

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

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 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 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 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 00 SC 0 P0 L0 # 165

Dawe, Piers Nvidia

Comment Type E Comment Status R

Editorial comments

SuggestedRemedy

To follow

Response Response Status C

REJECT.

No specific changes are proposed

Cl 00 SC 0 P0 L0 # 164

Dawe, Piers Nvidia

Comment Type T Comment Status R

Technical comments

SuggestedRemedy

To follow

Response Response Status C

REJECT.

No changes are proposed.

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CI **FM** SC **FM** P1 L13 # 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.

CI **FM** SC **FM** P7 L4 # 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.

CI **FM** SC **FM** P7 L9 # 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 **C**  
 ACCEPT.

CI **FM** SC **FM** P7 L15 # 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

CI **FM** SC **FM** P7 L19 # 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

CI **00** SC **0** P9 L15 # 232  
 Thompson, Geoff GraCaSI S.A./Independent  
 Comment Type **E** Comment Status **R**  
 The word "Ethernet" in this line is incorrect  
 SuggestedRemedy  
 See maintenance request 1350  
 Response Response Status **C**  
 REJECT.  
 This is from the template FM document. Maintenance request 1350 is in Received status. It will therefore be discussed in the Maintenance Task Force.

CI **FM** SC **FM** P10 L1 # 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.

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

CI 00 SC 0 P12 L1 # 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.

CI FM SC FM P13 L49 # 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 eliminate 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

CI 1 SC 1.3 P18 L1 # 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.

CI 1 SC 1.4 P18 L8 # 228

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

Comment Type TR Comment Status R

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.

Response Response Status W

REJECT.

The term "symmetric" in the PAR refers to the same rate in the upstream and the downstream. In access it is common for the two rates not to be the same, and this is termed "asymmetric".

CI 1 SC 1.4.52a P18 L12 # 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.

CI 1 SC 1.4 P18 L13 # 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.

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

CI 1 SC 1.4 P18 L14 # 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.

CI 30 SC 30.5.1.1.2 P21 L16 # 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.

CI 1 SC 1.4 P18 L20 # 229  
 D'Ambrosia, John Futurewei, U.S. Subsidiary of Huawei  
 Comment Type TR Comment Status A  
 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.  
 Response Response Status W  
 ACCEPT IN PRINCIPLE.  
 See#187, Remove BR40+ from .3cp draft, BR40 is the single solution to 40 km reach

CI 30 SC 30.5.1.1.2 P22 L1 # 166  
 Dudek, Mike Marvell  
 Comment Type T Comment Status A  
 All the other -D Phys are OLT  
 SuggestedRemedy  
 Change ONU to OLT  
 Response Response Status C  
 ACCEPT.

CI 1 SC 1.4.128 P18 L45 # 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.  
 Align insert point to .3ca, .3cr, and .3cu

CI 30 SC 30.5.1.1.2 P22 L14 # 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.

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CI 45 SC 45.2.1 P23 L8 # 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.

CI 45 SC 45.2.1.16 P24 L4 # 153

Marris, Arthur Cadence Design Systems

Comment Type E Comment Status A

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 11xxxx and 1111001 does not seem right.

Response Response Status C

ACCEPT IN PRINCIPLE.

Check out .3ca, .3cr, .3cu, remove all BR40+ allocations from Table 45-7

CI 45 SC 45.2.1.7 P25 L7 # 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.

CI 45 SC 45.2.1.7 P25 L18 # 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.

CI 45 SC 45.2.1.7.1 P25 L20 # 8

Anslov, 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.

CI 45 SC 45.2.1.27a.4 P29 L25 # 168

Dudek, Mike Marvell

Comment Type TR Comment Status A

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.

Response Response Status W

ACCEPT.

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

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**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 **56.1.1** 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** # **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**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 **56.1.2.1** 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 **56.1.2.1** 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 **56.1.3** 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.

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Cl 56 SC 56.1.3 P37 L21 # 203

Law, David Hewlett Packard Enterprise

Comment Type T Comment Status A

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 which is labelled '1000BASE-X PCS, PMA' even though the PCS is used to from the 1000BASE-LX10 and 1000BASE-BX10 PHYs. A similar change 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.

Response Response Status C

ACCEPT.  
Group comments #244, 203, 204

Cl 56 SC 56.1.3 P37 L21 # 204

Law, David Hewlett Packard Enterprise

Comment Type T Comment Status A

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 which is labelled '1000BASE-X PCS, PMA' even though the PCS is used to from the 1000BASE-LX10 and 1000BASE-BX10 PHYs. A similar change 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.

Response Response Status C

ACCEPT.  
Group comments #244, 203, 204

Cl 56 SC 56.1.4 P37 L50 # 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 157 SC 157 P38 L1 # 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 157.1.1 P38 L11 # 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 157.1.2 P38 L31 # 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

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Cl 157 SC P39 L1 # 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 P39 L1 # 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](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 157.1.1 P39 L10 # 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 P39 L11 # 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 P39 L23 # 197

Law, David Hewlett Packard Enterprise

Comment Type T Comment Status A

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 ...'.

Response Response Status C

ACCEPT.

Cl 157 SC 157.1.3 P39 L39 # 5

Baggett, Tim Microchip

Comment Type E Comment Status A

There are six occurrences 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.



IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

Cl 157 SC 157.1.3 P39 L47 # 221  
 Trowbridge, Steve Nokia  
 Comment Type E Comment Status A  
 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  
 Response Response Status C  
 ACCEPT IN PRINCIPLE.  
 See#31, use a table similar to Table 141–6 for .3cp nomenclature

Cl 157 SC 157.1.3 P39 L47 # 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 P39 L53 # 170  
 Dudek, Mike Marvell  
 Comment Type T Comment Status A  
 GMII is for 1G which isn't part of this project.  
 SuggestedRemedy  
 Change GMII to XGMII  
 Response Response Status C  
 ACCEPT.

Cl 157 SC 157.1.3 P40 L5 # 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 P40 L5 # 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 P41 L37 # 202  
 Law, David Hewlett Packard Enterprise  
 Comment Type T Comment Status A  
 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'.  
 Response Response Status C  
 ACCEPT.

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CI 157 SC 157.1.3 P41 L37 # 156  
 Marris, Arthur Cadence Design Systems  
 Comment Type **TR** Comment Status **A**  
 These are BASE-R PCSes  
 SuggestedRemedy  
 Change BASE-X to BASE-R in Figure 157-1  
 Response Response Status **W**  
 ACCEPT.

CI 157 SC 157.1.3 P41 L37 # 145  
 Lusted, Kent Intel Corporation  
 Comment Type **TR** Comment Status **A**  
 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"  
 Response Response Status **W**  
 ACCEPT.

CI 157 SC 157.1.3 P41 L40 # 211  
 Law, David Hewlett Packard Enterprise  
 Comment Type **T** Comment Status **A**  
 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.  
 Response Response Status **C**  
 ACCEPT.

CI 157 SC 157.1.3 P41 L47 # 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

CI 157 SC 157.1.4 P42 L5 # 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.

CI 157 SC 157.1.4 P42 L13 # 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.

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CI 157 SC 157.1.4 P42 L13 # 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 to 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

CI 157 SC 157.1.4 P42 L20 # 201

Law, David

Hewlett Packard Enterprise

Comment Type T Comment Status A

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 '50GBASE-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'.

Response Response Status C

ACCEPT.

CI 157 SC 157.1.4 P42 L20 # 205

Law, David

Hewlett Packard Enterprise

Comment Type T Comment Status A

Clause 46 specifies the XGMII, not the GMII.

SuggestedRemedy

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

Response Response Status C

ACCEPT.

CI 157 SC 157.1.4 P42 L36 # 235

Thompson, Geoff

GraCaSI S.A./Independent

Comment Type ER Comment Status A

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).

Response Response Status W

ACCEPT IN PRINCIPLE.

Remove all BR40+ items, try to keep table on a single page

CI 157 SC 157.2.1 P44 L11 # 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.

CI 157 SC 157.2.2 P44 L15 # 214

Law, David

Hewlett Packard Enterprise

Comment Type T Comment Status A

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

SuggestedRemedy

See comment.

Response Response Status C

ACCEPT.

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CI 157 SC 157.2.2 P44 L16 # 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.

CI 157 SC 157.2.4 P44 L35 # 237

Thompson, Geoff GraCaSI S.A./Independent

Comment Type TR Comment Status R

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.

Response Response Status W

REJECT.  
This follows last sentence in 105.3.4

CI 157 SC 157.4 P45 L18 # 238

Thompson, Geoff GraCaSI S.A./Independent

Comment Type TR Comment Status R

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.

Response Response Status W

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

CI 157 SC 157.4 P45 L25 # 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

CI 157 SC 157.6 P45 L43 # 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 PHY's 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."

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CI 157 SC 157.6 P45 L45 # 213

Law, David Hewlett Packard Enterprise

Comment Type ER Comment Status A

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.'

Response Response Status W

ACCEPT.

CI 157 SC 157.6 P45 L46 # 212

Law, David Hewlett Packard Enterprise

Comment Type E Comment Status A

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

SuggestedRemedy

Response Response Status C

ACCEPT IN PRINCIPLE.  
See #213 resolution

CI 157 SC 157.6 P45 L52 # 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

CI 157 SC 157.6 P46 L1 # 36

Hajduczenia, Marek Charter

Comment Type E Comment Status A

Missing space in "transmitter(see"

SuggestedRemedy

Add missing space

Response Response Status C

ACCEPT.

CI 157 SC 157.6 P46 L10 # 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

CI 157 SC 157.6 P46 L10 # 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

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Cl 158 SC 158.1 P47 L7 # 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, and 10GBASE-BR40 PMDs together with the single-mode fiber medium."

Cl 158 SC 158.1 P47 L17 # 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 P47 L32 # 210

Law, David Hewlett Packard Enterprise

Comment Type TR Comment Status A

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.

Response Response Status W

ACCEPT IN PRINCIPLE.  
BR10 and BR40 do not need RS-FEC. Change the cell in Table 158-1 from "optional" to "not applicable".  
When updating Table 56-2, leave cells for 10GBASE-BR10 and BR40 FEC blank

Cl 158 SC 158.1 P47 L34 # 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.

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Cl 158 SC 158.1.1 P47 L45 # 47

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

Comment Type TR Comment Status A

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"

Response Response Status W

ACCEPT IN PRINCIPLE.  
Change this sentence to "The bit error ratio (BER) shall be less than 10–12 at the PMD service interface."

Cl 158 SC 158.5.1 P49 L37 # 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 P49 L40 # 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 P49 L44 # 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 occurrences.

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 P51 L11 # 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.

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CI 158 SC 158.5.6 P51 L11 # 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.

CI 158 SC 158.6.1 P52 L29 # 218

Law, David

Hewlett Packard Enterprise

Comment Type TR Comment Status A

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.

Response Response Status W

ACCEPT IN PRINCIPLE.

In Rx table, switch values in row "10GBASE-BRx-D center wavelength (range)" and "10GBASE-BRx-U center wavelength (range)"

Do same changes to Rx tables in Clauses 159, 160

CI 158 SC 158.6.1 P52 L48 # 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

CI 158 SC 158.6.2 P53 L40 # 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.

CI 158 SC 158.6.3 P54 L14 # 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

CI 158 SC 158.6.3 P54 L14 # 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.



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CI 158 SC 158.6.3 P54 L21 # 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

CI 158 SC 158.6.3 P54 L22 # 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.

CI 158 SC 158.6.3 P54 L22 # 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.

CI 158 SC 158.8 P54 L47 # 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.

CI 158 SC 158.8 P54 L49 # 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.

CI 158 SC 158.8 P54 L51 # 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

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CI 158 SC 158.9 P55 L6 # 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

CI 158 SC 158.9 P55 L6 # 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.

CI 158 SC 158.10 P56 L4 # 216

Law, David Hewlett Packard Enterprise

Comment Type T Comment Status A

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.

Response Response Status C

ACCEPT IN PRINCIPLE.  
See #187 to remove all 40+ columns

CI 158 SC 158.10 P56 L12 # 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 "Negative dispersion (min)", fill into Table 158-10, update Note d.

CI 158 SC 158.11.1 P56 L33 # 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.

CI 158 SC 158.12.2.2 P58 L40 # 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

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CI 158 SC 158.12.4.3 P61 L19 # 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.

CI 158 SC 158.12.4.3 P61 L19 # 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.

CI 158 SC 158.12.4.3 P61 L21 # 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.

CI 158 SC 158.12.4.5 P62 L3 # 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.

CI 158 SC 158.12.4.7 P62 L32 # 39  
 Hajduczenia, Marek Charter  
 Comment Type E Comment Status A  
 Text format in 158.12.4.7 table is inconsistent with the rest of PICS tables  
 SuggestedRemedy  
 Align the formatting  
 Response Response Status C  
 ACCEPT.

CI 158 SC 158.12.4.8 P63 L3 # 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.

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Cl 158 SC 158.12.4.9 P63 L8 # 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 P63 L8 # 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 158.12.4.8 P63 L8 # 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 C

ACCEPT.

Cl 159 SC 159.1 P65 L8 # 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 5.4 P69 L9 # 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 5.4 P69 L9 # 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

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CI 159 SC 159.5.4 P69 L13 # 172

Dudek, Mike Marvell

Comment Type TR Comment Status A

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.

Response Response Status W

ACCEPT IN PRINCIPLE.

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

CI 159 SC 159.6.1 P71 L15 # 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

CI 159 SC 159.6.1 P71 L15 # 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.

CI 159 SC 159.6.1 P71 L21 # 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

CI 159 SC 159.6.1 P71 L21 # 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.

CI 159 SC 159.6.1 P71 L22 # 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.

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CI 159 SC 159.6.1 P71 L22 # 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

CI 159 SC 159.6.2 P72 L17 # 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

CI 159 SC 159.6.2 P72 L17 # 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.

CI 159 SC 159.6.2 P72 L23 # 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

CI 159 SC 159.6.2 P72 L23 # 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.

CI 159 SC 159.6 P73 L19 # 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.

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CI 159 SC 159.7 P73 L20 # 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

CI 159 SC 159.8 P73 L33 # 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 point 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

CI 159 SC 159.11.2.2 P76 L42 # 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.

CI 160 SC 160.3 P85 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.

CI 160 SC 160.5.4 P87 L42 # 174

Dudek, Mike

Marvell

Comment Type TR Comment Status A

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.

Response Response Status U

ACCEPT IN PRINCIPLE.  
Apply suggested remedy, change BR20 Average launch power of OFF transmitter (max) in Table 160-6 to -20 dBm to support the remedy

CI 160 SC 160.6 P88 L52 # 220

Law, David

Hewlett Packard Enterprise

Comment Type T Comment Status A

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 ...'.

Response Response Status C

ACCEPT.

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CI 160 SC 160.6 P88 L53 # 226  
 Maki, Jeffery Juniper Networks  
 Comment Type TR Comment Status A  
 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.  
 Response Response Status W  
 ACCEPT.

CI 160 SC 160.6 P88 L54 # 227  
 Maki, Jeffery Juniper Networks  
 Comment Type TR Comment Status A  
 "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 nm  
 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.  
 Response Response Status W  
 ACCEPT IN PRINCIPLE.  
 See#181 to add interop content

CI 160 SC 160.6.1 P89 L14 # 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.

CI 160 SC 160.6.1 P89 L51 # 175  
 Dudek, Mike Marvell  
 Comment Type TR Comment Status A  
 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)  
 Response Response Status W  
 ACCEPT IN PRINCIPLE.  
 See resolution to #174

CI 160 SC 160.6.2 P90 L42 # 176  
 Dudek, Mike Marvell  
 Comment Type TR Comment Status A  
 The receive power (OMOuter) 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.  
 Response Response Status W  
 ACCEPT IN PRINCIPLE.  
 BR20's MAX OMA should be 4.4 dBm, BR40 remains at -2.6 dBm, BR40+ should be removed

CI 160 SC 160.7 P91 L35 # 177  
 Dudek, Mike Marvell  
 Comment Type T Comment Status A  
 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."  
 Response Response Status C  
 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)



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Cl 160 SC 160.8 P92 L6 # 98

Grow, Robert RMG Consulting

Comment Type TR Comment Status A

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.

Response Response Status W

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 P94 L40 # 60

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 160.11.3.1 P96 L1 # 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.

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 1 SC 1.4.91d P18 L23 # 233

Thompson, Geoff GraCaSI S.A./Independent

Comment Type E Comment Status A 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.

Response Response Status C

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

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Cl 1 SC 1.4.52d P18 L24 # 219

Law, David Hewlett Packard Enterprise

Comment Type TR Comment Status A 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.

Response Response Status W

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 P18 L25 # 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 P18 L26 # 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 1.4.128d P19 L5 # 234

Thompson, Geoff GraCaSI S.A./Independent

Comment Type E Comment Status A 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.

Response Response Status C

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 157 SC 157.1.3 P38 L40 # 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 P39 L41 # 155

Marris, Arthur Cadence Design Systems

Comment Type E Comment Status A 40+

"rr" is hard to decipher in the nomenclature

SuggestedRemedy

Consider changing "rr" to "r"

Response Response Status C

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

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CI 157 SC 157.1.3 P39 L47 # 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

CI 157 SC 157.1.3 P39 L48 # 215  
 Law, David Hewlett Packard Enterprise  
 Comment Type TR Comment Status A 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+'.  
 Response Response Status W  
 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

CI 157 SC 157.1.3 P40 L12 # 199  
 Law, David Hewlett Packard Enterprise  
 Comment Type TR Comment Status A 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.  
 Response Response Status W  
 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

CI 158 SC 158 P46 L2 # 163  
 Dawe, Piers Nvidia  
 Comment Type ER Comment Status A 40+  
 10GBASE-BR40+ is a bad name and 10GBASE-BR40+-U is even worse  
 SuggestedRemedy  
 Choose something else e.g. 10GBASE-BR40p, 10GBASE-BR50  
 Response Response Status W  
 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

CI 158 SC 158 P47 L1 # 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

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CI 158 SC 158.10 P56 L7 # 217

Law, David Hewlett Packard Enterprise

Comment Type TR Comment Status A 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.

Response Response Status W

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

CI FM SC FM P10 L47 # 149

Marris, Arthur Cadence Design Systems

Comment Type ER Comment Status A 4to10

This list is missing amaendments 4 to 10

SuggestedRemedy

Add descriptions of amendments 4 to 10

Response Response Status W

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

CI FM SC FM P10 L48 # 103

Wienckowski, Natalie General Motors

Comment Type E Comment Status A 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.

Response Response Status C

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

CI FM SC FM P10 L48 # 107

Wienckowski, Natalie General Motors

Comment Type E Comment Status A 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.

Response Response Status C

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

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CI FM SC FM P10 L48 # 106

Wienckowski, Natalie General Motors

Comment Type E Comment Status A 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 ammendment 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.

Response Response Status C

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

CI FM SC FM P10 L48 # 108

Wienckowski, Natalie General Motors

Comment Type E Comment Status A 4to10

Missing ammendment descriptions

SuggestedRemedy

IEEE Std 802.3ca™-2020  
 Amendment 9—This ammendment 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 ammendment 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.

Response Response Status C

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

CI FM SC FM P10 L48 # 104

Wienckowski, Natalie General Motors

Comment Type E Comment Status A 4to10

Missing ammendment descriptions

SuggestedRemedy

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

Response Response Status C

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

CI FM SC FM P10 L48 # 105

Wienckowski, Natalie General Motors

Comment Type E Comment Status A 4to10

Missing ammendment descriptions

SuggestedRemedy

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

Response Response Status C

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

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

CI **FM** SC **FM** P10 L49 # 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 description of this amendment.

Response Response Status **C**

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

CI **FM** SC **FM** P10 L49 # 109

Wienckowski, Natalie General Motors

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

Response Response Status **C**

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

CI **FM** SC **FM** P10 L49 # 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

CI **00** SC **0** P10 L49 # 158

Maguire, Valerie The Siemon Company

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

Response Response Status **C**

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

CI **FM** SC **FM** P10 L50 # 150

Marris, Arthur Cadence Design Systems

Comment Type **ER** Comment Status **A** 4to10

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

*SuggestedRemedy*

Replace "[complete]" with suitable text

Response Response Status **W**

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

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

CI **FM** SC **FM** P10 L51 # 7

Anslow, Pete Self

Comment Type **ER** Comment Status **A** 4to10

The amendment summary is not populated

*SuggestedRemedy*

Add appropriate summary text

Response Response Status **C**

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 adds Clause 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 optical interfaces for bidirectional operation over a single strand of single-mode fiber.

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

CI **FM** SC **FM** P2 L1 # 87

Grow, Robert RMG Consulting

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

Front matter is incomplete.

*SuggestedRemedy*

Add Abstract.

Response Response Status **C**

ACCEPT IN PRINCIPLE.

See#6, change abstract to text as #6 resolution

Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88





IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

CI **FM** SC **FM** P2 L3 # 88  
 Grow, Robert RMG Consulting  
 Comment Type **E** Comment Status **A** Abs  
 Front matter is incomplete.  
 SuggestedRemedy  
 Add Keywords.  
 Response Response Status **C**  
 ACCEPT IN PRINCIPLE.  
 See#6, change keywords as #6 resolution  
 Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88

CI **FM** SC **FM** P1 L10 # 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 **W**  
 ACCEPT IN PRINCIPLE.  
 Replace paragraph at line 23 with: "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, IEEE Std 802.3cr-20xx, and IEEE Std 802.3cu-20xx."  
 Do not list the amendment number of .3cp yet.  
 Group comments #147, 86, 50, 68, 281

CI **FM** SC **FM** P1 L23 # 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

CI **FM** SC **FM** P1 L24 # 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 to #147 resolution  
 Group comments #147, 86, 50, 68, 281

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

CI **FM** SC **FM** P1 L24 # 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 to #147 resolution Group comments #147, 86, 50, 68, 281

CI **FM** SC **FM** P1 L24 # 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

CI **FM** SC **FM** P1 L24 # 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

CI **00** SC **0** P1 L15 # 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.

CI **FM** SC **FM** P7 L9 # 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.

CI **00** SC **0** P7 L9 # 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.

CI **00** SC **0** P7 L15 # 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 Duane Remein as Phase I editor and Yuanqiu Luo as Phase II editor

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

CI **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.

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

Wienckowski, Natalie General Motors

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

Amendment identifier not added.

*SuggestedRemedy*

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

Proposed Response Response Status **W**

PROPOSED ACCEPT.

CI **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.

CI **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.

CI **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.

CI **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.

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CI 45 SC 45.2.1 P23 L8 # 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)"

CI 45 SC 45.2.1.27a P28 L33 # 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.

CI 45 SC 45.2.1 P23 L15 # 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.

CI 56 SC 56.1 P33 L5 # 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.

CI 45 SC 45.2.1.6 P24 L12 # 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.

CI 56 SC 56.1 P33 L5 # 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.

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

CI 56 SC 56.1 P33 L14 # 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.

CI 56 SC 56.1.2.2 P34 L44 # 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.

CI 157 SC 157.1.1 P39 L11 # 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.

CI 157 SC 157.1.2 P39 L26 # 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.

CI 157 SC 157.1.1 P39 L26 # 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.

CI 157 SC 157.1.2 P39 L28 # 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.

CI 157 SC 157.1.3 P39 L47 # 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 table similar to Table 141-6 for .3cp nomenclature

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

CI 157 SC 157.1.3 P40 L5 # 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.

CI 157 SC 157.1.4 P42 L13 # 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.

CI 157 SC 157.1.3 P41 L22 # 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.

CI 157 SC 157.1.4 P42 L36 # 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.

CI 157 SC 157.1.2 P41 L34 # 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.

CI 157 SC 157.1.4 P42 L41 # 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.

CI 157 SC 157.1.4 P42 L9 # 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.

CI 157 SC 157.1.4 P43 L1 # 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.

IEEE P802.3cp D2.0 BiDi 10/25/50 Gb/s Optical Access PHYs Initial Working Group ballot comments

CI 157 SC 157.1.4 P43 L1 # 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

CI 157 SC 157.1.4 P43 L18 # 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.

CI 157 SC 157.1.4 P43 L21 # 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.

CI 157 SC 157.2 P44 L1 # 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.

CI 157 SC 157.3 P45 L25 # 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

CI 158 SC 158.1 P47 L8 # 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.

CI 158 SC 158.1 P47 L25 # 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.

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Cl 158 SC 158.1 P47 L34 # 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 158.12.4.9 P64 L1 # 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 158 SC 158.1 P48 L13 # 224  
 Trowbridge, Steve Nokia  
 Comment Type E Comment Status D EZ  
 Sloppy alignment of rectangles for XGMII, PCS, RS-FEC in Figure 158-1  
 SuggestedRemedy  
 Fix it  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

Cl 159 SC 159.3 P67 L5 # 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 158 SC 158.5.6 P51 L11 # 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 159 SC 159.5.9 P70 L9 # 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 159.6.3 P73 L20 # 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.



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CI 159 SC 159.9 P73 L48 # 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.

CI 159 SC 159.9 P74 L1 # 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.

CI 160 SC 160.1 P83 L16 # 131  
 Wienckowski, Natalie General Motors  
 Comment Type E Comment Status D EZ  
 When referring 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.

CI 160 SC 160.3 P85 L36 # 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.

CI 160 SC 160.6.1 P90 L14 # 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.

CI 158 SC 158.1 P47 L34 # 157  
 Marris, Arthur Cadence Design Systems  
 Comment Type TR Comment Status A 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  
 Response Response Status W  
 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 PHY, specified in Clause 158. When applying it to 10GBASE-BR20 PHY, "25GBASE-R" and "25.78125 GBd" in this clause are replaced by "10GBASE-BR20" and "10.3125 GBd", respectively."  
 Group comments #248, 157, 171, 225

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Cl 158 SC 158.1 P47 L34 # 171

Dudek, Mike Marvell

Comment Type TR Comment Status A 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.

Response Response Status W

ACCEPT IN PRINCIPLE.

See#248, In Cl. 108, add a new paragraph to the end of 108.1.1 "This RS-FEC sublayer also applies to 10GBASE-BR20 PHY, specified in Clause 158. When applying it to 10GBASE-BR20 PHY, "25GBASE-R" and "25.78125 GBd" in this clause are replaced by "10GBASE-BR20" and "10.3125 GBd", respectively."

Group comments #248, 157, 171, 225

Cl 158 SC 158.1 P48 L14 # 225

Trowbridge, Steve Nokia

Comment Type T Comment Status A 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

Response Response Status C

ACCEPT IN PRINCIPLE.

It is RS-FEC in Cl. 108, see #248

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

Group comments #248, 157, 171, 225

Cl 108 SC 108 P L # 248

Dawe, Piers Nvidia

Comment Type T Comment Status A 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

Response Response Status C

ACCEPT IN PRINCIPLE.

See#248, In Cl. 108, add a new paragraph to the end of 108.1.1 "This RS-FEC sublayer also applies to 10GBASE-BR20 PHY, specified in Clause 158. When applying it to 10GBASE-BR20 PHY, "25GBASE-R" and "25.78125 GBd" in this clause are replaced by "10GBASE-BR20" and "10.3125 GBd", respectively."

Cl 78 SC 78.1.4 P L # 247

Dawe, Piers Nvidia

Comment Type T Comment Status A 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.

Response Response Status C

ACCEPT IN PRINCIPLE.

Modify Table 78-1 to show 25GBASE-BRx and 50GBASE-BRx BiDi PHYs may optionally support EEE, follow the rate, reach, number of lanes, alphabetical order. Footnote b applies to the aforementioned PHYs.

Cl FM SC FM P1 L24 # 282

Dawe, Piers Nvidia

Comment Type E Comment Status A LATE

[complete]

SuggestedRemedy

Complete it

Response Response Status C

ACCEPT IN PRINCIPLE.

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

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CI **FM** SC **FM** P2 L1 # 285  
 Dawe, Piers Nvidia  
 Comment Type **E** Comment Status **A** LATE  
 Abstract  
 SuggestedRemedy  
 Write it  
 Response Response Status **C**  
 ACCEPT IN PRINCIPLE.  
 See#6, include abstract text in #6 resolution  
 Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88

CI **FM** SC **FM** P2 L2 # 286  
 Dawe, Piers Nvidia  
 Comment Type **E** Comment Status **A** LATE  
 Keywords  
 SuggestedRemedy  
 List them  
 Response Response Status **C**  
 ACCEPT IN PRINCIPLE.  
 See#6, include keywords in #6 resolution  
 Comment group #99, 285, 6, 148, 87, 13, 100, 286, 88

CI **1** SC **1.4** P18 L12 # 288  
 Dawe, Piers Nvidia  
 Comment Type **T** Comment Status **R** 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." ?  
 Response Response Status **C**  
 REJECT.  
 This for example follows definitions of 100BASE-BX10.

CI **1** SC **1.4.52d** P18 L24 # 239  
 Dawe, Piers Nvidia  
 Comment Type **E** Comment Status **A** LATE  
 with a larger loss budget: larger than what?  
 SuggestedRemedy  
 with a larger loss budget than 10GBASE-BR40.  
 Response Response Status **C**  
 ACCEPT IN PRINCIPLE.  
 See#187, remove BR40+ definition as BR40+ PHYs are removed from .3cp

CI **56** SC **56.1** P33 L38 # 241  
 Dawe, Piers Nvidia  
 Comment Type **T** Comment Status **A** 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.  
 Response Response Status **C**  
 ACCEPT IN PRINCIPLE.  
 Change PCS blocks in Figures 56-1a and 157-1 into 10GBASE-R PCS, 25GBASE-R PCS, and 50GBASE-R PCS. Remove all BR40+ elements. Use same font as in other boxes and make boxes wider.

CI **56** SC **56.1.1.1** P34 L21 # 242  
 Dawe, Piers Nvidia  
 Comment Type **E** Comment Status **R** LATE  
 Too much "support"  
 SuggestedRemedy  
 Change sublayers are used to support a bit rate to sublayers are used for a bit rate four times  
 Response Response Status **C**  
 REJECT.  
 This type of wording is used throughout 56.1.1 to describe all EFM P2P links.

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Cl 56 SC 56.1.1.1 P34 L24 # 243

Dawe, Piers Nvidia  
 Comment Type E Comment Status A 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

Response Response Status C

ACCEPT IN PRINCIPLE.  
 Change text from Line 22 to  
 "The 10GBASE-R PCS, RS-FEC, and PMA sublayers ..."  
 "The 25GBASE-R PCS, RS-FEC, and PMA sublayers ..."  
 "The 50GBASE-R PCS, RS-FEC, and PMA sublayers ..."

Cl 56 SC 56.1.3 P37 L # 245

Dawe, Piers Nvidia  
 Comment Type E Comment Status A 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

Response Response Status C

ACCEPT IN PRINCIPLE.  
 Change the order and column titles to be:  
 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

Cl 56 SC 56.1.3 P37 L # 246

Dawe, Piers Nvidia  
 Comment Type T Comment Status A 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 ...

Response Response Status C

ACCEPT IN PRINCIPLE.  
 Change column order and titles to:  
 OAM  
 EEE  
 100BASE-LX10 PMD  
 ...  
 10GBASE-R PCS  
 25GBASE-R RS-FEC 108 (add a note to say it is 25G FEC running on 10GBASE-BR20,  
 See comment resolution on Table 158-1 footnote)  
 10GBASE-R PMA  
 10GBASE-BRx PMD  
 25GBASE-R PCS  
 25GBASE-R RS-FEC 108  
 25GBASE-R PMA  
 25GBASE-BRx PMD  
 50GBASE-R PCS  
 50GBASE-R RS-FEC 134  
 50GBASE-R PMA ...

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CI 56 SC 56.1.3 P37 L18 # 244

Dawe, Piers Nvidia  
 Comment Type E Comment Status A 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

Response Response Status C

ACCEPT.  
 Group #244, 203, 204

CI 158 SC 158.8 P37 L50 # 277

Dawe, Piers Nvidia  
 Comment Type T Comment Status A 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]

Response Response Status C

ACCEPT IN PRINCIPLE.  
 See resolution to Comments #178-180.

CI 157 SC 157.1.3 P39 L39 # 253

Dawe, Piers Nvidia  
 Comment Type E Comment Status A 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.

Response Response Status C

ACCEPT.

CI 157 SC 157.1.3 P40 L5 # 257

Dawe, Piers Nvidia  
 Comment Type E Comment Status A 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.

Response Response Status C

ACCEPT IN PRINCIPLE.  
 Update table 157-1 to remove all BR40+ rows, this will fit the table into a single page

CI 157 SC 157.1.4 P42 L19 # 260

Dawe, Piers Nvidia  
 Comment Type E Comment Status A 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.

Response Response Status C

ACCEPT.

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Cl 157 SC 157.2.3 P44 L22 # 262

Dawe, Piers Nvidia  
 Comment Type T Comment Status A 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.

Response Response Status C

ACCEPT IN PRINCIPLE.  
 Change to "An FEC sublayer is required for all Multi-Gigabit BiDi PHYs except 10GBASE-BR10 and 10GBASE-BR40, where the FEC sublayer is not applicable."  
 See#210 to make FEC not applicable for 0GBASE-BR10 and 10GBASE-BR40

Cl 157 SC 157.4 P45 L25 # 265

Dawe, Piers Nvidia  
 Comment Type T Comment Status A LATE

44.3 will need modification to include FEC delay

SuggestedRemedy

Modify Table 44-2.

Response Response Status C

ACCEPT IN PRINCIPLE.  
 Add a new line "10GBASE-BRx RS-FEC" to Table 44-2, reuse values in Table 105-3, line "25GBASE-R RS-FEC" for 10GBASE-BRx, make values 2.5 times longer for 10GBASE-BRx

Cl 158 SC 158.1 P47 L32 # 267

Dawe, Piers Nvidia  
 Comment Type E Comment Status A 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).

Response Response Status C

ACCEPT.

Cl 158 SC 158.6 P51 L45 # 270

Dawe, Piers Nvidia  
 Comment Type T Comment Status A 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.

Response Response Status C

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

Cl 158 SC 158.6.1 P52 L49 # 272

Dawe, Piers Nvidia  
 Comment Type T Comment Status A LATE

Definition B is preferable

SuggestedRemedy

Suggest remove the obsolete transmitter eye mask definition A

Response Response Status C

ACCEPT IN PRINCIPLE.  
 Remove the note on definitions A and B, remove row of definition A.

Cl 158 SC 158.6.2 P53 L49 # 273

Dawe, Piers Nvidia  
 Comment Type T Comment Status A 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.

Response Response Status C

ACCEPT IN PRINCIPLE.  
 P52 L42  
 See #187 to remove BR40+ PHYs. ER 5.5 copies from 10GBASE-ER spec.

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CI 158 SC 158.8 P54 L33 # 274

Dawe, Piers Nvidia  
 Comment Type T Comment Status A 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

Response Response Status C

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)

CI 158 SC 158.8 P54 L37 # 275

Dawe, Piers Nvidia  
 Comment Type T Comment Status A 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.

Response Response Status C

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)

CI 158 SC 158.8 P54 L38 # 276

Dawe, Piers Nvidia  
 Comment Type T Comment Status A 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?

Response Response Status C

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)

CI 158 SC 158.11.1 P56 L37 # 279

Dawe, Piers Nvidia  
 Comment Type T Comment Status A LATE

This NOTE was written for a 1550 nm PMD.

SuggestedRemedy

Needs review because different wavelength here

Response Response Status C

ACCEPT IN PRINCIPLE.  
 Delete the note as it is not relevant

CI 158 SC 158.12 P58 L1 # 280

Dawe, Piers Nvidia  
 Comment Type E Comment Status A 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.

Response Response Status C

ACCEPT IN PRINCIPLE.  
 Use the latest template to include clause number and title. Line 5, add clause title. Line 33, add "Clause" before 158. Do same thing for clauses 159, 160.

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CI **FM** SC **FM** P1 L24 # 281  
 Dawe, Piers Nvidia  
 Comment Type **E** Comment Status **R** 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.  
 Response Response Status **C**  
 REJECT.  
 We assume this comment is to line 2. This is inline with 802.3 framemaker template, will be populated during the publication process.  
 See #147 to populate the amendment list in line 24.

CI **FM** SC **FM** P1 L24 # 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

CI **FM** SC **FM** P1 L25 # 284  
 Dawe, Piers Nvidia  
 Comment Type **E** Comment Status **A** LATE, EZ  
 [review/balloting stage]  
 SuggestedRemedy  
 Delete  
 Response Response Status **C**  
 ACCEPT.

CI **FM** SC **FM** P13 L28 # 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

CI **1** SC **1.4.52a** P18 L12 # 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.

CI **45** SC **45.2.1.7.1** P25 L20 # 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.



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CI 157 SC 157 P39 L1 # 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.

CI 157 SC 157.1.1 P39 L11 # 250  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D LATE, EZ  
 Net-work  
 SuggestedRemedy  
 Network  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 157 SC 157.1.2 P39 L27 # 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"

CI 157 SC 157.1.3 P39 L37 # 252  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D LATE, EZ  
 Space before "Nomenclature"  
 SuggestedRemedy  
 Remove  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 157 SC 157.1.3 P39 L47 # 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.

CI 157 SC 157.1.3 P39 L53 # 255  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D LATE, EZ  
 GMII  
 SuggestedRemedy  
 XGMII  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 157 SC 157.1.3 P40 L5 # 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.

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CI 157 SC 157.1.3 P41 L1 # 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 to use one page for this table

CI 157 SC 157.1.4 P42 L9 # 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 "-"

CI 157 SC 157.2 P44 L1 # 261  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D LATE, EZ  
 syblayers  
 SuggestedRemedy  
 sublayers  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

CI 157 SC 157.2.3 P44 L10 # 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

CI 157 SC 157.2.3 P44 L11 # 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.

CI 158 SC 158.1 P47 L17 # 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"

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Cl 158 SC 158.1.1 P48 L1 # 268  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D LATE, EZ  
 Blank line  
 SuggestedRemedy  
 Remove  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 158 SC 158.1.1 P48 L30 # 269  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D LATE, EZ  
 Blank lines  
 SuggestedRemedy  
 Remove  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 158 SC 158.6.1 P52 L19 # 271  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D LATE, EZ  
 Blank line  
 SuggestedRemedy  
 Remove  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.

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Cl 158 SC 158.10 P56 L25 # 278  
 Dawe, Piers Nvidia  
 Comment Type E Comment Status D LATE, EZ  
 Blank line  
 SuggestedRemedy  
 Remove  
 Proposed Response Response Status W  
 PROPOSED ACCEPT.