P**1** P**1** C/ FM SC FM L10 # 216 C/ FM SC FM L27 # 217 Grow, Bob RMG Consulting Grow, Bob **RMG** Consulting Comment Type Comment Status D Bucket Comment Type Comment Status D Ε Ε Bucket The introduction identifies the amendment as #4. Now that P802 D2.1 is out, this can be updated to add IEEE Std 802.3ct-2021 and IEEE Std 802.3cp-2021. SuggestedRemedy SuggestedRemedy Amendment 4: Per comment. Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE PROPOSED ACCEPT IN PRINCIPLE. Use correct numbering Update to be consistent with D2.1 of 802.3dc P1 C/ FM SC FM L23 # 218 C/ FM SC FM P1 L35 # 73 Grow. Bob RMG Consulting Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M Comment Type Ε Comment Status D Bucket Comment Type E Comment Status D **Bucket** The latest revision draft when you resolve comments and recirculate P802.3db will likely be It seems unlikely you will go to SA ballot after 802.3cw. 802.3cw is still at d1p2. P802.3/D3.0 SuggestedRemedy SuggestedRemedy Check with WG leadership for order of amendments and align this, and amendment Per comment. descriptions on page s 10 & 11 Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Update as needed Make changes according to appropriate amendment order after consulting with Working C/ FM SC FM P1 L27 # Group leadership. CommScope Parsons, Earl P1 C/ FM SC FM L37 Comment Type E Comment Status D Bucket Parsons. Earl CommScope 802.3ct and 802.3cp have been added to D2.1 of 802.3dc Comment Type E Comment Status D SuggestedRemedy Should say Working Group instead of Task Force. Do we need to say ballot instead of review' Include 802.3ct-2021 and 802.3cp in this list SuggestedRemedy Proposed Response Response Status W Correct PROPOSED ACCEPT IN PRINCIPLE. Proposed Response Response Status W Make this change PROPOSED ACCEPT IN PRINCIPLE. Correct front matter in future drafts for Working Group Review See also comment #74

P**1** C/ FM SC FM L37 # 74 C/ FM SC FM P10 L29 # 103 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M Ran, Adee Cisco Comment Type E Comment Status D Bucket Comment Type Comment Status D Bucket Ε prepared for Task Force Review... this is for working group ballot The paragraph starting on line 29 should be part of the previous paragraph (Section Eight). SuggestedRemedy Also, on line 130, a space is missing after "Clause 125". Change Task Force Review to Working Group Ballot. SuggestedRemedy Proposed Response Response Status W Delete the paragraph break, insert space between "Clause 125" and "includes". PROPOSED ACCEPT IN PRINCIPLE Proposed Response Response Status W Fix this in future drafts. PROPOSED ACCEPT IN PRINCIPLE. See also comment #7 Correct this paragraph to match latest draft of 802.3dc P3 L6 # 220 C/ FM SC FM P10 L36 C/ FM SC FM Parsons, Earl CommScope Grow. Bob **RMG** Consulting Comment Type E Comment Status D Bucket Comment Type E Comment Status D **Bucket** Changes were made in D2.1 of 802.3dc Forward Error Correction should not be capitalized, see Keywords and 1.5 of P802.3. SuggestedRemedy SugaestedRemedy forward error correction Update this paragraph to match latest draft of 802.3dc Proposed Response Proposed Response Response Status W Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT Uncapitalize forward error correction. C/ FM SC FM P11 L10 # 219 C/ FM SC FM P9 L17 # 8 Grow. Bob **RMG** Consulting Parsons, Earl CommScope Comment Type TR Comment Status D Bucket Comment Type Ε Comment Status D **Bucket** PHY is not an acronym for Physical Layer in IEEE Std 802.3. No acronymn is defined for D2.1 of 802.3dc moved sentence starting with "The title was changed..." to the end of Physical Layer. paragraph and added "and the ability to use SuggestedRemedy an Ethertype to specify the MAC client protocol were " Delete "(PHY)" SuggestedRemedy Proposed Response Response Status W Update this paragraph to match latest draft of 802.3dc PROPOSED ACCEPT IN PRINCIPLE. Proposed Response Response Status W Remove "(PHY)" PROPOSED ACCEPT.

C/ FM SC FM	P 12	L1	# 45	C/ 00 SC 0	P 0	L 2	# 35
Wienckowski, Natalie General Motors			Ghiasi, Ali	Ghiasi Quant	um/Marvell		
Comment Type E blank page	Comment Status D		Bucket	Comment Type ER Hyperlink to from sideb	Comment Status D ar table of content not working	ng	Bucket
SuggestedRemedy Remove the blank p				SuggestedRemedy Please sidebar hyperlir	nk		
Also remove blank	pages 19, 26,			Proposed Response	Response Status W		
Proposed Response PROPOSED ACCE	Response Status W PT.			PROPOSED ACCEPT Hyperlinks do appear t	IN PRINCIPLE.		
C/ FM SC FM	P 12	<i>L</i> 1	# 10	C/ 00 SC 0	P12	L 1	# 104
Parsons, Earl	CommScope			Ran, Adee	Cisco		
Comment Type E Extra blank page	Comment Status D		Bucket	Comment Type E There are several blank	Comment Status D k pages in the draft (apparent	tly at the end of o	Bucket clauses).
SuggestedRemedy remove				SuggestedRemedy Delete the empty page	s.		
Proposed Response PROPOSED ACCE Remove extra page				Proposed Response PROPOSED ACCEPT	Response Status W		
C/ 00 SC 0	Р		# 49	C/ 00 SC 0	P13	L 2	# 34
	General Motor	<u>_</u>	# 49	Ghiasi, Ali	Ghiasi Quant	um/Marvell	
Wienckowski, Natalie Comment Type T	Comment Status D	'S	Bucket	Comment Type ER Page hyperlink is not w	Comment Status D orking		Bucket
SuggestedRemedy				SuggestedRemedy Please fix the hyperlink	to page#		
1 1 1 1 1 x x = reserved. Proposed Response PROPOSED ACCE	Response Status W			Proposed Response PROPOSED ACCEPT	Response Status W IN PRINCIPLE.		

See response to comment #78.

C/ 00 SC 0 P14 L14 # 37 C/ 00 SC 0 P41 L51 Ghiasi, Ali Ghiasi Quantum/Marvell Ran. Adee Cisco Comment Status D Comment Type Comment Status D Comment Type ER Bucket ER Incorrect title for 167, Physical Medium Dependent (PMD) sublayer and medium, type Per 1.1.6 Word usage. "must" cannot be used when stating mandatory requirements. 100GBASE-VR1, 200GBASE-VR2, 23 400GBASE-VR4, 100GBASE-SR1, 200GBASE-SR2, and 400GBASE-SR441 Multiple instances of the word "must" appear in text inherited from earlier clauses, on pages 41, 43, 45 (twice), 48, 55, and 56. These earlier clauses have been edited in 802,3dc D2.1 to SuggestedRemedy eliminate usage of this word. Please repalce 441 with 4 SuggestedRemedy Proposed Response Response Status W Change the sentences that include "must" based on similar text in 802.3dc D2.1. PROPOSED ACCEPT. Proposed Response Response Status W Framemaker issue. PROPOSED ACCEPT IN PRINCIPLE. SR441 is actually SR4.....41 where 41 is page number. Will be fixed in the next draft. Implement with editorial license. C/ 00 SC 0 P18 L14 # 106 CI 1 SC 1.3 P18 L4 Cisco Ran. Adee Ran. Adee Cisco Comment Type E Comment Status D **Bucket** Comment Type Е Comment Status D Many editorial instructions in this draft appear as bookmarks in the bookmark pane, making navigation inconvenient. Nothing is inserted in this subclause. SugaestedRemedy SuggestedRemedy Apply paragraph formatting for all editorial instructions to avoid them being treated as Delete the subclause and editorial instruction, unless the next draft add some content. bookmarks. Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Subclause 1.3 will be deleted. Editorial instruction regarding future changes to subclause numbers 1.4.x for the new PMDs will remain to monitor new drafts of 802.3dc. C/ 00 SC 0 P25 # 113 L20 Ran, Adee Cisco Comment Type Ε Comment Status D Bucket Several cross-references to content that is not included in this draft are formatted in green, bu unlike other amendments, they are active (and broken) links. Additionally, many cross-references to content in amended clauses that are included in this draft (e.g., clauses 82 and 91) are also formatted in green (and some are broken links).

Make all external cross-references plain text in green, and all internal cross-references active

Response Status W

SugaestedRemedy

links in black. Proposed Response

PROPOSED ACCEPT IN PRINCIPLE.

Fix these cross references

118

105

Bucket

Bucket

C/ 1 SC 1.4 P18 L12 # 221 C/ 1 SC 1.4 P18 L28 # 182 Grow, Bob RMG Consulting Huber, Tom Nokia ER Comment Status D Comment Type Comment Status D Bucket Comment Type Bucket With the merge of IEEE Std 802.3ct and IEEE Std 802.3cp into P802.3/D2.1, indeed 200GBASE-SR2 should be described as using 200GBASE-R encoding subclause numbering has changed in P802.3/D2.1, but additionally, base text has also SuggestedRemedy changed from that in this draft. With the expected (conditional) approval to advance the revision project to SA ballot, stability of both subclause numbers and base text should be Change "... using 100GBASE-R encoding ..." to "... using 200GBASE-R encoding ..." significantly improved with P802.3/D2.1 and future drafts. Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE Review changed clauses against the then current draft of the P802.3 revision project. (I have See response to comment #221. also submitted individual comments for some specific noted differences found in review of C/ 1 P802.3/D2.1 changes.) SC 1.4 P18 L34 # 183 Huber, Tom Nokia Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Comment Type Comment Status D Bucket 200GBASE-VR2 should be described as using 200GBASE-R encoding Following are the assignments: SuggestedRemedy 1.4.38a 100GBASE-SR1 100GBASE-R encoding Change "... using 100GBASE-R encoding ..." to "... using 200GBASE-R encoding ..." 1.4.41a 100GBASE-VR1 100GBASE-R encoding Proposed Response Response Status W 1.4.108a 200GBASE-SR2 200GBASE-R encoding 1.4.109a 200GBASE-VR2 200GBASE-R encoding PROPOSED ACCEPT IN PRINCIPLE. 1.4.142a 400GBASE-SR4 400GBASE-R encoding See response to comment #221. 1.4.144a 400GBASE-VR4 400GBASE-R encoding C/ 1 SC 1.4 P18 L40 # 184 C/ 1 SC 1.4 P18 L27 # 206 Huber, Tom Nokia Marris. Arthur Cadence Design Systems Comment Type Comment Status D Bucket Comment Type Comment Status D Bucket 400GBASE-VR4 should be described as using 400GBASE-R encoding Missing space in "1.4.103a200GBASE-SR2:" SuggestedRemedy SuggestedRemedy Change "... using 100GBASE-R encoding ..." to "... using 400GBASE-R encoding ..." Add space and in the next three sub headings Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. See response to comment #221. Implement with editorial license.

C/ 1 SC 1.4.39a P18 L15 # 75 C/ 1 SC 1.4.103a P18 L34 # 155 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M Dudek. Mike Marvell Comment Status D Comment Status D Bucket Comment Type E Bucket Comment Type T There is no "100GBASE-SR10 encoding" - it is just "100GBASE-SR10". AND, I think 200GBASE-VR2 should use 200GBASE-R encoding 100GBASE-SR1 should go before 100GBASE-SR10, which would be after "1.4.38 SuggestedRemedy 100GBASE-R encoding". Change 100GBASE R to 200GBase R. SuggestedRemedy Proposed Response Response Status W Change editing instruction to Insert the following new definition after 1.4.38 100GBASE-R PROPOSED ACCEPT IN PRINCIPLE encoding. Renumber 1.4.39a to 1.4.38a Change to 200GBASE-R encoding. See response to comment #221. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. C/ 1 SC 1.4.103a P18 L40 # 156 See response to comment #221. Dudek. Mike Marvell C/ 1 P18 # 222 SC 1.4.39a L26 Comment Status D Comment Type T Bucket 400GBASE-SR2 should use 400GBASE-R encoding Grow. Bob RMG Consulting Comment Type E Comment Status D Bucket SuggestedRemedy Subclause numbers have changed with the merge of 802.3ct and 802.3cp. Change 100GBASE R to 400GBase R. SugaestedRemedy Proposed Response Response Status W Editing instructions and text subclause numbers can be updated. In P802.3/D2.1: PROPOSED ACCEPT IN PRINCIPLE. 100GBASE-SR10 is 1.4.40, 100GBASE-SR4 is 1.4.41, 200GBASE-R is 1.4.108. Change to 400GBASE-R encoding. 200GBASE-SR4 is now 1.4.109. 400GBASE-SR16 is now 142. 400GBASE-SR8 is now See response to comment #221. 144. Change inserted clauses to correspond. C/ 1 SC 1.4.103a P18 L46 # 157 Proposed Response Response Status W Dudek. Mike Marvell PROPOSED ACCEPT IN PRINCIPLE. See response to comment #221. Comment Type T Comment Status D Bucket 400GBASE-VR2 should use 400GBASE-R encoding C/ 1 SC 1.4.103a P18 L28 # 154 SuggestedRemedy Dudek, Mike Marvell Change 100GBASE R to 400GBase R. Comment Type T Comment Status D Bucket Proposed Response Response Status W 200GBASE-SR2 should use 200GBASE-R encoding PROPOSED ACCEPT IN PRINCIPLE. SuggestedRemedy Change to 400GBASE-R encoding. Change 100GBASE R to 200GBase R. See response to comment #221.

Proposed Response

PROPOSED ACCEPT IN PRINCIPLE. Change to 200GBASE-R encoding. See response to comment #221.

Response Status W

C/ 1 SC 1.4.104a P18 L32 # 76 C/ 30 SC 30.5.1.1.2 P20 L11 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M Comment Type E Comment Status D Comment Status D Bucket Comment Type T "ATTRIBUTE" is missing on line before APPROPRIATE SYNTAX:. Also, ATTRIBUTE should Editing instruction says "new definitions" - I only see one. be at the indent occupied by APPROPRIATE SYNTAX, which would cause APPROPRIATE SuggestedRemedy SYNTAX to line up with the indent of the added MAU types. Change "new definitions" to "new definition" in the editing instruction SuggestedRemedy Proposed Response Response Status W Insert ATTRIBUTE on new line before APPROPRIATE SYNTAX, with style and alignment as PROPOSED ACCEPT described. Proposed Response Response Status W C/ 1 SC 1.4.136a P19 **L1** # 11 PROPOSED ACCEPT IN PRINCIPLE. Parsons, Earl CommScope Add "ATTRIBUTE" and indent "APPROPRIAT SYNTAX" correctly. Comment Type Ε Comment Status D Bucket CI 45 SC 45 P21 **L1** Extra blank page **RMG** Consulting Grow, Bob SuggestedRemedy Comment Status D Comment Type remove P802.3/D2.1, Clause 45 is still a mess for capitalization, from the Clause title using too many Proposed Response Response Status W capitals to the erratic capitalization of "Register" in text throughout. PROPOSED ACCEPT IN PRINCIPLE. SuggestedRemedy Remove extra page This draft seems to be internally consistent (only capitalize "Register" when followed by a name or the first word of a title/sentence), so no change is requested, this comment is just to C/ 16 SC 16.7.1 P51 L24 # 39 note that future P802.3 drafts might try to fix some of this, changing base text used in this Ghiasi. Ali Ghiasi Quantum/Marvell draft, and P802.3db should follow how this is resolved for P802.3/D2.1 comment resolutions. Comment Type TR Comment Status D Bucket Proposed Response Response Status W Still having problem to display symbols using Apple Preview PROPOSED ACCEPT IN PRINCIPLE. No change to capitalization of "Register". SuggestedRemedy Please correct when there is a fix from Adobe Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE C/ 16 SC 16.7.2 P52 L25 Ghiasi. Ali Ghiasi Quantum/Marvell Comment Type TR Comment Status D Bucket Still having problem to display symbols using Apple Preview SuggestedRemedy Please correct when there is a fix from Adobe

Proposed Response

PROPOSED ACCEPT IN PRINCIPLE.

Response Status W

77

223

Bucket

Bucket

1 1 1 1 0 0 1 = 100GBASE-VR4 PMA/PMD < FND UI > Cl 45 SC 45.2.1.6 P21 L10 # 78 <SO> 1 1 1 1 1 x x = reserved $1 \ 1 \ 1 \ 1 \ 0 \ 1 \ x = reserved$ Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M 1 1 1 1 0 0 1 = reserved <FND SO> Comment Status D Bucket Comment Type E 1 1 1 1 0 0 0 = 50GBASE-BR40-U "Change the indicated reserved rows" - there are no rows indicated to be changed. Further. Table 45-7 has 3 reserved rows. I suspect the one to be changed is the top-most, but it looks stands for underline and <SO> for strikeout. like the change needs to be more complicated. The reserved rows are: 50GBASE-BR40-U comes from 802.3cp and was added in 802.3dc D2.1. $1.11 \times \times \times = \text{reserved}$ $1\,1\,0\,1\,x\,x\,x$ = reserved C/ 45 SC 45.2.1.6 P21 L10 # 207 $1\,1\,0\,0\,1\,x\,x = reserved$ Marris. Arthur Cadence Design Systems but the added rows are indicated purely as inserts, creating double-definitions: Comment Type E Comment Status D Bucket 1 1 1 1 1 1 = reserved (with values 1111110 through 1111000 defined) Show "1 1 1 x x x x = reserved" as struck through Change "1 1 1 1 0 0 0 = 50GBASE-BR40-U" to "1 1 1 1 0 0 0 = reserved" Also, I cannot find any reference to 50GBASE-BR40-U in the draft, or in another add "1 1 1 0 X X X = reserved" amendment - so I'm guessing this is an error or in an amendment coming later. SuggestedRemedy SuggestedRemedy See comment Change editing instruction to "Change the description of bits 1.7.6:0 in Table 45-7, as shown Proposed Response Response Status W (unchanged rows not shown): show in description, as below, indicates start of underline, <END UL> end of underline, PROPOSED ACCEPT IN PRINCIPLE. <SO> and <END SO> start and end of strikeout, and text outside of that is just plain to show See response to comment #78. where the new text lies in the draft Cl 45 SC 45.2.1.6 P21 L10 # 224 "6543210 Grow, Bob RMG Consulting 1 1 1 1 1 1 1 = reserved Comment Status D 1 1 1 1 1 1 0 = 400GBASE-SR4 PMA/PMD Comment Type Bucket 1 1 1 1 1 0 1 = 400GBASE-VR4 PMA/PMD No changes are shown in the table, only inserts. 1 1 1 1 1 0 0 = 200GBASE-SR4 PMA/PMD SuggestedRemedy 1 1 1 1 0 1 1 = 200GBASE-VR4 PMA/PMD 1 1 1 1 0 1 0 = 100GBASE-SR4 PMA/PMD The last line of the table shows an unchanged row in contradiction to the instruction. (perhaps 1 1 1 1 0 0 1 = 100GBASE-VR4 PMA/PMD < END UL> change instruction to say most unchanged rows not shown). Reserved row existing text <SO> 1 1 1 x x x x = reserved <END SO> should be taken from P802.3/D2.1 rather than what is shown (deleted rows in P802.3/D2.1 1 1 1 1 0 0 0 = reserved should be shown in strikethrough.) 1110xxx = reserved < end UL>Proposed Response Response Status W 1101xxx = reservedPROPOSED ACCEPT IN PRINCIPLE." See response to comment #78. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE Change the description of bits 1.7.6:0 in Table 45-7 as shown (unchanged rows not shown): "6543210 1 1 1 1 1 1 1 = reserved 1 1 1 1 1 1 0 = 400GBASE-SR4 PMA/PMD 1 1 1 1 1 0 1 = 400GBASE-VR4 PMA/PMD

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line

1 1 1 1 1 0 0 = 200GBASE-SR4 PMA/PMD 1 1 1 1 0 1 1 = 200GBASE-VR4 PMA/PMD 1 1 1 1 0 1 0 = 100GBASE-SR4 PMA/PMD

> C/ **45** SC **45.2.1.6**

Page 8 of 47 11/8/2021 9:09:30 AM C/ 45 SC 45.2.1.6 P21 L23 # 50 Cl 45 SC 45.2.1.6 P21 L26 # 47 Wienckowski. Natalie General Motors Wienckowski. Natalie General Motors Comment Type E Comment Status D Bucket Comment Type E Comment Status D Bucket deleted text has to be shown in strikethrough deleted text has to be shown in strikethrough SuggestedRemedy SuggestedRemedy Add in strikethrough "1 1 1 1 1 x x = reserved" Add "reserved" in strikethrough 1 1 1 1 0 0 1 = "reserved" 100GBASE-VR1 PMA/PMD Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE PROPOSED ACCEPT IN PRINCIPLE. See response to comment #78. See response to comment #78. Cl 45 SC 45.2.1.6 P21 # 48 L25 Cl 45 SC 45.2.1.6 P21 L27 Wienckowski. Natalie General Motors Wienckowski. Natalie General Motors Comment Type E Comment Status D Bucket Comment Type E Comment Status D Bucket deleted text has to be shown in strikethrough an unchanged row is shown as new SuggestedRemedy SuggestedRemedy Add in strikethrough "1 1 1 1 0 1 x = reserved" Delete from this draft: 1 1 1 1 0 0 0 = 50GBASE-BR40-U Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. See response to comment #78. See response to comment #78. Cl 45 SC 45.2.1.6 P21 L26 # 107 CI 45 P21 L43 SC 45.2.1.7.4 # 208 Cisco Ran, Adee Marris, Arthur Cadence Design Systems Comment Type Ε Comment Status D **Bucket** Comment Type E Comment Status D Bucket The line for 50GBASE-BR40-U appears in the base document (802.3dc D2.1) so should not Make 167.5.10 a cross reference be underlined. SuggestedRemedy SuggestedRemedy Remove the underline. Make 167.5.10 a cross reference and similarly make the next two tables include cross references Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT. PROPOSED ACCEPT

C/ 45 SC 45.2.1.7.4 P21 L43 # 79 Cl 45 SC 45.2.1.21 P22 L37 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M Ran. Adee Cisco Comment Type E Comment Status D Comment Status D Bucket Comment Type TR 167.5.10 should be an active cross reference, same comment for 167.5.11 in Table 45-10 Bits 7 and 8 of register 1.23 have been assigned by 802.3ck (since D1.0, December 2019) and 167.5.7 in Table 45-12. and are not available. SuggestedRemedy SuggestedRemedy make locations in Tables 45-9, 45-10 and 45-12 active cross references Keep bits 8:7 reserved, and assign bits 10:9 instead (or others based on availability). Proposed Response Response Status W Change 45.2.1.21.9 and 45.2.1.21.10 accordingly. PROPOSED ACCEPT Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Cl 45 SC 45.2.1.21 P22 L37 # 209 Cadence Design Systems Marris, Arthur See response to comments #225 and #239. Comment Type ER Comment Status D Bucket C/ 45 SC 45.2.1.21 P**22** L37 1.23.7 and 1.23.8 are being used by 802.3ck Lusted. Kent Intel Corporation SuggestedRemedy Comment Type ER Comment Status D Move thes bits to 1.23.9 and 1.23.10 and add reserved row for 1.23.8:7 The 200G PMA/PMD extended ability bits 1.23.7 and 1.23.8 collide with P802.3ck Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE. Move the bits to another location in the register See comment #239 Proposed Response Response Status W Cl 45 SC 45.2.1.21 P22 L37 # 239 PROPOSED ACCEPT IN PRINCIPLE. Anslow, Pete Independent Comment Type TR Comment Status D Bucket See response to comment #239. Bits 1.23.7 and 1.23.8 are already allocated in P802.3ck D2.2 as: Cl 45 SC 45.2.1.21.9 P22 L47 1.23.8 200GBASE-CR2 ability 1.23.7 200GBASE-KR2 ability Grow, Bob RMG Consulting Comment Type **E** Comment Status D SuggestedRemedy Revert the allocations in register 1.23 to what they were in D1.2: The insert point and subclause number are incorrect. Bit subclauses are written most significant bit to least significant bit (order of the two new subclauses is correct, but insert poir 1.23.10 200GBASE-SR2 ability 1.23.9 200GBASE-VR2 ability is wrong. SuggestedRemedy Proposed Response Response Status W Inserted clauses should be inserted after 45.2.1.21.1, with bit 1.3.8 being inserted as PROPOSED ACCEPT. 45.2.1.21.1a, and bit 1.3.7 being inserted as 45.2.1.21.1b. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.

> 45 2 1 21 1a 1 23 10 45.2.1.21.1b 1.23.9

108

100

225

Bucket

Bucket

Bucket

C/ 45 SC 45.2.1.22 P23 L9 # 109 Cl 45 SC 45.2.1.22 P23 **L9** # 226 Ran, Adee Cisco Grow, Bob **RMG** Consulting Ε Comment Status D Comment Type Comment Status D Bucket Comment Type Bucket Ε This draft is an amendment of 802.3dc-202x, so modifications by 802.3cn-2019 are already With this draft now writen to amend 802.3-202x, the parenthetical pointing at 802.3cn can be included. deleted. SuggestedRemedy SuggestedRemedy Fix the editorial instruction. Per comment. Proposed Response Proposed Response Response Status W Response Status W PROPOSED ACCEPT. PROPOSED ACCEPT Cl 45 C/ 45 SC 45.2.1.22 P**23 L9** # 110 SC 45.2.1.22 P23 L19 # 227 Cisco Grow, Bob RMG Consulting Ran, Adee Comment Type TR Comment Status D Bucket Comment Type ER Comment Status D Bucket In D2.1 of 802.3dc (as in 802.3cn-2019) bits 14:11 are reserved, not just 14:12, so the new The bit values do not agree between table and instruction. Unless other reserved bits are assignments should be bits 12:11, to avoid a single bit gap. being defined in amendments 1-3, the bits defined should probably be 11 and 12, with Reserved becoming 14:13. SugaestedRemedy SuggestedRemedy Assign bits 12:11. Per comment. Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. See response to comment #227. 1.24.13 400GBASE-SR4 # 80 C/ 45 SC 45.2.1.22 P23 L9 1.24.12 400GBASE-VR4 CME Consulting/ADI. APL Gp. Cisco. CommScope. M Zimmerman, George See comment #81 for the remaining reserved bits. Comment Type E Comment Status D Bucket C/ 45 SC 45.2.1.22 P23 L19 # 200 "(as modified by IEEE Std 802.3cn-2019)" - if this is an amendment to the revision (802.3-2022), then modification by 802.3cn-2019 is not relevant or necessary. Dawe, Piers Nvidia SuggestedRemedy Comment Type Comment Status D **Bucket** Delete "(as modified by IEEE Std 8092.3cn-2019)" in editing instruction 14:14 Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT Delete:14 Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. See comment #81

C/ 45 SC 45.2.1.22 P23 L19 # 210 Cl 45 SC 45.2.1.24 P23 L12 # 199 Marris. Arthur Cadence Design Systems Dawe. Piers Nvidia Comment Type Comment Status D Comment Status D Ε Bucket Comment Type Ε Bucket Clean up reserved rows in Table 45-25 In the tables in Clause 45, the bits are presented in reverse order. In 802.3dc, Table 45-27, 40G/100G PMA/PMD extended ability 2 register bit definitions, bits 3 SuggestedRemedy to 9 are allocated, bits 0 and On line 19 make it a single reserved bit 1.24.14 and show ":11" crossed out SuggestedRemedy Add another underlined reserved row for 1.24.11. (This bit will be used by 802.3cw for Move the row beginning "1:26:2:X0X Reserved" to above 1.26.1 100GBASE-SR1 ability. 400GBASE-ZR.) Delete the last row "...". Proposed Response Response Status W So that the reader can understand the context of the amendment and check issues like this, PROPOSED ACCEPT IN PRINCIPLE. include the adjacent unchanged row from the base document, beginning "1.26.3 100GBASE-See comment #81. DR ability" and change "unchanged rows not shown" to "some unchanged rows not shown". Proposed Response Response Status W Cl 45 SC 45.2.1.22 P23 L19 # 81 PROPOSED ACCEPT IN PRINCIPLE. CME Consulting/ADI, APL Gp, Cisco, CommScope, M Zimmerman, George See comment #240. Comment Type E Comment Status D Bucket CI 45 SC 45.2.1.24 P23 L45 # 240 There is only one reserved bit - no need for a range Anslow, Pete Independent SuggestedRemedy Comment Type TR Comment Status D Bucket Change edit just to strike out ":12" (deleting the inserted 14, and striking out the colon as well Bits 1.26.0 and 1.26.1 are already allocated in P802.3ck D2.2 as: Proposed Response Response Status W 1.26.1 100GBASE-CR1 ability PROPOSED ACCEPT. 1.26.0 100GBASE-KR1 ability SuggestedRemedy C/ 45 SC 45.2.1.22.11 P23 L31 # 228 Revert the allocations in register 1.26 to what they were in D1.2: Grow. Bob RMG Consulting 1.26.10 100GBASE-VR1 ability 100GBASE-SR1 ability Comment Type E Comment Status D **Bucket** Note that in D1.2, these were shown in the wrong order in the table (the row for 1.26.10 Insert point and subclauses are incorrect. 100GBASE-VR1 should be above the row for 1.26.2 100GBASE-SR1) SuggestedRemedy Proposed Response Response Status W insert point woud be after 45.2.1.22.1 and bit numbers in the following subclauses should be PROPOSED ACCEPT consistent with resolution of comment on the bit numbers in the table bits 12 and 11 if that

comment is accepted).

45.2.1.22.1a 1.24.13 45.2.1.22.1b 1.24.12

PROPOSED ACCEPT IN PRINCIPLE.

Response Status W

Proposed Response

C/ 45 SC 45.2.1.24 P23 L47 # 111 Cl 45 Ran. Adee Cisco Lusted. Kent Comment Status D Comment Type TR Bucket Bits 0 and 1 of register 1.26 have been assigned by 802.3ck (since D1.0, December 2019) and are not available. P802.3ck SuggestedRemedy Keep bits 1:0 reserved, and assign bits 11:10 instead (or others based on availability). Change 45.2.1.24.7 and 45.2.1.24.8 accordingly. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. See response to comments #230 and #240. Cl 45 Marris, Arthur C/ 45 L49 # 82 SC 45.2.1.24 P23 Zimmerman, George CME Consulting/ADI, APL Gp. Cisco, CommScope, M. Comment Type E Comment Status D Bucket "insert the following new subclauses (Table 45.2.1.24.7 and Table 45.2.1.24.8) after 45.2.1.24.4" - these are subclauses, not tables, use correct cross-reference formatting so it just says (45.2.1.24.7 and 45.2.1.24.8) - also, put editing instruction AFTER Table 45-27. SugaestedRemedy See comment Proposed Response Response Status W C/ 45 PROPOSED ACCEPT IN PRINCIPLE. Grow. Bob See response to comment #230. Comment Type C/ 45 SC 45.2.1.24 P**23** L49 # 230

RMG Consulting Grow. Bob

Comment Type ER Comment Status D Bucket The editing instructon is wrong. The words "Table" should not be in the parenthetical. Also a three subclause numbers are wrong.

SuggestedRemedy

There is already a 45.2.1.24.7 in P802.3/D2.1 so the final subclause numbers should be 8 and 9 here and on the inserted subclauses on page 24.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

45.2.1.24.1a 1.26.10 45.2.1.24.7a 1.26.2

SC 45.2.1.24 P24 L7 # 101

Intel Corporation

Comment Status D Comment Type ER Bucket

The 40G/100G PMA/PMD extended ability register 2 bit 1.26.0 and 1.26.1 collide with

SuggestedRemedy

Move the bits to another location in the register

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE

See response to comment #240.

SC 45.2.1.24 P24 L7 # 211

Cadence Design Systems

Comment Type ER Comment Status D Bucket

1.26.0 and 1.26.1 are being used by 802.3ck

SuggestedRemedy

Move these ability bits somewhere else

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

See response to comment #239.

SC 45.2.1.24 P24 L12 # 229

RMG Consulting

Comment Status D Bucket

Bit order in table is wrong. Did youreally intend to leave 1.26.2 as the reserved bit instead of bit 0 being left reserved?

SuggestedRemedy

Bit 2 should appear above bit 1. Adjust bit numbers if you want the reserved bit to be the LSE of the register.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE

1.26.10 100GBASE-VR1 1.26.2 100GBASF-SR1

CI 78 SC 78.1.4 P25 **L6** # 212 CI 78 SC 78.1.4 P25 L51 # 12 Marris. Arthur Cadence Design Systems Parsons. Earl CommScope Comment Type Comment Status D Comment Type Comment Status D Bucket Т Ε I do not see EEE listed in the P802.3db objectives Footnote shouldn't be underlined SuggestedRemedy SuggestedRemedy Consider deleting Clause 78 from the 802.3db draft. remove underline Proposed Response Proposed Response Response Status W Response Status W PROPOSED REJECT PROPOSED ACCEPT IN PRINCIPLE Un-underline this footnote CI 78 SC 78.1.4 P25 L8 # 112 CI 78 SC 78.1.4 P26 **L1** Cisco Ran. Adee Parsons, Earl CommScope Comment Type Ε Comment Status D Bucket Comment Type Comment Status D Bucket 802.3cw is not expected to be published before 802.3db, so its modifications should not be Extra blank page included here SuggestedRemedy I do not see anything in the table that does not match 802.3dc, so this seems to be only an remove error in the editorial instruction. Proposed Response Response Status W Also applies to two instances in 116.1.3 (P35 L40 and P38 L27). PROPOSED ACCEPT IN PRINCIPLE. SuggestedRemedy Remove this extra page Fix the editorial instructions C/ 80 SC 80.1.1 P28 **L1** # 84 Proposed Response Response Status W CME Consulting/ADI, APL Gp, Cisco, CommScope, M Zimmerman, George PROPOSED ACCEPT IN PRINCIPLE. Comment Type E Comment Status D Bucket Remove 802.3cw from editing instructions 80 1 1 Should be 80 1 5 CI 78 SC 78.1.4 P25 L20 # 241 SuggestedRemedy Anslow, Pete Independent Change 80.1.1 to 80.1.5 Comment Status D Comment Type Ε Bucket Proposed Response Response Status W Comment #65 against P802.3cj D2.0 defined the order of items in Table 78-1. See: PROPOSED ACCEPT IN PRINCIPLE. http://www.jeee802.org/3/ci/comments/P8023-D2p0-Comments-Final-byID.pdf#page=14 Fix this numbering According to this, 100GBASE-VR1 should be inserted after 100GBASE-CR10 SuggestedRemedy Insert the row for 100GBASE-VR1 after the row for 100GBASE-CR10.

Proposed Response

PROPOSED ACCEPT IN PRINCIPLE. Reorder rows in this table as appropriate

Response Status W

C/ 80 SC 80.1.1 P28 **L1** # 185 C/ 80 SC 80.1.1 P28 L10 # 14 Huber, Tom Nokia Parsons, Earl CommScope Comment Type Ε Comment Status D Comment Type Ε Comment Status D Bucket Bucket Fix cross reference The heading number for the subclause titled "Physical Layer signaling systems" is 80.1.5 SuggestedRemedy SuggestedRemedy Change 80.1.1 to 80.1.5 change "Clause 167" to "167" Proposed Response Proposed Response Response Status W Response Status W PROPOSED ACCEPT IN PRINCIPLE PROPOSED ACCEPT IN PRINCIPLE Fix subclause numbering Fix without breaking other cross references C/ 80 SC 80.1.1 C/ 80 SC 80.1.1 P28 L8 # 186 P28 L10 # 246 Huber, Tom Nokia Haiduczenia. Marek **Charter Communications** Comment Type Comment Status D Bucket Comment Type E Comment Status D Bucket Clause number should be used - should be "167" and not "Clause 167" The heading for the new columns in Table 80--5 is "Clause 167", while all other columns in the table only have the clause number as a heading. The same problem is present in Table 116-4 and Table 116-5 SuggestedRemedy SuggestedRemedy Change "Clause 167" in Table 80-5 to "167". Make sure the link is live. Change the heading from "Clause 167" to "167" The same problem is present in Table 116-4 and Table 116-5 Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Fix this cross reference without breaking others. Fix these cross references without breaking others C/ 80 SC 80.1.1 P28 L10 # 201 CI 80 SC 80.1.1 P28 L11 # 172 Dawe, Piers Nvidia Slavick, Jeff Broadcom Comment Type Ε Comment Status D Bucket Comment Status D Comment Type TR Bucket Clause 167 100GAUI-1 is missing from Table 80-5, but is present in Table 167-1 SuggestedRemedy SuggestedRemedy 167 Add 120F and 120G to Table 80-5 with the same editors note that is after Table 167-1. Response Status W Proposed Response Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Fix this cross reference Remove references to 802 3ck

C/ 80 SC 80.1.1 P28 L11 # 213 C/ 80 SC 80.1.4 P27 L15 # 138 Marris. Arthur Cadence Design Systems Brown. Matt Huawei Comment Type Comment Status D Comment Status D ER Bucket Comment Type Ε Bucket Change "Clause 167" to "167' Since the table is shown with insertion mark-up with surrounding unchanged text the correct instruction is "change" not "insert" and no further details are required. SuggestedRemedy SuggestedRemedy Change "Clause 167" to "167" Change the instruction to: "Change Table 80-1 as follows (some unchanged rows not shown)" Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE PROPOSED ACCEPT IN PRINCIPLE. Fix this cross reference Make this change to editing instructions C/ 80 SC 80.1.1 P28 L13 # 85 C/ 80 SC 80.2.3 P28 L36 # 231 CME Consulting/ADI. APL Gp. Cisco. CommScope. M Zimmerman, George **RMG** Consulting Grow. Bob Comment Type E Comment Status D Comment Type Е Comment Status D Bucket "Clause 167" column header is different than the others which just have numbers Forward Error Correction should not be capitalized, see Keywords and 1.5 of P802.3. SuggestedRemedy Updating changed clause base text to P802.3/D2.1 or later should fix this. (The noted changes are in titles, which might be missed in a base text update.) Change "Clause 167" to "167" (as active xref) SuggestedRemedy Proposed Response Response Status W Forward error correction (FEC) sublavers, in line 38 forward error correction. Base text also PROPOSED ACCEPT IN PRINCIPLE. changed for Clause 91, page 30, line 1 (forward error correction), page 23, line 2 (forward Fix this cross reference without breaking the others error correction) and p. 33., I.1 (forward error correction) and should be fixed C/ 80 SC 80.1.3 P27 L9 # 83 Proposed Response Response Status W Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M PROPOSED ACCEPT IN PRINCIPLE. Make these changes Comment Type E Comment Status D Bucket It appears "Clause 140" an external reference is somehow an active cross reference. No idea C/ 80 SC 80.4 P28 L14 # 140 where it points... Brown. Matt Huawei SuggestedRemedy Comment Type Ε Comment Status D Bucket See comment, make it not active. Bottom row has think border at top. Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE. Change top border to "very thin". Deactivate this cross reference Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Correct table borders

C/ 80 SC 80.4 P28 L47 # 139 C/ 91 SC 91.5.3.3 P30 L18 # 114 Brown, Matt Huawei Ran. Adee Cisco Comment Type Comment Status D Comment Type Comment Status D Ε Bucket Ε Bucket Since the table is shown with insertion mark-up with surrounding unchanged text the correct The amended text of this paragraphs is unclear. The normative requirement of the paragraph instruction is "change" not "insert" and no further details are required. SuggestedRemedy The current content is insufficient for readers without going to the base document to see what Change the instruction to: "Change Table 80-6 as follows (some unchanged rows not shown)' the "shall" is about. Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE. Include the third paragraph in its entirety. Make this change to editing instructions Proposed Response Response Status W C/ 80 P29 SC 80.4 **L1** # 202 PROPOSED ACCEPT IN PRINCIPLE. Include entire paragraph and not just this sentence. Dawe. Piers Nvidia Comment Type E Comment Status D Bucket C/ 91 SC 91.6.3 P31 L4 # 158 Table 80-6--Sublayer delay constraints Dudek. Mike Marvell SuggestedRemedy Comment Type Е Comment Status D Bucket Table 80-7--Sublayer delay constraints This may be a problem with 802.3dc but "PMDs." should not be after DR Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE. Delete PMDs on row 4 Correct table numbering Proposed Response Response Status W # 98 Cl 91 SC 91.5.3.3 P30 L12 PROPOSED ACCEPT IN PRINCIPLE. Remove extra "PMDs" Marris, Arthur Cadence Design Systems Comment Type Ε Comment Status D Bucket C/ 91 SC 91.6.3 P31 L4 # 99 Change "100GBASE-DR PHY" to "100GBASE-DR" and the word "is" is missing on line 33 Marris, Arthur Cadence Design Systems SuggestedRemedy Comment Type Comment Status D Е Bucket Change "100GBASE-DR PHY" to "100GBASE-DR" on lines 12, 22 and 34 Change "100GBASE-DR PMDs" to "100GBASE-DR" Also change "When the RS-FEC sublayer used" to "When the RS-FEC sublayer is used" SuggestedRemedy Proposed Response Response Status W Change "100GBASE-DR PMDs" to "100GBASE-DR" PROPOSED ACCEPT IN PRINCIPLE. Proposed Response Response Status W Make these changes PROPOSED ACCEPT IN PRINCIPLE. Remove "PMDs" in this instance

C/ 91 SC 91.7.3 P32 L5 # 141 C/ 91 SC 91.7.4.1 P33 L12 # 16 Brown, Matt Huawei Parsons. Earl CommScope Comment Type Ε Comment Status D Bucket Comment Type Ε Comment Status D Bucket Change cross reference Since the changes are clearly shown with insert mark-up the instruction is unecessarily verbose. SuggestedRemedy SuggestedRemedy Switch to external cross reference to Clause 91.5.2.7 Change the instruction to: "Change the table in 91.7.3 as follows (some unchanged rows not Proposed Response Response Status W shown)" PROPOSED ACCEPT IN PRINCIPLE Proposed Response Response Status W Fix this PROPOSED ACCEPT IN PRINCIPLE. Simplify editing instructions C/ 91 SC 91.7.4.2 P33 L32 Parsons. Earl CommScope C/ 91 SC 91.7.3 P32 L27 # 15 Comment Type Comment Status D Bucket Parsons. Earl CommScope Change cross reference Comment Type E Comment Status D Bucket SuggestedRemedy Change cross reference Switch to external cross reference to Clause 91.5.3.3 SuggestedRemedy Proposed Response Response Status W Switch to external cross reference to Clause 91.5.3.3.1 PROPOSED ACCEPT IN PRINCIPLE. Proposed Response Response Status W Fix this PROPOSED ACCEPT IN PRINCIPLE. Fix this C/ 91 SC 91.7.4.2 P33 L43 CommScope Parsons, Earl SC 91.7.4.1 C/ 91 P33 L4 # 142 Comment Type E Comment Status D Bucket Brown, Matt Huawei Change cross reference Comment Status D Comment Type E Bucket SuggestedRemedy Since the changes are clearly shown with insert mark-up the instruction is unecessarily verbose. Switch to external cross reference to Clause 91.5.3.3 SuggestedRemedy Proposed Response Response Status W Change the instruction to: "Change the table in 91.7.4.1 as follows (some unchanged rows no PROPOSED ACCEPT IN PRINCIPLE shown)". Same for the table in 91.7.4.2. Fix this

Proposed Response

PROPOSED ACCEPT IN PRINCIPLE.

Simplify editing instructions

Response Status W

C/ 91 SC 91.7.4.2 P34 L5 # 19 C/ 116 SC 116.1.3 P35 L21 Parsons. Earl CommScope Brown. Matt Huawei Comment Type Comment Status D Bucket Comment Type Comment Status D Ε Ε Change cross reference Why not stick with the convention you've used in other tables and use change mark-up and surrounding unchanged text? SuggestedRemedy SuggestedRemedy Switch to external cross reference to Clause 91.5.3.3 Change the instruction to: "Change Table 116-1 as follows (some unchanged rows not Proposed Response Response Status W shown)". Underline text in new rows and add preceding and succeeding unchanged rows. PROPOSED ACCEPT IN PRINCIPLE Apply to other amended tables (including Table 161-7) with similar editing instructions. Fix this Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. C/ 116 SC 116 P36 # 20 L32 Maintain consistency with other tables. Parsons. Earl CommScope C/ 116 SC 116.1.3 P35 L33 Comment Type Comment Status D Bucket Fix cross reference Dawe, Piers Nvidia Comment Status D SuggestedRemedy Comment Type change "Clause 167" to "167" Use the standard order of MAC rate (slow to fast), reach (short to long), lane count (high to low), as in Table 80-1 and Table 116-2. So. 200GBASE-VR2 comes after 200GBASE-CR4 Proposed Response Response Status W and before 200GBASE-SR4, and 200GBASE-SR2 comes after 200GBASE-SR4 and before PROPOSED ACCEPT IN PRINCIPLE. 200GBASE-DR4 Also show the context to make it easier to review the document Fix this SuggestedRemedy C/ 116 SC 116.1.2 P35 L16 # 159 Show the 200GBASE-CR4 row from the base document, then the 200GBASE-VR2 row as in the draft. Dudek, Mike Marvell then the 200GBASE-SR4 row from the base document, Comment Type E Comment Status D **Bucket** then the 200GBASE-SR2 row as in the draft. then the 200GBASE-DR4 row from the base document. With only 2 items "all" isn't appropriate "both" is better Revise the instructions to editor accordingly. SuggestedRemedy Proposed Response Response Status W Change "all" to "both" PROPOSED ACCEPT IN PRINCIPLE. Proposed Response Reorder this table to be consistent with D2 1 of 802 3dc Response Status W PROPOSED ACCEPT IN PRINCIPLE. Replace "all" with "each"

143

203

Bucket

Bucket

C/ 116 SC 116.1.3 P35 L41 # 144 C/ 116 SC 116.1.4 P36 L29 # 173 Brown, Matt Huawei Slavick, Jeff Broadcom Comment Status D Comment Type TR Comment Status D Bucket Comment Type Ε Bucket Since the table is shown with insertion mark-up with surrounding unchanged text the correct 200GAUI-2 is missing from Table 116-4, but is present in Table 167-2 instruction is "change" not "insert" and no further details are required. SuggestedRemedy SuggestedRemedy Add 120F and 120G to Table 116-4 with the same editors note that is after Table 167-2. Change the instruction to: "Change Table 116-2 as follows (some unchanged rows not Proposed Response Response Status W shown)". Similar for Table 116.4. PROPOSED ACCEPT IN PRINCIPLE Proposed Response Response Status W Remove all references to 802.3ck PROPOSED ACCEPT IN PRINCIPLE Simplify editing instructions C/ 116 SC 116.1.4 P36 L32 # 187 Huber, Tom Nokia C/ 116 SC 116.1.3 P37 L10 # 115 Comment Type Comment Status D Bucket Ran, Adee Cisco The heading for the new columns in Table 116-4 is "Clause 167", while all other columns in Comment Type ER Comment Status D Bucket the table only have the clause number as a heading. 802.3cw is not expected to be published before 802.3db, so its modifications (400GBASE-SuggestedRemedy ZR) should not be included here. Change the heading from "Clause 167" to "167" SugaestedRemedy Proposed Response Response Status W Fix the editorial instruction, and remove the columns and rows for 400GBASE-ZR. PROPOSED ACCEPT IN PRINCIPLE. Proposed Response Response Status W Fix this cross reference without breaking others. PROPOSED ACCEPT IN PRINCIPLE. Remove these references to 802.3cw C/ 116 SC 116.1.4 P36 L34 # 86 CME Consulting/ADI, APL Gp, Cisco, CommScope, M Zimmerman, George C/ 116 SC 116.1.4 P36 L16 # 174 Comment Type E Comment Status D Bucket Slavick, Jeff Broadcom "Clause 167" column header is different than the others which just have numbers Comment Status D Comment Type TR Bucket SuggestedRemedy 400GAUI-4 is missing from Table 116-5, but is present in Table 167-2 Change "Clause 167" to "167" (as active xref) SuggestedRemedy Proposed Response Response Status W Add 120F and 120G to Table 116-5 with the same editors note that is after Table 167-2. PROPOSED ACCEPT IN PRINCIPLE. Proposed Response Response Status W Fix this cross reference without breaking the others

PROPOSED ACCEPT IN PRINCIPLE.
Remove references to 802 3ck

C/ 116 SC 116.1.4 P37 L14 # 188 C/ 116 SC 116.1.4 P37 L18 # 21 Huber, Tom Nokia Parsons. Earl CommScope Comment Status D Comment Type Comment Status D Bucket Comment Type Т Bucket Ε Fix cross reference Table 116-5 includes columns for 400GBASE-ZR, assuming that P802.3cw would be published prior to P802.3db. Since P802.3cw is not yet in working group ballot, it not clear tha SuggestedRemedy it would be published first. change "Clause 167" to "167" SuggestedRemedy Proposed Response Response Status W Remove the columns for 400GBASE-ZR from the table, and modify the editing instruction to delete "(as modified by IEEE Std 802.3cw-202x)" PROPOSED ACCEPT IN PRINCIPLE Fix this without breaking other cross references Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. C/ 116 SC 116.1.4 P37 L20 # 87 Remove references to 802.3cw Zimmerman, George CME Consulting/ADI. APL Gp. Cisco. CommScope. M SC 116.1.4 P37 L17 C/ 116 # 248 Comment Type E Comment Status D "Clause 167" column header is different than the others which just have numbers Hajduczenia, Marek **Charter Communications** Comment Status D Comment Type ER Bucket SuggestedRemedy Table 116-5 seems to have an unfinished term "400GBASE-ZR PCS and" Change "Clause 167" to "167" (as active xref) (2 places) SuggestedRemedy Proposed Response Response Status W Seems like part of the statement was cut over? Restore the missing entry in the table PROPOSED ACCEPT IN PRINCIPLE. Fix this cross reference without breaking the others Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE C/ 116 SC 116.1.4 P37 L23 Ensure this table is consistent with D2.1 of 802.3dc CommScope Parsons, Earl C/ 116 SC 116.1.4 P37 L17 # 247 Comment Type E Comment Status D Bucket SR4 2 shouldn't be underlined Hajduczenia, Marek **Charter Communications** Comment Type E Comment Status D SuggestedRemedy Table 116-5 has unnecessary thick lines on the right-top side of the table around "400GBASE remove underline from 400GBASE-SR4.2 ZR PCS and" and "400GBASE-ZR PMD" Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE. Remove unnecessary thick lines Remove this underline Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Fix the line thickness in this table

C/ 116 SC 116.2.5 P38 L0 # 171 C/ 116 SC 116.4 P38 L18 # 160 Slavick, Jeff Broadcom Dudek. Mike Marvell Comment Status D Comment Type Comment Status D Bucket Comment Type TR Bucket Ε 116.2.5 lists the clauses that provide the definition for 200G and 400Gs PMDs. Need to The format of the Max bit times isn't consitent in the same table include 167 in that list. SuggestedRemedy SuggestedRemedy Remove the space in "4 096" also on line 19. The same issue may exist in Table 116-7 but Add Clause 167 into the last paragraph for 116.2.5 for rate. the other lines aren't shown Proposed Response Proposed Response Response Status W Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Add modified paragraph and editing instructions as needed. Add space on rows above an below. C/ 116 SC 116.4 P38 L4 # 193 C/ 116 SC 116.4 P38 L28 # 189 Dawe. Piers Nvidia Huber, Tom Nokia Comment Type E Comment Status D Bucket Comment Type Е Comment Status D Bucket unchanged rows not shown The changes to be made to table 116-7 don't include anything that would be impacted by 802.3cw. so there is no need for the editing instruction to reference 802.3cw. Given that SuggestedRemedy 802.3cw is not vet in working group ballot. it is also unclear that it would be published before some unchanged rows not shown 802.3db. Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE. Remove "(as modified by IEEE Std 802.3cw-202x)" from the editing instruction Update editing instructions Proposed Response Response Status W SC 116.4 # 51 PROPOSED ACCEPT IN PRINCIPLE. C/ 116 P38 L14 Remove references to 802.3cw Wienckowski. Natalie General Motors Comment Type E Comment Status D **Bucket** C/ 116 SC 116.4 P38 L38 # 116 existing text doesn't match P8023 D2p1 ALL SECTIONs.pdf Ran. Adee Cisco SuggestedRemedy Comment Type Ε Comment Status D Bucket Change "8192" to "8 192" Inserted content is not underlined. on L 21 change "4096" to "4 096". SuggestedRemedy Proposed Response Response Status W Apply underline formatting for the two inserted rows. PROPOSED ACCEPT IN PRINCIPLE. Proposed Response Response Status W Make the change in these two rows to match 802.3dc. PROPOSED ACCEPT IN PRINCIPLE. Underline added rows to this table

C/ 116 SC 116.5 P38 L54 # 190 C/ 167 SC 167.1 P41 L11 # 137 Huber, Tom Nokia Brown. Matt Huawei Comment Status D Comment Status D Comment Type Ε Bucket Comment Type Ε Bucket The changes to be made to tables 116-8 and 116-9 don't include anything that would be Presumably 100 Gigabit Ethernet operates over one fiber, 200 over two, and 400 over four. impacted by 802.3cw, so there is no need for the editing instruction to reference 802.3cw. Change wording to reflect that. Append the sentence with ", respectively". Given that 802.3cw is not yet in working group ballot, it is also unclear that it would be SuggestedRemedy published before 802.3db. "The PMD sublayers provide point-to-point 100, 200, and 400 Gigabit Ethernet links over one, SuggestedRemedy two, or four pairs of multimode fiber, respectively." Apply similar change at page 42 line 49 Remove "(as modified by IEEE Std 802.3cw-202x)" from the editing instruction and page 43 line 2. Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Add "respectively" where appropriate. Remove references to 802 3cw C/ 167 SC 167.1 P41 L16 # 89 C/ 167 SC 167 P41 **L1** # 88 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M Zimmerman, George CME Consulting/ADI, APL Gp. Cisco, CommScope, M. Comment Status D Comment Type E Comment Status D **Bucket** Comment Type E Bucket Clause 45 is marked external, even though it is an active cross reference and in the draft Missing editing instruction SuggestedRemedy SuggestedRemedy Make clause 45 black and not marked external Add editing instruction "Insert clause 167 after clause 166 as shown:" Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE Fix this cross reference Add the appropriate editing instructions at the start of Clause 167. C/ 167 SC 167.1 P41 L16 C/ 167 SC 167 P41 L2 # 38 Parsons. Earl CommScope Ghiasi Quantum/Marvell Ghiasi, Ali Comment Type E Comment Status D Bucket Comment Type ER Comment Status D Bucket The dash between the PMDs is missing Change cross reference SuggestedRemedy SuggestedRemedy Switch to internal cross reference to Clause 45 Please repalce 100GBASE VR1 with 100GBASE-VR1, etc. Why is the title in the table of content different that title on this page? Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Fix this The hyphens are present in the PMD names in Clause 167 title. Also TOC has the same title as the Clause (TOC is generated by FM).

C/ 167 SC 167.1 P**41** L17 # 214 Marris. Arthur Cadence Design Systems Comment Status D Comment Type Ε Bucket Choose font colour of "Clause 45" from forest green to black SuggestedRemedy Choose font colour of "Clause 45" from forest green to black, Similarly for Clause 1, 80, 91 and 116 on the next page. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE Fix this cross reference C/ 167 SC 167.1 P41 L29 # 161 Dudek, Mike Marvell Comment Type Ε Comment Status D Bucket In table 167-1 Clause 91 is out of order compared with table 140-1 in 802.3dc SuggestedRemedy Move clause 91 after clause 83 Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Reorder this table consistent with D2 1 of 802 3dc C/ 167 SC 167.1 P41 L46 # 136 Brown, Matt Huawei Comment Type ER Comment Status D Bucket Annex 120F and Annex 120G are defined in 802.3ck, 802.3ck is an amendment that comes

Annex 120F and Annex 120G are defined in 802.3ck. 802.3ck is an amendment that comes after 802.3db according to the published timelines and the amendment order proposed by the Working Group Chair. This further established in the front matter on page 1 and page 11 where is clearly shows that 802.3ck does not precede 802.3db. If these Annexes are relevant to the PHYs defined in this clause then this can be addressed by amendments to Clause 162 and other relevant clauses in 802.3ck.

If it is your intent to point out that AUIs with 100 Gb/s per lane signaling may exist then use ar editor's note for that.

SuggestedRemedy

In Table 167-1 and Table 167-2 delete rows for Annex 120F and Annex 120G. Remove the related editor's notes.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Remove references to 802.3ck

Cl 167 SC 167.1 P41 L46 # 102

Lusted, Kent Intel Corporation

Comment Type TR Comment Status D Bucket

Table 167-1 references Annex 120F and Annex 120G for the 100GAUI1 C2C and C2M. However, the ammendment order decree from David Law has 3ck publishing after 3db

SuggestedRemedy

Remove references to Annex 120F and Annex 120G in the document

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE

Remove references to 802.3ck

Cl 167 SC 167.1 P41 L46 # 117

Ran, Adee Cisco

Comment Type ER Comment Status D

802.3ck is scheduled to be published after 802.3db, and this draft is an amendment of 802.3-202x with amendments not including 802.3ck. Therefore clauses 120F and 120G are not part of the amended standard and are undefined.

In addition, the nomenclature tables in clauses 80 and 116 do not include annexes 120F and 120G.

802.3ck should amend clause 167 to point to these annexes instead.

If 802.3ck is published first, several changes will be needed in 802.3db, not just these two tables.

SuggestedRemedy

Delete the rows for annexes 120F and 120G from Table 167–1 and Table 167–2, and delete the editor's notes referring to them.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.
Remove these references to 802 3ck

Bucket

C/ 167 SC 167.1 P41 L49 # 90 C/ 167 SC 167.1 P**41** L52 # 242 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M Anslow, Pete Independent Comment Type E Comment Status D Comment Type Comment Status D Bucket Ε Bucket Clause 78 is marked external, even though it is an active cross reference and in the draft -All occurrences of "must" have been removed from the 802.3 revision by comments 17 and also on page 42 in Table 167-2. 18 against D2.0. See: https://www.ieee802.org/3/dc/comments/P8023 D2p0 comments final by id.pdf#page=5 SuggestedRemedy Remove this "must" in accordance with these changes. Make clause 78 black and not marked external (2 places) Same issue in Table 167-2 footnote a. Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE In footnote a to Table 167-1 and footnote a to Table 167-2, change "must behave" to Fix this cross reference Proposed Response Response Status W C/ 167 SC 167.1 P41 L51 # 232 PROPOSED ACCEPT IN PRINCIPLE. **RMG** Consulting Grow. Bob Remove "must" to be consistent with D2.1 of 802.3dc Comment Type E Comment Status D **Bucket** C/ 167 SC 167.1 P42 L30 # 233 The word "must" is deprecated. **RMG** Consulting Grow. Bob SuggestedRemedy Comment Type Ε Comment Status D **Bucket** "must behave" -> behaves The word "must" is deprecated. Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE. Remove "must" to be consistent with D2.1 of 802.3dc "must behave" -> behaves Proposed Response Response Status W C/ 167 SC 167.1 P41 L51 # 145 PROPOSED ACCEPT IN PRINCIPLE. Brown, Matt Huawei Remove "must" to be consistent with D2 1 of 802 3dc Comment Type E Comment Status D Bucket C/ 167 SC 167.1 P42 L37 # 52 The word "must" in this context is deprecated. Wienckowski. Natalie General Motors SuggestedRemedy Comment Type E Comment Status D Bucket Change footnote a in in Table 167-1 and Table 167-2 to: "The CGMII is an optional interface. However, if the CGMII is not implemented, a conforming implementation behaves functionally Clause 80 is included in this draft as though the RS and CGMII were present." SuggestedRemedy Proposed Response Response Status W Change Clause 80 to "black". PROPOSED ACCEPT IN PRINCIPLE Proposed Response Response Status W Remove "must" to be in line with 802.3dc D2.1 PROPOSED ACCEPT IN PRINCIPLE. Make this change

C/ 167	SC 167.1	P 42	L37	# 24	C/ 167 SC 167.1	P 42	L 39	# 27
Parsons, Earl CommScope			Parsons, Earl CommScope					
Comment Chanç	<i>Type</i> E ge cross reference	Comment Status D		Bucket	Comment Type E Change cross reference	Comment Status D		Bucket
SuggestedRemedy Switch to internal cross reference to Clause 81					SuggestedRemedy Switch to internal cross	reference to 116.2		
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Fix this				Proposed Response PROPOSED ACCEPT Fix this	Response Status W IN PRINCIPLE.			
C/ 167	SC 167.1	P 42	L38	# 53	C/ 167 SC 167.1	P 42	L 39	# 26
Wienckow	/ski, Natalie	General Motors			Parsons, Earl	CommScope		
Comment Claus	<i>Type</i> E e 80.2 is included	Comment Status D in this draft		Bucket	Comment Type E Change cross reference	Comment Status D		Bucket
Suggested Chang	dRemedy ge 80.2 to "black".				SuggestedRemedy Switch to internal cross	reference to Clause 116		
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Make this change			Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Fix this					
C/ 167	SC 167.1	P 42	L38	# 25	C/ 167 SC 167.1	P 42	L39	# 54
Parsons,	Earl	CommScope			Wienckowski, Natalie	General Motors		
Comment Chang	Type E ge cross reference	Comment Status D		Bucket	Comment Type E Clause 116 is included	Comment Status D in this draft		Bucket
Suggested Switch	•	reference to 80.2			SuggestedRemedy Change Clause 116 to	"black" and make it a hyperlink.		
•	Response POSED ACCEPT s	Response Status W IN PRINCIPLE.			Proposed Response PROPOSED ACCEPT Change this cross refer			

Cl 167 SC 167.	1 P 42	L 43	# 55	C/ 167 SC 167.1	P 42	L 46	# 56	
Wienckowski, Natalie	General Motors		Wienckowski, Natalie General Motors					
Comment Type E Clause 78 is include	Comment Status D ded in this draft	Bucket	Comment Type E Comment Status D Bucket Clause 1 is included in this draft					
SuggestedRemedy Change Clause 78	3 to "black".			SuggestedRemedy Change Clause 1 to "blac	k".			
Proposed Response PROPOSED ACC Change this cross	Response Status W EPT IN PRINCIPLE. reference		Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Change this cross reference					
Cl 167 SC 167.	1 P42	L 43	# 28	C/ 167 SC 167.1	P 42	L 46	# 119	
Parsons, Earl	CommScope			Ran, Adee	Cisco			
Comment Type E	Comment Status D		Bucket	Comment Type E	Comment Status D		Bucket	
Change cross refe SuggestedRemedy Switch to internal	erence cross reference to Clause 78		The sentence "Further relevant information may be found in Clause 1 (terminology and conventions, references, definitions and abbreviations) and Annex A (bibliography, referenced as [B1], [B2], etc.)." Does not belong in this paragraph.					
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Fix this				SuggestedRemedy Move the quoted sentence to a separate paragraph at the end of the subclause.				
				Proposed Response Response Status W				
C/ 167 SC 167.	1 P42	L46	# 29	PROPOSED ACCEPT IN PRINCIPLE. Move this sentence to match previous clauses.				
Parsons, Earl	CommScope			C/ 167 SC 167.1	P 43	L13	# 30	
Comment Type E	Comment Status D		Bucket	Parsons, Earl	CommScope			
Change cross reference				Comment Type E	Comment Status D		Bucket	
SuggestedRemedy			Diagram has some issues					
	cross reference to Clause 1		SuggestedRemedy					
Proposed Response	Response Status W			Fix box alignment betwee	n GMII and PCS boxes			
PROPOSED ACC	EPT IN PRINCIPLE.			Proposed Response	Response Status W			
1 1/2 0110				PROPOSED ACCEPT IN Clean up these boxes	PRINCIPLE.			

C/ 167 SC 167.1 P43 L32 # 149 C/ 167 SC 167.3.1 P45 L21 # 57 Stassar, Peter Huawei Wienckowski. Natalie General Motors Comment Type ER Comment Status D Comment Type Comment Status D Bucket Bucket Missing em dash between "FIBER" and "50 m" & "100 m" Clause 80.4 is included in this draft SuggestedRemedy SuggestedRemedy Add em dash plus 2 spaces between "FIBER" and "50 m", and between "FIBER" and "100 m" Change 80.4 to "black". Proposed Response Proposed Response Response Status W Response Status W PROPOSED ACCEPT IN PRINCIPLE PROPOSED ACCEPT IN PRINCIPLE Add em dash Change this cross reference C/ 167 SC 167.1.1 L43 SC 167.3.1 P45 P43 # 162 C/ 167 L21 # 58 Dudek, Mike Marvell Wienckowski. Natalie General Motors Comment Type Comment Status D Bucket Comment Type Comment Status D Bucket Wrong cross-reference. 1.4.303 is the "end of packet de-limiter". Hyperlink missing. SuggestedRemedy SuggestedRemedy Make 116.4 a hyperlink. Change 1.4.303 to 1.4.344. Also on line 52 Proposed Response Proposed Response Response Status W Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Fix this cross reference Make this a cross reference C/ 167 SC 167.2 P**44** L7 # 120 C/ 167 SC 167.3.2 P45 L26 # 243 Cisco Anslow, Pete Ran, Adee Independent Comment Type Ε Comment Status D Bucket Comment Type Ε Comment Status D Bucket It seems that there is an unnecessary line break after "VR2,", maybe because the paragraph All occurrences of "must" have been removed from the 802.3 revision by comments 17 and 18 against D2.0. See: is not justified. https://www.ieee802.org/3/dc/comments/P8023 D2p0 comments final by id.pdf#page=5 SuggestedRemedy Remove the two instances of "must" in accordance with these changes. Apply paragraph formatting to justify the paragraph (and others if necessary). Delete the line SuggestedRemedy break if it exists. Change "... FEC lanes must be kept within limits ..." to "... FEC lanes is kept within limits ..." Proposed Response Response Status W On line 27 change "The Skew Variation must also be limited..." to "The Skew Variation is also PROPOSED ACCEPT IN PRINCIPLE. limited ..." Justify this paragraph correctly Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Remove "must" to be consistent with D2.1 of 802.3dc

C/ 167 SC 167.3.2 P45 L26 # 234 C/ 167 SC 167.3.2.1 P45 L30 # 150 Grow, Bob **RMG** Consulting Stassar, Peter Huawei Comment Type E Comment Status D Bucket Comment Type ER Comment Status D Bucket The word "must" is deprecated. Unnecessary adding of subclause 167.3.2.1 SuggestedRemedy SuggestedRemedy "must be" -> "needs to be" Move contents of 167.3.2.1 to 167.3.2 and remove heading of 167.3.2.1 Proposed Response Proposed Response Response Status W Response Status W PROPOSED ACCEPT IN PRINCIPLE PROPOSED ACCEPT IN PRINCIPLE Remove "must" to be consistent with D2.1 of 802.3dc Check D2.1 of 802.3dc and make changes to be consistent with previous clauses SC 167.3.2.1 C/ 167 SC 167.3.2 C/ 167 P45 P45 L26 # 148 L33 # 59 Wienckowski. Natalie General Motors Brown, Matt Huawei Comment Type Comment Status D Comment Type E Comment Status D Bucket The word "must" in this context is deprecated. For similar clauses elsewhere this wording has Clause 116.5 is included in this draft been addressed by comments against 802.3dc D2.0 and will be reflected in 802.3dc D2.1. SuggestedRemedy SuggestedRemedy Change 116.5 to "black" and make it a hyperlink. Expunge "must" as done in similar clauses in 802.3dc D2.1. Also in 167.5.3 Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Change this cross reference Remove "must" to be in line with 802 3dc D2 1 C/ 167 SC 167.3.2.1 P45 L33 C/ 167 SC 167.3.2 L27 P45 # 235 Parsons, Earl CommScope **RMG** Consulting Grow. Bob Comment Type E Comment Status D Bucket Comment Type E Comment Status D Bucket Change cross reference The word "must" is deprecated. SuggestedRemedy SuggestedRemedy Switch to internal cross reference to Clause 116.5 "must also be" -> "also needs to be" Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE PROPOSED ACCEPT IN PRINCIPLE. Fix this Remove "must" to be consistent with D2 1 of 802 3dc

C/ 167 SC 167.3.2.1 P45 L52 # 32 C/ 167 SC 167.5.1 P46 L40 # 151 Parsons. Earl CommScope Stassar, Peter Huawei Comment Type Comment Status D Bucket Comment Type ER Comment Status D Bucket Ε Change cross reference The wording "The block diagrams for 200GBASE-VR2 and 200GBASE-SR2, and 100GBASE-VR1 and 100GBASE-SR1 are equivalent to Figure 167-2, but for two lanes and SuggestedRemedy one lane per direction, respectively." is ambiguous Switch to internal cross reference to Clause 45 SuggestedRemedy Proposed Response Response Status W Change wording to "The block diagrams for 200GBASE-VR2 and 200GBASE-SR2 are PROPOSED ACCEPT IN PRINCIPLE equivalent to Figure 167-2, but for two lanes per direction. The block diagrams for 100GBASE-VR1 and 100GBASE-SR1 are equivalent to Figure 167–2, but for one lane per Fix this direction." SC 167.4 # 60 C/ 167 P45 L48 Proposed Response Response Status W Wienckowski. Natalie General Motors PROPOSED ACCEPT IN PRINCIPLE. Comment Type E Comment Status D Bucket Make this change Clause 116.5 is included in this draft C/ 167 SC 167.5.1 P46 L47 # 163 SuggestedRemedy Dudek. Mike Marvell Change 116.5 to "black" and make it a hyperlink. Comment Type Comment Status D Е **Bucket** Proposed Response Response Status W missing words. PROPOSED ACCEPT IN PRINCIPLE. SuggestedRemedy Change this cross reference Change "defined in are made" to "defined in this clause are made" or add cross reference to C/ 167 P45 L53 # 61 SC 167.4 167.7.1 Proposed Response Response Status W Wienckowski, Natalie General Motors PROPOSED ACCEPT IN PRINCIPLE. Comment Type E Comment Status D Bucket Add cross reference to 168.8 Clause 45 is included in this draft C/ 167 SC 167.5.1 P46 L47 SuggestedRemedy Change Clause 45 to "black". Wienckowski, Natalie General Motors Comment Type Comment Status D Proposed Response Bucket Response Status W Remove random word "in". PROPOSED ACCEPT IN PRINCIPLE. Change this cross reference SuggestedRemedy Change: all transmitter measurements and tests defined in are made at TP2. To: all transmitter measurements and tests defined are made at TP2. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE A refence to 167.8 is missing which makes the sentence look incorrect. Insert the reference

to 167.8 consistent with previous clauses.

Cl 167 SC 167.5.1 P47 L1 # 164

Dudek, Mike Marvell

Comment Type E Comment Status D Bucket missing words.

SuggestedRemedy

Change "defined in are made" to "defined in this clause are made" or add cross reference to 167.7.2

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.
Add cross reference to 168.8.

Cl 167 SC 167.5.1 P47 L1 # 63

Wienckowski, Natalie General Motors

Comment Type E Comment Status D

Remove random word "in".

SuggestedRemedy

Change: all receiver measurements and tests defined in are made at TP3.

To: all receiver measurements and tests defined are made at TP3.

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

A refence to 167.8 is missing which makes the sentence look incorrect. Insert the reference to 167.8 consistent with previous clauses.

 CI 167
 SC 167.5.2
 P47
 L36
 # 121

 Ran, Adee
 Cisco

 Comment Type
 T
 Comment Status
 D
 Bucket

The transmit function converts symbol streams to optical signals, not signal streams to optical signal streams.

This text seems to originate in clause 138, which has similar incorrect language (and should be fixed in maintenance). The precedence in most other clauses (e.g. 121.5.2, 122.5.2, 123.5.2, 124.5.2, 151.5.2) should be followed instead.

Similarly for the receive function, in the other direction, in 167.5.3.

SuggestedRemedy

In 167.5.2, change from

"The PMD Transmit function shall convert the one, two, or four signal streams requested by the PMD service interface messages PMD:IS_UNITDATA_i.request into one, two, or four separate optical signal streams"

to

Bucket

"The PMD Transmit function shall convert the one, two, or four symbol streams requested by the PMD service interface messages PMD:IS_UNITDATA_i.request into one, two, or four separate optical signals".

In 167.5.3, change from

"The PMD Receive function shall convert the one, two, or four parallel optical signal streams received from the MDI into separate symbol streams" to

"The PMD Receive function shall convert the one, two, or four parallel optical signals received from the MDI into one, two, or four separate symbol streams".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Make corrections in line with previous clauses.

C/ 167 SC 167.5.2 P47 L43 # 122 C/ 167 SC 167.5.4 P48 L30 # 244 Ran, Adee Cisco Anslow, Pete Independent Comment Status D Comment Status D Comment Type Т Bucket Comment Type Ε Bucket "tx symbols zero, one, two, and three" - The sentence refers to values of tx symbol, the All occurrences of "must" have been removed from the 802.3 revision by comments 17 and argument of PMD:IS UNITDATA i.request. "tx symbols" is undefined. 18 against D2.0. See: https://www.ieee802.org/3/dc/comments/P8023 D2p0 comments final by id.pdf#page=5 This text seems to originate in clause 138, which has similar incorrect language (and should Remove the "must" in accordance with these changes. be fixed in maintenance). The precedence in most other clauses (e.g. 121.5.2, 122.5.2, SuggestedRemedy 123.5.2. 124.5.2) should be followed instead. Change: "As an unavoidable consequence of the requirements for the setting of the SIGNAL DETECT Similarly for the receive function, with rx symbols, in 167.5.3. parameter, implementations must provide adequate margin ..." to: SuggestedRemedy "As a consequence of the requirements for the setting of the SIGNAL DETECT parameter. Change "tx symbols zero, one, two, and three" to "tx symbol values zero, one, two, and implementations need to provide adequate margin ..." three". Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Similarly for rx symbols in 167.5.3. Remove "must" to be consistent with D2 1 of 802 3dc. Proposed Response Response Status W C/ 167 SC 167.5.4 P48 # 237 PROPOSED ACCEPT IN PRINCIPLE. L31 Make corrections in line with previous clauses. Grow. Bob RMG Consulting Comment Type Comment Status D Bucket C/ 167 SC 167.5.4 P48 L30 # 236 Ε The word "must" is deprecated. Grow. Bob **RMG** Consulting Comment Type E Comment Status D Bucket SuggestedRemedy "must" -> "need to" The word "unavoidable" has been purged from P802.3/D2.1. Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE. "As a conquence ..." Remove "must" to be consistent with D2.1 of 802.3dc Proposed Response Response Status W C/ 167 SC 167.5.5 P48 L42 PROPOSED ACCEPT IN PRINCIPLE # 123 Remove "unavoidable" to be consistent with D2.1 of 802.3dc Ran. Adee Cisco Comment Type Comment Status D Bucket The sentence "Various implementations of the Signal Detect function are permitted by this standard" seems irrelevant here, and is probably repeated from the previous subclause. SugaestedRemedy

Delete the guoted sentence.

PROPOSED REJECT.

Proposed Response

remove it.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 167 SC 167.5.5

This sentence comes from previous standards. The commenter has not provided a reason to

Response Status W

Page 32 of 47 11/8/2021 9:09:31 AM C/ 167 SC 167.5.10 P49 L38 # 64 C/ 167 SC 167.5.11 P49 L46 # 92 Wienckowski. Natalie General Motors Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M Comment Type E Comment Status D Bucket Comment Type E Comment Status D Bucket Clause 45.2.1.7.4 is included in this draft 45.2.1.7.5 is marked external even though it is in the draft SuggestedRemedy SuggestedRemedy Change 45.2.1.7.4 to "black" and make it a hyperlink. make 45.2.1.7.5 an active cross reference, not external, and black Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE PROPOSED ACCEPT IN PRINCIPLE Fix this cross reference Fix this cross reference C/ 167 SC 167.5.10 P49 L38 # 91 C/ 167 SC 167.6 **L1** P50 # 124 Zimmerman, George CME Consulting/ADI, APL Gp. Cisco, CommScope, M Ran. Adee Cisco Comment Type E Comment Status D Comment Type Comment Status D Bucket There is no RS-FEC sublayer in 200GBASE-R and 400GBASE-R. The lane reordering is a 45.2.1.7.4 is marked external even though it is in the draft PCS function in these PHYs SuggestedRemedy SuggestedRemedy make 45.2.1.7.4 an active cross reference, not external, and black Change "the RS-FEC sublayer is" to "the PCS and the RS-FEC sublayer are". Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Fix these cross references Make this change to be consistent with previous clauses. C/ 167 SC 167.5.11 P49 L46 # 65 C/ 167 SC 167.7 P50 **L9** # 152 Wienckowski, Natalie General Motors Stassar, Peter Huawei Comment Type E Comment Status D Bucket Comment Type ER Comment Status D Bucket Clause 45.2.1.7.5 is included in this draft Missing comma after 200GBASE-SR2 SuggestedRemedy SuggestedRemedy Change 45.2.1.7.5 to "black" and make it a hyperlink. Add comma after 200GBASE-SR2 Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT. Fix this cross reference

Cl 167 SC 167.7 P50 L19 # 66

Wienckowski, Natalie General Motors

Comment Type TR Comment Status D

There is no objective for a 30m link. The VR links are specified to be 50m everywhere else in this draft.

SuggestedRemedy

Delete row: 0.5 m to 30 m for OM3

Proposed Response Status W

PROPOSED REJECT.

The objectives in 802.3db are written the same way as recent multi-mode link standards, e.g., 802.3cm, 802.3cd and 802.3bm. All these projects have defined links for both OM3 and OM4 for broad market potential.

The link length in the objectives is for OM4 fiber.

Cl 167 SC 167.7 P50 L24 # 67

Wienckowski, Natalie General Motors

Comment Type TR Comment Status D Bucket

There is no objective for a 60m link. The SR links are specified to be 100m everywhere else in this draft.

SuggestedRemedy

Delete row: 0.5 m to 60 m for OM3

Proposed Response Response Status W

PROPOSED REJECT

See response to comment #66.

Cl 167 SC 167.7 P50 L28 # 175

Nicholl, Shawn Xilinx

Comment Type E Comment Status D

Table 167-6 contains references to 100G PMDs and a footnote that reads "The PCS FEC correction function ..."

For 100G operation, the FEC (Clause 91) is not part of the PCS (Clause 82).

SuggestedRemedy

Propose to change the footnote text from "The PCS FEC correction function" to "The RS-FEC error correction function".

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE

Cl 167 SC 167.7.1 P51 L12 # 215

Marris, Arthur Cadence Design Systems

Comment Type T Comment Status D

I thought for new projects the tolerance on the transmit signalling rate is being tightened to 50 ppm

SuggestedRemedy

Consider changing 100ppm to 50ppm

Proposed Response Response Status W

DISCUSS

C/ 167 SC 167.7.1 P51 L28 # 195

Dawe, Piers Nvidia

Comment Type TR Comment Status X

As the channel or signal is relatively slower than for any other optical PMDs so far, we should expect higher Ceq, contributing to TDECQ, but we should not expect higher K because we have 9 taps rather than 5, and 2% threshold adjust rather than 1%. We expect that TDECQ, Ceq and K measurements with 2% threshold adjust will be more accurate than for previous specs, so we need less padding for measurement issues. We should re-optimise the spec considering these things, encouraging good equalisable signals both after and before the fibre. The K' limit can catch some bad transmitters that an overshoot limit intended to pass a good signals would miss - and K' is a free by-product of TECQ.

The K' limit is similar to VEC in C2M and EVM in coherent: a screen for signals that are bad after equalisation.

SuggestedRemedy

Insert row for K'=TECQ-10.log10(Ceq'), limit 4 dB (where K' and Ceq' are the two parts of TECQ as K and Ceq are the two parts of TDECQ). For both VR and SR.

Proposed Response Status W

DISCUSS

Cl 167 SC 167.7.1 P51 L30 # 179

Murty, Ramana Broadcom Inc.

Comment Type T Comment Status X

The overshoot/undershoot (max) value of 26% at 3E-3 hit ratio in Table 167-7 is low. One should use the same value as single mode links (802.3cu) since the receiver configuration is similar, PIN-TIA-FFE.

SuggestedRemedy

Specify overshoot/undershoot (max) as 29% at 3E-3 hit ratio (equivalent to 22% at 1E-2 hit ratio, value in 802.3cu).

Proposed Response Status **W**

Review accompanying presentation.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 167 SC 167.7.1 Page 34 of 47 11/8/2021 9:09:31 AM

Cl 167 SC 167.7.1 P51 L32 # 180

Murty, Ramana Broadcom Inc.

Comment Type T Comment Status X

Transmitter power excursion (max) of 2 dBm in Table 167-7 was proposed for a hit ratio of 1E 2

SuggestedRemedy

Specify transmitter power excursion (max) as 2.3 dBm at 3E-3 hit ratio.

Proposed Response Response Status W

Review accompanying presentation.

Cl 167 SC 167.7.1 P52 L23 # 36

Ghiasi, Ali Ghiasi Quantum/Marvell

Comment Type TR Comment Status D

Receiver reflectance of -12 combined with -20 dB results in much larger reflection than transmitter may tolerate, 2 connectors at 20 dB result in 14 dB RL, 3 connectors result in 10.7 dB, and 4 connectors in 8.4 dB.

SuggestedRemedy

One option is to increase cable plant RL to 26 dB but that require possibly replacing cable plant, simpler option is to require 20 dB RL for the receiver and keep the current 12 dB tolerance for the transmitter.

Proposed Response Response Status **W**

PROPOSED ACCEPT IN PRINCIPLE.

Cl 167 SC 167.7.2 P53 L44 # 40

Ghiasi, Ali Ghiasi Quantum/Marvell

Comment Type TR Comment Status X

It was shown that TDECQ with MMSE is accurate and reduce test time and associated test cost

https://www.ieee802.org/3/db/public/September-09-September-29-

2021/ghiasi_802.3db_01_092321.pdf

SuggestedRemedy

MMSE is representative of real receiver and a full grid search may produce results slighty better, as shown by in Ghiasi contribution there is excellent correlation for scope measurements. MMSE will reduce test time specillay given 802.3db reference receiver is 9 taps will longer to do full grid search and will increase test cost.

Proposed Response Response Status W

C/ 167 SC 167.7.3

P**53**

L13

68

Wienckowski, Natalie General Motors

Comment Type TR Comment Status D

Bucket

There is no objective for a 30m link. The VR links are specified to be 50m everywhere else in this draft.

There is no objective for a 60m link. The SR links are specified to be 100m everywhere else in this draft.

SuggestedRemedy

Delete OM3 columns in Table 167-9

Proposed Response Response Status W

PROPOSED REJECT.

See response to comment #66.

Cl 167 SC 167.7.3 P53 L32 # 196

Dawe, Piers Nvidia

Comment Type E Comment Status D

Figure is a bitmap and looks bad

SuggestedRemedy

Insert figure another way so it is a vector graphic. It may be better to avoid diagonal text.

Proposed Response Status W

PROPOSED ACCEPT.

See comment #249.

Use .svq format for figure in the next draft.

Cl 167 SC 167.7.3 P53 L32 # 245

Anslow, Pete Independent

Comment Type ER Comment Status D

Bucket

Bucket

Figure 167-3 is a bit map. This has several drawbacks: the rendition of the figure is poor making small text difficult to read, the use of bit maps increases the file size unnecessarily, th text content of the figures is not searchable and most importantly, including non-editable figures makes life difficult if changes are required in Maintenance after the figure has been incorporated into the next revision.

If it would help, I can provide a suitable .svg file together with the Octave script that generates it.

SuggestedRemedy

Since this figure illustrates equations, use a vector graphics (e.g., .svg) format and apply the annotations to the lines in FrameMaker.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

A .svg file will be used for the next draft.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 167 SC 167.7.3 Page 35 of 47 11/8/2021 9:09:31 AM

11/8

Cl 167 SC 167.7.3 P53 L53 # 249

Hajduczenia, Marek Charter Communications

Comment Type ER Comment Status D Bucket.

Figure 167-3 is heavily rasterized. Consider using higher resolution figure

SuggestedRemedy

Per comment

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE

See comment #245. A .svg file will be used for the next draft.

CI 167 SC 167.8 P54 L3 # 125

Ran, Adee Cisco

Comment Type T Comment Status D

The normative requirements from PMDs are stated in 167.7.1 and 167.7.2 with "shall" statements that encompass all the requirements, and refer to 167.8 for definitions.

There is no need to have additional "shall" statements for each of the definitions in 167.8 and its subclauses. These are not additional requirements but definitions of the requirements stated above.

Specifically, the "shall" in 167.8 is not a requirement but a definition of the test conditions. Also, the references to 121.8.9.1, 121.8.9.2, and 121.8.9.3 for SRS are incorrect.

The suggested remedy is to rephrase text in some of the subclauses of 167.8 as definitions, and to delete statements in other subclauses which are repetitions of the existing normative requirement.

(The commenter is aware that the text in question is based on similar text found in many clauses of the base document; However, each clause is independent and a project may and should divert from copied text if it improves the standard. Changing the base document to include these improvements is a separate activity).

SuggestedRemedy

In 167.8, change "shall be made" to "is made".

In 167.8.2, change "shall be within the range given in Table 167–7 if measured per IEC 61280 1-3" to "measurement method is defined in IEC 61280-1-3".

In 167.8.3, change "shall be within the limits given in Table 167–7 if measured using the methods given in IEC 61280-1-1" to "measurement method is defined in IEC 61280-1-1".

In 167.8.4, change "The OMAouter of each lane shall be within the limits given in Table 167–7 if measured as defined in 121.8.4." to "The OMAouter measurement method is defined in 121.8.4."

In 167.8.5, change "The TDECQ of each lane shall be within the limits given in Table 167–7 if measured using the methods specified in 121.8.5" to "The TDECQ measurement method is specified in 121.8.5".

In 167.8.6, delete "The TECQ of each lane shall be within the limits given in Table 167–7 if measured using a test pattern specified for TECQ in Table 167–11."

In 167.8.7, delete "The overshoot/undershoot of each lane shall be within the limits given in Table 167–7 if measured using a test pattern specified for overshoot/undershoot in Table 167–11."

In 167.8.8, delete "The transmitter power excursion of each lane shall be within the limits give in Table 167–7 if measured using a test pattern specified for transmitter power excursion in

Table 167-11 "

In 167.8.9, change "The extinction ratio of each lane shall be within the limits given in Table 167–7 if measured using the methods specified in 121.8.6" to "The extinction ratio measurement method is as specified in 121.8.6".

In 167.8.10, delete "The transmitter transition time of each lane shall be within the limits given in Table 167–7 if measured using a test pattern specified for transmitter transition time in Table 167–11."

In 167.8.11, change "RIN shall be as defined by the measurement methodology of 52.9.6" to "The RIN12OMA measurement method is as specified in 52.9.6".

In 167.8.12, delete "The receiver sensitivity (OMAouter) of each lane shall be within the limits given in Table 167–8 if measured

using a test pattern specified for receiver sensitivity in Table 167-11."

In 167.8.13, change "Stressed receiver sensitivity shall be within the limits given in Tab 167–8 if measured using the methodology defined in 121.8.9.1 and 121.8.9.3, with the conformance test signal at TP3 as described in 121.8.9.2" to "The stressed receiver sensitivity measurement method is as defined in 121.8.10".

Delete the PICS table in 167 11 4 4

Proposed Response

Response Status W

DISCUSS

The text noted in the comment is taken from 802.3cd. The word "shall" is indeed repeated.

The sentence construction is intended to provide links to Tables in subclause 167.7.

CI 167 SC 167.8.1.1 P55 L26 # 126

Ran, Adee Cisco

Comment Type E Comment Status D

This subclause deals with "Multi-lane testing considerations", mostly related to receiver testing lts hierarchical placement under 167.8.1 "Test patterns for optical parameters" is incorrect.

SuggestedRemedy

Change the hierarchy to make this a level 2 subclause (167.8.2).

Proposed Response Status W

DISCUSS

167.8.1.1 is a continuation of the description of testing in 167.8.1.

Subclause 167.8.2 to 167.8.13 describe specific items in the tables in subclause 167.7.

Cl 167 SC 167.8.1.1 P55 L28 # 153

Stassar, Peter Huawei

Comment Type ER Comment Status D Bucket

Wrong cross reference.

SuggestedRemedy

Change cross reference "Figure 167.1.1" to section "167.1.1"

Proposed Response Status W

PROPOSED ACCEPT.

Cl 167 SC 167.8.1.1 P55 L30 # 176

Nicholl, Shawn Xilinx

Comment Type E Comment Status D Bucket

Table 167-10 Pattern 5 contains a "Pattern description" column that reads "Scrambled idle encoded by RS-FEC".

Later, 167.8.1.1 sub-clause text contains a reference with the words shuffled around.

SuggestedRemedy

Propose to change the sub-clause text from "Pattern 5 (RS-FEC encoded scrambled idle)" to "Pattern 5 (Scrambled idle encoded by RS-FEC)" such that the paragraph text matches the previous earlier table.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Implement with editorial license.

Cl 167 SC 167.8.1.1 P55 L33 # 146

Brown, Matt Huawei

Comment Type E Comment Status D Bucket

The word "must" in this context is deprecated.

SuggestedRemedy

Change text to the following or similar: "If each lane is stressed in turn, the BER is diluted by the three unstressed lanes, and the BER for that stressed lane alone is found"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Implement with editorial license.

C/ 167 SC 167.8.1.1 P55 L33 # 238 C/ 167 SC 167.8.5 P56 L11 # 181 Grow, Bob RMG Consulting Murty, Ramana Broadcom Inc. Comment Type E Comment Status D Comment Type Comment Status D Bucket Bucket The word "must" is deprecated. The TDECQ test for a multi-mode link uses a fiber emulation filter in place of a real fiber. SuggestedRemedy SuggestedRemedy Add a figure to show the TDECQ conformance test block diagram, simillar to Figure 121-4. "must be" -> "needs to be" Proposed Response Proposed Response Response Status W Response Status W PROPOSED ACCEPT IN PRINCIPLE PROPOSED ACCEPT IN PRINCIPLE Implement with editorial license. See response to comment #205. C/ 167 C/ 167 SC 167.8.1.1 P55 L42 # 127 SC 167.8.5 P56 L35 # 194 Cisco Dawe, Piers Ran. Adee Nvidia Comment Type Comment Status X Comment Type Ε Comment Status D Bucket "The normalized power density spectrum, N(f)" is missing a word (noise). The sentence "Alternative test methods that generate equivalent results may be used" does not apply only to "Multi-lane testing considerations". Within this clause, it does not make sens SuggestedRemedy in the middle of a paragraph that deals with various considerations specific for multi-lane Change to ""The normalized noise power density spectrum, N(f)" as in 121.8.5.3, TDECQ testing. measurement method SuggestedRemedy Proposed Response Response Status W Either move this sentence to the parent subclause 167.8, or to a separate paragraph at the end of this subclause, or delete it. PROPOSED ACCEPT. Proposed Response Response Status W C/ 167 SC 167.8.5 P56 L37 # 147 **DISCUSS** Brown, Matt Huawei C/ 167 SC 167.8.3 P**56** L**5** # 128 Comment Type Comment Status D Bucket The word "must" in this context is deprecated. Cisco Ran, Adee Comment Type E Comment Status D Bucket SuggestedRemedy "Figure 53-6" is a broken link (not found in this document), and is not formatted in green. Change text to the following or similar: "If an equivalent-time sampling oscilloscope is used, the impact of the sampling process and the fiber emulation is also compensated for, so that SuggestedRemedy the correct magnitude of noise is present at the output of the equalizer." Change to regular text and format in forest green. Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT. Implement with editorial license.

C/ 167 SC 167.8.5 P56 L44 # 93 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M Comment Status D Comment Type TR Bucket Editor's note should not be indented as a list item - also, this is a note about a proposed substitution. The editor's note should be removed during working group ballot, prior to SA ballot. SuggestedRemedy Remove editor's note. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. See response to comment #40. C/ 167 SC 167.8.5 P56 L47 # 250 Haiduczenia. Marek **Charter Communications** Comment Type E Comment Status D Bucket Missing "continued" flag in Table 167-12 + missing heading tag. Alternatively, make sure the table does not break over pages. SuggestedRemedy Per comment Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. C/ 167 SC 167.8.5 P56 L47 # 94 Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M Comment Type E Comment Status D Bucket

C/ 167 SC 167.8.5 P57 L33 # 44 Lingle, Robert **OFS** Comment Type Comment Status D Ε Editor's note states: "Use of minimum mean squared error optimization in place of optimization of TDECQ has been proposed." This topic has had a presentation in TF & discussion in TF and offline. Whatever the TF decides during comment resolution on D2.0. I think the Editor's Note has served its purpose (of stimulating consideration) and should be removed at this point. SuggestedRemedy Remove this editor's note Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. See response to comment #40. C/ 167 SC 167.8.5.1 P**57** L15 # 165 Dudek. Mike Marvell Comment Type T Comment Status D Bucket The sentence isn't precisely stating that the reference equalizer has 9 taps (just that 9 taps ar shown in Figure 167-4 SuggestedRemedy Change to "A function model of the 9 tap reference equalizer is shown...." Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Implement with editorial license.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Try getting Table 167-12 on one page.

 CI 167
 SC 167.8.6
 P57
 L40
 # 205

 Zivny, Pavel
 Tektronix

 Comment Type
 T
 Comment Status
 D

The configuration of TDECQ measurement and of TECQ measurement is insuficiently clear. A figure should be added for better clarity.

The figure (on page 2 of the ppt) is as was (email from Zivny to Dudek et al. Tue 9/21/2021 2:06 PM PDT) in ppt tAlso attached to the comment email.

SuggestedRemedy

in the clause "167.8.6 Transmitter eye closure for PAM4 (TECQ)" do replace the following tex "The transmitter eye closure for PAM4 (TECQ) is a measure of the optical transmitter's eye closure at TP2."

with

"The transmitter eye closure for PAM4 (TECQ) is a measure of the optical transmitter's eye closure at TP2; see figure XYZ".

ALso, in "167.8.5 Transmitter and dispersion eve closure for PAM4 (TDECQ)".

append line 16 "Table 167-11 specifies

the test pattern to be used for measurement of TDECQ."

The fiber dispersion is now the first filter not the second

with line

"See Figure XYZ for measurement setup."

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Review accompanying presentation.

 CI 167
 SC 167.8.6
 P57
 L42
 # 166

 Dudek, Mike
 Marvell

 Comment Type
 TR
 Comment Status D
 Bucket

SuggestedRemedy

Change "except that the second filter representing the dispersion of the fiber is not used" to "except that the first filter representing the dispersion of the fiber is omitted"

Proposed Response Response Status W

PROPOSED ACCEPT.

Cl 167 SC 167.8.7 P57 L50 # 167

Dudek, Mike Marvell

Comment Type T Comment Status D

Bucket

With TDECQ always having a narrower bandwidth filter than TECQ it is extremely unlikely to have larger overshoot/undershoot making the test with the waveform captured for TDECQ unnecesary. (Note this is different than single mode where the fiber dispersion can reduce or increase the overshoot.)

SuggestedRemedy

Change "Overshoot and undershoot are measured using the waveform captured for the TDECQ test (see 167.8.5) and

the waveform captured for the TECQ test (see 167.8.6), but without the reference equalizer being applied in

each case." to

"Overshoot and undershoot are measured using the waveform captured for the TECQ test (see 167.8.6), but without the reference equalizer being applied "

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Implement with editorial license.

Cl 167 SC 167.8.7 P57 L53 # 168

Dudek, Mike Marvell

Comment Type T Comment Status D

Bucket

Better wording could be used as 140.7.7 uses a different hit ratio. Make a similar change on page 58 line 12.

SuggestedRemedy

Change "using the methods in 140.7.7 with the hit ratio of 3E-3" to "using the methods in 140.7.7 except that a hit ratio of 3E-3 is used"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Implement with editorial license.

 CI 167
 SC 167.8.11
 P58
 L42
 # 204

 Zivny, Pavel
 Tektronix

 Comment Type
 T
 Comment Status
 D

The measurement bandwidth mandated for RIN measurement by the text

"b) The upper –3 dB limit of the measurement apparatus is to be approximately equal to the signaling rate (i.e., 53.125 GHz)."

is an copy/oaste from past standards. It is neither justified nor feasible. Standard measurement bandwith should be used.

SuggestedRemedy

Replace the text

"b) The upper –3 dB limit of the measurement apparatus is to be approximately equal to the signaling rate (i.e., 53.125 GHz)."

"b) The bandwidth of the measurement apparatus shall be the same as in "167.8.10 Transmitter transition time".

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Discuss

Comment Type TR Comment Status D

The spec requires 53.125GHz integration bandwidth for RIN, which is significantly higher than the receiver bandwidth. The high integration bandwidth is not needed and can make measurements expensive.

SuggestedRemedy

b) The upper –3 dB limit of the measurement apparatus is to be approximately 26.5625 GHz

Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.

Discuss

Cl 167 SC 167.8.13 P59 L13 # 169

Dudek, Mike Marvell

Comment Type T Comment Status D

SECQ is not described in 167.8.6. It needs to be tied to TECQ that is described. Also two different aspects are combined in one bullet.

SuggestedRemedy

Make one bullet "The stressed receiver conformance test signal has a transition time that is no greater than the value specified in Table 167-7"

Make the second bullet "The SECQ of the stressed recevier conformance test signal is equal to the value of the TECQ of the signal measured according to 167.8.6 except that the optical splitter and variable reflector shown in Figure 121-4 are omitted.

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Implement with editorial license.

Cl 167 SC 167.8.13.1 P59 L46 # 42

Maquire, Valerie The Siemon Company

Comment Type T Comment Status D

Bucket

Bucket

Bucket

LB is identified as an upper frequency bound, but it's not clear what the units are

SuggestedRemedy

Replace, "LB = loop bandwidth; upper frequency bound..." with, "LB = loop bandwidth (MHz); upper frequency bound..."

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

The upper frequency bound is represented by the symbol LB and units are not required.

Cl 167 SC 167.9.1 P59 L53 # 129

Ran, Adee Cisco

Comment Type ER Comment Status D

The "General safety" subclauses in the base document now refer to Annex J.

SuggestedRemedy

Change the body of this subclause to "All equipment subject to this clause shall conform to th general safety requirements as specified in J.2".

Also change PICS item ES1.

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Reference Annex J in line with D2.1 of 802.3dc

Bucket

Comment Type TR Comment Status D Bucket

Should refer to Annex J. IEC 60950-1 is obsolete.

SuggestedRemedy

Change: All equipment subject to this clause shall conform to IEC 60950-1.

To: All equipment meeting this standard shall conform to the general safety requirements as specified in J.2.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE. Change reference to IEC 60950-1 to Annex J.

See also comments #95

C/ 167 SC 167.9.1 P59 L54 # 95

Zimmerman, George CME Consulting/ADI, APL Gp, Cisco, CommScope, M

Comment Type TR Comment Status D

IEC 60950-1 has been withdrawn. See IEEE 802.3-202x Annex J.

SuggestedRemedy

replace "conform with IEC 60950-1" with "shall conform to J.2"

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Refer to Annex J

See comment #69

Cl 167 SC 167.9.1 P59 L54 # 177

Lewis, Jon Dell Technologies

Comment Type TR Comment Status D Bucket

IEC 60950-1 has been removed and the updated references are in Annex J

SuggestedRemedy

Change line 54 to read "All equipment that meets the requirements of this standard shall $\,$

conform to J 2 "

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Refer to Annex J

Cl 167 SC 167.10.1 P61 L35 # 70

Wienckowski, Natalie General Motors

Comment Type TR Comment Status D Bucket

Remove reference to OM3 as it doesn't meet the project objectives.

SuggestedRemedy

Delete: As OM4 and OM5 optical fiber meet the requirements for OM3, a channel compliant to the "OM3" column may use OM4 or OM5 optical fiber, or a combination of OM3, OM4, and OM5

Proposed Response Response Status W

PROPOSED REJECT.

See response to comment #66.

C/ 167 SC 167.10.2.1 P62 L44 # 197

Dawe, Piers Nvidia

Comment Type E Comment Status D

Problems with footnote f: "these applications" isn't defined, "application" is too vague a word for a standard. What can the reader do with "should have"? I think we mean that older OM3 and OM4 comply to the new spec. When it says "OM3 and OM4 fibers compliant to previous versions ... are suitable for these applications", does that mean that fibers compliant to the current version aren't? Are the old fibres unsuitable at less than maximum length?

SuggestedRemedy

Change

Amendment 1 to IEC 60793-2-10 reflects the fact that the chromatic dispersion values of OM3, OM4 and OM5 should have the same specification. OM3 and OM4 fibers compliant to previous versions of IEC 60793-2-10 are suitable for these applications at the maximum length specified.

to

These limits are consistent with IEC 60793-2-10 Amendment 1 (202x). For OM5, they are the same as previous versions of IEC 60793-2-10. OM3 and OM4 fibers compliant to previous versions of IEC 60793-2-10 are considered compliant for 100GBASE-VR1, 200GBASE-VR2, 400GBASE-VR4, 100GBASE-SR1, 200GBASE-SR2, and 400GBASE-SR4 Physical Layer types.

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE

Discuss this footnote.

See also responses to comments #4 and 132

C/ 167 SC 167.10.2.2 P**62** L7 # 71 C/ 167 SC 167.10.2.2 P**62** L29 # 130 Wienckowski. Natalie General Motors Ran. Adee Cisco Comment Status D Comment Status D Comment Type TR Bucket Comment Type Ε Bucket There is no objective for a 30m link. The VR links are specified to be 50m everywhere else in In "MHz.km" the period is in appropriate. Per IEEE Std 260.1 (referred to by the style manual), either a multiplicative dot or a non-breaking space should be used. There is no objective for a 70m link (not consistent). The SR links are specified to be 100m everywhere else in this draft. To align with the table footnote, use a multiplicative dot. SuggestedRemedy SuggestedRemedy Delete OM3 columns in Table 167-14 change to "MHz·km". Proposed Response Proposed Response Response Status W Response Status W PROPOSED REJECT. PROPOSED ACCEPT IN PRINCIPLE. See response to comment #66. Make this change # 96 C/ 167 SC 167.10.2.2 P**62** L8 C/ 167 SC 167.10.2.2 P**62** L39 # 131 Ferretti Vince Ran Adee Cisco Cornina Comment Type TR Comment Status D Bucket Comment Type E Comment Status D Bucket Table 167-14—Fiber optic cabling (channel) characteristics incorrectly calls out operating The footnotes to Table 167–15 are about the size of the table itself. Footnote e seems to distance for OM3 fiber for SR lengths as 70 m contain information pertinent separately to each of the fiber types, so may be more adequate as part of the table. SugaestedRemedy SuggestedRemedy Change OM3 operating distance to 60 m to match operating distances in other sub-clauses Consider moving the content of the footnotes into the table or to the body of the subclause. Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Change 70 m to 60 m to match OM3 operating distance elsewhere in Clause 167. PROPOSED ACCEPT IN PRINCIPLE. See responses to comments #33, 43 C/ 167 SC 167.10.2.2 P62 L25 This footnote will be condensed and streamlined. Wienckowski. Natalie General Motors Comment Type TR Comment Status D Bucket Remove reference to OM3 as it doesn't meet the project objectives. SuggestedRemedy

Delete OM3 columns in Table 167-15

Response Status W

Proposed Response

PROPOSED REJECT. See response to comment #66.

C/ 167 SC 167.10.2.2 P62 L40 # 43 Lingle, Robert OFS

Comment Type T Comment Status D

Footnote e of Table 167-15 contains excessively detailed information about fiber bandwidths, well beyond what is necessary for the reader to understand the standard and implement it. This information in should be available in contributions presented to the TF during standards development, and that should be sufficient for someone wishes to delve into the rationale for the fiber emulation filter bandwidth values prescribed in Table 167-12.

SuggestedRemedy

Replace footnote e of Table 167-15 with "Effective modal bandwidth guidance is provided at all wavelengths in the 840 nm to 953 nm range in IEC

60793-2-10. OM5 multimode fiber has the same minimum bandwidth as OM4 at 850nm but is specified to have improved minimum bandwidth for wavelengths longer than 850nm."

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Discuss as a Task Force

See also comments #33 and 131

Cl 167 SC 167.10.2.2 P62 L40 # 33

Parsons, Earl CommScope

Comment Type T Comment Status D

Footnote e is too long

SuggestedRemedy

streamline the EMB information in this table and footnote

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE

Discuss

See also response to comments #43 and 131

CI 167 SC 167.10.2.2 P62 L44 # 132

Ran, Adee Cisco

Comment Type T Comment Status D

"IEC 60793-2-10" appears in the normative references list in 1.3 without a date. If amended, the updated reference pointer (with the expected publication year) should be placed in 1.3 as well as the editor's note about its expected publication.

If this document been liaised to 802.3, please include its pointer in the editor's note.

SuggestedRemedy

Per comment.

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

This footnote needs to be discussed.

See response to comments #4 and 197

C/ 167 SC 167.10.2.2.2 P63 L6 # 5

Swanson, Steven Corning Incorporated

Comment Type TR Comment Status D

The maximum discrete reflectance is only specified for PC connectors; we need to include a specification for APC connectors

SuggestedRemedy

Replace:

"The maximum discrete reflectance shall be less than -20 dB."

with:

"The maximum discrete reflectance shall be less than –20 dB for PC connectors and –35 TBC dB for APC connectors

Proposed Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Discuss as a Task Force

C/ 167 SC 167.10.3 P63 L17 # 133 C/ 167 SC 167.11.3 P67 **L1** # 191 Ran. Adee Cisco Huber, Tom Nokia Comment Status D Comment Status D Comment Type Т Bucket Comment Type Bucket Receiver compliance testing is done at TP3 which is the MDI per 167.5.1. So the note should In the Major Capabilities PICS table, the Item codes *VR1, *VR2, and *VR4 are not apply only to the transmitter. referenced in any of the subsequent tables. As such, they should not have the * in the name. SuggestedRemedy SuggestedRemedy Change the NOTE text to "Transmitter compliance testing is performed at TP2 as defined in Rename these items VR1. VR2. VR4. 167.5.1, not at the MDI". Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED REJECT Make this change TP3 is at the output of the fiber optic cabling at the MDI and not the MDI itself. The current text is appropriate. C/ 167 SC 167.11.3 P67 **L1** # 192 Huber, Tom Nokia SC 167.10.3.1 P63 C/ 167 L18 # 134 Comment Type Т Comment Status D Bucket Ran, Adee Cisco In the Major Capabilities table, the item codes *VR2, *SR2, *VR4, and *SR4 are used twice, Comment Status D Comment Type T **Bucket** once for the PMD and once for the MDI. The SR2 and SR4 item codes are used in 6 of the It is unclear why there are no optical lane assignments for the 100GBASE-VR1 and rows in 167.11.4.6; it is unclear if these are referring to the PMD Major Capability, the MDI 100GBASE-VR1 MDIs. Major Capability, or both. SuggestedRemedy SuggestedRemedy Either add text and a diagram for the single-lane MDI lane assignments, or add a text or Use different names for the 4 MDI rows (e.g. xxx-MDI) in the Major Capabilities table, and NOTE to explain why they are not specified. update 167.11.4.6 to reflect the intended conditions. Proposed Response Response Status W Proposed Response Response Status W PROPOSED REJECT. PROPOSED ACCEPT IN PRINCIPLE. This is consistent with previous clauses i.e. Clause 138. Make these changes C/ 167 SC 167.10.3.2 P64 L23 # 198 C/ 167 P69 SC 167.11.4.3 L36 # 135 Nvidia Dawe Piers Ran. Adee Cisco Comment Type T Comment Status D Comment Type Ε Comment Status D Bucket I think this section says that 100GBASE-VR1 or 100GBASE-SR1 must use a non-angled PC The Value/Comment in S1 and S2 are invalid and unnecessary. interface while 167.10.3.3 must be angled. For "breakout" use, this is enough of a SuggestedRemedy contradiction that it could cause problems Delete the Value/Comment in both items. SuggestedRemedy Proposed Response Add text saying that a device/port/module with multiple 1-lane PMDs can use the adapter. Response Status W receptacle or plug according to 167.10.3.3 and one of the active lane positions given in

PROPOSED ACCEPT IN PRINCIPLE.

Double check those two cells in this table to see what should be in them.

167.10.3.1.

Proposed Response

PROPOSED ACCEPT IN PRINCIPLE.

Discuss as a Task Force

Response Status W

C/ 167 SC 167.11.4.3 P69 L37 # 170 C/ 167 SC 167.11.4.6 P71 L30 # 251 Dudek. Mike Marvell Hajduczenia, Marek **Charter Communications** Comment Type Ε Comment Status D Bucket Comment Type Comment Status D Bucket OC12 mixes "or" with "*" in the same Status entry. Use "INS and (SR2 or SR4):M" or Missing references alternatively "INS*(SR2 + SR4):M" syntax. SuggestedRemedy The same in OC14. If *+ syntax is used, alto consider changing OC8 and OC10. Change to "Per definitions in 167.8" on lines 36 and 38 SuggestedRemedy Proposed Response Response Status W Per comment PROPOSED ACCEPT IN PRINCIPLE Proposed Response Response Status W Add correct reference PROPOSED ACCEPT IN PRINCIPLE. C/ 167 SC 167.11.4.5 P70 # 178 L34 Revise this section to be consistent Lewis. Jon **Dell Technologies** C/ 167 SC Table 167-7 P51 L27 Comment Type TR Comment Status D Bucket Swanson, Steven Corning Incorporated IEC 60950-1 has been removed and the updated references are in Annex J Comment Type E Comment Status X SuggestedRemedy The TDECQ is the same for both variants. Change to "Conforms to J.2" SuggestedRemedy Proposed Response Response Status W Merge cells. PROPOSED ACCEPT IN PRINCIPLE. Proposed Response Response Status W Refer to Annex J DISCUSS C/ 167 SC 167.11.4.6 P71 L25 # 252 TDECQ (max) is shown in separate cells for VR and SR links because it is measured with **Charter Communications** Hajduczenia, Marek different filters Comment Type ER Comment Status D Bucket C/ 167 SC Table 167-7 P51 L29 Missing OC9 and OC13? Swanson, Steven Corning Incorporated SuggestedRemedy Comment Type E Comment Status X Renumber OC10-14 The TECQ is the same for both variants. Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE. Use correct numbering Merge cells. Proposed Response Response Status W DISCUSS along with response to comment #1.

CI 167 SC Table 167-7 P51 L43 # 3

Swanson, Steven Corning Incorporated

Comment Type ER Comment Status D

Encircled flux is a requirement for the transmitter.

SuggestedRemedy

Replace:

"If measured into type A1a.2 or type A1a.3, or A1a.4, 50 μm fiber, in accordance with IEC 61280-1-4."

with

"When measured into type A1a.2 or type A1a.3, or A1a.4, 50 µm fiber, in accordance with IEC 61280-1-4."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

C/ 167.1 SC Table 167-15 P62 L44 # 4_____

Swanson, Steven Corning Incorporated

Comment Type ER Comment Status D

Amendment 1 to IEC 60793-2-10 will be published before 802.3db. Therefore, there is no need for footnote "f."

SuggestedRemedy

Delete footnote "f;" the amendment to IEC 60793-2-10 just updates the specification to reflect improvements in the measurement of the chromatic dispersion of the OM3, OM4 and OM5 fibers - the specified values for zero dispersion wavelength and the chromatic dispersion slop are still conservative values for all three fiber types. OM3 and OM4 fibers compliant to previous versions of IEC 60793-2-10 are fully compliant to the revised specification and there is no need for footnote "f."

Proposed Response Response Status W

PROPOSED ACCEPT IN PRINCIPLE.

Revise footnote f.

See also response to comments #132 and 197