C/ FM SC FM P1 L27 # 18 C/ FM SC FM P1 L39 Issenhuth, Tom Huawei Hajduczenia, Marek **Charter Communications** Comment Type E Comment Status A bucket Comment Type E Comment Status A bucket Missing IEEE Std 802.3cr-20xx, IEEE Std 802.3cp-20xx and IEEE Std 802.3cs-20xx "Draft D2.0 is prepared for Task Force review" SuggestedRemedy SuggestedRemedy Insert .cr and .cp after .ca and insert .cs after .cu Likely for initial Working Group review. Next versions should say "working Group ballot recirculation" Response Response Status C Response Response Status C ACCEPT IN PRINCIPLE ACCEPT IN PRINCIPLE. See response to comment 8. In line 30 replace "task force" with "working group". P1 C/ FM SC FM / 28 # 70 C/ FM SC FM P2 L5 # 71 Grow. Bob RMG Consulting RMG Consulting Grow, Bob Comment Type T Comment Status A bucket Comment Type E Comment Status A bucket Including IEEE Std 802.3cu-20xx in the list (which is in WG recirculation 2) makes sense This instance of "Energy Efficient Ethernet" isn't hyphenated. (and is justified by inclusion of base text from cu, but I believe with P802.3cr (which is in SA ballot) the list should also include IEEE Std 802.3cr-20xx, as P802.3cu/D2.2. 151.9.1 SuggestedRemedy includes a reference to J2, and therefore needs to follow P802.3cr as currently written. **Energy-Efficient Ethernet** SuggestedRemedy Response Response Status C Add IEEE Std 802.3cr-20xx to the list as the 10th amendment (before IEEE Std 802.3cu-ACCEPT. 20xx). Response Response Status C C/ FM SC FM P12 L20 # 35 ACCEPT IN PRINCIPLE. Wienckowski. Natalie General Motors See response to comment 9. Comment Status A Comment Type E bucket IEEE802.3ch was approved by the Standards Board. C/ FM SC FM P1 L28 # 62 SuggestedRemedy Marris. Arthur Cadence Design Systems Change: 20xx to 2020 Comment Status A Comment Type Ε bucket 802.3ch-2020 and 802.3ca-2020 have been published Response Response Status C ACCEPT IN PRINCIPLE. SuggestedRemedy Change "802.3ch-20XX and 802.3ca-20XX" tp "802.3ch-2020 and 802.3ca-2020" throught See response to comment 21. the document

Response Status C

Response

ACCEPT IN PRINCIPLE.

See responses to comments 21 and 22.

C/ FM	SC FM	P <b>12</b>	L <b>20</b>	# 21		C/ FM	SC FM	P <b>12</b>	L <b>26</b>	# 22	
Issenhuth	ı, Tom	Huawei				Issenhuth	, Tom	Huawei			
		bucket	Comment 802.3	,,	Comment Status A n approved as a standard.		bu	ıcket			
Suggestee Chang	dRemedy ge -20xx to -2020	0.				Suggested Chang	dRemedy ge -20xx to -202	0.			
Response ACCE		Response Status C				Response ACCE		Response Status C			
C/ FM	SC FM	P <b>12</b>	L <b>22</b>	# 72		C/ FM	SC FM	P <b>12</b>	L <b>26</b>	# 37	
Grow, Bol	b	RMG Consultir	ng			Wienckow	vski, Natalie	General Motors			_
Comment Type <b>E</b> Comment Status <b>A</b> buck.  This amendment has a number.			bucket	Comment IEEE8	,,	Comment Status <b>A</b> proved by the Standards Board.		bu	ıcket		
Suggestee Insert	dRemedy "Amendment 8	".				Suggested Chang	dRemedy ge: 20xx to 202	0			
Response ACCE	e EPT IN PRINCIP	Response Status C LE.				Response ACCE	EPT IN PRINCIP	Response Status C			
See re	esponse to comr	ment 36.				See re	esponse to com	ment 22.			
C/ FM	SC FM	P <b>12</b>	L <b>22</b>	# 36		C/ FM	SC FM	P <b>12</b>	L <b>28</b>	# 73	
Wienckov	vski, Natalie	General Motors	S			Grow, Bol	b	RMG Consulting			
Comment Type <b>E</b> Comment Status <b>A</b> bucket ch is Amendment 8. The description has been slightly modified for publication.			bucket	Comment Type <b>E</b> Comment Status <b>A</b> bucket  This amendment has a number.			ıcket				
Suggeste	dRemedy					Suggested	dRemedy				
Add "Amendment 8(Em dash)" before the description. Change: Clause 149 and Annex 149A and Annex 149B To: Clause 149, Annex149A, Annex 149B and Annex 149C				Insert "Amendment 9".							
				Response Response Status C							
Response Response Status C				ACCEPT IN PRINCIPLE.							
ACCEPT.				See response to comment 38.							
					coo response to comment oc.						

C/ FM SC FM P12 L28 # 38 Wienckowski. Natalie General Motors Comment Type E Comment Status A bucket ca is Amendment 9. SuggestedRemedy Add "Amendment 9(Em dash)" before the description. Response Response Status C ACCEPT. SC FM P12 L37 C/ FM # 74 **RMG** Consulting Grow. Bob Comment Type Е Comment Status A bucket Because this draft references Annex J2 (154.9.1), IEEE Std 802.3cr needs to precede this project in amendment number because it adds the Annex.

SuggestedRemedy

Add: IEEE Std 802.3crTM-20xx IEEE Std 802.3crTM-20xx

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

makes appropriate changes to the standard corresponding to the new references.

Response Status C

ACCEPT.

C/ FM SC FM P12 L37 # 19

Issenhuth, Tom Huawei

Comment Type E Comment Status A bucket

Missing IEEE Std 802.3cr-20xx, IEEE Std 802.3cp-20xx and IEEE Std 802.3cs-20xx

SuggestedRemedy

Insert .cr and .cp after .ca and insert .cs after .cu

Response Status C

ACCEPT IN PRINCIPLE.

See response to comment 9.

C/ FM SC FM P21 L2 # 63

Marris, Arthur Cadence Design Systems

Comment Type E Comment Status A

It would be nice if coherent modulation was mentionned in the abstract

SuggestedRemedy

Change second sentence in abstract to: "This amendment adds 100 Gb/s Physical Layer specifications and management parameters for operation over DWDM systems using coherent modulation with reaches of at least 80 km."

Response Status C

ACCEPT IN PRINCIPLE.

Location is page 2 not page 21. Change second sentence in abstract to: "This amendment adds 100 Gb/s Physical Layer specifications and management parameters for operation over DWDM systems using a combination of phase and amplitude modulation with coherent detection for reaches of at least 80 km."

CI 00 SC 0 P0 L0 # 2

Hajduczenia, Marek Charter Communications

Comment Type E Comment Status A bucket

Wrong copyright year

SuggestedRemedy

2019 is gone, please use 2020

Response Status C

ACCEPT.

C/ 00 SC 0 P1 L27 # 8 C/ 1 SC FM P1 L27 # 20 Lewis, Jon Dell FMC Issenhuth, Tom Huawei Comment Type E Comment Status A bucket Comment Type E Comment Status A bucket Missing IEEE Std 802.3cr-202x in the list 802.3ch and 802.3ca have been approved as standards. SuggestedRemedy SuggestedRemedy Add "IEEE std 802.3cr-202x" and align the list with the anticipated order of publication. Change -20xx to -2020 for both. Response Response Response Status C Response Status C ACCEPT ACCEPT. SC 0 P1 L29 # C/ 1 SC 1.4 P22 L17 C/ 00 # 101 Dell EMC Maki, Jeffery Lewis, Jon Juniper Networks Comment Type E Comment Status A bucket Comment Type E Comment Status A bucket This is Working Group ballot Italic comment text Insert the following new definition after 1.4.181 "channel insertion loss": and text below referres to the wrong sub-cluase of IEEE Std 802.3-2018. SuggestedRemedy SuggestedRemedy Change "Task Force review" to "Working Group ballot" Change 1.4.181 to 1.4.180, and 1.4.181a to 1.4.180a. Response Response Status C Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT. See response to comment 1. C/ 1 SC 14 P**22** L34 # 93 C/ 00 SC 0 P12 L36 # 9 Dambrosia. John Futurewei. A U.S. Subsidiary of Huawei Lewis, Jon Dell EMC Comment Type ER Comment Status A Comment Type E Comment Status A bucket For a DWDM system the presence of an optical mux / demux is key, as illustrated in Fig. Add IEEE std 802.3cr information 154-3, and should be explicitly stated in the definition... SuggestedRemedy SuggestedRemedy Change definition of 1.4.237d DWDM System to Add "IEEE Std 802.3crTM-20xx An aggregate of DWDM links optically multiplexed and demuxed onto and off of either a This amendment includes changes to IEEE Std 802.3-2018 and adds Annex J. This amendment single optical fiber or a single optical fiber per direction. replaces references to the IEC 60950 series of standards (including IEC 60950-1 "Information technology equipment—Safety—Part 1: General requirements") with Response Response Status C appropriate references to the IEC 62368 "Audio/video, information and communication ACCEPT IN PRINCIPLE. technology equipment" series and makes appropriate changes to the standard corresponding to the new references." and align with expected publication order. Change definition of 1.4.237d DWDM System to Response Response Status C "An aggregate of DWDM links optically multiplexed and demultiplexed onto and off either a single optical fiber or a single optical ACCEPT IN PRINCIPLE. fiber per direction." See response to comment 74. Align with expected publication order.

Cl 1 SC 1.4 P22 L37 # [75

Grow, Bob RMG Consulting

Comment Type E Comment Status A bucket

802.3bt deleted 294 and instructed renumbering. Previous amendments have used the renumbered subclause for items after 294.

SuggestedRemedy

The instruction should reference 400, and the insertion should be numbered 400a similar to previous amendments.

Response Status C

ACCEPT IN PRINCIPLE.

Modify instruction to read "Insert the following new definition after 1.4.400 "Point-to-point emulation (P2PE)" (re-numbered from 1.4.401 due to the deletion of 1.4.294 by IEEE Std 802.3bt-2018)". Modify the insertion to 1.4.400a.

C/ 1 SC 1.4.35a P22 L5 # 81

Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei

Comment Type ER Comment Status A

The term "coherent" only appears 2x in D2.0 of P802.3ct, its use in defining the term "100GBASE-ZR" is not helpful to the reader

SuggestedRemedy

replace current definition with -"An IEEE 802.3 family of Physical Layer devices using 100GBASE-R encoding and

a PMD that employs dual polarization differential quadrature phase shift keying (DQPSK) modulation. (See IEEE Std 802.3, Clause 154.)

Response Status C

ACCEPT IN PRINCIPLE

Replace current definition with -"An IEEE 802.3 family of Physical Layer devices using 100GBASE-R encoding, a combination of phase and amplitude modulation, and coherent detection."

C/ 1 SC 1.4.35b P22 L8 # 139

Dawe, Piers Nvidia

Comment Type T Comment Status A

Saying that 100GBASE-ZR uses 100GBASE-R encoding, with identical wording to e.g. "100GBASE-SR4: IEEE 802.3 Physical Layer specification for 100 Gb/s using 100GBASE-R encoding" is very misleading. There's a lot of extra complexity here that isn't covered by "DP-DQPSK modulation".

SuggestedRemedy

Change "using 100GBASE-R encoding and DP-DQPSK modulation" to "using 100GBASE-R encoding, GMP, SC-FEC, and DP-DQPSK modulation".

Response Status C

ACCEPT IN PRINCIPLE.

Replace with "IEEE 802.3 Physical Layer specification for 100 Gb/s DWDM PHY using 100GBASE-R encoding, DP-DQPSK modulation, and coherent detection with reach up to at least 80 km. (See IEEE Std 802.3, Clause 154.)"

C/ 1 SC 1.4.160a P22 L14 # 83

Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei

Comment Type ER Comment Status A

A "black Link" is an approach to describing a DWDM Channel, not a link itself.

SuggestedRemedy

Change definition -

A black link s an approach to defining a single-mode fiber based DWDM channel by specifying the characteristics of the input and output of the link and its transfer characteristics, without specifying how the link is defined.

Response Status C

ACCEPT IN PRINCIPLE.

Implement remedy shown on slide 2 of www.ieee802.org/3/ct/public/tf\_interim/20\_0709/dambrosia\_3ct\_01\_200709.pdf

C/ 1 SC 1.4.160a P22 L14 # 129 C/ 1 SC 1.4.237 P**22** Dawe, Piers Nvidia Dambrosia. John Futurewei, A U.S. Subsidiary of Huawei Comment Type E Comment Status A bucket Comment Type ER Comment Status A To match the rest of the document. Black Link should be black link There is no definition for DWDM SuggestedRemedy SuggestedRemedy Scrub the new definitions for roque capitals add definition for DWDM -Response Response Status C Response Response Status C ACCEPT IN PRINCIPLE ACCEPT IN PRINCIPLE. See response to comment 3. See response to comment 61. C/ 1 SC 1.4.181a P22 / 20 # 137 CI 1 SC 1.4.237a P22 Dawe. Piers Nvidia Zimmerman, George Comment Type T Comment Status D Comment Type TR Comment Status A "WDM application": weasel word: no specific meaning or ambiguous SuggestedRemedy WDM wavelength plan Proposed Response Response Status Z REJECT. This comment was WITHDRAWN by the commenter. it clear that optical transmission is meant, is offered. SuggestedRemedy C/ 1 SC 1.4.181a P22 L20 # 138 Nvidia Dawe, Piers Comment Status A Comment Type T Response Response Status C I think that the implication that no other grids but ITU-T ones are possible is incorrect and ACCEPT. not necessary. SuggestedRemedy

An optical WDM technology where the frequency spacing is less than or equal to 1000 GHz. 1 25 # 61 CME Consulting/ADI, Cisco, Commscope, Marvell, S

L25

# 84

The definitions DWDM Channel, Link, PHY, and System are circular without a definition of DWDM. A definition for DWDM was proposed in the work, (http://www.ieee802.org/3/B10K/public/18 03/dambrosia b10k 01 0318.pdf) but never included in the draft, and it is not present in 802.3-2018. While Wavelength Division Multiplexing may be self explanatory, and the expansion obvious, the expansions in the 802 abbreviations don't provide the necessary technical information for a definition, basically, how dense is dense. A definition from the study group, based on G.671, modified to make

Add new definition 1.4.227a Dense Wavelength Division Multiplexing (DWDM). An optical WDM technology where the frequency spacing is less than or equal to 1000 GHz.

If it's true, and I think it is because Clause 54 uses "WWDM", insert "In this standard" before "DWDM channel spacings". Delete the sentence about CWDM if it's not needed, or

Response Status C

join the sentences.

ACCEPT IN PRINCIPLE.

Delete the second sentece in 1.4.181a.

Response

C/ 1 SC 1.4.237b P22 L28 # 130

Dawe. Piers

Nvidia

Comment Type Т Comment Status R

According to 154.6, the black link extends from TP2 to TP3, excluding the PHYs, 1.4.160a says that the black link is a link. 1.4.302 says that a link is the transmission path between any two interfaces of generic cabling. (From ISO/IEC 11801.) Implying that it doesn't include the PHYs. This draft definition for DWDM Link includes the PHYs.

### SuggestedRemedy

Rename "DWDM Link" to something not "link" and use the corrected name in 1.4.237d DWDM System.

Response

Response Status C

REJECT.

Dambrosia, John

The commentor in discussion modified the suggested remedy to remove the term "DWDM Link". There was no support from the ballot response committee to make this modification.

C/ 1 SC 1.4.401A P22

/ 40

# 85

Futurewei, A U.S. Subsidiary of Huawei

Comment Type ER Comment Status A

The term "SOP" is only used 2x in D2.0, both times in 1.4.401a

in the base 802.3 standard, SOP stand stands for "Start-of-packet propagation delay" and is defined in 27.3.1.3.3. Its use is isn Clauses 27, 29, 41, and 61.

#### SuggestedRemedy

Replace sentence with -

1.4.401a Polarization Dependent Loss: The variation of insertion loss due to a variation of

polarization over all states of polarization within the channel frequency range (DWDM link) or channel wavelength

range (CWDM and WWDM links).

Response Response Status C

ACCEPT IN PRINCIPLE.

Replace sentence with -

1.4.401a Polarization Dependent Loss: The variation of insertion loss due to a variation of the state of

polarization of an optical signal over all states of polarization within the channel frequency range (DWDM link) or channel wavelength

range (CWDM and WWDM links).

C/ 1 SC 1.4.401a

P**22** Nvidia

L40

/ 40

# 131

Dawe. Piers

Comment Type E

Comment Status A

Gratuitous abbreviation: SOP is not used anywhere but this sentence.

#### SuggestedRemedy

Just write it out, the simple way: The variation of insertion loss due to a variation of the state of polarization over all states of polarization

Or, if a measure of the range is meant, rather than the concept that there is a range. perhaps:

The range of insertion losses over all states of polarization

Response Status C

ACCEPT IN PRINCIPLE.

See response to comment 85.

C/ 1 SC 1.4.401a P22

# 132

Dawe, Piers

Comment Type T

Nvidia Comment Status A

What is this detail "within the channel frequency range (DWDM link) or channel wavelength range (CWDM and WWDM links)" doing here? 1.4 definitions should be short, simple and high level. There's no other mention of CWDM in this document, and PDL is something that happens without WDM anyway.

#### SuggestedRemedy

Create a new subsection near 154.8.17 to define precisely over what conditions PDL is defined. Delete "within the channel frequency range (DWDM link) or channel wavelength range (CWDM and WWDM links)" from here; add something such as "...loss of an instance of fiber optic cabling" to indicate that PDL is something to do with fibre optics.

Response

Response Status C

ACCEPT IN PRINCIPLE.

Add new subclause to 154 8 to define PDI with editorial license.

Cl 45 SC 45.2.1.133a.1 P27 L28 # 4

Hajduczenia, Marek Charter Communications

Comment Type TR Comment Status A

On reading the definition of this bit, it is absolutely not clear what "Integer value of the Tx optical channel index" really is. Is it frequency in nm, some arbotrary channel number, or something altogether else (frequency in THz?)

SuggestedRemedy

Please clarify what specific column from Table 154–6 is mapped into this register. The same comment applies to register 1.820.5:0 defined in 45.2.1.133e.2

Response Status C

ACCEPT IN PRINCIPLE.

In 45.2.1.133a.1 replace the sentences "Bits 1.800.5:0 set the value of the Tx optical channel index (and hence the transmitter optical frequency) with bit 1.800.0 being the LSB and bit 1.800.5 being the MSB. The optical channel that corresponds to this index value is given in the appropriate PMD clause. For 100GBASE-ZR see Table 154–6."

"Bits 1.800.5:0 set the value of the Tx optical channel index number (which directly relates to the optical channel and transmitter center frequency) with bit 1.800.0 being the LSB and bit 1.800.5 being the MSB. The channel index number indicates the optical frequencies that are supported. For 100GBASE-ZR the specific optical frequency supported for each channel index number is listed in Table 154-6."

In 45.2.1.133e.2 replace the sentences "If the PMD is able to operate with an Rx optical channel index that is different from the Tx optical channel index (bit 1.820.15 is one), bits 1.820.5:0 set the value of the Rx optical channel index (which directly relates to the optical channel and receiver center frequency) with bit 1.820.0 being the LSB and bit 1.820.5 being the MSB. The optical channel that corresponds to this index value is given in the appropriate PMD clause."

With "If the PMD is able to operate with an Rx optical channel index number that is different from the Tx optical channel index number (bit 1.820.15 is one), bits 1.820.5:0 set the value of the Rx optical channel index number (and hence the receiver optical frequency) with bit 1.820.0 being the LSB and bit 1.820.5 being the MSB. The channel index number indicates the optical frequencies that are supported. For 100GBASE-ZR the specific optical frequency supported for each channel index number is listed in Table 154-6."

CI 45 SC 45.2.1.186aa P35 L22 Hajduczenia, Marek **Charter Communications** Comment Type TR Comment Status A First use of the term IFEC. not defined anywhere really. SuggestedRemedy Provide definition (do not see it in 802.3-2018 right now) Response Response Status C ACCEPT IN PRINCIPLE Add IFEC "inverse RS-FEC sublaver" to abbreviations Cl 45 SC 45.2.1.186aa P35 / 49 Hajduczenia, Marek Charter Communications Comment Type E Comment Status A bucket Block of text is misaligned / extra spaces at the front SuggestedRemedy Per comment

Response Response Status C
ACCEPT IN PRINCIPLE.

Remove unneeded additional spaces.

Cl 45 SC 45.2.1.186ab P35 L48 # 32

Nicholl, Shawn Xilinx

Comment Type ER Comment Status A bucket

Extra space at start of line.

SuggestedRemedy

Remove the space that precedes "The assignment of bits ..."

Response Status C

ACCEPT IN PRINCIPLE.

See response to comment 6.

Cl 45 SC 45.2.1.186ab P36 L21 # 64 C/ 80 SC 80.1.3 P48 **L**5 # 86 Marris, Arthur Cadence Design Systems Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei Comment Type ER Comment Type Ε Comment Status A bucket Comment Status A 1.2201.7:3 are reserved While it is true that 100GBASE-Z uses 100GBASE-R encoding, it uses a diffferent modulation approach, but this is not shown architecturally in Fig 80-1. SuggestedRemedy SuggestedRemedy Change "1.2201.6:3" to "1.2201.7:3" in Table 45-150ab Redraw Fig 80-1 to include a stack for 100GBASE-Z Response Response Status C Delete "In Figure 80-1 change the list of medium types under CGMII as follows: ACCEPT "100GBASE-R, or 100GBASE-P, or 100GBASE-Z," with proper strike-out and underline. Response Response Status C P37 L33 Cl 45 SC 45.2.1.186ab.8 # ACCEPT IN PRINCIPLE. Wienckowski. Natalie General Motors See response to comment 15. Comment Type E Comment Status A bucket Awkward wording C/ 80 P48 # 15 SC 80.1.3 L14 SuggestedRemedy Anslow. Pete Self Change: the decoder has this ability to the bypass error indication function Comment Status A Comment Type ER To: the decoder has this ability to bypass the error indication function Changes to figures (other than the title) should show the figure as changed, not rely on the Response Status C Response roll-up editor to interpret the change. Also, there should only be one "or" ACCEPT. SuggestedRemedy C/ 45 SC 45.2.1.186ah P39 L44 # 65 Change the editing instruction to: Marris. Arthur Cadence Design Systems "Replace Figure 80-1 with the following figure:" bring Figure 80-1 in to the draft and change: Comment Type E Comment Status A bucket "100GBASE-R or 100GBASE-P" to: This is the first use the term SC-FEC so it would be good to explain the abbreviation "100GBASE-R, 100GBASE-P, SuggestedRemedy or 100GBASE-Z" Change text to: "The assignment of bits in the SC-FEC (staircase FEC) alignment status 1 with no underline or strikethrough. register is shown in Table 45-150ag." Response Response Status C Response Response Status C ACCEPT. ACCEPT IN PRINCIPLE. Change text to: "The assignment of bits in the staircase FEC (SC-FEC) alignment status 1

register is shown in Table 45-150ag."

CI 80 SC 80.1.3 P48 L16 # 40 CI 80 SC 80.1.4 P48 L27 # 42 Wienckowski. Natalie General Motors Wienckowski. Natalie General Motors Comment Type E Comment Status A Comment Type E Comment Status A bucket It seems this is a note for the Editor on what they were supposed to do. When this is The (Em dash) after the table number is not part of the table number and should not be "rolled up" the changes aren't shown. I don't know if the intent was to show an updated included in the reference. drawing, or just to provide the changed text that would be in the drawing. SuggestedRemedy SuggestedRemedy Remove the (EM dash) after Table 80-1 in the editing instruction. Look for this throughout the document, e.g. P49L3, etc. Change: "100GBASE-R, or 100GBASE-P, or 100GBASE-Z." with proper strike-out and underline Response Response Status C To: 100GBASE-R(start underline), (end underline) or 100GBASE-P(start underline), or ACCEPT. 100GBASE-Z(end underline) Response Response Status C P48 C/ 80 SC 80.1.4 L36 # 87 ACCEPT IN PRINCIPLE Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei Comment Type TR Comment Status A See response to comment 15. The description of the 100GBASE-ZR PHY does not describe the nature of the agreed C/ 80 SC 80.1.3 P48 L16 # 76 upon PHY - which is that a 100GBASE-ZR PHY may support operation of a single DWDM link over 1 to 48 DWDM channels comprised of Tx and Rx signaling, where the abilities are Grow, Bob RMG Consulting defined for the device and selected by the users Comment Type E Comment Status A SuggestedRemedy The text inappropriately includes editing instruction. Change description to -SuggestedRemedy 100 Gb/s PHY using 100GBASE-R encoding capable of transmission over a specified In Figure 80-1, replace the list of medium types ("100GBASE-R or 100GBASE-P") under channel on a defined DWDM grid in each direction of transmission with reach up to at least CGMII with "100GBASE-R or 100GBASE-P or 100GBASE-Z". Delete line 16. Or 80km (see Clause 154). alternately, provide a replacement table with an editing instruction to replace Table 80-1. Response Response Status C Response Response Status C ACCEPT. ACCEPT IN PRINCIPLE. P49 CI 80 SC 80.1.5 L3 # 43 See response to comment 15. Wienckowski. Natalie General Motors C/ 80 SC 80.1.4 P48 / 20 Comment Type E Comment Status A bucket Where is table 80-4a? Wienckowski. Natalie General Motors Comment Status A Comment Type E bucket SuggestedRemedy "Add" is not a proper editing instruction, you need to use "insert". When all the text shown Insert the following in the editing instruction after Table 80-4a: (as inserted by IEEE Std is being inserted, it doesn't need to be underlined. 802.3cd-2018) SuggestedRemedy Response Response Status C Change editing instruction to: Insert the following text as a new eight paragraph of 80.1.4 ACCEPT. as follows:

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

Also, remove underline on text to be inserted.

Response Status C

Response

ACCEPT.

C/ 80 SC 80.1.5 Page 10 of 29 8/6/2020 9:48:37 AM

C/ 80 SC 80.1.5 P49 L23 # 90
Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei

Comment Type TR Comment Status A

The multiple optional AUIs and FEC will not be clear to the general user to easily figure out, plus defining the inverse RS-FEC sublayer as optional isn't really the best descriptor. It is more "conditional" meaning that its use is dependent on whether an optional 100GAUI-n is used. Providing more description here would make the standard more readable to the general user.

### SuggestedRemedy

- 1) Modify note a to "O=optional, M=Mandatory, C=Conditional
- 2) change Clause 152 Inverse RS-FEC from M to C, and add an indicator for Note b in next to "C"
- 3) add note B Clause 152 inverse RS-FEC needed when deploying Clause 91 RS-FEC in combination with 100GAUI-n defined by 135D, 135E, 135F, or 135G
- 4) add similar note to Table 154-1

Response Status C

ACCEPT IN PRINCIPLE.

- 1) Modify note a to "O=optional, M=Mandatory, C=Conditional"
- 2) change Clause 152 Inverse RS-FEC from "O" to "C", and add an indicator for Note b in next to "C"
- 3) add note b Clause 152 inverse RS-FEC mandatory when Clause 91 RS-FEC is present
- 4) In Table 154-1 change "Optional" to "Conditional". Add note b.

With editoral license

C/ 80 SC 80.1.5 P49 L24 # 66

Marris, Arthur Cadence Design Systems

Comment Type T Comment Status R

Is Clause 91 really an option?

SuggestedRemedy

Delete "O" from the 91 column or delete the column completely in Table 80-4b. Also consider deleting 91 row from Table 154-1

Response Status C

REJECT.

Clause 91 RS(544) FEC may optionally be used on the host side of the Chip-to-Module interface, paired with a Clause 152 Inverse RS FEC on the module side before the SC-FEC sublayer. The table is correct.

CI 80 SC 80.2.2 P49 L33 # 77

Grow, Bob RMG Consulting

Comment Type E Comment Status A bucket

The base text and change marking is incorrect.

SuggestedRemedy

There shoud be a strikethrough "and" before 100GBASE-P" and ", and 100GBASE-Z" should be underscore.

Response Status C

ACCEPT.

C/ 80 SC 80.2.4 P50 L5 # 10

Laubach, Mark Self

Comment Type E Comment Status A bucket

"Clause 83", "Clause 94", "Clause 135" and "Clause 153" should be forest green.

SuggestedRemedy

Make 'em forest green.

Response Status C

ACCEPT.

Cl 80 SC 80.2.4 P50 L9 # 57

Trowbridge, Steve Nokia

Comment Type T Comment Status A

A clause 135 PMA may be used across the C2M interface (above the Inverse RS-FEC) in a 100GBASE-ZR PHY type

SuggestedRemedy

Change:

"Clause 135 specifies a PMA that may be used in other 100GBASE-P PHY types."

"Clause 135 specifies a PMA that may be used in other 100GBASE-P or 100GBASE-ZR PHY types."

Response Status C

ACCEPT.

C/ 80 SC 80.3.2 P51 L20 # 58 Trowbridge, Steve Nokia Comment Type ER Comment Status A bucket The "..." appears in the wrong place - 3 occurrences in Figure 80-4a SuggestedRemedy Move "..." to be between lane 1 and lane 19 in both the Tx and Rx direction in the PMA service interface, and between lane 1 and lane 19 in the Rx direction in the FEC service interface Response Status C Response ACCEPT. P54 C/ 80 SC 80.5 / 1 # 44 Wienckowski. Natalie **General Motors** Comment Type E Comment Status A The editing instruction says to change the table, but I don't see any underline or strikethrough in the table to indicate changes. SuggestedRemedy Delete the editing instruction and table 80-7. Response Response Status C ACCEPT.

Schmitt, Matt CableLabs

Comment Type T Comment Status A

SC 154.5.4

As pointed out in deandrea\_3ct\_01\_200611, when an optical amplifier (EDFA) is a part of the black link, the noise floor could be amplified above the power threshold for signal detect. To account for that, while not mandatory, an implementer may wish to consider the presence of a valid 100GBASE-R signal in determining whether or not to set the SIGNAL\_DETECT value to OK. Some additional text to point that out could be helpful for implementers.

P104

L43

# 80

#### SuggestedRemedy

C/ 80

At the end of the 3rd paragraph in 154.5.4, add an additional sentence that reads: "In addition, as the presence of optical amplifiers in the black link could raise the noise floor above the value of minimum average input power [unamplified] in Table 154-9, implementations may wish to consider the presence of a compliant 100GBASE-R signal in determining the setting of the SIGNAL DETECT value.

Response Status C

ACCEPT IN PRINCIPLE.

See resolution to comment #69.

C/ 82 SC 82.3.3

P**56** 

L14

# 88

Dambrosia, John

Futurewei, A U.S. Subsidiary of Huawei

Comment Type TR Comment Status R

This note is specific to the mapping of 40GBASE-R PCS blocks. Editing it is not within scope of the approved P802.3ct PAR.

SuggestedRemedy

these proposed changes should be deleted.

Response Status C

REJECT.

There is no substantive change to 40GBASE-R PHY-related specifications made by the P802.3ct project. The indicated change is an editorial "knock on" effect of the fact that P802.3ct changes ITU-T G.709 from being a bibliographic reference to being a normative refence. Since P802.3ct moves the ITU-T G.709 reference from Annex A (bibliography) into the normative references in clause 1.3, the reference citations in the warning note in clause 82 need to be updated accordingly.

C/ 83C SC 83C.4.1

P**121** 

Nvidia

L34

# 126

Dawe, Piers

Comment Type E

Comment Status A

Too much spacing

Suggested Remedy

Use left justification rather than full

Response Response Status C

ACCEPT IN PRINCIPLE.

Fix the justification of CAUI-4 in the legend.

C/ 102 SC .2 P101 L28 # 111 C/ 135A SC 135A.3.1 P122 L35 # 134 John, DeAndrea Finisar / II-VI Dawe. Piers Nvidia Comment Type E Comment Status R Comment Type T Comment Status A The black lenj with amplifiers will result in power levels greater than -30 dBm at TP3. See There is no such thing as 100GBASE-Z/P. Do you mean 100GBASE-ZR? Or, 100GBASEcontribution "deandrea 3ct 01 June 11 2020 Rev 0.4.pdf" Z or 100GBASE-P? Is the BASE-P part for P802.3ck to add, not this project? SuggestedRemedy Why would Z come before P? Usually we go slow to fast, short to long, wide to narrow. Add addtioanl statement in the note: " Black links with optical amplifiers will result in SuggestedRemedy average power exceeding -30 dBm when transmit is in the "OFF" state, a implimentations should take this condition into account" Change to:100GBASE-Z, or change to: 100GBASE-P or 100GBASE-Z. Also in Figure 135A-10. Response Response Status C Response Response Status C REJECT. The section for which the modification is proposed is generic and adding details of this ACCEPT IN PRINCIPLE. level, even in a note, is not appropriate. Change "100GBASE-Z/P" to "100GBASE-P/100GBASE-Z" (consistent with Figure 83C-3) with editoral license See also resolution to comment #69, which is more specific on the details of the definition C/ 135A SC 135A.3.1 P122 # 127 L36 of SIGNAL DETECT. Dawe. Piers Nvidia C/ 131 SC 1.4.401a P22 L40 # 133 Comment Type E Comment Status A Dawe. Piers Nvidia Silly hyphenation. Inter-face would make sense, in-terface doesn't. Comment Status A Comment Type Т SuggestedRemedy State of polarization of what? Set the minimum hyphenation fragment size to 3 (I thought that was done years ago), and SuggestedRemedy make the left column wider. Of an optical signal? optical transmitter? Response Response Status C Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE. Implement the proposed remedy with editorial license C/ 135A SC 135A.3.2 P123 / 26 # 125 See response to comment 85. Dawe. Piers Nvidia Comment Type E Comment Status A bucket **INTERFACEMMD** SuggestedRemedy Insert the break

Response

ACCEPT.

Response Status C

C/ 139 SC 1.4.60a P22 L14 # 3

Hajduczenia, Marek Charter Communications

Comment Type E Comment Status A bucket

is there any specific reason to capitalize "Black Link" and "Channel Spacing"?

SuggestedRemedy

All other definitions use lower caps unless it is a propwer name. Consider dropping caps Same for 1.4.237a/b/d (no need to capitalize Channel/Link/System)

Same for 1.4.401a - drop case

Response Status C

ACCEPT IN PRINCIPLE.

Change "Black Link" to "black link", change "Channel Spacing" to "channel spacing", change "Channel" to "channel", change "Link" to "link", "System" to "system" and change "Polarization Dependent Loss" to "polarization dependent loss" throughout the document.

C/ 152 SC 152.1.1 P57 L13 # 89

Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei

Comment Type E Comment Status A

This language is too far reaching - "used across a chip-to-chip or chip-to-module interface" . The spec cares about IEEE defined interfaces, not just chip-to-chip or chip-to module interface and a different FEC is used for the PMD."

SuggestedRemedy

Replaces "is used across a chip-to-chip or chip-to-module interface" with "is used with any physical instantiation of 100GAUI-n and a different FEC is needed for the intended PMD."

Response Status C

ACCEPT IN PRINCIPLE.

Change "is used across a chip-to-chip or chip-to-module interface" to "is used across a physically instantiated 100GAUI-n"

CI 152 SC 152.1.2 P58 L21 # 91

Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei

Comment Type TR Comment Status R

A generic FEC block is used which is because there are different FECs may be used with different PHYs. The same is true for PMAs. Therefore these two sublayers are conditional based on phy type

SuggestedRemedy

For Fig 152-1, add note "1" next to FEC and PMA sublayers, add note that states "Conditional based on PHY type". See Fig 80-1 for reference of implementation of note. Also modify Figures 135A-9, 135A-10 in a similar fashion.

Response Status C

REJECT.

In the case of Figure 80-1 Note 1, the need for any FEC layer is indeed conditional based on PHY type, as certain 100GBASE-R PHYs don't use FEC. There is never a case where Inverse RS-FEC would be used that wouldn't insert a different FEC for the PMD. So the existence of a FEC sublayer below is not conditional, although there is a PHY type dependency regarding which FEC would be used (which is why the generic "FEC" is used rather than RS-FEC or SC-FEC). A similar practice is provided for the "PMA" which is a different PMA depending on the PHY type, but in the context of this sublayer, can just be referred to generically.

Cl 152 SC 152.3.7 P68 L3 # 26

Slavick, Jeff Broadcom

Comment Type TR Comment Status A

In 91.5.2.7 it refers to tx\_scrambled and am\_txmapped, but in this Clause it's rx\_scrambled and am\_rxmapped.

SuggestedRemedy

Add the following after 91.5.2.7: "with the exception that the message symbols come from rx scrambled and rx ammapped."

Response Status C

ACCEPT IN PRINCIPLE.

Add a sentence at the end of sub-clause 152.5.3.7

Since the encoder is used in the receive direction of transmission, the message symbols come from rx scrambled and rx ammapped rather than tx scrambled and tx ammapped.

CI 152 SC 152.5.1 P60 L44 # 11

Laubach, Mark Self

Comment Type E Comment Status A bucket

Suggest modifying the line beginning with "<ital>inst<ital>" for clarity.

SuggestedRemedy

Consider changing the beginning of the sentence to "Where <ital>inst<ital> is ". Then tighening up the spaces and horizontal centering for the line.

Response Status C

ACCEPT IN PRINCIPLE.

The style of the note follows that of other existing figures, e.g., Figure 83-5. Increase the amount of space between italicized "inst" and "PMA or FEC" to make it more obvious this is a one-entry variable list and not a sentence with a bit of extra space in it.

Cl 152 SC 152.5.2.3 P61 L20 # 27

Slavick, Jeff Broadcom

Comment Type TR Comment Status A

The decoder is identical to clause 91 except for the variable that contains the data. State that clearly.

SuggestedRemedy

Change "The Reed-Solomon decoder extracts the message symbols from the RS(544,514) codeword, corrects them as necessary, and discards the parity symbols. The message symbols correspond to 20 transcoded blocks tx\_scrambled. See 91.5.3.3."

To: "The Reed-Solomon decoder implements the RS(544,510) FEC decoder described in 91.5.3.3 with the exception that message symbols come from tx scrambled."

Response Response Status C

ACCEPT IN PRINCIPLE.

Change "The Reed-Solomon decoder extracts the message symbols from the RS(544,514) codeword, corrects them as necessary, and discards the parity symbols. The message symbols correspond to 20 transcoded blocks tx\_scrambled. See 91.5.3.3."

To: "The Reed-Solomon decoder implements the RS(544,514) FEC decoder described in 91.5.3.3 with the exception that message symbols come from tx\_scrambled rather than rx scrambled."

C/ 152 SC 152.5.2.3 P61 L21 # 33

Nicholl, Shawn Xilinx

Comment Type TR Comment Status A bucket

This sub-clause makes reference to 91.5.3.3, without indication of differences from 91.5.3.3.

SuggestedRemedy

91.5.3.3 (as amended by 802.3cd-2018) contains an optional 91.5.3.3.1 FEC Degraded SER. Propose to add a sentence to 152.5.2.3 saying "The optional sub-clause 91.5.3.3.1 is not supported for the Inverse RS-FEC sublayer".

Response Status C

ACCEPT.

CI 152 SC 152.5.2.5 P61 L38 # 45

Wienckowski, Natalie General Motors

Comment Type E Comment Status A bucket

"as follows" should always be followed by ":", not "."

SuggestedRemedy

Change: as follows.

To: as follows:

Make this change throughout the draft.

Response Response Status C

ACCEPT IN PRINCIPLE.

Make the indicated change on P61L38, P61L44, P61L50, P62L22

Cl 152 SC 152.5.3.1 P65 L5 # 34

Nicholl, Shawn Xilinx

Comment Type ER Comment Status A bucket

Typo in concatenatiing

SuggestedRemedy

Replace "concatenatiing" with "concatenating"

Response Status C

ACCEPT.

C/ 152   SC 152.5.3.2   P65								
Comment Type	C/ 152 SC 152.5.3.	2 P65	L16	# 114	C/ 152 SC 152.5.3	.7 P <b>68</b>	L1	# 28
Figure 82-14' should read 'Figure 82-14'.  SuggestedRemedy See comment.  Response Response Status C  ACCEPT.  CI 152 SC 152.5.3.5 P66 L7 # 25  Slavick, Jeff Broadcom  Comment Type ER Comment Status A  Missed a conversion from Tx to Rx.  SuggestedRemedy Change "rx_coded_c, from tx_coded" to "rx_coded_c, from rx_coded"  Response Response Status C  ACCEPT.  CI 152 SC 152.5.3.6 P67 L35 # 46  Make the "D" in "Encoder" lowercase for the section title. And the first see in the section.  Response Response Status C  ACCEPT.  CI 152 SC 152.5.3.8 P68 L5  Slavick, Jeff Broadcom  Comment Type E Comment Status A  Capitlazation  SuggestedRemedy  Cl 152 SC 152.5.3.8 P68 L5  Slavick, Jeff Broadcom  Comment Type E Comment Status A  Capitlazation  SuggestedRemedy  Cl 152 SC 152.5.3.8 P68 L5  Slavick, Jeff Broadcom  Capitlazation  SuggestedRemedy  Make the "E" in "Encoder" lowercase for the section title. And the first see in the section.  Response Response Status C  ACCEPT.  CI 152 SC 152.5.3.8 P68 L5  Slavick, Jeff Broadcom  Comment Status A  Capitlazation  SuggestedRemedy  Slavick, Jeff Broadcom  Comment Status A  SuggestedRemedy  Make the "E" in "Encoder" lowercase for the section title. And the first see in the section.  Response Response Status C  ACCEPT.  CI 152 SC 152.5.3.8 P68 L5  Slavick, Jeff Broadcom  Comment Status A  Capitlazation  ACCEPT.  CI 152 SC 152.5.3.8 P68 L5  Slavick, Jeff Broadcom  Comment Status A  Capitlazation  Comment Type E Comment Status A  SuggestedRemedy  Change: 16384 C  ACCEPT.  CI 152 SC 152.5.3.8 P68 L5  Slavick, Jeff Broadcom  Comment Type E Comment Status A  Capitlazation  ACCEPT.  CI 152 SC 152.5.3.8 P68 L5  Slavick, Jeff Broadcom  Comment Type E Comment Status A  Capitlazation  CI 152 SC 152.5.3.8 P68 L5  Slavick, Jeff Broadcom  Comment Type E Comment Status A  Capitlazation  CI 152 SC 152.5.3.8 P68 L5  Slavick, Jeff Broadcom  Comment Type E Comment Status A  Capitlazation  ACCEPT.  CI 152 SC 152.5.3.8 P68 L5  Slavick, Jeff Broadcom  Comment Type E Comment Status A  SuggestedRemedy  Change B	Law, David	Hewlett Packa	rd Enterprise		Slavick, Jeff	Broadcom		
Make the "E" in "Encoder" lowercase for the section title. And the first se in the section.  Response Response Status C ACCEPT.  Cl 152 SC 152.5.3.5 P66 L7 # 25  Slavick, Jeff Broadcom Comment Type ER Comment Status A Missed a conversion from Tx to Rx.  SuggestedRemedy Change "rx_coded_c, from tx_coded" to "rx_coded" c, from rx_coded" Response Response Status C ACCEPT.  Cl 152 SC 152.5.3.6 P67 L35 # 46  Wienckowski, Natalie General Motors  Comment Type E Comment Status A User Comment Type E	,,			bucket	,,	Comment Status A		bucket
ACCEPT.  CI 152 SC 152.5.3.5 P66 L7 # 25 Slavick, Jeff Broadcom  Comment Type ER Comment Status A Missed a conversion from Tx to Rx.  SuggestedRemedy Change "rx_coded_c, from tx_xcoded" to "rx_coded_c, from rx_coded"  Response Response Status C  ACCEPT.  CI 152 SC 152.5.3.6 P67 L35 # 46 Wienckowski, Natalie General Motors  Comment Type E Comment Status A  SuggestedRemedy  Wienckowski, Natalie General Motors  Law, David Hewlett Packard Enterprise  Comment Type E Comment Status A  SuggestedRemedy  Change: 16384 To: 16 384 (with a non-breaking space)  Response Response Status C	See comment.	Response Status <b>C</b>			Make the "E" in "Enc		n title. And the first	sentence of the text
Cl 152 SC 152.5.3.5 P66 L7 # 25 Slavick, Jeff Broadcom  Comment Type ER Comment Status A bucket Missed a conversion from Tx to Rx.  SuggestedRemedy Change "rx_coded_c, from tx_xcoded" to "rx_coded_c, from rx_coded" Make the "D" in "Distribution" lowercase for the section title.  Response Fresponse Status C  ACCEPT.  Cl 152 SC 152.5.3.6 P67 L35 # 46  Wienckowski, Natalie General Motors  Cl 152 SC 152.5.4.2.1 P70 L49  Law, David Hewlett Packard Enterprise Comment Type E Comment Status A Suggested Remedy  Response Status C  Response Status C	ACCEPT.				•	Response Status C		
Comment Type ER Comment Status A  Missed a conversion from Tx to Rx.  SuggestedRemedy Change "rx_coded_c, from tx_xcoded" to "rx_coded_c, from rx_coded"  Response Response Status C  ACCEPT.  CI 152 SC 152.5.3.6 P67 L35 # 46  Wienckowski, Natalie General Motors  Comment Type E Comment Status A  Wienckowski, Natalie General Motors  Comment Type E Comment Status A  SuggestedRemedy Law, David Hewlett Packard Enterprise  Comment Type E Comment Status A  SuggestedRemedy Change: 16384 To: 16 384 (with a non-breaking space)  Response Response Status C			L <b>7</b>	# 25		.8 P <b>68</b>	L <b>5</b>	# 29
Change "rx_coded_c, from tx_xcoded" to "rx_coded_c, from rx_coded"  Response Response Status C  ACCEPT.  CI 152 SC 152.5.3.6 P67 L35 # 46  Wienckowski, Natalie General Motors  Comment Type E Comment Status A  Incorrect number format.  SuggestedRemedy Change: 16384 To: 16 384 (with a non-breaking space)  Response Response Status C  SuggestedRemedy SuggestedRemedy  SuggestedRemedy SuggestedRemedy SuggestedRemedy SuggestedRemedy SuggestedRemedy See comment.  Response Response Status C  Response Response Status C	Comment Type ER  Missed a conversion f	Comment Status A		bucket	Comment Type E			bucket
ACCEPT.  CI 152 SC 152.5.3.6 P67 L35 # 46  Wienckowski, Natalie General Motors  Comment Type E Comment Status A bucket  Incorrect number format.  SuggestedRemedy Change: 16384 To: 16 384 (with a non-breaking space)  Response Response Status C	Change "rx_coded_c,		_c, from rx_coded	п	,	ribution" lowercase for the sect	tion title.	
Wienckowski, Natalie General Motors  Comment Type E Comment Status A bucket  Incorrect number format.  SuggestedRemedy Change: 16384 To: 16 384 (with a non-breaking space)  Response Response Status C  CI 152 SC 152.5.4.2.1 P70 L49  Law, David Hewlett Packard Enterprise  Comment Type E Comment Status A  Suggest that 'A variable set' should read 'A Boolean variable set'.  SuggestedRemedy See comment.  Response Response Status C	•	Response Status C			•	Response Status C		
Comment Type E Comment Status A bucket      Law, David Hewlett Packard Enterprise		-		# 46	C/ <b>152</b> SC <b>152.5.4</b>	.2.1 <i>P</i> 70	L <b>49</b>	# 119
Incorrect number format.  SuggestedRemedy Change: 16384 To: 16 384 (with a non-breaking space)  Response Response Status  Comment Type  E Comment Status Suggest that 'A variable set' should read 'A Boolean variable set'.  SuggestedRemedy See comment.  Response Response Status C  Response Response Status C	•		S	huokot	Law, David	Hewlett Pack	ard Enterprise	
SuggestedRemedy Change: 16384 To: 16 384 (with a non-breaking space)  Response Response Status  C  SuggestedRemedy See comment.  Response Response Status  Response Response Status  C	27 - 27 - 27 - 27 - 27 - 27 - 27 - 27 -		• • • • • • • • • • • • • • • • • • • •	bucket				
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		n-breaking space)			,			
ACCEPT. ACCEPT.	Response ACCEPT.	Response Status C			Response ACCEPT.	Response Status C		

C/ 152 SC 152.6 P**72** L15 # 67

Marris. Arthur Cadence Design Systems

Comment Type TR Comment Status R

Insert IFEC enable functionality that is currently specified in IEEE Draft P802.3ck/D1.2

#### SuggestedRemedy

Incoroporate the 802.3ck modifications to 152.6 and 45.2.1.186aa in 802.3ct. Also make it so IFEC is enabled by setting the variable to one (not zero) "When the IFEC Enable variable is set to one, the Inverse RS-FEC sublaver performs the transmit function as specified in 152.5.2 and the receive function as specified in 152.5.3. When the variable is set to a zero, the transmit and receive functions are disabled, and the Inverse RS-FEC sublayer is bypassed,"

Response Response Status U

#### REJECT.

P802.3ct is ahead of P802.3ck in the process, and will likely be approved first. In the context of P802.3ck, clause 152 IFEC would always be back-to-back with clause 161 interleaved FEC, and both sublavers would be enabled or disable as a pair. In the context of P802.3ct, there is no case where the Inverse RS-FEC sublayer can ever be (or ever needs to be) disabled, and in fact this would make no sense as this would feed the RS(544) format directly to the clause 153 SC-FEC sublayer, P802.3ck can add this configurability to the mechanism produced by P802.3ct when needed.

C/ 153 SC 153.1.2 P80 / 35 # 47

Wienckowski. Natalie General Motors

Comment Type E Comment Status A bucket

bucket

Why is AN in the list of acronyms for the Figure when AN isn't used in the Figure? If it's in the Figure and I missed it, NEGOTATION should be NEGOTIATION.

SuggestedRemedy

Delete: AN = AUTO-NEGOTATION

Response Response Status C

ACCEPT.

# 120 C/ 153 SC 153.2.1 P80 L 50

Law. David Hewlett Packard Enterprise

Comment Type Ε Comment Status A

Suggest that '... information to and from the FEC.' should read '... information to and from

the SC-FEC.'.

SuggestedRemedy

See comment.

Response Response Status C

ACCEPT.

C/ 153 SC 153.2.1 P80 L 50 # 121 Law. David Hewlett Packard Enterprise

Comment Type Comment Status A bucket Can't the sublaver 'above' the SC-FEC also be an Inverse RS-FEC (see Figure 152-1) or a

PMA (see Figure 83C-8 as well as Page 81, Line 7)?

#### SuggestedRemedy

[1] Page 80, line 50 that '... the PCS to ...' should be change to '... the PCS, Inverse RS-FEC, or PMA to ...'.

[2] Page 81, line 7 that '... the PCS or PMA ...' should be change to '... the PCS, Inverse RS-FEC. or PMA ...'.

Response Response Status C

ACCEPT.

C/ 153 SC 153.2.3.2.4 P83 L20 # 31

Slavick, Jeff Broadcom

Comment Type TR Comment Status R

No Annex which provides a sample FEC frame is provided like 91A and 119A

#### SuggestedRemedy

Add an Annex that provides a sample SC-FEC frame

Response Response Status U

REJECT

Insufficient remedy proposed. Commenter is invited to submit proposed text for the type of Annex envisioned

A challenge is that the FEC codewords for RS(528,514) is 5280 bits, and for RS(544,514) are 5440 bits, whereas a FEC codeword for SC-FEC is 261120 bits, so it is less clear that a text sequence of numeric values for a full FEC codeword is meaningful or useful for the reader in the form of text in the published standard.

While test vectors are known to exist for this FEC code, none are currently published in a place where they can be referenced.

G.709.2, which is referenced, provides significant detail on the structure of the code, the way the block interleavers work, and the permutation factor tables.

Commentor is invited to submit an alternate form eg a test vector file or code to generate the test vectors that can be published separate from this standard.

bucket

CI 153 SC 153.2.3.2.4 P83 L43 # 30

Slavick, Jeff Broadcom

Comment Type TR Comment Status A

Is the pattern supplied sent Left to right or Right to left or first field (sent R to L) followed by 2nd field (sent R to L)

SuggestedRemedy

Add statement to 1) which defines the order the bits are transmitted.

Response Status C

ACCEPT IN PRINCIPLE.

While it is normally the convention that when written in binary form that the bits would be transmitted left to right, change:

"The FAS is the following fixed bit pattern:"

to

"The FAS is the following fixed bit pattern, transmitted left to right:"

CI 153 SC 153.2.3.2.4 P83 L51 # 124

Law, David Hewlett Packard Enterprise

Comment Type E Comment Status A

Suggest that the abbreviations 'GMP OH' used in Figure 153-3 'SC-FEC frame' should be referenced here.

SuggestedRemedy

Suggest the text 'The GMP mapping overhead is encoded ...' should be changed to read 'The GMP mapping overhead (GMP OH) is encoded ...'.

Response Status C

ACCEPT.

C/ 153 SC 153.2.3.2.4 P84 L9 # 123

Law, David Hewlett Packard Enterprise

Comment Type E Comment Status A

Subclause 10.5.1 'Citation as a normative reference' of the IEEE-SA Standards Style Manual says 'Note that in-text reference to a specific clause, subclause, table, or figure of another document shall be dated even if the undated version of the document is listed in the normative references.'.

SuggestedRemedy

Please provide a dated reference for '... ITU-T G.709 Clause 19.4.3.2.'

Response Status C

ACCEPT IN PRINCIPLE.

Change "ITU-T G.709" to "ITU-T G.709 (06/2020)"

CI 153 SC 153.2.3.2.4 P85 L13 # 122

Law, David Hewlett Packard Enterprise

Comment Type T Comment Status A

The middle row of Table 153-1 'Encoding of GMP words in next SC-FEC frame' shows the encoding of 'GMP words' in a 188 GMP word frame when the next frame is 189 GMP word frame.

The text on page 85, lines 13-14 says when the current frame is a 189 GMP word frame, and the next frame is 188 GMP word frame 'This is signaled by inverting all of the even-numbered C bits (C12, C10, C8, C6, C4, C2, C0) from the value in the previous frame, setting the decrement indicator (DI bit) to one, and setting the increment indicator (II bit) to zero.'.

As two consecutive 189 GMP word frames cannot occur (see page 84 line 50-51), the text on page 85, lines 13-14 must be applied to middle row of Table 153-1 as the previous frame has to have been a 189 GMP word frame following a 188 GMP word frame.

If this is the case bit C0 is a '0' in the previous frame and, therefore, if inverted as described by the text on page 85, lines 13-14, there should be a '1' for C0 in the last row or Table 153-1. It's also doesn't seem clear from page 85, lines 13-14 what to do with the odd numbers C bits.

It seems that the C bits in this case are calculated based on the number of words in the next frame, then replacing the even-numbered C bits with the inverse of their value from the previous frame.

SuggestedRemedy

Clarify the description of the C bits if required.

Response Status C

ACCEPT IN PRINCIPLE.

On page 85 line 12, change:

"inverting all of the even-numbered C bits (C12, C10, C8, C6, C4, C2, C0) from the value in the previous frame"

to

"inverting all of the even-numbered C bits (C12, C10, C8, C6, C4, C2, C0) from the numeric value of GMP words filled in the previous frame (189)"

As clarification (this part not affecting the text), you are flipping even numbered bits of the fill value, even though in this case, the previous frame signals that fill value by signaling an increment indicator from 188 rather than actually showing the value 189 which persists for a single frame.

C/ 153 SC 153.2.3.2.4 P85 L46 # 103 C/ 153 SC 153.2.3.3.1 P87 L47 # 56 Maniloff, Eric Ciena Trowbridge, Steve Nokia Comment Type Т Comment Status A bucket Comment Type TR Comment Status A The text reads "whose fill level varies The frame alignment process encounters false loss of lock too frequently, as described in depending on whether 188 or 189 GMP words are filled in a given SC-FEC frame." should trowbridge 01 200528 presented in the 28 May 2020 interim Task Force Conference call. include that the fill level varies with the clock offset of the 100GBASE-R signal. SuggestedRemedy SuggestedRemedy Implement the remedy described in trowbridge 01a 200611 to the 11 June 2020 Interim Modify text to read "whose fill level varies with the clock offset of the incoming 66B blocks Task Force call. Note that this remedy includes a change to the Bibliography (Annex A) as well as to clause 153 depending on whether 188 or 189 GMP words are filled in a given SC-FEC frame." Response Response Status C Response Response Status C ACCEPT. ACCEPT. C/ 153 SC 153.2.3.3.4 P88 L20 # 115 # 51 C/ 153 SC 153.2.3.2.7 P87 L33 Hewlett Packard Enterprise Law, David Wienckowski. Natalie General Motors Comment Type E Comment Status A bucket Comment Type E Comment Status A bucket Suggest that '0x1e' should be '0x1E', See figure 82-5. missing "be" verb SuggestedRemedy SuggestedRemedy See comment. Change: first 16 octets of the FEC frame distributed Response Response Status C To: first 16 octets of the FEC frame are distributed ACCEPT. Response Response Status C ACCEPT IN PRINCIPLE. C/ 153 SC 153.2.4.1.1 P89 L15 # 52 For consistency with the rest of the paragraph, change: Wienckowski. Natalie General Motors "first 16 octets of the FEC frame distributed" To: Comment Type E Comment Status A bucket "first 16 octets of the FEC frame is distributed" inconsistent/incorrect use of true/false & True/False throughout this subclause P87 L35 # 54 C/ 153 SC 153.2.3.2.7 SuggestedRemedy Wienckowski, Natalie When describing the states of a Boolean variable use "TRUE" and "FALSE". General Motors Comment Type E Comment Status A bucket Response Response Status C wrong "dash" type ACCEPT. SuggestedRemedy Change the "En dash" after "NOTE" to an "EM dash" Also P94L44, P95L30

Response Status C

Response

ACCEPT.

C/ 153 SC 153.2.4.1.1 P89 L34 # 113 C/ 153 SC 153.2.4.4 P91 L27 # 117 Law. David Hewlett Packard Enterprise Law. David Hewlett Packard Enterprise Comment Type T Comment Status A bucket Comment Type E Comment Status A Suggest that 'A variable set ...' should read 'A Boolean variable set ...'. Typo, the assignment '... <= current fecll' in state COUNT NEXT of Figure 153-7 should read '... <= current fecl'. SuggestedRemedy SuggestedRemedy See comment. See comment. Response Response Status C Response Response Status C ACCEPT ACCEPT IN PRINCIPLE Overtaken by events. This is fixed in the reviewed text proposal reviewed in the 11 June SC 153.2.4.1.1 P90 L13 C/ 153 # 112 2020 Interim Task Force call. See comment #56 Law. David **Hewlett Packard Enterprise** C/ 153 SC 153.2.4.4 P91 / 41 # 118 Comment Type E Comment Status A bucket Law, David Hewlett Packard Enterprise Booolean ...' should read 'Boolean ...'. Comment Type T Comment Status A SuggestedRemedy The variable FEC lane mapping<x> assigned the value fec lane in the state 2 GOOD of See comment. Figure 153-7 is not defined in subclause 153.2.4.1.1 'Variables'. Response Response Status C SuggestedRemedy ACCEPT. Add a definition of the variable FEC lane mapping < x > to subclause 153.2.4.1.1 'Variables'. C/ 153 SC 153.2.4.4 P91 L7 # 116 Response Status C Law. David Hewlett Packard Enterprise ACCEPT IN PRINCIPLE. Add: Comment Type T Comment Status A FEC lane mapping<x> States COUNT 2 and COUNT NEXT in Figure 153-7 'SC-FEC synchronization state This variable indicates which FEC lane is received on lane x of the PMA service interface diagram' include the action 'start fas counter'. Subclause 153.2.4 'Detailed functions and when fas lock<x>=TRUE, where x=0:19. state diagrams' states that 'The notation used in the state diagrams follows the conventions of 21.5. The notation ++ after a counter or integer variable indicates that its value is to be C/ 153 SC 153.2.32.4 P84 L16 # 48 incremented.'. Neither this subclause, nor the referenced subclause 21.5, defines a start Wienckowski. Natalie **General Motors** action for a counter, and what it means Comment Type E Comment Status A bucket SuggestedRemedy missing spaces Change 'start fas counter' to read 'fas counter <= 0' in both the States COUNT 2 and COUNT NEXT states. SuggestedRemedy Change: 255/227 Response Response Status C To: 255 / 227 ACCEPT IN PRINCIPLE. Response Response Status C

ACCEPT

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

In 153.2.4.3 add second sentence to 'fas counter' defintion which reads "This counter

pattern on that FEC lane."

starts with a value of zero when 'start\_fas\_counter' is asserted (at the position of the first octet of a matched FAS pattern on a FEC lane), is incremented for each octet on that FEC lane, and reaches a terminal value of 16 320 at the expected position of the next FAS

C/ **153** SC **153.2.32.4**  Page 20 of 29 8/6/2020 9:48:38 AM

C/ 153 SC 153.2.32.4 P86 L3 # 49 C/ 153 SC 153.3.2.3.1 P95 L24 # 59 Wienckowski, Natalie General Motors Trowbridge, Steve Nokia Comment Type T Comment Status A bucket Comment Type E Comment Status A math error. If this is not a math error, please explain how 3 can be the correct answer. The encoder (clause 153.3.2.2.2) does the math and gives a number (not just a formula) for the top-line baud rate, but the equivalent decoder section does not. SuggestedRemedy SuggestedRemedy Change: 75 + 12 - 80 = 3Add the approximate top-line baud rate (~27.9525 GBd) after the formula. To: 75 + 12 - 80 = 7Response Response Status C Response Response Status C ACCEPT. ACCEPT. C/ 153 SC 153.2.32.4 P86 L29 # 50 C/ 153 SC 153.3.2.3.2 P**95** L34 # 102 Maki, Jeffery Juniper Networks Wienckowski. Natalie General Motors Comment Type E Comment Status A bucket Comment Type ER Comment Status A Sub-clause is self referencing. Reference to 153.3.2.3.2 is erroneous. missing spaces SuggestedRemedy SuggestedRemedy Change: 512×510 Replace 153.3.2.3.2 with 153.3.2.2.2. To: 512 × 510 Response Response Status C Response Status C Response ACCEPT IN PRINCIPLE. ACCEPT. Replace 153.3.2.3.2 with 153.3.2.2.1 C/ 153 SC 153.3.1 P**93** L49 # 53 C/ 154 SC 5.4 P104 L43 # 110 John, DeAndrea Finisar / II-VI Wienckowski. Natalie **General Motors** Comment Type T Comment Status A Comment Type E Comment Status A bucket The use of optical amplifiers ion the black link create additional noise conditions for this missing spaces PMD type. SuggestedRemedy SuggestedRemedy Change: 255/227 Add the following to the note ", optical amplifier noise in the Black Link, etc." To: 255 / 227 Also on line P93L51, P94L38, P94L53, P95L24 Response Response Status C Response Response Status C ACCEPT IN PRINCIPLE See resolution to comment #69. ACCEPT.

Cl 154 SC 154.1 P99 L7 # 92

Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei

Comment Type E Comment Status A

Wording can be improved.

SuggestedRemedy

This clause specifies the 100GBASE-ZR PMD together with the associated medium, which is a single-mode fiber based DWDM channel which may contain one or more optical amplifiers and is described in the form of a black link (see 154.6).

Response Status C

ACCEPT IN PRINCIPLE.

Change the first part of the first sentence to "This clause specifies the 100GBASE-ZR PMD together with the associated medium, which is a single-mode fiber based DWDM channel which may contain one or more optical amplifiers and is specified using black link methodology (see 154.6)"

C/ 154 SC 154.1 P99 L8 # 82

Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei

Comment Type ER Comment Status D

The term "coherent" only appears 2x in D2.0 of P802.3ct, its use in this sentence is not helpful -

"The optical signal generated by this PMD type is modulated using a dual polarization differential quadrature phase shift keying (DP-DQPSK) format suitable for reception by a coherent optical receiver."

SuggestedRemedy

Replace this sentence with

The optical signal generated by this PMD type is modulated using a dual polarization differential quadrature phase shift keying (DP-DQPSK) format.

Proposed Response Response Status Z

REJECT.

This comment was WITHDRAWN by the commenter.

Cl 154 SC 154.2 P101 L15 # 60

Trowbridge, Steve Nokia

Comment Type E Comment Status A

The number cited (27.9525 Gbd) is not an exact nominal value. Same issue in the next paragraph.

SuggestedRemedy

The corresponding PMA clause uses the exact formula and an approximate nominal: (255/227)x24.8832 Gbd (~27.9525 Gbd).

Response Status C

ACCEPT IN PRINCIPLE.

Implement the proposed remedy with editorial license.

C/ 154 SC 154.5.4 P104 L32 # 104

Maniloff, Eric Ciena

Comment Type T Comment Status A

For the OSNR allowed by this specification, the integrated noise power after the demux may be only ~7dB lower than the signal power. As such a note in Table 154-5 indicating that SIGNAL\_DETECT may not be a reliable indicator of the optical signal if average power detection is used should be added.

SuggestedRemedy

Add note to Table 154-5 indicating "For amplified systems using average power for Signal Detect, the Signal Detect value may not indicate FAIL when the Optical Signal is below its specified threshold in Table 154-9"

Response Status C

ACCEPT IN PRINCIPLE

See resolution to comment #69

Bucket

C/ 154 SC 154.5.4 P104 L32 # 69 Stassar, Peter Huawei

Comment Type Comment Status A

The signal detect level of -30 dBm at TP3 is too low in the presence of optical noise (ASE) due to the presence of one (or more) optical amplifier(s) inside the black link. In order to get a sufficiently reliable signal detect level in the case of amplified operation, this threshold should be increased to -23 dBm, which is still sufficiently below the Minimum average input power [amplified] of -16 dBm specified for the amplified operation. On the other hand for unamplified operation, being a side application supported by this specification, a signal detect level of -30 dBm is right on the level of Minimum average input power [unamplified] of -30 dBm and therefore too high for the unamplified operation. Defining a single signal detect level appropriate for both amplified and unamplified operation is therefore not possible. Because the amplified operation is the "normative" application consistent with the agreed objective of 80 km, this specification needs to focus on that application. A suitable signal detect in an unamplified application should be addressed in a note.

#### SuggestedRemedy

In Table 154-5 modify the signal detect level of -30 dBm to -23 dBm and adress unamplified operation in a Note, with content TBD, pending further discussion

Response Response Status C

ACCEPT IN PRINCIPLE.

As SIGNAL DETECT is not reliable using average power detection: The proposed solution is to have only one row in Table 154-5, indicating the value "OK" for SIGNAL DETECT, removing the other 2 rows for value "FAIL" and "Unspecified".

Add appropriate wording in the text around Table 154-5 to clarify the reason why this is done with editorial license.

C/ 154 SC 154.5.4 P104 L32 # 105

Maniloff, Eric Ciena

Comment Status A Rather than Optical Power the Receive Condition should refer to Signal Power

SuggestedRemedy

Comment Type

Change "Average Optical" to "Optical signal"

Response Response Status C

ACCEPT IN PRINCIPLE.

See response to comment 69.

C/ 154 SC 154.5.4 P104

L32

L36

# 79

Schmitt. Matt

Cablel abs

Comment Type

Comment Status A

Table 154-5 sets a requirement that if the Average optical power at TP3 is less than or equal to -30 dBm, the SIGNAL DETECT value must be set to FAIL. Since that is the same as the required lower threshold for receiver sensitivity, there is no margin for any inaccuracies in the receiver power meter. Further, it prohibits a receiver from exceeding the requirement for sensitivity, since all values less than -30 dBm must be marked as FAIL. even if the receiver can decode them successfully. Setting this value lower will provide some margin and permit implementations that exceed the minimum requirement.

#### SuggestedRemedy

In the first row of Table 154-5, change "-30 dBm" to "-32 dBm".

Response

Response Status C

ACCEPT IN PRINCIPLE.

See response to comment 69.

C/ 154 SC 154.6

Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei

Comment Type E Comment Status A

This setence does not adequately describe the operation of the 100GBASE-ZR PMD -This subclause provides details of the medium associated with the 100GBASE-ZR PMD. over which the PHY operates at a single optical frequency (often also referred to by its associated wavelength) on a defined frequency grid.

P105

Given the differences between 100GBASE-ZR and 400GBASE-ZR in respect to the channel spacing, this should be clearly called out.

#### SuggestedRemedy

Replace sentence -

This subclause provides details of the medium associated with the 100GBASE-ZR PMD. over which the PHY operates at a single optical frequency (often also referred to by its associated wavelength) on a defined frequency grid.

With

This subclause provides details of the medium associated with the 100GBASE-ZR PMD. over which the PHY operates at a single optical frequency (often also referred to by its associated wavelength) on a defined frequency grid consisting of 48 channels based on a 100 GHz center channel spacing specified in Table 154-6.

Response Response Status C

ACCEPT IN PRINCIPLE.

See resolution to comment #95, where channel spacing is addressed.

Bucket

Cl 154 SC 154.6 P105 L36 # 98

Lewis, David Lumentum

Comment Status A

The formatting of text in 154.6 and 154.7 appears different to the other clauses. Perhaps tighter line spacing or a different font size.

SuggestedRemedy

Comment Type E

Check and change the style to match the rest of the clause.

Response Status C

ACCEPT IN PRINCIPLE.

Implement remedy with editorial license.

C/ 154 SC 154.6 P105 L38 # 96

Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei

Comment Type TR Comment Status A

The use of the term "channel" in IEEE 802.3 can be confusing to some based on their point of reference, as it sometimes refer to the medium between the Tx and Rx. In the case of P802.3ct, it is used to describe both the medium between the tx and rx, as well as in reference to the frequency of the optical wavelength (i.e. channel index number, channel center frquency, approximate channel center wevelength).

SuggestedRemedy

change

The medium associated with the 100GBASE-ZR PMD is also referred to as a DWDM channel

which is defined as the transmission path over a single wavelength/frequency on a defined frequency

grid between a DWDM PHY transmitting to another DWDM PHY.

To

The medium associated with the 100GBASE-ZR PMD is also referred to as a DWDM channel

which is defined as the transmission path over a single wavelength/frequency (referred to either by Channel Index Number or Channel Center Frequency) on a defined frequency grid between a DWDM PHY transmitting to another DWDM PHY.

Response Status C

ACCEPT.

Cl 154 SC 154.6 P105 L39 # 97

Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei

Comment Type TR Comment Status A

The definition in the body of the text for DWDM Channel is

"the transmission path over a single wavelength/frequency on a defined frequency grid between a DWDM PHY transmitting to another DWDM PHY."

This does not match the definition in 1.5.237a.

SuggestedRemedy

Replace definition in 1.4.237a with the noted definition that was in the body of the text.

Response Status C

ACCEPT IN PRINCIPLE.

The noted text is located in 1.4.237a. Replace the text in 1.4.237a DWDM Channel with "the transmission path over a single wavelength/frequency on a defined frequency grid between a DWDM PHY transmitting to another DWDM PHY."

Cl 154 SC 154.6 P106 L8 # 12

Laubach, Mark Self

Comment Type E Comment Status A

The grey shaded box in Figure 154-3 is confusing. Should be removed, less grey, and/or labeled as "black link"?

SuggestedRemedy

Editor's choice to amend for clarity.

Response Status C

ACCEPT IN PRINCIPLE.

Add a note to clarify the grey box in Figure 154-3, to indicate that this part of the specification is outside the scope of this clause and the details inside the box are only shown as an example to provide some information.

With editorial license.

Cl 154 SC 154.6 P106 L31 # 95

Dambrosia, John Futurewei, A U.S. Subsidiary of Huawei

Comment Type TR Comment Status A

There is no requirement for a 100GBASE-ZR PHY to support all 48 channels. Additionally, it is not noted that a user needs to configure a 100GBASE-ZR Tx with a 100GBASE-ZR Rx, which support the same channel index numbers.

### SuggestedRemedy

Add sentence at end of paragraph -

A 100GBASE-ZR PHY implementation may support 1 to 48 channel frequencies over a DWDM system. Configuration of a DWDM link with a 100GBASE-ZR Tx and Rx to support the same channel frequency is necessary.

Response Status C

ACCEPT IN PRINCIPLE.

It is proposed to modify the last sentence of the third paragraph (under Figure 154-3) "The 100GBASE-ZR PMD specification covers a maximum of 48 channels over a DWDM system, supporting between 1 and 48 channels."

"The 100GBASE-ZR PMD specification covers a maximum of 48 channels over a DWDM system, supporting between 1 and 48 channels, with a channel spacing of at least 100 GHz."

Furthermore add an additional sentence to the end of the third paragraph of 154.6 "In a working DWDM link, the combination of 100GBASE-ZR Tx, the associated DWDM channel, and a 100GBASE-ZR Rx are configured to support the same channel center frequency."

Cl 154 SC 154.6 P107 L32 # 13

Laubach, Mark Self

Comment Type E Comment Status A Bucket

Missing cross reference

SuggestedRemedy

Both occurences of "Table 154-6" in this paragraph should be a cross reference.

Response Status C

ACCEPT.

CI 154 SC 154.7 P107 L # 68

Stassar, Peter Huawei

Comment Type ER Comment Status A

Several of the parameter namings are not consistent with previously used conventions and should therefore be modified. This has already been discussed during the TF interim teleconference meeting on 11 June 2020 as shown in

http://www.ieee802.org/3/cw/public/tf\_interim/20\_0611/stassar\_3cw\_01\_200611.pdf. In this context it is strongly desirable to use consistent naming between 100GBASE-ZR and 400GBASE-ZR draft specifications

SuggestedRemedy

Implement the changes as proposed in

http://www.ieee802.org/3/cw/public/tf\_interim/20\_0611/stassar\_3cw\_01\_200611.pdf, except "Average receive power [amplified] (max)" which should be "Average receive power [amplified] (min)"

Response Status C

ACCEPT IN PRINCIPLE.

At this time there is no P802.3cw draft and the proposed naming has not been adopted by the P802.3cw task force, it is anticipated that the proposed text will be followed and that the P802.3ct draft should reflect this naming nomenclature. Implement the changes shown as noted in the presentation

http://www.ieee802.org/3/cw/public/tf\_interim/20\_0611/stassar\_3cw\_01\_200611.pdf except "Average receive power [amplified] (max)" which should be "Average receive power [amplified] (min)". With editoral license.

Cl 154 SC 154.7.1 P108 L24 # 106

Maniloff, Eric Ciena

Comment Type E Comment Status R

1000 kHz = 1 MHz

SuggestedRemedy

Replace 1000 kHz with 1 MHz

Response Status C

REJECT.

It is common in the optical industry to express transmitter line width in kHz instead of MHz

Cl 154 SC 154.7.1 P108 L31 # 141

Dawe, Piers Nvidia

Comment Type T Comment Status R

An EVM limit is like 802.3cd's clumsily named TDECQ-10.log10(Ceq), which is sometimes called K. It's a good thing to have but with a 7-spaced T-spaced equalizer, remarkably slow signals are possible that cause a large noise enhancement penalty. Has this been investigated and bounded?

Do you want to require all transmitters or receivers that work in practice with reasonable transmitter speeds to carry the burden of having to work with such super-slow but EVM-compliant signals?

### SuggestedRemedy

Consider adding the equivalent of a TDECQ limit in the EVM method. Consider an average power - TDECQ substitute if the range of good to bad is very large.

Response Status C

REJECT.

The commenter has not demonstrated that the current specification is broken or incomplete. The comment is speculative and also written in the form of a question to the Task Force. Furthermore the remedy does not contain a specific proposal to modify the draft in such a way that it would improve it on the basis of evidence provided.

C/ 154 SC 154.7.1 P108 L33 # 17

Issenhuth, Tom Huawei

Comment Type E Comment Status A

mment Type E Comment Status A Bucket

The placement of the "a" footnote marker is incorrect

SuggestedRemedy

Move the location of the footnote marker to after (193.6).

Response Status C

ACCEPT IN PRINCIPLE.

Implement proposed remedy.

Also move location of (min) for "Fiber dispersion slope (min) (S0)" in Table 154-10 to after "(S0)"

C/ 154 SC 154.7.1 P108 L33 # 107

Maniloff, Eric Ciena

Comment Type E Comment Status A Bucket

OSNR Units should be dB / .1nm

SuggestedRemedy

change unit column to dB (0.1nm)

Response Status C

ACCEPT.

CI 154 SC 154.7.1 P108 L38 # 108

Maniloff, Eric Ciena

Comment Type T Comment Status A

Note a applies to both amplified and unamplified systems. For design of the black link, it is necessary to know the input signal power and OSNR in order to ensure the Rx OSNR requirement is met.

SuggestedRemedy

Remove footnote a entirely.

Response Status C

ACCEPT.

C/ 154 SC 154.7.3 P109 L44 # 109

Maniloff, Eric Ciena

Comment Type T Comment Status A

S\_0 often refers to the Slope of the Chromatic Dispersion at the Zero Dispersion Wavelength. I believe this parameter refers to the minimum dispersion in the opersting wavelength range. Also, "Fiber dispersion" doesn't align with other specs for chromatic dispersion.

SuggestedRemedy

Change Description to "Minimum chromatic dispersion slope in operating wavelength range"

Response Status C

ACCEPT IN PRINCIPLE.

Change parameter name to "Minimum chromatic dispersion slope at channel center frequencies" with note referring to Table 154-6. With editoral license to create the note.

CI 154 SC 154.8.16 P112 L46 # 140

Dawe, Piers Nvidia

Comment Type TR Comment Status R

While G.698.2 gives the concept of receiver OSNR tolerance and says what's in and what's

While G.698.2 gives the concept of receiver OSNR tolerance and says what's in and what's out, it is normal in Ethernet optical PMD specifications to have a more specific definition "Stressed receiver sensitivity" to avoid ambiguity and give an example of how one might actually assure that a receiver complies. I don't see why this PMD should not need it too. Writing the stressed receiver sensitivity section can be painful because it makes one clarify what one means - it's where the rubber hits the road.

### SuggestedRemedy

Add a stressed receiver sensitivity section, following other clauses

Response Status W

REJECT.

The commenter has not demonstrated that the current specification is broken or incomplete and not demonstrated that adding a definition and specification of "stressed receiver sensitivity" would improve the quality of the draft.

Furthermore the remedy does not contain a specific proposal to modify the draft in such a way that it would improve it on the basis of evidence provided.

The commenter is invited to develop a detailed proposal for stressed receiver sensitivity with evidence that adding such a requirement will improve the quality of the draft.

C/ <b>154</b>	SC 154.8.16	P <b>1</b> 1	12 L	48 #	136
Dawe, Pie	ers	Nvidia	ı		
Comment this Cl		Comment Status	A		Bucket
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C/ <b>154</b>	SC 154.8.21	P <b>113</b>	<i>L</i> 18	# 99
Lewis, Dav	vid	Lumentum		
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C/ <b>154</b>	SC 154.8.21	P113	L18	# <u>1</u> 35
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00	•	cessary; change to upright		
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C/ <b>154</b>	SC 154.8.21	P113	L18	# [14
Laubach, I	Mark	Self		
Comment Text is	Type <b>E</b> mis-formatted a	Comment Status A as italic.		Bucket
Suggested Chang	<i>lRemedy</i> e to regular, nor	n-italic text.		
Response ACCE	PT.	Response Status C		

C/ 154 SC 154.9.1 P113 L25 # 78 C/ 154 SC 154.11.4.3 P118 L6 # 16 Grow, Bob **RMG** Consulting Issenhuth, Tom Huawei Comment Type **E** Comment Status R Comment Type E Comment Status A Bucket The table is for "PMD to MDI optical specifications for 100GBASE-ZR" but the entries are This text differs from P802.3cr. 150.9.1. duplicates of the first 2 lines of the previous table SuggestedRemedy SuggestedRemedy Replace sentence with; "All equipment subject to this clause shall conform to J.2." Modify the table to include the proposed values per D1.2 comment 125. Response Response Status C Response Response Status C REJECT Changing the relevant sentence does not improve the quality of the draft. ACCEPT IN PRINCIPLE. Implement remedy with editorial license. The current sentence is also used in P802.3cu D2.2 C/ 154 SC 154.11.4.6 P119 **L1** # 128 C/ 154 SC 154.10 P114 / 43 # 23 Dawe, Piers Nvidia Issenhuth. Tom Huawei Comment Type Ε Comment Status A Bucket Comment Type E Comment Status A Bucket Blank Link IEC 61753-1-1 has been withdrawn and superseeded by IEC 61753-1 Edition 2.0 August 1, 2018 SuggestedRemedy SuggestedRemedy black link Change to IEC 61753-1 Also, to match the rest of the document, Black Link requirements should be Black link requirements Response Response Status C Response Response Status C ACCEPT. ACCEPT IN PRINCIPLE. Change "Black Link" to "Black link" C/ 154 SC 154.11.4.2 P117 L26 # 55 Wienckowski. Natalie General Motors C/ 154 SC 154.11.4.6 P119 **L8** # 24 Comment Type E Comment Status A **Bucket** Issenhuth. Tom Huawei Wrong support options for a Mandatory item for an optional feature. In this case the Comment Type E Comment Status A Bucket choices should be Yes and N/A IEC 61753-1-1 has been withdrawn and superseeded by IEC 61753-1 Edition 2.0 August 1. SuggestedRemedy 2018 Change: No SuggestedRemedy To: N/A Change to IEC 61753-1 Also P118L7 Response Response Status C Response Response Status C

ACCEPT.

ACCEPT.

C/ 154 SC 154.11.4.6 P119 L9 # 100

Lewis, David Lumentum

Comment Type T Comment Status A

Bucket

Item OC2 references IEC 61753-1-1, which has been withdrawn and replaced by IEC 61753-1: 2018.

SuggestedRemedy

Change the first reference to IEC 61753-1.

Response Status C

ACCEPT IN PRINCIPLE.
See resolution to comment #24