphens in "sub-layer" on lines 16 (two ninstances) and line

Response *Response Status* **C**

ACCEPT.

Cl **157** *SC* **157.2.3** *P* **44** *L* **10** # 263

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

specific RS and xMII specified

SuggestedRemedy

particular RS and xMII specified
or, delete the second "specified"
Also in 157.2.2, 157.2.3, 157.2.4 and 157.2.5.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Delete the seocnd "specified" in all places

Cl **157** *SC* **157.2.3** *P* **44** *L* **11** # 264

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

for a given ... is given

SuggestedRemedy

Change "for a given" to "for each".
Also in 157.2.2, 157.2.3, 157.2.4 and 157.2.5.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.2.3** *P* **44** *L* **22** # 262

Dawe, Piers — Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

Now that FEC is required for some PMDs, "An FEC sublayer is available for all Multi-Gigabit BiDi PHYs" is too weak.

SuggestedRemedy

An FEC sublayer is optional for 10G-BASE-BR10 and 10G-BASE-BR40, and required for all other Multi-Gigabit BiDi PHYs.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change to "An FEC sublayer is required for all Multi-Gigabit BiDi PHYs except 10G-BASE-BR10 and 10G-BASE-BR40"

Cl **157** *SC* **157.2.4** *P* **44** *L* **35** # 237

Thompson, Geoff — GraCaSI S.A./Independent

Comment Type **TR** *Comment Status* **D**

The statement "The PMA also may provide an observable electrical interface for the 25GAUI or 50GAUI chip-to-chip 35 (C2C) or chip-to-module (C2M)." has no meaning within the scope of the standard. Anything that is not forbidden in the standard may be provided.

SuggestedRemedy

If optional standardized test points are specified or called out then say so. If that is not the case then delete the text.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

This follows last sentence in 105.3.4

Cl **157** *SC* **157.3** *P* **45** *L* **25** # 124

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Either PHYs should be possessive or the s should be removed.

SuggestedRemedy

Change: PHYs sublayers
To: PHY's sublayers
Or To: PHY sublayers
Also on L27 and L29

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change to PHY sublayers in three places

Cl **157** *SC* **157.4** *P* **45** *L* **18** # 238

Thompson, Geoff — GraCaSI S.A./Independent

Comment Type **TR** *Comment Status* **D**

I believe that PAUSE operation is not the only reason that demands that there be an upper bound on the propagation delays through the network. I am given to understand that both maximum and minimum transit time need to be specified to support TSN.

SuggestedRemedy

Generalize the reasons for specifying delay and include specification of minimum delay as well.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Remedy is not specific enough.
Can you please provide an 802.3 reference clause for the minimum delay constrain spec?

Cl **157** *SC* **157.4** *P* **45** *L* **25** # 72

Nicholl, Shawn Xilinx

Comment Type **ER** *Comment Status* **A**

Currently, the sentence reads "The maximum delay … are specified". This is improper grammar.

SuggestedRemedy

Proposed to replace "The maximum delay for" with "The maximum delay values for". Another alternative is "The maximum delay constraints for".

Response *Response Status* **C**

ACCEPT.

Replace it with "The maximum delay constraints for" in 3 places

Cl **157** *SC* **157.4** *P* **45** *L* **25** # 265

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

44.3 will need modification to include FEC delay

SuggestedRemedy

Modify Table 44-2.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Add a new line "10GBASE-BRx RS-FEC" to Table 44-2, reuse time values in Table 105-3, line "25GBASE-R RS-FEC" for 10GBASE-BR20, bit time needs adjustment to 10G

Cl **157** *SC* **157.6** *P* **45** *L* **43** # 66

Kramer, Glen Broadcom

Comment Type **T** *Comment Status* **A**

"All members of the Multi-Gigabit Ethernet BiDi PHY family are required to include PCS registers or variable equivalents that:
1) indicate the receive status of the PCS (see 49.2.14.1 and 45.2.3.15.1), and
2) disable the PHYs transmitter(see 45.2.1.8)."

As described, both OLT and ONU will disable the transmitter. This is not what should happen.

SuggestedRemedy

The setting to use silent mode must be pre-configured before a device is connected to a network. Using PCS registers or variables is an implementation choice irrelevant here.
It is better to introduce Active/Passive Mode for all BRx PHY. If BRx is pre-configured to be in Active Mode, it does not disable the TX. In Passive Mode, the TX disabled until a valid Rx is confirmed. (see 57.2.9 for a similar issue resolved for OAM peers)

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Add "ONU" to subclause 157.6 title.
At the end of 157.6, add a note "Note silent start does not apply to the OLT PHY types."

Cl **157** *SC* **157.6** *P* **45** *L* **45** # 213

Law, David Hewlett Packard Enterprise

Comment Type **ER** *Comment Status* **D**

I'm not sure if it is the case that 'The access network ... by nature, are less well controlled than other telecommunications networks.', but I don't see a need to provide this text.

SuggestedRemedy

Replace the entire first paragraph of subclause 157.6 with the text 'Silent Start is provided by Multi-Gigabit Ethernet BiDi ONU PHYs to reduce the likelihood of disruption to established services if a Multi-Gigabit Ethernet BiDi ONU PHY is inadvertently attached to a Point-to-Multipoint network.'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **157** *SC* **157.6** *P* **45** *L* **46** # 212

Law, David — Hewlett Packard Enterprise

Comment Type **E** *Comment Status* **D**

If my comment to replace this paragrpah is not accepted, suggest that '... are, by nature, less well ...' should be changed to read '... are, by their nature, less well ...'.

SuggestedRemedy

Proposed Response *Response Status* **W**

PROPOSED REJECT.

See #213 resolution

Cl **157** *SC* **157.6** *P* **45** *L* **52** # 35

Hajduczenia, Marek — Charter

Comment Type **ER** *Comment Status* **A**

A hidden "shall" in "All members of the Multi-Gigabit Ethernet BiDi PHY family are required to include PCS registers"

SuggestedRemedy

convert this text into "shall" statement if this is intended as a requirement. Otherwise, soften the language.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change "are required to" to "shall".
Add Clause 49 to the first sentence of 157.7

Cl **157** *SC* **157.6** *P* **46** *L* **1** # 36

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

Missing space in "transmitter(see"

SuggestedRemedy

Add missing space

Response *Response Status* **C**

ACCEPT.

Cl **157** *SC* **157.6** *P* **46** *L* **10** # 67

Kramer, Glen — Broadcom

Comment Type **T** *Comment Status* **A**

"Once transmission is enable it should not be disabled until the receive signal is lost."

SuggestedRemedy

This sentence is not intended as an optional requirement and no corresponding PICS exists. Also, a typo in "is enable".

Rephrase as "Once transmission is enabled, it is not be disabled until the receive signal is lost."

A better explanation would be this:
"Once transmission is enabled, it remains enabled until the optical receive power is lost, even if the PCS detects the received signal fault."

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Remove this sentence, See #37

Cl **157** *SC* **157.6** *P* **46** *L* **10** # 37

Hajduczenia, Marek — Charter

Comment Type **ER** *Comment Status* **A**

Is this intended to be an optional requirement: "Once transmission is enable it should not be disabled until the receive signal is lost."

SuggestedRemedy

Add to PICS if intended, or change the language to avoid "should"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Remove this sentence

See #67

Cl **158** *SC* **158** *P* *L* # 181

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **A**

Requirements for interoperability between the various PMDs are missing. See latest version of P802.3cu D2.2. Also for 159 and 160.

SuggestedRemedy

Add requirements for interoperability for various PMDs in 158, 159 and 160

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Implement the suggested remedy with editorial license to follow P802.3cu D2.2

Cl **158** *SC* **158** *P* **46** *L* **2** # 163

Dawe, Piers Nvidia

Comment Type **ER** *Comment Status* **D** *40+*

10GBASE-BR40+ is a bad name and 10GBASE-BR40+-U is even worse

SuggestedRemedy

Choose something else e.g. 10GBASE-BR40p, 10GBASE-BR50

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#187, remove all BR40+ PHYs from .3cp draft
Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **158** *SC* **158** *P* **47** *L* **1** # 62

Kramer, Glen Broadcom

Comment Type **E** *Comment Status* **A** *40+*

PMD name 50GBASE-BR40+-D is confusing as it reads like BR40 "plus/minus" D.

SuggestedRemedy

Consider the following PMD names instead:
50GBASE-BR41 - "BR41" PMD class slightly better than class "BR40".
50GBASE-BR40XB - "XB" for "eXtended Budget"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See#187, remove all BR40+ PHYs from .3cp
Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **158** *SC* **158.1** *P* **47** *L* **7** # 186

Stassar, Peter Huawei

Comment Type **ER** *Comment Status* **A**

Despite the fact that in the past for 10G PHYs reference was made to "baseband medium" in more recent optical PMDs this term has not been used, as in new clauses 159 and 160. Also no reference is made to "serial" in 159.1 and 160.1, so it shouldn't be needed in 158.1. Thus comments also applies to 159.1 and 160.1

SuggestedRemedy

Make wording consistent with 159.1 and 160.1

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change first sentence in 158.1 to "This clause specifies the 10GBASE-BR10, 10GBASE-BR20, 10GBASE-BR40, and 10GBASE-BR40+ PMDs together with the single-mode fiber medium."

Cl **158** *SC* **158.1** *P* **47** *L* **8** # 114

Wienckowski, Natalie General Motors

Comment Type **E** *Comment Status* **D** *EZ*

typo

SuggestedRemedy

Change: 10BASE-BR10
To: 10GBASE-BR10

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.1** *P* **47** *L* **17** # 266

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *LATE, EZ*

Not the usual wording

SuggestedRemedy

Change "defined in 45" to "defined in Clause 45, or equivalent"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Change "defined in 45" to "defined in Clause 45"

Cl **158** *SC* **158.1** *P* **47** *L* **17** # 46

Zimmerman, George — ADI, Cisco, CommScope, Marvell, SenTekSe

Comment Type **E** *Comment Status* **A**

"defined in 45" - the cross reference should read "Clause 45" (same thing in 159.1 and 160.1)

SuggestedRemedy

Change cross reference to read "Clause 45"

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.1** *P* **47** *L* **25** # 126

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

All the "Associated clause"s in the table are not included in the draft and should be external.

SuggestedRemedy

Change the character tag on "46" (2x), "47", "49", "51", "108" to External which will turn them green.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.1** *P* **47** *L* **32** # 210

Law, David — Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D**

According to Table 158–1, Clause 108 RS—FEC is optional for both a 10GBASE-BR10 and 10GBASE-BR40 PHY. It is not clear that a 10GBASE-BR10 PHY that implements the optional RS-FEC sublayer can interoperate with a 10GBASE-BR10 PHY that does not implement the optional RS-FEC sublayer. Since the IEEE P802.3cp nomenclature doesn't provide a way to indicate if a 10GBASE-BR10 or a 10GBASE-BR40 PHY does or does not implement optional FEC, it appears that user has no way to know if a 10GBASE-BR10 or a 10GBASE-BR40 PHY implements RS-FEC or not. This seems to mean that a user won't know if one particular 10GBASE-BR10 PHY will interoperate with another 10GBASE-BR10 PHY, similarly for any two 10GBASE-BR40 PHYs.

SuggestedRemedy

If a 10GBASE-BR10 (or 10GBASE-BR40) PHY that implements the optional RS-FEC sublayer can't interoperate with a 10GBASE-BR10 (or 10GBASE-BR40) PHY that does not implement the optional RS-FEC sublayer, add a way to indicate if the optional RS-FEC sublayer is implemented to the IEEE P802.3cp nomenclature.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

BR10 and BR40 do not need RS-FEC. Suggest changing the cell in Table 158-1 from "optional" to "not required"

Cl **158** *SC* **158.1** *P* **47** *L* **32** # 267

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

Order of sublayers should be top to bottom.

SuggestedRemedy

Move the row "108 RS-FEC Optional Required" to between PCS and PMA (as it is in 159 and 160).

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.1** *P* **47** *L* **34** # 125

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

Clause 108 should be marked as an external link as it isn't in this draft.

SuggestedRemedy

Change the character tag on "Clause 108" to External which will turn it green.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.1** *P* **47** *L* **34** # 77

Laubach, Mark — Self

Comment Type **E** *Comment Status* **A**

Cross reference not colored in table footnote.

SuggestedRemedy

Change "Clause 108" for forest green.

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.1** *P* **47** *L* **34** # 157

Marris, Arthur — Cadence Design Systems

Comment Type **TR** *Comment Status* **D** *FEC*

Is it really adequate to just say "Clause 108 describes an FEC for 25 Gb/s PHY, but the same scheme can be applied to 10 Gb/s PHYs"?

SuggestedRemedy

Consider opening up clause 108 to explain how it works with 10G PMDs

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#248, In Cl. 108, add a new paragrph to the end of 108.1.1 "This RS-FEC sublayer also applies to 10GBASE-BR20 and 10GBASE-BR40+ PHYs, specified in Clause 158. When applying it to 10GBASE-BR20 and 10GBASE-BR40+ PHYs, "25GBASE-R" and "25.78125 GBd" in this clause should be replaced by "10GBASE-BR20 or 10GBASE-BR40+" and "10.3125 GBd", respectively."
Group comments #248, 157, 171, 225

Cl **158** *SC* **158.1** *P* **47** *L* **34** # 171

Dudek, Mike — Marvell

Comment Type **TR** *Comment Status* **D** *FEC*

The footnote says the 108 RS-FEC is described for 25Gb/s. It should not be left to the reader to work out how to apply it to 10Gb/s

SuggestedRemedy

Bring appropriate edits to Clause108 into the document. E.g. The delays in ns are probably wrong. The introduction would need work etc. Whether this RS FEC meets the delay constraints for 10G networks in Clause 44 should also be investigated if this has not already been done.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#248, In Cl. 108, add a new paragrph to the end of 108.1.1 "This RS-FEC sublayer also applies to 10GBASE-BR20 and 10GBASE-BR40+ PHYs, specified in Clause 158. When applying it to 10GBASE-BR20 and 10GBASE-BR40+ PHYs, "25GBASE-R" and "25.78125 GBd" in this clause should be replaced by "10GBASE-BR20 or 10GBASE-BR40+" and "10.3125 GBd", respectively."
Group comments #248, 157, 171, 225

Cl **158** *SC* **158.1** *P* **48** *L* **13** # 224

Trowbridge, Steve — Nokia

Comment Type **E** *Comment Status* **D** *EZ*

Sloppy aligment of rectangles for XGMII, PCS, RS-FEC in Figure 158-1

SuggestedRemedy

Fix it

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.1** *P* **48** *L* **14** # 225

Trowbridge, Steve — Nokia

Comment Type **T** *Comment Status* **D** *FEC*

I'm not aware there is an RS-FEC for 10GBASE-R PHYs

SuggestedRemedy

I suspect you may have intended Clause 74 Firewire FEC. Provide an appropriate reference to the correct FEC type and clause reference

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

It is RS-FEC in Cl. 108, see #248
In Cl. 108, add a new paragrph to the end of 108.1.1 "This RS-FEC sublayer also applies to 10GBASE-BR20 and 10GBASE-BR40+ PHYs, specified in Clause 158. When applying it to 10GBASE-BR20 and 10GBASE-BR40+ PHYs, "25GBASE-R" and "25.78125 GBd" in this clause should be replaced by "10GBASE-BR20 or 10GBASE-BR40+" and "10.3125 GBd", respectively."
Group comments #248, 157, 171, 225

Cl **158** *SC* **158.1.1** *P* **47** *L* **45** # 47

Zimmerman, George — ADI, Cisco, CommScope, Marvell, SenTekSe

Comment Type **TR** *Comment Status* **D**

The BER is specified to be at the "PHY service interface" - I can't find any other reference to a "PHY service interface" in this draft. Clauses 58, 59, and 75 use the term as well, but it is undefined. Clause 113 (25GBASE-T) defines its PHY service interface as the 25GMII (see 113.1.2). However, this clause is only specifying a PMD sublayer, and references a PMD service interface elsewhere - as just a PMD, Clause 158 cannot specify a BER at the xMII. Is the PMD service interface meant? (otherwise this requirement needs to go in the PMA, and something needs to be partitioned to the PMD)

SuggestedRemedy

Change "PHY service interface" to "PMD service interface"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.1.1** *P* **48** *L* **1** # 268

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

Blank line

SuggestedRemedy

Remove

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.1.1** *P* **48** *L* **30** # 269

Dawe, Piers — Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

Blank lines

SuggestedRemedy

Remove

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.5.1** *P* **49** *L* **37** # 64

Kramer, Glen — Broadcom

Comment Type **E** *Comment Status* **A**

Per IEE style manual, the word "will" is deprecated.

SuggestedRemedy

Change the sentences containing "will" to use present tense at the following locations:
P49-L37
P56-L20
P56-L21
P68-L2
P86-L37

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.5.2** *P* **49** *L* **40** # 78

Laubach, Mark — Self

Comment Type **T** *Comment Status* **A**

PMD_UNITDATA.request is neither defined or referenced in this draft. Same for PMD_UNITDATA.indication on line 49.

SuggestedRemedy

Either provide the definitions of these functions in this draft or a cross reference to where they are defined.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

52.1.1.1 defines PMD_UNITDATA.request, 52.1.1.2 defines PMD_UNITDATA.indication. Use them as cross references in Lines 40 and 49 and use forest green color.

Cl **158** *SC* **158.5.2** *P* **49** *L* **44** # 79

Laubach, Mark — Self

Comment Type **T** *Comment Status* **D**

and line 50. The constant "ONE" is not defined in this draft. There are only these two occurences.

SuggestedRemedy

Definitions should be fixed when implementing the proposed change for PMD_UNITDATA.request and PMD_UNITDATA.indication.

Proposed Response *Response Status* **Z**

REJECT.

This comment was WITHDRAWN by the commenter.

802.3 convention ONE is a well-known constant

Cl **158** *SC* **158.5.6** *P* **51** *L* **11** # 127

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

This sentence isn't clear. What's optional, the function? Th PMD? The optical transmitter?

SuggestedRemedy

Change: PMDs compliant with this clause shall include the PMD_global_transmit_disable function which allows the optical transmitter to be disabled is optional.
To: Change: PMDs compliant with this clause shall include the PMD_global_transmit_disable function which allows the optical transmitter to be disabled.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.5.6** *P* **51** *L* **11** # 48

Zimmerman, George — ADI, Cisco, CommScope, Marvell, SenTekSe

Comment Type **E** *Comment Status* **A**

It seems the font size in 158.5.6 has gotten smaller.

SuggestedRemedy

Correct font size in 158.5.6 to be consistent with the rest of the draft

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.5.6** *P* **51** *L* **11** # 73

Nicholl, Shawn — Xilinx

Comment Type **ER** *Comment Status* **A**

Small font in paragraphs in this sub-clause. It looks different than surrounding sub-clauses.

SuggestedRemedy

Check the font and paragraph spacing in this sub-clause.

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.6** *P* *L* # 187

Stassar, Peter — Huawei

Comment Type **TR** *Comment Status* **A** *40+*

It is very confusing why 2 PMDs 40km and 40+km are specified to satisfy a single 40km objective, also considering that in Table 158-5 only one 40km distance is given. It is also not clear what "+" refers to. If the 40+km spec is technically and economically feasible, delete the 40km spec. This comment also applies to 159 and 160.

SuggestedRemedy

Remove one of 40km/40+km and create a single 40km specification optimized for lowest cost. This can be done via a single power budget with 2 distance options as in Clause 114 for 25GBASE-ER. Applies to 158, 159 and 160

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

The project has three distance reach objectives, we should have three pairs of PHYs. Remove -BR40+ PHYs for all speeds from .3cp draft D2.0

Group comments #19, 219, 70, 233, 234, 31, 155, 63, 215, 199, 163, 62, 187, 217

Cl **158** *SC* **158.6** *P* *L* # 188

Stassar, Peter Huawei

Comment Type **ER** *Comment Status* **A**

For several parameters in Table 158-6, 158-7 and 158-8 there is a "zero" after the decimal point. Remove the decimal point and "zero" after it.

SuggestedRemedy

Remove the decimal point and "zero" after it for those parameters with integer values

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.6** *P* **51** *L* **45** # 270

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

There should be something about the possibilities (or not) for interoperation between the different grades of PMD. Also for Clause 159. The text in 160 needs attention; a minimum insertion loss would be needed, I think.

SuggestedRemedy

See P802.3cu for examples of how to do this.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#181 to add introp of .3cp links

Cl **158** *SC* **158.6.1** *P* **52** *L* **19** # 271

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

Blank line

SuggestedRemedy

Remove

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.6.1** *P* **52** *L* **29** # 218

Law, David Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D**

Doesn't the -D PHY Tx centre wavelength range have to match the -U PHY Rx centre wavelength range, and vice versa? As an example, the 10GBASE-BRx-D PHY Tx centre wavelength (range) is 1320 to 1340 nm in Table 158–6 (page 52, line 29) which is the same as the 10GBASE-BRx-D PHY Rx centre wavelength (range) of 1320 to 1340 nm in Table 158–7 (page 53, line 24), while the 10GBASE-BRx-U PHY Rx centre wavelength (range) is 1260 to 1280 nm in Table 158–7 (page 53, line 26). This doesn't seem correct.

SuggestedRemedy

Correct here, and for other PHYs, if necessary.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

BRx-U and BRx-D use different wavelengths

Cl **158** *SC* **158.6.1** *P* **52** *L* **48** # 80

Laubach, Mark Self

Comment Type **T** *Comment Status* **A**

and line 50. The unit cells are blanks for eye mask. Same for Table 159–6 on page 71, Table 159–7 on page 72.

SuggestedRemedy

Insert "UI" for the Unit value in the table for these two rows (or other appropriate unit value).

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Use a long dash to the two unit cells

Cl **158** *SC* **158.6.1** *P* **52** *L* **49** # 272

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

Definition B is preferable

SuggestedRemedy

Suggest remove the obsolete transmitter eye mask definition A

Proposed Response *Response Status* **W**

PROPOSED REJECT.

Definitions A and B are in 10GBASE spec. Clause 158 copies both. Need group decision

Cl **158** *SC* **158.6.2** *P* **53** *L* **40** # 182

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **A**

In latest optical PMD specifications no longer "Receive electrical 3 dB upper cutoff frequency (max)" is included because it cannot be measured at TP3 and is part of the implementation

SuggestedRemedy

Remove row for "Receive electrical 3 dB upper cutoff frequency (max)"

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.6.2** *P* **53** *L* **49** # 273

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

Extinction ratio: 3.5 dB is OK for 10GBASE-L, 3 dB for 10GBASE-E, 3 for 25GBASE-LR, 4 for 25GBASE-ER, why would 10GBASE-BR40 need 5.5 dB? Is this a typo?

SuggestedRemedy

Reduce to lower than 10GBASE-BR20 and 10GBASE-BR40+, e.g. 4.5 or 4 dB.

Proposed Response *Response Status* **W**

PROPOSED REJECT.

P52 L42

ER 5.5 copies from 10GBASE-ER spec. BR20 and BR40+ specs are new.

Cl **158** *SC* **158.6.3** *P* **54** *L* **14** # 192

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **A**

It doesn't make sense to have 15 dB for 20km and 18 dB for 40km. 15 dB would rather be a channel loss for a 30km channel as in clause 114 for 25GBASE-ER. Also applies to 159 and 160

SuggestedRemedy

Define an appropriate channel insertion loss for 20km, e.g. 11 or 12 dB, and optimize power values in Table 158-6 and Table 158-7. Also in 159 and 160

Response *Response Status* **U**

ACCEPT IN PRINCIPLE.
Editorial license: To justify 15 dB add text to describe 0.5 dB/km fiber loss and 5 dB connection loss in Clauses 158-160

Cl **158** *SC* **158.6.3** *P* **54** *L* **14** # 191

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **R**

Channel insertion loss numbers do not add up using the attenuation coefficient and the allocation for connector and splice loss of 2 dB. This comment is related to another comment requesting a change in attenuation coefficient. Compare with other recent optical PMDs and make numbers consistent between Clauses 158, 159 and 160.

SuggestedRemedy

Make numbers consistent for channel insertion loss in Clauses 158, 159 and 160

Response *Response Status* **U**

REJECT.

No consensus reached from the group to make changes to the draft.

Cl **158** *SC* **158.6.3** *P* **54** *L* **21** # 81

Laubach, Mark Self

Comment Type **E** *Comment Status* **A**

Suggest a cross reference for table footnote c.

SuggestedRemedy

Add a cross reference to CL158.11.1

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Remove the second sentence beginning with "Attenuation" from footnote c.
See#194

Cl **158** *SC* **158.6.3** *P* **54** *L* **22** # 190

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **R**

An attenuation of 0.4 dB/km is used, 0.43 dB/km in Table 159-8 and 0.5 dB/km in Table 160-6. Use a single value for all 3 clauses, preferably 0.5 dB/km to make the specifications consistent. Now they are all different. Applies similarly to 159 and 160

SuggestedRemedy

Change loss to 0.5 dB/km consistent with other recent PMDs like P802.3cu in 158 and 159 and with clause 160

Response *Response Status* **U**

REJECT.

No consensus reached from the group to make changes to the draft.

Cl **158** *SC* **158.6.3** *P* **54** *L* **22** # 189

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **A**

Reference is made to Table 52-11 and cross reference is missing. Change to Table 158-5 with cross reference

SuggestedRemedy

Change to Table 158-5 with cross reference

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.8** *P* **37** *L* **50** # 277

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

The minimum dispersion for a 40 km PMD was set at zero in 52.9.10.2 because the 1550 nm signal was always at a longer wavelength than the dispersion zero. Here, we don't know that. All we know is that the 10GBASE-BRx-U signal is always at a shorter wavelength than the dispersion zero.

SuggestedRemedy

The table could be split for U and D. If not, the simple solution is:
PMD Min Max
BR10 min(f1(lambda), 0) max(f2(lambda), 0)
BR0 min(f3(lambda), 0) max(f4(lambda), 0)
BR40 min(f5(lambda), 0) max(f6(lambda), 0)
where f1 2 3 4 6 are as now, f5 is 0.93.lambda.[1- (1324 / lambda)^4]

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Table 158-9, change cell "0" into "0.93*lambda*[1- (1324 / lambda)^4]"
See#178-180

Cl **158** *SC* **158.8** *P* **54** *L* **33** # 274

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

"Optical measurement requirements" this was copied from Clause 38 to 52 then 58-60 but later it was decided that this was incorrect; 802.3 is not a test spec, the measurements are not required, only the compliance is. So Clause 68 and later optical PMD clauses use different wording.

SuggestedRemedy

Change to:
Definition of optical parameters and measurement methods

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#183, add full details of optical measurement requirements and apply all changes appropriate for 158, and also 159 and 160. Editorial license to make inline changes to 114.7 (25G), 52.9 (10G),139.7/CU/140/151 (50G)

Cl **158** *SC* **158.8** *P* **54** *L* **37** # 275

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

"shall be conducted" isn't suitable wording, as there is no requirement to conduct the test. Here is example wording based on what has been used in 802.3ba and later projects:

SuggestedRemedy

Stressed receiver sensitivity shall be within the limits given in Table 158-7 if measured using the method defined by 52.9.9, with the additional condition that the transmitted optical signal and the reflectance of the optical link are at their maximum levels.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#183, add full details of optical measurement requirements and apply all changes appropriate for 158, and also 159 and 160. Editorial license to make inline changes to 114.7 (25G), 52.9 (10G),139.7/CU/140/151 (50G)

Cl **158** *SC* **158.8** *P* **54** *L* **38** # 276

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

What does "condition that the transmitted optical signal and ... should be at their maximum levels" mean?

SuggestedRemedy

Should this say that the transmitter reflectance should be at maximum?

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#183, add full details of optical measurement requirements and apply all changes appropriate for 158, and also 159 and 160. Editorial license to make inline changes to 114.7 (25G), 52.9 (10G),139.7/CU/140/151 (50G)

Cl **158** *SC* **158.8** *P* **54** *L* **47** # 178

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **A**

The dispersion equation provides too high values for current latest G.652 fibers. Value of 0.2325 should be 0.23. Applies also to 160.7

SuggestedRemedy

Change 0.2325 to 0.23. In Clauses 158 and 160

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.8** *P* **54** *L* **49** # 179

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **A**

The dispersion equation provides too high values for current latest G.652 fibers. Value of 0.465 should be 0.46. Applies also to 160.7

SuggestedRemedy

Change 0.465 to 0.46. In Clauses 158 and 160

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.8** *P* **54** *L* **51** # 180

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **A**

The dispersion equation provides too high values for current latest G.652 fibers. Value of 0.93 should be 0.92. Plus the negative dispersion is not zero but similar equation as for minimum dispersion for 20km but with 0.92 as a coefficient, Applies also to 160.7

SuggestedRemedy

Change 0.93 to 0.92, plus add equation for minimum dispersion. In Clauses 158 and 160

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Revise values in Comments #178-180 and apply changes to dispersion values

Cl **158** *SC* **158.9** *P* **55** *L* **6** # 184

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **A**

Safety requirements have recently been changed. Please refer to P802.3cu requirements. Also applies to 159 and 160

SuggestedRemedy

Implement safety requirements as in P802.3cu D2.2 151.9. Also in 159.8 and 160.8

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Follow .3cu D3.0 to refer to J.2, apply same statement to Clauses 159 and 160.

Cl **158** *SC* **158.9** *P* **55** *L* **6** # 94

Grow, Robert — RMG Consulting

Comment Type **TR** *Comment Status* **A**

An indirect reference like this should not be used because of the difficulty of properly maintaining the document. Because the subclauses of 52.10 specifically reference port types, it could be argued that the requirements do not apply because clause 52 does not reference 10BASE-BRx port types.

SuggestedRemedy

A general safety subclause should copy P802.3cr 52.10.1, and the other clauses can copy the relevant subclauses of the latest revision or amendment that changes the text of the relevant subclause.

If indirection is still desired, the port type lists in Clause 52 need to be deleted (preferred) or expanded to include 10GBASE-BRx.

Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

See #184, editorial license to add safety requirements as .3cu, .3ct

Cl **158** *SC* **158.10** *P* **56** *L* **4** # 216

Law, David — Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D**

The vertical bar separating the top two rows of Table 158–10 'Fiber optic cabling (channel) characteristics' seem to exclude the fibre type and wavelength rows for 40+ which doesn't seem to be correct.

SuggestedRemedy

Delete the vertical bar separating the top two rows of Table 158–10.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.10** *P* **56** *L* **7** # 217

Law, David — Hewlett Packard Enterprise

Comment Type **TR** *Comment Status* **D** *40+*

The operating distance (max) specified in Table 158–10 'Fiber optic cabling (channel) characteristics' is really a 'minimum operating distance (max)', for example a 10GBASE-BR20 PHY that can operate at 25 km is a conformant 10GBASE-BR20 PHY even though it exceeds the 20 km operating distance (max) specified in Table 158–10 for that PHY type. For the same reason a 10GBASE-BR40 PHY that can operate in excess of 40 km is a conformant 10GBASE-BR40 PHY. It is therefore not clear what the difference is between a 10GBASE-BR40 PHY and a 10GBASE-BR40+ PHY as it is conformant for both to operate in excess of 40 km.

SuggestedRemedy

Please clarify what the reach difference is between a 10GBASE-BR40 PHY and a 10GBASE-BR40+ PHY, as well as for the 25GBASE-BR40 PHY and a 25GBASE-BR40+ PHY and the 40GBASE-BR40 PHY and a 40GBASE-BR40+ PHY.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#187, remove all BR40+ PHYs from .3cp
Group comments #19, 219, 70, 234, 31, 155, 63, 214, 199, 163, 62, 187, 217

Cl **158** *SC* **158.10** *P* **56** *L* **12** # 193

Stassar, Peter — Huawei

Comment Type **TR** *Comment Status* **A**

Reference is made to Table 158-9 so that the reader will need to calculate maximum dispersion numbers themselves. Chromatic dispersion values at nominal wavelengths are likely to provide too optimistic estimates for worst case TDP (or TDECQ in 160). The applicable values at extreme wavelengths need to be in this Table as in other recent optical PMDs. Also applies to 159 and 160

SuggestedRemedy

Add chromatic dispersion numbers at extreme wavelengths for each PMD, e.g. as in Clause 114, Table 114-11 for 25GBASE-LR/ER and use similar Table formatting as for Clause 114.

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Editorial license to calculate "Positive dispersion (max)" and "Negtive dispersion (min)", fill into Table 158-10, update Note d.

Cl **158** *SC* **158.10** *P* **56** *L* **25** # 278

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *LATE, EZ*

Blank line

SuggestedRemedy

Remove

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **158** *SC* **158.11.1** *P* **56** *L* **33** # 194

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **A**

For recent optical PMDs, reference is made to ITU-T G.652 or G.657 fibers as in P802.3cu. Also applies to 159.10 and 160.10

SuggestedRemedy

Change to fiber types in P802.3cu, D2.2, Subclause 151.11.1 "The optical fiber cable requirements are satisfied by cables containing ITU-T G.652.B (dispersion unshifted), type G.652.D (low water peak, dispersion unshifted), or type G.657.A1, or type G.657.A2 (bend insensitive) fibers...." or similar. In 158, 159 and 160

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Editorial license to change reference to ITU-T G.652 or G.657 fibers as in P802.3cu.

Cl **158** *SC* **158.11.1** *P* **56** *L* **37** # 279

Dawe, Piers Nvidia

Comment Type **T** *Comment Status* **D** *LATE*

This NOTE was written for a 1550 nm PMD.

SuggestedRemedy

Needs review because different wavelength here

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

Delete the note as it is not relevant

Cl **158** *SC* **158.12** *P* **58** *L* **1** # 280

Dawe, Piers Nvidia

Comment Type **E** *Comment Status* **D** *LATE*

Subclause title is shorter than past clauses, which is an improvement. However, "for 158" is too abrupt.

SuggestedRemedy

Change the format of the cross-reference to 158 so that the title becomes:
Protocol implementation conformance statement (PICS) proforma for Clause 158
or
Protocol implementation conformance statement (PICS) proforma for Clause 158, Physical Medium Dependent (PMD) sublayer and medium, types 10GBASE-BR10, 10GBASE-BR20, 10GBASE-BR40, and 10GBASE-BR?? Similarly for 159.11 and 160.11.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Add "Clause" before "158". Do same changes to Clauses 159 and 160.

Cl **158** *SC* **158.12.2.2** *P* **58** *L* **40** # 54

Lewis, Jon Dell EMC

Comment Type **E** *Comment Status* **A**

Date is shown specifically and should be 202x as the draft isn't published

SuggestedRemedy

Change "IEEE Std 802.3cp-2020" to "IEEE Std 802.3cp-202x"

Response *Response Status* **C**

ACCEPT.

Global update of this item

Cl **158** *SC* **158.12.4.3** *P* **61** *L* **19** # 38

Hajduczenia, Marek Charter

Comment Type **ER** *Comment Status* **A**

Empty subclause or table anchor was moved?

SuggestedRemedy

Fix the table placement
The same applies for 158.12.4.5, 158.12.4.8

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.12.4.3** *P* **61** *L* **19** # 82

Laubach, Mark — Self

Comment Type **E** *Comment Status* **A**

This subclause looks empty. Same for 158.12.4.5 on the next page. And same for 158.12.4.8.

SuggestedRemedy

Adjust framemaker to have the tables flow properly with the headings.

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.12.4.3** *P* **61** *L* **21** # 55

Lewis, Jon — Dell EMC

Comment Type **E** *Comment Status* **A**

Headings are listed with the tables out of order. Table with BR101 should be before 158.12.4.4

SuggestedRemedy

Move Table with BR101 above the heading line for 158.12.4.4

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.12.4.5** *P* **62** *L* **3** # 56

Lewis, Jon — Dell EMC

Comment Type **E** *Comment Status* **A**

Headings are listed with the tables out of order. Table with BR401 should be before 158.1.4.6

SuggestedRemedy

Move Table with BR401 above the heading line for 158.12.4.6

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.12.4.7** *P* **62** *L* **32** # 39

Hajduczenia, Marek — Charter

Comment Type **E** *Comment Status* **A**

Text format in 158.12.4.7 table is incosistent with the rest of PICS tables

SuggestedRemedy

Align the formatting

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.12.4.8** *P* **63** *L* **3** # 57

Lewis, Jon — Dell EMC

Comment Type **E** *Comment Status* **A**

Headings are listed with the tables out of order. Table with ES1 should be before 158.12.4.9

SuggestedRemedy

Move Table with ES1 above the heading line for 158.12.4.9

Response *Response Status* **C**

ACCEPT.

Cl **158** *SC* **158.12.4.8** *P* **63** *L* **8** # 58

Lewis, Jon — Dell EMC

Comment Type **TR** *Comment Status* **A**

Clause 52 is currently part of P802.3cr. The referenced text needs to align with P802.3cr.

SuggestedRemedy

Change the Value/Comment field to "Conforms with J.2" where J.2 is green for external cross reference.

Response *Response Status* **W**

ACCEPT.

Cl **158** *SC* **158.12.4.9** *P* **63** *L* **8** # 95

Grow, Robert — RMG Consulting

Comment Type **TR** *Comment Status* **A**

In E1 through E4, the subclause should not be pointing to something in clause 52.

SuggestedRemedy

Point to whatever the result is in clause 158 based on changes from other comments.

Response *Response Status* **C**

ACCEPT.

Point to 158.9

Cl **158** *SC* **158.12.4.9** *P* **63** *L* **8** # 96

Grow, Robert — RMG Consulting

Comment Type **TR** *Comment Status* **A**

E1 is not properly written. P802.3cr is eliminating references to IEC 60950-1.

SuggestedRemedy

The PICs should point to J.2 which is being inserted by P802.3cr. If indirection is retained, the PICs could be written more like E1 in Clause 159 to eliminate a contradiction to P8023cr.

Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

See #184, follow .3cu D3.0 to refer to J.2, apply same statement to Clauses 159 and 160.

Cl **158** *SC* **158.12.4.9** *P* **64** *L* **1** # 160

Maguire, Valerie — The Siemon Company

Comment Type **E** *Comment Status* **D** *EZ*

Extra blank page

SuggestedRemedy

Delete blank page

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **159** *SC* **5.4** *P* **69** *L* **9** # 1

DeAndrea, John — Finisar/ /II-VI

Comment Type **E** *Comment Status* **A**

Table 159-4, SIGNAL_DETECT value, FAIL, outlines (2) average powers for the PMD options, of (4) types, -10, -20, -40, and -40+

SuggestedRemedy

Suggested change: add other (2) PMD types and comment for power levels

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Change text to show -20 dBm is for BR10, -26 dBm is for BR20/40

Cl **159** *SC* **5.4** *P* **69** *L* **9** # 3

DeAndrea, John — Finisar/ /II-VI

Comment Type **T** *Comment Status* **A**

Table 159-4 The Table shows a value of -20 dBm for 25GBASE-BR10 and -26 dBm for 25GBASE-BR-10. I believe there is a typo, because the PMD has (4) types, -BR10, -BR20, -BR40, and -BR40+

SuggestedRemedy

Suggest modifying, from "-26 dBm for 25GBASE-BR-10" to "-26 dBm for 25GBASE-BR-20"

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See #1, Change text to show -20 dBm is for BR10, -26 dBm is for BR20/40

Cl **159** *SC* **159.1** *P* **65** *L* **8** # 74

Nicholl, Shawn — Xilinx

Comment Type **ER** *Comment Status* **A**

PMDS should have a lowercase "S".

SuggestedRemedy

Replace "PMDS together" with "PMDs together"

Response *Response Status* **C**

ACCEPT.

Cl **159** *SC* **159.3** *P* **67** *L* **5** # 161

Maguire, Valerie — The Siemon Company

Comment Type **E** *Comment Status* **D** *EZ*

"1" and "pause_quantum" should be on the same line

SuggestedRemedy

Insert non-breaking space between "1" and "pause_quantum"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **159** *SC* **159.5.4** *P* **69** *L* **13** # 172

Dudek, Mike — Marvell

Comment Type **TR** *Comment Status* **D**

It is inappropriate in a standard to say "and poor 25GBASE-BR20 is left to the wind".

SuggestedRemedy

This problem needs to be fixed to create an inter-operable standard.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

See #1, Change text to show -20 dBm is for BR10, -26 dBm is for BR20/40

Cl **159** *SC* **159.5.9** *P* **70** *L* **9** # 128

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

typo

SuggestedRemedy

Change: 25BASE-BRx-U
To: 25GBASE-BRx-U

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **159** *SC* **159.6** *P* **73** *L* **19** # 83

Laubach, Mark — Self

Comment Type **E** *Comment Status* **A**

88.11.2.1 needs to be an indicated cross reference.

SuggestedRemedy

Change text color to forest green

Response *Response Status* **C**

ACCEPT.

Cl **159** *SC* **159.6.1** *P* **71** *L* **15** # 133

Wey, Jun Shan — ZTE TX Inc

Comment Type **TR** *Comment Status* **A**

Propose to revise Average launch power (min) for BR20 in Table 159-6 in order to align with the ITU-T G.9806

SuggestedRemedy

Table 159-6
Revise the average launch power (min) spec from -6 dBm to -7.5 dBm

Response *Response Status* **C**

ACCEPT.

Cl **159** *SC* **159.6.1** *P* **71** *L* **15** # 134

Wey, Jun Shan — ZTE TX Inc

Comment Type **TR** *Comment Status* **A**

Propose to revise Average launch power (min) for BR40+ in Table 159-6 in order to align with the ITU-T G.9806

SuggestedRemedy

Table 159-6
Revise the average launch power (min) spec from +2 dBm to +0.5 dBm

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

See #187, BR40+ PHYs are removed from this document

Cl **159** *SC* **159.6.1** *P* **71** *L* **21** # 135

Wey, Jun Shan ZTE TX Inc

Comment Type **TR** *Comment Status* **A**

Propose to revise Optical Modulation Amplitude (min) for BR20 in Table 159-6 in order to align with the ITU-T G.9806

SuggestedRemedy

Table 159-6
Revise the Optical Modulation Amplitude (min) spec from -3.0 dBm to -4.5 dBm

Response *Response Status* **C**

ACCEPT.

Cl **159** *SC* **159.6.1** *P* **71** *L* **21** # 136

Wey, Jun Shan ZTE TX Inc

Comment Type **TR** *Comment Status* **A**

Propose to revise Optical Modulation Amplitude (min) for BR40+ in Table 159-6 in order to align with the ITU-T G.9806

SuggestedRemedy

Table 159-6
Revise the Optical Modulation Amplitude (min) spec from +5.0 dBm to +3.5 dBm

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
See #187, BR40+ PHYs are removed from this document

Cl **159** *SC* **159.6.1** *P* **71** *L* **22** # 137

Wey, Jun Shan ZTE TX Inc

Comment Type **TR** *Comment Status* **A**

Propose to revise Launch power OMA minus TDP (min) for BR20 in Table 159-6 in order to align with the ITU-T G.9806

SuggestedRemedy

Table 159-6
Revise the Launch power OMA minus TDP (min) spec from -4.0 dBm to -5.5 dBm

Response *Response Status* **C**

ACCEPT.

Cl **159** *SC* **159.6.1** *P* **71** *L* **22** # 138

Wey, Jun Shan ZTE TX Inc

Comment Type **TR** *Comment Status* **A**

Propose to revise Launch power OMA minus TDP (min) for BR40+ in Table 159-6 in order to align with the ITU-T G.9806

SuggestedRemedy

Table 159-6
Revise the Launch power OMA minus TDP (min) spec from +4.0 dBm to +2.5 dBm

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
See #187, BR40+ PHYs are removed from this document

Cl **159** *SC* **159.6.2** *P* **72** *L* **17** # 140

Wey, Jun Shan ZTE TX Inc

Comment Type **TR** *Comment Status* **A**

Propose to revise Average receive power (min) for BR 40+ in Table 159-7 in order to align with the ITU-T G.9806

SuggestedRemedy

Table 159-7
Revise the Average receive power (min) spec from -21.0 dBm to -22.5 dBm

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
See #187, BR40+ PHYs are removed from this document

Cl **159** *SC* **159.6.2** *P* **72** *L* **17** # 139

Wey, Jun Shan ZTE TX Inc

Comment Type **TR** *Comment Status* **A**

Propose to revise Average receive power (min) for BR 20 in Table 159-7 in order to align with the ITU-T G.9806

SuggestedRemedy

Table 159-7
Revise the Average receive power (min) spec from -21.0 dBm to -22.5 dBm

Response *Response Status* **C**

ACCEPT.

Cl **159** *SC* **159.6.2** *P* **72** *L* **23** # 141

Wey, Jun Shan — ZTE TX Inc

Comment Type **TR** *Comment Status* **A**

Propose to revise Rx sensitivity (max) in OMA for BR 20 in Table 159-7 in order to align with the ITU-T G.9806

SuggestedRemedy

Table 159-7
Revise the Rx sensitivity (max) in OMA spec from -19.0 dBm to -20.5 dBm

Response *Response Status* **C**

ACCEPT.

Cl **159** *SC* **159.6.2** *P* **72** *L* **23** # 142

Wey, Jun Shan — ZTE TX Inc

Comment Type **TR** *Comment Status* **A**

Propose to revise Rx sensitivity (max) in OMA for BR 40+ in Table 159-7 in order to align with the ITU-T G.9806

SuggestedRemedy

Table 159-7
Revise the Rx sensitivity (max) in OMA spec from -19.0 dBm to -20.5 dBm

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.
See #187, BR40+ PHYs are removed from this document

Cl **159** *SC* **159.6.3** *P* **73** *L* **20** # 129

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

88.11.2.1 should be marked as an external link as it isn't in this draft.

SuggestedRemedy

Change the character tag on "88.11.2.1" to External which will turn it green.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **159** *SC* **159.7** *P* **73** *L* **20** # 183

Stassar, Peter — Huawei

Comment Type **TR** *Comment Status* **A**

By referring to 114.7 automatically all the requirements of 114 are followed, introducing a lot of differences with the values in 159.6. Add full details as in other reject optical PMDs and apply all changes appropriate for 159. Especially the channel requirement in 114.7 refer to 88.8.5.2. Missing are requirements for 20km. Also applies to 158.8 referring to 52.9 and 160.7 referring to 139.7

SuggestedRemedy

Add full details as in other reject optical PMDs and apply all changes appropriate for 159, and also 158 and 160. Including table for Transmitter compliance channel specifications

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Line number should be 26.

Editorial license to make inline changes to 114.7 (25G), 52.9 (10G),139.7/CU/140/151

Cl **159** *SC* **159.8** *P* **73** *L* **33** # 97

Grow, Robert — RMG Consulting

Comment Type **ER** *Comment Status* **A**

The indirection is getting a bit absurd. This points to 114.8, and 114.8 points to 112.8. Then you have the same problem of 112.8 specifications being specific to 25GBASE-SR.

SuggestedRemedy

If still using indirection, remove the two levels of indirection and poiint to 112.8. Fix corresponding PICS items in 159.11.4.8.

Response *Response Status* **U**

ACCEPT IN PRINCIPLE.

Editorial license to use content in 802.3cu D2.2 Clause 151.9 for .3cp 159.8

Cl **159** *SC* **159.9** *P* **73** *L* **48** # 173

Dudek, Mike — Marvell

Comment Type **E** *Comment Status* **D** *EZ*

Table 159-9 is split across a page break which makes it hard to read.

SuggestedRemedy

Put it all on one page.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **159** *SC* **159.9** *P* **74** *L* **1** # 130

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

The table title needs (continued) in it.

SuggestedRemedy

See instructions in 200.1.1.1.1 in the 802.3 FM template.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **159** *SC* **159.11.2.2** *P* **76** *L* **42** # 59

Lewis, Jon — Dell EMC

Comment Type **E** *Comment Status* **A**

Date is shown specifically and should be 202x as the draft isn't published

SuggestedRemedy

Change "IEEE Std 802.3cp-2020" to "IEEE Std 802.3cp-202x"

Response *Response Status* **C**

ACCEPT.

Cl **160** *SC* **160.1** *P* **83** *L* **16** # 131

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

When refering to the "top" of a Clause, you need to include "Clause" in the reference.

SuggestedRemedy

Change: 45
To: Clause 45

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **160** *SC* **160.3** *P* **85** *L* # 195

Stassar, Peter — Huawei

Comment Type **TR** *Comment Status* **A**

Skew constraints as in 139.3.2 as missing

SuggestedRemedy

Add skew constraints consistent with 139.3.2

Response *Response Status* **C**

ACCEPT IN PRINCIPLE.

Add “and Skew” to the title. Editorial license to add skew constraints consistent with 139.3.2 to Clause 160.

Cl **160** *SC* **160.3** *P* **85** *L* **36** # 162

Maguire, Valerie — The Siemon Company

Comment Type **E** *Comment Status* **D** *EZ*

"2" and "pause_quantum" should be on the same line

SuggestedRemedy

Insert non-breaking space between "2" and "pause_quantum"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **160** *SC* **160.5.4** *P* **87** *L* **42** # 174

Dudek, Mike — Marvell

Comment Type **TR** *Comment Status* **D**

The average receive power min fo BR20 etc. is -17.6dB. So a power of -17dB should have signal detect =OK, but the other line says <-16dB is Fail. It can't meet both lines

SuggestedRemedy

Change the signal detect FAIL level from <-16dBm to <-20dBm for BR20 etc.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **160** *SC* **160.6** *P* *L* # 185

Stassar, Peter Huawei

Comment Type **TR** *Comment Status* **R**

Specification methodology and parameters for PAM4 optical signals have recently been modified in P802.3cu. Parameters have been deleted, added or modified. Often to simplify the specification. Align with P802.3cu D2.2. Especially TDECQ – 10log10(Ceq)c (max) has been removed as Tx parameter and SECQ – 10log10(Ceq)f (max) as Rx parameter. TECQ has been added, as well as TDECQ - TECQ, Transmitter over/under-shoot (max), Transmitter peak-to-peak power (max). "OMA minus TDECQ = value" has been modified to "OMA = value + TDECQ". In a similar way receiver sensitivity specification has been modified. Etcetera

SuggestedRemedy

Align PAM4 specification methodology with P802.3cu D2.2.

Response *Response Status* **U**

REJECT.

No consensus reached on addressing the remedy PAM4 spec in Clause 160.

Cl **160** *SC* **160.6** *P* **88** *L* **52** # 220

Law, David Hewlett Packard Enterprise

Comment Type **T** *Comment Status* **D**

The text 'A PMD that exceeds the operating range requirement ...' is followed by the example 'e.g., a 50GBASE-BR10 PMD operating at 2.5 km ...'. This however isn't an example of a PMD that exceeds the operating range requirement as 2.5 km is within the operating range requirement of 2 m to 10 km.

SuggestedRemedy

Suggest that the text '... at 2.5 km ...' be changed to read '... at 12.5 km ...'.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **160** *SC* **160.6** *P* **88** *L* **53** # 226

Maki, Jeffery Juniper Networks

Comment Type **TR** *Comment Status* **D**

The provide example (e.g., a 50GBASE-BR10 PMD operating at 2.5 km meets the operating
range requirement of 2 m to 10 km) has a typo.

SuggestedRemedy

Replace 2.5km with 12.5km.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **160** *SC* **160.6** *P* **88** *L* **54** # 227

Maki, Jeffery Juniper Networks

Comment Type **TR** *Comment Status* **D**

“The 50GBASE-BR40 PMD interoperates with the 50GBASE-BR10...”. The 50GBASE-BR40 transmit and receive wavelength is not compatible with 50GBASE-BR10.
50GBASE-BR10-D center wavelengths (range): 1320nm to 1340 mm
50GBASE-BR10-U center wavelengths (range): 1260nm to 1280 nm
50GBASE-BR40-D center wavelengths (range): 1306nm to 1322nm
50GBASE-BR40-U center wavelengths (range): 1281nm to 1297nm

SuggestedRemedy

Remove 50GBASE-BR10 PMD as an example of interoperability with the 50GBASE-BR40 PMD leaving one example, the 50GBASE-BR20 PMD.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#181 to add interop content

Cl **160** *SC* **160.6.1** *P* **89** *L* **14** # 84

Laubach, Mark Self

Comment Type **E** *Comment Status* **A**

121.8.5.3 needs to be an indicated cross reference. Same in footnote of next table.

SuggestedRemedy

Change text color to forest green

Response *Response Status* **C**

ACCEPT.

Cl **160** *SC* **160.6.1** *P* **89** *L* **51** # 175

Dudek, Mike Marvell

Comment Type **TR** *Comment Status* **D**

The Average launch power of OFF transmitter must be less than the Fail level of the Signal detect for the signal detect to work properly.

SuggestedRemedy

Change the value for BR20 etc. to -20dBm (see other comment for why -20 not -16)

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **160** *SC* **160.6.1** *P* **90** *L* **14** # 132

Wienckowski, Natalie — General Motors

Comment Type **E** *Comment Status* **D** *EZ*

121.8.5.3 should be marked as an external link as it isn't in this draft.

SuggestedRemedy

Change the character tag on "121.8.5.3" to External which will turn it green.
Also on P91L8

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **160** *SC* **160.6.2** *P* **90** *L* **42** # 176

Dudek, Mike — Marvell

Comment Type **TR** *Comment Status* **D**

The receive power (OMAouter) max values are wrong for BR20 and BR40+. (or the Tx OMA outer max values are wrong) The min attenuation for 20km is 0dB, for 40km 10dB.

SuggestedRemedy

Change BR20 to 4.4dBm, and BR40+ to 2.4dBm.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.

BR20's MAX OMA should be 4.4 dBm, BR40 remains at -2.6 dBm, BR40+ should be 2.4

Cl **160** *SC* **160.7** *P* **91** *L* **35** # 177

Dudek, Mike — Marvell

Comment Type **T** *Comment Status* **D**

The sentence is wrong. Measurements don't meet the specifications and there are exceptions.

SuggestedRemedy

Change to "Optical measurement methods are defined in 139.7 with the following exceptions.
1 The transmitter is tested using an optical channel that meets the requirements listed in Table 160–9.
2 The stressed receiver conformance test shall be conducted under the additional condition that the transmitted optical signal and the reflectance of
the optical link should be at their maximum levels."

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#183, add full details and apply all changes appropriate for 159, and also 158 and 160. Including table for Transmitter compliance channel specifications. Editorial license to make inline changes to 114.7 (25G), 52.9 (10G),139.7/CU/140/151 (50G)

Cl **160** *SC* **160.8** *P* **92** *L* **6** # 98

Grow, Robert — RMG Consulting

Comment Type **TR** *Comment Status* **D**

Another example of indirection problems. Laser safety descriptions include port types in the description. General safety is changed by P802.3cr, etc.

SuggestedRemedy

Change (or not) consistent with changes made to 158 and 159.

Proposed Response *Response Status* **W**

PROPOSED ACCEPT IN PRINCIPLE.
See#184, follow .3cu D3.0 to refer to J.2, apply same statement to Clauses 159 and 160.

Cl **160** *SC* **160.11.2.2** *P* **94** *L* **40** # 60

Lewis, Jon — Dell EMC

Comment Type **E** *Comment Status* **D**

Date is shown specifically and should be 202x as the draft isn't published

SuggestedRemedy

Change "IEEE Std 802.3cp-2020" to "IEEE Std 802.3cp-202x"

Proposed Response *Response Status* **W**

PROPOSED ACCEPT.

Cl **160** *SC* **160.11.3.1** *P* **96** *L* **1** # 85

Laubach, Mark — Self

Comment Type **E** *Comment Status* **A**

The heading text is broken across two pages.

SuggestedRemedy

Keep the entire heading text on the same page.

Response *Response Status* **C**

ACCEPT.