C/ FM SC FM P 13 L 8 # 1	C/ 45 SC 45.2.1.123 P 61 L 21 # 4
Hajduczenia, Marek Charter Communicatio	Hajduczenia, Marek Charter Communicatio
Comment Type E Comment Status A Bucket "IEEE Std 802.3bsT-201x" is not marked as Amendment 8 A Bucket Bucket	Comment Type T Comment Status A Bucket "and this register is implemented" - typically, register numbers are referenced explicitly
SuggestedRemedy Add "Amendment 8-" ahead of "This amendment includes changes to IEEE Std 802.3- 2015 and adds Clause 116 through Clause 124" statement	SuggestedRemedy Change "and this register is implemented" to "and register 1.500 is implemented" in newly added text and text existing already in 45.2.1.123
Response Response Status C ACCEPT IN PRINCIPLE. The Working Group Chair has not announced the assumed order for amendments above Amendment 9. Text for Amendment 8 (IEEE Std 802.3bu-201x) will be added, but the assumed amendment number for IEEE Std 802.3bs-201x will not be added until it is	Response Response Status C ACCEPT IN PRINCIPLE. Change "and this register is implemented" to "and register 1.1500 is implemented" in newly added text and existing text in 45.2.1.123
announced by the Working Group Chair. See also response to comment #50	Cl 45 SC 45.2.3.6 P 68 L 36 # 5 Hajduczenia, Marek Charter Communicatio
C/ FM SC FM P 13 L 8 # 2 Hajduczenia, Marek Charter Communicatio	Comment TypeEComment StatusABucketIn Table 45-123, column for bit 3 uses much larger font than columns for bits 0, 1, and 2
Comment Type E Comment Status A Bucket There is no IEEE Std 802.3bvT-201x	SuggestedRemedy Please use the same font for all columns: 0, 1, 2, and 3
SuggestedRemedy Please add text for "IEEE Std 802.3bvT-201x" as Amendment 9 Response Status C	Response Response Status C ACCEPT IN PRINCIPLE. Change the column for bit 3 from 10 pt to 9 pt
ACCEPT IN PRINCIPLE. Now that the Working Group Chair has announced the assumed order of amendments up to Amendment 9, text for Amendment 8 (IEEE Std 802.3bu-201x) and Amendment 9 (IEEE Std 802.3bv-201x) will be added. See response to comment #50.	Cl 116 SC 116.1.2 P 105 L 12 # 6 Hajduczenia, Marek Charter Communicatio Bucket Comment Type E Comment Status A
Cl 45 SC 45.2.1.10 P 51 L 12 # 3 Hajduczenia, Marek Charter Communicatio Bucket Comment Type E Comment Status A	"in Annex 120B, or Annex 120C" - no need for "," SuggestedRemedy Change to "in Annex 120B or Annex 120C" The same change in lines 16
"1.11.15:14" should be shown in underline - it is an inserted text SuggestedRemedy Per comment Response Response Status C ACCEPT IN PRINCIPLE. Overtaken by events. As pointed out by comment #186, P802.3bz is creating a reserved row for bit 1.11.13, so the row that is the subject of this comment is removed by the response to comment #186.	Response Response Status C ACCEPT IN PRINCIPLE. On line 12, change: "in Annex 120B, or Annex 120C" to: "in Annex 120B or Annex 120C" On line 16, this is a list with 4 items. IEEE Editorial style manual says: "In a series of three or more terms, use a comma immediately before the coordinating conjunction (usually and, or, or nor)."

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: Comment ID

Comment ID 6

Page 1 of 125 29/09/2016 16:39:57

				-					
C/ 116 SC 116.7	<i>P</i> 118	L 21	# 7	C/ FM	SC FI	м	P4	L 10	# <u>1</u> 0
Hajduczenia, Marek	Charter Comm	nunicatio		Smith, Dan	iel		Seagate I	echnology	
Comment Type T PICS in 116.7 covers 2 PICS conforms to the s used in 21.6." is only pa	Comment Status A 200G and 400G, so the statem same notation and convention artially complete	nent "Each of th s	Bucket ne 400 Gigabit Ethernet	Comment spelling Suggested s/b: "A	<i>Type</i> g for 'ara <i>Remedy</i> rabic" wi	E bic', thro	Comment Status A oughout the Editor's note.		Bucket
SuggestedRemedy				Booponoo		a sap			
Change to "Each of the notation and convention	e 200 Gigabit and 400 Gigabit ns used in 21.6."	Ethernet PICS	conforms to the same	ACCEI	PT IN PF	RINCIPL	E.		
Response ACCEPT.	Response Status C			Chang [Editor	e "arabio 's note:	c" to "Ara Clause	abic" on line 9 and line 10 and Subclause "front mat	ter" changed to "FN	Λ"]
See also comments #1	55 and 198			C/ 119	SC 11	19.2.4.4	.2 P 153	L 37	# 11
C/ 118 SC 118 2 1	P 128	/ 52	# 8	Gorshe, St	eve		Microsemi	Corp	
Haiduczenia. Marek	Charter Comm	nunicatio	" 0	Comment	Гуре	Е	Comment Status A		
Comment Type E Text "5.801.6 of the DT SuggestedRemedy Please use the consiste	Comment Status A "E XS FEC status register" us ent font size	es font smaller	Bucket than the rest of the text	reading row. S and the transm	g of the to ince tele on by col ission or	ext, it be commu lumn, it rder beir	ecomes apparent that the nications systems standa would be very helpful to th ng used here.	transmission is by rds typically illustra re reader to add ar	column and then by te transmission by row rows to indicate the
Response	Response Status			Suggested	Remedy				
ACCEPT.				Add so revised	me arrov I figure w	ws to Fig vill be se	gure 119-5 to illustrate the ent to the editor in a separ	e symbol transmiss ate file.	ion order. A proposed
Cl 120 SC 120.5.11. Smith, Daniel	2.4 P 198 Seagate Tech	L 11 nology	# 9	Response ACCEI	PT IN PR	RINCIPL	Response Status C E.		
Comment Type E	Comment Status A		Bucket	See re	sponse t	o Comn	nent #13.		
SuggestedRemedy change to: "ability"				[Editor http://w	s note: A /ww.ieee	Attachm 802.org	ent is gorshe_3bs_01_09 /3/bs/comments/P802d3t	16.pdf in os_D2p0_attachme	nts.zip]
Response ACCEPT IN PRINCIPL Change "abilty" to "abil	Response Status C E. ity"								

C/ 119 SC 119.2.4.4.2 P 154 L 2 Gorshe, Steve Microsemi Corp	# 12	C/ 119 SC Gorshe, Steve	119.2.4.4.2	P 153 Microsemi C	L 37 Corp	# 13
Comment Type E Comment Status A		Comment Type	ER Cor	nment Status A		
In Figure 119-6, the transmission order of the 10-bit symbols is not ob reading of the text, it becomes apparent that the transmission is by co row. Since telecommunications systems standards typically illustrate and then by column, it would be very beloful to the reader to add arrow	ovious. With careful olumn and then by transmission by row ws to indicate the	Figure 119-5 fact, per Figu encoders A a	is incorrect in the ure 119-10, the Al and B.	at it shows all the AM I values are split act	values within a s ross the FEC wor	single FEC word. In ds output from
transmission order being used here.	ws to indicate the	SuggestedReme	dy			
SuggestedRemedy Add some arrows to Figure 119-6 to illustrate the symbol transmission	n order. A proposed	Rather than s showing how to the editor i	showing a single / the AM values d in a separate file.	FEC block for Figure ivide across the two.	119-5, use two b A proposed revi	blocks side-by-side ised figure will be sent
revised figure will be sent to the editor in a separate file.		Response	Resi	oonse Status C		
Response Response Status C		ACCEPT IN	PRINCIPLE.			
ACCEPT IN PRINCIPLE. See response to comment #13. [Editor's note: Attachment is gorshe_3bs_01_0916.pdf in http://www.ieee802.org/3/bs/comments/P802d3bs_D2p0_attachments	s.zip]	Change the f Add in the fig A = from FEC B = from FEC Change the o 10-bit Symbo to: am_mapped Change: Alignment ma to: Alignment ma Insert 150, Li Alignment ma	figures as shown gure key: C codeword A C codeword B colum title from: ol index, k 10-bit Symbol ind arker mapping ar arker repetition ra 30: arker mapping is	in anslow_3bs_03_0 dex, k d repetition rate are tte is shown in Figure shown in Figure 119	916. shown in Figure ∍ 119-7. -5.	119-5 and Figure 119-7.
		Change: Alignment ma to: Alignment ma Insert 151, La Alignment ma	arker mapping ar arker repetition ra 32: arker mapping is	d repetition rate are te is shown in Figure shown in Figure 119	shown in Figure [∙] ∋ 119-8. -6.	119-6 and Figure 119-8.
		[Editor's note Attachment i http://www.ie	e: s gorshe_3bs_01 eee802.org/3/bs/c	_0916.pdf in pmments/P802d3bs_	_D2p0_attachme	nts.zip]

C/ 119 SC 119.2.4. Gorshe, Steve	4.2 P 154 Microsemi Co	L 2 rp	# 14	C. S	/ 123 wanson, \$	SC 123.11.3 Steven		P 281 Corning Incorp	L 6 porated	# <u>1</u> 6
Comment Type ER	Comment Status A			С	omment	Туре Т	Comment S	Status R		
Figure 119-6 is incorre fact, per Figure 119-1 encoders A and B.	ect in that it shows all the AM t 1, the AM values are split acro	values within a oss the FEC wo	single FEC word. In rds output from		While i or rece any arr	t understood her ive lanes) as the angement.	re are no lane a e PCS sublayer	assignments (w is capable of r	vithin a group or receiving the la	of transmit anes in
SuggestedRemedy Rather than showing a showing how the AM to the editor in a sepa	a single FEC block for Figure values divide across the two.	I19-6, use two A proposed rev	blocks side-by-side ised figure will be se	nt	Howev Rx mat they ca	er, when used in iters. The various annot be reorder	n a breakout co s lanes are lan ed (they are ph	nfiguration, ma ding in differen ysically in diffe	atching the cor t transceivers, rent optics).	rect Tx and thus
Response	Response Status C			S	uggested	Remedy				
ACCEPT IN PRINCIP	PLE.				Replac positio	e Figure 123-4 w ns 1-16 left to rig	with a Figure that ght.	at numbers the	e Tx positions	1-16 left to right and Rx
See response to com	ment #13.			R	esponse		Response Si	tatus C		
					REJEC	ЭΤ.				
[Editor's note: Attachr http://www.ieee802.or	nent is gorshe_3bs_01_0916.j g/3/bs/comments/P802d3bs_[odf in D2p0_attachme	nts.zip]		Lane n	umbering at the	MDI isn't requi	red for 400GBA	ASE-SR16 ope	eration.
C/ 122 SC 122.11.2 Swanson, Steven	2.1 P 261 Corning Incor	L 39 porated	# 15		lf a 16 would l	k25G PMD were be an implement ut may differ from	to be used for tation choice.	breakout applic For example, pl out application	cations, the op referred lane r	otical lane numbering numbering for a 16:1
Comment Type E Incorrect reference	Comment Status A		Bu	ucket	A Strav	w poll of the Tas	k Force was tal	ken:		
SuggestedRemedy Replace "The maximu	Im link distance for 200GBASI	E-LR4 and 400	GBASE-FR8 is based	d	Yes 4 No 19	on the addition o	n lane numberi	ng to Figure 12	.3-4.	
for 200GBASE-FR4 a connection and splice	nd 400GBASE-FR8 is based of loss.	on an allocation	of 3 dB total	nce – C S'	/ 122 wanson, \$	SC 122.7.3 Steven		P 252 Corning Incorp	L 8 porated	# 17
Response	Response Status C			С	omment	Type TR	Comment S	Status R		
ACCEPT.				C	In Tabl specifie 6.6 dB	e 122-13, the ch ed at 6.3 dB. Ho	nannel insertion wever 10km x (loss for 200Gl 0.46 dB/km plu	BASE-LR4 an sthe 2.0 dB al	d 400GBASE-LR8 is location for connectors =
				S	uggested	Remedy				
					Chang 13 to 6	e the channel ins .6 dB.	sertion loss for	200GBASE-LF	R4 and 400GB	ASE-LR8 in Table 122-
				R	esponse		Response Si	tatus U		
					REJEC There 400GB	CT. was no consens ASE-LR8.	us on increasin	ig the loss bud	get of 200GBA	ASE-LR4 and

C/ FM	SC FM	<i>P</i> 1	L1	# 18	C/ 122	SC 122.11.1	P 261	L 27	# 21
Gardner, J			ecnnology		Flatman, F			cnnologies	
Remo	<i>Type</i> E ove change bars i	n the margins from clea	n verison of the dra	t Bucket	Comment Note b	<i>Type</i> E o under Table 12	2-18 refers to TIA 568-0	C.3. It should also	refer to the International
Suggeste	dRemedy				equiva	alent, ISO/IEC 1	1801-1 (Edition 3), which	h is currently at DI	S stage (copied below).
see c	omment				Suggested	dRemedy			
Response	e e	Response Status C			Add re DIS st	eference to Cable tage).	ed OS2 singlemode fibr	e specified in ISO/	IEC 11801-1 (currently at
The "o versic Leavi locatio	clean" version has on without inserted ng the change ba on of changes but	s all text, figures, tables d or deleted text being s rs in this version is delik does not disrupt the te	etc. as they would shown using underlin perate since it is hel xt, figures or tables	be for the published be or strikethrough. oful in showing the of the draft.	Response REJE [Edito] http://v See re	CT. r's note: Attachm www.ieee802.org esponse to comr	Response Status C nent is flatman_3bs_01_ g/3/bs/comments/P802c nent #20	0916.pdf in 3bs_D2p0_attach	ments.zip]
C/ FM	SC FM	P 13	L 12	# 19	CI 424	SC 424 44 2	A D 204	1 1 2	# 00
Gardner,	Andrew	Linear T	echnology		C/ 124	SC 1 24. 11.2			# 22
Comment	Туре Е	Comment Status A		Bucket				chilologies	
Since IEEE	it seems likely th P802.3bs add it t	at IEEE P802.3bu will b o the list of prior amend	e published before Iments.		Note a	Iype E a under Table 12	24-12 refers to TIA 568-(C.3. It should also	refer to the International
Suggeste	dRemedy				equiva	alent, ISO/IEC 1	1801-1 (Edition 3), which	h is currently at DI	S stage (copied below).
see c	omment				Suggested	aRemedy	ad OS2 ainglomada fibr	o opposified in ISO	IEC 11901 1 (ourrently of
Response	9	Response Status C			DIS st	tage).	ed US2 singlemode libb	e specilied in 150/	TEC 11801-1 (currently at
ACCE See r	EPT IN PRINCIPL esponse to comm	E. ent #50			Response REJE	ст	Response Status C	;	
C/ 121	SC 121.11.1	P 232	L 19	# 20	[Edito	r's note: Attachm	nent is flatman_3bs_01_	_0916.pdf in	
Flatman, J	Alan	LAN Teo	chnologies		http://v See re	www.ieee802.org	g/3/bs/comments/P802c ment #20	13bs_D2p0_attach	ments.zip]
Comment	Туре Е	Comment Status R							
Note a	a under Table 12 ² alent, ISO/IEC 11	I-14 refers to TIA 568-C 801-1 (Edition 3), which	C.3. It should also re is currently at DIS	fer to the International stage (copied below).					
Suggeste	dRemedy								
Add r DIS s	eference to Cable tage).	d OS2 singlemode fibre	e specified in ISO/IE	C 11801-1 (currently at					
Response	9	Response Status C							
REJE [Edito http:// The II Checl the va	CT. or's note: Attachmo /www.ieee802.org EC web site has ti k). Also, flatman alue of 0.5 dB/km	ent is flatman_3bs_01_ /3/bs/comments/P802d ne target date of 15 Feb _3bs_01_0916.pdf show as in Table 121-14.	0916.pdf in 3bs_D2p0_attachm o 2017 for "DEC" sta ws an attenuation of	ents.zip] age (Draft at Editing 0.4 dB/km rather than					

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: Comment ID

							0	•		
C/ 120D S	SC 120D.3.1	P 348	L 19	# 23	C/ 120D	SC	120D.3.1	P 348	L 24	# 24
lealey, Adam		Broadcom Ltd			Healey, Ad	am		Broadcom Ltd		
Comment Type	e TR	Comment Status A			Comment	Гуре	TR	Comment Status A		
The steady However,	y state voltage 94.3.12.5.3 re	e and linear fit pulse peak pa efers to 94.3.12.5.2 which sta	rameters refer	to 94.3.12.5.3. ear fit pulse is derived	The sig stringe	nal-to- nt 31 d	-noise-and IB limit red	d-distortion ratio parameter re quires a more accurate and re	fers to 94.3.12. peatable test p	.7. However, the procedure.
using ES1	and ES2 as o	defined in 94.3.12.5.1. The E	S1 and ES2 de	finition in 120D.3.1.2.1	Suggested	Remea	ły			
also apply	to the steady	state voltage and linear fit p	ulse peak meas	surements.	A pres	entatio	n will prov	vided with a description and a	nalysis of the p	roposed test method.
SuggestedRen	nedy				Response			Response Status C		
Insert a ne (suggest 1 followed by procedure error, and new subcla (suggest 1 according be the sum	w subclause 20D.3.1.2). T y the lettered in 94.3.12.5.2 normalized tra ause of 120D. 20D.3.1.3) wi to the linear fi n of the linear	under 120D.3.1 named "Line The contents of the new subc items a) through c) from the 2 is followed to determine the ansmitter coefficient values v .3.1 named "Steady-state vo th the following contents: "Th t procedure in 120D.3.1.2. T fit pulse p(k) divided by M. c	ear fit to the me clause include to current 120D.3 e linear fit pulse with the followin ltage and linear ne linear fit puls he steady-state letermined in st	asured waveform" he following paragraph .1.2. "The test response, linear fit g exceptions." Insert a f fit pulse peak" se, p(k), is determined e voltage vf is defined to tep 3 of the linear fit	ACCEF Compu Make t See als Presen	PT IN F ate the he cha so com tations	PRINCIPL linear fit p nges deta ments 56 on how te	E. bulse and linear fit error with D ailed in szczepanek_3bs_02_(4 & 23. o account for uncontrolled ISI	Pp = 2 and Np = D916.pdf are solicited.	= 200.
procedure. sentence c through c): described same level	" Renumber of the first para "The transmi in 120D.3.1.2 I in the heirard	120D.3.1.2 accordingly (sugg agraph of subclause to the fo itter output equalization is ch). Promote "Transmitter lines chy as the other transmitter g obculd be a subclause of the	gest 120D.3.3). ollowing and ren aaracterized usin arity", currently barameters (sug	Change the last move lettered items a) ng the linear fit method 120D.3.1.2.1, to the ggest 120D.3.1.4). The 1.4 (suggest	There y Straw I 1) In D 2) In D	was a s Poll 2.1 cor 2.1 ma 2)· 1	straw poll mpute the ike no cha	on this change. Iinear fit pulse and linear fit e ange.	error with Dp = 2	2 and Np = 200.
the referent to 120D.3.1.4 agreed upo	4.1). Update a nces for stead 1.3. This is ex on exceptions	vestate voltage and linear fit spected to clearly incorporate	gly, including in pulse peak para the referenced	Table 120D-1 where ameters should now be d content with all of the	17.10,	<i>_j</i> . 1				

Response

Response Status C

ACCEPT IN PRINCIPLE. Make the changes detailed in

http://www.ieee802.org/3/bs/public/16_09/szczepanek_3bs_02_0916.pdf with the exception that in 120D.3.1.6, "and transmitting PRBS31Q ..." is changed to "and the lanes not under test transmitting PRBS31Q ..." See also comments 564 & 24.

Comment ID 24

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: Comment ID

C/ 120D SC 120D.3.2.1 P 351 L 37 # 25 Healey, Adam Broadcom Ltd. Broadcom Ltd.	C/ 120D SC 120D.3.2.1 P 351 L 33 # 27 Healey, Adam Broadcom Ltd. Broadcom Ltd.
Comment Type TR Comment Status A The jitter parameters CRJrms and CDJ have been replaced by J_RMS and J5. As a result, the definition of the mapping of measured jitter parameters to sigma_RJ and A_DD needs to be modified.	Comment Type T Comment Status A While most are likely to understand what it means for the transmit equalizer to be "turned off", a simple yet more precise requirement can be stated.
SuggestedRemedy Given J_RMS and J5, specify that A_DD = $((J5/2)+Q5*sqrt((Q5^2+1)*J_RMS^2-(J5/2))/(Q5/2+1)$. This equation assumes that the bounded uncorrelated little has a	Replace the phrase "the transmit equalizer turned off" with "Local_eq_cm1 and Local_eq_c1 set to zero (see 120D.3.1.2)."
dual-Dirac distribution (as COM also assumes). Given J5 and A_DD, specify that sigma_RJ = $((J5/2)-ADD)/Q5$. Note that Q5 is approximately 4.4172.	Response Response Status C ACCEPT.
Response Response Status C ACCEPT IN PRINCIPLE. See also comment #163 Note that J5 jitter has been replaced by J4 jitter in the response to comment #132.	Cl 120D SC 120D.3.1.1 P 347 L 53 # 28 Healey, Adam Broadcom Ltd. Comment Type T Comment Status A
Replace the current mapping between (CRJrms, CDJ) and (A_DD, sigma_RJ) with the following. Given J_RMS and J4, specify that A_DD = $((J4/2)+Q4*sqrt((Q4^2+1)*J_RMS^2-(J4/2)^2))/(Q4^2+1)$. Given J4 and A_DD, specify that sigma P_I = $((J4/2)(ADD))/(Q4$. Note that Q4 is approximately 3 8906.	It is stated that jitter measurements are performed with transmitters on all lanes enabled and transmitting the same pattern. This implies the aggressor lanes will also be transmitting JP03A. It would be better if they were transmitting a more spectrally rich pattern such as PRBS31Q. Note that the "PRBS pattern testing control" registers (see 45.2.1.124) currently do not permit mixing JP03A on one lane with different test patterns on other lanes. This is the subject of a separate comment.
	SuggestedRemedy
C/ 120D SC 120D.3.2.2 P 352 L 18 # [26] Healey, Adam Broadcom Ltd. Comment Type T Comment Status A	Replace the second paragraph of 120D.3.1.1 with the following: "Jitter measurements are performed with transmitters on all lanes enabled and using identical transmitter equalizer settings. Transmitters on lanes not under test transmit PRBS13Q, PRBS31Q, or a valid 200GBASE-R or 400GBASE-R signal. PRBS13Q is described in 120.5.11.2.3 and PRBS31Q is described in 120.5.11.2.4 "
described in 120D.3.2.1 with the exception that no broadband noise is added. In 120D.3.2.1, items c) through f) pertain to the calculation of the test channel COM but the jitter tolerance specification includes no requirement for test channel COM. It is important to state a COM requirement since there is no other guarantee that the test setup supports the target RS-FEC symbol error ratio even prior to the application of the sinusoidal jitter (insertion loss at the fundamental frequency may not be enough).	Response Response Status C ACCEPT IN PRINCIPLE. see also comment #153 Replace the second paragraph of 120D.3.1.1 with the following: "Jitter measurements are

SuggestedRemedy

Require that the test channel COM, calculated per items c) through f) in 120D.3.2.1, be at least 3 dB. In addition, for the COM parameter calibration described in item d), require that the test channel transmitter J_RMS and J5 values are measured with the jitter frequency and amplitude set according to Case E from Table 120D-6.

Response

ACCEPT IN PRINCIPLE.

Editorial license granted to implement suggested remedy.

Response Status C

Replace the second paragraph of 120D.3.1.1 with the following: "Jitter measurements are performed with transmitters on all lanes enabled and using identical transmitter equalizer settings. Transmitters on lanes not under test transmit PRBS13Q, PRBS31Q, or a valid 200GBASE-R or 400GBASE-R signal. PRBS13Q is described in 120.5.11.2.3 and PRBS31Q is described in 120.5.11.2.4."

Straw Poll

Transmitters on lanes not under test should use an uncorrelated pattern
 Transmitters on lanes not under test should use the same pattern
 6; 2): 1;

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: Comment ID

Comment ID 28

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IEEE DR02 2ha D2 0 200 Ch/a 8 400 Ch/a Ethornat Initial Warking Croup hallot commants

C/ 45 SC 45.2.1.124 P 62 L 32 # 29 Healey, Adam Broadcom Ltd.	C/ 120E SC 120E.3.1 P 361 L 48 # 31 Healey, Adam Broadcom Ltd. Broadcom Ltd.
Comment Type T Comment Status A JP03A is a jitter test pattern. Such testing would be more rigorous if aggressor lanes (i.e., active lanes other than the lane under test) could transmit a more spectrcally rich test pattern while the lane under test transmits JP03A. To accomplish this, the per-lane management model used for the square wave test pattern (see 45.2.1.125) should also be applied to JP03A. A modification to the jitter specification that requires aggressor lanes to transmit "random" test patterns is the subject of a separate comment.	Comment Type T Comment Status A The limit for ESMW appears to be identical to the limit for eye width in all cases. As a result, it seems any measured signal that meets the ESMW requirement will, by definition also meet the eye width limit. If this is the case, is the eye width specification necessary? SuggestedRemedy Remove the eye width requirement if it is not needed.
SuggestedRemedy	Response Response Status C
Remove "JP03A pattern enable" bit from register 1.1501 (Table 45-93). Create a "JP03A control" register modeled after 1.1510 (see 45.2.1.125) in an appropriate place within the management register space and generate a new subclause accordingly. In this register, provide lane 0 through lane 7 JP03A enable bits (the remainder are reserved). As in 45.2.1.125, state in the new subclause that "lanes for which JP03A is not enabled act as	ACCEPT IN PRINCIPLE. Remove eye width specification from Table 120E-1. Remove near end eye width, and far end eye width specifications from Table 120E-3.
determined by other registers".	C/ 120E SC 120E.4.2 P 373 L 4 # 32 Healey, Adam Broadcom Ltd.
ACCEPT IN PRINCIPLE. Implement the suggested remedy with the exception of the removal of the "JP03A pattern enable" bit from register 1.1501 (Table 45-93) since that bit is used by existing implementations of 100GBASE-KP4.	Comment Type E Comment Status A In item 3), the phrase "as a distance of from the center of the eye" would be better stated as "as a function of the distance from the center of the eye". The CDF is related to this distance but is not the distance itself. See similar instances in items 4) and 7).
This response may be affected by the response to comment #131 which proposes to	SuggestedRemedy
remove the need for the JP03A pattern.	Replace the phrase "as a distance" with "as a function of the distance" in each instance cited in the comment.
C/ 120D SC 120D.3.1.2.1 P 350 L 30 # 30 Healey, Adam Broadcom Ltd. Broadcom Ltd. <td>Response Response Status C ACCEPT IN PRINCIPLE.</td>	Response Response Status C ACCEPT IN PRINCIPLE.
The sentence "RLM shall be greater than or equal to 0.95." is unnecessary since it is stated in 120D.3.1 that "the transmitter shall meet the specifications given in Table 120D-1 if measured at TP0a." RLM is one of the specification listed in Table 120D-1.	Replace the phrase "as a distance" with "as a function of the distance" in items 3), 4), and 7).
SuggestedRemedy Remove the last sentence of the last paragraph of 120D.3.1.2.1: "RLM shall be greater than or equal to 0.95."	Also change "to construct the CDF of the jitter zero crossing for" to "to construct CDF of the signal threshold crossing for"
Response Response Status C	

ACCEPT.

C/ 120E SC 120E.3.1 P 361 L 51 # 33	C/ 119 SC 119.2.5.3 P161 L 52 # 34
Comment Type TP Comment Status A	
Between P802.3bs/D1.2 and P802.3bs/D1.3, the module near-end eye height and width limits were decreased (from 120 mV/400 mUl to 90 mV/265 mUl) after a thorough investigation based on more recent assumptions of requirements (pre-cursor equalization) and device capabilities (see http://www.ieee802.org/3/bs/public/16_03/hegde_3bs_01_0316.pdf >and follow-ons). However, the commenter is unaware of any recent verification that the host output eye requirements (50 mV/200 mUl) are achievable with a host transmitter whose capabilities are similar to the those implied by Annex 120D (chip-to-chip 200G/400GAUI-4/8) over representative host channels.	 "it shall ensure that () the synchronization header for all 66-bit blocks () is set to 11" In this architecture the FEC is part of the PCS, not a separate sublayer, so the synchronization header is internal to the PCS and does not appear on any interface. Thus, the normative requirement is on unobservable behavior. The observable behavior is that all 200GMII/400GMII blocks included in the received codeword are replaced with EBLOCK_R. The "shall" should refer to this behavior. Similarly in the 5th paragraph of this subclause.
Verify the limits are still appropriate or adjust them accordingly. A presentation will be	SuggestedRemedy
provided that explores this issue.	Replace this paragraph (3rd) with the following:
Response Response Status C ACCEPT IN PRINCIPLE. The presentation indicates that the existing host output eye requirements (50 mV/250 mUI) in Table 120E-1 are not appropriate. Change value of eye height in Table 120E-1 from 50mV to 32mV. Change values of eye width and ESMW in Table 120E-1 from 0.25UI to 0.22UI	"If the bypass indication feature is not supported or not enabled, when the Reed-Solomon decoder determines that a codeword contains errors that were not corrected, it shall cause the PCS receive function to mark all 160 200GMII/400GMII blocks that contain data from either the uncorrected codeword or the codeword it is interleaved with, as error (set to EBLOCK_R). This may be achieved by setting the synchronization header to 11 for all 66-bit blocks created from these codewords by the 256B/257B to 64B/66B transcoder."
Straw Poll (Chicago Rules)	Replace the 5th paragraph with the following:
 Change host output eye height requirement to 32mV Change host output eye height requirement to 40mV Retain existing host output eye height requirement of 50mV 10; 2): 5; 3): 1; 	"If the bypass indication feature is supported and enabled, additional error monitoring is performed to reduce the likelihood that errors in a packet are not detected. The Reed-Solomon decoder counts the number of symbol errors detected in consecutive non-overlapping blocks of 8192 codewords exceeds
Straw Poll (Chicago Rules) 1) Change host output eye width/ESMW requirement to 0.2UI	5560, the Reed-Solomon decoder shall cause the PCS receive function to mark all 200GMII/400GMII blocks as error (set to EBLOCK_R) for a period of 60 ms to 75 ms."
 a) Retain existing host output eye width/ESMW requirement to 0.2201 3) Retain existing host output eye width/ESMW requirement of 0.25UI 1): 6; 2): 9; 3): 5; 	Response Response Status C ACCEPT IN PRINCIPLE. Change:
Straw Poll 1) Change host output eye width/ESMW requirement to 0.22UI 2) Retain existing host output eye width/ESMW requirement of 0.25UI 1): 12; 2): 3;	The Reed-Solomon decoder indicates errors to the 64B/66B decoder by intentionally corrupting 66-bit block synchronization headers. When the Reed-Solomon decoder determines that a codeword contains errors that were not corrected (and the bypass indication feature is not supported or not enabled), it shall ensure that, for every 257-bit block within the two associated codewords, the synchronization header for all 66-bit blocks at the output of the 256B/257B to 64B/66B transcoder, rx_coded_j<1:0> for j=0 to 3, is set to 11. This causes the PCS to mark (set to EBLOCK_R) all blocks that contain data from the uncorrected codeword. To: If bypass error indication is not supported or not enabled, when the Reed-Solomon
TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open \ SORT ORDER: Comment ID	G/generalComment ID 34Page 9 of 125N/written C/closed U/unsatisfied Z/withdrawn29/09/2016 16:

decoder determines that a codeword contains errors that were not corrected, it shall cause the PCS receive function to set every 66-bit block within the two associated codewords to an error block (set to EBLOCK_R). This may be achieved by setting the synchronization header to 11 for all 66-bit blocks created from these codewords by the 256B/257B to 64B/66B transcoder.

And change:

When FEC_bypass_indication_enable is asserted, additional error monitoring is performed by the RS-FEC sublaver to reduce the likelihood that errors in a packet are not detected. The Reed-Solomon decoder counts

the number of symbol errors detected on all PCS lanes in consecutive non-overlapping blocks of 8192 codewords. When the number of symbol errors in a block of 8192 codewords exceeds 5560, the Reed-Solomon

decoder shall cause synchronization header rx coded<1:0> of each subsequent 66-bit block that is delivered to the PCS decoder to be assigned a value of 11 for a period of 60 ms to 75 ms.

To:

When FEC bypass indication enable is asserted, additional error monitoring is performed by the Reed-Solomon decoder to reduce the likelihood that errors in a packet are not detected. The Reed-Solomon decoder counts

the number of symbol errors detected on all PCS lanes in consecutive non-overlapping blocks of 8192 codewords. When the number of symbol errors in a block of 8192 codewords exceeds 5560, the Reed-Solomon

decoder shall cause the PCS receive function to set every 66-bit block to an error block (set to EBLOCK_R) for a period of 60 ms to 75 ms. This may be achieved by setting the synchronization header to 11 for all 66-bit blocks created by the 256B/257B to 64B/66B transcoder for this time period.

C/ 119	SC 119.2.5.3	P 162	L 14	# <u>3</u> 5
Ran, Adee		Intel		

Comment Type T Comment Status A

SER is not a defined acronym and "symbol error ratio" is not defined anywhere. In previous clauses, "ser" was only used in as part of variable name and in corresponding register names. Compare to 91.5.3.3, 91.6.5, 108.5.3.2 and 108.6.6.

It would be preferable to avoid using the term "symbol error ratio" and instead describe the intended functionality, as done in other features here and in the referenced precedent subclauses. The actual behavior is specified in the next paragraph anyway

SuggestedRemedy

Change

"The Reed-Solomon decoder may optionally provide a FEC degrade function with the ability to signal the presence of a degraded SER."

to

"The Reed-Solomon decoder may optionally provide the ability to signal a degradation of the received signal."

Response ACCEP	Т.	Response Status C		
C/ 118 Ran Adee	SC 118.2.1	P 128	L 44	# 36
Comment T	vpe ER	Comment Status A		Bucket

Comment Status A Comment Type ER

Cross reference seems incorrect - 118.3 does not mention FEC degraded SER enable.

Also in 118.2.2, P129 L5.

Should it be 118.4? This subclause only lists the MDIO mapping, but does not describe the variable - the full description is only available in 45.2.4.11i.1, which is hard to find. So this cross-reference is not useful.

SuggestedRemedy

Either add the description from clause 45 to 118.4 and change the cross reference to 118.4, or point directly to clause 45, or remove the cross reference.

Response Status C

Response

ACCEPT IN PRINCIPLE.

See response to comments #262 and #263

P 128 Intel comment Status A ans to say that if FEC of ve as specified in claus re as specified in 118.2 es it really difficult to un r.	<i>L</i> 37 degrade optional se 119 _plus add 2.2 nderstand what is am_sf should in sf should still forw ext that this part is	 # 38 feature is itional requirements in required, and gives no iclude if the option is ard any indication that not optional.
omment Status A ans to say that if FEC over a sspecified in claus we as specified in 118.2 es it really difficult to un r.	degrade optional se 119 _plus add 2.2 nderstand what is am_sf should in sf should still forw ext that this part is	feature is litional requirements in s required, and gives no clude if the option is ard any indication that not optional.
in standard language. ited and when it isn't. (<i>sponse Status</i> C onditional on FEC_deg ng of 118.2.1: as follows: aded_SER + rx_local_ ng of 118.2.2: as follows:	Make it clear wha Sorry but I can't t graded_SER_ena _degraded,0,0} acent_pcs_local_	at _shall_ be done :hink of a good able: _degraded, 0}
c ii y ji	conditional on FEC_de ing of 118.2.1: it as follows: graded_SER + rx_local_ ning of 118.2.2: et as follows: _pcs_rm_degraded, adj	conditional on FEC_degraded_SER_ena ing of 118.2.1: it as follows: graded_SER + rx_local_degraded,0,0} ning of 118.2.2: it as follows: _pcs_rm_degraded, adjacent_pcs_local_

C/ 118	SC 118.2.2	P 128	L 19	# 39	C/ 119 SC 119.2.	5.3 P 162	L 17	# 40
Ran, Adee		Intel			Ran, Adee	Intel		
Comment Ty	pe TR	Comment Status R			Comment Type TR	Comment Status F	1	
T I / /								

The text on the left says

"When the PHY 200GXS or PHY 400GXS detects FEC degrade, the signal is propagated to the adjacent PCS, which can propagate that signal as local degrade"

How can it propagate that signal?

I would expect that the PHY "adjacent PCS" (facing the partner, so that it is _not_ a part of the PHY XS) _should_ propagate a degradation detected by the DTE XS. But the signaling of that PCS is specified in 119.2.4.4 using only the variable FEC_degraded_SER (which is defined in clause 119), without any input from the PHY XS PCS. Clause 119 does not assume clause 118.

A similar problem exists in the receive direction (right side). Degradation detected by the "adjacent PCS" should be propagated to the DTE XS, but how?

Also in P129, lines 38 and 43, the text says "the adjacent PCS sublayer indicates" - how does it indicate?

It seems that some interface between the PCS in the PHY XS and the adjacent PCS (in both directions) is missing. The figure only has "200GMII or 400GMII" which does not have a way to encode the "degradation" indication.

SuggestedRemedy

For propagation in the TX direction, perhaps specify in 119.2.4.4 that the FEC_degraded_SER variable can be set and cleared not only by the conditions specified, but also by an adjacent XS in an implementation-dependent manner (regardless of whether the PCS has the feature enabled or not).

For propagation in the RX direction, perhaps specify in 118.2.2 that adjacent_pcs_local_degraded and adjacent_pcs_rm_degraded can be set and cleared by the adjacent PCS in an implementation-dependent manner.

Alternatively, add service interface primitives between the adjacent "PHY PCS" and "PHY XS" to convey this information.

Response R

Response Status U

REJECT.

It was purposely left to the designer to provide the signaling path. Also the PCS in the layer stack is not the clause 119 PCS, it is some to be defined in the future PCS.

[Editor's note: page changed from 128 to 129]

FEC_degraded_SER_interval, FEC_degraded_SER_assert_threshold and FEC_degraded_SER_deassert_threshold defined here do not have default values. In addition, all three are 32-bit long.

This enables a huge number of combinations of interval and threshold values. Only a small part of these combinations makes sense; for example, any threshold larger than 544*FEC_degraded_SER_interval would be inherently invalid. Additionally, both threshold values should be less than 15*FEC_degraded_SER_interval, otherwise the indication of degradation would only occur after at least one complete codeword in the period is uncorrectable; and the assert threshold should be higher than the deassert threshold.

There should be default values for all three variables, and a recommendation for setting them together.

Also, the parameters and scenarios should be analyzed to show the mean time to assert/deassert, and check whether this feature is useful or not. I am planning a presentation for that.

SuggestedRemedy

Specify default values as follows:

- FEC_degraded_SER_interval: default 8192 (as when indication is bypass)

- FEC_degraded_SER_assert_threshold: default 5560 (MTTFPA or uncorrectable codeword concern).

- FEC_degraded_SER_deassert_threshold: default 5000 (very healthy link)

Add text to indicate that unless the threshold values are set such that the assert threshold is higher than the deassert threshold, the behavior is unspecified (or degradation always asserted - see other comment)

Add as a note (informative) that in typical use, both values should be lower than the interval value.

Response Status C

REJECT.

Response

There was no support for introducing default values as proposed in http://www.ieee802.org/3/bs/public/16_09/ran_3bs_01a_0916.pdf

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: Comment ID

Comment ID 40

Page 12 of 125 29/09/2016 16:39:58

<i>Cl</i> 45 Ran, Adee	SC 45.2.3.47d.	2 P 72 Intel	2 <i>L</i> 50	# 41	C/ 119 Ran, Adee	SC 119.2.5.9	P 164	L 5	# 43				
Comment Ty This bit would be	ype TR can be left unspe	Comment Status	A value is allowed), but to	reduce confusion it	Comment (none)	<i>Type</i> T distent subclause	Comment Status R						
situation	n.		e ef e kit is either 0 er		A "rec Figure	A "receive ordering" subclause and especially a matching diagram is missing here (as in Figure 91-7, Figure 108-5).							
I he bit .	_value_ can't be '	"undefined" - a valu	le of a bit is either 0 or	1.	Suggested	Remedy							
("undefin undefine	ned" is sometime ed, but the value	s used in clause 45 of this register affec	5 when a read value is i cts the encoding of the	rrelevant or a register is transmitted bit stream.)	Create subcla	suitable figures use.	for 200G and 400G receiv	ved bit ordering a	nd add them in a new				
SuggestedR	Remedy				Response		Response Status C						
Change	"The value of bit	3.801.4 is undefine	ed" to "This bit is set to	one".	REJE	CT.							
Alternat	ively, change to "	unspecified" or "im	plementation depender	ıt".	Since	receive ordering	is the exact reverse of tran	nsmit this is not r	iecessary.				
Response		Response Status	С		C/ 119	SC 119.2.5.3	B P 162	L 17	# 44				
ACCEP	T IN PRINCIPLE.				Ran, Adee		Intel						
"The val	lue of bit 3.801.4	is undefined if" to:			Comment	Туре Т	Comment Status R						
"The va	lue of bit 3.801.4	is unspecified if"			The cu	Irrent "FEC degr	rade" function provides only	y a binary indicat	ion of exceeding a				
<i>Cl</i> 119 Ran, Adee	SC 119.2.5.8	P 10 Intel	63 <i>L</i> 51	# 42	expect	ed performance	detailed use cases were r	not demonstrated					
Comment Ty Style ma mandate	ype TR anual: "use of the ory requirements;	Comment Status word must is depr must is used only	A ecated and shall not be to describe unavoidable	used when stating e situations"	Even i and wi links a cause	f we assume sta th settings inten nd cause false a very erratic beha	tionary noise conditions, e ded to identify "degradation alarms. In practice noise co avior. Accurate analysis m	exceeding a thres n" this may happ onditions may be ay be impractical	hold is a random event, en occasionally in healthy far from stationary and I.				
This is a	a mandatory requ	irement, not an una	avoidable situation, and	it is easily verifiable.	It is de	sirable to provid	le more detailed symbol er	ror statistics that	would enable online				
SuggestedR	Remedy				indicat can th	ion of received s	signal "health" to the link pa ust, and this would enable y	artner. Criteria fo	r defining "degradation"				
Change	"must" to "shall",	add PICS item.			Suggester	IRemedy							
Response		Response Status	С		A deta	iled presentatior	n is planned.						
ACCEP	T IN PRINCIPLE.				Response		Response Status C						
See the	response to #94				REJE	CT.							
					There http://v	was no support vww.ieee802.org	for changing the FEC degr g/3/bs/public/16_09/ran_3b	rade feature alon os_02a_0916.pdf	g the lines in				

C/ 00	SC	0	P 7	3	L 22	# 45		C/ 119	SC 119.2.4.5		P 155	L 37	# 46			
Comment	, Type	F	Comment Status	^			Bucket	Comment 7	Type T	ו Comment St	atus A					
The te subcla FEC)	erm RS ause tit in 30.5	FEC appea les use "PCS .1.1.17 and 3	rs here (corrected S FEC". "PCS FEC 30.5.1.1.18 which	and uncorre	cted codeword c ars (as a distinct e counters.	counters), bu term from R	t the S-	The variables m_A and m_B appear here without definition or explanation of what they mean.								
If "PC	S FEC	" is the chos	en term it should b	e used cons	sistently.			The tex m_b. T	t in the first para his makes it son	agraph explains newhat difficult	the process to connect th	but does not us e text with the "	e the terms m_A and equation".			
This a	pplies	to:						A refere	ence to figure 11	19-10 would also	be helpful.					
45.2.3	8.47e, F 8.47f P	P73 L21						Suggested	Remedy							
119.1. 119A, 120B.3 120D.3	.2, P14 P315 3.2, P3 3.2, P3	1 L26 L11 and L28 32 L15 351 L21 and	L22					In the fi "to fo RS FEC	irst paragraph, c rm two 514-sym C."	hange bol FEC messa	ges, which a	re subsequently	y each encoded by the			
120D. Suggested	3.2.2, I dReme	P352 L7, L2 [.] dy	1, L29					"to foi encode	rm two 514-sym d by the PCS F	ibol FEC messa EC, as illustrate	ges, m_A an d in Figure 1	d m_B, which a 19-10."	are subsequently each			
Chang	ge "RS-	-FEC" to "PC	CS FEC" in the liste	ed places.				Response		Response Sta	atus C					
Response ACCE Chang 45.2.3 45.2.3 119.1. 119A, 120B.	PT IN ge "RS 3.47e, p 3.47f, p 2, page 3.2, pa	PRINCIPLE -FEC" to "PC bage 73 line age 73 line 4 e 141 line 26 315 lines 11 ige 332 line	Response Status CS FEC" in the follo 22 42 3 and 28 15	C owing places	S:			ACCEF In the fi "to fo RS FEC to "to fo encode	PT IN PRINCIPL irst paragraph, c rm two 514-sym C." rm two 514-sym d by the RS FE	E. change ibol FEC messa ibol FEC messa C"	ges, which a ges, m_A an	re subsequently d m_B, which a	y each encoded by the are subsequently each			
120D. 120D.	3.2.1, p 3.2.2, p	page 351 line page 352 line	es 22 and 23 es 7, 21, and 29					C/ 119	SC 119.2.4.8		P 159	L 1	# 47			
								Ran, Adee		I	ntel					
								<i>Comment T</i> This su various	<i>Type</i> E bclause and the bit distribution a	Comment St figure describe and interleaving.	atus A not only the	transmit bit ord	<i>Bucket</i> lering, but also the			
								Suggested	Remedy							
								In the s distribu	ubclause and fig tion".	gure titles and th	ne text, chang	ge "bit ordering"	" to "bit ordering and			
								Response ACCEF	PT IN PRINCIPL	Response Sta E.	atus C					
								In the s On line "transm "transm	ubclause and fig 3 change: nit bit ordering is nit bit ordering an	gure titles chang illustrated" to: nd distribution a	ge "bit orderir re illustrated'	ng" to "bit orderi	ing and distribution".			

Comment ID 47

Page 14 of 125 29/09/2016 16:39:58

Cl 119 SC 119.2.5.3 Ran, Adee	P 161 Intel	L 45	# 48	Cl 78 Zimmerm	SC 78.5 an, George	P 100 CME Consu	L 41 Iting, Inc./	# 49
Comment Type TR There is no RS-FEC sul	Comment Status A blayer in this amendment. T	his is part of the	decoder functionality.	Commen Table	t <i>Type</i> E 978-4 has gotte	Comment Status A	struction.	Bucket
Also in the fifth paragrap SuggestedRemedy Change "The RS-FEC s Response ACCEPT IN PRINCIPLE Change : The RS-FEC sublayer s to: The Reed-Solomon dec And on page 162, L6 Cf the RS-FEC sublayer to to: the Reed-Solomon deco And on page 338, L28, of The eye height, eye wid PHY that includes an RS To: The eye height, eye wid And on page 339, L12, of The module output eye specified in 109B.3.2.1 f To: The module output eye specified in 109B.3.2.1.	bh, P162 L6. sublayer" to "the FEC decode <i>Response Status</i> C E. hall oder shall hange: reduce bder to reduce change: th, and vertical eye closure of S-FEC sublayer. th, and vertical eye closure of height, eye width, and vertication for a PHY that includes an F height, eye width, and vertication height, eye width, and vertication height eye width	er", in both place are as specified are as specified al eye closure a S-FEC sublaye al eye closure a	in 109B.3.2.1 for a in 109B.3.2.1. re measured as r re measured as	Suggeste Beat subci Respons ACC Table Since 78-4	dRemedy on frame and p ause. EPT IN PRINCI 78-4 will not fit at does not affe appears directly	out Table 78-4 after its editing i <i>Response Status</i> C IPLE. t at the foot of page 100 after t ect the number of pages in the y after the editing instruction.	instruction on line	e 41 and before the next ction. e settings so that Table

C/ 00 SC 0 P1 L2 # 50	Cl 118 SC 118.2.2 P 129 L 19 # 51	
Zimmerman, George CME Consulting, Inc./	Laubach, Mark Broadcom Limited	
Comment Type ER Comment Status A Bucket It is likely that 802.3bu and 802.3bv, both currently in sponsor ballot will be completed prior to this standard, which has just entered working group ballot. This effects the introduction, the header and may affect updates elsewhere in the draft (unclear without substantial cross-checking). Bucket	Comment Type E Comment Status A Bit As I view in the PDF at 100%: the bottom of the right vertical arrow appears to collide/overlap with the second "0" of "400GXS" in Figure 118-2. Same for Figure 118-3 page 130. Suggest creating a little more white space separation between the bottom of arrow and the text. Bit	<i>Jcket</i> 3 on ¹ the
SuggestedRemedy	SuggestedRemedy	
Consult 802.3 leadership to estimate order of publication. Change header to add "as amended by <list amendments="" be="" by="" of="" prior="" provided="" publication="" staff="" to="">", change line 28, to include IEEE Std 802.3bu-201x and IEEE Std 802.3bv-201x. Add 802.3bu and 802.3bv summaries after 802.3bz on page 13, and before 802.3bs, as well as any other amendments deemed likely to precede 802.3bs. Update table 45-3 (P41) and editing</list>	As per comment. Response Response Status C ACCEPT.	
instruction to align with 802.3bv (bit 1.22 is no longer reserved), and editor to check and update draft to align with 802.3bv and 802.3bu and any other preceding standards indicated by leadership.	Cl 118 SC 118.2 P 130 L 27 # 52 Laubach, Mark Broadcom Limited 52	
Response Response Status C ACCEPT IN PRINCIPLE.	Comment Type E Comment Status A Bit Add period to end of sentence. Bit Bit	ucket
Now that the Working Group Chair has announced the assumed order of amendments up to Amendment 9, make the following changes:	SuggestedRemedy As per comment.	
"(Amendment of IEEE Std 802.3T-2015)" to: "(Amendment of IEEE Std 802.3T-2015 as amended by [list to be populated during publication process])"	Response Response Status C ACCEPT.	
On page 1, line 27 add IEEE Std 802.3bu-201x and IEEE Std 802.3bv-201x to the list of amendments.	C/ 118 SC 118.5.3 P136 L 6 # 53	
On page 13, add summary text for amendments 8 and 9 after that for Amendment 7.	Laubach, Mark Broadcom Limited	_
Account for any changes to the base standard made by P802.3bu and P802.3bv as well as updates to any of the earlier amendments	Comment Type E Comment Status A Bit	ucket
As the Working Group Chair announces the assumed order for further ammendments ahead of the P802.3bs draft add thse to the list and account for any changes they make to the base standard.	The two subclauses for items CCE200 and CDE400 use a comma for separation. Whil 118.5.4.3 Page 138, Line 6-11, the two subclauses for items C1 and C2 use "and" for separation. Suggest changing the subclauses for C1 and C2 to comma as looking at the PICS for the other clauses, the use of comma is dominant.	e in ie
	Looking ahead at 119.6.4.3 (page 179, line 6-11), same observation.	
	SuggestedRemedy	
	As per comment.	
	Response Response Status C ACCEPT.	

C/ 119 SC 119. Laubach, Mark	1.1 P 141 Broadcom Limit	L 39 ed	# 54		C/ 121 Laubach, M	SC 12 Iark	1.8.9.2	P 228 Broadcom Limite	L 17	# <u>5</u> 7
Comment Type E Add a period to er	Comment Status A and of sentence each for b) and c).		Buc	cket	Comment T Followi	<i>Type</i>	E k and Wh	Comment Status R hite: a semi-colon is used when	n there is	Bucke not a conjunection. So
SuggestedRemedy As per comment.					Suggested	Remedy	ie , or i	ne and, but don't keep both.		
Response ACCEPT.	Response Status C				As per Response	commen	t.	Response Status C		
<i>Cl</i> 119 <i>SC</i> 119. Laubach, Mark	3 P 173 Broadcom Limit	<i>L</i> 4 ed	# 55		REJEC The IE "The ca deform	CT. EE Editor arrier-pho ation pote	rial Style mon inter ential op	Manual contains an example: raction matrices are given by: tical phonons; and 3) piezoeled	1) polar o ctric acou	ptical phonons; 2) stic phonons."
Comment Type E Missing a period a	Comment Status A at end of sentence. Add the period.		Buc	cket	<i>C</i> / 121 Laubach, M	SC 12 Iark	1.10	P 231 Broadcom Limite	L 41	# 58
SuggestedRemedy As per comment. Response ACCEPT.	Response Status C				Comment T Need a Suggested As per	<i>Type</i> I a period a <i>Remedy</i> commen	E t end of ' t.	Comment Status A "b" table footnote after "nm".		Bucke
C/ 121 SC 121. Laubach, Mark	8.5.3 P 225 Broadcom Limit	L 22 ed	# 56		Response ACCEF	PT.		Response Status C		
Comment Type E Need a period at e	Comment Status A end of the sentence. Same for Line	45-45.	Buc	cket	C/ 122 Laubach. M	SC 12 Iark	2.11.3	P 262 Broadcom Limite	<i>L</i> 3	# 59
SuggestedRemedy As per comment.					Comment T Should	<i>Type</i> I there be	E a ", or" a	Comment Status A at the end of a)?		Bucke
ACCEPT IN PRIN The IEEE Style Ma	Response Status C ICIPLE. anual 15.3 does not show any punct	uation at the	end of lines in the		Suggested Consid	Remedy er putting	g ", or" if	needed as per comment.		
"where" section. Remove the "." aft	ter "GHz" on line 34.				Response ACCEF [Editor' This lis 88.11.3 Delete Delete Delete	PT IN PR s note: P it follows 3, 89.10.3 the ";" an the two " the ";" an	INCIPLE age char the form 3. nd "." fror thom th nd "." fror	Response Status C nged from 2262 to 262] at of the IEEE style manual an m the list in 121.11.3 ne list in 123.11.3 m the list in 124.11.3	d the in-fo	prce standard in 87.11.3,

<i>Cl</i> 45 Anslow, Pe	SC 45.2	2.3.1.5	<i>P</i> 66 Ciena	L 48	# 60	Cl 122 Anslow, Pe	SC 12 te	22.11.2.1	P 261 Ciena	L 39	# 63
Comment T The ch shown Howev 45.2.3. See http://w clause. Withou change Suggested/	Type E anges to 4 in P802.31 er, comme 1.5 from th www.ieee80 pdf#page= it any char es shown in Remedy	Co 5.2.3.1.5 sh by D2.1. ent #7 agains ne P802.3by 02.org/3/by/p =5 nges being n n the P802.3	mment Status A own in P802.3bs D2.0 st P802.3by D2.1 resul draft. public/comments/8023t nade by IEEE Std 802. 3bs draft.	are an extension ed in the remova by_D21_commer 3by-2016, there i	Bucke of the changes I of the changes to t_final_responses_by_ s no need for the	et Comment "The m allocat "The n allocat i.e. the FR4 " Suggested Chang Response	Type aximum on of 3 c aximum on of 3 c second Remedy e the sec	T link distar dB ." shoul link distar dB ." occurrenc	Comment Status A nce for 200GBASE-LF Id be: nce for 200GBASE-FF e of "200GBASE-LR4 rrence of "200GBASE Response Status C	R4 and 400GBASE R4 and 400GBASE " in this paragraph -LR4 " in 122.11.2	Bucket -FR8 is based on an -FR8 is based on an a should be "200GBASE- 1 to "200GBASE-FR4 "
Remov base st	/e 45.2.3.1 tandard).	.5 from the	P802.3bs draft (and the	eretore leave 45.2	2.3.1.5 as it is in the	ACCE			_		
Response ACCEF	PT.	Res	ponse Status C			<i>CI</i> 00 Anslow, Pe	SC 0 te		P Ciena	L	# 64
C/ 118 Anslow, Pe	SC 118	.2.2	<i>P</i> 129 Ciena	L 30	# 61	Comment Now th any ch	<i>Type</i> at the pu anges to	E ublication of the base	Comment Status A order for P802.3bu an standard made by the	d P802.3bv has be ese two additional a	Bucket en decided, account for amendments.
Comment 7 Figures such as	<i>Type</i> E s 118-2 an s Figure 1 ⁻	Co d 118-3 are 18-1	mment Status A missing the acronym e	xpansion key as	Bucke per other diagrams	et Suggested Accour update	Remedy nt for any s to any	y changes of the earl	to the base standard lier amendments.	made by P802.3bu	ı and P802.3bv as well as
Suggested Add an	<i>Remedy</i> acronym	expansion k	ey to Figures 118-2 an	d 118-3.		Response ACCE	PT IN PF	RINCIPLE.	Response Status C		
Response ACCEF	PT.	Res	ponse Status C			C/ 1	SC 1.	.4.132a	P 35	L 13	# 65
Cl 118 Anslow, Pe	SC 118	.3	<i>P</i> 131 Ciena	L 8	# 62	Comment	те Гуре	E	Comment Status A		Bucket
Comment 7 Figure	<i>Туре</i> Е 118-4 has	Co the PMA lag	<i>mment Status</i> A yers shaded, but this cl	ause is about the	Bucke 200GXS or 400GXS	et CCMII CCXS	at: Extende ahs beco	er has becc ome 200G	ome 200GMII Extende XS	er	
Suggested Remov	<i>Remedy</i> ve the shad	ding from the	PMA layers and apply	to the XS layers		CDMII CDXS these	Extende ahs beco lefinition	er has becc ome 400G is are not i	ome 400GMII Extende XS n the correct place in	er 1.4	
Response ACCEF	PT.	Res	ponse Status C			Suggested Move t	Re <i>medy</i> hese def	, finitions to	the appropriate place	in 1.4	
						Response ACCE See re	PT IN PF sponse t	RINCIPLE.	Response Status C nt #180		
TYPE: TR/I COMMENT SORT ORE	technical r STATUS DER: Com	equired ER : D/dispatch ment ID	/editorial required GR/ ed A/accepted R/reje	general required sted RESPON	T/technical E/editoria SE STATUS: O/open 1	I G/general W/written C/closed	U/unsa	tisfied Z/v	Co vithdrawn	omment ID 65	Page 18 of 125 29/09/2016 16:39:58

C/ 122 SC 122.11.2.2	P 261	L 46	# 66		C/ 123	SC 123.7		P 276	L 4	# 68	
Anslow, Pete	Ciena				Kolesar, Pa	aul		CommScope			
Comment Type T Comment S	Status A			Bucket	Comment	Type TR		Comment Status A			
"and six for 200GBASE-FR4 and 400 "and six for 200GBASE-LR4 and 400	GBASE-LR8. GBASE-LR8.'	' should be:			TIA ha ANSI/T	r what is referred to in pliant and superior to					
SuggestedRemedy					type A Theref	1a.3 (OM4) a ore it should	and wi be inc	Il support the 400GBASE-S cluded as a recognized med	R16 PMD at le lia type.	ast as well as OM4.	
Change: "and six for 200GBASE-FR4 and 400	GBASE-LR8.	' to:			Suggested	Remedy					
"and six for 200GBASE-LR4 and 400	GBASE-LR8.				Add the fiber by replacing the second sentence of the clause as follows:						
Response Response S ACCEPT.	Status C				A1a.3 the spe	(OM4) or cal ecifications c	oling n lefined	erates on 50/125 µm multim nade with wideband fiber co d in Table 123-6.	mpliant to TIA	-492AAAE, according to	
C/ 119 SC 119.2.6.3	P 169	L 1	# 67		Note: I	EC and ISO	are in	the midst of standardizing	wideband fiber	and cabling. It is	
Gustlin, Mark	Xilinx				anticip the P8	ated that IE0 02.3bs amer	C type	designation and ISO OMx on the second second test of the second s	designation will come to fruitio	be known well before n. the terminology can	
Comment Type T Comment S	Status A				be ma	de common	across	s all three types.		,	
Currently the alignement marker lock reaching the locked state, instead loc are not correctable. This leaves the S	SM does not k is restarted M vulnerable	continously monit only when 3 FEC to a case where t	or the AMs afte codewords in a he Ethernet sig	er a row Inal is	Response ACCE	PT IN PRINC	CIPLE.	Response Status C			
transported by an OTN network, and network the AM location might chang continously corrupted data being rece	under some fa e and not be o eived.	ault conditions on detected by the re	the far end of t civer. This can	he lead to	Replac "A 400 (OM3)	e the secon GBASE-SR	d sent 16 con (OM4)	ence of 123.7 with: npliant PMD operates on 50) or fiber compliant to TIA-4	/125 µm multir 92AAAE, acco	node fibers, type A1a.2	
SuggestedRemedy					specifi	cations defin	ed in	Table 123-6."			
The proposed changes to figure 119- for correct AMs on all lanes after lock FEC correction) on a given lane, then	13 are include a, and if 5 are i a lock is restar	ed in gustlin_3bs_ found to not matcl ted.	01_0916. We n h expectations	now look (pre	Make of http://v	other change /ww.ieee802	es as c .org/3	described in pages 5 to 8 in /bs/public/16_09/king_3bs_	the presentatic 01_0916.pdf, v	on vith editorial license.	
Response Response S	Status C				A Stra	w poll of the	Task I	Force was taken:			
ACCEPT IN PRINCIPLE.					l suppo Yes 21	ort the additi	on of s	support for fiber compliant to	D TIA-492AAAE	E to the draft.	
Make the changes proposed in gustlin machine format from butter_3bs_01_	n_3bs_01_09 0916.	16, with the excep	tion of using th	e state	No 4						

Cl 123 SC 123.7 P 276 L 15 # 69	Cl 123 SC 123.10 P 279 L 29 # 70
Kolesar, Paul CommScope	Kolesar, Paul CommScope
Comment Type TR Comment Status A	Comment Type TR Comment Status A
TIA has published TIA-492AAAE, the detailed fiber specification for what is referred ANSI/TIA-568.3-D as wideband multimode fiber. This fiber is compliant and superior type A1a.3 (OM4) and will support the 400GBASE-SR16 PMD at least as well as O Therefore it should be included as a recognized media type in Table 123-5.	b inTIA has published TIA-492AAAE, the detailed fiber specification for what is referred to intoANSI/TIA-568.3-D as wideband multimode fiber. This fiber is compliant and superior to4.type A1a.3 (OM4) and will support the 400GBASE-SR16 PMD at least as well as OM4. Therefore it should be included within the discussion of the fiber optic cabling model.
SuggestedRemedy	SuggestedRemedy
 Add wideband multimode fiber to the table. Two alternatives are next proposed. 1) Add wideband to the current last row of the right column as follows: 0.5 m to 100 OM4 and cabling made with TIA-492AAAE fiber. 2) Add wideband in a new row at the bottom of the right column as follows: 0.5 m to for cabling made with TIA-492AAAE fiber. 	Modify the third sentence of the paragraph to include wideband multimode fiber as follows: As wideband and OM4 fiber optic cabling meet the requirements for OM3, a channel compliant to the "OM3" column may use wideband or OM4 optical fiber cabling, or a combination of OM3 and OM4 and wideband fiber optic cabling.
Note: the second alternative affords easier modification should the reach be determ	Note: This comment presumes that another comment is accepted which proposes to change the heading on the OM4 column to "OM4 or wideband".
differ from OM4.	Response Response Status C
Response Response Status C	ACCEPT IN PRINCIPLE.
ACCEPT IN PRINCIPLE.	See response to comment 68
See response to comment 68	
[Editor's pate: Clause shaped from 122.7 to 122 and Subslause shaped from "To	[Editor's note: Clause changed from 123.1 to 123]
5" to "123.7"]	C/ 123 SC 123.10 P 279 L 37 # 71
	Kolesar, Paul CommScope
	Comment Type TR Comment Status A
	TIA has published TIA-492AAAE, the detailed fiber specification for what is referred to in ANSI/TIA-568.3-D as wideband multimode fiber. This fiber is compliant and superior to type A1a.3 (OM4) and will support the 400GBASE-SR16 PMD at least as well as OM4. Therefore it should be included within the discussion of the fiber optic cabling model including Table 123-6-Fiber optic cabling (channel) characteristics.
	SuggestedRemedy
	Modify the heading on the "OM4" column to include wideband fiber as follows. Change the heading from "OM4" to "OM4 and wideband".
	Response Response Status C
	ACCEPT IN PRINCIPLE.
	See response to comment 68
	[Editor's note: Clause changed from 123.1 to 123 and Subclause changed from "Table 123- 6" to "123.10"]

		Dare	1 40	# 74				
Kolesar, Paul CommScope	Ghiasi, Ali	Ghiasi Quantur	n LLC	# [4				
Comment Type TR Comment Status A	Comment Type TR	Comment Status A						
TIA has published TIA-492AAAE, the detailed fiber specification for what is referred to in ANSI/TIA-568.3-D as wideband multimode fiber. This fiber is compliant and superior to type A1a.3 (OM4) and will support the 400GBASE-SR16 PMD at least as well as OM4. Therefore it should be included within the discussion of the optical fiber cable including within Table 123-7-Optical fiber and cable characteristics.	Baseline reference EQ requiring T/2 sample put unnessary burden for any digital implementation where T spaced can perform as well. SuggestedRemedy Replace 5 tap T/2 with 7 tap T-spaced							
SuggestedRemedy	Response	Response Status C						
Wideband fiber shares core diameter, nominal wavelength, and effective modal bandwidth characteristics with OM4. It delivers no more than 3.5 dB/km attenuation (and in fact is set to 3.0 dB/km in TIA-568.3-D). However the zero dispersion wavelength and chromatic dispersion slope are both superior to the specifications for OM3 and OM4. To handle these similarities and differences, a new column is proposed to be added to the right of the "OM4" column with the heading "wideband". Superscript the heading for footnote "c", the footnote to read: TIA-492AAAE. Increment the current "c" footnote to "d". Share the cells in this column for the first four rows with those of the "OM4" column. In the ZDW cell insert the following: 1297 <= lambda0 <= 1328. In the dispersion slope cell insert the following:	ACCEPT IN PRINCIPLE. Insufficient justification for In line with discussions a provide a detailed presen providing more information can compensate that a T Add: "Note-this reference particular receiver equality	r the proposed modification t the SMF Ad Hoc on 30 Aug tation with adequate justifica- on on whether there are impa- spaced equaliser cannot. e equalizer is part of the TDE zer implementation." to the e	gust, the comm ation for the pro airments that a CQ test and do and of 21.8.5.4	enter is invited to posed modification, T/2 spaced equaliser pes not imply any and 22.8.5.4				
<= 4(-105)/(040(1-(1a11100a0/040)(*4))).	C/ 121 SC 121.10	P 231	L 39	# <u>7</u> 5				
	Ghiasi, Ali	Ghiasi Quantur	n LLC					
See response to comment 68	Comment Type TR Optical return loss condit	Comment Status R ion not defiend						
[Editor's note: Clause changed from 123.1 to 123 and Subclause changed from "Table 123-7" to "123.11.1"] C/ 122 SC 122.10 P 260 L 43 # 73	SuggestedRemedy Need to define if the far e The 39 dB return loss ind return loss	end cable terminted or not. icate end point is not termin	ted into the TX	or RX having 26 dB				
Ghiasi, Ali Ghiasi Quantum LLC	Response	Response Status C						
Comment Type TR Comment Status D Optical return loss condition not defiend SuggestedRemedy Need to define if the far end cable terminted or not. The 29 dB and 27 dB return loss indicate end point is not terminted into the TX or RX having 26 dB return loss	REJECT. [Editor's note: Subclause This subclause is about t transmitter/receiver. Tran 121-7 and 121-8	changed from 121.1 to 121 he channel, not the combina smitter and receiver return l	.10] ation of the cha oss values are	nnel and the specified in Tables				
Proposed Response Response Status Z REJECT.								
This comment was WITHDRAWN by the commenter.								
[Editor's note: Subclause changed from 122.1 to 122.10]								

Cl 122 SC 122.8.5.4 P 256 L 7 # 76 Ghiasi, Ali Ghiasi Quantum LLC Ghiasi Quantum LLC <th>C/ 122 SC 122.11.2.2 P 261 L 45 # 79 Ghiasi, Ali Ghiasi Quantum LLC Figure 1 Ghiasi Quantum LLC Figure 1 Figur</th>	C/ 122 SC 122.11.2.2 P 261 L 45 # 79 Ghiasi, Ali Ghiasi Quantum LLC Figure 1 Ghiasi Quantum LLC Figure 1 Figur
Comment Type TR Comment Status A Baseline reference EQ requiring T/2 sample put unnessary burden for any digital implementation where T spaced can perform as well.	Comment Type TR Comment Status A It would be benificial to support legacy Ethernet cable plant haiving 26 dB RL
SuggestedRemedy Replace 5 tap T/2 with 7 tap T-spaced	SuggestedRemedy Suggest reducing the number to connector to 2 for cable plant haivng return loss of 26 dB
Response Response Status C ACCEPT IN PRINCIPLE. See response to comment #74	Response Response Status C ACCEPT IN PRINCIPLE. See response to comment #84
C/ 121 SC 121.11.2.2 P 232 L 34 # 77 Ghiasi, Ali Ghiasi Quantum LLC Ghiasi Quantum LLC Comment Type TR Comment Status A Standard does not support existing defined Ethernet cable plant SuggestedRemedy Consider supporting 2 connecter having 35 dB return loss Response Response Status C ACCEPT IN PRINCIPLE. See response to comment #84	Cl 124 SC 124.10 P 300 L 25 # 80 Ghiasi, Ali Ghiasi Quantum LLC Comment Type TR Comment Status D Optical return loss condition not defiend SuggestedRemedy Need to define if the far end cable terminted or not. The 39 dB return loss indicate end point is not terminted into the TX or RX having 26 dB return loss Proposed Response Response Status Z BEJECT.
Cl 122 SC 122.7.3 P 252 L 23 # 78 Ghiasi, Ali Ghiasi Quantum LLC Comment Type TR Comment Status A	This comment was WITHDRAWN by the commenter. [Editor's note: Subclause changed from 124.1 to 124.10]
It would be benificial to support legacy Ethernet cable plant haiving 26 dB RL <i>SuggestedRemedy</i> Suggest reducing the number to connector to 2 for cable plant haiving return loss of 26 dB	C/ 124 SC 124.11.2.2 P 301 L 17 # 81 Ghiasi, Ali Ghiasi Quantum LLC
Response Response Status C ACCEPT IN PRINCIPLE. [Editor's note: Clause changed from 12 to 122 and Subclause changed from 12.7.3 to 122.7.3] See response to comment #84	Current -45 dB RL require APC connector and may not support installed based. SuggestedRemedy Standard should allow reducing the number of connectors from 4 as defiend for operation with -45 dB RL to -35 dB with 2 connectors. Adhoc contribution http://www.ieee802.org/3/bs/public/adhoc/smf/16_08_16/anslow_01_0816_smf.pdf inducate to support 2 connector the RL for each connector must be -39 dB. This is close enough to either the MPI budget or trade connector loss as few are used with MPI. Response Response Status C
TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial C COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/ SORT ORDER: Comment ID	ACCEPT IN PRINCIPLE. See response to comment #84 G/general Comment ID 81 Page 22 of 125 29/09/2016 16:39:58

C/ 121 SC 121.7.3	P 219	L 47	# 82	C/ 121	SC ·	121.7.3		P 219	L 47	# 84
Ghiasi, Ali	Ghiasi Quan			Gniasi, Ali			C C	aniasi Quan		
Comment Type T	Comment Status A			Comment	Туре	т	Comment Sta	atus A		
Current -45 dB RL requi	e APC connector and may	not support ins	talled based.	Curren	nt -45 dE	3 RL requ	ire APC connec	tor and may	/ not support inst	alled based.
SuggestedRemedy				Suggested	Remed	'y				
Standard should allow re with -45 dB RL to -35 dE Adhoc contribution http://www.ieee802.org/3 inducate to support 2 co enough to either the MP	educing the number of con with 2 connectors. B/bs/public/adhoc/smf/16_c nnector the RL for each co I budget or trade connecto	nectors from 4 a 08_16/anslow_0 nnector must be r loss as few are	s defiend for operation 1_0816_smf.pdf -39 dB. This is close used with MPI.	Standa with -4 Adhoc http://v induca enougl	ard shou 5 dB RI contrib www.iee ite to su h to eith	uld allow r L to -35 dl ution e802.org/ pport 2 co ner the MF	reducing the nur B with 2 connec /3/bs/public/adh onnector the RL PI budget or trac	nber of con tors. oc/smf/16_0 for each co le connecto	nectors from 4 as 08_16/anslow_01 nnector must be r loss as few are	s defiend for operation -0816_smf.pdf -39 dB. This is close used with MPI.
Response	Response Status C			Response			Response Sta	atus C		
ACCEPT IN PRINCIPLE Same comment as #84				ACCE This co genera	PT IN P omment al suppo	RINCIPL t was disc ort for the	E. cussed during th change describ	e SMF Ad H ed below.	loc on 30 Augus	t 2016, where there was
C/ 120E SC 120E.3.1	P 361	L 51	# 83	9			g			
Comment Type T Based simulation to sho connector haiving ~1/3 th	Comment Status R w feasibility 200GAUI-4/40 le connector crosstalk spe	0GAUI-8 C2M w cified in 120E.4.	ere base on hypotitical	value f 55dB, http://v editoria	for each accordi www.iee al licens	n discrete ng to e802.org/ se.	reflectance for a	a variety of r oc/smf/16_0	numbers of discr	ete reflectances above - 3_0816_smf.pdf with
nttp://www.ieee802.org/	8/bs/public/adnoc/elect/24/	Aug_15/dallalre_	01_082415_elect.pdf	C/ 120E	SC ·	120E.3.2.	1	P 366	L 52	# 85
SuggestedRemedy				Ghiasi, Ali			G	Shiasi Quan	tum LLC	
Need to verify if current having ~3x the crosstalk http://www.ieee802.org/3 Plan to update the prese	eye width and eye height a . Attach presentation prov 3/cd/public/July16/ghiasi_3 entation as ghiasi_3bs_01_	re feasible with ide background cd_02_0716.pdf 0916.	QSFP28 like connector	Comment Target	<i>Type</i> tranisti	T on time d	Comment Sta oes not say 20-a	atus D 80%		
Response	Response Status C			Suggested	iRemea	у 00/				
REJECT. No change to draft propo Presentations on this su	bject are solicited.			Add 20 Proposed I PROP	Respon OSED I	0% se REJECT.	Response Sta	atus Z		
				This co	ommen	t was WIT	THDRAWN by th	ne comment	er.	
				[Edito to 120	r's note E.3.2.1]	: Clause o	changed from 12	29 to 120E a	and Subclause cl	hanged from 129.3.2.1

Image: Constraint of the sector of	Cl 120 SC 120.6 P 201 L 6 # 89 Trowbridge, Steve Nokia
Comment Type T Comment Status R	Comment Type E Comment Status A Bucke
We have inconsistency between baseline simulations and what we are referencing for MCB/HCB. The simulations were based on hypotitical connector haivng ~1/3 the cross http://www.jeee802.org/3/bs/public/adhoc/elect/24Aug 15/dallaire 01 082415 elect.pd	In Table 120-4, the "PMA status variable" column has several entries that wrap the name of the variable over to the next line in the middle of a word
SuggestedRemedy Current eye width and eye height may not be met with connectoras defined and referenced in 92.11.1 having ~3x the crosstalk. Attach presentation provide backgroun http://www.ieee802.org/3/cd/public/July16/ghiasi_3cd_02_0716.pdf Plan to update the presentation as ghiasi_3bs_01_0916.	SuggestedRemedy Make the rightmost column wide enough to not wrap any of the text, shrinking the PMA/PMD register name column (which wraps at word boundaries) and Register/Bit number column as necessary Response Response Status C
Response Response Status C	
REJECT. No remedy supplied Presentations on this subject are solicited.	C/ 121 SC 121.8.9.1 P 227 L 28 # 90 Trowbridge, Steve Nokia
[Editor's note: Clause changed from 1203 to 120E and Subclause changed from 1203. to 120E.4.1]	Comment Type E Comment Status A Bucket The line beginning the arrow from the Bessel Thompson filter to the E/O converter crosses into the box instead of beginning at the edge of the box, and the line beginning the arrow from the country of the country of the crosses into the country of the crosses
X 119 SC 119.6.3 P 177 L 6 # 87	plus sign
Comment Type E Comment Status A Bar The "Support" column is ragged. The first few rows have the entries centered, and later they are left aligned.	SuggestedRemedy Tidy up the figure and have the arrows start at the edge of the element they originate from Response Response Status C ACCEPT.
Use a consistent alignment for the support column	
Response Response Status C	Trowbridge. Steve Nokia
ACCEPT.	Comment Type F Comment Status A Buck
X 120 SC 120.4 P 187 L 53 # 88 Trowbridge, Steve Nokia Comment Type T Comment Status A B	The line beginning the arrow from the Bessel Thompson filter to the E/O converter crosses into the box instead of beginning at the edge of the box, and the line beginning the arrow from the summing function to the Bessel Thompson filter crosses into the circle around the plus sign
Should llist the extender sublayer as a possible sublayer below the PMA	SuggestedRemedy
SuggestedRemedy	Tidy up the figure and have the arrows start at the edge of the element they originate from
Change "including the PMD or another PMA" to "including the PMD, an extender sublay or another PMA"	Response Response Status C ACCEPT.
Response Response Status C ACCEPT. C	

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: Comment ID

C/ 118	SC 118.5.3	P 136	L 6	# 92	C/ 45	SC 45.2.3.47a	P 70	L 5 1	# 95
I rowbridge	e, Steve	NOKIA			Slavick, Je	Π	Broadcom		
Comment The "S have th Suggested Use a	<i>Type</i> E Support" column hem left aligned. <i>Remedy</i> consistent alignr	Comment Status A is ragged - the first vew rows Similar issue with the receive ment for the support column	have the entries function table f	Bucket centered, the last few urther on in this clause	Comment With th error c physic supply SER ra	Type TR Co ne checker board distril ounters don't provide a al lanes providing error the intent of the count ates then others.	mment Status D bution of RS-symbols in a 1-1 mapping of physica r counts into the same P er to assist in identifying	to PCS lanes, al lane to coun CS FEC lane the lanes tha	the PCS FEC Symbol nter. So you have 2 counter. This doesn't t are running at worse
Response ACCE	PT.	Response Status C			Suggested Preser	Remedy ntation to be supplied			
[Editor	r's note: Column	should be right aligned per 80	2.3 template]		Proposed I	Response Res	ponse Status Z		
<i>Cl</i> 119 Trowbridge	SC 119.1.3 e, Steve	<i>P</i> 141 Nokia	L 40	# 93	This co	omment was WITHDR	AWN by the commenter		
Comment Most e howev	<i>Type</i> E elements in the liver this only lists	Comment Status A st indicate both directions of p "Transcoding from 66B blocks	processing, e.g., s to 257B blocks	Bucket encoding/decoding, "	<i>Cl</i> 119 Slavick, Je	SC 119.2.5.3	P 162 Broadcom	L 15	# 96
Chang	ge to either "Tran	scoding between 66B blocks	and 257B blocks	" or "Transcoding of	Comment Missin	Type TR Co. g 3rd sentence of the "	mment Status A optional feature" templa	te for degrade	e_SER
ACCE See co	PT IN PRINCIPL	Response Status C E.			Suggested Add th option variabl	Remedy e end of the paragraph is provided it is enable e (see 119.3)" and rem legraded SER enable	that introduces FEC_d d by the assertion of the nove the (see 119.3) from	egrade_SER f FEC_degrad m the next par	eature. "When the led_SER_enable ragraph for the
C/ 119	SC 119.2.5.8	<i>P</i> 163	L 51	# 94	Response	Res	ponse Status C		
Trowbridge	e, Steve	Nokia			ACCE	PT.			
Comment There e.g., w the rec AMs. Suggested Chang	<i>Type</i> T are circumstanc when no rate mate duction in bit-rate <i>IRemedy</i> ge "The receive F	Comment Status A es where the Rx PCS does no ching is necessary such as de e from rate matching exceeds PCS must insert idle control ch	ot insert any idle livering packets the amount of s naracters to com	s when removing AMs, to an NPU, or when bace occupied by the pensate for the					
remov	al of alignment n ensate for the rer	narkers" to "The receive PCS moval of alignment markers"	may insert idle o	control characters to					
Response ACCE	PT.	Response Status C							

C/ 118 SC 118.4 Slavick, Jeff	P 130 Broadcom	L 15	# 97	<i>Cl</i> 119 Slavick, Je	SC 1 eff	19.2.4.4	E	P 152 Broadcom	L 20	# 98
Comment Type TR	Comment Status A			Comment	Туре	TR	Comment Sta	atus A		
Remove all reference (comment #46 from I since it looks just like	s to Rx Test Mode since we rer 01.1). Rx just operates in functi mission data	noved the Rx che onal mode when ⁻	cker from PCS Tx is in Test mode	Make This v check	all the U vill ensur ed.	M for 200 e no false	G PCS lanes 1 link ups of 200	-7 the same f)G or 400G bi	or as 400G. UN ut minimize the	I for lane 0 is unique. patterns needed to be
SuggestedRemedy				Suggestee	dRemed	y				
Remove references to register 5.42.2, 119.2	o rx_test_mode from Table 118 .1	-1, Table 118-3, T	able 119-4, MDIO	Make	entries f	or PCS la	nes 1-7 of Tabl	e 119-1 be th	e same as Tabl	e 119-2 PCS lanes 1-7
Response	Response Status C			Response	, - D T		Response Sta	atus C		
, ACCEPT IN PRINCIP	PLE.	ACCE	PI.							
Remove the 3 referer	nces from the tables and bits 3.4	42.2, 4.42.2, and §	5.42.2.	Staw Yes m	Poll take	n in the lo change (c	gic track: only 0 is unique): 8		
In 119.2.1 change: The PCS transmit ch	annel and receive channel can	each operate in no	ormal mode or test-	No ke	ep the A	ms as the	y are: 1			
pattern mode.				C/ 119	SC 1	19.2.4.4		P 152	L 20	# 99
to: The DCS transmit shi	anal can anarata in narmal m	de er teet nettern	mada	Slavick, Je	eff		E	Broadcom		
	anner can operate in normal m	de or lest-patien	i mode.	Comment	Type	TR	Comment St	atus D		
On page 144 line 29, When the receive cha	change: annel is in normal or test-patterr	n mode, the PCS	Synchronization	Shift t lane 0 same	x_am_sf) be it's ir "spot".	to be the nverse. T	first nibble of t hen 802.3cd c	he UP0 for lar an insert it in	ne 0. Make the the single lane i	2nd nibble of UP0 for mplementations in the
to:	monitors			Suggestee	dRemed	y				
The PCS Synchronize	ation process continuously mon	itors		Chang tx_am	ge tx_am 1_sf,~tx_3	n_sf to be - am_sf for	{1,degrade,0,0] PCS lane 0.	and update	definition of UP) to be
On page 144 line 44, "The PCS shall provid 119.2.4.9), and shall	change: de transmit test-pattern mode fo provide receive test-pattern mo	or the scrambled id de for the scramble	dle pattern (see ed idle pattern. Test-	Proposed REJE	Respon CT.	se	Response Sta	atus Z		
transmit test-pattern i	node and receive test-pattern n	node operating sir	nultaneously so as	This c	comment	was WITI	HDRAWN by th	ne commente	r.	
to:	esung.			C/ 119	SC 1	19.1.3		P 141	L 40	# 100
"The PCS shall provid	de transmit test-pattern mode fo	or the scrambled id	dle pattern (see	Slavick, Je	eff		E	Broadcom		
119.2.4.9)."				Comment	Type	F	Comment St	atus A		Bucket
On Page 165 line 36	remove:			Featu	rs of PC	_ S doesn't	denote it conve	erts data from	257 -> 66 but it	does sav it does the
"r_test_mode				invers	e for dat	a octect g	eneration and f	ec data.		,
Boolean variable that	is asserted true when the recei	ver is in test-patte	rn mode."	Suggestee	dRemed	y				
On page 172 line 2, c	hange:			Chang	ge b) to r	ead: "Trar	nscoding from (66-bit blocks t	to (from) 257-bit	blocks"
"reset+ r_test_mode	+ !align_status"			Response	,		Response Sta	atus C		
to: "reset + !align_status	n			ACCE	PT.					

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: Comment ID

C/ 119	SC 119.2.4.4	P 149 Broodcom	L 11	# 101	C/ 119	SC 119.2.5.	B P 162	L 17	# 103
Slavick, J					Slavick, Je				
Since 120b	e both 96b pattern pattern.	and the "24-pad bits" are fixe	d. Why not jus	st state the AM is a fixed	For the you exp align w	FEC_degrade ceed the thresh	_SER function assumed yo old, but clear on the first in gisters names	ou want to assert f Iterval that's belov	the indicator as soon as v. Also the text does not
Suggeste	dRemedy				Suggested	Romody	gisters names		
Chan	ige "96-bit block in	terleaved with fixed 24-pad b	its" to read "12	D-bit block"	When	FEC degraded	SER enable is asserted	additional error m	onitoring is performed by
Response ACCI	e EPT IN PRINCIPL	Response Status C E.			the PC PCS la	S. The Reed-Sol nes in consecu	blomon decoder counts the -tive non-overlapping block	a number of symbols of FEC_degrad arrors exceeds the	ol errors detected on all led_SER_interval (see
See r	esponse to #339				FEC_d	egraded_SER_	activate_threshold (see 11	9.3) the FEC_dec	graded_SER bit (see
[Edito	or's note: page cha	anged to 149 from 147]			119.3) FEC_d either f	is set. At the e egraded_SER_ FFC_degraded	end of each interval, if the i deactivate_threshold the F SER ability or FEC degra	iumber of symbol EC_degraded_SI aded_SER_enable	errors is less than ER bit is cleared. If e is de-asserted than
C/ 119	SC 119.2.4.4	P 152	L 19	# 102	FEC_d	egraded_SER	pit is cleared.		
Slavick, J	leff	Broadcom			Response		Response Status C		
Comment Can ⁻⁷ Suggeste See o Response ACCI	<i>t Type</i> E Table 119-1 and T ed <i>Remedy</i> comment e EPT.	Comment Status A able 119-2 use fixed width for Response Status C	nt so everything	Bucket g lines up nicely?	ACCEF Chang When i perform detecte non-ov numbe FEC_d and the the FE FEC_d the FE	PT IN PRINCIP FEC_degraded, ned by the PCS ad on all PCS la erlapping block r of symbol error legraded_SER_ a FEC_degrade C_degraded_SIE egraded_SER_ C degraded SI	LE. _SER_enable (see 119.3) . The Reed-Solomon deco nes in consecutive s of FEC_degraded_SER_ ors in this interval exceeds assert_threshold (see 119 d_SER bit (see 119.3) is c ER bit. If the FEC_degraded deassert_threshold (see 1 ER bit is cleared. If the FE	is asserted, additi der counts the nu interval (see 119. the threshold set .3) lear, the Reed-So ed_SER bit is set : 19.3) symbol errc C degraded option	ional error monitoring is imber of symbol errors 3) codewords. When the in plomon decoder asserts and there are fewer than ors in the interval, then n is not present. the
					FEC_d To this When the PC PCS la 119.3.7 FEC_d either f FEC_d	egraded_SER I FEC_degraded S. The Reed-So nes in consecu I) codewords. N egraded_SER_ I) is set. At the egraded_SER_ FEC_degraded_SER I	SER_enable is asserted, blomon decoder counts the tive non-overlapping block When the number of symb activate_threshold (see 11 e end of each interval, if the deactivate_threshold, the SER_ability or FEC_degra bit is cleared.	additional error m additional error m s of FEC_degrade ol errors exceeds (9.3.1), the FEC_c e number of symb FEC_degraded_S aded_SER_enable	ionitoring is performed by ol errors detected on all ed_SER_interval (see the threshold set in degraded_SER bit (see ool errors is less than SER bit is cleared. If e is de-asserted then the

C/ 45 SC 45.2.3.47i P75 L 5 # 104	C/ 123 SC 123.7 P 276 L 4 # 106
Slavick, Jeff Broadcom	Shariff, Masood CommScope
Comment Type TR Comment Status A	Comment Type TR Comment Status A
When defining the interval you should limit this to intervals that make sense for the FEC engine. For example for Clause 119 because there's two FEC decoders running in parallel this interval should not be an odd number since it'll be a pain to add in symbol counts for 4 or 8 of the lanes and then start the next interval with the sum of the error counts from the other lanes	TIA-492-AAAE for WBMMF has been published since June 2016. Parallel specifications are under development in IEC 86A. TIA-568-3-D has recognized WBMMF and is on the verge of publication. ISO 11801-1 has also added this Cabling Category to the DIS standard currently under ballot.
SuggestedRemedy	IEEE 802.3bs should recognize this advance in MM optical fiber cabling that can support 400GBASE-SR16 at 850 nm while also enabling future windows between 850 nm and 95
Add the following to the definition of the register. "The least significant bit of this registers	nm.
shall be ignored by by the 200G/400G PCS (119) since it operates on two codewords at a time."	SuggestedRemedy
Response Response Status C	Add 50/125 WBMMF as an option since this type of fiber will support 400GBASE-SR16
ACCEPT IN PRINCIPLE.	Response Response Status C
Requirements on the Clause 119 PCS should not be placed in the optional MDIO clause.	ACCEPT IN PRINCIPLE.
In 119.2.5.3 (Page 162, line 18) change: "in consecutive non-overlapping blocks of FEC_degraded_SER_interval (see 119.3) codewords." to: "in consecutive non-overlapping blocks of FEC_degraded_SER_interval (see 119.3) codewords, where the least significant bit of FEC_degraded_SER_interval is ignored (evaluated as 0) to make the number of codewords even."	See response to comment 68 Cl 123 SC 123.7 P 276 L 15 # 107 Shariff, Masood CommScope Comment Type TR Comment Status A
C/ 118 SC 118.2 P 128 L 41 # 105	Recognize WBMMF that will support 400GBASE-SR16 at 850 nm while also enabling SWDM applications between between 850 nm and 953 nm.
Slavick, Jeff Broadcom	SuggestedRemedy
Comment Type TR Comment Status D	Add WBMMF as new row to table 123.5 as shown below:
want it to just echo the PCS value all the way back to the RS.	0.5 m to 100 m for cabling made with TIA-492AAAE fiber.
SuggestedRemedy	Response Response Status C
Add text stating tx_am_sf is a copy of rx_am_sf when degrade is not enabed or supported.	ACCEPT IN PRINCIPLE.
Proposed Response Response Status Z REJECT.	See response to comment 68
This comment was WITHDRAWN by the commenter.	
Pending a presentation within the task force.	
[Editor's note: page changed from 8 to 128]	

C/ 123 SC 123.10 Shariff, Masood	P 279 CommScope	L	# <u>1</u> 08	C/ 122 SC 122 King, Jonathan	.7.1 <i>P</i> 249 Finisar	L 20	# <u>1</u> 11
Comment Type TR Add WBMMF fiber as a SuggestedRemedy Append " and wideban	Comment Status A an option d fiber optic cabling." to the en	d of the senter	nce on line 30	Comment Type T The current 'avera would require the max Tx_OMA). F at the max Tx_O	Comment Status A age power (max)' spec value for ER to be higher than the speci ollow the precedent in Table 1: MA value. This will help yield ar	or 400GBASE-FR8 ified minimum for a 22-9 to allow the m nd manufacturability	and 400GBASE-LR8 high OMA Tx (e.g. at inimum ER to be used /.
Response ACCEPT IN PRINCIPL See response to comm	Response Status C E. eent 68			SuggestedRemedy In Table 122-10: the value 5.7 into LR8	n the 'Average power (max)' ro the column for 400GBASE-FR	ow unmerge the sp .8, and 5.9 into the	ec value cell and put column for 400GBASE-
C/ 123 SC 123.10 Shariff, Masood	P 279 CommScope	L 39	# 109	Response ACCEPT IN PRIN	Response Status C NCIPLE.		
Comment Type TR Recognize and add WE SuggestedRemedy Change the OM4 colun Response ACCEPT IN PRINCIPL See response to comm	Comment Status A BMMF nn heading to "OM4 and WBM <i>Response Status</i> C E.	MF"		In Table 122-10: I In Table 122-12: I In Table 122-12: I Add a footnote to As the total avera the maximum ave	In the 'Average faunch power, e In the 'Average receive power, In the 'Damage threshold, each the parameter Average launch ge launch power limit has to be arage launch power, each lane.	each lane (max) for each lane (max)' ro n lane' row, change n power, each lane (e met, not all of the	w, change 4.2 to 5.3 w, change 4.2 to 5.3 5.2 to 6.3 (max): lanes can operate at
C/ 123 SC 123.11.1 Shariff, Masood	P 280 CommScope	L 10	# <u>1</u> 10	l			
Comment Type TR Recognize WBMMF	Comment Status A						
SuggestedRemedy Add a new column for V	WBMMF and refer to TIA 492-	AAAE for the s	specifications.				
Response ACCEPT IN PRINCIPL	Response Status C E.						
See response to comm	nent 68						

King, Jonathan Finisar Charge of the second se	Bucket
Comment Type T Comment Status A The receiver sensitivity specs for 400GBASE-DR4 are marginal to what is technically feasible for a high volume product, and an additional 0.3 link loss capability is required. SuggestedRemedy SuggestedRemedy Move Tx_OMA specs (and dependents) up 0.6 dB, and Rx sensitivity specs (and dependents) up 0.5 dB, to reduce burden on Rx and increase channel insertion loss budget by 0.3 dB. With editorial licence, the details are: In Table 124-6:Increase Tx_OMA-TDECC from -1.3dBm to -0.5dBm. Increase Vareage launch power (max) from 4.2dBm to 0.5dBm. Increase Vareage launch power (min) from -5.4dBm to -4.6dBm. In Table 124-7:Increase Receive sensitivity (OMAinner), each lane (max)' from -1.9dBm to 1.4dB; Increase 'Neerage receives power, each lane, (max)' from -1.9dBm to 1.4dB; Increase 'Receive power, each lane (max)' from -1.9dBm to 1.4dB; Increase 'Receive power, each lane (max)' from -1.9dBm to 1.4dB; Increase 'Reverage receive power, each lane (max)' from -1.9dBm to 1.4dB; Increase 'Reverage receive power, each lane (max)' from -1.9dBm to 1.4dB; Increase 'Receive power, each lane (max)' from -2.4dBm to 5.0 dBm. See presentation king .3bs 0.2_0916. Comment Type E Comment Status A Response Response Status C ACCEPT IN PRINCIPLE. While there was no consensus on making a change to the 400GBASE-DR4 budget at this point. CI 123 SC 123.7 P276 L10 # 113 See response to #364	Bucket
feasible for a high volume product, and an additional 0.3 link loss capability is required. SuggestedRemedy Move Tx_OMA specs (and dependents) up 0.8 dB, and Rx sensitivity specs (and dependents) up 0.5 dB, to reduce burden on Rx and increase channel insertion loss budget by 0.3 dB. With editorial licence, the details are: In Table 124-6:lincrease Tx_OMA-TDECQ from -1.3dBm to 0.5 dBm. Increase OMAouter (max) from 4.2dBm. Increase Average launch power (max) from 4.3dBm. Increase Average launch power (max) from 4.3dBm. Increase Average launch power (min) from -5.4dBm to 4.6dBm. Increase Receive power, each lane (max)' from -9.2dBm to -8.7dBm; also Increase 'Receive power, each lane (max)' from -2.4dBm to 1.6dB; Increase 'Average receive power, each lane (min)' from -2.4dBm to 5.0 dBm. See presentation king_3bs_02_0916. P169 L 39 # [] Response Response Status C ACCEPT IN PRINCIPLE. While there was some sympathy with the issues raised in: http://www.ieee802.org/3/bs/public/16_09/king_3bs_02_0916.pdf See presponse Status C C1 123 SC 123.7 P276 L 10 # [13] King, Jonathan Finisar L 10 # [13]	15 ariables
SuggestedRemedy Correct to PRBS13Q Move Tx_OMA specs (and dependents) up 0.5 dB, to reduce burden on Rx and increase channel insertion loss budget by 0.3 dB. With editorial licence, the details are: In Table 124-6:Increase Tx_OMA-TDECQ from -1.3dBm to -0.5 dBm also Increase OMAouter (max) from 4.2dBm to -6.46dBm. Increases Average launch power (min) from -5.4dBm to -4.46dBm. Increase Receive sensitivity (OMAouter), each lane (max)' from 4.2dBm to -1.4dB; Increase 'Receive sensitivity (OMAouter), each lane (max)' from 4.2dBm to -1.4dB; Increase 'Receive power, each lane (max)' from 4.2dBm to 5.0 dBm. Increase 'Receive power, each lane (max)' from 4.2dBm to 5.0 dBm. Increase 'Average receive power, each lane (max)' from 4.2dBm to 5.0 dBm. Increase 'Average receive power, each lane (max)' from 4.2dBm to 5.0 dBm. Increase 'Average receive power, each lane (max)' from 4.2dBm to 5.0 dBm. See presentation king_3bs_0.2_0916. P169 L 39 # [] Response Response Status C ACCEPT IN PRINCIPLE. Correct to PRES13Q While there was no consensus on making a change to the 400GBASE-DR4 budget at this point. Sc 123.7 P 276 L 10 # []13 King, Jonantan Finisar Se response to #364	15 ariables
Move Tx_OMA specs (and dependents) up 0.8 dB, and Rx sensitivity specs (and dependents) up 0.5 dB, to reduce burden on Rx and increase channel insertion loss budget by 0.3 dB. With editorial licence, the details are: In Table 124-6:Increase Tx_OMA-TDECQ from -1.3dBm to 0.5 dBm also Increase OMAouter (max) from 4.2dBm to 5.0 dBm. Increase Average launch power (min) from -0.3dBm to 0.6dBm. Increase Average launch power (min) from -5.4dBm to -4.6dBm. In Table 124-7:Increase 'Receive sensitivity (OMAouter), each lane (max)' from -9.2dBm to -8.7dBm; also Increase 'Nereage launch power (max) from 4.2dBm to 5.4dBm to 1.4dB; Increase 'Receive power, each lane (max)' from 4.2dBm to 5.4dBm; Increase 'Receive power, each lane (max)' from 4.2dBm to 5.4dBm to 5.4dBm; Increase 'Receive power, each lane (max)' from 4.2dBm to 5.4dBm to 5.4	15 ariables
5.0dBm. Increase OMAouter (min) from -0.3dBm to 0.5dBm. Increase Average launch power (max) from 4dBm to 4.8dBm. Increase Average launch power (min) from -5.4dBm to -4.6dBm. In Table 124-7:Increase 'Receive sensitivity (OMAinner), each lane (max)' from -1.9dBm to -1.4dB; Increase 'Receive power, each lane, OMAouter (max)' from 4.2dBm to 5.0dBm. Increase 'Receive power, each lane, OMAouter (max)' from 4.2dBm to 5.0dBm. Increase 'Receive power, each lane, OMAouter (max)' from 4.2dBm to 5.0dBm. See presentation king_3bs_02_0916. C/ 119 SC 119.2.6.3 P169 L 39 # [] <i>Cl</i> ACCEPT IN PRINCIPLE. While there was no consensus on making a change to the 400GBASE-DR4 budget at this point. Thtp://www.ieee802.org/3/bs/public/16_09/king_3bs_02_0916.pdf C <i>Cl</i> 123 SC 123.7 P276 L 10 # [113 <i>Cl</i> 123 SC 123.7 P276 L 10 # [113	15 ariables
power (max) from 4dBm to 4.8dBm. Increase Average launch power (min) from -5.4dBm to -4.6dBm. In Table 124-7:Increase 'Receive sensitivity (OMAouter), each lane (max)' from -9.2dBm to -8.7dBm; also Increase 'Stressed receiver sensitivity (OMAouter), each lane (max)' from 4.2dBm to 5.4dBm to 5.0 dBm. See presentation king_3bs_02_0916. Chacon, Geoffrey HPE	ariables
To Hotelin In Table 12: Finisar Form 12: Finisar Comment Type E Comment Status A From 9:2dBm to -8:7dBm; also Increase 'Stressed receiver sensitivity (OMAouter), each lane (max)' from 4.2dBm to 5dBm; Increase 'Average receive power, each lane (max)' from 4dBm to 4.2dBm to 5dBm; Increase 'Average receive power, each lane (max)' from 4dBm to 4.2dBm to 5dBm; Increase 'Average receive power, each lane (max)' from 4dBm to 5.0 dBm; Increase 'Average receive power, each lane (max)' from 4dBm to 5.0 dBm; Increase 'Average receive power, each lane (max)' from 4dBm to 5.0 dBm. See presentation king_3bs_02_0916. Comment Type E Comment Status A Response Response Status C C ACCEPT IN PRINCIPLE. Add a definition for PCS_lane_mapping. This variable does not seem to be use else, but it is needed by the lane recreater logic. PCS_lane_mapping PCS_la	ariables
lane (max)' from -1.9dBm to -1.4dB; Increase 'Receive power, each lane, OMAouter (max)' Variable PCS_lane_mapping from 4.2dBm to 5dBm; Increase 'Average receive power, each lane (max)' from 4dBm to 4.8dBm; Increase 'Average receive power, each lane (max)' from 4dBm to 4.8dBm; Increase 'Average receive power, each lane (min)' from -2.4dBm to -1.6dB; Accept in Presentation king_3bs_02_0916. Response Case of MAouter of each aggressor lane' from 4.2dBm to 5.0 dBm. See presentation king_3bs_02_0916. Response Status C ACCEPT IN PRINCIPLE. Vhile there was some sympathy with the issues raised in: whitp://www.ieee802.org/3/bs/public/16_09/king_3bs_02_0916.pdf Percent this point. C/ 123 SC 123.7 Percent Lung Finisar Finisar 113	ariables
Aloge the submit, increase 'Average receive power, each lane (min)' from -2.4dBm to -1.6dB; A.8dBm; Increase 'Average receive power, each lane (min)' from -2.4dBm to -1.6dB; Increase 'OMAouter of each aggressor lane' from 4.2dBm to 5.0 dBm. See presentation king_3bs_02_0916. Response Response Status C ACCEPT IN PRINCIPLE. While there was some sympathy with the issues raised in: http://www.ieee802.org/3/bs/public/16_09/king_3bs_02_0916.pdf there was no consensus on making a change to the 400GBASE-DR4 budget at this point. C/ 123 SC 123.7 P 276 L 10 King, Jonathan Finisar See response to #364	
Increase 'OMAouter of each aggressor lane' from 4.2dBm to 5.0 dBm. See presentation king_3bs_02_0916. Response Response Status C ACCEPT IN PRINCIPLE. While there was some sympathy with the issues raised in: http://www.ieee802.org/3/bs/public/16_09/king_3bs_02_0916.pdf there was no consensus on making a change to the 400GBASE-DR4 budget at this point. C/ 123 SC 123.7 P 276 L 10 # 113 King, Jonathan Finisar King, Jonathan Finisar Add a definition for PCS_lane_mapping. This variable does not seem to be use else, but it is needed by the lane reorder logic. PCS_lane_mapping	, .
Response Response Status C ACCEPT IN PRINCIPLE. While there was some sympathy with the issues raised in: http://www.ieee802.org/3/bs/public/16_09/king_3bs_02_0916.pdf there was no consensus on making a change to the 400GBASE-DR4 budget at this point. PCS_lane_mapping <x> A variable that holds the index of the for the lane received by the alignment mar machine x to be used by the PCS lane reorder function. C/ 123 SC 123.7 P 276 L 10 # 113 King, Jonathan Finisar Finisar C</x>	anywhere
ACCEPT IN PRINCIPLE. While there was some sympathy with the issues raised in: http://www.ieee802.org/3/bs/public/16_09/king_3bs_02_0916.pdf there was no consensus on making a change to the 400GBASE-DR4 budget at this point. C/ 123 SC 123.7 P 276 L 10 # 113 King, Jonathan Finisar C/ 124 SC 125.7 P 276 L 10 # 113 King Jonathan Finisar	
there was no consensus on making a change to the 400GBASE-DR4 budget at this point. <i>Cl</i> 123 SC 123.7 <i>P</i> 276 <i>L</i> 10 # 113 King, Jonathan Finisar <i>P</i> 276 <i>L</i> 10 # 113 <i>Cl L</i> 10 <i>L L</i> 10 <i>L L L L L L L L L L</i>	ker state
C/ 123 SC 123.7 P 276 L 10 # 113 King, Jonathan Finisar See response to #364	
King, Jonathan Finisar See response to #364	
Comment Type T Comment Status A [Editor's note: Subclause changed from 119-12 to 119.2.6.3]	
media for 400GBASE-SR16. C/ 120 SC 120.5.11.2.4 P199 L15 # 1	16
SuggestedRemedy Chacon, Geoffrey HPE	
Add a row for wideband MMF in Table 123-5. Add a column for wideband MMF in Tables 123-6 and Table 123-7. See presentation 'king_3bs_01_0916. Typo in PRSBS310	Bucket
Response Response Status C	
ACCEPT IN PRINCIPLE. Correct to PRBS31Q	
See response to comment 68 Response Response Status C	
ACCEPT.	

IEEE P802.3bs D2.0 200 Gb/s & 400 Gb/s Ethernet Initial Working Group ballot comments C/ 118 SC 118.2.1 P 128 L 45 C/ 124 SC 124.9 P 298 L 32 # 117 # 120 Ofelt, David Juniper Networks Lewis, David Lumentum Comment Type ER Comment Status A Bucket Comment Type E Comment Status R Reference to 118.3 should be 118.4 since 118.4 is where the MDIO mapping tables live. This subclause is a duplicate of 121.9 except for the name of the PMD. It may be better to reference that subclause. SuagestedRemedv SuggestedRemedy Change 118.3 to 118.4. Safety, installation, environment, and labeling for 400GBASE-DR4 are the same as Response Response Status C specified in 121.9. ACCEPT IN PRINCIPLE. Response Response Status C REJECT. See response to comment #262 It is common practice that all PMD clauses have the same text on safety. C/ 118 SC 118.2.2 P 129 L 5 # 118 C/ 124 SC 124.10 P 299 # 121 L 39 Ofelt. David Juniper Networks Lewis, David Lumentum Comment Type ER Comment Status A Bucket Comment Status R Comment Type E Reference to 118.3 should be 118.4 since 118.4 is where the MDIO mapping tables live. This subclause is a duplicate of 121.10 except for the name of the PMD. It may be better SuggestedRemedy to reference that subclause. Change 118.3 to 118.4. SuggestedRemedy Response Response Status C The fiber optic cabling model for 400GBASE-DR4 is the same as the model for 200GBASE-DR4 specified in 121.10. ACCEPT IN PRINCIPLE. Response Response Status C See response to Comment #263 REJECT. It is common practice that each PMD clause has this subclause, even when the contents C/ 119 SC 119.2.4.4 P 149 L 12 # 119 are the same as 121.10 Ofelt, David Juniper Networks C/ 124 SC 124.11 P 300 L 33 # 122 Comment Type Е Comment Status A Lewis. David Lumentum Text describes the alignment marker structure for each lane and refers to the "field poisitioning identical to that defined in 91.5.2.6". It is unclear to me what that actually Comment Type E Comment Status R means- the alignment marker strucutre in that section seems to be different from what we This subclause is the same as 121.11 except for the name of the PMD. It might be better have in 200/400GbE to just reference that subclause. SuggestedRemedy SuggestedRemedy Clarify the meaning The fiber optic cabling (channel) characteristics for 400GBASE-DR4 are the same as those specified for 200GBASE-DR4 in 121.11. Response Response Status C ACCEPT IN PRINCIPLE. Response Response Status C REJECT. See response to #339 It is common practice that each PMD clause has this subclause, even when the contents

are the same as 121.11

C/ 121	SC 121.7.2	P 219	L 11	# 123	C/ 122	SC 122.11.	1	P 261	L 20	# 125			
Lewis, Dav	id	Lumentum			Lewis, Dav	id		Lumentum					
Comment	Туре Т	Comment Status A			Comment Type T Comment Status A								
Table maxim a sour	121-7. The value um average rece ce with sufficient R4 (Table 88-8)	e for damage threshold is une vive power. Having such a hi power to do the test. Other have set the damage thresh	ecessarily high igh value makes SMF standards old at 1 dB abo	at 3 dB above the s it more difficult to find , such as 100GBASE- ve the maximum	Cabled is at 12 loss sh	d optical fiber at 272.55 nm but t hould be 0.47 d	ttenuation (m the shortest B/km (see T	nax) is 0.46 or 0.5 wavelength for 200 able 87-15).	dB/km. The no)GBASE-FR4 is	te says that 0.46 dB/km 1264.5 nm and the			
averag	e receive power.	have set the damage thesh			Suggestea	Remedy							
Suggested	Remedy				Chang 1264.5	e the value in t nm attenuation	he table to 0 n".	.47 or 0.5. Chang	e note a to say	"The 0.47 dB/km at			
Chang	e the threshold fr	om 6.5 dBm to 4 dBm.			Response		Respons	se Status C					
Response		Response Status C			ACCE	PT.	•						
ACCE	PT IN PRINCIPLI	E.											
In line	with discussions	during the SMF Ad Hoc on 3	30 August 2016		C/ 120E	SC 120E.3.	1.6	P 363	L 35	# 126			
Chang	e the damage thr	reshold from 6.5 dBm to 4 dE	3m		Dawe, Pier	S		Mellanox					
					Comment	Type TR	Comme	ent Status A					
Cl 124 Lewis, Dav	SC 124.7.3 id	P 295 Lumentum	L 11	# 124	This ci energy	osstalk genera . The spec all	tor is intende ows an imple	ed to represent a n ementer to achieve	nodule, and ger the letter of the	erate broadband e spec by using a lot of			
Comment	Туре Т	Comment Status A			empha	isis but miss th	e intention.						
Table	124-7. The value	e for damage threshold is une	ecessarily high	at 2.5 dB above the	Suggestea	Remedy							
maxim a soure LR4/-E averag	um average rece ce with sufficient R4 (Table 88-8) e receive power.	vive power. Having such a hi power to do the test. Other have set the damage thresho	igh value makes SMF standards old at 1 dB abor	s it more difficult to find , such as 100GBASE- ve the maximum	This tr 0.1 V. the sig during	ansition time sp Definition of sl nal-dependent calibration of th	bec should b ew time simi 20% and 80 ne module st	e replaced by a sle ilar to transition tim %. Same for the o tressed input signa	ew time spec, e ne but with fixed counter propaga al (120E.3.4.1.1)	g. 4.5 ps between +/- thresholds instead of ting crosstalk channels			
Suggested	Remedy				becau	se that's a slow	rige the spectrer signal so	an implementer w	on't be using en	opposite direction			
Chang	e the threshold fr	om 6.5 dBm to 5 dBm.			Response		Respons	se Status II	3 •				
Response		Response Status C			ACCE	PT IN PRINCIP	PLE.						
ACCE In line	PT IN PRINCIPLI with discussions	E. during the SMF Ad Hoc on 3	30 August 2016	:	No cha solicite See re	ange to the doc ed. sponse to com	ument on thi	is draft due to lack	of consensus.	Further presentations			
Chang	e the damage thr	reshold from 6.5 dBm to 5 dE	3m										

C/ 120E	SC 120E.3.2	P 366	L 32	# 127	C/ 121 SC 1	121.8.5	P 221	L 37	# 129
Dawe, Piers	S	Mellanox			Dawe, Piers		Mellanox		
Comment 7 The mo much c doesn't spec he	Type TR bodule output transi crosstalk when con depend on the me ere not a relative o	Comment Status A tion time min. spec is there inected to a host with more odule's output amplitude se one.	e to protect the n NEXT than the etting, so we sho	nodule's input from too MCB. "Too much" uld have an absolute	Comment Type This SSPRQ p SuggestedRemed If we can find	TR Co pattern will give y a less extreme	pomment Status R e inconsistent results w e pattern that better ach	hen testing a rar ieves the objecti	nge of transmitters.
Suggestedl	Remedy				measurements	s that correlate	e to the TDP we don't w	ant to measure	at line rate, change to
This tra 0.1 V. the sign	Definition time spec Definition of slew nal-dependent 20%	should be replaced by a slot time similar to transition tin 6 and 80%.	ew time spec, e. ne but with fixed	g. 3.5 ps between +/- thresholds instead of	If we can't, uso the implement Similarly in cla	e PRBS13Q, v ter to be carefu auses 122, 124	which is much more rep al about low frequency o	resentative, for T effects.	TDECQ testing. Tell
connec	tor is on the host l	board, so the NEXT is alread	ady in the measure	urement.	Response	Re	sponse Status U		
Response		Response Status U			REJECT. Incomplete rer	medy.			
ACCEF	PT IN PRINCIPLE.				The commont	or io invited to	hring in a proposal for	an alternative no	ttorp that allows
No cha solicite	nge to the docume d.	ent on this draft due to lack	of consensus. I	Further presentations	TDECQ meas One of the pat pattern is mad	urements that tterns for meas le up of segme	correlate to the TDP. surement of TDEC in C ents of PRBS31.	ause 95 is PRB	S31 and the SSPR
Add for 2) Make n	 Fransition time f ps and a value of potnote "Measured in the change ho change 1: 4; No consensus 	(mm, 20% to 80%) with "S 3.5 between +/- 0.1V" S	oiew ume (min) "	איז דאטופ דבטב-3, שונח					
C/ 120	SC 120 5 11 2	5 <i>P</i> 199	/ 36	# 128					
Dawe, Piers	s	Mellanox							
Comment 7 This SS	<i>Type</i> TR SPRQ pattern will g	Comment Status R give inconsistent results wh	hen testing a rar	nge of transmitters.					
Suggestedl	Remedy								
If we ca measu that pa If we ca	an find a less extre rements that corre ttern. an't, change to a p	eme pattern that better achi late to the TDP we don't w attern that is less extreme,	ieves the objecti ant to measure a and don't use it	ve of allowing TDEC at line rate, change to for TDEC testing.					
Response		Response Status U							
REJEC No alte SSPRC	CT. rnative test patterr Q, the PMA can ge	n proposed. If the optical transmerate it.	ack selects a dif	ferent test pattern than					

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: Comment ID

C/ 121 SC 121.7.1 P 218 L 33 # 130	C/ 120D SC 120D.3.1.1 P 347 L 48 # 132						
Dawe, Piers Mellanox	Dawe, Piers Mellanox						
Comment Type TR Comment Status R Now we have a TDECQ spec, we should look again at the RIN spec. The effect of RIN is included in TDECQ; the acceptable level of RIN depends strongly on other transmitter impairments. All we could *require* in a spec is the amount of RIN that would create substantially all of the TDECQ limit, which I don't think is this number. It would be hard to *recommend* any number without making assumptions on behalf of all future transmitter impairment that we carb interfer	Comment Type TR Comment Status A If the target BER is 1e-5 SuggestedRemedy We should specify J4 jitter rather than J5 jitter. Response Response Status C						
As 52.9.6 says "This procedure describes a component test that may not be appropriate for a system level test depending on the implementation. If used" and "In order to measure the noise, the modulation to the DUT is turned off." A transmitter that's trying to deliver 4 well-spaced PAM4 levels can't be expected to do anything in particular if the modulation to the DUT is turned off!	ACCEPT IN PRINCIPLE. In 120D.3.1.1 change "Jrms and J5 jitter are measured" to "Jrms and J4 jitter are measured" Change "J5 (max)" in Table 120D-1 to "J4 (max)".						
SuggestedRemedy	Set J4 (max) value to 0.118 in Table 120D-1						
As we no longer need a RIN spec and it would be difficult to choose a recommended value - delete the RIN22.80MA row in Table 121-6, and in Table 121-10. Delete 121.8.7. In 121.8.5.1 and 121.8.5.2, we could change "The state of polarization of the back reflection is adjusted to create the greatest RIN" to "The state of polarization of the back reflection is adjusted for the greatest TDECQ". Similarly in clauses 122, 124.	Change "J5 is defined as the time interval that includes all but 10-5 of the jitter distribution" to "J4 is defined as the time interval that includes all but 10-4 of the jitter distribution" Straw Poll						
Response Response Status U REJECT. Insufficient justification in the comment and incomplete Remedy proposal. The commenter	1) Change J5 jitter to J4 Jitter (with updated values) 2) Stay with J5 Jitter Results 1): 4; 2): 1;						
and why the current specification in draft 2.0 is broken. The transmitter RINxOMA spec is intended to screen out potentially bad transmitters even if the noise correction required by the TDECQ test is not very accurate.	Cl 120 SC 120.5.11.2.2 P 197 L 1 # 133 Dawe, Piers Mellanox Comment Type TR Comment Status D						
C/ 120D SC 120D.3.1.1 P 347 L 48 # 131	JP03B test pattern is not used						
Dawe, Piers Mellanox	SuggestedRemedy Remove the JP03B test pattern generator and registers.						
Should not use such an unrepresentative pattern	Proposed Response Response Status Z						
SuggestedRemedy Measure jitter with PRBS13Q. Either apply the spec to a subset of emphasis settings, or apply to all emphasis settings but ignore the edges that are not present when emphasis is off.	REJECT. This comment was WITHDRAWN by the commenter.						
Remove the JP03A test pattern generator and registers. Response Response Status U ACCEPT IN PRINCIPLE. Further contributions are solicited on jitter measurement using the PRBSQ13 test pattern.	Even odd jitter is measured using JP03B through reference to 94.3.12.6.4.2. See respons to D1.3 comment #33 where this test pattern was restored to the draft. This response may be affected by the response to comment #565 which proposes to remove the need for the JP03B pattern.						

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: Comment ID

Comment ID 133

Page 34 of 125 29/09/2016 16:39:59 C/ 123 SC 123.7 P 276 L 4 C/ 1 SC 1.4 P 35 # 134 L 26 # 137 Moffitt, Bryan D'Ambrosia, John CommScope Futurewei, Subsidiary Comment Type ER Comment Status A Comment Type ER Comment Status A TIA-492AAAE wideband fiber satisfies OM4 and should be referenced In the definition of the 400GMII Extender, it is noted that the 400GXS is for future 400G PHYs and is identical to the 400GBASE-R PCS. It is likely that the reader will find this SuggestedRemedv definition confusing. As noted in other comment, the Extender allows communication with Add Wideband fiber of TIA-492AAAE as supported media and add a row to table 123-5: future 400G PHYs using a PCS different than the existing 400GBASE-R PCS. It is not 0.5 m to 100 m for wideband TIA-492AAAE fiber. intuitive to merely say that the functionality of the 400GXS is the same as the 400GBASE-R PCS. Essentially, the 400GBASE-R PCS can be configured through the appropriate Response Response Status C registers as a 400GXS in order to implement the 400GMI Extender. ACCEPT IN PRINCIPLE. SuggestedRemedy See response to comment 68 Modify the definitionThe 400 Gb/s Extender Sublayer (400GXS) is part of the 400GMII Extender. In functionality, it is identical to the 400GBASE-R PCS Sublayer defined in C/ 123 SC 123.10. P 279 L 37 # 135 Clause 119. (See IEEE Std 802.3. Clause 118.), but must be configured as a 400GXS through optional management registers. Moffitt, Bryan CommScope Response Response Status C Comment Type ER Comment Status A ACCEPT IN PRINCIPLE. TIA-492AAAE wideband fiber satisfies OM4 and should be referenced Change: SuggestedRemedy "Its functionality is identical to the 400GBASE-R PCS Sublayer defined in Clause 119. (See IEEE Std 802.3. Clause 118.)" to: change OM4 column heading to "OM4 and wideband" "In functionality, it is almost identical to the 400GBASE-R PCS Sublayer defined in Clause Response Response Status C 119, but it may be configured as a 400GXS through different optional management registers. (See IEEE Std 802.3. Clause 118.)" ACCEPT IN PRINCIPLE. C/ 120C SC 120C.3.3 P 338 / 38 # 138 See response to comment 68 D'Ambrosia, John Futurewei, Subsidiary C/ 123 SC 123.11.1 P 280 L 25 # 136 Comment Type E Comment Status A CommScope Moffitt, Bryan The sentence is confusing because the BER is specified in 83E.3.3 through a note Comment Type ER Comment Status A reference to 83E.1 though the requirement in the .3bs draft states it must meet all requirements in 83E.3. TIA-492AAAE wideband fiber satisfies OM4 and should be referenced SugaestedRemedv SuggestedRemedy Change reference to the BER specified in 83E.3.3 or just modify sentence to - The BER add to footnote b "and TIA-492AAAE wideband fiber" meets the requirement in 120C.1.1. Response Response Status C Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE. Change: See response to comment 68 "The BER meets the requirement in 120C.1.1 rather than that in 83E.1.1." to: "The BER for the host stressed input test meets the requirement in 120C.1.1 rather than those in 83E.1.1."

IEEE P802.3bs D2.0 200 Gb/s & 400 Gb/s Ethernet Initial Working Group ballot comments

C/ 120C SC 1	120C.3.3	P 338	L 47	# <u>1</u> 39	C/ 120d	SC 120d.1		P 344	L 27	# 142
D'Ambrosia, John		Futurewei, Su	bsidiary		D'Ambrosia	a, John	F	uturewei, S	ubsidiary	
Comment Type	E Com	ment Status A			Comment	Type ER	Comment Sta	atus A		Bucket
The sentence	is confusing beca	ause the BER is spec	ified in 83E.3.3	through a note	Diagra	m (120D-1) ca	an be improved to b	etter comn	nunicate the 2000	GXS functionality.
reference to 83 requirements i	3E.1 though the r in 83E.3.	equirement in the .3t	os draft states it	must meet all	Suggested	Remedy				
SuggestedRemedy	Y				Move t	he stack with	out the extender su	blayer to th	e left column, and	the extender sublayer
Change refere meets the requ	ence to the BER s uirement in 120C	pecified in 83E.3.3 o .1.1.	r just modify ser	tence to - The BER	based be acro bottom	oss from the 2 PMA / PMD	200GXS/PMA at the of both stacks in the	e top of the	Extender Sublaye	er Stack side. Keep the
Response	Respo	onse Status C			Response		Response Sta	tus C		
ACCEPT IN P Change:	RINCIPLE.				ACCE	PT.	,			
"The BER mee	ets the requirements	ent in 120C.1.1 rather	than that in 83E	.1.1." to:	C/ 120D	SC 120D.2	2	P 345	L 27	# 143
those in 83E.1	the module stress	sed input test meets	the requirement	in 1200.1.1 rather than	D'Ambrosia	a, John	F	uturewei, S	ubsidiary	
			1 07	"	Comment	Type ER	Comment Sta	atus A		Bucket
C/ 120B SC 1	1208.1	P 329	L 21	# 140	Diagra	m (120D-2) ca	an be improved to b	etter comn	nunicate the 2000	GXS functionality.
			boldiary	Dustat	Suggested	Remedy				
Diagram (1205		ment Status A	inicato the 2000	BUCKET	Move t	he stack with	out the extender su	blayer to th	e left column, and	the extender sublayer
Diagram (120	B-T) can be implo			AS functionality.	based be acr	stack to the ri	ght. Move the PCS	and PMA	for the non-exten	der sublayer stack to er Stack side. Keen the
SuggestedRemedy	y La cita contrato contra		1.0	the ender device blacks	bottom	PMA / PMD	of both stacks in the	e same loca	ation.	
based stack to be across from bottom PMA /	the right. Move of the 200GXS/PM PMD of both state	the PCS and PMA for IA at the top of the E cks in the same locat	or the non-extend xtender Sublaye	der sublayer stack to r Stack side. Keep the	Response ACCEI	PT.	Response Sta	tus C		
Response	Respo	onse Status C								
ACCEPT.										
C/ 120B SC 1	120B.2	P 330	L 27	# 141						
D'Ambrosia, John		Futurewei, Su	bsidiary							
Comment Type	ER Com	ment Status A		Bucket						
Diagram (120E	B-2) can be impro	oved to better commu	inicate the 200G	XS functionality.						
SuggestedRemedy	y									
Move the stack based stack to be across from bottom PMA /	k without the extend the right. Move the 400GXS/PM PMD of both state	ender sublayer to the the PCS and PMA fo /A at the top of the E cks in the same locat	left column, and or the non-extend xtender Sublaye ion.	the extender sublayer der sublayer stack to r Stack side. Keep the						
Response ACCEPT.	Respo	onse Status C								

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: Comment ID
C/ 116	SC 116.2.3	P 108	L 1	# 144	C/ 1	SC 1.4	P 35	L 22	# <u>1</u> 46
D'Ambrosia,	John	Futurewei, Subsid	liary		D'Ambrosia,	John	Futurewei, Subsi	diary	

Comment Type ER Comment Status A

The full functionality of the respective PCS's are not captured, as they can be configured as the respective 200GXS or 400GXS to help implement the respective extender sublayers

SuggestedRemedy

add sentence - The 200GBASE-R PCS has the same functionality as the 200GXS, and therefore may be configured as the respective layer in order to implement the optional 200GMII Extender Sublayer. The 400GBASE-R PCS has the same functionality as the 400GXS, and therefore may be configured as the respective layer in order to implement the optional 400GMII Extender Sublayer.

Response

Response Status C

ACCEPT IN PRINCIPLE.

Add the following at the end of 116.2.3:

"The 200GBASE-R PCS has almost the same functionality as the 200GXS, and therefore may be configured as a 200GXS in order to implement part of the optional 200GMII Extender (see Clause 118). The 400GBASE-R PCS has almost the same functionality as the 400GXS, and therefore may be configured as a 400GXS in order to implement part of the optional 400GMII Extender (see Clause 118)."

In 116.2.2, change:

"It is identical in function to the 200GBASE-R PCS in Clause 119." to: "It is identical in function to the 200GBASE-R PCS in Clause 119 with the exceptions defined in Clause 118."

and change:

"It is identical in function to the 400GBASE-R PCS in Clause 119." to:

"It is identical in function to the 400GBASE-R PCS in Clause 119 with the exceptions defined in Clause 118."

C/ 1	SC 1.4	P 35		L 12	#	145	
D'Ambrosia,	John	Futurewei,	Subsidia	ary			

Comment Type ER Comment Status A

The basic definition is limited, and speaks only to what it is, rather than the complete function it serves - to extend the reach of the 200GMII and allow communication with 200G PHYs that use a different PCS.

SuggestedRemedy

Change the definition to

The 200 Gb/s Media Independent Interface Extender extends the reach of the 200GMII and consists of two 200GXS sublayers with a 200GAUI-n between them. It is defined as a mechanism for communication with future 200 Gigabit Ethernet PHYs that utilize a PCS sublayer other than that defined in Clause 119. (See IEEE Std 802.3, Clause 118.)

Response Response Status C

ACCEPT.

Comment Type ER Comment Status A

The basic definition is limited, and speaks only to what it is, rather than the complete function it serves - to extend the reach of the 400GMII and allow communication with 400G PHYs that use a different PCS.

SuggestedRemedy

Change the defintion to

The 400 Gb/s Media Independent Interface Extender extends the reach of the 400GMII and consists of two 400GXS sublayers with a 400GAUI-n between them. It is defined as a mechanism for future 400 Gigabit Ethernet PHYs that utilize a PCS sublayer other than that defined in Clause 119. (See IEEE Std 802.3, Clause 118.)

Response Response Status C

ACCEPT IN PRINCIPLE.

Change the definiton to:

"The 400 Gb/s Media Independent Interface Extender extends the reach of the 400GMII and consists of two 400GXS sublayers with a 400GAUI-n between them. It is defined as a mechanism for communication with future 400 Gigabit Ethernet PHYs that utilize a PCS sublayer other than that defined in Clause 119. (See IEEE Std 802.3, Clause 118.)"

C/ 1	SC 1.4	P 35	L 18	# 147
D'Ambrosia,	John	Futurewei, Subsid	liary	

Comment Type ER Comment Status A

In the definition of the 200GMII Extender, it is noted that the 200GXS is for future 200G PHYs and is identical to the 200GBASE-R PCS. It is likely that the reader will find this definition confusing. As noted in other comment, the Extender allows communication with future 200G PHYs using a PCS different than the existing 200GBASE-R PCS. It is not intuitive to merely say that the functionality of the 200GXS is the same as the 200GBASE-R PCS. Essentially, the 200GBASE-R PCS can be configured through the appropriate registers as a 200GXS in order to implement the 200GMI Extender.

SuggestedRemedy

Modify the definitionThe 200 Gb/s Extender Sublayer (200GXS) is part of the 200GMII Extender. In functionality, it is identical to the 200GBASE-R PCS Sublayer defined in Clause 119. (See IEEE Std 802.3, Clause 118.), but must be configured as a 200GXS through optional management registers.

Response Response Status C

ACCEPT IN PRINCIPLE.

Change:

"Its functionality is identical to the 200GBASE-R PCS Sublayer defined in Clause 119. (See IEEE Std 802.3, Clause 118.)" to:

"In functionality, it is almost identical to the 200GBASE-R PCS Sublayer defined in Clause 119, but it may be configured as a 200GXS through different optional management registers. (See IEEE Std 802.3, Clause 118.)"

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: Comment ID

Comment ID 147

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					. <u> </u>						
C/ 120	SC 120.5.11.2	2.5 <i>P</i> 200	L 10	# 148	C/ 120	SC	120.5.11.2	.3 <i>P</i> 1	97	L 44	# 150
Dudek, Mik	e	Cavium			Dudek, Mi	ke		Caviu	m		
Comment T	Type TR	Comment Status A			Comment	Туре	TR	Comment Status	Α		
There i of tests other la would l and wo measu	is no skew require s that SSPRQ is that anes can be an in help but this would ould create deterre rements not seei	ement between lanes fo being used for(scope me nportant factor. Providi d still produce crosstalk ninistic effects rather tha ng the crosstalk at all ar	r the SSPRQ gener easurements such a ng a required patter which is locked to an random effects w and others misclassif	ration. Also for the type as TDEC) crosstalk from rn offset between lanes the pattern under test vith some ying it.	There type o lanes but thi create seeing	is no s of tests is an ir is woul e deterr g the cr	skew require that PRBS1 nportant fac d still produ ministic effe rosstalk at a	ement between lane 13Q is being used fo ctor. Providing a re ce crosstalk which i cts rather than rand ill and others mis-cla	s for the PR or(scope me quired patte s locked to t om effects v assifying it.	BS13Q gen asurements rn offset bet the pattern u vith some m	eration. Also for the) crosstalk from other ween lanes would help inder test and would easurements not
Suggested	Remedy				Suggested	dReme	dy				
Add a 120.5.1	per-lane enable fo 11.1.3 (square wa	or this pattern (and MDI ave test pattern) provide	O registers to matcl s a template for this	h). Section S.	Add a 120.5.	per-laı .11.1.3	ne enable fo (square wa	or this pattern (and Nove test pattern) prov	/IDIO registe /ides a temp	ers to match plate for this). Section
Response		Response Status C			Response	•		Response Status	С		
ACCEF See re	PT IN PRINCIPLE	E. ent #305.			ACCE Comm Add th	PT IN nent #2 nis feat	PRINCIPLE 23 has made sure in Claus	e changes that requise 120 and Clause 4	re per-lane 5 with edito	enable for P rial licence.	RBS13Q.
C/ 120	SC 120.5.11.2	2.1 <i>P</i> 196	L 45	# 149	C/ 121	SC	121.8.5.1	P 2	22	<i>L</i> 1	# 151
Dudek, Mik	e	Cavium			Dudek, Mi	ke		Caviu	m		
Comment T	Type TR	Comment Status A			Comment	Туре	TR	Comment Status	Α		
The JP will not	03A test pattern appear in the jitt	is used for measuring Ji er measurement while it	itter. With this patter will degrade the jitt	ern on all lanes crosstalk ter in the real	The pattern being used on the other lanes is not specified. In order to properly account for crosstalk this should be an un-correlated pattern.					to properly account for	
applica	tion. We need t	o create the effect of the	e crosstalk during th	nese tests by having a	Suggested	dReme	dy				
Currented		anes not under test.			Add "t	transmi	itting and re	ceiving patterns 3, 4	1, 5 or a vali	d 200GBAS	E-R signal."
	rcenieuy per-lane enable fr	or this pattern (and MDI	O registers to match	h) Section	Response	•		Response Status	С		
120.5.1	11.1.3 (square wa	ave test pattern) provide	s a template for this	8.	ACCE	PT IN	PRINCIPLE				
Consid	ler doing the sam	e for JP03B however JF	P03B is not presentl	y used. If it were used	Add a any ot	require ther lan	ement for at ne.	t least 31 UI delay b	etween the	SSPRQ patt	terns on one lane and
Posnonso	incasuling 200)		for that pattern as	wen.	[Note:	this af	ffects comm	ents #305 and #148	3.]		
ΔΟΟΕΙ		Response Status U									
AUULI											
Modify	the text of 120.5	.11.2.1 in accordance wi	ith the response to	Comment #29							

Even odd jitter is measured using JP03B through reference to 94.3.12.6.4.2. See response to D1.3 comment #33 where this test pattern was restored to the draft. See response to comment #133.

C/ 121 SC 121.8.7 P 226 L 11 # 152 Dudek, Mike Cavium	C/ 120D SC 120D.3.1.2.1 P 349 L 54 # 154 Dudek, Mike Cavium				
Comment TypeTRComment StatusATable 121-9 specifies that theQPRBS13 pattern is used for measuring RIN. However121.8.7 refers to a test methodology in clause 52.9.6 that is not appropriate for use with that pattern. 52.9.6 specifies an NRZ sqare wave pattern and uses an O/E convertor AC coupled into an electrical power metter. If a slow PAM4 pattern where used the denominator for the RIN calculation would be a factor of 2/3 smaller than with the NRZ pattern. Note that the square wave pattern was	Comment Type E Comment Status A Bucket The word signal is split between two pages with a table between the two halves. SuggestedRemedy Bucket SuggestedRemedy keep the whole word on one page. Response Response Status C				
originally chosen because it spends little percentage time in transitions and therefore the average power measured is close to (OMA/2) squared. Using a pattern with a lot of transitions means that the risetimes will affect the measurement.	ACCEPT. C/ 116 SC 116.7 P118 L 21 # 155 Dudek Mike Cavium				
In Table 121-9 Change the RIN row to say NRZ square wave. Or better create a new section for measuring RIN using scope measurements with the QPRBS13 patten by measuring the noise on the 4 different static levels of the pattern and calculating the RIN from those numbers and the OMA and remove the reference to 52.9.6	Comment Type E Comment Status A Bucket Clause 116 covers both 200G and 400G. The notation and conventions used in 21.6 should be applied to the 200G pics. SuggestedRemedy				
Make similar changes to the other PAM4 optical clauses. Response Response Status C ACCEPT IN PRINCIPLE. Add a new pattern to Table 121-9 for a square wave of 8 0's, 8 3's Change the RIN22.80MA row in Table 121-10 to reference the new pattern Add an exception to 121.8.7 to use the new pattern	Replace "400 Gigabit" with "200 Gigabit or 400 Gigabit" Response Response Status C ACCEPT IN PRINCIPLE. See response to comment #7				
With editorial licence to make appropriate changes to Clauses 120 and 45 to add the pattern. Make equivalent changes to Clauses 122 and 124	Dudek, Mike Cavium Comment Type E Comment Status A				
C/ 120D SC 120D.3.1.1 P 347 L 53 # 153 Dudek, Mike Cavium	I believe this is the first use of SER in this clause. SER isn't listed in the abbreviations in sub clause 1.5.				
Comment Type TR Comment Status A Crosstalk from the other lanes will not create jitter if they are also transmitting the JP03A test pattern. An uncorrelated pattern is needed on the other lanes. (I have made a separate comment against clause 120 to provide individual lane enablement of JP03A)	SuggestedRemedy Replace "SER" with "RS-FEC symbol error ratio(SER)" here. Add SER - RS-FEC Symbol Error Ratio to the abbreviations in sub clause 1.5 Response Response Status C				
SuggestedRemedy Replace "enabled and transmitting the same pattern with identical transmit equalizer settings" with "enabled with the identical transmit equalizer settings and transmitting pattern 3,5 or scrambled idle"	ACCEPT IN PRINCIPLE. See comment #35				
Response Response Status C ACCEPT IN PRINCIPLE. See response to comment #28					

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: Comment ID

Cl 120	SC 120.3.	P 187	L 34	# <u>1</u> 57
Dudek, Mike)	Cavium		

Comment Type E Comment Status A

This is a very long sentence that is difficult to follow.

SuggestedRemedy

Change the sentence "In the Rx direction, when data is being received from every input lane from the sublayer below the PMA thathas a PCSL that is routed to a particular output lane at the PMA service interface, and (if necessary), buffersare filled to allow tolerating the Skew Variation that may appear between the input lanes, PCSLs aredemultiplexed from the input lanes, demultiplexed to the output lanes, and symbols are transferred over each output lane to the PMA client via the PMA:IS_UNITDATA_i.indication primitive."

to "In the Rx direction, when data is being received from every input lane from the sublayer below the PMA that has a PCSL that is routed to a particular output lane at the PMA service interface, PCSLs are demultiplexed from the input lanes, remultiplexed to the output lanes, and symbols are transferred over each output lane to the PMA client via the PMA:IS_UNITDATA_i.indication primitive. If necessary the received data fills buffers to allow tolerating the Skew Variation that may appear between the input lanes, "

Response

Response Status C

ACCEPT IN PRINCIPLE.

Change "In the Rx direction, when data is being received from every input lane from the sublayer below the PMA that has a PCSL that is routed to a particular output lane at the PMA service interface, and (if necessary), buffers are filled to allow tolerating the Skew Variation that may appear between the input lanes, PCSLs are demultiplexed from the input lanes, remultiplexed to the output lanes, and symbols are transferred over each output lane to the PMA client via the PMA:IS_UNITDATA_i.indication primitive." to

"The PMA passes symbols from the input lanes to the output lanes in the Rx direction when data is being received from every input lane from the sublayer below the PMA that has a PCSL that is routed to a particular output lane at the PMA service interface, and (if necessary), buffers are filled to allow tolerating the Skew Variation that may appear between the input lanes.

PCSLs are demultiplexed from the input lanes, remultiplexed to the output lanes, and symbols are transferred over each output lane to the PMA client via the PMA:IS_UNITDATA_i.indication primitive."

C/ 121	SC 121.8.9.2	P 227	L 49	# <u>1</u> 58
Dudek, Mik	e	Cavium		

Comment Type E Comment Status R

The Sentence below does not belong in this section. It should be merged into 121.8.9.1 "An example stressed receiver conformance test setup is shown in Figure 121-6; however, alternative test setups that generate equivalent stress conditions may be used.

SuggestedRemedy

Delete the sentence here and add it to the beginning of the 2nd paragraph of 121.8.9.1

Response Response Status C

REJECT.

121.8.9.1 is "Stressed receiver conformance test block diagram" which just explains the diagram and already contains a pointer to Figure 121-6. However, 121.8.9.2 "Stressed receiver conformance test signal characteristics and calibration" defines how the stressed signal is created and is the right place to state that "alternative test setups that generate equivalent stress conditions may be used".

Cl 119A Dudek, Mike	SC 1	119A	P 3 Caviu	1 5 ım	L 18	# 159	
Comment Ty extra wo	/pe ords.	E	Comment Status	Α			Bucket
SuggestedR Replace	e <i>med</i> strea	y am of stre	am of" with "stream	of"			
Response ACCEP Change: "resultin "resultin	T IN P : g is a g in a	Continuou	Response Status E. Is stream of stream is stream of	C of" to:			
<i>Cl</i> 120A Dudek, Mike	SC 1	120A.4	P 3 Caviu	28 Im	L1	# 160	
Comment Ty	/pe	Е	Comment Status	A			Bucket
Comment Ty It should the figur 400GXS	ype 1 be "e e says	E example" i s "example	Comment Status nstead of "examples e" however there is	A s" in the title. one example	(There is only o for 200GXS and	ne diagran another fo	<i>Bucket</i> n, and r
Comment Ty It should the figur 400GXS SuggestedR Change	ype l be "e e says) ?emed to "ex	E example" i s "example y ample" in	Comment Status nstead of "example: e" however there is the title.	A s" in the title. one example	(There is only o for 200GXS and	ne diagran another fo	<i>Bucket</i> n, and r

C/ 120C SC 120C.2 Dudek, Mike	<i>P</i> 338 Cavium	L 1	# 161	C/ 120D SC 1 Dudek, Mike	20D.5.4.3	<i>P</i> 357 Cavium	L 23	# 164
Comment Type E Unfortunate line and p	Comment Status A age break leaving "definitions	" on a separate	<i>Bucket</i> page	<i>Comment Type</i> It is not approp differences fro	T Con priate to be callin m that COM tab	nment Status A ng out clause 83D for ile.	COM when this	Bucket clause has many
SuggestedRemedy Keep it on the same p Response ACCEPT. This is an error in the	age as the rest of the title. <i>Response Status</i> C 802.3 Framemaker template	which will be cor	rected.	SuggestedRemedy Change 83D.4 Response ACCEPT.	/ to 120D.4 Resp	oonse Status C		
C/ 120D SC 120D.3.4 Dudek, Mike	I.1 <i>P</i> 347 Cavium	<i>L</i> 51	# 162	C/ 120E SC 1 Dudek, Mike	20E.4.2	<i>P</i> 372 Cavium	L 46	# 165
Comment Type T measurements of BEF SuggestedRemedy Delete "BER or" Response	Comment Status A R are irrelevant to this jitter se Response Status C	ction		Comment Type It is ambiguou: eyes). SuggestedRemedy At line 46 add 3 individual ey	T Con s as to what the the sentence. I es not the total	nment Status A eye probabilities are Jnless specified othe PAM4 symbol.	related to. (sym	bols, bits or individual ilities are relative to the
C/ 120D SC 120D.3.2 Dudek, Mike Comment Type T We don't have measu	2.1 P 351 Cavium Comment Status A rement methods for CRJrms	L 38	# 163	Response ACCEPT IN P Add " Unless speci measured." before "The following	Resp RINCIPLE. fied otherwise th procedure"	oonse Status C ne probabilities are re	lative to the num	ber of PAM4 symbols
SuggestedRemedy Replace "CRJrms" with "Jrms" and replace "CDJ" with "(J5-4.41*Jrms) Response Response Status C ACCEPT IN PRINCIPLE. See response to comment #25			ns)	C/ 120E SC 1 Dudek, Mike Comment Type There are not	20E.5.3 T Con 8 lanes for 2000	P 378 Cavium nment Status A GAUI-4	L 6	# [166
				SuggestedRemedy Add the 4 lane Response ACCEPT IN P Change to: "Fo independent d	/ option for 2000 <i>Rest</i> RINCIPLE. pur independent ata paths in eac	GAUI-4 and make the conse Status C data paths in each d h direction for 400GA	existing 8 lanes lirection for 200C AUI-8"	for 400GAUI only

C/ 120E Dudek, Mik	SC 120E.5.4. 1 e	P 378 Cavium	L 54	# <u>1</u> 67
Comment 7 There i shouldr	<i>Type</i> T s no specificatior n't be a PICS iten	Comment Status A n for Vertical eye closure for n for it.	r the host output	Bucket in Table 120E-1 There
Suggestedl Delete	Re <i>medy</i> TH14 on page 37	78 line 54.		
Response ACCEF	PT.	Response Status C		
C/ 121 Dudek, Mik	SC 121.8.9.1 e	<i>P</i> 226 Cavium	L 46	# [168
Comment 7 It is goi four or	<i>Type</i> T ing to be extreme der Bessel filter w	Comment Status A Iy difficult to generate two t hen a 5 tap FIR filter is equ	hirds of the dB v Jalizing the effec	alue of SECQ using a t of the filter.
Suggested Set the fiber ba	Remedy bandwidth of the	e filter to a fixed bandwidth s	somewhat narrov	ver than the expected

Make similar changes to the other optical clauses using an equalizer.

reasonable value. Make equivalent changes on page 228 line 5.

Response

Response Status C

ACCEPT IN PRINCIPLE.

Change the "fourth-order Bessel-Thomson low-pass filter" to be a "low-pass filter" and change "at least two thirds of the dB value" to "at least half of the dB value" in two places.

Make equivalent changes in Clause 122

C/ 121	SC 121.8.9.2	P 22	28	L 12	# <u>1</u> 69
Dudek, Mik	e	Caviur	m		
Comment What s	<i>Type</i> T square wave patte	Comment Status ern?	Α		
Suggested Add th 10 or l	<i>Remedy</i> e NRZ square wa ocally define it he	ave pattern to be use ere as a pattern with	d for jitter 8 3's follov	calibration to ved by 8 1's	o table 121-9 and 121-
Make s	similar changes to	o the other PAM4 opt	tical clause	es.	
Response		Response Status	с		

Change this text to refer to the square wave pattern added by comment #152.

C/ 120B	SC 120B.1	P 329	L 35	# 170
Dudek, Mike		Cavium		

Comment Type T Comment Status A

Although the GAUI chip to chip interface can be connected to a module (combination PMA/PMD) as shown in figures 120B-1, and 120B-2 it is not the primary target application. It would be better to show the primary target application. (Note that annex 120A does not differentiate between chip to chip and chip to module). (See also similar comment against 120D)

SuggestedRemedy

ACCEPT IN PRINCIPLE.

Add a PMA box to the right hand side of these diagrams between the two PMA's. The GAUI chip to chip filled in link being between the PMA adjacent to the PCS and this new PMA box. The PMA to the PMA adjacent to the PMD link should just be labelled 200GAUI-n or 400GAUI-n(neither chip to chip or chip to module) and either not filled in or maybe striped. At the end of the paragraph at line 21 add the sentences "Although the 200GAUI-8 and 400GAUI-16 chip to chip interfaces are primarily intended for connections between PMA's that are not co-located with the PMD, they can be used between any PMA's. Note that the 200GAUI-n and 400GAUI-n chip to module interfaces specified in Annex 120C and Annex 120E are intended for connection from a PMA to the PMA co-located with the PMD

Response

Response Status C

ACCEPT IN PRINCIPLE.

The diagram already shows the primary target application. The layer diagram for a chip-tochip GAUI is the same as that for a chip-to-module GAUI: PCS, PMA, GAUI, PMA, PMD The only difference is in the implementation of the signal connections. This figure is the same as Figure 83D-1 in that regard.

Add a figure to Annex 120A showing two AUI interfaces with editorial licence.

C/ 120B	SC 120B.4	P 332	L 38	# 171	C/ 120E	SC 120E.3.	3.2.1	P 370	L 5	# 173		
Dudek, Mik	e	Cavium			Dudek, Mike			Cavium				
Comment 7	Гуре Т	Comment Status A			Comment Ty	vpe TR	Comm	ent Status A				
The tar allowed probab	get SER for this I to be equal to ility of RS-FEC	s interface is 1e-5 (see 120B.3 1 the probability of error exter symbol errors caused by this	 B.2). However v sion is 0.5. This one detector error 	vith the DFE tap weight is results in the ror to be 1.1	The VEC tested at that were	C spec was re t the Near en e highly disto	equired in or d and this p rted that wo	ther clauses becau protected hosts from puld be difficult to r	use the module on modules with leceive after a lo	output signal was being arge amplitude outputs ing host trace. With this		
Suggested	Remedy				clause a	iso specifying	g tne ⊢ar er alibrate to a	o there is no need	tor this specification to the host stressed	ation for the Module		
Change limit.	e the DER from	1e-6 to 9e-7 (or reduce the n	ormalized DFE	coefficient magnitude	SuggestedRemedy							
Response		Response Status C			Delete the VEC row in Table 120E-3.							
ACCEF	PT IN PRINCIPI 3.3.2. change:	_E.			Delete the sentence related to VECP on page 370 line 5.							
"The "E with ma "The "B	"The "Bit error ratio" parameter in Table 83D-5 is replaced with "RS-FEC symbol error ratio" with max values of 10–5." to: "The "Bit error ratio" parameter in Table 83D-5 is replaced with "RS-FEC symbol error ratio"					Delete the heading for section 120E.4.2.1, the initial sentence and Equation 120E-3 and definition of VEC, however retain the definitions of the AVupp etc.						
with ma	ax values of 1.1	x 10–5."			Delete TH14 in the PICS. page 379 line 35							
C/ 120D	SC 120D	P 344	L 29	# 172	Response Response Status C							
Dudek, Mik	e	Cavium			ACCEPT IN PRINCIPLE.							
Comment 1	vpe T	Comment Status A			Delete the VEC row in Table 120E-3.							
Althoug	h the GAUI chi	p to chip interface can be con	nected to a mod	dule (combination	Delete th	ne sentence i	related to V	EC on page 370 lir	ne 5.			
PMA/P would t differen	Although the GAUI chip to chip interface can be connected to a module (combination PMA/PMD) as shown in figure 120B-1, and 120B-2 (is not the primary target application. It would be better to show the primary target application. (Note that annex 120A does not differentiate between chip to chip and chip to module). (Also see similar comment against 120B)					Delete the heading for section 120E.4.2.1, the initial sentence and Equation 120E-3 and definition of VEC, however retain the definitions of the AVupp etc.						
Suggested	120B) agestedRemedy					Delete TH14 in the PICS. page 379 line 35						
The GA	AUL chip to chip	filled in link being between the	e PMA adiacent	to the PCS and this	All with e	eutorial licen:	se.					
new PN	A box. The Pl	MA to the PMA adjacent to the	PMD link shou	ld just be labelled	Straw Po	oll						
200GA mavbe	UI-n or 400GAL striped. At the	JI-n(neither chip to chip or chip end of the paragraph at line 2	o to module) an 21 add the sente	d either not filled in or ences "Although the	1) Remove VEC spec 2) No change to draft							

200GAUI-4 and 400GAUI-8 chip to chip interfaces are primarily intended for connections between PMA's that are not co-located with the PMD, they can be used between any PMA's. Note that the 200GAUI-n and 400GAUI-n chip to module interfaces specified in Annex 120C and Annex 120E are intended for connection from a PMA to the PMA colocated with the PMD

Response Response Status C

ACCEPT IN PRINCIPLE. See response to comment #170. 1): 9; 2): xx;

CI 00	SC	0	P1	L 2	# 174	C/ 00	SC	0	P 8	L 22	# 176		
Grow, Rob	pert		RMG Consult	ing		Grow, Ro	bert		RMG Consulti	ng			
Comment	Туре	Е	Comment Status A		Bucket	Commen	Туре	Е	Comment Status A		Buck		
In pub docum	lication	n, this is ing ame	where the list of amendments ended is listed. (See IEEE Std	and corrigenda 802.3by page t	comprising the base wo or title page of	The WG ballot group is now known. It is thoughtful to allow members to review the appearance of their names in case there is any error in the database.							
P802.3	3bv/D3	.0 for ex	kample.)			Suggeste	dReme	dy					
Based Quest	d on cui ioning t	rrent sch the sche	hedules, P802.3bs, could be be edule for P802.3cc when it is or	designated Ar	nendment 10, 11 or 12. Ies against Amendment	Add list that the WG Chair can provide, (he will probably remind you not to duplicate of names in the added list).							
12; an	nd 802.3	3cb at th	ne same ballot makes 10 or 11	a tossup, to the	e list certainly can be	Response Response Status C							
is app	oroved.	auditio	n, Comgendum i wii aimost ce	namy be appr	oved belore this project	ACCEPT IN PRINCIPLE. See response to comment #560.							
The Saturn	ASB te sults. 8	leconfe	rence is 22 Sept, so if P802.3b and 802.3bz might appropriate	s/D2.1 is not di v be 2016.	stributed before knowing	C/ 00	SC	0	P 13	L 6	# 177		
Suggester	dReme	dv		,		Grow, Ro	bert		RMG Consulti	ng			
Could the list	edit as t is add	in P802 led, dele	2.3bv/D3.0 or indicate to be up ete the list at line 25.	lated during pu	blication preparation. If	<i>Commen</i> Upda	t <i>Type</i> te with o	E current o	Comment Status A document descriptions.		Buck		
Response	•		Response Status C			Suggeste	dReme	dv					
ACCE See re	PT IN	PRINCI e to con	PLE. nment #50			I personally prefer adding the document list with draft numbers that were used when creating the draft in an Editor's note above this list as this is the first location where bas to the drawn from proceeding amondments and corrigenda. The Editor's pate list as p							
Cl 00 Grow Rob	SC	0	P 2 RMG Consult	L 46	# 175	does	not prov	/ide go	od information for this purpose.	jenua. The Eu	itor s hote list on p. 52		
Commont	Type	E	Comment Status		Bucket	From	my mo	st recen	t review updates to the list are a	appropriate:	the sum and the factor is seen		
Draft ı	uses bo	∟ hth 201 th	and 20xx for vet to be approve	d standards ar	d other year dates.	p. 12 delet	, i. 42 no ed "for"	peruity	at in their drafts:	he grammar, of	iner projects have		
While	this pro	oject is u ng starte	ed now face that possible unce	ertainty of the rtainty.	next decade, other	p. 13 Corrig	, I. 8 ado gendum	d Ameno 1 as it i	dment 8 802.3bu and Amendme is likely to preceed approval of t	ent 9 802.3bv. his project.	Also consider adding		
Suggested	dReme	dy				Response	Ð		Response Status C				
Use or IEEE I	ne form boilerpl	n to sim ate.	plify search by publication edito	r. I recommen	d 20xx as is used in	ACCI See r	EPT IN I	PRINCI	PLE. hment #50				
Response	•		Response Status C			On page 12, line 42, this is the text as per P802.3br D3.1. If the published version is different from this, then it will be undated. Making any change to the text prior to							
ACCE Chang	PT IN I ge "20x	PRINCI x" to "20	PLE.)1x" on Page 2, line 46 and Pag	ge 11, line 29.		public	cation of	IEEE S	Std 802.3br-2016 would be incol	rect.			

Comment ID 177

Bucket

Bucket

CI 00	SC 0	P 32	L 46	# 178	C/ 1	SC	1.4	P 34	L 3	# 180			
Grow, Ro	obert	RMG Consul	ting		Grow, Ro	bert		RMG Consultin	g				
Commen	t Type E	Comment Status A		Bucket	Comment	Туре	ER	Comment Status A		Bucket			
P802 helpf	2.3bp should ul in knowing	no be longer running in parallel at g which doeuments the editors ha	fter September, ve considered ir	also, it is not terribly preparation of the draft.	The ii 40GB	nserts a ASE te	s specifie rms in 20	ed make worse the sort order m 15 did not follow either the spe	ess that is c ed ordered p	urrently the state of 1.4. oort type list at the			
Suggeste	edRemedy				begin 25GB	ning of	1.4, nor i	nsert after 2BASE-TL for at leas	st the first die	git being in sort order.			
Delet drafts	te the editor' s.	s note, or add the list of considere	d published, ap	proved and in ballot	digit c currei	of the point 1.4 by	ort types : y not inse	somewhat sort. The insert order erting the interface terms togeth	also violate	s the groupings of the			
Respons	е	Response Status C			Suggeste	dReme	dy						
ACC The o	EPT IN PRI	NCIPLE. will not be incorrect when the P802 p parallel. The purpose of the pot	2.3bp project is	terminated as the two	Either try to better group using existing groups (after 25G/40G with interfaces separately grouped, or at a minimum order the inserts of P802.3bs in proper letter by letter sort order								
that I	has been co	nsidered in preperation of the draf	t, it is to explain	the format of the editing	(.012.	345678	sabcderg	nijkimnopqustuvwxyz) ignoring	spaces and	all other characters.			
instru	uctions.				Response			Response Status C					
Char "(e.g.	IEEE DRO	2 3bp and IEEE P802 3bp)" to:			ACCEPT IN PRINCIPLE. Re-order the new definitions being inserted by the p802 3bs draft after 1.4.72a 40GBASE-								
(e.g "(e.g	., IEEE P802	2.3bn and IEEE P802.3bv)"			T according to the letter by letter sort order (.0123456789abcdefghijklmnopqustuvwxyz)								
	,	,			ignoring spaces and all other characters. This results in: 1.4.72b 200GBASE-DR4								
C/ 1	SC 1.3	P 33	L 44	# 179									
Grow, Ro	obert	RMG Consul	ting		1.4.72	2C 2000	BASE-F	R4 R4					
Commen	t Type E	Comment Status A		Bucket	1.4.72	2e 2000	BASE-R						
Thou	igh unlikely v	with these two inserted references	, they should be	in alphanumeric order	1.4.72f 200 Gb/s Attachment Unit Interface (200GAUI-n)								
to mi	inimize publi	cation editor error in inserting.		·	1.4.72g 200 Gb/s Media Independent Interface (200GMII)								
Suggeste	edRemedv				1.4.72	2h 2000	JMII Exte	nder					
Corre	ect order				1.4.72	21 200G 21 200G	AS BASE-DI	34					
-		_			1.4.72	2k 4000	BASE-F	R8					
Respons	е	Response Status C			1.4.72	2I 400G	BASE-LF	88					
ACC	EPT IN PRI	NCIPLE.			1.4.72	2m 400	GBASE-F	R					
Swap	p the order o	of the two inserted references.			1.4.72n 400GBASE-SR16								
					1.4.72	20 400 (25 400 (Gb/s Atta	chment Unit Interface (400GAL	il-n)				
					1.4.72	2p 400 0 2a 4000	SMILEXTA	nder	nviit)				
			1.4.72	2r 400G	XS								

C/ 1 SC 1 Grow, Robert	.4.107	P 35 RMG Consul	L 5 ting	# 181	C/ 1 Grow, Rol	SC 1.5		P 35 RMG Consu	L 39 Ilting	# 183	
Comment Type ER Comment Status A Bucket P802.3cb is also modifying this definition, if timelines hold true, this instruction and base text is wrong. SuggestedRemedy Add an Editor's note to remind that 802.3cb is also modifying this definition and base text and editing instruction reference will have to be updated if 802.3cb is assigned a lower amendment number than 802.3bs. Response Response Status C ACCEPT. V1 SC 1.4.132a P 35 L 11 # 182				Comment Sort of Suggester Corre Response ACCE	Type E order of 1.5 is dRemedy ct editing inst e EPT IN PRINC	Comr alphanumeri ruction to alp <i>Respo</i> CIPLE.	ment Status A c (with only a few e hanumeric. nse Status C	errors).	Bucket		
					"in alp "in alp In the	ye. habetical orc hanumeric o editing instru	ler" to: rder" iction for 1.3	change:			
C/ 1 SC 1 Grow, Robert	.4.132a	P 35 RMG Consul	L 11 ting	# 182	"in alp "in alp	phanumerical phanumeric o	order" to: rder"	-			
Comment Type I can discern n	ER Con o logical reasor	nment Status A for inserting these te	erms after 1.4.13	Bucket 2.	C/ 45 Grow, Rol	SC 45.2.	1	P 41 RMG Consu	L 7 Ilting	# 184	
SuggestedRemedy Sort with other	<pre>/ terms that begi</pre>	n with a number.			Comment P802.	<i>Type</i> ER .3bv Amendm	<i>Comi</i> nent 9 should	<i>ment Status</i> A be the base text.		Bucket	
Response ACCEPT IN PF In the San Dieg	Resp RINCIPLE. go meeting a glo	oonse Status C obal change was mad	de:		Suggester Cite II "1.23	<i>dRemedy</i> EEE Std 802. through" (stri	3bv-20xx ins kethrough)	tead of 802.3bz. D	Pelete row for 1.2	2. Change last row to	
"CCMII Extender" was changed to "200GMII Extender" "CCXS" was changed to "200GXS" "CDMII Extender" was changed to "400GMII Extender" "CDXS" was changed to "400GXS" without the position of these definitions being changed. See response to comment #180					Response Response Status C ACCEPT IN PRINCIPLE. Change the editing instruction to: "Change the reserved row for 1.23 through 1.29 in Table 45-3 (as modified by IEEE Std 802.3bv-201x) as follows (unchanged rows not shown):" Remove the row for bit 1.22 In the bottom row, change "1.22 through" to "1.23 through"						

C/ 45 SC 45.2.1.6 P 44 L 53 # 185	C/ 45 SC 45.2.1.10.aaa P 51 L 23 # 187
Grow, Robert RMG Consulting Comment Type ER Comment Status A Bu	cet Comment Type ER Comment Status A Bucket
P802.3bv Amendment 9 defines the six bit number 110100. I'll submit a comment on P802.3bv to change the base text as suggested in the Editor's note. Resulting in base tex of "110101 = reserved" plus the definition of 110100 as shown in P802.3bv/D3.0. SuggestedRemedy Change the P802.3bv editing instruction to include IEEE Std 802.3bv-20xx. Split line 35 into 0110101 = reserved and 0110100 = BASE-H PMA/PMD (underscore the leftmost 0)	P802.3bz includes this subclause number for description of bit 1.11.14. SuggestedRemedy Renumber to fit between the bit 13 subclause 45.2.10.aa description of 802.3by and the bit 14 subclause 45.2.10.aaa of 802.3bz. I think that makes it 45.2.10.ab. Make corresponding changes to the PICS. It
may be helpful to add an Editors note stating that P802.3cb is defining 0111100 and 0111011 and P802.3cc is defining 0110110 and 0110101, in case either is assigned a lower amendment number.	ACCEPT IN PRINCIPLE. Change editing instruction to: "Insert 45.2.1.10 aab after 45.2.1.10 aaa (as inserted by IEEE Std 802.3bz-201x) and
Response Response Status C ACCEPT IN PRINCIPLE. Add IEEE Std 802.3bv-201x to the list of amendments in the editing instruction and upda	before 45.2.1.10.aa (as inserted by IEEE Std 802.3by-2016) as follows:" Re-number the subclause defining bit 1.11.13 to 45.2.1.10.aab
the table to account for the changes being made by the P802.3bv draft.	C/ 45 SC 45.2.1.116b P 55 L 1 # 188 Grow, Robert RMG Consulting
Grow, Robert RMG Consulting	Comment Type ER Comment Status A Bucket
 P802.3bz (1.11.14) and P802.3bv (1.11.15) both define values requiring update to the base text from IEEE Std 802.3by. SuggestedRemedy Delete the first row of the table changes. Add a strikethrough Reserved and Value alway 0 to the row for 1.11.13. P802.3bz/D3.3 submitted to RevCom has the word zero instead of the more common digit 0, but since it is strikethrough and publication editors might are preserved update.	SuggestedRemedy Renumber all 45-90x tables being inserted to be 45-90ax (x being the existing letter). Make corresponding changes to the PICS. Response Response Status C ACCEPT IN PRINCIPLE. Change Tables 45-90a, 45-90b and 45-90c to 45-90aa, 45-90ab and 45-90ac.
Response Response Status C	C/ 45 SC 45.2.3.47a P 70 L 49 # 189 Grow, Robert RMG Consulting
Change the editing instruction to: "Change the row for 1.11.13 in Table 45-14 (as modified by IEEE Std 802.3bz-201x) as follows (unchanged rows not shown):" Remove the row for 1.11.15.13	Comment Type ER Comment Status A Bucket P802.3bv Amendment 9 inserts 45.2.3.47a through 45.2.3.47g and Tabled 45-160a through 45-160g.
Show the changes to the row for bit 1.11.13 with respect to the row in P802.3bz D3.3	SuggestedRemedy Renumber subclauses and tables to begin at 45.2.3.47h and 45-160h respectively. Make corresponding changes to the PICS.
	Response Response Status C ACCEPT IN PRINCIPLE. Change editing instruction to: "Insert 45.2.3.47h through 45.2.3.47p after 45.2.3.47g (as inserted by IEEE Std 802.3bv- 201x) as follows:" Renumber subclauses from 45.2.3.47h and tables from Table 45-160h
TYPE: TR/technical required ER/editorial required GR/general required T/technical E/edito	al G/general Comment ID 189 Page 47 of 125

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: Comment ID

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C/ FM SC FM	P 8	L 13	# <u>1</u> 90	C/ 116 SC 11	6.3.2	P 109	L 13	# 193	
Hidaka, Yasuo	Fujitsu Lab o	f America		Hidaka, Yasuo		Fujitsu Lab o	f America		
Comment Type E	Comment Status A		Bucket	Comment Type	T Comm	nent Status A		Bucket	
"200 Gb/s" is missi	ng in Task Force name on line 1	13 through 19.		PMA service int	erface is called r	not only by PCS bu	t also called by a	nother PMA, DTE	
SuggestedRemedy				200GXS or DIE	= 400GXS sublay	/er.			
Insert "200 Gb/s an	d" after "P802.3bs" on line 13 g	hrough 19.		SuggestedRemedy		a via a v			
Response	Response Status C			Change b) Pivi	A WITH THE TOTIC	Jwing:			
ACCEPT IN PRINC Change: "P802.3bs 400 Gb/s	IPLE. s Ethernet" to:			b) PMA: for p PCS, DTE 2000 sublayer.	rimitives issued of GXS, DTE 400G	on the interface bet KS, or another PMA	ween the PMA s A sublayer that is	ublayer and one of above the PMA	
"P802.3bs 200 Gb/s	s and 400 Gb/s Ethernet"			Response	Respo	nse Status C			
	0.			ACCEPT IN PR	INCIPLE.				
C/ 45 SC 45.2.5	.4.a P 89	L 24	# 191	Change item b) "PMA -for primit	to: tives issued on th	ne interface betwee	n the PMA subla	ver and the PCS_DTF	
Hidaka, Yasuo	Fujitsu Lab o	f America		200GXS, DTE 4	400GXS, or PMA	sublayer above ca	lled the PMA ser	vice interface."	
Comment Type E	Comment Status A		Bucket	C/ 116 SC 11	632	P 109	/ 19	# 194	
"DTE-XS" has an e	ktra hyphen.			Hidaka. Yasuo	0.0.2	Fuiitsu Lab o	f America	# 10 4	
SuggestedRemedy				Comment Type	T Comm	nent Status R		Bucket	
Change "DTE-XS"	with "DTE XS".			The abstract pre	efix "inst" for the	service interface is	used but not de	ined.	
Response	Response Status C			SuggestedRemedy					
ACCEPT IN PRINC Change "DTF-XS" 1	DTF XS".			Add the followin	ng prefix of the se	ervice interface:			
		• • •		in at fan animit	in a factor of an th		n the DMA suble		
C/ 45 SC 45.2.5 Hidaka, Yasuo	5 .4.b P 89 Fujitsu Lab o	L 29 f America	# 192	PHY 200GXS, F	PHY 400GXS, or	another PMA subl	ayer that is below	v the PMA sublayer.	
Comment Type E	Comment Status A		Bucket	or					
"DTE-XS" has an e	xtra hyphen.			inst: abstract	nrefix renresenti	ng PMD PMA or F	NY XS		
SuggestedRemedy				Response	Resnor	nse Status C			
Change "DTE-XS"	with "DTE XS".			REJECT.	Respon				
Response ACCEPT IN PRINC Change "DTE-XS" f [Editor's note: Subo	Response Status C IPLE. o "DTE XS". lause changed from 45.2.5.4.a	to 45.2.5.4.b]		The only place in the draft that "inst" is used is Clause 120 where its meaning is explaine on page 188 line 1.					

C/ 116 SC	116.3.2	P 109	L 15	# <u>195</u>	C/ 11	6 SC	C 116.5	P 117	L 23	# <u>1</u> 97		
Hidaka, Yasuo		Fujitsu Lab o	f America		Hidak	a, Yasuo		Fujitsu Lab o	f America			
Comment Type	T Co	omment Status A		E	Bucket Com	nent Type	т	Comment Status A		Bucket		
DTE 200GXS PMA is below	and DTE 4000 v DTE 200GXS	GXS do not provide the and DTE 400GXS.	service interface	to PMA, because	T is	able 116-8 also PMD	gives max lane oper	x skew variation in PMD UI or ating at 53.125 Gbd for 400G	nly for 26.5625 (bb/s PHY.	Gbd PMD lane, but there		
The upper int	terface of DTE 2	200GXS and DTE400G	SXS is 200GMII o	r 400GMII.	Sugg	estedRem	edy					
Also, we do r	not need separa	te prefixes. A single pr	efix of "PHY XS"	is enough.	Α	dd a new d	column of '	'Maximum Skew Variation for	r 53.125 Gbd PN	MD lane (UI)" with the		
SuggestedReme	dv				fo	llowing va	lues:					
Change the	dy definition of "c) 2	200GXS" and "d) 400G	XS)" as follows:			P1 ~ 11 P2 ~ 21						
Change the t			<i>xo)</i> as follows.		5	P3 ~ 32						
c) PHY XS	for primitives is	sued on the interface I	petween the PHY	200GXS or PHY	S	P4 ~ 181						
400GXS sub	layer and the PI	MA sublayer called the	PHY XS service	interface.	S	P5 ~ 191						
Response	Res	sponse Status C			5	P6 ~ 202 CS ~ 213						
Replace "c) 2 "c) PHY_XS: 200GXS sub	200GXS" and "d -for primitives is layer or PHY 20) 400GXS" with: sued on the interface I 0GXS sublayer called	between the PMA the PHY XS serv	sublayer and the ice interface.	А РНҮ Т 1	Add the following note to the new column: The symbol ~ indicates approximate equivalent of maximum Skew Variation in UI based on 1UI equals 18.82353 ps at PMD lane signaling rate of 53.125 Gbd.						
C/ 116 SC	116.5	P 114	L 34	# 196	Resp	onse		Response Status C				
Hidaka, Yasuo		Fujitsu Lab o	f America		Α	CCEPT IN	PRINCIP	LE.				
Comment Type	T Co	omment Status A		ex E	l Bucket	he only sk	ew points t	that can have signals at 53.12	25 GBd are SP3	and SP4.		
SP6 is define PMA above F	ed at the output PCS with 200G	of the PMA closest to t (S or 400GXS.	the PCS, but it is	not clear if there is	β A	dd a new o ollowing va	column for lues:	"Maximum Skew Variation fo	и 53.125 GBd P	MD lane (UI)" with the		
SuggestedReme	dy				5	P1 = N/A $P2 = N/\Delta$						
Insert "below	and" in front of	"closest to the PCS".				P3 = 32						
Response	Po	spansa Status C			S	P4 = 181						
					S	P5 = N/A						
Change:	PRINCIPLE.				F	P6 = N/A CS = N/A						
"SP6 on the	200GAUI-n/400	GAUI-n interface, at th	e output of the PI	MA closest to the	•	00 - 10//						
PCS." to:					Α	dd a new f	ootnote to	the inserted "(UI)" of:				
"SP6 on the 2 200GBASE-F	200GAUI-n/400 R/400GBASE-R	GAUI-n interface, at th PCS or DTE 200GXS	e output of the PI /400GXS."	MA closest to the	"" 0	The symbo n 1 UI equ	ol = indicate als 18.823	es approximate equivalent of 53 ps at PMD lane signaling	maximum Skew rate of 53.125 C	v Variation in UI based BBd."		
					v	here "=" in	the above	is the curley equals used in	Table 116-8.			

C/ 116 SC 116.7 Hidaka, Yasuo	P 118 Fujitsu Lab of A	L 20 merica	# 198	<i>Cl</i> 117 Hidaka, Ya	SC 117.5.3 Suo	Р 123 Fujitsu Lab o	L 5 f America	# <u>2</u> 01				
Comment Type E "200 Gigabit" is missir	Comment Status A		Bucket	Comment Type T Comment Status A Item "XGE" is referenced by FS1 in p 125, but not defined.								
SuggestedRemedy Insert "200 Gigabit and	d" after "Each of the".			Suggested Add a i	Re <i>medy</i> new row as follow	ws:						
Response ACCEPT IN PRINCIP See response to comr	Response Status C LE. nent #7			Item: *XGE Feature: PHY support of either 200GMII or 400GMII Subclause: 117.2, 117.3 Value: (blank)								
C/ 117 SC 117.1.7 Hidaka, Yasuo	P 121 Fujitsu Lab of A	L 33 merica	# 199	Status: O Support: Yes [] No []								
Comment Type E The reference to 81.1. should be a reference primitives. SuggestedRemedy Change the reference Response ACCEPT IN PRINCIP Change the reference Change the reference Cl 117 SC 117.4	Comment Status A 6 is inappropriate, because 81.1 to 81.1.7 that is Mapping of XLC to 81.1.6 with a reference to 81 <i>Response Status</i> C LE. to 81.1.7	Bucket I structure. It to PLS service	Response Response Status C ACCEPT IN PRINCIPLE. Remove *PHY200, *PHY400, *RS200, *RS400. These are not used elswhere. Add in *MII Feature: PHY support of either 200GMII or 400GMII Subclause: 117.2, 117.3 Value: (blank) Status: O Support: Yes [] No [] Change all PICS entries that use RS:, XGE:, and PHY: to MII:									
Hidaka, Yasuo	Fujitsu Lab of A	merica	Bucket	C/ 117 Hidaka, Ya	SC 117.5.3 Suo	P 123 Fujitsu Lab o	L 11 f America	# 202				
It is not easy to find "F	"MA stop signaling" in clause 81	.4.	Duonor	Comment 7 At leas	<i>ype</i> T tone of RS200 (Comment Status A or RS400 must be supported	d, because RS	Bucket S is mandatory.				
SuggestedRemedy	as follows:			Suggested	Remedy			·				
LPI assertion and dete single exception that t	ection function identically to the ne PMA stop signaling describe	CGMII specified in 8 d in 81.4.4 is not ap	31.4, with the plicable.	Change the status of RS200 from "O" to "O.1". Change the status of RS400 from "O" to "O.1".								
Response	Response Status C			ACCEPT IN PRINCIPLE.								
ACCEPT.				See response to comment #201								

Cl 117 SC 117.5.4 .2 Hidaka, Yasuo	2 P 124 Fujitsu Lab of	L 6 America	# 203	<i>Cl</i> 117 Hidaka, Y	SC 117.5.4. asuo	2	<i>Р</i> 124 Fujitsu Lab o	L 12 f America	# 205		
Comment Type T Status should not be of the major capabilities/	Comment Status A conditional for "RS", because F options as well.	RS is mandator	Bucket y. RS is not defined in	<i>Comment</i> Refer 117.1	<i>Type</i> T ence to 117.1.7 .7.	Commer for PL3 is no	nt Status R t helpful, becaus	e there is no mu	Bucket ch detail description in		
SuggestedRemedy				Suggeste	dRemedy						
Change the status col	umn for PL1 through PL13 fro	m "RS:M" to "N	".	Change the subclause column for PL3 from "11/.1./" to "11/.1./, 81.1.7.1.4".							
Response ACCEPT IN PRINCIP	Response Status C		Response Response Status C REJECT.								
See the response to c RS is mandatory, but	comment #201. MII is not.			The ro comm versio	eference is to th nent #199) toget ons of the draft.	e local subcla her with any e	ause which alread exceptions that a	dy contains a ref ire there now or i	erence to 81.1.7 (see may be added in later		
C/ 117 SC 117.5.4.	2 P 124	L 9	# 204	C/ 117	SC 117.5.4	2	P 124	L 15	# 206		
Hidaka, Yasuo	Fujitsu Lab of	America		Hidaka, Y	asuo		Fujitsu Lab o	f America			
Comment Type T Reference to 117.1.7 117.1.7.	Comment Status R for PL2 is not helpful, because	e there is no mu	Bucket ch detail description in	Comment Type T Comment Status R Bu Reference to 117.1.7 for PL4 is not helpful, because there is no much detail description 117.1.7.							
SuggestedRemedy				Suggeste	dRemedy						
Change the subclause	e column for PL2 from "117.1.7	7" to "117.1.7, 8	1.1.7.1.4".	Chan	ge the subclaus	e column for	PL4 from "117.1.	7" to "117.1.7, 8	1.1.7.1.4".		
Response	Response Response Status C					Response Response Status C					
REJECT.				REJE	CT.						
The reference is to the comment #199) togetl versions of the draft.	The reference is to the local subclause which already contains a reference to 81.1.7 (see comment #199) together with any exceptions that are there now or may be added in later versions of the draft.					e local subcla her with any e	ause which alread exceptions that a	dy contains a ref ire there now or i	erence to 81.1.7 (see may be added in later		

C/ 117 SC 117.5.4.2	P 124 L 17	# 207	C/ 117 SC 117.5	.4.2 P 124	L 24	# 209			
Comment Type T C Reference to 117.1.7 for PL 117.1.7.	omment Status R 5 is not helpful, because there is no	Bucket much detail description in	Comment Type T Reference to 117.1 117.1.7.	Comment Status R .7 for PL7 is not helpful, becaus	se there is no mu	Bucket			
SuggestedRemedy Change the subclause colu	nn for PL5 from "117.1.7" to "117.1	.7, 81.1.7.1.4".	SuggestedRemedy Change the subcla	use column for PL7 from "117.1	.7" to "117.1.7, 8	31.1.7.2.3".			
Response Re REJECT.	sponse Status C		Response Response Status C REJECT.						
The reference is to the local comment #199) together with versions of the draft.	subclause which already contains a h any exceptions that are there now	a reference to 81.1.7 (see or may be added in later	The reference is to comment #199) tog versions of the draf	the local subclause which alreated by the local subclause which alreated by the subclause whic	ady contains a ref are there now or	ference to 81.1.7 (see may be added in later			
C/ 117 SC 117.5.4.2 Hidaka, Yasuo	P 124 L 21 Fujitsu Lab of America	# 208	C/ 117 SC 117.5.4.2 P 124 L 28 # 210 Hidaka, Yasuo Fujitsu Lab of America						
Comment Type T C Reference to 117.1.7 for PL 117.1.7.	omment Status R 6 is not helpful, because there is no	Bucket much detail description in	Comment Type T Reference to 117.1 117.1.7.	Comment Status R .7 for PL8 is not helpful, becaus	se there is no mu	Bucket			
SuggestedRemedy Change the subclause colu	nn for PL6 from "117.1.7" to "117.1	.7, 81.1.7.2.3".	SuggestedRemedy Change the subcla	use column for PL8 from "117.1	.7" to "117.1.7, 8	31.1.7.2.3".			
Response Re REJECT.	sponse Status C		Response Response Status C REJECT.						
The reference is to the local comment #199) together wirk versions of the draft.	subclause which already contains a hany exceptions that are there now	a reference to 81.1.7 (see or may be added in later	The reference is to comment #199) tog versions of the draft the transport of tr	the local subclause which alreated and the local subclause which alreated at the strength of t	ady contains a ref are there now or	ference to 81.1.7 (see may be added in later			

C/ 117 SC 117.5.4.2 P 124 L 32 # 211 Hidaka, Yasuo Fujitsu Lab of America Fujits	C/ 117 SC 117.5.4.2 P 124 L 37 # 213 Hidaka, Yasuo Fujitsu Lab of America Fujits					
Comment TypeTComment StatusRBucketReference to 117.1.7 for PL9 is not helpful, because there is no much detail description in 117.1.7.	Comment Type T Comment Status R Bucket Reference to 117.1.7 for PL11 is not helpful, because there is no much detail description in 117.1.7. 117.1.7					
SuggestedRemedy Change the subclause column for PL9 from "117.1.7" to "117.1.7, 81.1.7.2.3".	SuggestedRemedy Change the subclause column for PL11 from "117.1.7" to "117.1.7, 81.1.7.5.3".					
Response Response Status C REJECT.	Response Response Status C REJECT.					
The reference is to the local subclause which already contains a reference to 81.1.7 (see comment #199) together with any exceptions that are there now or may be added in later versions of the draft.	The reference is to the local subclause which already contains a reference to 81.1.7 (see comment #199) together with any exceptions that are there now or may be added in later versions of the draft.					
C/ 117 SC 117.5.4.2 P 124 L 35 # 212 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America Fujitsu Lab of America Fujitsu Lab of America	C/ 117 SC 117.5.4.2 P 124 L 42 # 214 Hidaka, Yasuo Fujitsu Lab of America Fujits					
Comment TypeTComment StatusRBucketReference to 117.1.7 for PL10 is not helpful, because there is no much detail description in 117.1.7.	Comment Type T Comment Status R Bucket Reference to 117.1.7 for PL12 is not helpful, because there is no much detail description in 117.1.7.					
SuggestedRemedy	SuggestedRemedy					
Change the subclause column for PL10 from "117.1.7" to "117.1.7, 81.1.7.5.3".	Change the subclause column for PL12 from "117.1.7" to "117.1.7, 81.1.7.5.3".					
Response Response Status C REJECT.	Response Response Status C REJECT.					
The reference is to the local subclause which already contains a reference to 81.1.7 (see comment #199) together with any exceptions that are there now or may be added in later versions of the draft.	The reference is to the local subclause which already contains a reference to 81.1.7 (comment #199) together with any exceptions that are there now or may be added in la versions of the draft					

CL 117 SC 117 E 4 2	P134 / 45	# 215	CI 117	SC 117 6	4.2	D 1 25	10	# 019
Hidaka, Yasuo	F 124 E 45 Fujitsu Lab of America	# 215	Hidaka, Ya	isuo	0.4.5	F 125 Fujitsu Lab o	f America	# 218
Comment Type T Co Reference to 117.1.7 for PL1 117.1.7.	mment Status R 3 is not helpful, because there is no m	Bucket uch detail description in	Comment Refere 117.2.	<i>Type</i> T ence to 117.2	Comme 2 for DS2 is not	ent Status R helpful, because	there is no muc	<i>Bucket</i> h detail description in
SuggestedRemedy Change the subclause colum	n for PL13 from "117.1.7" to "117.1.7,	81.1.7.5.3".	Suggested Chang	<i>IRemedy</i> le the subcla	use column fo	r DS2 from "117.2	" to "117.2, 81.2)"
Response Res REJECT.	sponse Status C		Response REJE	CT.	Respon	se Status C		
The reference is to the local s comment #199) together with versions of the draft.	subclause which already contains a reat any exceptions that are there now or	ference to 81.1.7 (see may be added in later	The re togeth draft.	ference is to er with any e	the local subc exceptions that	lause which alread are there now or r	dy contains a rei may be added ir	ference to 81.2 I later versions of the
C/ 117 SC 117.5.4.3 Hidaka, Yasuo	P 125 L 6 Fujitsu Lab of America	# 216	<i>Cl</i> 117 Hidaka, Ya	SC 117.5	5.4.3	P 125 Fujitsu Lab o	L 11 f America	# 219
Comment Type T Co Status should not be conditio the major capabilities/options	mment Status A nal for "RS", because RS is mandator s as well.	<i>Bucket</i> y. RS is not defined in	Comment Refere 117.2.	<i>Type</i> T ence to 117.2	Comme 2 for DS3 is not	ent Status R helpful, because	there is no muc	<i>Bucket</i> h detail description in
SuggestedRemedy Change the status column fo Remove "N/A II" from the sur	r DS1 through DS4 from "RS:M" to "M	n .	Suggested Chang	<i>Remedy</i> the subcla	use column fo	r DS3 from "117.2	" to "117.2, 81.2	2.3".
Response Res ACCEPT IN PRINCIPLE.	sponse Status C		Response REJE	CT.	Respon	se Status C		
See response to comment #2	201		The re togeth	ference is to er with any e	the local subc	lause which alread are there now or r	dy contains a rei may be added ir	ference to 81.2 I later versions of the
C/ 117 SC 117.5.4.3 Hidaka, Yasuo	P 125 L 6 Fujitsu Lab of America	# 217	draft.					
Comment Type T Co Reference to 117.2 for DS1 is 117.2.	mment Status R s not helpful, because there is no muc	<i>Bucket</i> h detail description in						
SuggestedRemedy Change the subclause colum	n for DS1 from "117.2" to "117.2. 81.2	".						
Response Res REJECT.	sponse Status C							
The reference is to the local s together with any exceptions draft.	subclause which already contains a re that are there now or may be added in	ference to 81.2 later versions of the						
TYPE: TR/technical required ER COMMENT STATUS: D/dispatch SORT ORDER: Comment ID	/editorial required GR/general required ed A/accepted R/rejected RESPO	d T/technical E/editorial G/g NSE STATUS: O/open W/wr	general itten C/closed	I U/unsatisfi	ed Z/withdraw	<i>Comm</i>	ent ID 219	Page 54 of 125 29/09/2016 16:39

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01447 00 447 5 4 0	B405 / 40	# 000		0.447	00 447 5 4		or / or	# 222
Hidaka, Yasuo	F 125 L 13 Fujitsu Lab of America	# 220		C/ 117 Hidaka, Ya	SC 117.5.4.4 suo	Fujits	u Lab of America	# 222
Comment Type T Con Reference to 117.2 for DS4 is 117.2.	mment Status R s not helpful, because there is no	o much detail descript	Bucket (ion in	Comment 7 Referei 117.3.	<i>Type</i> T nce to 117.3 for	Comment Status FS2 is not helpful, be	R ecause there is no	Bucket o much detail description in
SuggestedRemedy			5	Suggestedl	Remedy			
Change the subclause colum	n for DS4 from "117.2" to "117.2	, 81.2.4".		Change	e the subclause	column for FS2 from	"117.3" to "117.3	, 81.3.1.1".
Response Res REJECT.	ponse Status C		I	Response REJEC	CT.	Response Status	С	
The reference is to the local s together with any exceptions draft.	subclause which already contains that are there now or may be add	s a reference to 81.2 ded in later versions c	of the	The ref togethe draft.	ference is to the er with any exce	e local subclause which ptions that are there	ch already contain now or may be ad	s a reference to 81.3 ded in later versions of the
Cl 117 SC 117.5.4.4 Hidaka, Yasuo	P 125 L 22 Fujitsu Lab of America	# 221		<i>Cl</i> 117 Hidaka, Yas	SC 117.5.4.4 suo	₽ 1 Fujits	25 <i>L</i> 27 u Lab of America	# 223
Comment Type T Con Reference to 117.3 for FS1 is 117.3.	mment Status R s not helpful, because there is no	much detail descripti	Bucket (on in	Comment 7 Referei 117.3.	<i>Type</i> T nce to 117.3 for	Comment Status FS3 is not helpful, b	R ecause there is no	Bucket o much detail description in
SuggestedRemedy Change the subclause colum	n for FS1 from "117.3" to "117.3,	, 81.3.1.1".	5	Suggestedl Change	<i>Remedy</i> e the subclause	column for FS3 from	117.3" to "117.3"	, 81.3.1.2".
Response Res REJECT.	ponse Status C		I	Response REJEC	CT.	Response Status	С	
The reference is to the local s together with any exceptions draft.	subclause which already contains that are there now or may be add	s a reference to 81.3 ded in later versions c	of the	The ref togethe draft.	ference is to the er with any exce	e local subclause which ptions that are there	ch already contain now or may be ad	s a reference to 81.3 ded in later versions of the
			(<i>C</i> / 117 Hidaka, Yas	SC 117.5.4.4 suo	P1 Fujits	25 <i>L</i> 27 u Lab of America	# 224
			(<i>Comment 1</i> FS3 de is supp	Type T epends on XGE ported. RS is not	Comment Status (not RS), because it it t defined in the major	A is mandatory only capabilities/option	Bucket if either 200GMII or 400GMII ns as well.
			\$	Suggestedl Change	<i>Remedy</i> e the status colu	umn for FS3 from "RS	S:M" to "XGE:M".	
			I	Response ACCEF	PT IN PRINCIPI	Response Status	C	

C/ 117 SC 117.5.4.4	P 125	L 29 # 225	CI *	17 SC 117.5	5.4.4 P 125	L 34	# 228
Hidaka, Yasuo	Fujitsu Lab of Ame	rica	Hida	ka, Yasuo	Fujitsu La	ab of America	
Comment Type T Reference to 117.3 for FS 117.3.	Comment Status R 4 is not helpful, because there	is no much detail descriptio	Bucket Con on in	<i>ment Type</i> T Reference to 117.3 117.3.	Comment Status R 3 for FS6 is not helpful, becau	use there is no much	<i>Bucket</i> detail description in
SuggestedRemedy			Sug	gestedRemedy			
Change the subclause col	umn for FS4 from "117.3" to "1	17.3, 81.3.1.2".		Change the subcla	use column for FS6 from "11	7.3" to "117.3, 81.3.1	1.3".
Response I	Response Status C		Res	oonse	Response Status C		
REJECT.				REJECT.			
The reference is to the loc together with any exceptic draft.	al subclause which already cor ns that are there now or may b	tains a reference to 81.3 e added in later versions of	fthe	The reference is to ogether with any e draft.	the local subclause which a exceptions that are there now	ready contains a refe or may be added in l	erence to 81.3 later versions of the
C/ 117 SC 117.5.4.4 Hidaka, Yasuo	P 125 Fujitsu Lab of Ame	L 32	Cl 1 Hida	17 SC 117.5 ka, Yasuo	5.4.4 <i>P</i> 125 Fujitsu La	L 36 ab of America	# 229
Comment Type T Reference to 117.3 for FS 117.3.	Comment Status R 5 is not helpful, because there	is no much detail descriptio	Bucket Con on in	<i>ment Type</i> T Reference to 117.3 117.3.	Comment Status R 3 for FS7 is not helpful, becau	use there is no much	Bucket detail description in
SuggestedRemedy Change the subclause col	umn for FS5 from "117.3" to "1	17.3, 81.3.1.2".	Sug	<i>gestedRemedy</i> Change the subcla	use column for FS7 from "11	7.3" to "117.3, 81.3.1	1.4".
Response F REJECT.	Response Status C		Res	oonse REJECT.	Response Status C		
The reference is to the loc together with any exceptic draft.	al subclause which already cor ns that are there now or may b	atains a reference to 81.3 e added in later versions of	f the	The reference is to to ogether with any e draft.	the local subclause which a exceptions that are there now	ready contains a refe or may be added in l	erence to 81.3 later versions of the
C/ 117 SC 117.5.4.4	P 125	L 32 # 227	CI 1	17 SC 117.5	5.4.4 P 125	L 36	# 230
Hidaka, Yasuo	Fujitsu Lab of Ame	rica	Hida	ka, Yasuo	Fujitsu La	ab of America	
Comment Type T	Comment Status A		Bucket Con	iment Type T	Comment Status A		Bucket
FS5 depends on XGE (no is supported. RS is not de	t RS), because it is mandatory fined in the major capabilities/o	only if either 200GMII or 40 ptions as well.	DOGMII	-S7 (start alignmer the major capabiliti	nt) is a feature of RS that is r ies/options as well.	nandatory, not option	nal. RS is not defined in
SuggestedRemedy			Sug	gestedRemedy			
Change the status column	n for FS5 from "RS:M" to "XGE:	M".		Change the status	column for FS7 from "RS:M"	to "M". S7	
Response	Response Status C		Res	nonse	Response Status	57.	
ACCEPT IN PRINCIPLE.			100	ACCEPT IN PRIN(CIPLE.		
See response to commen	t #201			See response to co	omment #201		
TYPE: TR/technical required COMMENT STATUS: D/dispa SORT ORDER: Comment ID	ER/editorial required GR/gener tched A/accepted R/rejected	al required T/technical E/ RESPONSE STATUS: C	editorial G/general)/open W/written C	closed U/unsatisfi	Co ed Z/withdrawn	mment ID 230	Page 56 of 125 29/09/2016 16:39:59

C/ 117 SC 117.5.4.4 P 125 L 39 # 231	C/ 117 SC 117.5.4.4 P 125 L 43 # 233
Comment Type T Comment Status R Bucket Reference to 117.3 for FS8 is not helpful, because there is no much detail description in	Comment Type T Comment Status R Bucket Reference to 117.3 for FS10 is not helpful, because there is no much detail description in
117.3.	117.3.
SuggestedRemedy	SuggestedRemedy
Change the subclause column for FS8 from "117.3" to "117.3, 81.3.2.1".	Change the subclause column for FS10 from "117.3" to "117.3, 81.3.2.1".
Response Response Status C REJECT.	Response Response Status C REJECT.
The reference is to the local subclause which already contains a reference to 81.3 together with any exceptions that are there now or may be added in later versions of the draft.	The reference is to the local subclause which already contains a reference to 81.3 together with any exceptions that are there now or may be added in later versions of the draft.
C/ 117 SC 117.5.4.4 P 125 L 41 # 232 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of Am	C/ 117 SC 117.5.4.4 P 125 L 43 # 234 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of Am
Comment Type T Comment Status R Bucket Reference to 117.3 for FS9 is not helpful, because there is no much detail description in 117.3. 117.3 117.3	Comment Type T Comment Status A Bucket FS10 depends on XGE (not PHY), because it is mandatory only if either 200GMII or 400GMII is supported. PHY is not defined in the major capabilities/options as well. Bucket
SuggestedRemedy	SuggestedRemedy
Change the subclause column for FS9 from "117.3" to "117.3, 81.3.2.1".	Change the status column for FS10 from "PHY:M" to "XGE:M".
Response Response Status C REJECT.	Response Response Status C ACCEPT IN PRINCIPLE.
The reference is to the local subclause which already contains a reference to 81.3	See the response to Comment #201
draft.	C/ 117 SC 117.5.4.4 P 125 L 46 # 235 Hidaka, Yasuo Fujitsu Lab of America
	Comment Type T Comment Status R Bucket Reference to 117.3 for FS11 is not helpful, because there is no much detail description in 117.3.
	SuggestedRemedy Change the subclause column for FS11 from "117.3" to "117.3, 81.3.2.2".

Response Response Status C

REJECT.

The reference is to the local subclause which already contains a reference to 81.3 together with any exceptions that are there now or may be added in later versions of the draft.

					0	•		
C/ 117 SC 117.5.4	.4 <i>P</i> 125	L 46	# 236	C/ 117	SC 117.5.4.	4 P 126	L 3	# <u>2</u> 39
Hidaka, Yasuo	Fujitsu Lab of	America		Hidaka, Ya	asuo	Fujitsu Lat	o of America	
Comment Type T	Comment Status A		Bucket	Comment	Туре Т	Comment Status A		Bucket
FS11 depends on XG 400GMII is supported	E (not PHY), because it is mai I. PHY is not defined in the maj	ndatory only if ei or capabilities/c	ther 200GMII or ptions as well.	FS13 (400GN	depends on XG /III is supported	E (not RS), because it is m . RS is not defined in the m	andatory only if ein ajor capabilities/o	ther 200GMII or otions as well.
SuggestedRemedy				Suggested	Remedy			
Change the status co	lumn for FS11 from "PHY:M" to	o "XGE:M".		Chang	e the status co	lumn for FS13 from "RS:M'	' to "XGE:M".	
Response ACCEPT IN PRINCIF	Response Status C PLE.			Response ACCE	PT IN PRINCIP	Response Status C PLE.		
See the response to o	comment #201			See th	e response to c	comment #201		
C/ 117 SC 117.5.4 Hidaka, Yasuo	.4 P 125 Fujitsu Lab of	L 48 America	# 237	C/ 117 Hidaka, Ya	SC 117.5.4. asuo	4 P 126 Fujitsu Lat	L 6 o of America	# 240
Comment Type T Reference to 117.3 fc 117.3.	Comment Status R or FS12 is not helpful, because	there is no muc	<i>Bucket</i> h detail description in	Comment Refere 117.3.	<i>Type</i> T ence to 117.3 fo	Comment Status R r FS14 is not helpful, becar	use there is no mu	Bucket ch detail description in
SuggestedRemedy				Suggested	Remedy			
Change the subclaus	e column for FS12 from "117.3	" to "117.3, 81.3	3.2.2".	Chang	e the subclause	e column for FS14 from "11	17.3" to "117.3, 81.	3.2.3".
Response	Response Status C			Response		Response Status C		
REJECT.				REJEC	CT.			
The reference is to th together with any exc draft.	e local subclause which alread eptions that are there now or m	y contains a ref nay be added in	erence to 81.3 later versions of the	The re togeth draft.	ference is to the er with any exce	e local subclause which alr eptions that are there now o	eady contains a re or may be added ir	ference to 81.3 a later versions of the
C/ 117 SC 117.5.4	4 P 126	L 3	# 238	C/ 117	SC 117.5.4.	4 P 126	L 8	# 241
Hidaka, Yasuo	Fujitsu Lab of	America		Hidaka, Ya	asuo	Fujitsu Lat	o of America	
Comment Type T Reference to 117.3 fo 117.3.	Comment Status R or FS13 is not helpful, because	there is no muc	<i>Bucket</i> h detail description in	Comment Refere 117.3.	<i>Type</i> T ence to 117.3 fo	Comment Status R r FS15 is not helpful, becar	use there is no mu	Bucket ch detail description in
SuggestedRemedy				Suggested	Remedy			
Change the subclaus	e column for FS13 from "117.3	" to "117.3, 81.3	8.2.3".	Chang	e the subclause	e column for FS13 from "11	17.3" to "117.3, 81.	3.3.1".
Response	Response Status C			Response		Response Status C		
REJECT.	, -			REJEC	CT.			
The reference is to th together with any exc draft.	e local subclause which alread eptions that are there now or m	y contains a refension a vefension and the second sec	erence to 81.3 later versions of the	The re togeth draft.	ference is to the er with any exce	e local subclause which alr eptions that are there now o	eady contains a re or may be added ir	ference to 81.3 In later versions of the

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: Comment ID

Comment ID 241

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C/ 117 SC 117. Hidaka, Yasuo	.4.4 P 126 Fujitsu Lab of	L 8 America	# 242	C/ 117 Hidaka, Yas	SC 117.5.4.5 JO	P 126 Fujitsu Lab of <i>i</i>	L 20 America	# 245
Comment Type T FS15 (received en RS is not defined i	Comment Status A or control character) is a feature on the major capabilities/options as	of RS that is manda	<i>Bucket</i> atory, not optional.	<i>Comment T</i> y Status s the majo	rpe T (hould not be condi or capabilities/optic	Comment Status A tional for "RS", because R ns as well.	S is mandatory	Bucket v. RS is not defined in
SuggestedRemedy Change the status Remove "N/A []" fr	column for FS15 from "RS:M" to ' om the support column for FS15.	'M".		<i>SuggestedR</i> Change Remove	e <i>medy</i> the status column "N/A []" from the s	for LF1 through LF5 from support column for LF1 thr	"RS:M" to "M". ough LF5.	
Response ACCEPT IN PRIN	Response Status C CIPLE.			Response ACCEP	R IN PRINCIPLE.	Pesponse Status C		
See the response	o comment #201			See the	response to comm	nent #201		
C/ 117 SC 117. Hidaka, Yasuo	A.4 P 126 Fujitsu Lab of	L 10 America	# 243	C/ 117 Hidaka, Yasi	SC 117.5.4.5	P 126 Fujitsu Lab of <i>I</i>	L 20 America	# 246
Comment Type T Reference to 117. 117.3.	Comment Status R for FS16 is not helpful, because	there is no much o	letail description in	Comment Ty Referen 117.3.	<i>pe</i> T (ce to 117.3 for LF1	Comment Status R is not helpful, because th	ere is no much	detail description in
SuggestedRemedy Change the subcla	use column for FS16 from "117.3'	" to "117.3, 81.3.3	3".	SuggestedR Change	e <i>medy</i> the subclause colu	umn for LF1 from "117.3" t	o "117.3, 81.3.4	4".
Response REJECT.	Response Status C			Response REJEC1	 	Pesponse Status C		
The reference is to together with any or draft.	the local subclause which already xceptions that are there now or m	y contains a refere ay be added in lat	nce to 81.3 er versions of the	The refe together draft.	rence is to the loca with any exception	al subclause which already ns that are there now or ma	v contains a refease and the second secon	erence to 81.3 later versions of the
C/ 117 SC 117. Hidaka, Yasuo	.4.4 P 126 Fujitsu Lab of	L 10 America	# <u>2</u> 44	C/ 117 Hidaka, Yas	SC 117.5.4.5 JO	P 126 Fujitsu Lab of <i>i</i>	L 22 America	# 247
Comment Type T FS16 (DATA_VAL defined in the maje	Comment Status A D assertion) is a feature of RS that r capabilities/options as well.	at is mandatory, no	<i>Bucket</i> ot optional. RS is not	Comment Ty Referen 117.3.	<i>pe</i> T (ce to 117.3 for LF2	Comment Status R ? is not helpful, because th	ere is no much	Bucket detail description in
SuggestedRemedy Change the status	column for FS16 from "RS:M" to '	'M".		SuggestedR Change	e <i>medy</i> the subclause colu	umn for LF2 from "117.3" t	o "117.3, 81.3.4	4.2".
Remove "N/A []" fr Response	om the support column for FS16. Response Status C			Response REJEC1		Pesponse Status C		
See the response	o comment #201			The refe together draft.	rence is to the loca with any exception	al subclause which already ns that are there now or ma	v contains a refease and the added in a second sec second second sec	erence to 81.3 later versions of the
TYPE: TR/technical re	quired ER/editorial required GR/c	general required T	/technical E/editorial G/g	eneral		Commei	nt ID 247	Page 59 of 125

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

C/ 117 SC 117.5.4.5 Hidaka, Yasuo	P 126 L 25 Fujitsu Lab of America	# 248	C/ 117 SC 117 Hidaka, Yasuo	7.5.4.5	P 126 Fujitsu Lab of	L 31 f America	# 250
Comment Type T C Reference to 117.3 for LF3 117.3.	omment Status R is not helpful, because there is no much	Bucket	Comment Type T Reference to 117 117.3.	Comment 7.3 for LF5 is not h	<i>t Status</i> R elpful, because t	there is no much	Bucket detail description in
SuggestedRemedy			SuggestedRemedy				
Change the subclause colur	mn for LF3 from "117.3" to "117.3, 81.3.	4.2".	Change the subc	clause column for L	_F5 from "117.3"	to "117.3, 81.3.4	4.2".
Response Re	esponse Status C		Response	Response	Status C		
REJECT.			REJECT.				
The reference is to the local together with any exceptions draft.	subclause which already contains a ref s that are there now or may be added in	ference to 81.3 later versions of the	The reference is together with any draft.	to the local subcla / exceptions that a	use which alread re there now or r	dy contains a refe may be added in	erence to 81.3 later versions of the
C/ 117 SC 117.5.4.5	P 126 L 28	# 249	C/ 117 SC 117	7.5.4.6	P 126	L 40	# 251
Hidaka, Yasuo	Fujitsu Lab of America		Hidaka, Yasuo		Fujitsu Lab of	f America	
Comment Type T C Reference to 117.3 for LF4 117.3.	omment Status R is not helpful, because there is no much	Bucket	Comment Type T Reference to 117 117.3.	Commen 7.3 for L1 is not he	<i>t Status</i> R lpful, because th	iere is no much c	Bucket letail description in
SuggestedRemedy			SuggestedRemedy				
Change the subclause colur	mn for LF4 from "117.3" to "117.3, 81.3.	4.2".	Change the subc	clause column for l	_1 from "117.3" t	o "117.3, 81.3.1.	2".
Response Re	esponse Status C		Response	Response	Status C		
REJECT.			REJECT.				
The reference is to the local together with any exceptions draft.	subclause which already contains a ref s that are there now or may be added in	ference to 81.3 later versions of the	The reference is together with any draft.	to the local subcla exceptions that a	use which alread re there now or r	dy contains a refe may be added in	erence to 81.3 later versions of the

C/ 117 SC 117.5.4.6	6 P 126	L 43	# <u>2</u> 52	C/ 118 SC	118.1	P 127	L 29	# 254	
Hidaka, Yasuo	Fujitsu Lab of	America		Hidaka, Yasuo Fujitsu Lab of America					
Comment Type T Reference to 117.3 for 117.3.	Comment Status R L2 is not helpful, because the	ere is no much	Bucket detail description in	Comment Type In Figure 118 PHY 400GX	T 3-1, DTE 2 S are not (Comment Status A 200GXS and PHY 200GXS ar distinguished as well. Althoug	e not distinguis h their specifica	<i>Bucket</i> hed. DTE 400GXS and ations are mostly	
SuggestedRemedy Change the subclause	column for L2 from "117.3" to) "117.3, 81.3.2	2.4".	identical, the I think we sho or effective s	re have cl ould not o o as to re	lear difference due to the loca mit the prefix "DTE" or "PHY" mind readers of their distinction	tion in the proto whenever their on and labeling	ocol stack. r distinction is important J.	
Response	Response Status C			SuggestedReme	dy				
REJECT.				Make the following changes in Figure 118-1:					
The reference is to the together with any exce draft.	plocal subclause which alread ptions that are there now or m	y contains a re hay be added in	ference to 81.3 h later versions of the	Change the Change the Change the Change the Change the I	upper "200 lower "200 upper "400 lower "400	OGXS" with "DTE 200GXS". OGXS" with "PHY 200GXS". OGXS" with "DTE 400GXS". OGXS" with "PHY 400GXS".	bottom		
Hidaka, Yasuo	Fujitsu Lab of	America	# 255	Response		Response Status C	bottom.		
Comment Type E Item "LPI" is reference	Comment Status A of from items "L1" and "L2" in	117.5.4.6.	Bucket	ACCEPT IN	PRINCIPI	LE.			
SuggestedRemedy Insert "*" (asterisk) in f	ront of "LPI" in the item colum	ın.		Make the following changes to Figure 118-1: Change the upper "200GXS" to "DTE 200GXS". Change the lower "200GXS" to "PHY 200GXS".					
Response ACCEPT.	Response Status C			Change the I Change the I Add "DTE = the list of abb	ower "400 DATA TE previations	OGXS" to "PHY 400GXS". RMINAL EQUIPMENT" and "I s at the foot of the figure.	PHY = PHYSIC	XAL LAYER DEVICE" to	

C/ 118 SC 118 1 2	P 128	/ 15	# 255	C/ 118	SC 118 1 3	P128	/ 28	# 257
Hidaka, Yasuo	Fujitsu Lab o	f America	<i>"</i> 200	Hidaka, Ya	suo	Fujitsu Lab of	America	
Comment Type T 200GXS and 400GXS I	Comment Status A must be different from 200G	BASE-R PCS ar	nd 400GBASE-R PCS	<i>Comment</i> It is od	<i>Type</i> T d to call 400GA	Comment Status R UI-n as physical instantiation o	of the 400GAU	Bucket I-n.
However, such a differe	ence is not described anywh	ere.		Suggested	Remedy			
SuggestedRemedy				Chang	e "physical inst	antiations of the 400GAUI-n" w	vith "physical in	stantiations of the PMA
Change the paragraph	in 118.1.2 to include the exc	eption about SI	GNAL.indication.	Response	intendee .	Response Status C		
Add a new subclause for 200GXS and PHY 4000 DTE 200GXS and DTE	or IS_SIGNAL.indication for GXS, the direction of IS_SIG 400GXS, the direction of IS	200GXS/400GX NAL.indication i SIGNAL.indica	S sublayer. For PHY s opposite to PCS. For tion is same as PCS.	, REJEC Statem	CT. ient is correct a	ns is.		
Or, add a new subclaus PMA service interface (interface.	se to define the PHY XS ser except the direction of IS_SI	vice interface the GNAL.indication	at is identical to the that the PMA service	C/ 120B Hidaka, Ya	SC 120B suo	P 329 Fujitsu Lab of J	L 1 America	# 258
Response ACCEPT IN PRINCIPL While it is recognised to somewhat different fror difference is requested	Response Status C .E. hat the SIGNAL.indication be m that of a PCS sublayer, su	ehavior of a PH` iitable text to de	YXS sublayer is scribe the precise	IS_SIG becaus missin It was	SNAL.indication they are physical g. also missing in	comment status R primitive is mandaory for chip- sical instantiations of the PMA CAUI-4, CAUI-10 and 25GAUI	-to-chip 200GA service interfa	ιUI-8 and 400GAUI-16, ce, but it is completely
C/ 118 SC 118.1.3	P 128	L 21	# 256	Suggested	Remedy			
Hidaka, Yasuo	Fujitsu Lab o	f America		Add a	specification of	IS_SIGNAL.indication.	DMA	
Comment Type T	Comment Status R		Bucket	lt may	refer to 120.5.8	S Link status for the detail.		
It is odd to call 200GAL	JI-n as physical instantiation	of the 200GAU	-n.	Response		Response Status U		
SuggestedRemedy Change "physical insta service interface".	ntiations of the 200GAUI-n"	with "physical in	stantiations of the PMA	REJEC The Al PMA:IS	CT. JI is a physical S_UNITDATA_i	instantiation of the IS_UNITDA indication primitives between	ATA_i.request a two adjacent P	and MA sublayers. There is
Response REJECT.	Response Status C			no spe this is Conse	cification for the communicated quently, it would	e physical instantiation of the is between the PMA sublayers is d be inappropriate to add this h	s_SIGNAL.Indi implementatio iere.	n dependent.
Statement is correct as	s is.							

C/ 120C	SC	120C		P 336	L 1	# 259	C/ 120E	SC 120E	P	358	<i>L</i> 1	# 261
Hidaka, Yas	suo			Fujitsu Lab o	of America		Hidaka, Ya	suo	Fujits	su Lab of <i>i</i>	America	
Comment Ty	ype	TR	Commen	nt Status R			Comment T	Type TR	Comment Status	R		
IS_SIGN 16, beca complete	NAL.ir ause t tely mi	idication p hey are ph ssing.	primitive is n hysical insta	nandaory for ch antiations of the	ip-to-module 20 PMA service int	0GAUI-8 and 400GAUI- terface, but it is	IS_SIG 8, beca comple	NAL.indica use they a tely missing	tion primitive is mandaor re physical instantiations g.	y for chip- of the PM	to-module 20 A service inte	0GAUI-4 and 400GAUI- erface, but it is
It was al	lso mi	ssing in C	CAUI-4, CAU	JI-10, and 25GA	AUI.		It was a	also missing	g in CAUI-4, CAUI-10, ar	nd 25GAU	l.	
SuggestedR	Remea	ly					Suggested	Remedy				
Add a sp It is a un It may re	pecific ni-dire efer to	ation of IS ctional sig 120.5.8 L	S_SIGNAL.i gnal from lov Link status f	indication. wer PMA to upp for the detail.	er PMA.		Add a s It is a u It may	specification ni-direction refer to 120	n of IS_SIGNAL.indicatio al signal from lower PMA 0.5.8 Link status for the d	n. A to upper etail.	PMA.	
Response			Response	e Status U			Response		Response Status	U		
REJECT The AUI PMA:IS_ no speci this is co Consequ	T. I is a p _UNIT :ificatio ommu uently	bhysical in DATA_i.ir on for the p nicated be , it would b	nstantiation of ndication pr physical ins etween the be inapprop	of the IS_UNITI imitives betwee tantiation of the PMA sublayers riate to add this	DATA_i.request n two adjacent F IS_SIGNAL.inc is implementations here.	and PMA sublayers. There is lication primitive. How on dependent.	REJEC The AL PMA:IS no spe this is o Consec See als	T. II is a physi S_UNITDAT cification fo communica quently, it w co commen	ical instantiation of the IS [A_i.indication primitives r the physical instantiation ted between the PMA sur- yould be inappropriate to t #260	5_UNITDA between t on of the IS blayers is add this h	TA_i.request wo adjacent S_SIGNAL.ind implementati ere	and PMA sublayers. There is dication primitive. How ion specific.
C/ 120D	SC	120D		P 344		# 260	C/ 118	SC 118	2.1 P ²	128	/ 45	# 262
HIDaka, Yas	suo		-	Fujitsu Lab c	or America		Hidaka, Ya	suo	Fujits	su Lab of <i>i</i>	America	
Comment Ty	ype	TR	Commen	t Status R			Comment		, Comment Status	Δ		Bucket
because missing.	NAL.In e they	are physic	cal instantia	nandaory for ch itions of the PM	A service interfa	ace, but it is completely	118.3 i FEC_d	s referred for egraded_S	or FEC_degraded_SER_ ER_enable in 118.3.	enable, bu	ut there is no	description of
lt was al	lso mi	ssina in C	AUI-4. CAU	JI-10. and 25GA	AUI.		Suggested	Remedy				
SugaestedR	Remed	lv	,				Change	e "see 118.	3" with "see 118.4".			
Add a sp It is a un It may re	pecific ni-dire efer to	ation of IS ctional sig 120.5.8 L	S_SIGNAL.i anal from lov Link status f	indication. wer PMA to upp or the detail.	er PMA.		Response ACCEF	PT.	Response Status	С		
Response			Response	e Status U			C/ 118	SC 118.	2.2 P1	129	L 5	# 263
REJECT	Т.						Hidaka, Ya	suo	Fujits	su Lab of <i>I</i>	America	
The AUI is a physical instantiation of the IS_UNITDATA_i.request and PMA:IS_UNITDATA_i.indication primitives between two adjacent PMA sublayers. There is no specification for the physical instantiation of the IS_SIGNAL.indication primitive. How this is computed between the DMA sublayers is isolared advected.						and PMA sublayers. There is lication primitive. How on dependent.	Comment Type E Comment Status A Bucket 118.3 is referred for FEC_degraded_SER_enable, but there is no description of FEC degraded SER enable in 118.3. Bucket					
Consequences See also	uently o com	, it would I ment #267	be inapprop 1	priate to add this	s here.		Suggested Change	Re <i>medy</i> e "see 118.:	3" with "see 118.4".			
							Response ACCEF	νT.	Response Status	С		
TYPE: TR/te	echnic STAT	al required US: D/dis	d ER/editor	rial required GR accepted R/rej	R/general require	ed T/technical E/editorial G/g DNSE STATUS: O/open W/w	general ritten C/closed	U/unsatisf	ied Z/withdrawn	Commei	nt ID 263	Page 63 of 125 29/09/2016 16:39:5

SORT ORDER: Comment ID

C/ 118 SC 118.2.2 Hidaka, Yasuo	P 129 Fujitsu Lab ol	L 34 America	# 264	<i>Cl</i> 118 SC 118.2 . Hidaka, Yasuo	2 P 12 Fujitsu	29 <i>L</i> 44 J Lab of America	# 266
Comment Type E declared	Comment Status A		Bucket	Comment Type E its	Comment Status	Α	
SuggestedRemedy asserted				SuggestedRemedy it is			
Response ACCEPT.	Response Status C			Response ACCEPT IN PRINC Change:	Response Status IPLE.	с	
C/ 118 SC 118.2.2 Hidaka, Yasuo	P 129 Fujitsu Lab of	L 39 America	# 265	Boolean variable the FEC remote degrad To:	at is asserted true when t led active (its equivalent	the adjacent PCS sub to the rx_rm_degraded	layer indicates it has d variable is asserted).
Comment Type E its	Comment Status A			Boolean variable the FEC remote degrad rx rm degraded va	at is asserted true when t led active. This indicates riable asserted.	the adjacent PCS sub the adjacent PCS has	layer indicates it has s its equivalent to the
SuggestedRemedy it is				<i>Cl</i> 118 SC 118.2. Hidaka, Yasuo	2 P13 Fujitsu	30 <i>L</i> 26 J Lab of America	# 267
ACCEPT IN PRINCIPL Change: Boolean variable that is FEC local degraded act or its equivalent to the r	Response Status C E. asserted true when the adjative (its equivalent to the FEC rx_local_degraded variable is	acent PCS subla C_degraded_SI s asserted).	ayer indicates it has ER variable is asserted	Comment Type T It seems that "PHY SuggestedRemedy Change "PHY XS" v	Comment Status XS" should be "DTE XS" with "DTE XS".	A '.	
To: Boolean variable that is FEC local degraded act FEC_degraded_SER o	asserted true when the adja tive. This indicates the adjac r rx_local_degraded variable	acent PCS subla ent PCS has its asserted.	ayer indicates it has equivalent to the	Response ACCEPT IN PRINC Change: This variable is use PHY XS To: This variable is use	Response Status IPLE. d to inform the adjacent f	C PCS sublayer of the F PCS sublayer of the re	EC degrade state of the

C/ 118 SC 118	.4 <i>P</i> 130	L 40	# 268	C/ 118	SC 118.4	P 132	L 49	# 271
Hidaka, Yasuo	Fujitsu Lab of	America		Hidaka, Ya	asuo	Fujitsu Lab o	f America	
Comment Type E "MDIO" is used tw	Comment Status A		Bucket	Comment No pre	<i>Type</i> E efix of "PHY X	Comment Status R S". Inconsistent from other rows	S.	Bucket
SuggestedRemedy Change "MDIO P status bits". Response	HY XS and DTE XS MDIO status b Response Status C	its" with "MDIC	D PHY XS and DTE XS	Suggested Chang FEC o Response	IRemedy ge "FEC corre corrected code	cted codewords" in the column ewords. Response Status C	of MDIO status	variable with "PHY XS
ACCEPT. 	.4 <i>P</i> 132	L7	# 269	The M	UI.	name is "FEC corrected codewo	ords". See Table	ə 45-171j
Hidaka, Yasuo Comment Type E Table 118-1 has a	Fujitsu Lab of <i>Comment Status</i> A a column of "PCS register name", a	America although this is	Bucket a table for PHY XS.	C/ 118 Hidaka, Ya	SC 118.4 asuo	P 132 Fujitsu Lab o Comment Status P	L 51 f America	# 272 Bucket
SuggestedRemedy Change "PCS reg name".	jister name" in the header row of T	able 118-1 with	n "PHY XS register	No pre Suggested	Fype L efix of "PHY X IRemedy	S". Inconsistent from other rows	3.	
Response	Response Status C			Chang XS FE	C uncorrecte	rrected codewords" in the colum d codewords.	in of MDIO statu	us variable with "PHY
ACCEPT.				Response		Response Status C		
C/ 118 SC 118 Hidaka, Yasuo	.4 P 132 Fujitsu Lab of	L 35 America	# 270	REJE The M	CT. IDIO variable	name is "FEC uncorrected code	ewords". See Ta	ble 45-171k
Comment Type E Table 118-2 has a	Comment Status A a column of "PCS register name", a	although this is	Bucket a table for PHY XS.	C/ 118 Hidaka, Ya	SC 118.4 asuo	Р 133 Fujitsu Lab o	L 4 f America	# 273
SuggestedRemedy Change "PCS reg name".	jister name" in the header row of T	able 118-2 with	n "PHY XS register	<i>Comment</i> Table	<i>Type</i> E 118-2 has a c	Comment Status A column of "PCS register name",	although this is	Bucket a table for PHY XS.
Response ACCEPT.	Response Status C			Suggested Chang name	<i>lRemedy</i> ge "PCS regis '.	ter name" in the header row of T	Гаble 118-2 with	n "PHY XS register
				Response ACCE	PT IN PRINC	Response Status C IPLE.		

Duplicate of comment #270 since a single heading row is repeated on the next page.

C/ 118 SC 118.4	P 133 L 24	# 274	C/ 118 SC 118.4	P 134	L 20	# 277
Hidaka, Yasuo	Fujitsu Lab of America		Hidaka, Yasuo	Fujitsu Lab of	America	
Comment Type E Table 118-3 has a d	Comment Status A column of "PCS register name", although th	<i>Bucket</i> is is a table for DTE XS.	Comment Type E No prefix of "DTE X	Comment Status R S". Inconsistent from other rows		Bucket
SuggestedRemedy Change "PCS regis name".	ter name" in the header row of Table 118-3	with "DTE XS register	SuggestedRemedy Change "FEC uncor XS FEC uncorrected	rected codewords" in the colum d codewords.	n of MDIO statu	is variable with "DTE
Response ACCEPT.	Response Status C		Response REJECT.	Response Status C		
C/ 118 SC 118.4	P134 L4	# 275	The MDIO variable	name is "FEC uncorrected code	words". See Ta	ble 45-182k
Hidaka, Yasuo Comment Type E Table 118-4 has a d	Fujitsu Lab of America Comment Status A column of "PCS register name", although th	Bucket	<i>Cl</i> 118 SC 118.5 . Hidaka, Yasuo	3 P 136 Fujitsu Lab of	L 6 America	# 278
SuggestedRemedy Change "PCS regis name".	ter name" in the header row of Table 118-4	with "DTE XS register	A reference to 118.1 SuggestedRemedy	may be helpful for item "CCE2	00".	Bucket
Response ACCEPT.	Response Status C		Change the subclau Response ACCEPT IN PRINC	se column for CCE200 from "11 <i>Response Status</i> C IPLE.	17, 119.1.4.1" to	"117, 118.1, 119.1.4.1".
C/ 118 SC 118.4 Hidaka, Yasuo	P 134 L 18 Fujitsu Lab of America	# 276	See response to co	nment #282		
Comment Type E No prefix of "DTE X	Comment Status R S". Inconsistent from other rows.	Bucket	<i>Cl</i> 118 SC 118.5. Hidaka, Yasuo	3 P 136 Fujitsu Lab of	L 8 America	# 279
SuggestedRemedy Change "FEC corre FEC corrected code	ected codewords" in the column of MDIO sta	tus variable with "DTE XS	Comment Type T A reference to 118.1 SuggestedRemedy	Comment Status A may be helpful for item "CDE4	00".	Bucket
Response	Response Status C		Change the subclau	se column for CCE200 from "11	17, 119.1.4.1" to	[,] "117, 118.1, 119.1.4.1".
REJECT. The MDIO variable	name is "FEC corrected codewords". See T	⁻ able 45-182j	Response ACCEPT IN PRINC	Response Status C IPLE.		

See response to comment #282

C/ 118 SC 118.5.3 P 136 # 280 C/ 118 SC 118.5.3 P136 # 282 L 11 L6 Fujitsu Lab of America Hidaka, Yasuo Fujitsu Lab of America Hidaka, Yasuo Comment Type т Comment Status A Bucket Comment Type Е Comment Status A Bucket A reference to 119.1.1 may be inappropriate for item "200GXS". The item name "CCE200" is inconsistent with PICS in other clauses. SuggestedRemedy The following item names are used for GMII support in other clauses: Change the subclause column for 200GXS from "119.1.1" to "118.1". XGE XGMII is supported (Clause 48) XGE XGMII is supported (Clause 49) Response Response Status C XGE XGMII is supported (Clause 55) ACCEPT. XGE40 XLGMII is supported (Clause 82) XGE100 CGMII is supported (Clause 82) SC 118.5.3 P136 25GE 25GMII is supported (Clause 107) C/ 118 / 13 # 281 Hidaka, Yasuo Fujitsu Lab of America SugaestedRemedv Change the item column for CCE200 from "CCE200" to "200GE". Comment Type Т Comment Status A Bucket A reference to 119.1.1 may be inappropriate for item "400GXS". Response Response Status C ACCEPT IN PRINCIPLE. SuggestedRemedy Change the subclause column for 400GXS from "119.1.1" to "118.1". Replace CCE200 and CDE400 with: Response Response Status C MII Feature: 200GMII or 400GMII logical interface ACCEPT. Subclause: 117, 118.1 Value: Logical interface is supported Status: O Support: Yes [] No [] C/ 118 SC 118.5.3 P136 L 8 # 283 Hidaka, Yasuo Fujitsu Lab of America Comment Type Comment Status A Ε Bucket The item name "CDE400" is inconsistent with PICS in other clauses. The following item names are used for GMII support in other clauses: XGE XGMII is supported (Clause 48) XGE XGMII is supported (Clause 49) XGE XGMII is supported (Clause 55) XGE40 XLGMII is supported (Clause 82) XGE100 CGMII is supported (Clause 82) 25GE 25GMII is supported (Clause 107) SugaestedRemedv Change the item column for CDE400 from "CDE400" to "400GE". Response Response Status C ACCEPT IN PRINCIPLE. See response to comment #282 TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general Comment ID 283 Page 67 of 125 COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn 29/09/2016 16:40:00 SORT ORDER: Comment ID

IEEE P802.3bs D2.0 200 Gb/s & 400 Gb/s Ethernet Initial Working Group ballot comments

C/ 118 SC 118.5.3 Hidaka, Yasuo	P 136 Fujitsu Lab of	L 14 America	# 284	C/ 118 SC 118.5.3 Hidaka, Yasuo	P 136 L 2 Fujitsu Lab of America	2 6 # <u>286</u>			
Comment Type E We need items to dist	<i>Comment Status</i> A inguish distinctive feature of P	HY XS and DTE XS.	Bucket	Comment Type E JTM is mandatory.	Comment Status A	Bucket			
SuggestedRemedy Insert the following two	o items after 400GXS:			SuggestedRemedy Remove "No []" from th	ne support column for JTM.				
Item: *PHYXS Feature: PHY 200GXS Subclause: 118 1	S or PHY 400GXS			Response ACCEPT.	Response Status C				
Value/Comment: (blar Status: O/2 Support: Yes [] No []	ık)			C/ 118 SC 118.5.4.2 Hidaka, Yasuo	2 P 137 L 2 Fujitsu Lab of America	20 # <u>287</u>			
Item: *DTEXS Feature: DTE 200GXS Subclause: 118.1 Value/Comment: (blar Status: O/2 Support: Yes [] No []	Item: *DTEXS Feature: DTE 200GXS or DTE 400GXS Subclause: 118.1 Value/Comment: (blank) Status: O/2 Support: Yes [] No []				Comment Type E Comment Status A Item RF5 depends on the option item BI. SuggestedRemedy Add "N/A []" to the support column for RF5. Response Response Status C				
Response ACCEPT.	Response Status C			ACCEPT. 	2 P 137 L 2	25 # 288			
Cl 118 SC 118.5.3 Hidaka, Yasuo	P 136 Fujitsu Lab of	L 25 America	# 285	Hidaka, Yasuo <i>Comment Type</i> E	Fujitsu Lab of America Comment Status A	a Bucket			
Comment Type T Reference to 118.5.5	Comment Status A for JTM is inappropriate, beca	use 118.5.5 is a PIC	<i>Bucket</i> S clause.	Item RF5 depends on SuggestedRemedy Change "No []" with "N	the option item BI. /A []" in the support column for RF6.				
Change the subclause Response	e column for JTM from "118.5. <i>Response Status</i> C	5" to "119.2.1, 119.2	.4.9".	Response ACCEPT IN PRINCIPI					
ACCEPT.	-			Refering to RF6, make	e the proposed change.				

C/ 118 SC 118.5.4.3 Hidaka, Yasuo	3 P 138 Fujitsu Laboo	L 7 f America	# 289	C/ 118 Hidaka, Ya	SC 118.5.4.3	P 138 Fujitsu La	L 27 ab of America	# 292
Comment Type E Choice of "No []" is giv	Comment Status A	Bucket	Comment Refere 119.2.	<i>Type</i> T ence to 119.2.3.8 3.8.	Comment Status R for C9 is not helpful, bec	cause there is no n	Bucket	
Remove "No []" from the	he support column for C1 thro		SuggestedRemedy Change the subclause column for C9 from "119.2.3.8" to "119.2.3.8, 82.2.3.9".					
ACCEPT.		Response REJE	ст.	Response Status C				
C/ 118 SC 118.5.4.3 Hidaka, Yasuo Comment Type T	B P 138 Fujitsu Lab o Comment Status R	L 22 f America	# 290 Bucket	The re togeth draft.	ference is to the er with any exce	local subclause which al ptions that are there now	lready contains a r or may be added	eference to 82.2.3.9 in later versions of the
Reference to 119.2.3.5 119.2.3.5.	5 for C7 is not helpful, becaus	se there is no r	nuch detail description in	C/ 118 Hidaka, Ya	SC 118.5.4.3	P 138 Fujitsu La	L 37 ab of America	# 293
SuggestedRemedy Change the subclause Response REJECT.	column for C7 from "119.2.3 <i>Response Status</i> C	5" to "119.2.3	.5, 82.2.3.6".	Comment Type E Comment Status A Buck Choice of "No []" is given for mandatory items S1 and S2. SuggestedRemedy Buck Remove "No []" from the support column for S1 and S2. SuggestedRemedy				
The reference is to the together with any exce draft.	e local subclause which alread options that are there now or r	dy contains a r may be added	eference to 82.2.3.6 in later versions of the	Response ACCE	PT.	Response Status C		
C/ 118 SC 118.5.4. Hidaka, Yasuo	B P 138 Fujitsu Lab o	L 24 f America	# 291	<i>Cl</i> 118 Hidaka, Ya	SC 118.5.4.5 asuo	5 P 139 Fujitsu La	L 7 ab of America	# 294
Comment Type T Reference to 119.2.3.5	Comment Status R 5 for C8 is not helpful, becaus	se there is no r	<i>Bucket</i> nuch detail description in	Comment Choice	<i>Type</i> E e of "No []" is give	Comment Status A en for mandatory items A	M1 and AM2.	Bucket
SuggestedRemedy				Suggested Remo	<i>IRemedy</i> ve "No []" from th	ne support column for AN	11 and AM2.	
Change the subclause Response REJECT.	column for C8 from "119.2.3 Response Status C	5.5" to "119.2.3	.5, 82.2.3.6".	Response Response Status C ACCEPT.				
The reference is to the together with any exce draft.	e local subclause which alreat options that are there now or r	dy contains a r may be added	eference to 82.2.3.6 in later versions of the					

C/ 118	SC 118.5.4.5	<i>P</i> 139	L 12	# 295	C/ 118 SC 11	18.5.6	P139	L 44	# 298
Comment	asuo <i>Tvpe</i> E	Fujitsu Lab of Comment Status A	America	Bucket	Hidaka, Yasuo	т	Comment Status A	America	Bucket
Item A	M3 depends on t	he option item MD.			Mapping of MD	IO register	bits are mandatory.		
Suggestee Chang	dRemedy ge "No []" with "N//	A []" in the support column f	or AM3.		SuggestedRemedy Insert the follow	ving items a	after M1:		
Response ACCE	PT.	Response Status C			Item: M2 Feature: Mappir 400GXS	ng of MDIC	D control bits and MDIO sta	atus bits for PH	Y 200GXS or PHY
<i>Cl</i> 118 Hidaka, Ya	SC 118.5.4.5 asuo	P 139 Fujitsu Lab of	L 13 America	# 296	Sub clause: 118 Value/Commen Status: MD*PH	8.4 nt: Table 11 YXS:M	8-1 and Table 118-2		
<i>Comment</i> Alignr	<i>Type</i> T nent marker shall	Comment Status A be removed prior to descrar	nbling (119.2.5	<i>Bucket</i> 5, P162, L46).	Support: Yes []				
Suggester Insert Item: Featu Subcl	<i>dRemedy</i> the following item AM4 re: Alignment mar ause: 119.2.5.5	after AM3: ker removal			Feature: Mappin 400GXS Sub clause: 118 Value/Commen Status: MD*DTI Support: Yes []	ng of MDIC 8.4 ht: Table 11 EXS:M	0 control bits and MDIO sta 8-3 and Table 118-4	atus bits for DT	E 200GXS or DTE
Value 119.2 Status Suppo	/Comment: Alignn 5.5 s: M ort: Yes []	nent markers are removed p	rior to descram	bling as described in	Response ACCEPT.	H	Response Status C		"
Response ACCE	PT.	Response Status C			C/ 118 SC 11 Hidaka, Yasuo	18.5.5.1	P 139 Fujitsu Lab of	L 32 America	# 299
<i>Cl</i> 118 Hidaka, Ya	SC 118.5.4.5	P 139 Fujitsu Lab of	L 21 America	# 297	Comment Type B1 is mandator SuggestedRemedy	E y.	Comment Status A		Bucket
Comment	Type E	Comment Status A		Bucket	Remove "No []"	' in the sup	port column for B1.		
JT1 is Suggestee Remo	mandatory. d <i>Remedy</i> ve "No []" and "N/	A []" in the support column f	or JT1.		Response ACCEPT.	F	Response Status C		
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: Comment ID

C/ 118	SC 118.5.6.1	P 140	L 7	# <u>3</u> 00	C/ 120 SC 120.	5.11.2.5	P 199	L 46	# 303	
Hidaka, Yas	suo	Fujitsu Lab of	f America		Hidaka, Yasuo		Fujitsu Lab o	f America		
Comment Type E Comment Status A Bucket SM1 is mandatory for 200GXS.					Comment TypeTComment StatusABuckI think bit sequence B is a 65534-bit sequence (not 65535-bit sequence), because it is formed by removing two bits from two repetation of bit sequence A that is a 32768-bit					
Change	remeay > "No []" in the s	upport column for SM1 with	"N/A []"		sequence.					
Response Response Status C					SuggestedRemedy Change "65535-bit" with "65534-bit".					
ACCEP	21.				Response	Respons	se Status C			
Cl 120	SC 120.5.11.	2.4 <i>P</i> 198	L 26	# 301	ACCEPT.					
Hidaka, Yas	suo	Fujitsu Lab of	f America		C/ 120 SC 120.	5.11.2.5	P 200	L 4	# 304	
Comment 7	Type TR	Comment Status R		Bucket	Hidaka, Yasuo		Fujitsu Lab o	f America		
increment for burst errors. It seems contradictory to the next sentence which says it should count at least one error whenever one or more errors occur in a sliding 1000-bit window. SuggestedRemedy Remove the phrase of "for isolated single bit errors" at the end of the sentence which begin with "The checker shall increment" in the second paragraph of 120.5.11.2.4.					Comment Type T Comment Status A Butter PAM4 sequence 4 must be a 16384-symbol sequence, not a 16364-symbol sequence. SuggestedRemedy Change "16364-symbol" with "16384-symbol". Response Response Status C					
REJEC See res	T. sponse to comm	ent #430								
<i>Cl</i> 120 Hidaka, Yas	SC 120.5.11. suo	2.5 P 199 Fujitsu Lab of	L 44 f America	# 302						
Comment 7 A refere	<i>Type</i> E ence to Figure 4	Comment Status A 9-7 is inappropriate, becaus	e Figure 49-7 is	<i>Bucket</i> 64B/66B block format.						
Suggested Change	Re <i>medy</i> e the reference t	o Figure 49-7 with a reference	ce to Figure 49-9	L.						
Response ACCEF	PT.	Response Status C								

C/ 120 SC 120.5.11.2.5 P 200 L 10 # 305 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of	C/ 120 SC 120.6 P 200 L 28 # 307 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of Americ											
Comment Type T Comment Status A The skew requirement between lanes should be defined but not defined for SSPRQ. It should be defined to avoid the aggressor of the crosstalk being synchronous to the lane under measurement.	Comment Type T Comment Status R ex_Bucket MMD addresses 11 is also available for PMA. SuggestedRemedy Example 10 minute 1											
SuggestedRemedy Define the requirement for the skew between lanes. Or, alternatively, separate the test control for SSPRQ from other test patterns and make it lane-by-lane in a similar way to Square wave testing control, which allows us to run	Response Response Status C REJECT. See comment #306.											
PRBS13Q of PRBS31Q of other lanes. Define the priority between square wave and SSPRQ. Response Response Status C ACCEPT IN PRINCIPLE.	C/ 120 SC 120.7.3 P 206 L 11 # 308 Hidaka, Yasuo Fujitsu Lab of America Comment Type T Comment Status A Bucket											
Change: If supported, when send SSPRQ test pattern is enabled by the SSPRQ_enable control variable, the PMA shall generate an SSPRQ pattern on each of its lanes in the Tx direction towards the PMD. To: If supported, when send SSPRQ test pattern is enabled by the SSPRQ_enable control variable, the PMA shall generate an SSPRQ pattern on each of its lanes in the Tx direction towards the PMD with at least a 31 UI delay between the SSPRQ pattern on one lane and any other lane.	SuggestedRemedy Change the feature column for LNS_UPSTRM from "Number of lanes in direction of PCS" to "Number of lanes in the PMA service interface". Response Response Status C ACCEPT IN PRINCIPLE. Change to "Number of lanes in the direction of MAC" to be consistent with the language of other resolved comments											
C/ 120 SC 120.6 P 200 L 21 # 306 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of Americ	C/ 120 SC 120.7.3 P 206 L 15 # [309] Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America<											
Comment Type T Comment Status R ex_Bucket MMD addresses 11 is also available for PMA. SuggestedRemedy ex_Bucket Change "MMD 8, 9, and 10" with "MMD 8, 9, 10, and 11". Response Response Status C REJECT. Extra to the prove th	Comment Type T Comment Status R Bucket The PMD is not necessarily the adjacent sublayer under the PMA. SuggestedRemedy Example Change the feature column for LNS_DNSTRM from "Number of lanes in direction of PMD" to "Number of lanes in the service interface below the PMA". Response Response Status C											
IEEE Std 802.3ba requires more PMA sublayers than P802.3bs: given the PPI, there is the possibility for the lowest PMA not to be co-packaged with the PMD, and there is the possibility of a separated FEC sublayer. The largest reasonable number of PMA sublayers for a P802.3bs implementation including the extender sublayer is four.	REJECT. It says "in the direction of", not "adjacent to". This is the same language used in clause 83											
C/ 120	SC 120.7.3	P 206	L 16	# 310	C/ 120	SC 120.7.3	P 206	L 20	# 312			
------------------------------------	---	---------------------------------------	------------------------	--------	--	--	--	-----------------------------------	----------------------------	--	--	--
Hidaka, Ya	asuo	Fujitsu Lab of	America		Hidaka, Ya	isuo	Fujitsu Lał	o of America				
Comment No sp	<i>Type</i> E ace between "4"	Comment Status A and "[]".		Bucket	Comment Capab	<i>Type</i> T ility/option items f	Comment Status A for NRZ or PAM4 in the F	PMA service interf	face is useful to simplify			
Suggested Insert	dRemedy a white space be	etween "4" and "[]".			the PICS. SuggestedRemedy							
Response ACCE	PT.	Response Status C			Insert : Item: L	the following item JP_NRZ	s after LNS_DNSTRM:					
<i>Cl</i> 120 Hidaka, Ya	SC 120.7.3 asuo	<i>Р</i> 206 Fujitsu Lab of	L 19 America	# 311	 Feature: Lane count supported in the PMA service interface above the PMA Subclause: 120.1.4 Value/Comment: 8 lanes for 200GBASE-R PMA or 16 lanes for 400GBASE-R PM Status: 0.2 Support: Yes [] No [] Item: UP_PAM4 							
Comment No sp	<i>Type</i> E ace between "4"	Comment Status A and "[]".		Bucket	Suppo Item: L	rt: Yes [] No [] JP PAM4						
Suggested Insert	<i>dRemedy</i> a white space be	etween "4" and "[]".			Item: UP_PAM4 Feature: Lane count supported in the PMA service interface above the PMA Subclause: 120.1.4 Value/Comment: 4 lanes for 200GBASE-R PMA or 8 lanes for 400GBASE-R							
Response ACCE	:PT.	Response Status C			Value/Comment: 4 lanes for 200GBASE-R PMA or 8 lanes for 400GBASE-R PMA Status: O.2 Support: Yes [] No []							
					Response ACCE		Response Status C					
					Chang	e Item "LNS_UPS	STRM" to "*LNS_UPSTR	.M"				
					Insert	the following item	s after LNS_UPSTRM:					
					Item: * Featur Subcla Status Suppo	UP_NRZ e: NRZ modulatic ause: 120.1.4 : (PMA200*LNS_ rt: Yes [] N/A []	on for PMA service interfa	ace 'LNS_UPSTRM=1	I6):M			
					Item: * Featur Subcla Status Suppo	UP_PAM4 e: PAM4 modulat ause: 120.1.4 : (PMA200*LNS_ rt: Yes [] N/A []	ion for PMA service inter UPSTRM=4 or PMA400*	face [:] LNS_UPSTRM=8	3):M			

C/ 120 SC 120.7.3 P 206 L 20 # 313	C/ 120 SC 120.7.3 P 206 L 22 # 314 Hidaka Yasuo Fuiitsu Lab of America	
Comment Type T Comment Status A Capability/option items for NRZ or PAM4 in the service interface below the PMA is useful to simplify the PICS	Comment Type E Comment Status A RX_CLOCK is mandatory.	Bucket
SuggestedRemedy Insert the following items after LNS_DNSTRM: Item: DN_NRZ Eesture: Lane count supported in the service interface below the PMA	SuggestedRemedy Remove "No []" in the support column for RX_CLOCK. Response Response Status C ACCEPT.	
Subclause: 120.1.4 Value/Comment: 8 lanes for 200GBASE-R PMA or 16 lanes for 400GBASE-R PMA Status: 0.3	C/ 120 SC 120.7.3 P 206 L 24 # 315 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of Amer	
Support: Yes [] No [] Item: DN_PAM4 Feature: Lane count supported in the service interface below the PMA Subclause: 120.1.4 Value/Comment: 4 lanes for 200GBASE-R PMA or 4 or 8 lanes for 400GBASE-R PMA Status: O.3 Support: Yes [] No []	Comment Type E Comment Status A TX_CLOCK is mandatory only if either PMA200 or PMA400 is supported. SuggestedRemedy Change "No []" with "N/A []" in the support column for TX_CLOCK (two locations). Response Response Status C ACCEPT.	Bucket
Response Response Status C ACCEPT IN PRINCIPLE.	C/ 120 SC 120.7.3 P 206 L 30 # 316	
Change Item "LNS_DNSTRM" to "*LNS_DNSTRM"	Hidaka, Yasuo Fujitsu Lab of America Comment Type E Comment Status A	Bucket
Item: *DN_NRZ Feature: NRZ modulation used for service interface below the PMA Subclause: 120.1.4 Status: (PMA200*LNS_DNSTRM=8 or PMA400*LNS_DNSTRM=16):M Support: Yes [] N/A []	SuggestedRemedy Remove "No []" in the support column for LANE_MAPPING. Response Response Status C ACCEPT.	
Item: *DN_PAM4 Feature: PAM4 modulation used for service interface below the PMA	C/ 120 SC 120.7.3 P 206 L 33 # 317 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of Amer	
Subclause: 120.1.4 Status: (PMA200*LNS_DNSTRM=4 or PMA400*LNS_DNSTRM<16):M Support: Yes [] N/A []	Comment Type E Comment Status A LNKS is mandatory	Bucket
	SuggestedRemedy Remove "No []" in the support column for LNKS.	
	Response Response Status C ACCEPT.	

C/ 120	SC 120.7.3	P 206	L 35	# <u>3</u> 18	C/ 120	SC 120.7.3		P 206	L 47	# 321
Hidaka, Ya	asuo	Fujitsu Lab of A	America		Hidaka, Ya	suo	I	Fujitsu Lab of	America	
Comment	Туре Т	Comment Status A			Comment	Туре Т	Comment St	tatus R		
Test pa service or the L33.	attern is an optional e interface below the PMD service interfa	feature if the PMA service PMA includes physically includes (whether or not physical)	interface above nstantiated 20 Ily instantiated	e the PMA or the 0GAUI-n, 400GAUI-n,). See 120.5.11, P194,	USP1S Suggested Replac	SP6 is not a proj <i>Remedy</i> e USP1SP6 wit	per condition for the following it	some conditi	onal mandatory	features.
Suggestea	Remedy				ltom: *	UD DINIST				
Chang Insert * Featur Subcla Value/ service Status Suppo	e the status column the following item be PINST e: The PMA service ause: 120.5.11 Comment: Include p e interface (whether : 0 rt: Yes II No II	h for JTP from "O" to "PINS efore JTP: e interface above the PMA of ohysically instantiated 2000 or not physically instantiated	T:O". or the service i GAUI-n, 400GA ed).	nterface below the PMA JUI-n, or the PMD	Featur Subcla Value// Status Suppo Item: * Featur Subcla	e: PMA service use: 120.5.1, 12 Comment: Phys O rt: Yes [] No [] USP1 e: PMA service use: 120.5.3.2 Comment: Phys	interface above 20.5.5 ically instantiate interface above	PMA d 200GAUI-n PMA d 200GAUI-n	or 400GAUI-n	that is closest to PMD
Response ACCE JTP er	FT IN PRINCIPLE.	Response Status C			(SP1 ir Status Suppo	Figure 116-4 a O rt: Yes [] No []	and 116-5)			
Cl 120 Hidaka, Ya Comment PMA la	SC 120.7.3 asuo <i>Type</i> E ocal loopback is not	P 206 Fujitsu Lab of / Comment Status A conditional option.	L 40 America	# 319 Bucket	Item: * Featur Subcla Value/ (SP6 ir Status Suppo	USP6 e: PMA service use: 120.5.3.5 Comment: Phys n Figure 116-4 a O rt: Yes [] No []	interface above sically instantiate and 116-5)	PMA d 200GAUI-n	or 400GAUI-n	that is closest to PCS
Remov	ve "N/A []" in the sur	oport column for I Bl			Response		Response St	atus C		
Response ACCE	PT.	Response Status C			REJEC This is	CT. arguably a "che	eat" with the ske	w budget requ	uirements, but it	is one that has been
<i>Cl</i> 120 Hidaka, Ya	SC 120.7.3 asuo	P 206 Fujitsu Lab of <i>I</i>	L 43 America	# 320	The ov	erall skew mode to multiple PM	el avoided a deta As in a stack. SF	ailed allocatio	n of smaller por irection was the	tions of the skew
Comment PMA r	Type E emote loopback is r	Comment Status A not conditional option.	Bucket	PMA, and SP6 in the Rx direction was the output from the highest PMA, and hence represented a kind of "worst case". If a PMA were the only PMA in the stack, these represent the skew requirements that single PMA must meet. If there are multiple PMA						
Remov	ve "N/A []" in the su	oport column for LBR.			each F PMA c	ase.	ieu on to contrib	ule less skew	and less skew	variation than the single
Response ACCE	PT.	Response Status C			Since t aggreg single	he PICs in gene ate skew behav PMA. So the sk	eral will be filled /ior of multiple P ew requirements	out for an ind MAs in a stac s are judged A	ividual PMA in a ck cannot be jud AS IF this were t	an individual device, the lged by examining the the only PMA in the
TYPE: TR/	technical required	ER/editorial required GR/g	eneral require	d T/technical E/editorial G/g	eneral			Comme	ent ID 321	Page 75 of 125

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: Comment ID

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stack, and if SP1 and SP6 v stack must be at least this g	vere actually adjacent to ood (in fact, some may	o the device. An need to be bett	d every PMA in the er).	<i>Cl</i> 120 Hidaka, Ya	SC 120.7.3 asuo		P 207 Fujitsu Lab of	L 5 f America	# 323
Unbundling the PICSs and on where SP1 and SP6 are act middle of the stack from any all PMAs must at least mee	only considering the SP ually adjacent would ha responsibility for meet the SP1 SP6 requirem	1 and SP6 required the effect of ing the skew required to the skew requ	irements in the case absolving PMAs in the quirements. But in fact vere the only PMA.	Comment SP1 a UNAL	<i>Type</i> T and SP6 are not II is mandatory	Comment S t only the cases t whenever the up	Status R to apply 200G oper interface i	AUI-n or 400GA is 200GAUI-n or	Bucke UI-n to UNAUI. 400GAUI-n.
C/ 120 SC 120.7.3 Hidaka, Yasuo	<i>Р</i> 206 Fujitsu Lab o	L 51 f America	# 322	Suggestee Chang	dRemedy ge the status co	olumn for UNAUI	from "USP1S	P6:M" to "UP_P	INST:M".
Comment Type T C DSP1SP6 is not a proper co	omment Status R andition for some condit	ional mandatory	r features.	<i>Response</i> REJE See c	CT. omment #321	Response S	tatus C		
SuggestedRemedy Replace DSP1SP6 with the	following items:			<i>Cl</i> 118 Hidaka, Ya	SC 118.5.6. asuo	.1	P 140 Fujitsu Lab of	L 10 f America	# 324
Item: *DN_PINST Feature: Service interface b Subclause: 120.5.3.1, 120.5	elow PMA .5		Comment SM2 i	<i>Type</i> E s mandatory for	Comment S r 400GXS.	Status A		Buck	
Value/Comment: Physically instantiated 200GAUI-n or 400GAUI-n Status: O Support: Yes [] No []				Suggested Chang	dRemedy ge "No []" in the	support column	for SM2 with	"N/A []".	
Item: *DSP1 Feature: Service interface b	elow PMA			Response ACCE	PT.	Response S	tatus C		
Subclause: 120.5.3.1 Value/Comment: Physically (SP1 in Figure 116-4 and 11	instantiated 200GAUI-r 6-5)	n or 400GAUI-n	that is closest to PMD	<i>Cl</i> 118 Hidaka, Ya	SC 118.5.6 . asuo	.1	P 140 Fujitsu Lab of	L 13 f America	# 325
Status: O Support: Yes [] No []				<i>Comment</i> The S	<i>Type</i> T LIP functions e	<i>Comment</i> S valuates all poss	Status A sible block "po	sitions" rather th	Buck an all possible "blocks"
Item: *DSP6 Feature: Service interface b Subclause: 120.5.3.6 Value/Comment: Physically	elow PMA instantiated 200GAUI-r	n or 400GAUI-n	that is closest to PCS	Suggestee Chang to "Th	dRemedy ge the feature c e SLIP function	olumn for SM3 f	rom "The SLIF ssible block p	P function evaluations".	ates all possible blocks"
(SP6 in Figure 116-4 and 1 Status: O Support: Yes [] No []	6-5)			Response ACCE	PT.	Response S	tatus C		
Response Re	sponse Status C								
REJECT. See comment #321									

C/ 118 SC 118.5.6.1	P 140	L 13	# 326	C/ 118 SC 118.5.6.	2 P140 L33	# 329
Hidaka, Yasuo	Fujitsu Lab of	America		Hidaka, Yasuo	Fujitsu Lab of America	
Comment Type E SM3 through SM6 are r	Comment Status A nandatory.		Bucket	Comment Type E L2 is mandatory.	Bucket	
SuggestedRemedy Remove "No []" in the s	upport column for SM3 throu	ugh SM6.		SuggestedRemedy Remove "No []" in the	support column for L2.	
Response ACCEPT.	Response Status C			Response ACCEPT.	Response Status C	
C/ 118 SC 118.5.6.2 Hidaka, Yasuo	P 140 Fujitsu Lab of	L 34 America	# 327	<i>Cl</i> 118 SC 118.5.6 . Hidaka, Yasuo	3 P 140 L 43 Fujitsu Lab of America	# 330
Comment Type T When the 200GXS or 4 PMA sublayer. SuggestedRemedy Insert the following item Item: L3 Feature: When in loopb Subclause: 119.4 Status: M	Comment Status A 00GXS is in loopback, it sha n after L2: pack, ignore all data presente	Il ignore all data	Bucket a presented to it by the ublayer.	Comment Type E TIM1 is conditional m SuggestedRemedy Change "No []" with "I Response ACCEPT. C/ 118 SC 118.5.6. Hidaka, Yasuo	Comment Status A andatory only if 200GXS is supported. V/A []" in the support column for TIM1. Response Status C 3 P140 L 46 Fujitsu Lab of America	Bucket # 331
ACCEPT.	Response Status C			Comment Type E TIM2 is conditional m	Comment Status A andatory only if 400GXS is supported.	Bucket
C/ 118 SC 118.5.6.2 Hidaka, Yasuo	P 140 Fujitsu Lab of	L 29 America	# 328	SuggestedRemedy Change "No []" with "I	V/A []" in the support column for TIM2.	
Comment Type E L1 is mandatory.	Comment Status A		Bucket	ACCEPT.	Response Status C	
SuggestedRemedy Remove "No []" and "N/	/A [] in the support column fo	or L1.				

Response

ACCEPT.

Response Status C

C/ 119 SC 119.1.4 P 141 L 54 # 332	C/ 119 SC 119.2.3.7 P 146 L 27 # 334	
Hidaka, Yasuo Fujitsu Lab of America	Hidaka, Yasuo Fujitsu Lab of America	
Comment Type T Comment Status R Bucket Since a transfer on a PCS lane is always done by 1 bit per transfer, Gb/s is more easy to understand Gtransfer/s	Comment Type T Comment Status R There is a reference to 82.2.3.8 which may need a maintenance. In the second sentence of 82.2.3.8, it is written as the /T/ can occur on any octet of	<i>Bucket</i>
SuggestedRemedy Change "26.5625 Gtransfer/s on each of 8 PCS lanes" with "26.5625 Gb/s on each of 8 PCS lanes" at L54 on P141. Also change "26.5625 Gtransfer/s on each of 16 PCS lanes" with "26.5625 Gb/s on each of 16 PCS lanes" at L30 on P142.	XLGMII/CGMII and "within" any character of the block. This sentence is inappropriat because it implicates that the /T/ can occur on "any bit" of the block, although the pa must be always an integer multiple of octets. It is recommended to avoid a reference to 82.2.3.8. The following clauses have the same problem:	ie, icket
Response Response Status C REJECT. This terminology is consistent with previous speeds	49.2.4.9 55.3.2.2.12 82.2.3.8 113.3.2.2.12 (802.3bq)	
	SuggestedRemedy	
C/ 119 SC 119.1.4.1 P 142 L 39 # 333 Hidaka, Yasuo Fujitsu Lab of America Fujits	Copy the paragraph of 82.2.3.8 here. Remove "within" in front of "any character". Change "XI GMII/CGMII" with "200GMII/400GMII"	
Comment Type T Comment Status R The PCS client is not the Reconciliation Sublayer, if there is an optional 200GMII Extender or 400GMII Extender. Comment Status R	Response Response Status C REJECT.	
SuggestedRemedy Change "The PCS client is the Reconciliation Sublayer." with the following:	It is correct as is. It says within any character of the block, not at any bit of any chara the block.	acter of
If there is no optional 200GMII Extender or 400GMII Extender, the PCS client is the Reconciliation Sublayer. If there is an optional 200GMII Extender, the PCS client is a PHY 200GXS Sublayer. If there is an optional 400GMII Extender, the PCS client is a PHY 400GXS Sublayer.	Cl 119 SC 119.2.4.1 P 146 L 52 # <u>335</u> Hidaka, Yasuo Fujitsu Lab of America Comment Type E Comment Status A	Bucket
Response Response Status C	A reference for the transmit state diagram is missing.	
REJECT.	SuggestedRemedy Insert "shown in Figure 119-14" after "the transmit state diagram".	
Correct as is. The PCS defined in clause 119 would not be the PCS adjacent to the XS. That would be a new future PCS.	Response Response Status C	

ACCEPT.

<i>Cl</i> 119 SC 119.2.4.2 Hidaka, Yasuo	Р 147 Fujitsu Lab of	L 28 America	# 336	C/ 119 SC Hidaka, Yasuo	C 119.2.4.:	3	P 149 Fujitsu Lab o	L 4 of America	# 338
Comment Type E "from" does not make s	Comment Status D ense.		ex_Bucket	Comment Type The scramb this clause s	T ller in 49.2 scrambles	Comment S .6 scrambles or the whole 257-	Status A nly the payloa bit block, not b	d of the block, v only the payloa	whereas the scrambler in d.
91.5.2.5 has the same SuggestedRemedy Change "from" with "for	problem. m".			SuggestedReme Replace the	edy second se	entence in 119.	2.4.3 as follov	ws:	
Proposed Response	Response Status Z			l he scramb bit block is s	scrambled	instead of the scra	mbler used in payload. See	Clause 49 exc 49.2.6 for the d	epting that the whole 257- efinition of the scrambler.
REJECT.				Response		Response S	Status C		
This comment was WIT	HDRAWN by the commenter	er.		ACCEPT IN	I PRINCIP	LE.			
Correct as is. With the structure to the follow	subordinate clause omitted, ving expressions."	this is "Omit tx_	_coded_c<9:6> from	Replace the "The scraml definition of	e second so bler polync the polync	entence in 119. omial is identica omial."	2.4.3 with: Il to that in Cla	ause 49, see Eo	quation (49-1) for the
C/ 119 SC 119.2.4.3	P 149	L 3	# 337						
Hidaka, Yasuo	Fujitsu Lab of	America							
Comment Type T It is not good to call tx_: and the actual "payload	Comment Status A <pre>kcoded<256:0> as "payload" " is tx_xcoded<256:1>.</pre>	', because tx_x	<i>Bucket</i> coded<0> is a tag bit						
SuggestedRemedy Change "payload" with	"transcoded 257-bit block".								
Response ACCEPT.	Response Status C								

C/ 119 SC 119.2.4.4 P 149 L 9 # 339	C/ 119 S	C 119.2.4.4	P 149	L 39	# 340		
Hidaka, Yasuo Fujitsu Lab of America	Hidaka, Yasuo		Fujitsu Lab o	f America			
Comment Type TR Comment Status A The first paragraph of 119.2.4.4 is not well written. It is hard to follow, because a reference to 91.5.2.6 is useless (it is so different) and there is unnecessarily detail from the third sentence.	Comment Type The first 48 between P SuggestedRen	T Co 3 bits are not identi CS lanes.	mment Status A cal, because the first o	48 bits include Ul	<i>Bucket</i> P0 that is different		
SuggestedRemedy	Change "th	ne first 48 bits" with	"CM0 through CM5".				
Remove the two sentences "In order . 91.5.2.6", and insert a new paragraph at the beginning of 119.2.4.4 which is a modified version of the first paragraph of 91.5.2.6. Avoid a reference to 91.5.2.6. The following is an example:	Response ACCEPT.	Res	ponse Status C				
In order to support deskew and reordering of the individual PCS lanes at the receive PCS, alignment markers corresponding to PCS lanes are periodically inserted after being processed by the alignment marker mapping function.	C/ 119 S Hidaka, Yasuo	C 119.2.4.4	<i>Р</i> 149 Fujitsu Lab o	L 41 f America	# 341		
The alignment marker mapping function compensates for the operation of the symbol distribution function defined in 119.2.4.7 and rearranges the alignment marker bits so that they appear on the FEC lanes intact and in the desired sequence. This preserves the properties of the alignment markers (e.g. DC balance, transition density) and provides a deterministic pattern for the purpose of synchronization. The RS-FEC receive function uses knowledge of this mapping to determine the FEC lane that is received on a given lane of the PMA service interface, to compensate for skew between FEC lanes, and to identify RS-FEC codewoard boundaries.	Comment Type When this context of lower subla SuggestedRen Change "a	e T Co clause is reference PHY XS, because ayer that provides t nedy t the PMA service	mment Status A ed from XS, this is not PMA is the upper sub he service.	the PMA service layer that receive rvice interface be	interface in the s the service, not the tween PMA and PCS".		
ACCEPT IN PRINCIPLE. Change: In order to support deskew and reordering of the individual PCS lanes at the receive PCS, alignment markers are added periodically for each PCS lane. The alignment marker for each PCS lane is composed of a fixed 96-bit block interleaved with fixed 24-pad bits to achieve alignment marker field positioning identical to that defined in 91.5.2.6. To:	ACCEPT IN PRINCIPLE. Change: The format shown in Table 119-1 defines how the alignment markers appear on the PCS lanes at the PMA service interface. To: The format shown in Table 119-1 defines how the alignment markers appear on a given PCS lane.						
In order to support deskew and reordering of the individual PCS lanes at the receive PCS, alignment markers corresponding to PCS lanes are periodically inserted after being	<i>Cl</i> 119 S Hidaka, Yasuo	C 119.2.4.4.1	Р 150 Fujitsu Lab o	<i>L</i> 31 f America	# 342		
The alignment marker mapping function compensates for the operation of the symbol distribution function and rearranges the alignment marker bits so that they appear on the PCS lanes intact and in the desired sequence. This preserves the properties of the alignment markers (e.g. DC balance, transition density) and provides a deterministic pattern for the purpose of synchronization.	Comment Type T Comment Status A But It is not clear where am_mapped<1027:0> is inserted to. SuggestedRemedy						
Then continue with the current 3rd sentence, but in a new paragraph.	Response ACCEPT I Change: shall be ins to: shall be ins	Res N PRINCIPLE. serted so it appear serted so it appear	ponse Status C s every s in the output stream	every			
TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial	Shall be ins	serted so it appear	s in the output stream	every ent ID 342	Page 80 of 12		

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: Comment ID

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C/ 119 Hidaka, Ya	SC 119.2.4.4.2	2 P 151 Fujitsu Lab	L 33 o of America	# 343	C/ 119 Hidaka, Ya	SC 119 Isuo	.2.4.5	<i>Р</i> 155 Fujitsu Lab	L 32 of America	# 346
<i>Comment</i> It is no	<i>Type</i> T ot clear where am_	Comment Status A _mapped<1027:0> is inse	erted to.	Bucket	<i>Comment</i> Distrib	<i>Type</i> T uting the d	ata to tw	Comment Status A	mandatory feat	Bucket ure for TF5 of PICS.
Suggested Insert	<i>IRemedy</i> "to the output stre	am" after "inserted".			<i>Suggested</i> Chang	<i>IRemedy</i> e "perform	s" in froi	nt of "a 10-bit symbol ro	und robin distrik	oution" with "shall perform".
Response ACCE Chanc		Response Status C			Response ACCE	PT.		Response Status C		
shall b to: shall b	e inserted so it ap	opears every opears in the output strea	am every		<i>Cl</i> 119 Hidaka, Ya	SC 119 Isuo	.2.4.9	P 161 Fujitsu Lab	L 3 of America	# 347
Cl 119 Hidaka, Ya Comment Two w Suggested Make Remov	SC 119.2.4.4.4 asuo <i>Type</i> E rays should be wri <i>IRemedy</i> a new paragraph s ve an empty line a	1 P 150 Fujitsu Lab <i>Comment Status</i> A tten in a parallel form. starting at "For a 10280-b fter "group inserted:" to i	<i>L</i> 34 o of America bit block". make it a single pa	# <u>344</u> Bucket ragraph.	Comment Gener Suggested Chang Response ACCE	Type T ating a scra IRemedy e "PCS ha PT.	ambled i s" with "	Comment Status A idle test pattern is a mar PCS shall have". Response Status C	ndatory feature f	Bucket for JT1 of PICS.
Response ACCE	PT.	Response Status C			Hidaka, Ya Comment	asuo Type T		Fujitsu Lab Comment Status A	of America	
C/ 119 Hidaka, Ya Comment Two w	SC 119.2.4.4. asuo <i>Type</i> E rays should be wri	2 P 151 Fujitsu Lab <i>Comment Status</i> A tten in a parallel form.	L 35 o of America	# 345 Bucket	It is no I think <i>Suggested</i> Chang scram	t clear whe it should b <i>Remedy</i> le "transcoo bled, insert	ther the e so tha ded, scra ed with	alignment markers are t the receive PCS can a ambled and encapsulate alignment makers, and	inserted or not lign and deskev ed by the FEC" encapsulated by	in the test-pattern mode. w the PCS lanes. with "transcoded, y the FEC".
Suggested Make Remov Response ACCE	<i>IRemedy</i> a new paragraph s ve an empty line a PT.	starting at "For a 10280-t ifter "group inserted:" to r <i>Response Status</i> C	bit block". make it a single pa	ragraph.	Response ACCE Chang This is To: The te inserte	PT IN PRINe: sent contines st pattern i ad and final	NCIPLE. nuously s sent co ly encap	Response Status C and is transcoded, scra ontinuously and is trans- osulated by the FEC.	mbled and enca coded, scrambl	apsulated by the FEC. ed, alignment markers are

C/ 119 SC 119. Hidaka, Yasuo	2.5.2 <i>P</i> 161	L 37 ab of America	# 349	C/ 119 Hidaka, Ya	SC 119.2.5.6	P 162 Fujitsu Lab	L 53 of America	# 351
Comment Type T	Comment Status			Comment	Type T	Comment Status A		
It is not clear what	is "proper order".	-		The d	escrambler in 49.2 ambler in this claus	.10 descrambles only the	e payload of the bl e 257-bit block. no	lock, whereas the ot only the payload.
SuggestedRemedy Change "in the pro- assigned in 2_GC 12)"	oper order" with "in the prop OD state of the alignment n	er order based on PC narker lock state diag	S_lane_mapping <x> ram (see Figure 119-</x>	Suggestee Repla	dRemedy ce the second sen	tence in 119.2.5.6 as foll	ows:	
Response ACCEPT IN PRIN	Response Status (CIPLE.	;		The d block descra	escrambler is iden is descrambled ins ambler.	tical to that used in Claus stead of the payload. See	e 49 excepting th 49.2.10 for the d	at the whole 257-bit efinition of the
Change:				Response)	Response Status C		
After all PCS lane interleaved in the To: After all PCS lane interleaved to reco	s are aligned, deskewed, ar proper order to reconstruct t s are aligned, deskewed, ar postruct the original stream o	d reordered, the two he original stream of d reordered, the two of two FEC codeword	FEC codewords are de- two FEC codewords. FEC codewords are de- ls.	ACCE Chang "The p gener The d	EPT IN PRINCIPLE ge: bayload, rx_scram ate rx_xcoded<256 escrambler is iden	: bled<256:0>, is descraml 5:0>. tical to that used in Claus	bled with a self-sy	nchronizing scrambler to
Cl 119 SC 119. Hidaka, Yasuo	2.5.6 <i>P</i> 162 Fujitsu I	L 50 Lab of America	# 350	To: "The ousing	descrambler proce the polynomial giv	sses rx_scrambled<256:(en in Equation (49-1)."	0> to reverse the	effect of the scrambler
Comment Type T It is not good to ca and the actual "pa	<i>Comment Status</i> / all rx_xcoded<256:0> as "pa yload" is rx_xcoded<256:1>	\ yload", because rx_x	<i>Bucket</i> coded<0> is a tag bit	<i>Cl</i> 119 Hidaka, Ya	SC 119.2.4.3 asuo	Р 149 Fujitsu Lab	L 3 of America	# 352
SuggestedRemedy Change "payload"	with "received 257-bit block			<i>Comment</i> Scran	<i>Type</i> T nbler is a mandato	Comment Status A ry feature for S1 of PICS,	, but "shall" is mis	Bucker
Response ACCEPT.	Response Status (;		Suggestee Chang	dRemedy ge "is scrambled" \	vith "shall be scrambled".		
				Response ACCE	PT.	Response Status C		
				<i>Cl</i> 119 Hidaka, Ya	SC 119.2.5.6 asuo	<i>P</i> 162 Fujitsu Lab	L 50 of America	# 353
				<i>Comment</i> Descr	<i>Type</i> T ambler is a manda	Comment Status A atory feature for S2 of PIC	S, but "shall" is n	Bucke
				Suggestee Chang	<i>dRemedy</i> ge "is descrambled	I" with "shall be descram!	oled".	
				Response ACCE	, EPT.	Response Status C		
TVDE: TP/toobaical	quirad EP/aditorial requires	CP/gonorol rogitize	d Thooppical Eladitorial C	apporal			mont ID 252	Dogo 92 of 42

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: Comment ID

	Fujitsu Lab of America
Comment Type T Comment Status A Bucket "The PCS alignment process" is not defined.	Comment Type T Comment Status A Bucket SLIP is not requested by "the synchronization state diagram", but requested by "the
SuggestedRemedy Change "the PCS alignment process" with "the PCS synchronization process". Response Response Status CCEPT	SuggestedRemedy Change "the synchronization state digaram" with "the alignment marker lock state diagram". Response Response C
Cl 119 SC 119.2.6.2.2 P 165 L 12 # 355 Hidaka, Yasuo Fujitsu Lab of America Comment Type T Comment Status A Bucket "The deskew process" is not defined.	ACCEPT. C/ 119 SC 119.2.6.2.3 P 166 L 34 # 359 Hidaka, Yasuo Fujitsu Lab of America Comment Type T Comment Status A It is not correct to send tx_coded<65:2> to the scrambler or to bypass the sync header.
SuggestedRemedy Change "the deskew process" with "the PCS synchronization process". Response Response Status C ACCEPT.	SuggestedRemedy Change "of which tx_coded<65:2> is sent to the scrambler. The two bits of the sync header bypass the scrambler." with "which is sent to the 64B/66B to 256B/257B transcoder". Response Response Status C
Cl 119 SC 119.2.6.2.2 P 165 L 42 # 356 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America Comment Type T Comment Status A Bucket "The PCS alignment process" is not defined. Bucket Bucket	ACCEPT IN PRINCIPLE. Change: Encodes the 72-bit vector returning tx_coded<65:0> of which tx_coded<65:2> is sent to the scrambler. The two bits of the sync header bypass the scrambler. To: Encodes the 72-bit vector returning tx_coded<65:0>
SuggestedRemedy Change "the PCS alignment process" with "the PCS synchronization process". Response Response Status C ACCEPT.	Cl 119 SC 119.2.6.3 P 168 L 6 # 360 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America Bucket Comment Type T Comment Status A Bucket It may be discouraged to write "the number of the PCS lane", because it is easy to be Bucket
Cl 119 SC 119.2.6.2.2 P 165 L 42 # 357 Hidaka, Yasuo Fujitsu Lab of America # 357 Comment Type T Comment Status A Bucket It seems that this is not to reset the synchroization process Bucket Bucket	confused with "the number of the PCS lanes", which I believe not correct. SuggestedRemedy Change "the number of PCS lane" with "the PCS lane number". Response Response Status C
SuggestedRemedy Change "reset the synchronization process" with "restart the alignment marker lock process".	ACCEPT.
Response Response Status C ACCEPT. ACCEPT.	eneral Comment ID 360 Page 83 of 125

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

Cl 119 SC 119.2.6.3 P 168 L 22 # 363 Hidaka, Yasuo Fujitsu Lab of America					
Comment Type T Comment Status A It is not clear which block is processed, e.g. 64B66B block or 256B257B block.					
SuggestedRemedy Change "for each transmit block processed" with "for each transfer on the 200GMII/400GMII interface in the receive direction".					
ACCEPT IN PRINCIPLE. Change: It makes exactly one transition for each receive block processed. To: It makes exactly one transition for each receive 66-bit block processed.					
C/ 119 SC 119.2.6.2.2 P 165 L 31 # 364 Hidaka, Yasuo Fujitsu Lab of America					
Comment Type T Comment Status A A variable PCS_lane_mapping <x> is used in 2_GOOD state of alignment marker lock state diagram, but it is not defined. SuggestedRemedy Add a definition of PCS_lane_mapping<x> after pcs_lane something like:</x></x>					
PCS_lane_mapping <x> A variable that holds the value of pcs_lane. Response Response Status C ACCEPT IN PRINCIPLE. Add this variable definition: PCS_lane_mapping<x> A variable that holds the value of the pcs_lane received on physical lane x. Change the variable from: lane_mapping to: PCS_lane_mapping PCS_lane_mapping PCS_lane_mapping A</x></x>					

C/ 119 SC	119.3	P 17 Euiite	73 L	4	# <u>365</u>		Cl 119 Hidaka Vas	SC ·	119.6.3		P 177	L6	# 367	
Comment Type A grammer e	E rror.	Comment Status	A			Bucket	Comment T	<i>ype</i> n nam	E le "CDE200	Comment S 0" is inconsist	Status A	in other clauses.		Bucket
SuggestedRemedy Change "be provided" with "is provided". Response Response Status C ACCEPT.							The foll XGE X0 XGE X0 XGE X0	owing GMII is GMII is GMII is	item name supported supported supported	es are used fo d (Clause 48) d (Clause 49) d (Clause 55)	or GMII suppor	rt in other clauses:		
ACCEPT.	119.3.1	P 17	'4 L	23	# 366		XGE40 XGE100 25GE 2							
Hidaka, Yasuo		Fujitsu	Lab of Americ	a			SuggestedF	Remed	ly					
Comment Type	Е	Comment Status	Α		ex	_Bucket	Change	the ite	em column	for CDE200	from "CDE20	0" to "200GE".		
A range of the	e lane numl	per should not inclue	de an unspecifi	ed index variabl	e "i".		Response			Response S	Status C			
SuggestedRemed	dy						ACCEP	T IN P	RINCIPLE					
Change "lane column of PC	e 0 to i" with S register r	"lane 0 to 15" in the name.	e column of ME	0IO status variab	ole and th	e	Replace	e CDE	200 and C	DE400 with:				
Response ACCEPT IN F Change PCS FEC syr	Response Status C Featu IN PRINCIPLE. Subclassion Status Status C symbol errors, PCS Support						Feature Subclau Value: I Status: Support	: 2000 use: 11 ∟ogical O t: Yes	GMII or 400 17, 119.1.4 I interface [] No []	OGMII logical I.1 is supported	interface			
to:							C/ 119	SC '	119.6.3		P 177	L 8	# 368	
PCS FEC syr	mbol errors,	PCS					Hidaka, Yas	suo			Fujitsu Lab o	f America		
							Comment T	уре	E	Comment S	Status A			Bucket
Change: PCS FEC syr register, lanes to: PCS FEC syr register, lanes	Change: PCS FEC symbol error counter register, lanes 0 to i io: PCS FEC symbol error counter register, lanes 0 to x						The iter XGE XC XGE XC XGE XC XGE40 XGE10 25GE 2	n nam owing GMII is GMII is GMII is XLGN 0 CGN	name "CDE400" is inconsistent with PICS in other clauses. wing item names are used for GMII support in other clauses: WII is supported (Clause 48) WII is supported (Clause 49) MII is supported (Clause 55) XLGMII is supported (Clause 82) CGMII is supported (Clause 82) GMII is supported (Clause 107)					
							SuggestedF	Remed	ly					
							Change							
							Response ACCEP	T IN P	RINCIPLE	Response S	Status C			
							See response to comment #367							
TYPE: TR/technic COMMENT STAT SORT ORDER: C	cal required TUS: D/disp Comment ID	ER/editorial require atched A/accepted	ed GR/genera R/rejected	l required T/tech RESPONSE ST	nnical E/o ATUS: O	editorial G/ge //open W/writt	neral en C/closed	U/uns	atisfied Z/	/withdrawn	Comm	ent ID 368	Page 85 29/09/20	of 125)16 16:40:00

C/ 119 SC 119.6.3 P 177 # 369 C/ 119 SC 119.6.4.3 P 179 L7 # 373 L 24 Fujitsu Lab of America Hidaka, Yasuo Hidaka, Yasuo Fujitsu Lab of America Comment Type Е Comment Status A Bucket Comment Type E Comment Status A Bucket A reference to 119.6.5 is inappropriate, because 119.6.5 is a PICS clause. Choice of "No []" is given for mandatory items C1 through C9. SuagestedRemedv SuggestedRemedv Change the subclause column for JTM from "119.6.5" to "119.2.1". Remove "No []" from the support column for C1 through C9. Response Response Response Status C Response Status C ACCEPT. ACCEPT. SC 119.6.3 P 177 C/ 119 P179 C/ 119 / 25 # 370 SC 119.6.4.3 1 22 # 374 Hidaka, Yasuo Fujitsu Lab of America Hidaka, Yasuo Fujitsu Lab of America Comment Type Е Comment Status A Bucket Comment Type Т Comment Status R **Bucket** JTM is mandatory. Reference to 119.2.3.5 for C7 is not helpful, because there is no much detail description in 119.2.3.5. SuggestedRemedy SuggestedRemedy Remove "No []" in the support column for JTM. Change the subclause column for C7 from "119.2.3.5" to "119.2.3.5, 82.2.3.6". Response Response Status C Response Response Status C ACCEPT. REJECT. C/ 119 SC 119.6.4.2 P 178 L 22 # 371 The reference is to the local subclause which already contains a reference to 82.2.3.6 Hidaka, Yasuo Fuiitsu Lab of America together with any exceptions that are there now or may be added in later versions of the draft. Comment Status A Comment Type Е Bucket RF5 is mandatory only if BI is supported. C/ 119 P 179 SC 119.6.4.3 / 24 # 375 SuggestedRemedy Hidaka, Yasuo Fujitsu Lab of America Add "N/A []" to the support column for RF5. Comment Type т Comment Status R **Bucket** Response Response Status C Reference to 119.2.3.5 for C8 is not helpful, because there is no much detail description in ACCEPT. 119.2.3.5. SuggestedRemedy SC 119.6.4.2 C/ 119 P 178 L 27 # 372 Change the subclause column for C8 from "119.2.3.5" to "119.2.3.5, 82.2.3.6". Hidaka, Yasuo Fujitsu Lab of America Response Response Status C Comment Type Е Comment Status A Bucket RFJFCT. RF6 is mandatory only if BI is supported. The reference is to the local subclause which already contains a reference to 82.2.3.6 SuggestedRemedy together with any exceptions that are there now or may be added in later versions of the Change "No []" with "N/A []" in the support column for RF6. draft. Response Response Status C ACCEPT.

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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: Comment ID

C/ 119 SC 119.6.4.3 P 179 L 27 # 376 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of Am	C/ 119 SC 119.6.4.4 P 179 L 37 # 378 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of Am					
Comment TypeTComment StatusRBucketReference to 119.2.3.8 for C9 is not helpful, because there is no much detail description in 119.2.3.8.	Comment Type E Comment Status A Scrambler is mandatory.	Bucket				
SuggestedRemedy Change the subclause column for C9 from "119.2.3.8" to "119.2.3.8, 82.2.3.9".	Remove "No []" from the support column for S1.					
Response Response Status C REJECT.	ACCEPT.					
The reference is to the local subclause which already contains a reference to 82.2.3.9 together with any exceptions that are there now or may be added in later versions of the draft.	C/ 119 SC 119.6.4.4 P 179 L 39 # 379 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America Fujitsu Lab of America Fujitsu Lab of America	Bucket				
C/ 119 SC 119.6.4.3 P 179 L 29 # 377 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of Am	Descrambler is mandatory. SuggestedRemedy	Ducker				
Comment Type T Comment Status A Bucket If EEE has not been negotiated, LPI shall not be transmitted and shall be treated as an error if received. Bucket Bucket	Remove "No []" from the support column for S2. Response Response Status C ACCEPT.					
SuggestedRemedy Change "EEE" with "*EEE" (insert *) in the PICS table in clause 119.6.3. Insert the following items after C9:	C/ 119 SC 119.6.4.5 P 180 L 7 # 380 Hidaka, Yasuo Fujitsu Lab of America					
Item: C10 Feature: If EEE has not been negotiated, LPI is not transmitted. Subclause: 119.2.3.3	Comment Type E Comment Status A AM1 is mandatory. SuggestedRemedy	Bucket				
Value/Comment: (blank) Status: EEE:M	Remove "No []" from the support column for AM1.					
Support: Yes [] N/A [] Item: C11	Response Response Status C ACCEPT.					
Feature: If EEE has not been negotiated, LPI is treated as an error if received. Subclause: 119.2.3.3 Value/Comment: (blank) Status: EEE:M	Cl 119 SC 119.6.4.5 P 180 L 10 # 381 Hidaka, Yasuo Fujitsu Lab of America					
Support: Yes [] N/A []	Comment Type E Comment Status A	Bucket				
Response Response Status C ACCEPT IN PRINCIPLE.	SuggestedRemedy					
Make suggested changes except insert new PICS items before C7	Remove No [] from the support column for AM2. 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: Comment ID

C/ 119 SC 119.6 Hidaka, Yasuo	.4.5 <i>P</i> 180 Fujitsu Lab of	L 12 f America	# 382	<i>Cl</i> 119 <i>SC</i> 119.6 Hidaka, Yasuo	.5.1 <i>P</i> 180 Fujitsu Lab	L 32 of America	# 385		
Comment Type E AM3 is mandatory	Comment Status A only if MD is supported.		Bucket	Comment Type E B1 is mandatory.	Comment Status A		Bucket		
SuggestedRemedy Change "No []" with	n "N/A []" in the support column f	or AM3.		SuggestedRemedy Remove "No []" fro	n the support column for B1.				
Response ACCEPT.	Response Status C			Response ACCEPT.	Response Status C				
<i>Cl</i> 119 <i>SC</i> 119.6 Hidaka, Yasuo	.4.5 <i>P</i> 180 Fujitsu Lab o	L 13 f America	# 383	Cl 118 SC 118.5 Hidaka, Yasuo	.5.1 <i>P</i> 139 Fujitsu Lab	L 26 of America	# 386		
Comment Type T Alignment marker s	Comment Status A shall be removed prior to descrar	mbling (119.2.5.	5, P162, L46).	Comment Type E It is odd to have "1	Comment Status A 18.5.5.1 Bit order" as a sub clar	use of "118.5.5 T	Bucket est-pattern modes".		
SuggestedRemedy Insert the following	item after AM3:			SuggestedRemedy Raise the level of s	ubclause "118.5.5.1 Bit order",	and renumber su	ubclauses.		
Item: AM4 Feature: Alignment Subclause: 119.2.5	marker removal			Response ACCEPT.	Response Status C				
Value/Comment: A 119.2.5.5 Status: M Support: Yes II	lignment markers are removed p	prior to descram	oling as described in	C/ 119 SC 119.6 Hidaka, Yasuo	.5.1 P 180 Fujitsu Lab	L 26 of America	# 387		
Response	Response Status C			It is odd to have "119.6.5.1 Bit order" as a sub clause of "119.6.5 Test-pattern modes".					
			" [22]	<i>SuggestedRemedy</i> Raise the level of s	ubclause "119.6.5.1 Bit order",	and renumber su	ubclauses.		
Ci 119 SC 119.6 Hidaka, Yasuo	Fujitsu Lab of	L 21 f America	# 384	Response	Response Status C				
Comment Type E JT1 is mandatory.	Comment Status A		Bucket	ACCEPT.					
SuggestedRemedy Remove "No []" and	d "N/A []" from the support colum	n for JT1.							
Response ACCEPT.	Response Status C								

C/ 119 SC 119 Hidaka, Yasuo	9.6.6	P 180 Fujitsu Lab of	L 44 America	# 388		SC 119 suo	.6.6.1	Р 181 Fujitsu Lal	L 10 b of America	# 391
Comment Type T Mapping of MDIC	Commo D register bits are	ent Status A e mandatory.		Bucket	Comment SM2 is	<i>Type</i> E mandator	y for PC	Comment Status A		Bucket
SuggestedRemedy Insert the following	ng items after M	1:			Suggested Chang	<i>Remedy</i> e "No []" in	the su	pport column for SM2 w	ith "N/A []".	
Item: M2 Feature: Mapping Sub clause: 119	g of MDIO contro	ol bits and MDIO sta	atus bits		Response ACCEI	PT.		Response Status C		
Value/Comment: Status: MD:M Support: Yes []	: Table 119-4 an	d Table 119-5			<i>Cl</i> 119 Hidaka, Ya	SC 119 suo	.6.6.1	P 181 Fujitsu Lal	L 13 b of America	# 392
Response ACCEPT.	Respon	se Status C			Comment SM3 th	<i>Type</i> E rough SM	6 are m	Comment Status A andatory.		Bucket
C/ 119 SC 119 Hidaka, Yasuo Comment Type T	9.6.6.1 Comm	P 181 Fujitsu Lab of ent Status A	L 13 America	# 389 Bucket	Suggested Remov Response ACCEI	Remedy re "No []" ir PT.	n the su	pport column for SM3 th Response Status C	nrough SM6.	
The SLIP functio SuggestedRemedy Change the featu to "The SLIP fun	ure column for S ction evaluates a	possible block "pos M3 from "The SLIP all possible block po	functions" rather t	han all possible "blocks". ates all possible blocks"	C/ 119 Hidaka, Ya Comment	SC 119 suo Type T	.6.6.2	P 181 Fujitsu Lal Comment Status A	L 34 b of America	# 393 Bucket
Response ACCEPT.	Respon	se Status C			When Suggested	the PCS is Remedy	in loop	back, it shall ignore all o	data presented t	to it by the PMA sublayer.
C/ 119 SC 119 Hidaka, Yasuo Comment Type E	9.6.6.1	P 181 Fujitsu Lab of ent Status A	L 7 America	# 390 Bucket	Insert t Item: L Featur Subcla	he followir 3 e: When in use: 119.4	ig item Ioopba	after L2: ack, ignore all data prese	ented by the PN	1A sublayer.
SuggestedRemedy Change "No []" ir	n the support col	umn for SM1 with "I	N/A []".		Status. Suppor Response	t: Yes []		Response Status C		
Response ACCEPT.	Respon	se Status C			ACCEI	PT.				

C/ 119 SC 119.6.6.2 Hidaka. Yasuo	P 181 Fujitsu Lab of <i>J</i>	L 29 America	# 394	C/ 120 SC 120.1.4 Hidaka, Yasuo	P 183 Fuiitsu Lab of	L 34 America	# 397			
Comment Type E L1 is mandatory.	Comment Status A		Bucket	Comment Type T MMD addresses 11 is also	Comment Status A o available for PMA.					
SuggestedRemedy Remove "No []" and "N	/A [] in the support column for	L1.		SuggestedRemedy Change "1, 8, 9, and 10" w	vith "1, 8, 9, 10, and 11".					
Response ACCEPT.	Response Status C			Response Response Status C ACCEPT IN PRINCIPLE. IEEE Std 802.3ba requires more PMA sublayers than P802.3bs: given the PPI, there is the possibility for the lowest PMA not to be co-packaged with the PMD, and there is the possibility of a separated FEC sublayer. The largest reasonable number of PMA sublayers for a P802.3bs implementation including the extender sublayer is four. et Make the following change to clarify this in clause 45.2.1: From: For devices operating at 40 Gb/s or higher speeds, the PMA may be instantiated as multiple sublayers (see 83.1.4 for how MMD addresses are allocated to multiple PMA sublayers). To: For devices operating at 40 Gb/s or higher speeds, the PMA may be instantiated as multiple sublayers (see 83.1.4 for how MMD addresses are allocated to multiple PMA sublayers). To:						
C/ 119 SC 119.6.6.2 Hidaka, Yasuo	P 181 Fujitsu Lab of <i>I</i>	L 33 America	# 395							
Comment Type E L2 is mandatory.	Comment Status A		Bucket							
SuggestedRemedy Remove "No []" in the s	support column for L2.									
Response ACCEPT.	Response Status C									
C/ 120 SC 120.1.2 Hidaka, Yasuo	P 182 Fujitsu Lab of <i>i</i>	L 28 America	# 396	PMA sublayers for the resp Cl 120 SC 120.1.4	pective speeds).	L 39	# 398			
Comment Type E	Comment Status A		Bucket	Hidaka, Yasuo	Fujitsu Lab of	America				
A period is missing. SuggestedRemedy Add a period. Response	Response Status C			Comment Type T "Towards the PCS" is amb SuggestedRemedy Change "towards the PCS	Comment Status A biguous, because some PM " with "towards the RS".	/A for XS is be	Bucket ween RS and PCS.			
ACCEPT.				ResponseResponse StatusCACCEPT IN PRINCIPLE. Change "toward the PCS" with "toward the MAC". Make the equivalent change in: 45.2.1.116d page 55, line 35 45.2.1.116e page 57, line 48 120.5.3.4 page 191, line 40 120.5.6.3 page 192, line 6						

C/ 120 SC 120.1.4 Hidaka, Yasuo	P 183 Fujitsu Lab of	L 41 America	# 399	<i>Cl</i> 120 Hidaka, Ya	SC 120.2	Р 184 Fujitsu Lab of	L 53 America	# 402
Comment Type T A description for 2000	Comment Status A		Bucket	<i>Comment</i> A bit m	<i>Type</i> T nux function is	Comment Status R applied to input/output lanes, n	ot input/output	Bucket lane counts.
SuggestedRemedy Change "MMD 8 addr 16" with "MMD 8 addr 8 or above the 400GA Response ACCEPT.	essing the PMA sublayer abort ressing the PMA sublayer abort UI-8 below the 400GAUI-16". <i>Response Status</i> C	ve the 400GAL ve the 200GAL	JI-8 below the 400GAUI- JI-4 below the 200GAUI-	Suggested Chang Response REJEC This se counts saying	Remedy e "lane counts" CT. entence is deso , i.e. it is the sa that it is applie	" with "lanes". <i>Response Status</i> C cribing the fact that the bit mux ame function for an 8-lane PM/ ed across all lanes.	function is ger A as it is for a 4	neric across all lane I-lane PMA. It is not
C/ 120 SC 120.1.4 Hidaka, Yasuo	P 184 Fujitsu Lab of	L 47 America	# 400	C/ 120 Hidaka Ya	SC 120.2	P 185 Fuiitsu Lab of	L 1 America	# 403
Comment Type T Maximum 5 PMAs (i.e SuggestedRemedy Change "maximum of Response REJECT. See comment 307	Four with "maximum of five".	addressable.	ex_Bucket	Comment If the in any mu Suggested Chang Response ACCE	<i>Type</i> T nput and the or ux. <i>Remedy</i> e "employs" wi	Comment Status A utput have the same number of ith "may employ". Response Status C	f lanes, PMA de	Bucket oes not have to employ
Cl 120 SC 120.2 Hidaka, Yasuo Comment Type T The word "signals" in	P 184 Fujitsu Lab of Comment Status A the sentence may be unneces	L 52 America ssary and/or in:	# 401 Bucket	C/ 120 Hidaka, Ya Comment [*]	SC 120.2 suo Type E	P 185 Fujitsu Lab of <i>Comment Status</i> R	L 48 America	# 404 Bucket
SuggestedRemedy Remove "signals". Response ACCEPT.	Response Status C			A perio Suggested Add a Response REJEC This is See Fi	od is missing ir <i>Remedy</i> period after "ar CT. not a note, it is gure 83-4, in fo	n a note in Figure 120-4. n output PCSL position". <i>Response Status</i> C s text in a diagram. prce since 2010.		

C/ 120 SC 120.2 Hidaka, Yasuo	P 186 Fujitsu Lab of A	L 9 merica	# 405	C/ 120 Hidaka, Ya	SC 120.3	<i>Р</i> 187 Fujitsu Lab	L 10 of America	# 408		
Comment Type T C Instead of PCS, the PMA m	<i>comment Status</i> A ay be adjacent to DTE 200	GXS or DTE 4	<i>Bucket</i> 00GXS.	Comment The pri	<i>Type</i> T imitives are de	Comment Status A	nterface, not for e	each PMA sublayer.		
SuggestedRemedy Change "adjacent to the PC Response Re ACCEPT IN PRINCIPLE. Change "adjacent to the PC	S" with "adjacent to the PC sponse Status C S" to "adjacent to the PCS	CS, DTE 200G) 6 or DTE XS"	(S, or DTE 400GXS".	SuggestedRemedy Change "For a PMA with p planes at the PMA service interface" with "For a PMA service terface with p planes". Response Response Status C ACCEPT.						
C/ 120 SC 120.2 Hidaka, Yasuo	P 186 Fujitsu Lab of A	L 10 merica	# 406	<i>Cl</i> 120 Hidaka, Ya	SC 120.3	Р 187 Fujitsu Lab	L 12 of America	# 409		
Comment Type T C Instead of PMD, the PMA m	<i>comment Status</i> A hay be adjacent to PHY 20	0GXS or PHY 4	Bucket	Comment The PM	<i>Type</i> T MA client may	Comment Status A be DTE 200GXS or DTE 400)GXS instead of F	Bucket PCS.		
SuggestedRemedy Change "adjacent to the PM	ID" with "adjacent to the Pl	MD, PHY 200G	XS, or PHY 400GXS".	Suggested Chang	<i>Remedy</i> e "PCS" with '	PCS, DTE 200GXS, or DTE	400GXS" on line	12 and line 13.		
Response Re ACCEPT IN PRINCIPLE. Change "adjacent to the PM	esponse Status C	O or PHY XS"		Response ACCEI Chang	PT IN PRINCI e "PCS" to "P	Response Status C PLE. CS or DTE XS"				
C/ 120 SC 120.2 Hidaka, Yasuo	P 186 Fujitsu Lab of A	L 42 merica	# 407	<i>Cl</i> 120 Hidaka, Ya	SC 120.3	<i>Р</i> 187 Fujitsu Lab	L 34 of America	# 410		
Comment Type T C DTE 200GXS or DTE 400G	<i>comment Status</i> A XS will not be below PMA.		Bucket	Comment Type T Comment Status A The paragraph starting "In the Rx direction" is not well written. Double use of "that" is						
SuggestedRemedy Change "200GXS" with "PH Change "400GXS" with "PH	Y 200GXS". Y 400GXS".			discouraged. SuggestedRemedy Rewrite the paragraph as follows:						
Response Re ACCEPT IN PRINCIPLE. Change "PMD, PMA, 200G See also comment #195	KS"	In the I input la output to the I If nece betwee the out and/or	Rx direction, wane associated lane at the PM PMA client via essary, buffers en the input lan pairs of bits a	when data is being received fr d with an output lane, receive MA service interface, and sym the PMA:IS_UNITDATA_i.in are filled to allow tolerating th res, PCSLs are demultiplexed PAM4 symbols are converted re converted to PAM4 symbols	om the sublayer t d bits are routed to bols are transferr dication primitive. he Skew Variation d from the input la ed to pairs of bits ols on the output la	below the PMA on every through the PMA to the red over the output lane on that may appear anes, remultiplexed to on the input lanes anes.				
				Response ACCEI See co	PT IN PRINCI omment #157	Response Status C PLE.				

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: Comment ID

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C/ 120 SC 120.4 P 187 L 53 # 411 Hidaka Yasuo Fuijitsu Lab of America	C/ 120 SC 120.4 P 188 L 18 # 413 Hidaka Yasuo Fuiitsu Lab of America						
Comment Type T Comment Status A Bucket	Comment Type T Comment Status A						
PHY 200GXS and PHY 400GXS may also appear below PMA.	The paragraph starting "In the Tx direction" is not well written. Double use of "that" is discouraged						
SuggestedRemedy Change "the PMD or another PMA" with "the PMD, PHY 200GXS, PHY 400GXS, or another PMA".	SuggestedRemedy Rewrite the paragraph as follows:						
Response Response Status C ACCEPT IN PRINCIPLE. See comment #88	In the Tx direction, when data is being received from the PMA client at the PMA service interface (see 120.3) on every input lane associated with an output lane, received bits are routed through the PMA to the output lane at the service interface below the PMA, and support output and support the put of the put the transformed output to the output lane to the output lane to the public output to the public						
CI 120 SC 120.4 P 188 L 16 # 412 Hidaka, Yasuo Fujitsu Lab of America Fujitsu La	inst:IS_UNITDATA_i.request primitive. If necessary, buffers are filled to allow tolerating the Skew Variation that may appear						
Comment Type T Comment Status A The status indicates a good signal "being received" (not sent) by the sublayer below the	the output lanes, and PAM4 symbols are converted to pairs of bits on the input lanes and/or pairs of bits are converted to PAM4 symbols on the output lanes.						
SuggestedRemedy Change "sent" with "being received". Response Response Status ACCEPT IN PRINCIPLE. Change: for data transfer and a status indicating a good signal sent by the sublayer below the PMA (see Figure 120-5). To: for data transfer and a status indicating a good signal from the sublayer below the PMA (see Figure 120-5). To: for data transfer and a status indicating a good signal from the sublayer below the PMA (see Figure 120-5).	ACCEPT IN PRINCIPLE. Change "In the Tx direction, when data is being received via the PMA:IS_UNITDATA_i.request primitive from every input lane from the PMA client at the PMA service interface (see 120.3) that has a PCSL that is routed to this output lane, and (if necessary), buffers are filled to provide the ability to tolerate the Skew Variation that may appear between the input lanes from the PMA client, PCSLs are demultiplexed from the input lanes, remultiplexed to the output lanes, and symbols are transferred over each output lane to the sublayer below the PMA." to "The PMA transfers symbols from the input lanes to the output lanes in the Tx direction when data is being received via the PMA:IS_UNITDATA_i.request primitive from every input lane from the PMA client at the PMA service interface (see 120.3) that has a PCSL that is routed to this output lane, and (if necessary), buffers are filled to provide the ability to tolerate the Skew Variation that may appear between the input lanes from the PMA client. PCSLs are demultiplexed from the input lanes, remultiplexed to the output lanes, and symbols are transferred over each output lane to the sublayer below the PMA."						
	Cl 120 SC 120.5.1 P 189 L 7 # 414 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America Comment Type T Comment Status A Which service interface is not clear. SuggestedRemedy Change "the service interface" with "the service interface below the PMA". Response Response Status C						
	ACCEPT.						

C/ 120 SC 120.5.2 Hidaka, Yasuo	<i>P</i> 189 Fujitsu Lab of	L 35 America	# 415	<i>Cl</i> 120 SC 120.5.2 Hidaka, Yasuo	P 190 Fujitsu Lab	L 32 of America	# 418		
Comment Type T z/m is not the number	Comment Status A of input lanes. It is the number	er of possible po	ositions in the input lane.	Comment Type T "11.5" is incorrect.	Comment Status A		Bucket		
SuggestedRemedy Change "the z/m input	t lanes" with "the z/m possible	positions in the	e input lane".	SuggestedRemedy Change "11.5" with "	11.7".				
Response ACCEPT IN PRINCIP Change "Each PCSL i	Response Status C LE.	ne sequence or	one of the z/m input	Response ACCEPT.	Response Status C				
lanes to a position in the "Each PCSL is mappe position in the sequen	the sequence on one of the z/i d from a position in the sequence ce on one of the n output lane	n output lanes" ence on one of t	to the m input lanes to a	C/ 120 SC 120.5.2 Hidaka, Yasuo	P 190 Fujitsu Lab	L 39 of America	# 419		
<i>Cl</i> 120 <i>SC</i> 120.5.2 Hidaka, Yasuo	P 189 Fujitsu Lab of	L 35 America	# 416	Comment Type T "11.4" is incorrect. SuggestedRemedy	Comment Status A		Bucket		
Comment Type T z/n is not the number of lane.	Comment Status A of output lanes. It is the numb	er of possible p	ositions in the output	Change "11.4" with " Response	11.6". Response Status C				
SuggestedRemedy				ACCEPT.					
Change "the z/n outpu	it lanes" with "the z/n possible	positions in the	e output lane".	C/ 120 SC 120.5.2	P 190	L 43	# 420		
Response	Response Status C			Hidaka, Yasuo	Fujitsu Lab of America				
See comment #415	LE.			Comment Type T "15.1" is incorrect.	Comment Status A		Bucket		
C/ 120 SC 120.5.2 Hidaka, Yasuo	P 190 Fujitsu Lab of	L 25 America	# 417	SuggestedRemedy Change the lowest "1	15.1" with "15.0".				
Comment Type T "11.6" is incorrect.	Comment Status A		Bucket	Response ACCEPT.	Response Status C				
SuggestedRemedy Change "11.6" below r	mux with "11.8".			C/ 120 SC 120.5.3	5.3 <i>P</i> 191	L 29	# 421		
Response ACCEPT.	Response Status C		Response Status C			Comment Type E Here, "skew" is not c	Comment Status A apitalize, although it is capita	lized in most locat	Bucket
				SuggestedRemedy Change "skew" with	"Skew".				
				Response ACCEPT.	Response Status C				

C/ 120 SC 120.5.3.4 P 191 L 37 # 422 Hidaka, Yasuo Fujitsu Lab of America Fujits	C/ 120 SC 120.5.5 P 192 L 48 # 425 Hidaka, Yasuo Fujitsu Lab of America						
Comment Type E Comment Status A Bucket Here, "skew" is not capitalize, although it is capitalized in most locations. SuggestedRemedy Change "skew" with "Skew".	Comment Type T Comment Status A Description is inaccurate, because PMA(2:1) is not defined. In particular, PMA(2:1) is not clear in terms of data rate (i.e. same aggregate data rate or same per lane data rate).						
Response Response Status C ACCEPT.	SuggestedRemedy Change the last sentence of 120.5.5 as follows:						
Cl 120 SC 120.5.3.6 P 192 L 6 # 423 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America Fujitsu Lab of America Fujitsu Lab of America Comment Type T Comment Status R We should specify tolerance of Skew (not only Skew Variation) at SP6 to maintain the PCS	For example, a PMA(8:4) could be implemented using four independent 2-1 multiplexers in the Tx direction and four independent 1-2 demultiplexers in the Rx direction. Response Response Status C ACCEPT IN PRINCIPLE. Delete: "For example, a PMA(8:4) could be implemented as four independent PMA(2:1) entities"						
receive function, because the Skew tolerance of PCS does not include the Skew generated by the PMA between SP6 and PCS.	$\frac{1}{C/120} \text{SC 120.5.6} \qquad P193 \qquad L12 \qquad \# \boxed{426}$						
SuggestedRemedy Insert the following phrase at the end of the last sentence in 120.5.3.6:	Hidaka, Yasuo Fujitsu Lab of America Comment Type T Comment Status A Bucket There is no 400GAUL-4 This clause specifies signal drivers for the physically instantiated						
"and the maximum amount of Skew allowed at SP6 (160ns) between input lanes while maintaining the PCS receive function". Response Response Status C	interface below or above PMA that is either 200GAUI-n or 400GAUI-n. It does not include the PMD service interface that is not physicall instantiated such as for 400GBASE-DR4.						
REJECT. The PMA isn't even aware of (total) Skew, and doesn't need to be tolerant of it. The PMA needs to have sufficient buffer fill to tolerate Skew Variation. The total Skew limits are	Suggesteakemeay Change "400GBASE-R, where the number of input or output lanes is 8 or 4" with "400GBASE-R, where the number of input or output lanes is 8".						
relevant in the Skew Generation subclauses for the PMA, but not in the Skew Tolerance. Cl 120 SC 120.5.4 P 192 L 10 # 424 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America # 424 Comment Type T Comment Status A ex_Bucket There may be up to five PMAs (i.e MMD 1, 8, 9, 10, and 11). # 0.0000 0.00000	Response Response Status C ACCEPT IN PRINCIPLE. Replace the final paragraph of 120.5.6 with "For 200GAUI-8 or 400GAUI-16, the modulation format is NRZ. For 200GAUI-4 or 400GAUI-8, the modulation format is PAM4."						
SuggestedRemedy Change "three PMA stages" with "five PMA stages".							
Response Response Status C ACCEPT IN PRINCIPLE.							
Change: The maximum cumulative delay contributed by up to three PMA stages in a PHY To: The maximum cumulative delay contributed by up to four PMA stages in a PHY							
TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/g COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/wri SORT ORDER: Comment ID	eneral Comment ID 426 Page 95 of 125 itten C/closed U/unsatisfied Z/withdrawn 29/09/2016 16:40:00						

C/ 120 SC 120.5.8	P 193	L 44	# 427	C/ 120	SC 120.5.	10	P 194	L 19	# 429
Hidaka, Yasuo	Fujitsu Lab of	America		Hidaka, Yas	uo		Fujitsu Lab o	f America	
Comment Type TR We need a description	Comment Status A n about IS SIGNAL.indication	primitive for the	cases the service	Comment Ty DTE 200	/pe T)GXS or DT	Comm E 400GXS do	<i>ent Status</i> A o not provide the s	ervice interface t	Bucket below the PMA.
interface is physically	instantiated e.g. 200GAUI-n a	nd 400GAUI-n.		Suggested	amady				
SuggestedRemedy Add some description	which may be referred from 1	20B, 120C, 120	D, and 120E.	Change Change	"200GXS" \ "400GXS" \	with "PHY 200 with "PHY 400	0GXS". 0GXS".		
Response	Response Status C			Response		Respon	nse Status C		
ACCEPT IN PRINCIP	LE.			ACCEP	T IN PRINC	IPLE.			
This notation comes f Change: 200GAUI-n is a physic	rom the generic inter-sublayer cal instantiation of the connec	interface descri	ption in 116.3.1. o adjacent 200GBASE-	Change "Note th PMD, or to "Note th	at the servic another PM at the servic	ce interface b /A sublayer" ce interface b	elow the PMA can elow the PMA can	be provided by t be provided by t	he 200GXS, 400GXS, he PHY XS, PMD, or
To:				another	PINA SUDIA	yer			
200GAUI-n is a physical instantiation of the connection between two adjacent 200GBASE- R PMA sublayers with the exception of the inst:IS_SIGNAL.indication which is carried				<i>Cl</i> 120 Hidaka, Yas	SC 120.5 . uo	11.1.1	<i>Р</i> 195 Fujitsu Lab o	L 23 f America	# 430
				Comment Ty	vpe TR	Comm	ent Status A		
Change: 400GAUI-n is a physic R PMA sublayers.	cal instantiation of the connec	ion between two	o adjacent 400GBASE-	The restriction of error counter "for isolated single bit errors" implicates that it does not increment for burst errors. It seems contradictory to the next sentence which says it should count at least one error whenever one or more errors occur in a sliding 1000-bit window.					
400GAUI-n is a physic	cal instantiation of the connec	tion between two	adjacent 400GBASE-	SuggestedR	emedy				
R PMA sublayers with outside of this physica	a the exception of the inst:IS_S ally instantiated interface.	GNAL.indicatio	on which is carried	Remove the phrase of "for isolated single bit errors" at the end of the sentence which begin with "The checker shall increment" in the fourth paragraph of 120.5.11.1.1.					
<i>Cl</i> 120 <i>SC</i> 120.5.9 Hidaka, Yasuo	P 193 Fujitsu Lab ol	L 53 America	# 428	Response ACCEP	T IN PRINC	Respon IPLE.	ose Status C		
Comment Type T The direction of the P is 200GXS or 400GXS	Comment Status A CS is not clear, because PMA S.	may be betwee	<i>Bucket</i> n PCS and RS, if there	There is change.	agreement	that the text	should be improve	ed, but no consen	nsus on a proposed
SuggestedRemedy									
Change "in the directi	on of the PCS" with "towards	he RS".							
Response ACCEPT IN PRINCIP	Response Status C LE.								

Change "in the direction of the PCS" with "towards the MAC".

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: Comment ID

C/ 120 SC 120.5.11.1.3 P 196 L 15 # 431 Hidaka Yasuo Euiitsu Lab of America	C/ 120 SC 120.5.11.2.2 P 197 L 5 # 434
Comment Type T Comment Status R Here, "PMA" does not make sense and is not required.	Comment Type T Comment Status A Bucket Towards the PCS is not clear, because PMA may be between PCS and RS, if there is
SuggestedRemedy Remove "PMA" after "Tx direction". Response Response Status C REJECT. While not necessary, it doesn't hurt anything and it is the PMA that generates this test pattern. This is the same wording as in 83.5.10	200GXS or 400GXS. SuggestedRemedy Change "towards the PCS" with "towards the RS". Response Response Status C ACCEPT IN PRINCIPLE. Change "towards the PCS" with "towards the MAC".
C/ 120 SC 120.5.11.2.1 P 196 L 40 # 432 Hidaka, Yasuo Fujitsu Lab of America	C/ 120 SC 120.5.11.2.2 P 197 L 18 # 435 Hidaka, Yasuo Fujitsu Lab of America
Comment Type T Comment Status A Bucket Towards the PCS is not clear, because PMA may be between PCS and RS, if there is 200GXS or 400GXS. SuggestedRemedy SuggestedRemedy Change "towards the PCS" with "towards the RS". Response Status C ACCEPT IN PRINCIPLE. C ACCEPT IN PRINCIPLE. Change "towards the PCS" with "towards the MAC". C	Comment Type T Comment Status A ex_Bucket Towards the PCS is not clear, because PMA may be between PCS and RS, if there is 200GXS or 400GXS. SuggestedRemedy if there is 200GXS or 400GXS. SuggestedRemedy Change "towards the PCS" with "towards the RS". Response Status C ACCEPT IN PRINCIPLE. Change "towards the PCS" with "towards the MAC". C
CI 120 SC 120.5.11.2.1 P 196 L 50 # 433 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of	C/ 120 SC 120.5.11.2.3 P 197 L 28 # 436 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of
Comment Type T Comment Status A Bucket Towards the PCS is not clear, because PMA may be between PCS and RS, if there is 200GXS or 400GXS. SuggestedRemedy SuggestedRemedy Change "towards the PCS" with "towards the RS". Response Response Status C ACCEPT IN PRINCIPLE. Change "towards the PCS" with "towards the MAC" C	Comment Type T Comment Status A Bucket Towards the PCS is not clear, because PMA may be between PCS and RS, if there is 200GXS or 400GXS. SuggestedRemedy SuggestedRemedy Change "towards the PCS" with "towards the RS". Response Response Status C ACCEPT IN PRINCIPLE. Change "towards the PCS" with "towards the MAC". C

C/ 120 SC 120.5.11.	2.3 <i>P</i> 197	L 47	# 437	C/ 120	SC 120.7.3	P 207	L 11	# 440
Hidaka, Yasuo	Fujitsu Lab o	of America		Hidaka, Ya	suo	Fujitsu Lab	of America	
Comment Type T	Comment Status A		Bucket	Comment T	Туре т	Comment Status A		- Landar (Landar)
200GXS or 400GXS.	t clear, because PMA may	be between PCS	and RS, if there is	the direction	ection of the flow	w. We should distinguish up	appropriate her o side and dowr	n side without implicating
SuggestedRemedy Change "towards the P	CS" with "towards the RS".			Suggested	Remedy			
Response ACCEPT IN PRINCIPL Change "towards the P	Response Status C E. CS" with "towards the MAC	".		Change 400GA Change 400GA	e "upstream 20 UI-n of the PM/ e "downstream UI-n of the serv	0GAUI-n or 400GAUI-n" in A service interface above th 200GAUI-n or 400GAUI-n" rice interface below the PM	the row of UNA ne PMA". in the row of DI A".	UI with "200GAUI-n or NAUI with "200GAUI-n or
C/ 120 SC 120.5.11.	2.4 <i>P</i> 198	L 6	# 438	Response		Response Status C		
Hidaka, Yasuo	Fujitsu Lab c	of America		ACCER	PT IN PRINCIP	LE. 0GAUI-n or 400GAUI-n" in	the row of UNA	LII to "200GALII-n or
Comment Type T Towards the PCS is no 200GXS or 400GXS.	Comment Status A t clear, because PMA may	be between PCS	ex_Bucket and RS, if there is	400GA Change 400GA	UI-n of the PM e "downstream UI-n of the serv	A service interface". 200GAUI-n or 400GAUI-n" rice interface below the PM	in the row of DI A".	NAUI to "200GAUI-n or
SuggestedRemedy				C/ 120	SC 120.7.3	P 207	L 6	# 441
Change "towards the P	CS" with "towards the RS".			Hidaka, Ya	suo	Fujitsu Lab	of America	
Response ACCEPT IN PRINCIPL	Response Status C E.			Comment T	<i>Type</i> E is mandatory it	Comment Status A	GALII-n or 400G	Al II-n
Change "towards the P	CS" with "towards the MAC	".		Suggested	Remedy			
C/ 120 SC 120.7.3	P 207	L 14	# 439	Change	e "No []" with "N	I/A []" in the support colum	n for UNAUI.	
Hidaka, Yasuo	Fujitsu Lab o	of America		Response		Response Status C		
Comment Type T	Comment Status R		Bucket	ACCEF	PT.			
SP1 and SP6 are not o interface below PMA.	nly the cases to apply 2000	GAUI-n or 400GA	UI-n to the service	C/ 120	SC 120.7.3	P 207	L 14	# 442
SuggestedRemedy				Hidaka, Ya	suo	Fujitsu Lab	of America	
Change the status colu	mn for DNAUI from "DSP18	SP6:M" to "DN_P	INST:M".	Comment 7	Гуре Е	Comment Status A		Bucket
Response	Response Status C			DNAUI	is mandatory in	the upper interface is 200	GAUI-n or 400G	GAUI-n.
REJECT. See comment #321				Suggested Change	Re <i>medy</i> e "No []" with "N	I/A []" in the support colum	n for DNAUI.	
				Response ACCEF	PT.	Response Status C		

C/ 120 SC 120.7.3 Hidaka, Yasuo	P 207 Fujitsu Lab of Amer	L 23 # 443 ica		<i>Cl</i> 120 Hidaka, Yas	SC 120.7.4	P 20 Fujitsu)8 J Lab of An	L 8 nerica	# 447	
Comment Type E DELAY200 is mandate	<i>Comment Status</i> A ory if PMA200 is supported.		Bucket	<i>Comment T</i> S2 is m	<i>ype</i> T andatory if the	Comment Status lower interface is SP1	R			Bucket
SuggestedRemedy Change "No []" with "N	/A []" in the support column for DEL	-AY200.		SuggestedF Change	Re <i>medy</i> the status col	umn for S2 from "DSP	'1SP6:M" to	o "DSP1:M".		
Response ACCEPT.	Response Status C			<i>Response</i> REJEC See co	T. mment #321	Response Status	С			
C/ 120 SC 120.7.3 Hidaka, Yasuo	P 207 Fujitsu Lab of Amer	L 25 # 444 ica		<i>Cl</i> 120 Hidaka, Yas	SC 120.7.4	P 20 Fujitsu)8 I Lab of An	L 8 nerica	# 448	
Comment Type E DELAY400 is mandate	Comment Status A ory if PMA400 is supported.		Bucket	<i>Comment T</i> S3 is m	<i>ype</i> T andatory if the	Comment Status upper interface is SP	R 1.			Bucket
Change "No []" with "N	/A []" in the support column for DEL	AY400.		Suggested Change	Re <i>medy</i> the status col	umn for S3 from "USP	'1SP6:M" to	o "USP1:M".		
ACCEPT.	Response Status C			Response REJEC	Т.	Response Status	С			
C/ 120 SC 120.7.4 Hidaka, Yasuo	P 208 Fujitsu Lab of Amer	L 6 # 445 ica		See con C/ 120	SC 120.7.4	P 20)8	L 20	# 449	
Comment Type E	Comment Status A		Bucket	Hidaka, Yas	suo _	Fujitsu	Lab of An	nerica		
SuggestedRemedy	/A []" in the support column for S1 t	brough S9		S7 is m	ype I andatory if the	upper interface is SP	к 6.			Bucket
Response	Response Status C			Suggested Change	the status col	umn for S7 from "USP	1SP6:M" to	o "USP6:M".		
ACCEPT.				Response		Response Status	С			
C/ 120 SC 120.7.4 Hidaka, Yasuo	P 208 Fujitsu Lab of Amer	L 6 # 446		REJEC See co	T. mment #321					
Comment Type T S1 is mandatory if the	Comment Status R lower interface is SP1.		Bucket							
SuggestedRemedy Change the status colu	umn for S1 from "DSP1SP6:M" to "I	DSP1:M".								
Response REJECT. See comment #321	Response Status C									
TYPE: TR/technical require	ed ER/editorial required GR/gener	al required T/technical E/	editorial G/g	eneral			Comment	ID 449	Page 99	of 125

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID

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C/ 120 SC 120.7.4 Hidaka, Yasuo	P 208 Fujitsu Lab of	L 22 America	# 450	<i>Cl</i> 120 Hidaka, Ya	SC 120.7.5 asuo	Р 208 Fujitsu Lab d	L 42 of America	# 453
Comment Type T S8 is mandatory if th	<i>Comment Status</i> R e upper interface is SP6.		Bucket	Comment Send I	<i>Type</i> T PRBS31 Tx is a	Comment Status A n optional feature, if the lowe	er interface suppo	Bucket
SuggestedRemedy Change the status co	olumn for S8 from "USP1SP6:M	1" to "USP6:M".		The ex	pression currer	ntly written in the status colur	mn is not consist	ent with clause 21.6.
Response REJECT. See comment #321	Response Status C			Chang Response ACCE	e the status col	umn for J1 to "JTP*DN_NRZ <i>Response Status</i> C LE.	2:O".	
C/ 120 SC 120.7.4	P 208	L 25	# 451	Chang	e the status col	umn for J1 to "JTP2*DN_NR	Z:O"	
Hidaka, Yasuo Comment Type T S9 is mandatory if th	Fujitsu Lab of Comment Status R e lower interface is SP6.	America	Bucket	C/ 120 Hidaka, Ya	SC 120.7.5 asuo	P 208 Fujitsu Lab o	L 44 of America	# 454
SuggestedRemedy Change the status co	olumn for S9 from "DSP1SP6:M	1" to "DSP6:M".		Send I patterr	PRBS31 Tx is an is supported.	n optional feature, if the lowe	er interface suppo	orts NRZ and test
Response REJECT. See comment #321	Response Status C			Suggested Add "N Response	IRemedy I/A []" to the sup	oport column for J1. Response Status C		
C/ 120 SC 120.7.3	P 206	L 35	# 452	ACCE	PT.			
Hidaka, Yasuo Comment Type E	Fujitsu Lab of Comment Status A	America		<i>Cl</i> 120 Hidaka, Ya	SC 120.7.5 asuo	Р 208 Fujitsu Lab d	L 48 of America	# 455
SuggestedRemedy Insert "*" (asterisk) in	n front of "JTP" in the item colur	nn.		Comment Send I patterr The ex	<i>Type</i> T PRBS31 Rx is a is supported. pression currer	Comment Status A n optional feature, if the upp	er interface supp nn is not consist	Bucket orts NRZ and test ent with clause 21.6.
ACCEPT IN PRINCI Delete the line for JT which test patterns a	Response Status C PLE. P, since it isn't used elsewhere re optional, and they already ha	. *JTP1 and *JTI ave asterisks.	P2 are used to control	Suggested Chang Response	Remedy le the status col	umn for J2 to "JTP*UP_NRZ <i>Response Status</i> C	ά:Ο".	
				ACCE Chang	PT IN PRINCIP le the status col	LE. umn for J2 to "JTP1*UP_NR	Z:O".	

C/ 120	SC 120.7.5	P 208	L 50	# 456	C/ 120	SC 120.7.5	P 209	L 9	# 459
Hidaka, Ya	asuo	Fujitsu Lab of	America		Hidaka, Ya	asuo	Fujitsu Lab o	i America	
Comment Send I pattern Suggested	<i>Type</i> E PRBS31 Rx is an n is supported. <i>Remedy</i>	Comment Status A optional feature, if the upper	interface supp	Bucket ports NRZ and test	Comment Check patterr The ex	<i>Type</i> T CPRBS31 Rx is n is supported. xpression curre	Comment Status A an optional feature, if the low ntly written in the status colum	er interface supp in is not consist	Bucket ports NRZ and test ent with clause 21.6.
Add "N	N/A []" to the supp	port column for J2.			Suggested	dRemedy			
Response		Response Status C			Chang	ge the status co	lumn for J4 to "JTP*DN_NRZ:	O".	
ACCE	PT.				Response		Response Status C		
C/ 120	SC 120.7.5	P 209	L 3	# 457	ACCE Chang	PT IN PRINCIF ge the status co	PLE. lumn for J4 to "JTP2*DN_NR2	Z:O".	
Hidaka, Ya	asuo	Fujitsu Lab of	America		Cl 120	SC 120.7.5	P 209	L 11	# 460
Comment	Туре Т	Comment Status A		Bucket	Hidaka, Ya	asuo	Fujitsu Lab o	f America	
The ex Suggested Chang Response ACCE Chang	pression current Remedy the status colu PT IN PRINCIPL the status colu	ly written in the status columr mn for J3 to "JTP*UP_NRZ:C <i>Response Status</i> C E. mn for J3 to "JTP1*UP_NRZ:	n is not consis)". :O".	tent with clause 21.6.	Check pattern Suggestec Add "N Response ACCE	x PRBS31 Rx is n is supported. <i>dRemedy</i> N/A []" to the su PT.	an optional feature, if the low pport column for J4. <i>Response Status</i> C	ər interface supp	oorts NRZ and test
<i>Cl</i> 120 Hidaka, Ya	SC 120.7.5 asuo	<i>P</i> 209 Fujitsu Lab of	L 5 America	# 458	<i>Cl</i> 120 Hidaka, Ya	SC 120.7.5 asuo	<i>P</i> 209 Fujitsu Lab o	L 15 f America	# 461
Comment Check patterr	<i>Type</i> E PRBS31 Tx is a n is supported.	Comment Status A n optional feature, if the uppe	r interface sup	Bucket	Comment Send I is sup	<i>Type</i> T PRBS9 Tx is ar ported.	Comment Status A optional feature, if the lower	interface suppor	Bucket
Suggested	dRemedy				The ex	xpression curre	ntly written in the status colur	in is not consiste	ent with clause 21.6.
Add "N	N/A []" to the supp	port column for J3.			Suggested	dRemedy			
Response		Response Status C			Chang	ge the status co	lumn for J5 to "JTP*DN_NRZ:	O".	
ACCE	PT.				Response ACCE Chang	PT IN PRINCIF	Response Status C PLE. lumn for J5 to "JTP2*DN_NR2	<u>Z:</u> O".	

Р 209 Fuiitsu Lab of	L 17 America	# 462	C/ 120 Hidaka Yas	SC 120.7.5	P 209 Fuiitsu Lab of	L 26 America	# 465
Comment Status A bitional feature, if the lower i	nterface suppor	Bucket rts NRZ and test pattern	Comment 7 Send s pattern The ex	<i>Type</i> T quare wave Tx is supported. pression currer Remedy	Comment Status A is an optional feature, if the low otly written in the status column	wer interface so	<i>Bucket</i> upports NRZ and test ent with clause 21.6.
Response Status C	L 21	# [463	Change Response ACCEF Change	e the status col PT IN PRINCIP e the status col	umn for J7 to "JTP*DN_NRZ:C <i>Response Status</i> C LE. umn for J7 to "JTP2*DN_NRZ:)". O".	
Fujitsu Lab of Comment Status A	f America	Bucket	<i>C</i> / 120 Hidaka, Ya	SC 120.7.5	P 209 Fujitsu Lab of	L 28 America	# 466
ptional feature, if the upper v written in the status colum nn for J6 to "JTP*UP_NRZ: <i>Response Status</i> C nn for J6 to "JTP1*UP_NRZ	interface suppo n is not consist O". 2:O".	orts NRZ and test pattern ent with clause 21.6.	Comment T Send s pattern Suggestedi Add "N Response ACCEF	Type E quare wave Tx is supported. Remedy /A []" to the sup PT.	Comment Status A is an optional feature, if the low oport column for J7. Response Status C	wer interface s	Bucket upports NRZ and test
Р 209 Fujitsu Lab of	L 23 America	# 464	C/ 120 Hidaka, Ya	SC 120.7.5 suo	<i>Р</i> 209 Fujitsu Lab of	L 26 America	# 467
Comment Status A ptional feature, if the upper ort column for J6. Response Status C	interface suppo	Bucket orts NRZ and test pattern	Comment 7 A refer pattern Suggested Change Response	Type E ence to 120.5.1 Remedy e the sublcause	Comment Status A 1.1.2 is inappropriate, because e column for J7 from "120.5.11 Response Status C	e 120.5.11.1.2 .1.2" to "120.5.	Bucket specifies PRBS9 test 11.1.3".
יי ר ר	P 209 Fujitsu Lab of Comment Status A ptional feature, if the lower if ort column for J5. Response Status C P 209 Fujitsu Lab of Comment Status A ptional feature, if the upper y written in the status column nn for J6 to "JTP*UP_NRZ: Response Status C E. nn for J6 to "JTP1*UP_NRZ P 209 Fujitsu Lab of Comment Status A optional feature, if the upper ort column for J6. Response Status C	P 209 L 17 Fujitsu Lab of America Comment Status A ptional feature, if the lower interface support ort column for J5. Response Status C P 209 L 21 Fujitsu Lab of America Comment Status Comment Status A ptional feature, if the upper interface support y written in the status column is not consist nn for J6 to "JTP*UP_NRZ:O". P 209 C E. nn for J6 to "JTP1*UP_NRZ:O". P 209 L 23 Fujitsu Lab of America Comment Status A optional feature, if the upper interface support ort column for J6. Response Status C	P 209 L 17 # 462 Fujitsu Lab of America Bucket comment Status A Bucket ptional feature, if the lower interface supports NRZ and test pattern ort column for J5. Response Status C P 209 L 21 Fujitsu Lab of America Comment Status A Bucket ptional feature, if the upper interface supports NRZ and test pattern y written in the status column is not consistent with clause 21.6. nn for J6 to "JTP*UP_NRZ:O". Response Status C E. nn for J6 to "JTP1*UP_NRZ:O". P 209 L 23 P 209 L 23 Fujitsu Lab of America Comment Status A Bucket e. The status column is not consistent with clause 21.6. nn for J6 to "JTP1*UP_NRZ:O". E. P 209 L 23 # 464 Fujitsu Lab of America Comment Status A Bucket optional feature, if the upper interface supports NRZ and test pattern putched feature, if the upper interface supports NRZ and test pattern ort column for J6. Response Status C C	P 209 L 17 # 462 Cl 120 Fujitsu Lab of America Hidaka, Yat Comment Status A Bucket ptional feature, if the lower interface supports NRZ and test pattern Send s ort column for J5. Suggestedil Response Status C Change P 209 L 21 # 463 Fujitsu Lab of America Cl 120 Response P 209 L 21 # 463 Fujitsu Lab of America Cl 120 Change Comment Status A Bucket ptional feature, if the upper interface supports NRZ and test pattern ACCEF Change Change Cl 120 Hidaka, Yat Hidaka, Yat Comment 7 Send s Bucket Comment 7 y written in the status column is not consistent with clause 21.6. Suggestedil mn for J6 to "JTP*UP_NRZ:O". Suggestedil P 209 L 23 # 464 E: Cl 120 Fujitsu Lab of America Cl 120 P 209 L 23 # 464 Cytional feature, if the upper interface supports NRZ and test pattern	P 209 L17 # 462 Cl 120 SC 120.7.5 Fujitsu Lab of America Bucket Hidaka, Yasuo Comment Status A Bucket ptional feature, if the lower interface supports NRZ and test pattern Send square wave Tx pattern is supported. The expression currer ort column for J5. Response Status C SuggestedRemedy Change the status col P 209 L 21 # 463 Cl 120 SC 120.7.5 P 209 L 21 # 463 Change the status col P 209 L 21 # 463 Cl 120 SC 120.7.5 Fujitsu Lab of America Bucket Cl 120 SC 120.7.5 Hidaka, Yasuo Comment Status A Bucket Bucket SuggestedRemedy Change the status col mn for J6 to "JTP*UP_NRZ:O". Response Status C SuggestedRemedy Add "N/A []" to the sup Response Status A Bucket SuggestedRemedy Add "N/A []" to the sup reptional feature, if the upper interface supports NRZ and test pattern SuggestedRemedy Add "N/A []" to the sup Response Status A Bucket Hidaka, Yasuo Comment Type E AccEPT. Cl 120 <td>P 209 L 17 # [462] Cl 120 SC 120.7.5 P 209 Fujitsu Lab of America Bucket Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America Comment Type T Comment Status A Send square wave Tx is an optional feature, if the lop pattern is supported. The expression currently written in the status column for J5. Response Status C P 209 L 21 # [463] Fujitsu Lab of America Bucket Ch 120 SC 120.7.5 P 209 P 209 L 21 # [463] Ch 120 SC 120.7.5 P 209 Fujitsu Lab of America Comment Status A Bucket The expression currently written in the status column for J7 to "JTP"DN_NRZ:C Comment Status A Bucket Bucket Ch 120 SC 120.7.5 P 209 Fujitsu Lab of America Bucket Fujitsu Lab of America Comment Type E Comment Status A SuggestedRemedy Send square wave Tx is an optional feature, if the lop pattern is supported. SuggestedRemedy Response Status C E Comment Type E Comment Type E Comment Type A Response Status A Bucket SuggestedRemedy Ci 120 SC 120.7.5 P 209</td> <td>P 209L 17#462C 120SC 120.7.5P 209L 26Fujitsu Lab of AmericaBucketHidaka, YasuoFujitsu Lab of AmericaSend square wave Tx is an optional feature, if the lower interface supported.comment StatusCSend square wave Tx is an optional feature, if the lower interface supported.The expression currently written in the status column for J7 to "JTP"DN_NRZ:O".P 209L 21#463CACCEPT IN PRINCIPLE.P 209L 21#463CACCEPT IN PRINCIPLE.P 209L 21#463Fujitsu Lab of AmericaCComment StatusABucketCACCEPT IN PRINCIPLE.P 209L 23#464TypeEptional feature, if the upper interface supports NRZ and test patternSend square wave Tx is an optional feature, if the lower interface supported.m for J6 to "JTP"UP_NRZ:O".Response StatusCCResponse StatusCSuggestedRemedyAdd "N/A []" to the support column for J7.P 209L 23#464TypeEptional feature, if the upper interface supports NRZ and test patternSuggestedRemedyAdd "N/A []" to the support column for J7.P 209L 23#464CCTo rule Libro J AmericaComment StatusAA reference to 120.5.11.1.2 is inappropriate, because 120.5.11.1.2 is pattern.SuggestedRemedyContanent StatusAA reference to 120.5.11.1.2 is inappropriate, because 120.5.11.1.2 is "120.5.T</td>	P 209 L 17 # [462] Cl 120 SC 120.7.5 P 209 Fujitsu Lab of America Bucket Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America Comment Type T Comment Status A Send square wave Tx is an optional feature, if the lop pattern is supported. The expression currently written in the status column for J5. Response Status C P 209 L 21 # [463] Fujitsu Lab of America Bucket Ch 120 SC 120.7.5 P 209 P 209 L 21 # [463] Ch 120 SC 120.7.5 P 209 Fujitsu Lab of America Comment Status A Bucket The expression currently written in the status column for J7 to "JTP"DN_NRZ:C Comment Status A Bucket Bucket Ch 120 SC 120.7.5 P 209 Fujitsu Lab of America Bucket Fujitsu Lab of America Comment Type E Comment Status A SuggestedRemedy Send square wave Tx is an optional feature, if the lop pattern is supported. SuggestedRemedy Response Status C E Comment Type E Comment Type E Comment Type A Response Status A Bucket SuggestedRemedy Ci 120 SC 120.7.5 P 209	P 209L 17# 462 C 120SC 120.7.5P 209L 26Fujitsu Lab of AmericaBucketHidaka, YasuoFujitsu Lab of AmericaSend square wave Tx is an optional feature, if the lower interface supported.comment StatusCSend square wave Tx is an optional feature, if the lower interface supported.The expression currently written in the status column for J7 to "JTP"DN_NRZ:O".P 209L 21# 463 CACCEPT IN PRINCIPLE.P 209L 21# 463 CACCEPT IN PRINCIPLE.P 209L 21# 463 Fujitsu Lab of AmericaCComment StatusABucketCACCEPT IN PRINCIPLE.P 209L 23# 464 TypeEptional feature, if the upper interface supports NRZ and test patternSend square wave Tx is an optional feature, if the lower interface supported.m for J6 to "JTP"UP_NRZ:O".Response StatusCCResponse StatusCSuggestedRemedyAdd "N/A []" to the support column for J7.P 209L 23# 464 TypeEptional feature, if the upper interface supports NRZ and test patternSuggestedRemedyAdd "N/A []" to the support column for J7.P 209L 23# 464 CCTo rule Libro J AmericaComment StatusAA reference to 120.5.11.1.2 is inappropriate, because 120.5.11.1.2 is pattern.SuggestedRemedyContanent StatusAA reference to 120.5.11.1.2 is inappropriate, because 120.5.11.1.2 is "120.5.T

				-					
C/ 120 SC 120.7.5	P 209	L 32	# 468	C/ 120	SC 1	20.7.5	P 209	L 40	# 471
Hidaka, Yasuo	Fujitsu Lab of	America		нідака, та	isuo		Fujitsu Lab of	America	
Comment Type T Send JP03A Tx is an pattern is supported. The expression curre	Comment Status A optional feature, if the lower in ntly written in the status colum	iterface support	<i>Bucket</i> s PAM4 and test ent with clause 21.6.	Comment Send J pattern	<i>Type</i> JP03A R h is supp <i>Remed</i> u	E x is an op orted.	Comment Status A otional feature, if the upper ir	iterface suppo	Bucket orts PAM4 and test
SuggestedRemedy Change the status cc	lumn for J8 to "JTP*DN_PAM4	4:O".		Add "N Response	I/A []" to	the supp	ort column for J9. <i>Response Status</i> C		
Response ACCEPT IN PRINCIP Change the status co	Response Status C PLE.	14·O"		ACCE	PT.	20 7 5	0000		
C/ 120 SC 120.7.5	P 209	L 34	# 469	Hidaka, Ya	ISUO	20.7.5	Fujitsu Lab of	L 44 America	# 472
Hidaka, Yasuo	Fujitsu Lab of	America		Comment	Туре	т	Comment Status A		Bucket
Comment Type E Send JP03A Tx is an pattern is supported.	Comment Status A optional feature, if the lower in	iterface support	<i>Bucket</i> s PAM4 and test	Send J pattern The ex	IP03B T is supp pression	x is an op orted. n currently	tional feature, if the lower in y written in the status colum	terface suppor	rts PAM4 and test tent with clause 21.6.
SuggestedRemedy Add "N/A []" to the su	pport column for J8.			Chang	e the sta	atus colur	nn for J10 to "JTP*DN_PAM	4:O".	
Response ACCEPT.	Response Status C			Response ACCEI Chang	PT IN PI e the sta	RINCIPLE atus colur	Response Status C nn for J10 to "JTP2*DN_PAI	M4:O".	
C/ 120 SC 120.7.5 Hidaka, Yasuo	Р 209 Fujitsu Lab of	L 38 America	# 470	<i>Cl</i> 120 Hidaka, Ya	SC 1 Isuo	20.7.5	<i>Р</i> 209 Fujitsu Lab of	L 46 America	# 473
Comment Type T Send JP03A Rx is an pattern is supported. The expression curre	Comment Status A optional feature, if the upper in ntly written in the status colum	nterface suppor	<i>Bucket</i> ts PAM4 and test ent with clause 21.6.	Comment Send J pattern	<i>Type</i> JP03B T is supp	E x is an op orted.	Comment Status A tional feature, if the lower in	terface suppor	rts PAM4 and test
SuggestedRemedy					Kernedy	the sunn	ort column for 110		
Change the status co	lumn for J9 to "JTP*UP_PAM4	4:O".		Dooporco		the supp			
Response ACCEPT IN PRINCIF Change the status co	Response Status C PLE. Jumn for J9 to "JTP1*UP PAN	14:0".		ACCE	PT.		Response Status C		

C/ 120 S Hidaka, Yasuo	SC 120.7.5	P 209 Fujitsu Lab of	L 49 f America	# 474	C/ 120 Hidaka, Ya	SC 120 Isuo	.7.5	P 210 Fujitsu Labio	L 5 f America	# 477
Comment Type Send JP03 pattern is s The expres SuggestedRen Change th	e T 3B Rx is an optic supported. ssion currently w <i>nedy</i> e status column	Comment Status A onal feature, if the upper i written in the status colum	interface suppor	<i>Bucket</i> ts PAM4 and test ent with clause 21.6.	Comment Send F patterr Suggestea Add "N	Type E PRBS13Q is suppor <i>Remedy</i> I/A []" to th	۲x is an o ed. e support	Comment Status A ptional feature, if the low column for J12.	ver interface sup	Bucket opports PAM4 and test
Response ACCEPT I Change the	N PRINCIPLE. e status column	Response Status C	M4:0".		Response ACCE Cl 120	PT. SC 120	.7.5	esponse Status C	L 9	# 478
Cl 120 S Hidaka, Yasuo Comment Type Send JP03 pattern is s SuggestedRen Add "N/A [Response ACCEPT.	SC 120.7.5 e E 3B Rx is an optic supported. <i>medy</i>]" to the support	P 209 Fujitsu Lab of Comment Status A onal feature, if the upper i column for J11. Response Status C	<i>L</i> 51 f America interface suppor	# 475 Bucket ts PAM4 and test	Hidaka, Ya Comment Send F patterr The ex Suggested Chang Response ACCE Chang	ASUO Type T PRBS13Q is suppor spression c <i>IRemedy</i> the statu PT IN PRII the statu	C Rx is an o ed. urrently w s column <i>R</i> NCIPLE. s column	Fujitsu Lab of Comment Status A ptional feature, if the upp ritten in the status colum for J13 to "JTP*UP_PAN esponse Status C for J13 to "JTP1*UP_PA	f America per interface su nn is not consist M4:O". M4:O".	<i>Bucket</i> pports PAM4 and test tent with clause 21.6.
C/ 120 S Hidaka, Yasuo	SC 120.7.5	Р 210 Fujitsu Lab of	L 3 f America	# 476	<i>Cl</i> 120 Hidaka, Ya	SC 120	.7.5	Р 210 Fujitsu Lab o	L 11 f America	# 479
Comment Type Send PRB pattern is s The expres SuggestedRen Change the Response ACCEPT I	e T SI3Q Tx is an of supported. ssion currently w <i>nedy</i> e status column R N PRINCIPLE.	Comment Status A optional feature, if the low written in the status colum for J12 to "JTP*DN_PAN Response Status C	rer interface sup in is not consist //4:O".	<i>Bucket</i> ports PAM4 and test ent with clause 21.6.	Comment Send H patterr Suggested Add "N Response ACCE	Type E PRBS13Q n is suppor I/Remedy I/A []" to th PT.	C Rx is an o ed. e support <i>R</i>	Comment Status A ptional feature, if the upp column for J13. esponse Status C	per interface su	Bucket pports PAM4 and test

C/ 120 SC 120.	7.5 P 210	L 15	# 480	C/ 120	SC 120.7.5	P 210	L 23	# 483
Hidaka, Yasuo	Fujitsu Lab o	f America		Hidaka, Ya	SUO	Fujitsu Lab o	f America	
Comment Type T Send PRBS31Q T pattern is supporte The expression cu	Comment Status A ix is an optional feature, if the low ed. irrently written in the status colum	ver interface sup	<i>Bucket</i> ports PAM4 and test ent with clause 21.6.	Comment Send F pattern	<i>Type</i> E PRBS31Q Rx is is supported.	Comment Status A s an optional feature, if the up	per interface su	Bucket poorts PAM4 and test
SuggestedRemedy Change the status	column for J14 to "JTP*DN_PAN	М4:О".		Add "N Response	I/A []" to the su	pport column for J15. Response Status C		
ACCEPT IN PRIN Change the status	CIPLE. column for J14 to "JTP2*DN_PA	M4:0".		ACCEI	PT. SC 120.7.5	P 210	L 26	# 484
Cl 120 SC 120. Hidaka, Yasuo Comment Type E Send PRBS31Q T pattern is supporte SuggestedRemedy Add "N/A []" to the Response ACCEPT.	7.5 P 210 Fujitsu Lab o <i>Comment Status</i> A ix is an optional feature, if the low ed. support column for J14. <i>Response Status</i> C	L 17 f America ver interface sup	# 4 <u>81</u> <i>Bucket</i> ports PAM4 and test	Hidaka, Ya Comment Check patterm The ex Suggested Chang Response ACCEI Chang	suo Type T PRBS31Q Tx i is supported. pression curre Remedy e the status co PT IN PRINCIF e the status co	Fujitsu Lab o Comment Status A is an optional feature, if the up ntly written in the status colum olumn for J16 to "JTP*UP_PAN Response Status C PLE. olumn for J16 to "JTP1*UP_PA	f America oper interface su nn is not consist M4:O".	Bucket upports PAM4 and test ent with clause 21.6.
C/ 120 SC 120. Hidaka, Yasuo	7.5 <i>P</i> 210 Fujitsu Lab o	L 21 f America	# 482	<i>Cl</i> 120 Hidaka, Ya	SC 120.7.5	Р 210 Fujitsu Lab o	L 28 f America	# 485
Comment Type T Send PRBS31Q F pattern is supporte The expression cu SuggestedRemedy Change the status	Comment Status A ex is an optional feature, if the up ed. Interntly written in the status column column for J15 to "JTP*UP PAN	per interface sup nn is not consiste //4:O".	<i>Bucket</i> oports PAM4 and test ent with clause 21.6.	Comment Check pattern Suggested Add "N	Type E PRBS31Q Tx is supported. Remedy I/A []" to the su	Comment Status A is an optional feature, if the up	oper interface su	Bucket
Response ACCEPT IN PRIN Change the status	Response Status C CIPLE. column for J15 to "JTP1*UP_PA	M4:O".		Response ACCEI	PT.	Response Status C		

C/ 120 SC 120.7.	5 P 210	L 32	# 486	C/ 120 S	SC 120.7.5	P 210	L 40	# 489
Hidaka, Yasuo	Fujitsu Lab of	America		Hidaka, Yasuo)	Fujitsu Lab	of America	
Comment Type T Check PRBS31Q R pattern is supported The expression curr SuggestedRemedy	Comment Status A x is an optional feature, if the low rently written in the status colum	wer interface su n is not consist	<i>Bucket</i> pports PAM4 and test ent with clause 21.6.	Comment Typ Send SSF pattern is SuggestedRen Add "N/A	e E PRQ Tx is an supported. <i>medy</i> []" to the sup	Comment Status A optional feature, if the low	er interface supp	Bucket orts PAM4 and test
ACCEPT IN PRINC Change the status of	Response Status C IPLE. solumn for J17 to "JTP2*DN_PA	M4:O".		Response ACCEPT. Cl 120 S	SC 120.7.6	Response Status C	L 48	# 490
Cl 120 SC 120.7. Hidaka, Yasuo Comment Type E Check PRBS31Q R pattern is supported	5 P 210 Fujitsu Lab of <i>Comment Status</i> A x is an optional feature, if the low	L 34 America wer interface su	# 487 Bucket pports PAM4 and test	Comment Typ LB1 is ma SuggestedRei Change "N	, ndatory if LE <i>nedy</i> No []" with "N	Comment Status A BL is supported.	n for LB1.	Bucket
SuggestedRemedy Add "N/A []" to the s	support column for J17.			Response ACCEPT.		Response Status C		
Response ACCEPT.	Response Status C			C/ 120 S Hidaka, Yasud	SC 120.7.6	Р 210 Fujitsu Lab	L 50 o of America	# 491
C/ 120 SC 120.7. Hidaka, Yasuo	5 P 210 Fujitsu Lab of	L 38 America	# 488	Comment Typ LB2 is ma	e E ndatory if LE	Comment Status A BR is supported.		Bucket
Comment Type T Send SSPRQ Tx is pattern is supported	Comment Status A an optional feature, if the lower	interface suppo	<i>Bucket</i> rts PAM4 and test	SuggestedRei Change "N	<i>nedy</i> No []" with "N	I/A []" in the support column	n for LB2.	
The expression curr SuggestedRemedy Change the status of Response	column for J18 to "JTP*DN_PAM Response Status C	n is not consist 14:0".	ent with clause 21.6.	Response ACCEPT.		Response Status C		
Change the status of	column for J18 to "DN_PAM4:O"							

C/ 93A SC 93A.1 P 313	L 40 # 492	C/ 120B SC 120B.1	P 329 L 27	# 494
Hidaka, Yasuo Fujitsu Lab of Ame	rica	Hidaka, Yasuo	Fujitsu Lab of America	
Comment Type T Comment Status R 200GAUI-n and 400GAUI-n are not physical layers.	Bucket	Comment Type T In Figure 120B-1, DTE 20	Comment Status A 00GXS and PHY 200GXS are not distin	Bucket guished. Although their
SuggestedRemedy Change "Physical Layer" with "Electrical interface" in the header row of Table 93A-2.	title of Table 93A-2 and in the	specifications are mostly protocol stack. I think we should not omi or effective so as to remin	identical, there have clear difference du t the prefix "DTE" or "PHY" whenever the nd readers of their distinction and labeli	ue to the location in the neir distinction is important ing.
Response Response Status C		SuggestedRemedy		
REJECT.	and DMDs such as 100CDASE	Make the following chang	es in Figure 120B-1:	
CR4. These are all "Physical Layer" specifications as per Cl 119A SC 119A P 315	L 36 # 493	Change the upper "200G Change the lower "200G) Add "DTE = DATA TERM	XS" with "DTE 200GXS". (S" with "PHY 200GXS". IINAL EQUIPMENT" at the bottom.	
Hidaka, Yasuo Fujitsu Lab of Ame	rica	Response	Response Status C	
Comment Type T Comment Status A The sentence starting with "Immediately before the tx_sc "S<0:57>=24e6959d0fa5dbd" should appear earlier, beca alignment marker insertion. SuggestedRemedy	<i>ex_Bucket</i> rambled" until ause the scramble is done prior to	ACCEPT IN PRINCIPLE. Make the following chang Change the upper "200G Change the lower "200G) Add "DTE = DATA TERM the list of abbreviations a	les to Figure 120B-1: XS" to "DTE 200GXS". KS" to "PHY 200GXS". IINAL EQUIPMENT" and "PHY = PHYS t the foot of the figure.	SICAL LAYER DEVICE" to
Move the sentence starting with "Immediately before the "S<0:57>=24e6959d0fa5dbd" before the paragraph starti 22.	tx_scrambled" until ing with "In this example" on line	Cl 120B SC 120B.1 Hidaka, Yasuo	P 330 L 8 Fujitsu Lab of America	# 495
Response Response Status C		Comment Type T	Comment Status A	Bucket
ACCEPT IN PRINCIPLE. Remove the sentence starting with "Immediately before t "S<0:57>=24e6959d0fa5dbd"	he tx_scrambled" up to	In Figure 120B-2, DTE 40 specifications are mostly protocol stack. I think we should not omi or effective so as to remin	00GXS and PHY 400GXS are not distin identical, there have clear difference du t the prefix "DTE" or "PHY" whenever th nd readers of their distinction and labeli	guished. Although their ue to the location in the neir distinction is important ing.
On line 22 change: "In this example, an alignment marker is due for insertion	1."	SuggestedRemedy		
to:		Make the following chang	es in Figure 120B-2:	
S<0:57> = 24e6959d0fa5dbd."	and the the scrambler seed (see was:	Change the upper "400G Change the lower "400G) Add "DTE = DATA TERM	XS" with "DTE 400GXS". KS" with "PHY 400GXS". IINAL EQUIPMENT" at the bottom.	
		Response	Response Status C	
		ACCEPT IN PRINCIPLE. Make the following chang Change the upper "400G Change the lower "400G Add "DTE = DATA TERM the list of abbreviations a	es to Figure 120B-2: XS" to "DTE 400GXS". KS" to "PHY 400GXS". IINAL EQUIPMENT" and "PHY = PHYS t the foot of the figure.	SICAL LAYER DEVICE" to
TYPE: TR/technical required ER/editorial required GR/gene	ral required T/technical E/editorial G/	deneral	Comment ID 495	Page 107 of 125

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: Comment ID

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C/ 120DSC 120D.1P 344L 27# 496Hidaka, YasuoFujitsu Lab of America	Cl 120B SC 120B.1 P 329 L 35 # 498 Hidaka, Yasuo Fujitsu Lab of America	
Comment Type T Comment Status A Bucket In Figure 120D-1, DTE 200GXS and PHY 200GXS are not distinguished. Although their	Comment Type E Comment Status A ex PCS is labeled inconsistently in Figure 120B-1.	x_Bucket
specifications are mostly identical, there have clear difference due to the location in the protocol stack. I think we should not omit the prefix "DTE" or "PHY" whenever their distinction is important or effective so as to remind readers of their distinction and labeling.	SuggestedRemedy Change "200 Gb/s PCS" on the left stack with "200GBASE-R PCS". Response Response Status C	
SuggestedRemedy Make the following changes in Figure 120D-1:	ACCEPT IN PRINCIPLE.	
Change the lower "200GXS" with "PHY 200GXS". Add "DTE = DATA TERMINAL EQUIPMENT" at the bottom.	Change 200 Gb/s PCS to PCS and Change "400 Gb/s PCS" to "PCS"	
Response Response Status C	C/ 120BSC 120B.1P 330L 16# 499Hidaka, YasuoFujitsu Lab of America	
Make the following changes to Figure 120D-1: Change the upper "200GXS" to "DTE 200GXS". Change the lower "200GXS" to "PHY 200GXS". Add "DTE = DATA TERMINAL EQUIPMENT" and "PHY = PHYSICAL LAYER DEVICE" to the list of abbreviations at the foot of the figure.	Comment Type E Comment Status A ex PCS is labeled inconsistently in Figure 120B-2. SuggestedRemedy SuggestedRemedy Change "400 Gb/s PCS" on the left stack with "400GBASE-R PCS". E	ĸ_Bucket
Cl 120D SC 120D.1 P 345 L 8 # 497 Hidaka, Yasuo Fujitsu Lab of America Bucket	Response Response Status C ACCEPT IN PRINCIPLE. See response to comment #498	
In Figure 120D-2, DTE 400GXS and PHY 400GXS are not distinguished. Although their specifications are mostly identical, there have clear difference due to the location in the protocol stack.	C/ 120D SC 120D.1 P 344 L 35 # 500 Hidaka, Yasuo Fujitsu Lab of America	x Bucket
or effective so as to remind readers of their distinction and labeling.	PCS is labeled inconsistently in Figure 120D-1.	
SuggestedRemedy Make the following changes in Figure 120D-2:	SuggestedRemedy Change "200 Gb/s PCS" on the left stack with "200GBASE-R PCS".	
Change the upper "400GXS" with "DTE 400GXS". Change the lower "400GXS" with "PHY 400GXS". Add "DTE = DATA TERMINAL EQUIPMENT" at the bottom.	Response Response Status C ACCEPT IN PRINCIPLE. See response to comment #498	
Response Response Status C ACCEPT IN PRINCIPLE. Make the following changes to Figure 120D-2: Change the upper "400GXS" to "DTE 400GXS". Change the lower "400GXS" to "PHY 400GXS". Add "DTE = DATA TERMINAL EQUIPMENT" and "PHY = PHYSICAL LAYER DEVICE" to the list of abbreviations at the foot of the figure.		
TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G	G/general Comment ID 500 Page 1	108 of 125

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Comment ID
C/ 120D SC 120D.1	P 345	L 16	# 501	CI 120B SC 120B.1	P 331	L 33	# <u>5</u> 03
Hidaka, Yasuo	Fujitsu Lab o	f America		Hidaka, Yasuo	Fujitsu Lab o	of America	
Comment Type E Co PCS is labeled inconsistently	omment Status A y in Figure 120D-2.		ex_Bucket	Comment Type T Figure 120B-4 is a ge	Comment Status R ood place to show the IS_SIGN	NAL.indication p	Bucket rimitive that is
SuggestedRemedy Change "400 Gb/s PCS" on	the left stack with "400	GBASE-R PCS".		SuggestedRemedy Draw a unidirectonal	arrow from the right compone	nt to left compor	nent with a label of
Response Res ACCEPT IN PRINCIPLE. See response to comment #	sponse Status C 498			IS_SIGNAL.indicatio Label the left comport Label the right comp	n. nent as "With upper PMA". onent as "With lower PMA".		
CL 120B SC 120B 1	P 331	/ 16	# 502	Response	Response Status C		
Hidaka, Yasuo	Fujitsu Lab o	f America	# 502	REJECT. The AUI is a physica	I instantiation of the IS_UNITD)ATA_i.request a	and
Comment Type T Co Figure 120B-3 is a good plac mandatory for 200GAUI-8 ch	ce to show the IS_SIGI nip-to-chip application.	NAL.indication pr	Bucket mitive that is	PMA:IS_UNITDATA_ no specification for th would be inappropria	_i.indication primitives betweer ne physical instantiation of the te to add this to the diagram.	i two adjacent P IS_SIGNAL.indi	MA sublayers. There is cation primitive, so it
SuggestedRemedy				C/ 120D SC 120D.1	P 346	L 16	# 504
Draw a unidirectonal arrow fu	rom the right compone	nt to left compon	ent with a label of	Hidaka, Yasuo	Fujitsu Lab o	f America	
Label the left component as	"With upper PMA".			Comment Type T	Comment Status R		Bucket
Label the right component as	s "With lower PMA".			Figure 120D-3 is a grandatory for 200G	ood place to show the IS_SIGI	NAL.indication pr	rimitive that is
Response Res	sponse Status C			SuggestedPortedy			
REJECT. The AUI is a physical instant PMA:IS_UNITDATA_i.indica no specification for the physi would be inappropriate to ad	tiation of the IS_UNITE tion primitives betweer ical instantiation of the ld this to the diagram.	OATA_i.request a two adjacent Pl IS_SIGNAL.indid	nd /A sublayers. There is ation primitive, so it	Draw a unidirectonal IS_SIGNAL.indicatio Label the left compo Label the right comp	arrow from the right components n. nent as "With upper PMA". onent as "With lower PMA".	nt to left compon	ient with a label of
				Response	Response Status C		
				REJECT. The AUI is a physica PMA:IS_UNITDATA no specification for th would be inappropria	I instantiation of the IS_UNITD _i.indication primitives betweer ne physical instantiation of the te to add this to the diagram.)ATA_i.request a n two adjacent P IS_SIGNAL.indi	ind MA sublayers. There is cation primitive, so it

C/ 120D SC 120D.1	P 346	L 33	# <u>5</u> 05		C/ 120C S	C 120C.1	P 337	L 39	# 507
Hidaka, Yasuo	Fujitsu Lab of	America			Hidaka, Yasuo		Fujitsu Lab o	f America	
Comment Type T	Comment Status R			Bucket	Comment Type) T	Comment Status R		Bucket
Figure 120D-4 is a good mandatory for 400GAU	I place to show the IS_SIGN -8 chip-to-chip application.	AL.indication p	rimitive that is		Figure 120 mandatory	C-3 is a go for 400GA	od place to show the IS_SIGNUI-16 chip-to-module applicat	NAL.indication p ion.	rimitive that is
SuggestedRemedy					SuggestedRen	nedy			
Draw a unidirectonal an IS_SIGNAL.indication.	ow from the right component	t to left compor	nent with a label	of	Draw a uni IS_SIGNA	directonal a L.indication	arrow from the right component.	nt to left compo	nent with a label of
Label the left componer	it as "With upper PMA".				Response		Response Status C		
Response	Posnonso Status C				REJECT.				
DE IECT	Response Status				The AUI is	a physical	instantiation of the IS_UNITD	ATA_i.request a	and MA sublavors Thora is
The AUI is a physical in PMA:IS_UNITDATA_i.ir	There is	no specific would be ir	ation for the	e physical instantiation of the e to add this to the diagram.	IS_SIGNAL.ind	ication primitive, so it			
would be inappropriate	to add this to the diagram.	5_SIGNAL.IIIUI	ication primitive,	, 50 il	C/ 120E S	C 120E.1	P 358	L 16	# 508
0/ 4000 00 4000 4			" 500		Hidaka, Yasuo		Fujitsu Lab o	f America	
Lideka Vagua	P 337 Euiiteu Lob of	L 16	# 506		Comment Type	e T	Comment Status R		Bucket
		America			Figure 120	E-2 is a go	od place to show the IS_SIGN	NAL.indication p	rimitive that is
Comment Type T	Comment Status R			Bucket	mandatory	for 200GA	UI-4 chip-to-module application	on.	
Figure 120C-2 is a good mandatory for 200GAU	I place to show the IS_SIGN	AL.indication p	orimitive that is		SuggestedRen	nedy			
SuggestedRemedy					Draw a uni IS_SIGNA	directonal a	arrow from the right component.	nt to left compo	nent with a label of
Draw a unidirectonal an	ow from the right componen	t to left compor	nent with a label	of	Response		Response Status C		
15_SIGNAL.Indication.					REJECT.		·		
Response	Response Status C				The AUI is	a physical	instantiation of the IS_UNITD	ATA_i.request	and
REJECT. The AUI is a physical in PMA:IS_UNITDATA_i.iu no specification for the	stantiation of the IS_UNITDA Idication primitives between physical instantiation of the I	ATA_i.request a two adjacent P S_SIGNAL.indi	and MA sublayers. ication primitive,	There is , so it	PMA:IS_U no specific would be ir	NITDATA_i ation for the nappropriate	Lindication primitives betweer e physical instantiation of the e to add this to the diagram.	n two adjacent P IS_SIGNAL.ind	MA sublayers. There is ication primitive, so it

C/ 120E SC 120E.1 Hidaka, Yasuo	<i>Р</i> 358 Fujitsu Lab of	L 39 America	# 509	C/ 120B Hidaka, Yas	SC 120B.5	.3	<i>Р</i> 334 Fujitsu Lab o	L 11 f America	# 511	
Comment Type T Figure 120E-3 is a goo mandatory for 400GAU SuggestedRemedy	Comment Status R od place to show the IS_SIGN UI-8 chip-to-module applicatio	IAL.indication p n.	Bucket primitive that is	Comment 7 Negativ confusi The ter	<i>type</i> T re description ng and may c m of "PHY ma	Comme "not applicab ause an erroi anufacturer" is	nt Status A le" in the Value/C to choose Yes o s also not clear.	comment column r No.	ex_Bucket for CHAN may be	
Draw a unidirectonal a IS_SIGNAL.indication	arrow from the right componen	t to left compo	nent with a label of	SuggestedRemedy Change the Value/Comment column for CHAN as follows:						
Response REJECT.	Response Status C			This PICS is for conformance of channel between two PMAs. (A manufacturer responsibl only for PMA with this interface may choose "No" for this item.)						
PMA:IS_UNITDATA_i no specification for the would be inappropriate	And PMA sublayers. There is lication primitive, so it	Response Response Status C ACCEPT IN PRINCIPLE. Although the term "PHY manufacturer" has been used in previous clauses and Annexes ir this context, "PMA manufacturer" is more accurate (for a chip-to-chip link) than "PHY								
C/ 120B SC 120B.1 Hidaka, Yasuo	P 331 Fujitsu Lab of	L 38 America	# 510	manufa Change	cturer" e "PHY manuf	acturer" to "F	MA manufacture	r"		
Comment Type T Channel for 200GAUI- difference from 83D.4.	Comment Status A 8 and 400GAUI-16 chip-to-ch	ip is described	Bucket in 120B.4 including the	C/ 120B Hidaka, Yas	SC 120B.5	.4.1	P 334 Fujitsu Lab o	<i>L</i> 46 f America	# 512	
SuggestedRemedy Change the reference	to "83D.4" with a reference to	"120B.4".		Comment 7 There a	ype T are exceptions	to Table 83	nt Status A)-1 described in 1	20B.3.1.	Bucket	
Response ACCEPT.	Response Status C			Suggestedl Change excepti	Re <i>medy</i> the Value/Co ons in 120B.3	omment colur .1".	nn for TC9 to "Me	et Table 83D-1	constraints with	
				Response ACCEF Change excepti	T IN PRINCI the Value/Co ons in 120B.3	Respons PLE. omment entry .1".	e Status C for TC9 to "Meet	s Table 83D-1 c	onstraints with the	

											·	
C/ 120C SC 120C.5.	3 P;	341	L 13	# 513		C/ 120C	SC	120C.5.4.1		P 341	L 45	# 515
Hidaka, Yasuo	Fujits	su Lab of An	nerica			Hidaka, Ya	suo			Fujitsu Lab of	America	
Comment Type T	Comment Status	5 A			Bucket	Comment 7	Гуре	т	Comment	Status R		Bucket
What is adaptive is e	qualizer rather than re	eceiver.				For iter	n TH9	, the differen	ntial termina	tion mismatch	is measured over	er AC cap using a
SuggestedRemedy						method	d descr	ibed in 86A	.5.3.2. A ref	erence to the e	quation may be	helpful.
Change the feature c	olumn for ADR with "A	Adaptive equ	alizer".			Suggested	Remea	ly				
Change the Value/Co Recommended_CTL	mment column for AI E_value".	DR with "Moo	dule equalizer c	loes not use		Change than 10	e the V)%".	'alue/Comm	nent column	for TH9 with "E	Equation (86A-10)) or (86A-11) is less
Response	Response Status	С				Response			Response S	Status C		
ACCEPT IN PRINCIF	LE.					REJEC	ЭΤ.					
Change item entry "A Change feature entry	DR" to "ADE" "Adaptive receiver" to	o "Adaptive e	equalizer"			This er details	ntry foll can ea	ows that for asily be four	r PICS entry nd via the ref	TH9 in 83E.5.4 erence to 1200	4.1. The relever C.3.1.	nt equations and other
C/ 120C SC 120C.5.	4.1 P:	341	/ 28	# 514		C/ 120C	SC	120C.5.4.2		P 342	L 8	# 516
Hidaka, Yasuo	Fujits	su Lab of An	nerica			Hidaka, Ya	suo			Fujitsu Lab of	America	
Comment Type T	Comment Status	R			Bucket	Comment 7	Гуре	т	Comment	Status R		Bucket
For item TH2 through	TH14, a reference to	0 120C.3.1 is	useless, beca	use it does not		A refer	ence to	o Pattern 5	and Pattern	3 may be helpf	iul.	
provide useful information	ation.					Suggested	Remed	lv				
SuggestedRemedy						Change	e "Patt	ern 5. Patte	ern 3." in the	Value/Comme	nt column for TH	-114 with "Pattern 3 or 5
Change the subclaus	e column as follows:					in Tabl	e 86-1	1".				
						Response			Response S	Status C		
TH3:83E.3.1.2						REJEC	T.					
TH4 : 83E.3.1						The pa	ttern d	etails can b	e found by f	ollowing the ex	isting reference	chain.
TH5:83E.3.1												
TH6:83E.3.1.3 TH7:83E.3.1.3												
TH8 : 83E.3.1.3												
TH9 : 83E.3.1, 86A.5	.3.2											
TH10:83E.3.1.5,86	4.5.3.3											
TH11:83E.3.1												
TH12:03E.3.1												
TH14 : 83E.3.1.6												
Response	Response Status	С										
REJECT.												
The reference is to th	e local subclause whi	ich already c	ontains a refere	ence to 83E.3.	1							

together with any exceptions that are there now or may be added in later versions of the draft.

C/ 120D SC 120D.2 P 347 L 29 # 517	C/ 120D SC 120D.3.2.3 P 352 L 46	# 519
Hidaka, Yasuo Fujitsu Lab of America	Hidaka, Yasuo Fujitsu Lab of America	
Comment Type T Comment Status A The electrical characteristics of test fixture was specified from 0.05GHz to 25GHz in	Comment Type T Comment Status A In this context, "indicate the requested values" seems relevant.	Bucket
Equation 93-1 and 93-2 in 93.8.1.1, whereas the informative channel insertion loss is specified from 0.01GHz to 28.05GHz in Equation 120D-1. We need to expand the range of frequency of the characteristics of test fixture.	SuggestedRemedy Change "indicate the request values" with "indicate the requested	d values".
SuggestedRemedy	Response Response Status C	
Insert the folllowing phrase after "Figure 93-5 and 93.8.1.1": "with the exception of min frequency for the IL and RL specification is 0.01GHz and max	ACCEPT.	
frequency of the IL and RL specification is 28.05GHz".	C/ 120D SC 120D.5.3 P 356 L 11	# 520
Also, insert the same phrase after "Figure 93-10 and 93.8.2.1".	Hidaka, Yasuo Fujitsu Lab of America	
Response Response Status C	Comment Type T Comment Status A	ex_Bucket
ACCEPT IN PRINCIPLE. This comment was discussed at the 29th August electrical ad hoc, where there was felt to be merit in expanding the range even if it did require re-characterization of existing boards	Negative description "not applicable" in the Value/Comment colu confusing and may cause an error to choose Yes or No. The term of "PHY manufacturer" is also not clear.	mn for CHAN may be
However we only need a maximum frequency of baud rate in the informative channel loss	SuggestedRemedy	
equation. Change:	Change the Value/Comment column for CHAN as follows:	
"are defined in Figure 93-5 and 93.8.1.1, respectively." to: "are defined in Figure 93-5 and 93.8.1.1, respectively, with the exception that the upper frequency for Equation 93-1 and Equation 93-2 is 26 5625 GHz."	This PICS is for conformance of channel between two PMAs. (A only for PMA with this interface may choose "No" for this item.)	manufacturer responsible
	Response Response Status C	
Change: "are defined in Figure 93-10 and 93.8.2.1, respectively." to: "are defined in Figure 93-10 and 93.8.2.1, respectively, with the exception that the upper frequency for Equation 93-1 and Equation 93-2 is 26.5625 GHz."	ACCEPT IN PRINCIPLE. Although the term "PHY manufacturer" has been used in previou this context, "PMA manufacturer" is more accurate (for a chip-to- manufacturer" Change "PHY manufacturer" to "PMA manufacturer"	is clauses and Annexes in -chip link) than "PHY
Change the maximum frequency in Equation 120D-1 from 28.05 to 26.5625.		
See also comment #525	C/ 120D SC 120D.5.4.3 P 357 L 22 Hidaka, Yasuo Fujitsu Lab of America	# 521
C/ 120D SC 120D.3.2.3 P 352 L 46 # 518 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America Fujitsu Lab of America Fujitsu Lab of America	Comment Type T Comment Status A COM parameter for 200GAUI-4 and 400GAUI-8 chip-to-chip is de	Bucket escribed in 120D.4.
Comment Type E Comment Status A Bucket There is no such variable as "Request_eq_cm1" or "Request_eq_c1". Bucket	SuggestedRemedy Change the reference to 83D.4 with a reference to 120D.4	
SuggestedRemedy Change "Request_eq_cm1" with "Requested_eq_cm1". Change "Request_eq_c1" with "Requested_eq_c1".	Response Response Status C ACCEPT.	
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: Comment ID

C/ 120E SC 120E P 358 L1	# 522	C/ 120E SC 120E.4.1 P 372 L 37 # 525					
Hidaka, Yasuo Fujitsu Lab of America		Hidaka, Yasuo Fujitsu Lab of America					
Comment Type E Comment Status A "Annex 120E (normative)" is not shown in the bookmark of the PDF file. It is inconsistent with other clauses. SuggestedRemedy SuggestedRemedy Include "Annex 120E (normative)" in the bookmark text. Response Response Status C	Bucket	Comment Type T Comment Status A The electrical characteristics of test fixture was specified from 0.01GHz to 25GHz in Equation 92-34 in 92.11.1 and 92-35 in 92.11.2, whereas the informative channel insertion loss is specified from 0.01GHz to 28.05GHz in Equation 120E-1. We need to expand the range of frequency of the characteristics of test fixture. SuggestedRemedy					
ACCEPT.		"with the exception of max frequency of the IL and RL specification is 28.05GHz".					
C/ 120E SC 120E.3.1.6 P 363 L 28	# 523	Also, insert the same phrase after "the cable assembly test fixture".					
Hidaka, Yasuo Fujitsu Lab of America		Response Response Status C					
Comment TypeTComment StatusAThe compliance boards for this clause are defined in 120E.2.		ACCEPT IN PRINCIPLE. We only need a maximum frequency of baud rate in the informative channel loss equation, so change the maximum frequency in Equation 120E-1 from 28.05 GHz to 26.5625 GHz.					
SuggestedRemedy Change the reference to "83E.2" with a reference to "120E.2". Response Response Status C ACCEPT IN PRINCIPLE. 120E.2 is compliance point definitions this should be 120E.4.1 (HCB/MCB characteristics) Change the reference to "83E.2" to a reference to "120E.4.1".		Also change: "as the TP2 or TP3 test fixture." to: "as the TP2 or TP3 test fixture with the exception that the upper frequency of 25GHz is replaced with 26.5625 GHz. Also, change "cable assembly test fixture." to: "cable assembly test fixture with the exception that the upper frequency of 25GHz is replaced with 26.5625 GHz.					
C/ 120E SC 120E.3.2.1 P 366 L 44 Hidaka, Yasuo Fujitsu Lab of America	# 524	See also response to comment #517					
Comment Type T Comment Status A The compliance boards for this clause are defined in 120E.2.		C/ 120E SC 120E.5.4.1 P 378 L 42 # 526 Hidaka, Yasuo Fujitsu Lab of America Fujitsu Lab of America Fujitsu Lab of America Fujitsu Lab of America					
SuggestedRemedy		Comment Type T Comment Status R Bucket					
Change the reference to "83E.2" with a reference to "120E.2".		For item TH9, the differential termination mismatch is measured over AC cap using a method described in 864.5.3.2. A reference to the equation may be beloful					
Response Response Status C		SugaestedRemedy					
ACCEPT IN PRINCIPLE. 120E.2 is compliance point definitions this should be 120E.4.1 (HCB/MCB characteristics) Change the reference to "83E.2" to a reference to "120E.4.1".		Change the subclause column for TH9 from "120E.3.1" to "120E.3.1.4, 86A.5.3.2". Change the Value/Comment column for TH9 from "Less than 10%" to "Equation (86A-10) or (86A-11) is less than 10%".					
		Response Response Status C					
		REJECT. PICS items normally reference the local clause even if that clause then references a					

different clause - this ensures the PICS is valid even if the local clause changes.

C/ 120E SC 120E.5.4.2 Hidaka Yasuo	P 379 Fuiitsu Lab of A	L 20 merica	# 527	C/ 119 Nicholl Ga	SC 119.2.4	4.4.2	P 154 Cisco Systems	L 41	# 529
Comment Type T	comment Status R	menea	Bucket	Comment	vne TR	Comment	Status A		
For item TM7, the differentia method described in 86A.5.	al termination mismatch is 3.2. A reference to the equ	measured over	AC cap using a	The tex	t and curly bi	racket is technica	Illy incorrect.		
SuggestedRemedy Change the subclause colu Change the Value/Commer or (86A-11) is less than 10%	mn for TM7 from "120E.3. tt column for TM7 from "Le 6".	1" to "120E.3.1.4 ss than 10%" to	4, 86A.5.3.2". "Equation (86A-10)	Suggested The cu blocks insertic consist	Remedy rly bracket sh and the text ns" or "81 9' ent with CL82	iould be changed should be chang 19 × 257-bit block 2.	to only include t ed to read "81 91 s between aligni	he 257-bit blo 19 x 257-bit b ment markers	ocks "between" the AM blocks between AM s" The second option is
Response Re REJECT. See response to comment ;	esponse Status C #526			Response ACCEI		Response S IPLE.	Status C		
C/ 120 SC 120.5.11 Hidaka, Yasuo	P 194 Fujitsu Lab of A	L 32 merica	# 528	C/ 119	SC 119.2.4	4.4.2	P 155	L 23	# 530
Although there are a lot of c for a capability to evaluate b Since it is easy to add such logic, we should add such a electrical interfaces. SuggestedRemedy The detail of the proposal w Proposed Response Re REJECT. This comment was WITHDI	concerns about burst errors ourst errors. a capability with minor mo in optional feature, becaus ill be presented in the Sep esponse Status Z RAWN by the commenter.	due to DFE, th difications and a e DFEs are wide tember meeting	is specification lacks a small amount of ely used in the	Comment The te: Suggested The cu blocks, insertic consist Response ACCEI See re	ype TR it and curly bit Remedy Remedy rly bracket sh and the text ns"or "163 83 ent with CL82 PT IN PRINCI sponse to #56 #56	Comment S racket is technica would be changed should be changed should be change 39 x 257-bit block 2. Response S IPLE.	Status A Illy incorrect. to only include t ed to read "163 8 s between aligni Status C	he 257-bit blo 339 × 257-bit ment markers	ocks "between" the AM blocks between AM s". The second option is
				C/ 119 Nicholl, Ga	SC 119.2. 4 y Type FR	4.8	P 159 Cisco Systems	L 24	# <u>531</u>
				MAk-1 fixed, i diagrar	Since we are e k=514.It wo n, i.e. MAk-1	e using a fixed R buld be easer to r becomes MA513	S(544,514) FEC, ead/understand b, etc.	then the valu if 514 was su	ue of k is known and bstituted for k in the
				S <i>uggested</i> Substit	Re <i>medy</i> ute k=514 in	the diagram.			
				Response ACCEI	ΫТ.	Response S	Status C		

C/ 119 SC 1 ⁻ Nicholl, Gary	19.2.4.8	P 159 Cisco Systems	L 32	# 532	Cl 119 Nicholl, Ga	SC 119.2.4 . ary	8 P 160 Cisco Syste	L 32	# 535
Comment Type Should show C	ER Com A543=MA513, (ment Status A CA542=MA512, etc .		Bucket	Comment Should	<i>Type</i> ER d show CA543=	Comment Status A MA513, CA542=MA512, etc	¢.	Bucket
SuggestedRemedy Show CA543=N	, MA513, CA542=	MA512, etc throughou	ut diagram		Suggested Show	lRemedy CA543=MA513	, CA542=MA512, etc throug	hout diagram	
Response ACCEPT.	Resp	onse Status C			Response ACCE	PT.	Response Status C		
C/ 119 SC 1 ⁻ Nicholl, Gary	19.2.4.8	P 159 Cisco Systems	L 35	# 533	C/ 119 Nicholl, Ga	SC 119.2.4.	8 P 160 Cisco Syste	L 35 ems	# 536
Comment Type	ER Com	ment Status A		Bucket	Comment	Type ER	Comment Status A		Bucket
CA2t-1. We are easier to read/u 1becomes cA2	e using a signle understand if 15 9 and PA2t-1 b	FEC in this clause and was substituted for t t ecomes PA29.	d the value of t thoughtout the	is known. It would be diagram, i.e. CA2t-	CA2t- ⁻ easier 1beco	1. We are using to read/unders mes cA29 and	a signle FEC in this clause tand if 15 was substituted fo PA2t-1 becomes PA29.	and the value of t r t thoughtout the	t is known. It would be diagram, i.e. CA2t-
SuggestedRemedy	,				Suggested	Remedy			
Substitute t=15	5 in the diagram				Substi	tute t=15 in the	e diagram.		
Response ACCEPT.	Resp	onse Status C			Response ACCE	PT.	Response Status C		
C/ 119 SC 1 ⁻ Nicholl, Gary	19.2.4.8	P 160 Cisco Systems	L 24	# 534	C/ 1 Bouda, Ma	SC 1.1.3.2	Р 33 Fujitsu	L 22	# 537
Comment Type	ER Com	ment Status A		Bucket	Comment	Type E	Comment Status R		Bucket
MAk-1. Since w fixed, i.e k=514	ve are using a fi I t would be eas	xed RS(544,514) FEC ser to read/understand	, then the value I if 514 was sub	e of k is known and ostituted for k in the	"Two v replac	widths of () eig ing either the w	gth-lane version (.) four-lane ord "width" by "type", or wor	version" could be ds "type" by "width	e made easier to read by h"
diagram, i.e. M	AK-1 Decomes I	VIA513, etc.			Suggested	lRemedy			
SuggestedRemedy	, 11 in the diagra				In the	sentence repla	ce the two instances of "vers	sion" by "width".	
Substitute k=5		m.			Response		Response Status C		
ACCEPT.	Kesp	onse Status C			REJEC This te "Two \ 83B, a The su "Two \ and At is not definit	CT. ext follows the tr widths of CAUI- ind a four-lane uggested replac widths of 200G/ nnex 120C, and enough of an in ion.	ext in 1.1.3.2, item m: n are defined: a ten-lane ver version (CAUI-4) in Annex 8 eement text: AUI-n are defined: an eight-la I a four-lane width (200GAU nprovement to justify making	rsion (CAUI-10) in 3D and Annex 83I ane width (200GA I-4) in Annex 120D 9 this text different	Annex 83A and Annex E." UI-8) in Annex 120B D and Annex 120E." t from the 100G

C/ 1 S Bouda, Martin	SC 1.1.3.2	P 33 Fuiitsu	L 35	# 538	C/ 1 Bouda, M	SC lartin	1.4.325	P 35 Fuiitsu	L 35	# 541
Comment Type "Two width by replacir	e E ns of () sixte	Comment Status R een-lane version (.) eight-lan word "width" by "type", or wo	e version" coulc rds "type" by "w	Bucket I be made easier to read idth"	Commen "(.) P PCS	<i>t Type</i> CS disti lanes."	E ributes end should be	Comment Status R coded data to multiple lo broken into two sentence	gical lanes, these lo es, removing the co	<i>Bucket</i> gical lanes are called mma.
SuggestedRen In the sent Response	nedy tence replace	the two instances of "versic Response Status C	on" by "width".		Suggeste "(.) P PCS	dReme CS disti lanes."	<i>dy</i> ributes end	coded data to multiple lo	gical lanes. These lo	gical lanes are called
, REJECT. See respo	nse to comm	nent #537			Respons REJE This	e ECT. text is p	art of the b	Response Status C	ge has been made i	n the P802.3bs
C/ 1 S Bouda, Martin	SC 1.4.72b	P 34 Fujitsu	L 8	# 539	amer C/ 1	ndment SC	that requir	es such a change to this	definition.	# 542
Comment Type	e E	Comment Status R		Bucket	Bouda, M	lartin		Fujitsu		
replacing e SuggestedRen In the sent	either the wor nedy tence replace	rd "width" by "type", or words	on" by "width".	"	Commen Movin easie toget	<i>t Type</i> ng the w er to read her at th	E vord togeth d: "One or ne PMA se	Comment Status R her to just after the word more PCS lanes can be rvice interface."	carried would make multiplexed and ca	Bucket the following sentence rried on a physical lane
Response REJECT. This text fo "Two width (CAUI-4)" The sugge "Two width width (200	ollows the tex ns of CAUI-n ested replace ns of 200GAU GAUI-4)."	Response Status C tt in 1.4.81: are defined: a ten-lane versi ment text: JI-n are defined: an eight-lar	on (CAUI-10) ar e width (200GA	nd a four-lane version UI-8), and a four-lane	Suggeste "One PMA <i>Respons</i> REJE This amer	edReme or more service e ECT. text is p	dy e PCS lane interface.' art of the b that require	es can be multiplexed ar <i>Response Status</i> C pase standard. No chan es such a change to this	nd carried together o ge has been made i s definition.	n a physical lane at the n the P802.3bs
is not enou definition.	ugh of an imp	provement to justify making t	his text different	from the 100G	C/ 30	SC	30.3.2.1.2	P 37	L 17	# 543
C/ 1 S Bouda, Martin Comment Type "Two width by replacin	SC 1.4.72i e E ns of () sixte	P 34 Fujitsu Comment Status R een-lane version (.) eight-lan word "width" by "type" or wo	L 33 e version" could rds "type" by "w	# 540 Bucket I be made easier to read	Bouda, M <i>Commen</i> Inser <i>Suggeste</i> "Clau	lartin t <i>Type</i> t a comi d <i>Reme</i> ise 119,	ER ma to sepa dy , 200 Gb/s'	Fujitsu Comment Status R arate Clause number fro	m bitrate in "Clause	Bucket 119 200 Gb/s"
SuggestedRen	nedy				Respons	9		Response Status C		
In the sent Response REJECT. See respo	tence replace	e the two instances of "versic Response Status C nent #539	on" by "width".		REJE Thes exam "Clau	ECT. e rows a ple: ise 82 1	are being a 00Gb/s m	added to an existing list vulti-PCS lane using 2-lev	which does not inclu vel PAM"	de such commas. For
TYPE: TR/tech COMMENT ST	nnical require FATUS: D/dis	d ER/editorial required GR	/general require cted RESPO	d T/technical E/editorial (NSE STATUS: O/open W/	G/general written C/close	ed U/un	satisfied 2	Cc Z/withdrawn	omment ID 543	Page 117 of 125 29/09/2016 16:40

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: Comment ID

29/09/2016 16:40:01

C/ 30	SC 30.3.2.1.2	P 37	L 18	# 544	C/ 45	SC 45.2.1	1.123	P 60	L 20	# 547
Bouda, Ma	artin	Fujitsu			Bouda, Ma	artin		Fujitsu		
Comment Insert	<i>Type</i> ER a comma to sepa	Comment Status R rate Clause number from bi	trate in "Clause	<i>Bucket</i> 119 400 Gb/s"	<i>Comment</i> "(.) PH be ma	<i>Type</i> ER IY types that ide inclusive of	Comi implement s of the newly	ment Status A square wave testing added patterns of b	and PRBS testi its 1.1500.6 thro	<i>Bucket</i> ng in the PMA." should ough 1.1500.15.
Suggested "Claus	se 119, 400 Gb/s"				Suggested	dRemedy	implement 9	SSPRO IP03A sau	are wave PRB	S130 or PRBS testing
Response	CT.	Response Status C			ability	in the PMA."	implement	501 102, 51 057, 340		o log of the costing
These examp "Claus	e rows are being a ble: se 82 100Gb/s mu	dded to an existing list whic lti-PCS lane using 2-level F	h does not inclue AM"	le such commas. For	Response ACCE Chang	PT IN PRINC	Respo CIPLE.	onse Status C	and DDDC toot	ing in the DMA" to:
<i>Cl</i> 30 Bouda, Ma	SC 30.3.2.1.3 artin	<i>Р</i> 37 Fujitsu	L 27	# 545	"for Pi PMA" with th	HY types that HY types that he added word	implement implement	d and deleted words	and PRBS lest uare wave, and s in strikethrough	PRBS testing in the
Comment Insert	<i>Type</i> ER a comma to sepa	Comment Status R rate Clause number from bi	trate in "Clause	<i>Bucket</i> 119 200 Gb/s"	[Editor	SC 45 2 1	changed fro	m 60 to 20]	/ 24	# 548
Suggested	dRemedy				Bouda, Ma	artin		Fujitsu		# <u>340</u>
"Claus	se 119, 200 Gb/s"	_			Comment	Type ER	Com	ment Status A		Bucket
Response REJE	CT.	Response Status C			The fo the bit	ootnote of Tab s have becor	ole 45-94 do ne R/W.	es not need to inclu	de "RO=Read o	nly" anymore since all of
These examp "Claus	e rows are being a ole: se 82 100Gb/s mu	dded to an existing list whic	h does not inclue AM"	le such commas. For	Suggested Repla	dRemedy ce the footnot	te with "aR/\	V = Read/Write"		
<i>Cl</i> 30 Bouda, Ma	SC 30.3.2.1.3	P 37 Fujitsu	L 28	# 546	Response ACCE Show	PT IN PRINC	Respo CIPLE. Read only" pa	onse Status C art of the footnote in	strikethrough fo	ont.
Comment Insert	<i>Type</i> ER a comma to sepa	Comment Status R rate Clause number from bi	trate in "Clause	<i>Bucket</i> 119 200 Gb/s"						
Suggested "Claus	<i>dRemedy</i> se 119, 200 Gb/s"									
Response REJEC These examp "Claus	CT. e rows are being a ble: se 82 100Gb/s mu	Response Status C dded to an existing list whic lti-PCS lane using 2-level F	h does not incluc	le such commas. For						

C/ 116 Bouda, Ma	SC 116.1.4	<i>P</i> 106 Fuiitsu	L 24	# 549	C/ 116 Bouda, Ma	SC 116.1.4
Bouda, Ma Comment A nom system the se and cl. Suggestec "Table Response	Irtin <i>Type</i> ER (enclature is a syster hatic naming. Therefintence "Table 116-3 auses." <i>IRemedy</i> 116-3 and Table 11	Fujitsu Comment Status A n of naming things, rather ore, the word "Nomenclati and Table 116-4 specify t 6-4 relate PHYs to applica	than specific ir ure" should be he correlation b ble clauses."	ex_Bucket astances of a at replaced by "PHY" in between nomenclature	Bouda, Ma Comment A nom system in Tabl Suggested Replac Response	rtin Type ER enclature is a sy hatic naming. Th e 116-2 for insta Remedy the all occurences
ACCE Chang "Table Impler the co to: "Table Impler corres Also c "PHY "PHY	PT IN PRINCIPLE. te: 116–3 and Table 11 nentations conformir presponding clauses. 116–3 and Table 11 nentations conformir ponding clauses." hange the titles of Ta type and clause corre- type and clause corre-	See response to com Cl 120 SC 120.5.1 Palkert, Thomas Comment Type ER The method of generic bit sequences generic procedures requires SuggestedRemedy To provide clarity we signal which will ensit				
In the Cl 116 Bouda, Ma Comment A nom systen in Tab Suggestec Replac Response ACCE	heading of Tables 11 SC 116.1.4 Irtin Type ER (enclature is a system hatic naming. Therefile 116-2 for instance IRemedy ce all occurences of R PT IN PRINCIPLE.	I6-3 and 116-4, change "N P 106 Fujitsu Comment Status A n of naming things, rather ore, the word "Nomenclatur, or by "PHY". "Nomenclature" by "PHY" response Status C	L 28	o "PHY type" # <u>550</u> <i>ex_Bucket</i> estances of a replaced by "Name", as	50 bit s solutio bits on <i>Response</i> (Editor (Editor Add se "For ex initializ Gray c 222222	sequence should n would follow w page 197 line 4 PT IN PRINCIPL 's Note: Subclau entence after ". t cample, if the PF ed to a seed va oded PAM4 syn 2222222220122

<i>Cl</i> 116 Bouda, Mai	SC 116.1.4	F	<i>P</i> 107 ujitsu	L 4	# 551
Comment 7 A nome system in Table	<i>Type</i> ER enclature is a s atic naming. Th e 116-2 for inst	Comment Sta ystem of naming t nerefore, the word ance, or by "PHY"	tus A hings, rathe "Nomencla	er than specific in Iture" should be r	<i>ex_Bucket</i> stances of a eplaced by "Name", as
Suggestedi Replac	Re <i>medy</i> e all occurence	s of "Nomenclatu	re" by "PHY		
Response ACCEF See res	PT IN PRINCIP	Response Sta LE. ment #549	tus C		
Cl 120 Palkert, The	SC 120.5.11 omas	.2.4	P 198 acom	L 27	# 552
Comment 7	Type ER	Comment Sta	ntus A	omplex and we ba	ave seen differences in

ng a PRBS31Q pattern is complex and we have seen differences in ed between vendors. Correnct implementation of the test at the sequence is the same across vendors.

ropose that we provide the first 50 bits of the sequence of the PAM4 e that various implementation are in agreement. be sufficient to ensure correct coding. Note that the proposed that is current done for the PRBS13Q sequence which shows the 1.

Response Status C

Ε.

ise corrected to 120.5.11.2.4)

he next repetition of the PRBS31 sequence." RBS31 generator used to create the PRBS31Q sequence is lue of all ones, the PRBS31Q sequence begins with the following bols: 2222222220002222222222201201222."

C/ 124	SC	124.7.1	P 294	L 30	# 553	C/ 124	SC	124.8.1	P 296	L 32	# 555
traverso,	matt		CÍSCO			traverso, m	natt		CISCO		
Commen	t Type	т	Comment Status A			Comment	Туре	т	Comment Status A		
Tran meet (max	smitters t -30 dBr t).	which use m for the pa	a single light source split ar arameter Average launch po	nong multiple lan wer of OFF trans	es are challenged to smitter, each lane	The op specifi used.	otical tra ied 130	ansmitter v 4.5 - 1317.	vavelength will not vary appro 5nm) when any of the test pa	eciably (relativ atterns specifi	e to the currently ed in Table 124-9 are
The signal detect function must act on a signal between the average receive power, each lane (min) which is -5.4 dBm in this draft. Relaxing the TX OFF value for signal_detect is					SuggestedRemedy						
					e for signal_detect is	Change "3, 5 or valid 400GBASE-R signal" to "3, 4, 5, 6 or valid 400GBASE-R signal"					
techr	nically fe	easible.				Response			Response Status C		
Suggeste	edReme	dy				ACCE	PT IN F	PRINCIPLE			
Char	nge Avei	rage launch	power of OFF transmitter,	each lane (max)	to be -20 dBm	Make t	this cha	ange to Cla	uses 121, 122, and 124. Als	so include the	square wave pattern
Respons	е		Response Status C			added	by con	iment #15	2		
ACC	EPT IN	PRINCIPLE	Ξ.			C/ 124	SC	124.8.1	P 296	L 34	# 556
[Edit	or's note	e: Commen	t Type set to T]			traverso, m	natt		cisco		
366	respons		ent #554			Comment	Туре	т	Comment Status A		
C/ 124	SC	124.5.4	P 292	L 6	# 554	The op	otical tra	ansmitter s	ide mode suppression ratio	will not vary ap	preciably (relative to the
traverso,	matt		cisco			curren	tly spec	cified 1304	.5 - 1317.5nm) when any of t	the test pattern	ns specified in Table 124-
Commen	t Type	т	Comment Status A			9 are l	usea.				
Tran meet	smitters t-30 dBr	which use m.	a single light source split ar	nong multiple lan	es are challenged to	Suggested Chang	IRemed je "3, 5	<i>ly</i> or valid 40	0GBASE-R signal" to "3, 4, 9	5, 6 or valid 40	00GBASE-R signal"
The s lane techr	signal de (min) wh nically fe	etect function hich is -5.4 easible.	on must act on a signal betw dBm in this draft. Relaxing	veen the average the FAIL value f	receive power, each or signal_detect is	Response ACCE Chang	PT IN F je "3, 5	PRINCIPLE or valid 40	Response Status C 0GBASE-R signal" to "3, 5, 6	6 or valid 4000	GBASE-R signal"
Suggeste	edReme	dy				nere a	na in C	lauses 121	anu 122.		
Sugg	jest to c	hange valu	e to <= -20 dBm			C/ 124	SC	124.8.1	P 296	L 36	# 557
Respons	е		Response Status C			traverso, m	natt		cisco		
ACC	EPT IN	PRINCIPL	,			Comment	Туре	т	Comment Status A		
In Ta "For	able 124 any lane	-4, change:	optical power at TP3 <= -30	dBm" to:		The optical average optical power will not vary appreciably (relative to the currently					
"For	any lane	e; Average	optical power at TP3 <= -20	dBm"		used	eu 130	4.5 - 1317.	Shifty when any of the test p	allerns specifi	
In Ta	ble 124	-6, change	the Average launch power of	of OFF transmitte	er, each lane (max)	Suggested	Remec	ły			
from	-30 dBn	n to -20 dB	m			Change "3, 5 or valid 400GBASE-R signal" to "3, 4, 5, 6 or valid 400GBASE-R signal"					
						Response			Response Status C		
						ACCE Chang here a	PT IN F je "3, 5 nd in C	PRINCIPLE or valid 40 lauses 121	0GBASE-R signal" to "3, 5, (and 122.	6 or valid 4000	GBASE-R signal"

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: Comment ID

C/ 122	SC 122.1	P 239	L 1	# <u>5</u> 58
Booth, Bra	d	Microsoft		

Comment Type TR Comment Status R

400GBASE-FR8 does not satisfy broad market potential or economic feasibility. It is well understood in the Ethernet industry that all solutions for 2 km optical PMDs are considered "client" or "grey" optics. These PMDs must be able to satisfy the faceplate density requirements (32 ports per 1 RU) to be considered economically feasible. The current power estimations for 400GBASE-FR8 does not permit the PMD to meet the power envelope or cost requirements needed to satisfy this requirement. Because the PMD will not be economically feasible, it is therefore unlikely to have broad market potential.

SuggestedRemedy

Two options:

Delete 400GBASE-FR8 from the draft and remove the objective from the project.
Consider other options that will result in a solution that satisfies the economic feasibility

and broad market potential requirements.

As #2 is highly unlikely at this point in time, option #1 is the preferred suggested remedy.

Response Response Status U

REJECT.

Based on data presented that supported the development of the responses to the Broad Market Potential and Economic Feasibility Criteria, the Study Group and subsequently the 802.3 WG approved these responses. This data covered the solution that was eventually adopted by the Task Force and is specified in P802.3bs Draft 2.0.

The SMF objective for 2km was adopted based on data presenting its need across multiple applications. This need across multiple application areas is noted in the Broad Market Potential Response in the IEEE P802.3bs CSD (https://mentor.ieee.org/802-ec/dcn/16/ec-16-0057-00-ACSD-802-3bs.pdf). The commenter notes a specific implementation of faceplate density (32 ports per 1 RU) as a requirement that must be satisfied. However, the stated requirement is not supported by reference to an existing presentation or new data that demonstrates this requirement across the different application areas that have been noted in the Broad Market Potential Response.

Additionally, the commenter used the noted implementation for determining a power envelope and cost requirements for the optical solutions, and then continues with statements regarding "current power estimations." However, the commenter has not provided any reference to an existing presentation or new data regarding the power envelope, cost requirements, or "current power estimations" that can be considered.

C/ 123	SC 123.1	P 269	L 1	# <u>5</u> 59
Booth, Brad	Ł	Microsoft	:	

Comment Type TR Comment Status R

400GBASE-SR16 requires twice the number of fibers as two 200GBASE-SR4; therefore, it does not satisfy the balanced cost requirement of economic feasibility. Because the PMD does not meet the economically feasibility, it is unlikely to have broad market potential.

SuggestedRemedy

Two options:

1) Delete 400GBASE-SR16 from the draft and remove the objective from the project. 2) Modify the PMD to be 400GBASE-SR8 based on the same technology proposed for 200GBASE-SR4.

As #1 is highly unlikely at this point in time, option #2 is the preferred suggested remedy.

Response Response Status U

REJECT.

As noted in the Economic Feasibility response, "the project will examine alternatives that trade off between PMD complexity and the number of fibers in order to maintain a reasonable balance between these two costs." The selection examined these tradeoffs and concluded that the cost balance for this PMD is reasonable. The PMD specifications have been developed in the light of the state of technology for MMF optics. In addition the PMD specs potentially allow optical interface compatibility between individual lanes of 25GBASE-SR, 100GBASE-SR4 and 400GBASE-SR16.

<i>Cl</i> FM Law, David	SC FM	<i>Р</i> 8 НРЕ		L 19	# 560
Comment Ty Please a IEEE_P8	rpe E Idd Workin 302d3bs_V	<i>Comment Status</i> g Group voter list supplie /G_names_DL_240816.1	A ed in fm		Bucket
SuggestedRe See com	e <i>medy</i> Iment.				
Response ACCEPT		Response Status	С		

Add the suggested list with the exception of "John D'Ambrosia" who is already listed as the Task Force Chair.

[Editor's note: Attachment is law_3bs_01_0916.pdf in

http://www.ieee802.org/3/bs/comments/P802d3bs_D2p0_attachments.zip]

C/ 119 SC 119.2.5.5 P 162 L 34 # 561 Wertheim, Oded Mellanox Technologie Mellanox Technologie Mellanox Technologie	C/ 120E SC 120E.3.1 P 361 L 47 # 563 Dawe, Piers Mellanox
Comment Type E Comment Status A Bucket The alignment markers removal is performed after the post FEC interleaving, and therefore it's more clear to base the description on transcoding blocks and not codewords as done in the alignment markers insertion (119.2.4.4) and depicted in figures 119-7 / 119-8. SuggestedRemedy	Comment TypeTRComment StatusAFor a high loss host output with a peak-to-peak voltage of 900 mV as measured with PRBS13Q, the peak-to-peak voltage in service will be greater, by an amount that is more than I expected. It is too much to expect the receiver designer to second-guess this; we should expect the receiver to work with 900 mV for any reasonable pattern.
Replace: "For the 200GBASE-R PCS, every 4096th codewords" With: "For the 200GBASE-R PCS, every 81920 x 257-bit blocks (corresponds to 4096 codewords)" Replace: "For the 400GBASE-R PCS, every 8192nd codewords" With: "For the 400GBASE-R PCS, every 163840 x 257-bit blocks (corresponds to 8192 codewords)"	SuggestedRemedy Reduce the 900 mV here by a few percent. This makes no difference to a high-loss host. The output swing in a low-loss host might have to be reduced slightly, but that's OK, the module will still have an easier task than with the high-loss host. Reduce the crosstalk amplitude in module output test and host stressed input calibration similarly, as they are also specified with PRBS13Q.
Response Response Status C ACCEPT.	Response Response Status C ACCEPT IN PRINCIPLE. Change value of "Differential peak-to-peak output voltage (max) - Transmitter enabled" in Table 120E-1 from 900mV to 880mV
Wertheim, Oded Mellanox Technologie	Change PICS item TH2 appropriately
Comment TypeEComment StatusAThe drawing in Figures 119-7, 119-8 is correct but the description in 119-7 "81 920 x 257- bit blocks between AM insertions" may be misinterpreted since there are (81 920 - 4) x 257- bit blocks between insertions.	In 120E.3.2.1 Change The crosstalk generator is calibrated at TP1a with target differential peak-to-peak amplitude of 900 mV to
SuggestedRemedy Change the text in Figure 119-7 to "81 920 × 257-bit blocks between the beginning of successive AMs" Change the text in Figure 119-8 to "163 840 × 257-bit blocks between the beginning of successive AMs"	In 120E.3.3.2.1 Change "The counter propagating crosstalk channels during calibration of the stressed signal are
Response Response Status C ACCEPT IN PRINCIPLE. C Change the diagrams to show am_mapped instead of AMs per lane.	asynchronous with target amplitude of 900 mV" to "The counter propagating crosstalk channels during calibration of the stressed signal are asynchronous with target amplitude of 880 mV"
Change the description for 119-7 to: 81 920x257-bit blocks Change the description for 119-8 to: 163 840x257-bit blocks	Straw Poll 1) Change the Host peak-to-peak output amplitude at TP1A and related crosstalk amplitude from 900mV to 880mV 2) Retain existing value of 900mV 1): 5; 2): 4;

Cl 120D SC 120D.3.1.1 P 348 L 24 # 564 Dawe, Piers Mellanox <	C/ 121 SC 121.7.1 P 218 L 31 # 566 Dawe, Piers Mellanox						
Comment Type TR Comment Status A 94.3.12.7 refers to 94.3.12.5.2 which uses QPRBS13; and 94.3.12.5.1, 94.2.9.4, transmitter linearity test pattern; and runs of at least 8 consecutive identical levels.	Comment Type TR Comment Status R Does the extinction ratio matter much in PAM4?						
SuggestedRemedy	Unless it's important, reduce the limit to 3 dB, or as appropriate, for each optical PMD.						
Should be PRBS13Q; and PRBS13Q; and runs of at least 6 consecutive identical levels. There may be other corrections / exceptions needed.	Response Response Status U						
Response Response Status C ACCEPT IN PRINCIPLE. Make the changes detailed in szczepanek_3bs_02_0916.pdf	REJECT. Commenter is invited to demonstrate that there is a need to relax the ER for this PMD and that this will not impact the ability of receivers to meet the sensitivity requirements.						
See also comments 23 & 24.	C/ 121 SC 121.7.1 P 218 L 16 # 567						
CI 120D SC 120D.3.1.1 P 348 L 28 # 1565 Dawe, Piers Mellanox Comment Type TR Comment Status A Should not use such an unrepresentative pattern; should not require such a strange pattern for just one spec item. Should not rely on Clause 94. SuggestedRemedy Either: measure EOJ with PRBS13Q (or a shorter PRBSnQ if we have one) as in D1.4 120E.3.3.2 Even-odd jitter, but with 120D style slicing levels based on 120D.3.1.2.2. Apply the spec to a subset of emphasis settings, or apply to all emphasis settings but ignore the edges that are not present when emphasis is off. This will be a by-product of the SNDR and other jitter measurement, avoiding a separate measurement. Or, if we think that J_RMS, J5 (J4), SNDR, and linear fit components provide good enough coverage, remove the EOJ spec. Remove the JP03B test pattern generator and registers.	Comment Type TR Comment Status R The SMSR spec has been described variously as a diagnostic, a component level spec for buying lasers to make into PMDs, an early warning, a comfort blanket / included by default, or something that can be measured relatively easily in a component lab. Any SMSR problems will contribute to TDECQ - but we haven't quantified them. The effect of SMSR will depend strongly on the amount of dispersion which varies from one PMD to another and lane to lane, and on laser technology. We should not obstruct innovative implementations. SuggestedRemedy Make the SMSR limit a recommendation not a PICS requirement. All optical PMDs in this project. Response Response Status U REJECT. In response to similar comments, #219 and #221, to draft 1.0, it was agreed not remove						
Response Response Status U ACCEPT IN PRINCIPLE. Further contributions are solicited on EOJ measurement using the PRBS13Q test pattern.	the SMSR limit with the following justification: "Measuring SMSR is not required - it must pass if it is measured. The background of this spec is related to unstable laser performance, probably being very temperature sensitive. Even though measuring SMSR in a DWDM environment is less straightforward than in Clause 122, it is believed that this parameter should be specified. 30 dB value for SMSR is considered to be an appropriate value for this interface."						

C/ 120 SC 120.5.11.2.5 P 200 L 8 # 568 Hanan, Leizerovich MultiPhy MultiPhy 568 1	C/ 121 SC 121.8.3 P 225 L 5 # 570 King, Jonathan Finisar
Comment Type T Comment Status R The SSPRQ pattern is eventually a repeating sequence of 2^16-1 PAM4 symbols. Pattern length is not a round power of 2, which mat complicate some implementations.	Comment Type T Comment Status A Equation 121-5 needs two corrections
SuggestedRemedy Pad the suggested pattern by an additional symbol, generating a 2^16 symbols length	The divisor sq_rt(2 pi) should be sigma_g x sq_rt(2 pi), and the divisor sigma_g in the exponent should be 2 sigma_g
Response Response Status C REJECT. [Editor's note: Comment type set to T and this comment was sent after the close of the comment period]	Response Response Status C ACCEPT IN PRINCIPLE. [Editor's note: This comment was sent after the close of the comment period] Make the changes proposed on page 4 of http://www.ieee802.org/3/bs/public/16_09/king_3bs_03a_0916.pdf
None of the patterns such as PRBS31 nor the typically used (but less stressful) shorter patterns of PRBS13 or PRBS9 are powers of two in length, and this has never created any difficulty for measurement with scope capture for NRZ signals. Both the PRBS13Q and PRBS31Q patterns are odd numbers of symbols in length. Having a length of 2^16-1 means that anything that happens at a fractional rate (e.g. Baud/32) sees a different pattern each occurrence.	Cl 120 SC 120.5.11.2.5 P 199 L 44 # 571 Zivny, Pavel Tektronix Tektronix Tektronix Bucket Comment Type E Comment Status A Bucket In the text "shift register implementation shown in Figure 49-7." the reference is in error. E Comment Type
C/ 121 SC 121.8.5.4 P 225 L 50 # 569 Hanan, Leizerovich MultiPhy MultiPhy 569 100	SuggestedRemedy Change to "shift register implementation shown in Figure 49-9".
Comment Type T Comment Status R Reference equalizer implementation is not specifically stated. This may cause several problems, especially if the reference equalizers used for Rx and for Tx are implemented differently between two different vendors, causing their modules not to interop with one another. Bad equalizer implementation may assist modules to pass SRS on the Rx side, as the eye is seems falsely closed, altough it can be opened more using a better equalizer, while the same Rx will not pass with actual TX signals.	Response Response Status C ACCEPT IN PRINCIPLE. [Editor's note: This comment was sent after the close of the comment period] See response to comment #302.
SuggestedRemedy Suggest a specific reference equalizer implementation. Possible example implementation is minimum MSE between the signal and an ideal PAM- 4 signal with the same OMA as the measured signal (inner levels at 0, OMA/3 and 2*OMA/3).	
Response Response Status C REJECT. 121.8.5.3 TDECQ measurement method already says that the equalizer is set to minimize TDECQ: "The reference equalizer (specified in 121.8.5.4) is used to minimize the value of TDECQ derived from the captured waveform." [Editor's note: Comment type set to T and this comment was sent after the close of the comment period]	

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: Comment ID

Cl 121 SC Zivny, Pavel	C 121.8.4	P 221 Tektronix	L 15	# 572	C/ 120D Zivny, Pave	SC 120D.3.1.1	P 348 Tektronix	L 28	# 574			
Comment Type OMAouter is other pattern	T Com s defined for PRBS ns (e.g. TDECQ).	<i>ment Status</i> A 13Q explicitly, yet it ir	s needed for me	easurement based on	Comment In the t the foo	<i>Type</i> T able "Table 120D- tnote (d) is ancho	Comment Status R -1-200GAUI-4 and 400GAL red on "even odd jitter(max	JI-8 transmitter	characteristics at TP0a"			
This is impra SuggestedReme	This is impractical and unnecessary. Drop the reference to PRBS13Q. uggestedRemedy					This footnote describes the CR to use for jitter measurements. This shoudl be anchored on the very first word in the jitter section, "Output jitter".						
Change "Th measured u	ne OMAouter of eac using a PRBS13Q p	h lane shall be within attern as defined in 1	the limits giver 120.5.11.2.3."	in Table 121-6 if	Suggested Anchoi	<i>Remedy</i> • the footnote (d) c	on the words "Ooutput jitter	".				
"The OMAo	uter of each lane sl	nall be within the limi	ts given in Table	e 121-6."	Response		Response Status C					
Response ACCEPT IN	Resp I PRINCIPLE. te: This comment w	onse Status C	se of the comme	ent period	REJEC The foo See als	CT. otnote needs to pr so comment 573.	ovides an exception to the	reference claus	e.			
Change: "The OMAou using a PRE to: "The OMAou Also change Change the pattern"	uter of each lane sl 3S13Q pattern as d uter of each lane sl e "the run of" to "a r title of Figure 121-	nall be within the limit efined in 120.5.11.2.3 nall be within the limit un of" in two places. 3 to: "Example power	ts given in Table 3." ts given in Table r levels P0 and l	e 121-6 if measured e 121-6." P3 from PRBS13Q test	[Editor	s note: This comr	nent was sent after the clos	se of the comme	∍nt period]			
C/ 120D SC	C 120D.3.1.1	P 347	L 49	# 573								
Zivny, Pavel		Tektronix										
Comment Type	T Com	ment Status R										
The stateme bandwidth o clock recove and a slope	ent "The jitter is me of 4 MHz." is not ap ery unit (CRU) used of 20 dB/decade".	asured with a single- propriate since on ne I in the jitter measure	pole high-pass text page the foot ement has a corr	filter with a 3 dB note (d) states: "the ner frequency of 4 MHz								
SuggestedReme	edy											
change line "The jitter is	49 to read: measured with a tl	ne clock recovery uni	it (CRU)".									
Response	Resp	onse Status C										
REJECT. The stateme bandwidth o jitter, so the	ent "The jitter is me of 4 MHz.", applies t re is no conflict.	asured with a single- o Jrms and J5 jitter,	pole high-pass whereas footno	filter with a 3 dB te d applies to even-odd								
[Editor's no	ote: This comment v	vas sent after the clo	se of the comm	ent period]								