C/00 SC 0	Р	L	# 11	CI 00	SC 0		P338	L 30	# 302
Brown, Matt	Alphawave S	3emi		Ran, Adee	e		Cisco		
Comment Type E	Comment Status X			Comment			nt Status X		
(176.7.4.1), and Inner Rewrite/reformat the SuggestedRemedy	lefining the various status cou r FEC (177.5.4.1, 184.5.7) var counter definitions in the same	ry wildly from cla e style.	use to clause.	all oth "is lim related	ner measureme nited to" reads d to the fact th	ent points it is s like an informat nat SP2 may not	pecified with "sh ive statement, b t be accessible;	nall be less than". but it is a normative the same is true	,
same format. Use eitl	definitions in 175.2.5.3, 176.7 her 175.2.5.3 ro 177.5.4.1/184			same		ed in multiple cl			ata rate). Note that the cessary, it can be dea
Proposed Response	Response Status O			Suggested					
				00		o" to "shall be le	ess than" in all ir	stances of Skew	and Skew variation at
C/00 SC 0	P 261	L 47	# 273	SP2.	30 10 1111100 1				
Ran, Adee	Cisco			Proposed	Response	Response	e Status O		
the variables is recom This sentence is repe Access to the manag	Comment Status X e is not implemented, provision mended." ated in multiple clauses and a ement variables is required ("s commended to have them acc	annexes (14 insta shall") if MDIO is	ances).	C/ 1 Ran, Adeo <i>Comment</i> The d	Туре Е	Commen	P 53 Cisco ht Status X s "used for chip-	L 10	# 269
	access to the management va		be a requirement even if	interfa		by "For chip-to-			-chip interfaces". This
u .	is recommended" to "shall I	be provided", wi	th editorial license, in all	definit	tion can be im	proved.		w AUI annexes, t	
instances				Simila	ar concerns ex	tist in the definiti	ions of 200GAU	I-n, 400GAUI-n, a	ind 800GAUI-n.
Proposed Response	Response Status O			Suggestee					
				"A phy interfa across interfa widths eight-l	ace over n lane s multiple devi aces. Two s of 1.6TAUI-n lane	ation of the PMA es, enabling par ices. Specified s	titioning of a 1.6 separately for ch 3-lane (1.6TAUI-	hip-to-chip and ch	yer implementation ip-to-module electrical AUI-16 C2M), and
				Apply	corresponding	g changes in the	e definitions of 2	00GAUI-n, 400G	AUI-n, and 800GAUI-r

C/ 1 SC **1.4.92a**

C/ 1	SC 1.5	P 57	L 28	# 270	CI 45 SC	45.2.1.213a	P 92	L13	# 6
Ran, Adee		Cisco			Marris, Arthur		Cadence De	sign Systems	
Comment Ty	pe TR	Comment Status X			Comment Type	T Comm	ent Status X		
Abbrevia	tions ILcd and	d ILdc are also used, and sho	uld be defined.		Replace the 8	8 enable bits with a	single reset bit in 7	Table 45–177a	
SuggestedRe	emedy				SuggestedRemed	dy			
Add defir	nitions for ILco	d and ILdc.							EC enable lane 7" and
Proposed Re	esponse	Response Status 0				"1.2400.0" change			
					Proposed Respor	nse Respon	ise Status O		
CI 45	SC 45.2.1	P 70	L 7	# 272	<u> </u>				"
Ran, Adee		Cisco			-	45.2.1.213a	P 92	L14	# 91
Comment Ty	rpe T	Comment Status X			Nicholl, Shawn		AMD ent Status X		
· · · · · ·	A = 1 + 1 + 1 + 1 + 1 + 1 A	the design of a set of the set of	a contra ser de la colla C		Departmention of	aluman of fields in "T	able 15 1770 lon	or FFC control re	aistar hit definitione" i
SuggestedRe	emedy	in the stack, nor to the clause		, , , , , , , , , , , , , , , , , , ,		with other MDIO reg		ner FEC control re	egister bit definitions" is
SuggestedRe	emedy describing the	in the stack, nor to the clause e inner FEC MDIO positioning <i>Response Status</i> O		, , , , , , , , , , , , , , , , , , ,	inconsistent v SuggestedRemed Propose the f 1 = Enable In	with other MDIO reg	isters.		egister bit definitions" is v:
SuggestedRe Add test Proposed Re	emedy describing the	e inner FEC MDIO positioning		, , , , , , , , , , , , , , , , , , ,	inconsistent v SuggestedRemed Propose the f 1 = Enable In 0 = Disable Ir	with other MDIO reg dy following text for the mer FEC on lane 7	isters. description colum	n of 1.2400.7 rov	v:
SuggestedRe Add test	emedy describing the esponse	e inner FEC MDIO positioning Response Status O	(in the same MI	MD as the PMD).	inconsistent v SuggestedRemed Propose the f 1 = Enable In 0 = Disable Ir	with other MDIO reg dy following text for the iner FEC on lane 7 inner FEC on lane 7 lar update to descrip	isters. description colum	n of 1.2400.7 rov	v:
SuggestedRe Add test Proposed Re Cl 45	emedy describing the esponse SC 45.2.1	e inner FEC MDIO positioning Response Status O P 70	(in the same MI	MD as the PMD).	inconsistent v SuggestedRemed Propose the f 1 = Enable In 0 = Disable Ir Propose simi	with other MDIO reg dy following text for the iner FEC on lane 7 inner FEC on lane 7 lar update to descrip	isters. description colum ption column of 1.2	n of 1.2400.7 rov	v:
SuggestedRe Add test Proposed Re Cl 45 Ran, Adee Comment Ty The base addresse This text	emedy describing the esponse SC 45.2.1 pe ER e text of 45.2.7 es are allocate points to 83.1	e inner FEC MDIO positioning Response Status O P70 Cisco Comment Status X 1 includes references to multi	(in the same MI <i>L</i> 7 ple PMA sublaye does not include	MD as the PMD). # 2 <u>71</u> ers and how MMD e the corresponding	inconsistent v SuggestedRemed Propose the f 1 = Enable In 0 = Disable Ir Propose simi	with other MDIO reg dy following text for the iner FEC on lane 7 inner FEC on lane 7 lar update to descrip	isters. description colum ption column of 1.2	n of 1.2400.7 rov	v:
SuggestedRe Add test Proposed Re Cl 45 Ran, Adee Comment Ty The base addresse This text	emedy describing the esponse SC 45.2.1 pe ER e text of 45.2.7 es are allocate points to 83.1 es to the new	e inner FEC MDIO positioning <i>Response Status</i> O <i>P</i> 70 Cisco <i>Comment Status</i> X 1 includes references to multiped. 1.4, 109.1.4, and 120.1.4, but	(in the same MI <i>L</i> 7 ple PMA sublaye does not include	MD as the PMD). # 2 <u>71</u> ers and how MMD e the corresponding	inconsistent v SuggestedRemed Propose the f 1 = Enable In 0 = Disable Ir Propose simi	with other MDIO reg dy following text for the iner FEC on lane 7 inner FEC on lane 7 lar update to descrip	isters. description colum ption column of 1.2	n of 1.2400.7 rov	v:
SuggestedRe Add test Proposed Re Cl 45 Ran, Adee Comment Ty The base addresse This text reference SuggestedRe	emedy describing the esponse SC 45.2.1 ppe ER e text of 45.2.7 es are allocate points to 83.1 es to the new emedy	e inner FEC MDIO positioning <i>Response Status</i> O <i>P</i> 70 Cisco <i>Comment Status</i> X 1 includes references to multiped. 1.4, 109.1.4, and 120.1.4, but	(in the same MI L7 ple PMA sublaye does not include issed by 802.3df	MD as the PMD). # 271 ers and how MMD the corresponding f) and 176.11.	inconsistent v SuggestedRemed Propose the f 1 = Enable In 0 = Disable Ir Propose simi	with other MDIO reg dy following text for the iner FEC on lane 7 inner FEC on lane 7 lar update to descrip	isters. description colum ption column of 1.2	n of 1.2400.7 rov	v:

C/ **45** SC **45.2.1.213a**

C/73 SC 73.5.	1 P118	L 38	# 547	CI 73	SC 7:	3.6.4	P125	L 25	# 93
Dawe, Piers	Nvidia			Nicholl, S	hawn		AMD		
Comment Type TR	Comment Status X			Comment	Туре	E	Comment Status X		
default preset to sta	electrical characteristics" table n art training: 800 to 1000 *0.75 +/ x, 900 mV, and the XLPPI max,	-0.025 which is 5	Compare the proposed 80 to 775 mV, the		ntly says ne singula		and D[47:16] contains the U	nformatted Cod	e Field", but should
	x, 900 mv, and the ALPPI max,	000 mv.		Suggestee	,				
SuggestedRemedy	ME electrical characteristics int	a tha draft lt as	ataina	Propo	ose "D[10:	0] and D	[47:16] contain the Unforma	tted Code Field	n
Transmit differentia Receive differential	DME electrical characteristics, inf al peak-to-peak output voltage 60 I peak-to-peak input voltage 20 s, for anything capable of 2006/la	00 to 1200 mV 00 to 1200 mV.	italiis.	Proposed	Respons	е	Response Status O		
Transmit differentia	al peak-to-peak output voltage 60	00 to 900 mV		CI 73	SC 7:	3.8	P128	L 21	# 94
	peak-to-peak input voltage 20		ant product that only	Nicholl, S	hawn		AMD		
	ew product should comply to the X and/or 10GBASE-KX4 whose			Comment	Туре	ER	Comment Status X		
they don't have to a 800 mV). If the rea	change voltage swing when goin commendation has to go through	g from AN to regulation in the regulation of the second seco	ular mode - their min is				ed_ability[32:1] in "Table 73- er mapping"	6-Backplane Eth	nernet Auto-Negotiati
	I that" to gather feedback and bu	llia consensus.		Suggestee	dRemedy				
roposed Response	Response Status O			Propo	se mr_lp_	_adv_ext	ended_ability[32:1]		
				Proposed	Respons	е	Response Status 0		
SC 73.6.2	2.5.3 <i>P</i> 122	L 46	# 92						
licholl, Shawn	AMD			CI 73	SC 7	3.10.2	P130	L14	# 546
Comment Type TR	Comment Status X			Dawe, Pie	ers		Nvidia		
Comment Type TR The paragraph that	begins "The variable an_rs_fec		control indicates that	Dawe, Pie Comment		E	Nvidia Comment Status X		
omment Type TR The paragraph that RS-FEC-Int" is lo			control indicates that	Comment	Туре		Comment Status X		
Comment Type TR The paragraph that RS-FEC-Int" is lo SuggestedRemedy	t begins "The variable an_rs_fec pocated in the incorrect sub-claus	e.		Comment This is	<i>Type</i> s contrary	to the s			
Comment Type TR The paragraph that RS-FEC-Int" is lo SuggestedRemedy Propose to move th 73.6.2.5.4 (consiste	t begins "The variable an_rs_fec ocated in the incorrect sub-claus ne paragraph such that it is inser ent with editorial guidance found	e. ted after the seco	ond paragraph of	Comment This is Suggestee	<i>Type</i> s contrary dRemedy	to the s	Comment Status X tandard order (slow to fast).	one. As the ba	se document is out o
Comment Type TR The paragraph that RS-FEC-Int" is lo SuggestedRemedy Propose to move th 73.6.2.5.4 (consiste FEC control variable	t begins "The variable an_rs_fec ocated in the incorrect sub-claus ne paragraph such that it is inser ent with editorial guidance found	e. ted after the seco	ond paragraph of	Comment This is Suggester Put th order	<i>Type</i> s contrary <i>dRemedy</i> he new en and this p	to the s try imme project a	Comment Status X tandard order (slow to fast). diately below the 100G/lane nendment cannot deliver a p	properly ordered	table without cleanin
Comment Type TR The paragraph that RS-FEC-Int" is lo SuggestedRemedy Propose to move th 73.6.2.5.4 (consiste	t begins "The variable an_rs_fec ocated in the incorrect sub-claus ne paragraph such that it is inser ent with editorial guidance found	e. ted after the seco	ond paragraph of	Comment This is Suggestee Put th order it up, l	<i>Type</i> s contrary <i>dRemedy</i> he new en and this p bring the	to the s try imme project a	Comment Status X tandard order (slow to fast). diately below the 100G/lane	properly ordered	table without cleanin
Comment Type TR The paragraph that RS-FEC-Int" is lo SuggestedRemedy Propose to move th 73.6.2.5.4 (consiste FEC control variable	t begins "The variable an_rs_fec, pocated in the incorrect sub-claus ne paragraph such that it is inser ent with editorial guidance found les").	e. ted after the seco	ond paragraph of	Comment This is Suggester Put th order	<i>Type</i> s contrary <i>dRemedy</i> he new en and this p bring the	to the s try imme project an other two	Comment Status X tandard order (slow to fast). diately below the 100G/lane nendment cannot deliver a p	properly ordered	table without cleaning

C/ 73 SC 73.10.2

C/ 73 SC 73.10.2	P 130	L15	# 545	CI 73A SC 73A.1a	P 640	L 40	# 97
Dawe, Piers	Nvidia			Nicholl, Shawn	AMD		
Comment Type TR	Comment Status X			Comment Type E	Comment Status X		
0	4.2.1, there should be no time li	mit			icates additional abilities that v " Present tense seems mor		nodated in the link
SuggestedRemedy				SuggestedRemedy			
Change the two "TBI				,	additional abilities that are not	accommodated	in the link codeword
Proposed Response	Response Status 0			Base Page"			
				Proposed Response	Response Status 0		
CI 73 SC 73.10.2	P 130	L16	# 184				
Brown, Matt	Alphawave Se	emi		C/ 116 SC 116.1.4	P138	L18	# 114
Comment Type T	Comment Status X			Slavick, Jeff	Broadcom		
Value for link_fail_inf	nibit_timer is TBD. Need value.			Comment Type E	Comment Status X		
SuggestedRemedy				Table 116-3b has a th	nick bar on the right side of cla	use 73 M	
Expect a contribution	with proposals.			SuggestedRemedy			
Proposed Response	Response Status 0			adddress the formatti	ng issue		
				Proposed Response	Response Status O		
C/ 73 SC 73.10.2	P130	L16	# 131				
Slavick, Jeff	Broadcom			C/ 116 SC 116.3.3	4.1 P150	L12	# 152
Comment Type TR	Comment Status X			Bruckman, Leon	Nvidia		
TBD needs to be fille	d in.			Comment Type E	Comment Status X		
SuggestedRemedy				Missing comma			
Set link fail inhibit tim	er to be 15 to 15.1s			SuggestedRemedy			
Proposed Response	Response Status O			To make consistent w comma before: but it	with the text in the previous sec is considered the previous section penumtir		
				Proposed Response	Response Status O		

C/ 116 SC 116.3.3.4.1

C/ 116 SC 116.4	P150	L 52	# 24	C/ 120B	SC 120B	P 642	L1	# 427
Brown, Matt	Alphawave Se	emi		Dudek, Mike		Marvell		
Comment Type E	Comment Status X			Comment Typ	e TR	Comment Status X		
Delay limits for the 20 in 177.7.	0GBASE-R Inner FEC are TB	D in Table 116-6	but are indeed defined	Annex 12	0B is also lis	ment 152 on draft D1.2 was no sted in tables 178-1 as an allow	ved optional inte	erface for 200GBASE-
SuggestedRemedy						same problem as Annex 120D allocates 6.7e-6 to the C2C in		
Update Table 116-6 w	ith the delay numbers specifie	ed in 177.7.		C2M inte				
Proposed Response	Response Status 0			SuggestedRe	medy			
						o 802.3dj and add an equivaler		
C/ 116 SC 116.4	P151	L 49	# 25			e to Clause 120D for D1.3 with GAUI-8 and 400GAUI-16	Case 1 And Ca	se 2 and the same
Brown, Matt	Alphawave Se	emi		Proposed Re	sponse	Response Status O		
Comment Type E	Comment Status X							
Delay limits for the 40 in 177.7.	0GBASE-R Inner FEC are TBI	D in Table 116-7	but are indeed defined	C/ 120F	SC 120F.1	P 645	L 53	# 428
SuggestedRemedy				Dudek, Mike		Marvell		
Update Table 116-7 w	ith the delay numbers specifie	ed in 177.7.		Comment Typ	e E	Comment Status X		
Proposed Response	Response Status O			The refer	ence to 120	4 should be a hot link as this	is changed in 8	02.3dj
				SuggestedRe	medy			
C/ 119 SC 119.3	P162	L33	# 4	Make it se).			
			# 14	Proposed Re	sponse	Response Status 0		
Brown, Matt	Alphawave Se	emi						
Comment Type T	Comment Status X provided for 800GBASE-R an		PCS but not for the	C/ 120F	SC 120F.1	P646	L9	# 429
	BASE-R PCS. These counter			Dudek. Mike		Marvell	-•	
PHY receive path per	174A.7.		-	Comment Typ	e ER	Comment Status X		
SuggestedRemedy				,		F.3.2.1 is not correct. That sul	osection is abou	It Receiver Signalling
	counters FEC_codeword_erro		0	rate.				
that these counters an lane PMD.	e optional if the PCS is used in	n a PHY that inc	ludes 200 Gb/s per	SuggestedRe	medy			
Proposed Response	Response Status O			Change t	ne reference	to 135F.5		
Proposed Response								

C/ 120F SC 120F.1

C/ 169 SC 169.2.4	P172	L 50	# 42	C/ 169	SC 169.4	P 178	L23	# 44
Huber, Thomas	Nokia			Huber, The	omas	Nokia		
Comment Type T	Comment Status X			Comment	Туре Т	Comment Status X		
	nclude a reference to the 800GB	BASE-ER1 PMA				constraints for 800G 32:4 an EC, and clause 184 has value		
SuggestedRemedy	800GBASE-ER1 PMA is spec	ified in clause 19	6.2	Suggested	Remedy			
Proposed Response	Response Status O		0.5		ce the TBDs wiit 184.7 for the L	h the appropriate values from R1 inner FEC.	n Table 176-7, Ta	able 177-5, and from
				Proposed I	Response	Response Status 0		
C/ 169 SC 169.2.1	0 P173	L 45	# 153					
Bruckman, Leon	Nvidia			C/ 169	SC 169.4	P178	L23	# 154
comment Type TR	Comment Status X			Bruckman	, Leon	Nvidia		
ILT provides a mech transition to DATA m	anism to control the modulation	n, not the module.	. Also ILT coordinates	Comment	Type TR	Comment Status X		
SuggestedRemedy	lode.				alues for 800GB	ASE-R Inner FEC and 800G	BASE-LR1 are d	efined in the respectiv
Change: "For each l		for a receiver to c	control transmittor		1 D			
	SL, ILT provides a mechanism i			Suggested	ikemeav			
states, such as equa	lization, module, and precoding			Suggested Fill the	-	169-4 for 800GBASE-R Inne	r FEC and 800G	BASE-I R1 with the
states, such as equa and to indicate the re	lization, module, and precoding eceiver state."	g states on the lin	k partner transmitter,	Fill the	-	169-4 for 800GBASE-R Inne ed sections	r FEC and 800G	BASE-LR1 with the
states, such as equa and to indicate the re To: "For each ISL, IL such as equalization	lization, module, and precoding aceiver state." T provides a mechanism for a , modulation, and precoding sta	g states on the lin receiver to contro ates on the link pa	ik partner transmitter, ol transmitter states, artner transmitter, to	Fill the	TBDs in Table in the reference		r FEC and 800G	BASE-LR1 with the
states, such as equa and to indicate the re To: "For each ISL, IL such as equalization indicate the receiver	lization, module, and precoding eceiver state." T provides a mechanism for a , modulation, and precoding sta state, and to coordinate transiti	g states on the lin receiver to contro ates on the link pa	ik partner transmitter, ol transmitter states, artner transmitter, to	Fill the values	TBDs in Table in the reference	ed sections	r FEC and 800G	BASE-LR1 with the
states, such as equa and to indicate the re To: "For each ISL, IL such as equalization indicate the receiver	lization, module, and precoding aceiver state." T provides a mechanism for a , modulation, and precoding sta	g states on the lin receiver to contro ates on the link pa	ik partner transmitter, ol transmitter states, artner transmitter, to	Fill the values	TBDs in Table in the reference	ed sections	r FEC and 800G	BASE-LR1 with the
states, such as equa and to indicate the re To: "For each ISL, IL such as equalization indicate the receiver Proposed Response	lization, module, and precoding eceiver state." T provides a mechanism for a , modulation, and precoding sta state, and to coordinate transiti <i>Response Status</i> O	g states on the lin receiver to contro ates on the link pa ion to DATA mod	k partner transmitter, ol transmitter states, artner transmitter, to le."	Fill the values Proposed I	B TBDs in Table in the reference Response SC 171.1	ed sections Response Status O P190		# 373
states, such as equa and to indicate the re To: "For each ISL, IL such as equalization indicate the receiver roposed Response	lization, module, and precoding eceiver state." T provides a mechanism for a , modulation, and precoding sta state, and to coordinate transiti	g states on the lin receiver to contro ates on the link pa	ik partner transmitter, ol transmitter states, artner transmitter, to	Fill the values Proposed i Cl 171	TBDs in Table in the reference <i>Response</i> SC 171.1 a, John	ed sections Response Status O P190	L8	# 373
states, such as equa and to indicate the re To: "For each ISL, IL such as equalization indicate the receiver roposed Response (169 SC 169.4 uber, Thomas	lization, module, and precoding eceiver state." T provides a mechanism for a r , modulation, and precoding sta state, and to coordinate transiti <i>Response Status</i> O <i>P</i> 178 Nokia	g states on the lin receiver to contro ates on the link pa ion to DATA mod	k partner transmitter, ol transmitter states, artner transmitter, to le."	Fill the values Proposed I Cl 171 D'Ambrosi Comment	TBDs in Table in the reference <i>Response</i> SC 171.1 ia, John <i>Type</i> T R	ed sections Response Status O P 190 Futurewei, U	L 8 I.S. Subsidiary o	# 373
states, such as equa and to indicate the re To: "For each ISL, IL such as equalization indicate the receiver roposed Response / 169 SC 169.4 luber, Thomas omment Type T	lization, module, and precoding eceiver state." T provides a mechanism for a f , modulation, and precoding sta state, and to coordinate transiti <i>Response Status</i> O <i>P</i> 178 Nokia <i>Comment Status</i> X	g states on the lin receiver to contro ates on the link pa ion to DATA mod	k partner transmitter, ol transmitter states, artner transmitter, to le."	Fill the values Proposed i Cl 171 D'Ambrosi Comment 800GM	TBDs in Table in the reference Response SC 171.1 ia, John Type TR /III is noted as re	ed sections Response Status O P 190 Futurewei, U Comment Status X	L 8 I.S. Subsidiary o	# 373
states, such as equa and to indicate the re To: "For each ISL, IL such as equalization indicate the receiver Proposed Response C/ 169 SC 169.4 Huber, Thomas Comment Type T	lization, module, and precoding eceiver state." T provides a mechanism for a f , modulation, and precoding sta state, and to coordinate transiti <i>Response Status</i> O <i>P</i> 178 Nokia	g states on the lin receiver to contro ates on the link pa ion to DATA mod	k partner transmitter, ol transmitter states, artner transmitter, to le."	Fill the values Proposed I Cl 171 D'Ambrosi Comment 800GN Suggested	TBDs in Table in the reference Response SC 171.1 ia, John Type TR MII is noted as re IRemedy	ed sections Response Status O P190 Futurewei, U Comment Status X equired in first entry in Table	L 8 I.S. Subsidiary o	# 373
states, such as equa and to indicate the re To: "For each ISL, IL such as equalization indicate the receiver Proposed Response C/ 169 SC 169.4 Huber, Thomas Comment Type T Table 169-4 is missin	lization, module, and precoding eceiver state." T provides a mechanism for a f , modulation, and precoding sta state, and to coordinate transiti <i>Response Status</i> O <i>P</i> 178 Nokia <i>Comment Status</i> X	g states on the lin receiver to contro ates on the link pa ion to DATA mod	k partner transmitter, ol transmitter states, artner transmitter, to le."	Fill the values Proposed I Cl 171 D'Ambrosi Comment 800GM Suggested 1. Cha 2. Add	TBDs in Table in the reference Response SC 171.1 ia, John Type TR All is noted as re IRemedy ange table entry I note to 800GM	ed sections Response Status O P 190 Futurewei, U Comment Status X equired in first entry in Table to optional II table entry - The 800GMII i	L 8 I.S. Subsidiary of 171-1	# [<u>373</u> f Huawei
states, such as equa and to indicate the re- To: "For each ISL, IL such as equalization indicate the receiver Proposed Response Cl 169 SC 169.4 Huber, Thomas Comment Type T Table 169-4 is missin SuggestedRemedy Add a row for the PM	lization, module, and precoding eceiver state." T provides a mechanism for a f , modulation, and precoding sta state, and to coordinate transiti <i>Response Status</i> O <i>P</i> 178 Nokia <i>Comment Status</i> X ng rows for the 800GBASE-ER	g states on the lin receiver to contro ates on the link pa ion to DATA mod <i>L</i> 22 1 PCS and PMA on of other comme	<pre>ents about ER1</pre>	Fill the values Proposed I Cl 171 D'Ambrosi Comment 800GM Suggested 1. Cha 2. Add 800GM	TBDs in Table in the reference Response SC 171.1 ia, John Type TR All is noted as re IRemedy ange table entry I note to 800GM All is not implem	ed sections Response Status O P 190 Futurewei, U Comment Status X equired in first entry in Table to optional II table entry - The 800GMII i nented, a conforming	L 8 I.S. Subsidiary of 171-1 s an optional inte	# <u>373</u> f Huawei erface. However, if the
states, such as equa and to indicate the re- To: "For each ISL, IL such as equalization indicate the receiver Proposed Response C/ 169 SC 169.4 Huber, Thomas Comment Type T Table 169-4 is missin SuggestedRemedy Add a row for the PM architecture, add a receiver	lization, module, and precoding eceiver state." T provides a mechanism for a f , modulation, and precoding sta state, and to coordinate transiti <i>Response Status</i> O <i>P</i> 178 Nokia <i>Comment Status</i> X ng rows for the 800GBASE-ER	g states on the lin receiver to contro ates on the link pa ion to DATA mod <i>L</i> 22 1 PCS and PMA on of other comme	<pre>ents about ER1</pre>	Fill the values Proposed I CI 171 D'Ambrosi Comment 800GN Suggested 1. Cha 2. Add 800GN implen	TBDs in Table in the reference Response SC 171.1 ia, John Type TR All is noted as re Remedy ange table entry I note to 800GM All is not implem nentation behav	ed sections Response Status O P 190 Futurewei, U Comment Status X equired in first entry in Table to optional II table entry - The 800GMII i nented, a conforming es functionally as though the	L 8 I.S. Subsidiary of 171-1 s an optional inte	# <u>373</u> f Huawei erface. However, if the
states, such as equa and to indicate the re- To: "For each ISL, IL such as equalization indicate the receiver Proposed Response Cl 169 SC 169.4 Huber, Thomas Comment Type T Table 169-4 is missin SuggestedRemedy Add a row for the PM architecture, add a ro 186 are still TBD.	lization, module, and precoding eceiver state." T provides a mechanism for a finite , modulation, and precoding state state, and to coordinate transiti <i>Response Status</i> O <i>P</i> 178 Nokia <i>Comment Status</i> X ng rows for the 800GBASE-ER MA. Depending on the dispositio bw for the ER1 PCS or the ER1	g states on the lin receiver to contro ates on the link pa ion to DATA mod <i>L</i> 22 1 PCS and PMA on of other comme	<pre>ents about ER1</pre>	Fill the values Proposed I Cl 171 D'Ambrosi Comment 800GM Suggested 1. Cha 2. Add 800GM	TBDs in Table in the reference Response SC 171.1 ia, John Type TR All is noted as re Remedy ange table entry I note to 800GM All is not implem nentation behav	ed sections Response Status O P 190 Futurewei, U Comment Status X equired in first entry in Table to optional II table entry - The 800GMII i nented, a conforming	L 8 I.S. Subsidiary of 171-1 s an optional inte	# <u>373</u> f Huawei erface. However, if the
states, such as equa and to indicate the re- To: "For each ISL, IL such as equalization indicate the receiver Proposed Response C/ 169 SC 169.4 Huber, Thomas Comment Type T Table 169-4 is missin SuggestedRemedy Add a row for the PM architecture, add a ro 186 are still TBD.	lization, module, and precoding eceiver state." T provides a mechanism for a f , modulation, and precoding sta state, and to coordinate transiti <i>Response Status</i> O <i>P</i> 178 Nokia <i>Comment Status</i> X ng rows for the 800GBASE-ER	g states on the lin receiver to contro ates on the link pa ion to DATA mod <i>L</i> 22 1 PCS and PMA on of other comme	<pre>ents about ER1</pre>	Fill the values Proposed I CI 171 D'Ambrosi Comment 800GN Suggested 1. Cha 2. Add 800GN implen	TBDs in Table in the reference Response SC 171.1 ia, John Type TR All is noted as re Remedy ange table entry I note to 800GM All is not implem nentation behav	ed sections Response Status O P 190 Futurewei, U Comment Status X equired in first entry in Table to optional II table entry - The 800GMII i nented, a conforming es functionally as though the	L 8 I.S. Subsidiary of 171-1 s an optional inte	# <u>373</u> f Huawei erface. However, if the
states, such as equa and to indicate the re- To: "For each ISL, IL such as equalization indicate the receiver Proposed Response C/ 169 SC 169.4 Huber, Thomas Comment Type T Table 169-4 is missin SuggestedRemedy Add a row for the PM architecture, add a receiver	lization, module, and precoding eceiver state." T provides a mechanism for a finite , modulation, and precoding state state, and to coordinate transiti <i>Response Status</i> O <i>P</i> 178 Nokia <i>Comment Status</i> X ng rows for the 800GBASE-ER MA. Depending on the dispositio bw for the ER1 PCS or the ER1	g states on the lin receiver to contro ates on the link pa ion to DATA mod <i>L</i> 22 1 PCS and PMA on of other comme	<pre>ents about ER1</pre>	Fill the values Proposed I CI 171 D'Ambrosi Comment 800GN Suggested 1. Cha 2. Add 800GN implen	TBDs in Table in the reference Response SC 171.1 ia, John Type TR All is noted as re Remedy ange table entry I note to 800GM All is not implem nentation behav	ed sections Response Status O P 190 Futurewei, U Comment Status X equired in first entry in Table to optional II table entry - The 800GMII i nented, a conforming es functionally as though the	L 8 I.S. Subsidiary of 171-1 s an optional inte	# <u>373</u> f Huawei erface. However, if the
states, such as equa and to indicate the re- To: "For each ISL, IL such as equalization indicate the receiver Proposed Response Cl 169 SC 169.4 Huber, Thomas Comment Type T Table 169-4 is missin SuggestedRemedy Add a row for the PM architecture, add a ro 186 are still TBD.	lization, module, and precoding eceiver state." T provides a mechanism for a finite , modulation, and precoding state state, and to coordinate transiti <i>Response Status</i> O <i>P</i> 178 Nokia <i>Comment Status</i> X ng rows for the 800GBASE-ER MA. Depending on the dispositio bw for the ER1 PCS or the ER1	g states on the lin receiver to contro ates on the link pa ion to DATA mod <i>L</i> 22 1 PCS and PMA on of other comme	<pre>ents about ER1</pre>	Fill the values Proposed I CI 171 D'Ambrosi Comment 800GN Suggested 1. Cha 2. Add 800GN implen	TBDs in Table in the reference Response SC 171.1 ia, John Type TR All is noted as re Remedy ange table entry I note to 800GM All is not implem nentation behav	ed sections Response Status O P 190 Futurewei, U Comment Status X equired in first entry in Table to optional II table entry - The 800GMII i nented, a conforming es functionally as though the	L 8 I.S. Subsidiary of 171-1 s an optional inte	# <u>373</u> f Huawei erface. However, if the
states, such as equa and to indicate the re- To: "For each ISL, IL such as equalization indicate the receiver Proposed Response Cl 169 SC 169.4 Huber, Thomas Comment Type T Table 169-4 is missin SuggestedRemedy Add a row for the PM architecture, add a ro 186 are still TBD.	lization, module, and precoding eceiver state." T provides a mechanism for a finite , modulation, and precoding state state, and to coordinate transiti <i>Response Status</i> O <i>P</i> 178 Nokia <i>Comment Status</i> X ng rows for the 800GBASE-ER MA. Depending on the dispositio bw for the ER1 PCS or the ER1	g states on the lin receiver to contro ates on the link pa ion to DATA mod <i>L</i> 22 1 PCS and PMA on of other comme	<pre>ents about ER1</pre>	Fill the values Proposed I CI 171 D'Ambrosi Comment 800GN Suggested 1. Cha 2. Add 800GN implen	TBDs in Table in the reference Response SC 171.1 ia, John Type TR All is noted as re Remedy ange table entry I note to 800GM All is not implem nentation behav	ed sections Response Status O P 190 Futurewei, U Comment Status X equired in first entry in Table to optional II table entry - The 800GMII i nented, a conforming es functionally as though the	L 8 I.S. Subsidiary of 171-1 s an optional inte	# <u>373</u> f Huawei erface. However, if th

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 171 SC 171.1

C/ 171 SC 171.1	P 190	L 8	# 374	C/ 171	SC 171.8		P 202	L18	# 3
D'Ambrosia, John	Futurewei, U	.S. Subsidiary of	Huawei	Marris, Artl	hur		Cadence Des	sign Systems	
Comment Type TR	Comment Status X			Comment	Type TR	Comment S	Status X		
	required in first entry in Table 1	71-1a			ariable PHY_XS		_accuracy_ena	able is not presei	nt in Clause 172 and
SuggestedRemedy				Suggested	9				
	ry to optional /III table entry - The 1.6TMII is a mented, a conforming	an optional interfa	ace. However, if the	Create	new "Table 17 ⁻				trol variable mapping this this new table
	aves functionally as though the	RS and 1.6TMII	were present.	Proposed I		Response S			
Proposed Response	Response Status 0			i iopodou i	looponse	nesponse o			
				C/ 171	SC 171.8		P 203	L16	# 4
/ 171 SC 171.7	P 200	L 41	# 418	Marris, Artl	hur		Cadence Des	sign Systems	
icholl, Gary	Cisco System	ns		Comment	Type TR	Comment S	Status X		
	not show any MMD numbering.			2023. /	Also "RX" and " ⁻			be as specified in between MDIO	
uggestedRemedy Change the second "Annex 173A and Ar numbering" to: "Annex 173A shows using the BM PMA.	sentence from: nnex 176B show additional exar additional examples of 800GX 176B.6.2 shows additional exar	S partitioning and	MMD numbering	2023. / variable Suggested In Tabl names draft 1. The Cla	Also "RX" and " e naming. <i>Remedy</i> le 171-3 the reg s. This was corre .2 state (see IEF ause 172 status	TX" indication d ister names hav ect in draft 1.2 a EE Std 802.3cx-	oes not match ve had "in ns" a nd the register 2023 for the c iles names hav	and "in sub-ns" d r names need to correct register na	and Clause 172 leleted from their be reverted to their
UggestedRemedy Change the second "Annex 173A and Ar numbering" to: "Annex 173A shows using the BM PMA. BM PMA and SM PM Change the second "Annex 176B shows	sentence from: nnex 176B show additional exar additional examples of 800GX 176B.6.2 shows additional exar	S partitioning and nples of 800GXS ah from:	d MMD numbering paritioning using both	2023. / variable Suggested In Tabl names draft 1. The Cla	Also "RX" and " e naming. <i>Remedy</i> le 171-3 the reg s. This was corre .2 state (see IEF ause 172 status " and vice versa	TX" indication d lister names hav ect in draft 1.2 a EE Std 802.3cx- s variable variab	oes not match ye had "in ns" a nd the register -2023 for the c iles names hav at this	and "in sub-ns" d r names need to correct register na	and Clause 172 leleted from their be reverted to their ames).
uggestedRemedy Change the second "Annex 173A and Ar numbering" to: "Annex 173A shows using the BM PMA. BM PMA and SM PM Change the second "Annex 176B shows to:	sentence from: nnex 176B show additional exar additional examples of 800GX 176B.6.2 shows additional exar MA". sentnce of the second paragrpa additional examples of 1.6TXS	S partitioning and nples of 800GXS ah from: partitioning and	d MMD numbering paritioning using both	2023. <i>I</i> variable Suggested In Tabl names draft 1. The Cl: be "TX	Also "RX" and " e naming. <i>Remedy</i> le 171-3 the reg s. This was corre .2 state (see IEF ause 172 status " and vice versa	TX" indication d ister names hav ect in draft 1.2 a EE Std 802.3cx- s variable variab a. Please correc <i>Response S</i>	oes not match ye had "in ns" a nd the register -2023 for the c iles names hav at this	and "in sub-ns" d r names need to correct register na	and Clause 172 leleted from their be reverted to their ames).
UggestedRemedy Change the second "Annex 173A and Ar numbering" to: "Annex 173A shows using the BM PMA. BM PMA and SM PM Change the second "Annex 176B shows to: "176B.7.2 shows ad Change the title of 1 "800GXS and 1.6TX to:	sentence from: nnex 176B show additional exar additional examples of 800GX 176B.6.2 shows additional exar MA". sentnce of the second paragrpa additional examples of 1.6TXS pa 71.7 from: (S partitioning example"	S partitioning and nples of 800GXS ah from: partitioning and	d MMD numbering paritioning using both	2023. / variable Suggested In Tabl names draft 1. The Cl- be "TX Proposed F C/ 171 Nicholl, Sh Comment 7 Curren	Also "RX" and " le naming. <i>IRemedy</i> le 171-3 the reg 5. This was corre 2 state (see IEE ause 172 status " and vice versa <i>Response</i> SC 171.9.5.5 nawn <i>Type</i> TR ntly says "transm	TX" indication d lister names have ect in draft 1.2 a EE Std 802.3cx- s variable variab a. Please correc <i>Response S</i> 5 <i>Comment S</i>	oes not match ve had "in ns" i nd the register 2023 for the c cles names hav t this tatus O P216 AMD Status X	a between MDIO a and "in sub-ns" d r names need to correct register na ve "RX" in their n	and Clause 172 leleted from their be reverted to their ames). ames when it should
Change the second "Annex 173A and Ar numbering" to: "Annex 173A shows using the BM PMA. BM PMA and SM PM Change the second "Annex 176B shows to: "176B.7.2 shows ad Change the title of 1 "800GXS and 1.6TX to: "800GXS and 1.6TX	sentence from: nnex 176B show additional exar additional examples of 800GX 176B.6.2 shows additional exar MA". sentnce of the second paragrpa additional examples of 1.6TXS pa 71.7 from:	S partitioning and nples of 800GXS ah from: partitioning and rtitioning"	MMD numbering paritioning using both MMD numbering."	2023. / variable Suggested In Tabl names draft 1. The Ci. be "TX Proposed F C/ 171 Nicholl, Sh Comment T Curren pertain Suggested	Also "RX" and " le naming. //Remedy le 171-3 the reg s. This was corre. 2 state (see IEE ause 172 status (" and vice versa Response SC 171.9.5.5 hawn Type TR htly says "transm is to 1.6TXS. //Remedy	TX" indication d iister names hav ect in draft 1.2 a EE Std 802.3cx-s s variable variab a. Please correc <i>Response S</i> 5 <i>Comment S</i> hits what it recei	ve had "in ns" a nd the register 2023 for the c les names have t this tatus O P216 AMD Status X ives from the 8	and "in sub-ns" d r names need to correct register na ve "RX" in their n <i>L</i> 22	and Clause 172 leleted from their be reverted to their ames). ames when it should # <u>95</u>
uggestedRemedy Change the second "Annex 173A and Ar numbering" to: "Annex 173A shows using the BM PMA. BM PMA and SM PM Change the second "Annex 176B shows to: "176B.7.2 shows ad Change the title of 1 "800GXS and 1.6TX to: "800GXS and 1.6TX	sentence from: nnex 176B show additional exar additional examples of 800GX 176B.6.2 shows additional exar MA". sentnce of the second paragrpa additional examples of 1.6TXS pa 71.7 from: (S partitioning example" (S partitioning examples)	S partitioning and nples of 800GXS ah from: partitioning and rtitioning"	MMD numbering paritioning using both MMD numbering."	2023. / variable Suggested In Tabl names draft 1. The Ci. be "TX Proposed F C/ 171 Nicholl, Sh Comment T Curren pertain Suggested	Also "RX" and " le naming. <i>IRemedy</i> le 171-3 the reg .2 state (see IEE ause 172 status " and vice versa <i>Response</i> <i>SC</i> 171.9.5.5 nawn <i>Type</i> TR ntly says "transm s to 1.6TXS. <i>IRemedy</i> se "transmits wh	TX" indication d lister names have ect in draft 1.2 a EE Std 802.3cx- s variable variab a. Please correc <i>Response S</i> 5 <i>Comment S</i>	ve had "in ns" a nd the register 2023 for the c les names have t this tatus O P216 AMD Status X ives from the 8	and "in sub-ns" d r names need to correct register na ve "RX" in their n <i>L</i> 22	and Clause 172 leleted from their be reverted to their ames). ames when it should # <u>95</u>

C/ 171 SC 171.9.5.5 Page 7 of 107 2025-01-03 11:17:24 A

C/ 174 SC 174.2.1	12 P231	L 41	# 155	C/ 174A SC 174A.5	P 662	L 22	# 194
Bruckman, Leon	Nvidia			Brown, Matt	Alphawave Se	emi	
Comment Type TR	Comment Status X			Comment Type T	Comment Status X		
ILT coordinates trans	sition to DATA mode.			codeword error ratio ar	nd pre-correction BER values	are TBD.	
SuggestedRemedy				SuggestedRemedy			
5 1	on, modulation, and precoding s	tates on the link	partner transmitter,	Expect a contribution w	vith proposals.		
	odulation, and precoding states state and to coordinate transition			Proposed Response	Response Status O		
Proposed Response	Response Status O			C/ 174A SC 174A.5	P662	L 22	# 77
				Sluyski, Mike	Cisco		
C/ 174 SC 174.3.2	2 P 235	L 20	# 87	Comment Type TR	Comment Status X		
Opsasnick, Eugene	Broadcom			FEC ccodeword error r	atio of less than TBD		
Comment Type T	Comment Status X			SuggestedRemedy			
In Figure 174-4 (1.6	T Inter-sublayer interfaces with	Inner FEC), there	e is no ALII. The Inner	TRD will be undeted in	a future contribution.		
				I DD will be updated in			
FEC will (almost) alv would be better to sh	ways be in an optical module be how the Inner FEC below an AL ly correct, will rarely, if ever, be	low an AUI conn II in this figure si	nection to a host. It	Proposed Response	Response Status O		
FEC will (almost) alv would be better to sh shown, while logicall	ways be in an optical module be how the Inner FEC below an AL	low an AUI conn II in this figure si	nection to a host. It	Proposed Response		L23	# 78
FEC will (almost) alv would be better to sh shown, while logicall SuggestedRemedy Add a "1.6T BASE-F	ways be in an optical module be how the Inner FEC below an AL ly correct, will rarely, if ever, be R 8:8 PMA" between the "1.6T E	elow an AUI conn JI in this figure sin used. BASE-R 16:8 PM	nection to a host. It nce the layer stack IA" on line 14 and the	Proposed Response	Response Status 0 P 662	L 23	# [<u>78</u>
FEC will (almost) alv would be better to sh shown, while logicall SuggestedRemedy Add a "1.6T BASE-R "1.6TBASE-R Inner	ways be in an optical module be how the Inner FEC below an AL ly correct, will rarely, if ever, be	elow an AUI conn JI in this figure si used. BASE-R 16:8 PM an AUI interface	nection to a host. It nce the layer stack IA" on line 14 and the between the two	Proposed Response Cl 174A SC 174A.5 Sluyski, Mike Comment Type TR	Response Status O P662 Cisco Comment Status X	-	# [<u>7</u> 8
FEC will (almost) alv would be better to sh shown, while logicall SuggestedRemedy Add a "1.6T BASE-F "1.6TBASE-R Inner PMAs. And then add two PMAs.	ways be in an optical module be how the Inner FEC below an AL ly correct, will rarely, if ever, be R 8:8 PMA" between the "1.6T E FEC" on line 20 which creates a d the necessary inter-layer signa	elow an AUI conn JI in this figure si used. BASE-R 16:8 PM an AUI interface	nection to a host. It nce the layer stack IA" on line 14 and the between the two	Proposed Response Cl 174A SC 174A.5 Sluyski, Mike Comment Type TR Equivalent to a pre-cor	Response Status 0 P662 Cisco	-	# 78
FEC will (almost) alv would be better to sh shown, while logicall SuggestedRemedy Add a "1.6T BASE-F "1.6TBASE-R Inner PMAs. And then add two PMAs.	ways be in an optical module be how the Inner FEC below an AL ly correct, will rarely, if ever, be R 8:8 PMA" between the "1.6T E FEC" on line 20 which creates a	elow an AUI conn JI in this figure si used. BASE-R 16:8 PM an AUI interface	nection to a host. It nce the layer stack IA" on line 14 and the between the two	Proposed Response Cl 174A SC 174A.5 Sluyski, Mike Comment Type TR Equivalent to a pre-cor SuggestedRemedy	Response Status O P662 Cisco Comment Status X rection BER (BERtotal) of TB	D	# 78
FEC will (almost) alv would be better to sh shown, while logicall SuggestedRemedy Add a "1.6T BASE-F "1.6TBASE-R Inner PMAs. And then add two PMAs. Proposed Response	ways be in an optical module be how the Inner FEC below an AL ly correct, will rarely, if ever, be R 8:8 PMA" between the "1.6T E FEC" on line 20 which creates a d the necessary inter-layer signa <i>Response Status</i> O	Now an AUI conn II in this figure si used. BASE-R 16:8 PM an AUI interface als on the AUI co	action to a host. It nce the layer stack IA" on line 14 and the between the two onnection between the	Proposed Response Cl 174A SC 174A.5 Sluyski, Mike Comment Type TR Equivalent to a pre-cor SuggestedRemedy For link based on OFE	Response Status O P662 Cisco Comment Status X rection BER (BERtotal) of TB C the pre-FEC BER is 2.0 x 1	D	# [<u>78</u>
FEC will (almost) alv would be better to sh shown, while logicall SuggestedRemedy Add a "1.6T BASE-R "1.6TBASE-R Inner PMAs. And then add two PMAs. Proposed Response	ways be in an optical module be how the Inner FEC below an AL ly correct, will rarely, if ever, be R 8:8 PMA" between the "1.6T E FEC" on line 20 which creates a d the necessary inter-layer signa <i>Response Status</i> O	elow an AUI conn JI in this figure si used. BASE-R 16:8 PM an AUI interface	nection to a host. It nce the layer stack IA" on line 14 and the between the two	Proposed Response Cl 174A SC 174A.5 Sluyski, Mike Comment Type TR Equivalent to a pre-cor SuggestedRemedy	Response Status O P662 Cisco Comment Status X rection BER (BERtotal) of TB	D	# [<u>78</u>
FEC will (almost) alw would be better to sh shown, while logicall SuggestedRemedy Add a "1.6T BASE-R "1.6TBASE-R Inner PMAs. And then add two PMAs. Proposed Response C/ 174A SC 174A.4 Bruckman, Leon	ways be in an optical module be how the Inner FEC below an AL ly correct, will rarely, if ever, be R 8:8 PMA" between the "1.6T E FEC" on line 20 which creates a d the necessary inter-layer signa <i>Response Status</i> O Response Status O P 662 Nvidia	Now an AUI conn II in this figure si used. BASE-R 16:8 PM an AUI interface als on the AUI co	action to a host. It nce the layer stack IA" on line 14 and the between the two onnection between the	Proposed Response Cl 174A SC 174A.5 Sluyski, Mike Comment Type TR Equivalent to a pre-cor SuggestedRemedy For link based on OFE	Response Status O P662 Cisco Comment Status X rection BER (BERtotal) of TB C the pre-FEC BER is 2.0 x 1	D	# [<u>78</u>
FEC will (almost) alw would be better to sh shown, while logicall SuggestedRemedy Add a "1.6T BASE-R "1.6TBASE-R Inner PMAs. And then add two PMAs. Proposed Response C/ 174A SC 174A.4 Bruckman, Leon	ways be in an optical module be how the Inner FEC below an AL ly correct, will rarely, if ever, be R 8:8 PMA" between the "1.6T E FEC" on line 20 which creates a d the necessary inter-layer signa <i>Response Status</i> O Response Status O P662 Nvidia <i>Comment Status</i> X	Now an AUI conn II in this figure si used. BASE-R 16:8 PM an AUI interface als on the AUI co	action to a host. It nce the layer stack IA" on line 14 and the between the two onnection between the	Proposed Response Cl 174A SC 174A.5 Sluyski, Mike Comment Type TR Equivalent to a pre-cor SuggestedRemedy For link based on OFE	Response Status O P662 Cisco Comment Status X rection BER (BERtotal) of TB C the pre-FEC BER is 2.0 x 1	D	# [<u>78</u>
FEC will (almost) alw would be better to sh shown, while logicall SuggestedRemedy Add a "1.6T BASE-R "1.6TBASE-R Inner PMAs. And then add two PMAs. Proposed Response C/ 174A SC 174A.4 Bruckman, Leon Comment Type TR Pre-FEC BER should	ways be in an optical module be how the Inner FEC below an AL ly correct, will rarely, if ever, be R 8:8 PMA" between the "1.6T E FEC" on line 20 which creates a d the necessary inter-layer signa <i>Response Status</i> O Response Status O P662 Nvidia <i>Comment Status</i> X	Now an AUI conn II in this figure si used. BASE-R 16:8 PM an AUI interface als on the AUI co	action to a host. It nce the layer stack IA" on line 14 and the between the two onnection between the	Proposed Response Cl 174A SC 174A.5 Sluyski, Mike Comment Type TR Equivalent to a pre-cor SuggestedRemedy For link based on OFE	Response Status O P662 Cisco Comment Status X rection BER (BERtotal) of TB C the pre-FEC BER is 2.0 x 1	D	# [<u>78</u>
FEC will (almost) alv would be better to sh shown, while logicall SuggestedRemedy Add a "1.6T BASE-F "1.6TBASE-R Inner PMAs. And then add two PMAs. Proposed Response Cl 174A SC 174A.4 Bruckman, Leon Comment Type TR	ways be in an optical module be how the Inner FEC below an AL ly correct, will rarely, if ever, be R 8:8 PMA" between the "1.6T E FEC" on line 20 which creates a d the necessary inter-layer signa <i>Response Status</i> O Response Status O P662 Nvidia <i>Comment Status</i> X d be 2.21 × 10–4.	Now an AUI conn II in this figure si used. BASE-R 16:8 PM an AUI interface als on the AUI co	action to a host. It nce the layer stack IA" on line 14 and the between the two onnection between the	Proposed Response Cl 174A SC 174A.5 Sluyski, Mike Comment Type TR Equivalent to a pre-cor SuggestedRemedy For link based on OFE	Response Status O P662 Cisco Comment Status X rection BER (BERtotal) of TB C the pre-FEC BER is 2.0 x 1	D	# [<u>78</u>

C/ 174A SC 174A.5

C/ 174A SC 174A.5	P668	L14	# 469	C/ 174A SC 174A.6	P 663	L 7	# 430
Maki, Jeffery	Juniper Netwo	rks		Dudek, Mike	Marvell		
Comment Type T	Comment Status X			Comment Type T Co	mment Status X		
one significant digit co standard.	entire PHY" is wrong or at least ompared to other cases in the c			174A.7.1 does not constrain SuggestedRemedy Delete this sentence	he error ratio of an ISI	_, only of the PC	S to PCS link.
SuggestedRemedy Change "Frame loss r	ratio for entire PHY" to 6.2x10^	11.		Proposed Response Res	ponse Status O		
Proposed Response	Response Status 0						
				C/ 174A SC 174A.6.1	P662	L 21	# 377
C/ 174A SC 174A.5	P668	L17	# 470	D'Ambrosia, John	Futurewei, U	.S. Subsidiary of	Huawei
Maki, Jeffery	Juniper Netwo	rks		Comment Type ER Co	mment Status X		
one significant digit. Ir ratio for entire PHY" is SuggestedRemedy	Comment Status X entire PHY" is wrong or at least in turn, the "Codeword error is wrong.		cessarily truncated to	is talking at the PMD level, w the figures it refers to receive SuggestedRemedy Use "PHY" consistently unles Proposed Response Res	r under test.	-	ut at the PHY. And in
Proposed Response	Response Status O			C/ 174A SC 174A.6.1.1	P663	L 25	# 404
C/ 174A SC 174A.5 Maki, Jeffery Comment Type T	P 668 Juniper Netwo Comment Status X	L 19 rks	# 471	Dudek, Mike	Marvell mment Status X		# <u>431</u>
	entire PHY" is wrong or at least			SuggestedRemedy In Figure 174A-1. 174A-2, 1			the boxes to"PMD
one significant digit. Ir SuggestedRemedy	re PHY (BERtotal)" to 2.93x10	-4.	-	coder if used) or add a sente include precoding when it is u	nce at line 17 "The Tra		nction (including pre- ive PMD functions

C/ 174A SC 174A.6.1.1

C/ 174A SC 174A.6.1.1							
C/ 1/4A 3C 1/4A.0.1.1	P663	L 39	# 128	CI 174A SC 174A.6.	1.3 P664	L 41	# 163
Slavick, Jeff	Broadcom			Bruckman, Leon	Nvidia		
Comment Type T	Comment Status X			Comment Type TR	Comment Status X		
	er FEC blocks are both relia			The polynomial for Pl	RBS31Q is not defined		
	RS-FEC CW boundary. So alignment and deskew proc	0		SuggestedRemedy			
6	angriment and deskew proc		neu in a test mode.	Define that the PRBS	31Q is produced by the polynom	ial defined in	Equation (49–2) and
SuggestedRemedy	7 and CI184 that causes the	input to pormu	tation function in CI184	shown in Figure 49-9			
	ional interleaver in Cl177 to			Proposed Response	Response Status O		
Proposed Response	Response Status O			C/ 174A SC 174A.6.	1.3 <i>P</i> 664	L 48	# 432
				Dudek, Mike	Marvell		
C/ 174A SC 174A.6.1.1	P 663	L 43	# 150	Comment Type T	Comment Status X		
He, Xiang	Huawei			Wrong equation refer	ence		
Comment Type TR	Comment Status X			SuggestedRemedy			
	Id not be in front of the Inne			Change Equation 174	IA-3 to 174A-1		
The DDBC210 patter ch	مصحا مطلا واستنقسوا المسلم مسامات	r EEC transmit f	Constructions for a surface to				
	ould not go through the Inne		function in order to	Proposed Response	Response Status O		
maintain its characteristic A presentation will be pro	cs.		function in order to	Proposed Response	Response Status O		
maintain its characteristic	cs.		runction in order to				11 101
maintain its characteristic A presentation will be pro SuggestedRemedy	cs.			CI 174A SC 174A.6.	1.4 <i>P</i> 665	L16	# 164
maintain its characteristic A presentation will be pro SuggestedRemedy First, remove "PAM4 enc move "PRBS31Q" into th	cs. ovided. coder" box. Then, either chai ie "Inner FEC transmit functi	nge "PRBS31Q'		<i>Cl</i> 174A <i>SC</i> 174A.6 . Bruckman, Leon	1.4 <i>P</i> 665 Nvidia	L16	# 164
maintain its characteristic A presentation will be pro SuggestedRemedy First, remove "PAM4 enc move "PRBS31Q" into th A presentation will be pro	cs. ovided. coder" box. Then, either chai le "Inner FEC transmit functi ovided.	nge "PRBS31Q'		Cl 174A SC 174A.6. Bruckman, Leon Comment Type TR	1.4 P665 Nvidia Comment Status X	L16	# [<u>164</u>
maintain its characteristic A presentation will be pro SuggestedRemedy First, remove "PAM4 enc move "PRBS31Q" into th A presentation will be pro	cs. ovided. coder" box. Then, either chai ie "Inner FEC transmit functi	nge "PRBS31Q'		Cl 174A SC 174A.6. Bruckman, Leon Comment Type TR max should not replace	1.4 <i>P</i> 665 Nvidia	L16	# [<u>164</u>
maintain its characteristic A presentation will be pro SuggestedRemedy First, remove "PAM4 enc move "PRBS31Q" into th A presentation will be pro	cs. ovided. coder" box. Then, either chai le "Inner FEC transmit functi ovided.	nge "PRBS31Q'		Cl 174A SC 174A.6. Bruckman, Leon Comment Type TR max should not replac SuggestedRemedy	1.4 P665 Nvidia Comment Status X	L16	# 164
maintain its characteristic A presentation will be pro SuggestedRemedy First, remove "PAM4 enc move "PRBS31Q" into th A presentation will be pro Proposed Response	cs. ovided. coder" box. Then, either char le "Inner FEC transmit functi ovided. <i>Response Status</i> O	nge "PRBS31Q'		Cl 174A SC 174A.6. Bruckman, Leon Comment Type TR max should not replac SuggestedRemedy Change: "Hmax(k)"	1.4 P665 Nvidia Comment Status X		# <u>164</u>
maintain its characteristic A presentation will be pro SuggestedRemedy First, remove "PAM4 end move "PRBS31Q" into th A presentation will be pro Proposed Response	cs. ovided. coder" box. Then, either char le "Inner FEC transmit functi ovided. <i>Response Status</i> O	nge "PRBS31Q' on" box.	" to "PRBS31", or	Cl 174A SC 174A.6. Bruckman, Leon Comment Type TR max should not replac SuggestedRemedy Change: "Hmax(k)"	1.4 P665 Nvidia <i>Comment Status</i> X ce m but be target for Hm(k)		# <u>164</u>
maintain its characteristic A presentation will be pro SuggestedRemedy First, remove "PAM4 end move "PRBS31Q" into th A presentation will be pro Proposed Response CI 174A SC 174A.6.1.3 Bruckman, Leon	cs. ovided. coder" box. Then, either char le "Inner FEC transmit functi ovided. <i>Response Status</i> O <i>P</i> 664	nge "PRBS31Q' on" box.	" to "PRBS31", or	Cl 174A SC 174A.6. Bruckman, Leon Comment Type TR max should not replac SuggestedRemedy Change: "Hmax(k)" to: "max(Hm(k))" in th	1.4 P 665 Nvidia <i>Comment Status</i> X ce m but be target for Hm(k) ne 3 occurencences in this section		# <u>164</u>
maintain its characteristic A presentation will be pro SuggestedRemedy First, remove "PAM4 end move "PRBS31Q" into th A presentation will be pro Proposed Response C/ 174A SC 174A.6.1.3 Bruckman, Leon	cs. pvided. coder" box. Then, either chan le "Inner FEC transmit function pvided. <i>Response Status</i> O P664 Nvidia <i>Comment Status</i> X	nge "PRBS31Q' on" box.	" to "PRBS31", or	Cl 174A SC 174A.6. Bruckman, Leon Comment Type TR max should not replac SuggestedRemedy Change: "Hmax(k)" to: "max(Hm(k))" in th	1.4 P 665 Nvidia <i>Comment Status</i> X ce m but be target for Hm(k) ne 3 occurencences in this section		# 164
maintain its characteristic A presentation will be pro SuggestedRemedy First, remove "PAM4 enc move "PRBS31Q" into th A presentation will be pro Proposed Response CI 174A SC 174A.6.1.3 Bruckman, Leon Comment Type TR In Hm is not clear what is	cs. pvided. coder" box. Then, either chan le "Inner FEC transmit function pvided. <i>Response Status</i> O P664 Nvidia <i>Comment Status</i> X	nge "PRBS31Q' on" box.	" to "PRBS31", or	Cl 174A SC 174A.6. Bruckman, Leon Comment Type TR max should not replac SuggestedRemedy Change: "Hmax(k)" to: "max(Hm(k))" in th	1.4 P 665 Nvidia <i>Comment Status</i> X ce m but be target for Hm(k) ne 3 occurencences in this section		# <u>164</u>
maintain its characteristic A presentation will be pro SuggestedRemedy First, remove "PAM4 end move "PRBS31Q" into th A presentation will be pro Proposed Response CI 174A SC 174A.6.1.3 Bruckman, Leon Comment Type TR In Hm is not clear what is SuggestedRemedy	cs. pvided. coder" box. Then, either chan le "Inner FEC transmit function pvided. <i>Response Status</i> O P664 Nvidia <i>Comment Status</i> X	nge "PRBS31Q' on" box.	" to "PRBS31", or	Cl 174A SC 174A.6. Bruckman, Leon Comment Type TR max should not replac SuggestedRemedy Change: "Hmax(k)" to: "max(Hm(k))" in th	1.4 P 665 Nvidia <i>Comment Status</i> X ce m but be target for Hm(k) ne 3 occurencences in this section		# <u>164</u>

C/ 174A SC 174A.6.1.4

C/ 174A SC 174A.6.1.4 P665 L24 # 165	C/ 174A SC 174A.6.1.5 P665 L 34 # 166	
Bruckman, Leon Nvidia	Bruckman, Leon Nvidia	
Comment Type TR Comment Status X	Comment Type TR Comment Status X	
Define the ranges of k and i	Point b) is unclear:	
uggestedRemedy	 Is equation 174A-5 defining He(k) ? If yes, then it should say: "He(k) =" Not clear how to iterate 	
Change: "for all k and i." To: "for k = 0 to 16 and i = 0 to p-1"	SuggestedRemedy	
Proposed Response Response Status O	Clarify the meaning of point b). Maybe add a small pseudocode to describe the iterations	
	Proposed Response Response Status O	
174A SC 174A.6.1.4 P665 L24 # 180		
rown, Matt Alphawave Semi	C/ 174A SC 174A.6.1.5 P665 L40 # 384	
omment Type T Comment Status X	Healey, Adam Broadcom Inc.	
The block error ratio test method in 174A.6.x.x provides a means to constrain the block error ratio due to a single lane by constraining the error histogram to be below a limit curve.	Comment Type T Comment Status X	
This is overly conservative and does not provide a single metric for optical and electrical waterfall curves.	The operation defined by Equation (174A-5) and (174A-6) would be better described function so that it can be invoked in a more clear and concise way. For example, if t	
uggestedRemedy An effective block error ratio metric for a single lane on a multi-lane PMD is required. A	function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For $i = 0$ to p-1, iteratively assig the result of combine(He(k), Hm(i)(k))" or similar.	d (174/
uggestedRemedy An effective block error ratio metric for a single lane on a multi-lane PMD is required. A contribution with proposal will be provided.	function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For $i = 0$ to p-1, iteratively assig	d (174A
uggestedRemedy An effective block error ratio metric for a single lane on a multi-lane PMD is required. A contribution with proposal will be provided.	 function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For i = 0 to p-1, iteratively assig the result of combine(He(k), Hm(i)(k))" or similar. SuggestedRemedy Add a subclause that defines the combination of two histograms in a functional form Replace references to Equation (174A-5) and (174A-6), with the corresponding text 	d (174A gn He(k n.
An effective block error ratio metric for a single lane on a multi-lane PMD is required. A contribution with proposal will be provided. Proposed Response Response Status O	 function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For i = 0 to p-1, iteratively assig the result of combine(He(k), Hm(i)(k))" or similar. SuggestedRemedy Add a subclause that defines the combination of two histograms in a functional form 	d (174A gn He(k n.
An effective block error ratio metric for a single lane on a multi-lane PMD is required. A contribution with proposal will be provided. roposed Response Response Status O 174A SC 174A.6.1.5 P665 L33 # 183	 function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For i = 0 to p-1, iteratively assig the result of combine(He(k), Hm(i)(k))" or similar. SuggestedRemedy Add a subclause that defines the combination of two histograms in a functional form Replace references to Equation (174A-5) and (174A-6), with the corresponding text regarding substitutions, with an expression the uses that new function definition. 	d (174A gn He(k n.
An effective block error ratio metric for a single lane on a multi-lane PMD is required. A contribution with proposal will be provided. oposed Response Response Status O 174A SC 174A.6.1.5 P 665 L 33 # 183 own, Matt Alphawave Semi omment Type E Comment Status X	 function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For i = 0 to p-1, iteratively assig the result of combine(He(k), Hm(i)(k))" or similar. SuggestedRemedy Add a subclause that defines the combination of two histograms in a functional form Replace references to Equation (174A-5) and (174A-6), with the corresponding text regarding substitutions, with an expression the uses that new function definition. Proposed Response Response Response Status O 	d (174 <i>A</i> gn He(l n.
ggestedRemedy An effective block error ratio metric for a single lane on a multi-lane PMD is required. A contribution with proposal will be provided. oposed Response Response Status 174A SC 174A.6.1.5 P 665 L 33 # 183 own, Matt Alphawave Semi <i>mment Type</i> E Comment Status X The method in this subclause was "simplified" as proposed by adopted D1.2 comment #78.	 function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For i = 0 to p-1, iteratively assig the result of combine(He(k), Hm(i)(k))" or similar. SuggestedRemedy Add a subclause that defines the combination of two histograms in a functional form Replace references to Equation (174A-5) and (174A-6), with the corresponding text regarding substitutions, with an expression the uses that new function definition. Proposed Response Response Status O 	d (174/ gn He(l n.
An effective block error ratio metric for a single lane on a multi-lane PMD is required. A contribution with proposal will be provided. Transferred Response Response Status O Transferred Response Peerse Status O Transferred Response Response Status N Transferred Response Response Response Status N Transferred Response Response Response Response Response N Transferred Response Response Response Response Response N Transferred Response Response Response Response Response N Transferred Response Respons	function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For i = 0 to p-1, iteratively assig the result of combine(He(k), Hm(i)(k))" or similar. <i>SuggestedRemedy</i> Add a subclause that defines the combination of two histograms in a functional form Replace references to Equation (174A-5) and (174A-6), with the corresponding text regarding substitutions, with an expression the uses that new function definition. <i>Proposed Response</i> <i>Response Status</i> <i>Cl</i> 174A <i>SC</i> 174A.6.2 <i>P</i> 739 <i>L</i> 15 # <u>8</u> Brown, Matt <i>Alphawave Semi</i>	d (174/ gn He(l n.
uggestedRemedy An effective block error ratio metric for a single lane on a multi-lane PMD is required. A contribution with proposal will be provided. roposed Response Response Status V 174A SC 174A.6.1.5 P 665 L 33 # 183 Inown, Matt Alphawave Semi comment Type E Comment Status X The method in this subclause was "simplified" as proposed by adopted D1.2 comment #78. However, some intermediate equations which proided context were eliminated. Some of the changes should be reversed, reviving some of the original variables and equations.	function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For i = 0 to p-1, iteratively assig the result of combine(He(k), Hm(i)(k))" or similar. SuggestedRemedy Add a subclause that defines the combination of two histograms in a functional form Replace references to Equation (174A-5) and (174A-6), with the corresponding text regarding substitutions, with an expression the uses that new function definition. Proposed Response Response Status O C/ 174A SC 174A.6.2 P739 L15 # 8 Brown, Matt Alphawave Semi Comment Type T Comment Status X	d (1744 gn He(l
An effective block error ratio metric for a single lane on a multi-lane PMD is required. A contribution with proposal will be provided. roposed Response Response Status O 174A SC 174A.6.1.5 P665 L 33 # 183 rown, Matt Alphawave Semi comment Type E Comment Status X The method in this subclause was "simplified" as proposed by adopted D1.2 comment #78. However, some intermediate equations which proided context were eliminated. Some of the changes should be reversed, reviving some of the original variables and equations.	function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For i = 0 to p-1, iteratively assig the result of combine(He(k), Hm(i)(k))" or similar. <i>SuggestedRemedy</i> Add a subclause that defines the combination of two histograms in a functional form Replace references to Equation (174A-5) and (174A-6), with the corresponding text regarding substitutions, with an expression the uses that new function definition. <i>Proposed Response</i> <i>Response Status</i> <i>Cl</i> 174A <i>SC</i> 174A.6.2 <i>P</i> 739 <i>L</i> 15 # <u>8</u> Brown, Matt <i>Alphawave Semi</i>	d (174 <i>A</i> gn He(n.
An effective block error ratio metric for a single lane on a multi-lane PMD is required. A contribution with proposal will be provided. roposed Response Response Status O 1 174A SC 174A.6.1.5 P665 L33 # 183 rown, Matt Alphawave Semi comment Type E Comment Status X The method in this subclause was "simplified" as proposed by adopted D1.2 comment #78 . However, some intermediate equations which proided context were eliminated. Some of the changes should be reversed, reviving some of the original variables and equations. <i>uggestedRemedy</i> Revive the intermediate equations that we in D1.1, similar to the way they are used in 174A.7.1.4.	function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For i = 0 to p-1, iteratively assig the result of combine(He(k), Hm(i)(k))" or similar. SuggestedRemedy Add a subclause that defines the combination of two histograms in a functional form Replace references to Equation (174A-5) and (174A-6), with the corresponding text regarding substitutions, with an expression the uses that new function definition. Proposed Response Response Status O C/ 174A SC 174A.6.2 P739 L15 # B Brown, Matt Alphawave Semi Comment Type T Comment Status X Residual errors are permitted at a C2M component output or PMD transmit output w part of a PHY. This residual error ratio must be constrained in the same way errors	d (1744 gn He(l
SuggestedRemedy An effective block error ratio metric for a single lane on a multi-lane PMD is required. A contribution with proposal will be provided. Proposed Response Response Status O C/ 174A SC 174A.6.1.5 P 665 L 33 # 183 Brown, Matt Alphawave Semi Comment Type E Comment Status X The method in this subclause was "simplified" as proposed by adopted D1.2 comment #78. However, some intermediate equations which proided context were eliminated. Some of the changes should be reversed, reviving some of the original variables and equations. SuggestedRemedy Revive the intermediate equations that we in D1.1, similar to the way they are used in 174A.7.1.4.	function "combine(Hx(k), Hy(k))" was defined to be result of Equations (174A-5) and 6), the instruction in item b) above could reduce to "For i = 0 to p-1, iteratively assig the result of combine(He(k), Hm(i)(k))" or similar. <i>SuggestedRemedy</i> Add a subclause that defines the combination of two histograms in a functional form Replace references to Equation (174A-5) and (174A-6), with the corresponding text regarding substitutions, with an expression the uses that new function definition. <i>Proposed Response</i> Response Status O <i>Cl</i> 174A SC 174A.6.2 <i>P</i> 739 <i>L</i> 15 <i>#</i> Brown, Matt Alphawave Semi <i>Comment Type</i> T <i>Comment Status</i> X Residual errors are permitted at a C2M component output or PMD transmit output w part of a PHY. This residual error ratio must be constrained in the same way errors generated by a PHY transmitter are constrained.	d (174A gn He(k n.

 TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
 C/
 174A

 COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn
 SC
 174A.6.2

 SORT ORDER: Clause, Subclause, page, line
 SUBCLAUSE, SUBCL

Page 11 of 107 2025-01-03 11:17:24 A

C/ 174A SC 174A	.7 P 666	L8	# 376	C/ 174A SC 174A.7	P666	L9	# 130
D'Ambrosia, John	Futurewei, U	.S. Subsidiary of	Huawei	Slavick, Jeff	Broadcom		
Comment Type ER Title does not refler permits measurem FEC error counters SuggestedRemedy 1. Change title of A 2. In Figure 174A-4	Comment Status X ct what is actually being tested - ent of the performance of all phy in the PCS. nnex to "Error ration tests for a c, change "receiver under test" to , change "inner FEC only if requ	Per 174A.7.1 - T vsical lanes in a F PHY" o "PHY under tes	This test method PHY as a group using t"	Comment Type TR This method is also va SuggestedRemedy Rename 174A.7 as "E Add this to the end of Extender Sublayer whi Remove PCS-to-PCS sentence in the secon	Comment Status X alid for between a DTE_XS an error ratio tests for a PHY or XS the first paragraph of 174A.7 ' ich includes 200Gb/s signaling from the second paragph and d paratph of 174A.7	S using PCS sta "The same meti g on one or mor I add "or XS" to	nod works for an e ISLs." the end of the first
				the second sentence of	and PHY XS sub-layers are fur		
				Create a new figure fo and PMD and changin	r the XS test structure leverag g PCS to XS.	jin Fig 174A-4 r	emoving hte Inner FEC
				Remove PCS from the	e title of 174A.7.1.2 and the fir	st sentence of t	he section.
				Implement with editori	al license.		
				Proposed Response	Response Status 0		

C/ 174A SC 174A.7

CI 174A SC	174A.7.1.1	P 666	L 41	# 107	C/ 174A	SC 174A.7.	1.4	P 667	L17	# 385
Mi, Guangcan		Huawei Tech	nologies Co., Ltd		Healey, Ad	am		Broadcom In	c.	
Comment Type	TR Comme	ent Status X			Comment T	Гуре Т	Comment S	tatus X		
should includ PMD, PMA a testing patter The current d		CS, PMA and PM the test configurati CS Transmitter un ble for a receiver t	D, the Medium, a on should includ nder test.	and the receiving-side e the fulll link, with the	option of whethe process does no that the	can be used fo r or not the blo sing. As is the ot necessarily r e method current	r lane-by-lane tes ck error ratio req case for PMA-ba mean the block e	sting and wou uirement is m sed measure rror ratio requ 4A.7.1.4 wou	Id enable a quic net with reduced ments, failure to uirement is not m	asurements. This k assessment of (or no additional) post- meet the error mask net. It instead means ed to confirm whether
SuggestedRemed	dy				Suggested	Remedy				
The PMA tran instantiation.	nsmit function should	I also consider the	three variations	with different AUI	measur	rements". The		nputed in the	same way as de	efined in 174A.6.1.4
Proposed Respor	nse Respons	se Status O			subclau	use should also	Radded approprion note that errors dishould be mini	on unstresse	ed lanes will be (i	ncorrectly) attributed to
	174A.7.1.3	P667	L1	# 129	Proposed F	Response	Response St	atus O		
Slavick, Jeff		Broadcom								
Comment Type	T Comme s not really "measuri	ent Status X	the hisograms to	opything it's just	C/ 174A	SC 174A.7.		P667	L 20	# 167
	data. In 174A.6.1.3				Bruckman,			Nvidia		
title.					Comment 7	51	Comment Si		a tha lawa	
SuggestedRemed	•						'stress" or where	is it applied i	n the lane.	
Remove the	word "measurement"	from the title of 1	74A.7.1.3		Suggested	-				
Proposed Respoi	nse Respons	se Status O			to ["] with InPoint	no stress app b) change: "wi	ith no stress app lied to the receive ith stress applied d only to the rece	er of any lane only to lane	;" i"	
					Proposed F	Response	Response St	atus O		
					C/ 174A	SC 174A.7.	1.4	P 667	L 26	# 168
					Bruckman,	Leon		Nvidia		
					Comment 7		Comment S	tatus X		
					Point e) is unclear				
					Suggested	-				
							Hms(k) for Hx(k) (k) for Hx(k) and			
						0	() ()	- (/(/ -	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 174A SC 174A.7.1.4 Page 13 of 107 2025-01-03 11:17:24 A

CI 174A SC 174A.7.1	1.4 P667	L35	# 106	C/ 174A SC 174A.9	P 668	L12	# 467
Mi, Guangcan	Huawei Tech	nologies Co., Ltd		Maki, Jeffery	Juniper Netw	orks	
Comment Type TR	Comment Status X			Comment Type T	Comment Status X		
The last sentence of the last sentence of the last than 1.45 e-11." i	his subclause "The measured s misleading.	codeword error rat	tio is expected be	one significant digit.	entire PHY" is wrong or at leas n turn, the "Codeword error s wrong and the "BER for entir		
	ates "The following method is rs provided in the PCS."	used to calculate th	ne block error ratio	SuggestedRemedy			
Step h defines the blo	ck error ratio as Hms(16), not			Change "Frame loss ratio for entire PHY" to 6.2x10^-11, "Codeword error ratio for entire PHY" to 1.50x10^-11, and change "BER for entire PHY (BERtotal)" to			
CL174A.8 provides the	e definition of FEC codeword	error ratio, which se	eems to be Hm(16).	2.93x10^-4.			
It is unclear which erro	or ratio shoule be less than 1.4	15e-11.		Proposed Response	Response Status O		
				C/ 174A SC 174A.9	P668	L16	# 434
SuggestedRemedy				Dudek, Mike	Marvell		
change to "the measu	red block error ratio is expected	ed to be less". C	Or state the relation	Comment Type TR	Comment Status X		
between codeword er	ror ratio and block error ratio in	n the subclause.		AUI's from Annex 12	0B also need to meet the requi	irement describe	d in footnote a
	ror ratio and block error ratio ir Response Status O	n the subclause.		SuggestedRemedy	0B also need to meet the requi		
Proposed Response		h the subclause.	# [151	SuggestedRemedy			
Proposed Response	Response Status O		# <u>151</u>	SuggestedRemedy Add "Annex 120B (i.e	25Gb/s per lane)" to the list i		
Proposed Response CI 174A SC 174A.9 He, Xiang Comment Type TR	Response Status O P668 Huawei Comment Status X	L11		SuggestedRemedy Add "Annex 120B (i.e	25Gb/s per lane)" to the list i		
Proposed Response Cl 174A SC 174A.9 He, Xiang Comment Type TR Table 174A-1 has a si	Response Status O P668 Huawei Comment Status X ingle 2.28E-4 number for "BEF	L 11 R per sublayer in a	PHY" column, and	SuggestedRemedy Add "Annex 120B (i.t Proposed Response	e. 25Gb/s per lane)" to the list i Response Status O	n Tables 174A-1	, 174A-2 and 174A-3
Proposed Response Cl 174A SC 174A.9 He, Xiang Comment Type TR Table 174A-1 has a si	Response Status O P668 Huawei Comment Status X	L 11 R per sublayer in a	PHY" column, and	SuggestedRemedy Add "Annex 120B (i.e Proposed Response Cl 174A SC 174A.9	e. 25Gb/s per lane)" to the list i Response Status O P 668	n Tables 174A-1	, 174A-2 and 174A-3
Proposed Response Cl 174A SC 174A.9 He, Xiang Comment Type TR Table 174A-1 has a si this table is for all opti Inner FEC.	Response Status O P668 Huawei Comment Status X ingle 2.28E-4 number for "BEF	L 11 R per sublayer in a	PHY" column, and	SuggestedRemedy Add "Annex 120B (i.e Proposed Response Cl 174A SC 174A.9 Dudek, Mike Comment Type E	e. 25Gb/s per lane)" to the list i Response Status O P 668 Marvell	n Tables 174A-1	, 174A-2 and 174A-3 # 433
Proposed Response Cl 174A SC 174A.9 He, Xiang Comment Type TR Table 174A-1 has a si this table is for all opti	Response Status O P668 Huawei Comment Status X ingle 2.28E-4 number for "BEF cal PHYs. It did not include the	L 11 R per sublayer in a	PHY" column, and	SuggestedRemedy Add "Annex 120B (i.e Proposed Response Cl 174A SC 174A.9 Dudek, Mike Comment Type E	e. 25Gb/s per lane)" to the list i Response Status O P668 Marvell Comment Status X	n Tables 174A-1	, 174A-2 and 174A-3 # 433
Proposed Response Cl 174A SC 174A.9 He, Xiang Comment Type TR Table 174A-1 has a si this table is for all opti Inner FEC. SuggestedRemedy Put two numbers in th 2.28 x 10-4 b	Response Status O P668 Huawei Comment Status X ingle 2.28E-4 number for "BEF cal PHYs. It did not include the	L 11 R per sublayer in a	PHY" column, and	SuggestedRemedy Add "Annex 120B (i.e Proposed Response Cl 174A SC 174A.9 Dudek, Mike Comment Type E Footnote a should be SuggestedRemedy Make this change in	e. 25Gb/s per lane)" to the list i <i>Response Status</i> O <i>P</i> 668 Marvell <i>Comment Status</i> X e applied to the xAUI-n C2C in the tables 174A-1 and 174A-2	n Tables 174A-1 <i>L</i> 16 the bottom row a so in a74A-1 dele	, 174A-2 and 174A-3 # <u>433</u> s well as the top. ete the extraneous "a
Proposed Response Cl 174A SC 174A.9 He, Xiang Comment Type TR Table 174A-1 has a si this table is for all opti Inner FEC. SuggestedRemedy Put two numbers in th 2.28 x 10-4 b 4.85 x 10-3 c	Response Status O P668 Huawei Comment Status X ingle 2.28E-4 number for "BEF cal PHYs. It did not include the e field with footnotes:	L11 R per sublayer in a e 4.85E-3 BER nur	PHY" column, and mber for PHYs using	SuggestedRemedy Add "Annex 120B (i.e Proposed Response Cl 174A SC 174A.9 Dudek, Mike Comment Type E Footnote a should be SuggestedRemedy Make this change in in the last sentence of	e. 25Gb/s per lane)" to the list i <i>Response Status</i> O <i>P</i> 668 Marvell <i>Comment Status</i> X e applied to the xAUI-n C2C in the tables 174A-1 and 174A-2 Also of footnote a where it says "to r	n Tables 174A-1 <i>L</i> 16 the bottom row a so in a74A-1 dele	, 174A-2 and 174A-3 # <u>433</u> s well as the top. ete the extraneous "a
Cl 174A SC 174A.9 He, Xiang Comment Type TR Table 174A-1 has a si this table is for all opti Inner FEC. SuggestedRemedy Put two numbers in th 2.28 x 10-4 b 4.85 x 10-3 c Where footnote b says	Response Status O P668 Huawei Comment Status X ingle 2.28E-4 number for "BEF cal PHYs. It did not include the	L11 R per sublayer in a e 4.85E-3 BER nur	PHY" column, and mber for PHYs using	SuggestedRemedy Add "Annex 120B (i.e Proposed Response Cl 174A SC 174A.9 Dudek, Mike Comment Type E Footnote a should be SuggestedRemedy Make this change in	e. 25Gb/s per lane)" to the list i <i>Response Status</i> O <i>P</i> 668 Marvell <i>Comment Status</i> X e applied to the xAUI-n C2C in the tables 174A-1 and 174A-2	n Tables 174A-1 <i>L</i> 16 the bottom row a so in a74A-1 dele	, 174A-2 and 174A-3 # <u>433</u> s well as the top. ete the extraneous "a

C/ 174A SC 174A.9

C/ 174A SC 174A.9	P668	L 29	# 468	C/ 175 SC 175.2.4	.6.2 P266	5 L 2	# 476
Maki, Jeffery	Juniper Netwo	rks		Opsasnick, Eugene	Broadc	om	
Comment Type T	Comment Status X			Comment Type E	Comment Status	(
one significant digit. In	ntire PHY" is wrong or at least turn, the "Codeword error wrong and the "BER for entire			Typo in variable nam SuggestedRemedy	e tx_acrambled_f1_i<250	3:0>.	
SuggestedRemedy	J	(,	Change tx_acramble	d_f1_i<256:0> to be tx_s	crambled_f1_i<256:0	>.
Change "Frame loss ra	atio for entire PHY" to 6.2x10^ 1.50x10^-11, and change "BE	,		Proposed Response	Response Status)	
Proposed Response	Response Status 0			C/ 175 SC 175.2.5	5.3 P 254	L 41	# 21
				Brown, Matt	Alphaw	ave Semi	
C 174A SC 174A.9	P668	L43	# 435	Comment Type T	Comment Status	-	
Dudek, Mike	Marvell	L 43	# 435		otion is overly specific: "T or in determining the link		
JUGER, MIKE	Ivial veli			alu a network operat			
Comment Type TP	Comment Status X			general.			
As stated in the editor's	Comment Status X s note the random BER target need to constrain the C2C BER			SuggestedRemedy	wing counters shall be im	plemented:"	
As stated in the editor's targets. There is no r	s note the random BER target	R allocation in th	ne extender to 0.08e-4.	SuggestedRemedy Change to "The follo	wing counters shall be im		
As stated in the editor's targets. There is no r (particularly for the low	s note the random BER target need to constrain the C2C BER	R allocation in th	ne extender to 0.08e-4.	SuggestedRemedy	wing counters shall be im Response Status		
As stated in the editor's targets. There is no r (particularly for the low SuggestedRemedy	s note the random BER target need to constrain the C2C BER	R allocation in the allocation in the corical BER is 0.	ne extender to 0.08e-4. .1 e-4).	SuggestedRemedy Change to "The follo Proposed Response	Response Status)	
As stated in the editor's targets. There is no r (particularly for the low suggestedRemedy Change the BER per s	s note the random BER target need to constrain the C2C BEF er speed C2C's where the hist	R allocation in the allocation in the corical BER is 0.	ne extender to 0.08e-4. .1 e-4).	SuggestedRemedy Change to "The follo	Response Status)	# [<u>16</u>
As stated in the editor's targets. There is no r (particularly for the low suggestedRemedy Change the BER per s	s note the random BER target need to constrain the C2C BEF er speed C2C's where the hist ublayer in an xMII Extender fo	R allocation in the allocation in the corical BER is 0.	ne extender to 0.08e-4. .1 e-4).	SuggestedRemedy Change to "The follo Proposed Response Cl 176 SC 176.1.3 Brown, Matt	Response Status (P270 Alphaw)) L 32 ave Semi	# [<u>16</u>
As stated in the editor's targets. There is no r (particularly for the low SuggestedRemedy Change the BER per s Proposed Response	s note the random BER target need to constrain the C2C BEF er speed C2C's where the hist ublayer in an xMII Extender fo <i>Response Status</i> O	R allocation in the orical BER is 0.	ne extender to 0.08e-4. 1 e-4). le-4.	SuggestedRemedy Change to "The follo Proposed Response Cl 176 SC 176.1.3 Brown, Matt Comment Type E	Response Status (P27(Alphaw Comment Status)	2) L 32 ave Semi	
As stated in the editor's targets. There is no r (particularly for the low SuggestedRemedy Change the BER per s Proposed Response C/ 175 SC 175.2.4.6 Brown, Matt	s note the random BER target need to constrain the C2C BEF er speed C2C's where the hist ublayer in an xMII Extender fo <i>Response Status</i> O	R allocation in the corical BER is 0. r the C2C to 0.1	ne extender to 0.08e-4. .1 e-4).	SuggestedRemedy Change to "The follo Proposed Response Cl 176 SC 176.1.3 Brown, Matt Comment Type E The terms defined in definitions we order t guidelines here:	Response Status (P27(Alphaw Comment Status) this subclause are not o hem alphanumerically ac	<i>L</i> 32 ave Semi dered in a consistent cording to the rules a	way. Typically for according to the
As stated in the editor's targets. There is no r (particularly for the low <i>buggestedRemedy</i> Change the BER per s <i>broposed Response</i> C 175 SC 175.2.4.6 Brown, Matt <i>comment Type</i> E	s note the random BER target need to constrain the C2C BEF er speed C2C's where the hist ublayer in an xMII Extender fo <i>Response Status</i> O 5.1 <i>P</i> 247 Alphawave Se	R allocation in the corical BER is 0. r the C2C to 0.1	# 181	SuggestedRemedy Change to "The follo Proposed Response Cl 176 SC 176.1.3 Brown, Matt Comment Type E The terms defined in definitions we order the guidelines here: http://www.ieee802.cc	Response Status (P27(Alphaw Comment Status) this subclause are not o	<i>L</i> 32 ave Semi dered in a consistent cording to the rules a	way. Typically for according to the
As stated in the editor's targets. There is no r (particularly for the low <i>buggestedRemedy</i> Change the BER per s <i>broposed Response</i> C 175 SC 175.2.4.6 Brown, Matt <i>comment Type</i> E	s note the random BER target need to constrain the C2C BEF er speed C2C's where the hist ublayer in an xMII Extender fo <i>Response Status</i> O 5.1 <i>P</i> 247 Alphawave Se <i>Comment Status</i> X	R allocation in the corical BER is 0. r the C2C to 0.1	# 181	SuggestedRemedy Change to "The follo Proposed Response Cl 176 SC 176.1.3 Brown, Matt Comment Type E The terms defined in definitions we order to guidelines here: http://www.ieee802.cc SuggestedRemedy	Response Status (Alphaw Comment Status) this subclause are not o hem alphanumerically ac	<i>L</i> 32 ave Semi dered in a consistent cording to the rules a equirements/words.ht	way. Typically for according to the
As stated in the editor's targets. There is no r (particularly for the low SuggestedRemedy Change the BER per s Proposed Response Cl 175 SC 175.2.4.6 Brown, Matt Comment Type E The acronym AM (and spell it out. SuggestedRemedy	s note the random BER target heed to constrain the C2C BEF er speed C2C's where the hist ublayer in an xMII Extender fo <i>Response Status</i> O 5.1 <i>P</i> 247 Alphawave Se <i>Comment Status</i> X plural AMs) is used a few time	R allocation in the corical BER is 0. r the C2C to 0.1	tined. Better to just	SuggestedRemedy Change to "The follo Proposed Response Cl 176 SC 176.1.3 Brown, Matt Comment Type E The terms defined in definitions we order t guidelines here: http://www.ieee802.c SuggestedRemedy Reorder the terms al	Response Status (P 270 Alphaw Comment Status) this subclause are not of hem alphanumerically ac org/3/WG_tools/editorial/r phanumerically according	<i>L</i> 32 ave Semi dered in a consistent cording to the rules a equirements/words.ht	way. Typically for according to the
As stated in the editor's targets. There is no r (particularly for the low SuggestedRemedy Change the BER per s Proposed Response Cl 175 SC 175.2.4.6 Brown, Matt Comment Type E The acronym AM (and spell it out. SuggestedRemedy	s note the random BER target need to constrain the C2C BEF er speed C2C's where the hist ublayer in an xMII Extender fo <i>Response Status</i> O 5.1 P247 Alphawave Se <i>Comment Status</i> X plural AMs) is used a few time ment marker" is several places	R allocation in the corical BER is 0. r the C2C to 0.1	tined. Better to just	SuggestedRemedy Change to "The follo Proposed Response Cl 176 SC 176.1.3 Brown, Matt Comment Type E The terms defined in definitions we order to guidelines here: http://www.ieee802.cc SuggestedRemedy	Response Status (Alphaw Comment Status) this subclause are not o hem alphanumerically ac	<i>L</i> 32 ave Semi dered in a consistent cording to the rules a equirements/words.ht	way. Typically for according to the

C/ 176 SC 176.1.3

C/ 176 SC 176.1.	4 P271	L33	# 477	C/ 176 SC 176.2	2 P 274	L17	# 85
Opsasnick, Eugene	Broadcom			Opsasnick, Eugene	Broadcom		
Comment Type E	Comment Status X			Comment Type TR	Comment Status X		
	ay alternating PCSLs by two RS- by two RS-FEC codewords …"	FEC codewords	s …" to be "Delay of	parameter] is set to	e of the pargraph right before Tak o the value of the received SIGN/	L_OK value" is	ambigous. Which
SuggestedRemedy				received SIGNAL_	OK is to be used? There are two	different SIGNAI	L_OK inputs.
Change: "Delay alternating P To:	CSLs by two RS-FEC codeword	s"			statement is made in the last sent 6 on page 275, in subclause 176.3		graph immediately
"Delay of alternating	PCSLs by two RS-FEC codewo	ords".		Both of these state	ements should be made more clea	ar.	
Proposed Response	Response Status O			SuggestedRemedy			
	4 P271	L 42	# 478		ely prior to Table 176-5 change th , the SIGNAL_OK parameter at th AL_OK value		
Opsasnick, Eugene	Broadcom			to:	_		
Comment Type E	Comment Status X				, the SIGNAL_OK parameter at the AL_OK parameter from the subla		
	defined term, the parenthetical '	(lanes)" on line	43 should be updated	(inst:IS_SIGNAL.ir	ndication(SIGNAL_OK))."		
SuggestedRemedy					I76.3, change the last sentence in , the SIGNAL_OK parameter at the sentence in the sentence is the sentence in the sentence is the sentenc		
Replace "(lanes)" with: (PMALs).					ed SIGNAL_OK value."		
Proposed Response	Response Status O			value of the receiv	, the SIGNAL_OK parameter at the ed SIGNAL_OK parameter from t request(SIGNAL_OK))."		
C/ 176 SC 176.2	P 273	L 47	# 480	Proposed Response	Response Status 0		
Opsasnick, Eugene	Broadcom						
Comment Type E	Comment Status X						
*.request and *.indic block diagrams whic	age 273, at the start of four para cation primitives, it would be good ch illustrate the interface primitive rient the reader to their position.	d to add a cross	-reference to the PMA				
SuggestedRemedy	,						
Suggest adding a si	ingle sentence paragraph prior to The PMA service interfaces are il						
Proposed Response	Response Status O						

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 176 SC 176.2

opsasnick, Eugene Broadcom opmment Type E Comment Status X Verb tense is not correct. uggestedRemedy Change: ", the m:n PMAs sends n parallel symbol streams" Should add "PMAL" term when referring to the appropriate PMA interface lanes. And on line 11 of the same page 275, Change: ", the n:m PMAs sends n parallel symbol streams" Replace: Not on line 18 of the same page 275, Change: ", the n:m PMAs sends n parallel symbol streams" Not on line 18 of the same page 275, Change: ", the n:m PMAs send n parallel symbol streams" With: Not add "PMAL in the receive (demultiplexing) direction, the m:n PMAs perform a receive function which demultiplexes RS-FEC symbols from n input lanes at the service interface below the PMA to m PCSL input lanes received at the PMA service interface below the PMA to m PCSL input lanes received at the PMA service interface below the PMA. In the receive (demultiplexing) direction, the m:n PMAs perform a transmit function which multiplexes RS-FEC symbols from n input lanes at the service interface." With: "In the transmit (multiplexing) direction, the m:n PMAs perform a transmit function which multiplexes RS-FEC symbols from n PCSL input lanes received at the PMA service interface below the PMA input lanes at the service interface below the PMA. In the receive (demultiplexing) direction, the m:n PMAs perform a receive function which multiplexes RS-FEC symbols from n PCSL input lanes received at the PMA service interface below the PMA. In the receive (demultiplexing) direction, the m:n PMAs perform a receive function which mu										
comment Type E Comment Status X Verb tense is not correct. uggested/Remedy Change: ", the mn PMAs sends n parallel symbol streams", the mn PMAs sends n parallel symbol streams", the mn PMAs sends n parallel symbol streams", the mn PMAs sends m parallel symbol streams" And on line 11 of the same page 275, Change: ", the nn PMAs sends m parallel symbol streams", the nn PMAs sends m parallel symbol streams" And on line 16 of the same page 275, Change: ", the nn PMAs sends n parallel symbol streams" And on line 16 of the same page 275, Change: ", the nn PMAs sends n parallel symbol streams" to: ", the nn PMAs sends n parallel symbol streams" to: ", the nn PMAs sends n parallel symbol streams" to: ", the nn PMAs sends n parallel symbol streams" to: ", the nn PMAs sends n parallel symbol streams" to: ", the nn PMAs sends n parallel symbol streams" to: ", the nn PMAs sends n parallel symbol streams" to: ", the nn PMAs sends n parallel symbol streams" to: ", the nn PMAs sends n parallel symbol streams" to: ", the nn PMAs sends n parallel symbol streams" to: ", the nn PMAs sends n parallel symbol streams" to: ", the nn PMAS sends n parallel symbol streams" to: "	C/ 176	SC 176.3	P 275	L 6	# 479	C/ 176	SC 176.4.1	P 276	L 21	# 482
Verb tense is not correct. uggested/Remedy Change: ", the m:n PMAs sends n parallel symbol streams" Suggested/Remedy And on line 11 of the same page 275, Change: ", the n:m PMAs sends m parallel symbol streams" Change: ", the n:m PMAs sends m parallel symbol streams" Mode ine 18 of the same page 275, Change: ", the n:m PMAs sends m parallel symbol streams" Mode ine 18 of the same page 275, Change: ", the n:n PMAs sends m parallel symbol streams" Mode ine 18 of the same page 275, Change: ", the n:n PMAs sends m parallel symbol streams" Mode ine 18 of the same page 275, Change: ", the n:n PMAs sends m parallel symbol streams" Mode ine 18 of the same page 275, Change: ", the n:n PMAs sends m parallel symbol streams" Mode ine 18 of the same page 275, Change: ", the n:n PMAs sends m parallel symbol streams" Mode ine 18 of the same page 275, Change: ", the n:n PMAs sends m parallel symbol streams" Mode ine 18 of the same page 275, Change: Mapping is the number of PCsLs and n equals the number 212.5 Gb/s interface lanes". Mode ine 18 of the same page 275, Virte Replace: Comment Type E Comment Type 212.5 Gb/s interface lanes Now that PMAL is a defined term, it can be used to replace term "212.5 Gb/s interface lanes is serve intefface below the PMA. In the receive interface lanes i	Opsasnick,	Eugene	Broadcom			Opsasnic	k, Eugene	Broadcom		
gested/Renedy Suggested/Renedy Change: ", the m.n PMAs sends n parallel symbol streams" Suggested/Renedy And on line 11 of the same page 275, Change: ", the n.m PMAs sends m parallel symbol streams" Change: ", the n.m PMAs sends m parallel symbol streams" "In the transmit (multiplexing) direction, the m.n PMAs perform a transmit function which multiplexes RS-FEC symbols from n PCSL input lanes received at the PMA service interface below the PMA. In the receive date the PMA service interface below the PMA to m PCSL output lanes at the service interface." And on line 18 of the same page 275, Change: ", the n.n PMAs sends n parallel symbol streams" to: ", the n.n PMAs sends n parallel symbol streams" O Virte The transmit (multiplexing) direction, the m.n PMAs perform a transmit function which multiplexes RS-FEC symbols from n PCSL input lanes received at the PMA service interface." Virte The transmit (multiplexing) direction, the m.n PMAs perform a transmit function which multiplexes RS-FEC symbols from n PCSL input lanes to the PMA to m PCSL output lanes stoward the PMA service interface." Virte The transmit (multiplexing) direction, the m.n PMAs perform a receive function which demultiplexes RS-FEC symbols from n PMAs perform a transmit function which multiplexes RS-FEC symbols from n PMAs perform a receive function which demultiplexes RS-FEC symbols from n PMAs perform a receive function which demultiplexes RS-FEC symbols from n PMAs perform a receive function which demultiplexes RS-FEC symbols from n PMAS perform a receive function which demultip	Comment Ty	ype E	Comment Status X			Comment	Type E	Comment Status X		
Change: ", the m:n PMAs sends n parallel symbol streams" to: ", the m:n PMAs sends n parallel symbol streams" And on line 11 of the same page 275, Change: ", the n:m PMAs sends n parallel symbol streams" And on line 18 of the same page 275, Change: ", the n:n PMAs sends n parallel symbol streams" And on line 18 of the same page 275, Change: ", the n:n PMAs sends n parallel symbol streams" to: " the n:n PMAs sends n parallel symbol streams" to: " the n:n PMAs sends n parallel symbol streams" to: " the n:n PMAs sends n parallel symbol streams" signarick. Eugene Broadcom singestedRemedy Replace: "Note that m equals the number of	Verb ten	nse is not corre	ect.			Shoul	d add "PMAL" te	rm when referring to the appr	opriate PMA inte	erface lanes.
to: "", the min PMAs send n parallel symbol streams". And on line 11 of the same page 275, Change: ", the num PMAs sends m parallel symbol streams" to: ", the num PMAs sends m parallel symbol streams" to: ", the num PMAs sends n parallel symbol stre	SuggestedR	Remedy				Suggested	Remedy			
And on line 18 of the same page 275, Change: ", the n:n PMAs sends n parallel symbol streams" to: ", the n:n PMAs send n parallel symbol streams" troposed Response Response Response Status 0 176 SC 176.4 P276 L16 # 481 Department Type E Comment Status X Now that PMAL is a defined term, it can be used to replace term "212.5 Gb/s interface lanes". UggestedRemedy Replace: "Note that m equals the number of PCSLs and n equals the number PMALs for each xBASE-R m:n PMA." Similar updates can be made thoughout Clause 176 where there are referecnes to "212.5 Gb/s interface lanes" to "212.5 Gb/s interface Similar updates can be made thoughout Clause 176 where there are referecnes to "212.5 Gb/s interface lanes" to "212.5 Gb/s interface Similar updates can be made thoughout Clause 176 where there are referecnes to "212.5 Gb/s interface lanes" to "212.5 Gb/s interface Similar updates can be made thoughout Clause 176 where there are referecnes to "212.5 Gb/s interface lanes" to "21	to: ", t And on I Change:	the m:n PMAs line 11 of the s s: ", the n:m F	send n parallel symbol stream ame page 275, PMAs sends m parallel symbol	s". streams"		"In the multip interfa (demu RS-FE	e transmit (multip lexes RS-FEC s ce to n output la lltiplexing) direct EC symbols from	ymbols from m PCSL input la nes at the service interface b ion, the m:n PMAs perform a i n input lanes at the service i	nes received at elow the PMA. In receive function	the PMA service n the receive which demultiplexes
Industed Response Response Status 0 If 16 SC 176.4 P276 L16 # [481] Dpsasnick, Eugene Broadcom Broadcom PCSL output lanes at the service interface below the PMA to m PCSL output lanes toward the PMA service interface." Now that PMAL is a defined term, it can be used to replace term "212.5 Gb/s interface lanes". Implicit a service interface below the PMA to m PCSL output lanes toward the PMA service interface." Similar updates can be made to 176.5.1. Proposed Response Status 0 Interface lanes for each XBASE-R m:n PMA." With: Not that m equals the number of PCSLs and n equals the number PMALs for each xBASE-R m:n PMA." Similar updates can be made thoughout Clause 176 where there are referecnes to "212.5 Gb/s interface lanes" such as line 51 on page 292. Similar updates can be made thoughout Clause 176 where there are referecnes to "212.5 Gb/s interface lanes" such as line 51 on page 292.	Change:	: ", the n:n P	MAs sends n parallel symbol s			With: "In the	e transmit (multip	plexing) direction, the m:n PM		
M 176 SC 176.4 P 276 L 16 # 481 PCSL output lanes toward the PMA service interface." bpsasnick, Eugene Broadcom Similar updates can be made to 176.5.1. Similar updates can be made to 176.5.1. how that PMAL is a defined term, it can be used to replace term "212.5 Gb/s interface lanes". Proposed Response Response Status O uggestedRemedy Replace: "Note that m equals the number of PCSLs and n equals the number 212.5 Gb/s interface lanes for each xBASE-R m:n PMA." With: "Note that m equals the number of PCSLs and n equals the number PMALs for each xBASE-R m:n PMA." Similar updates can be made thoughout Clause 176 where there are refereenes to "212.5 Gb/s interface lanes" such as line 51 on page 292. Similar updates can be made thoughout Clause 176 where there are refereenes to "212.5 Gb/s interface lanes"	Proposed Re	Pesponse	Response Status O			interfa (demu	ce to n PMAL or Itiplexing) direct	utput lanes at the service inte ion, the m:n PMAs perform a	rface below the receive function	PMA. In the receive which demultiplexes
Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Similar updates can be made to 176.5.1. Proposed Response Status O Simila	C/ 176	SC 176.4	P 276	L16	# 481					
comment Type E Comment Status X Now that PMAL is a defined term, it can be used to replace term "212.5 Gb/s interface lanes". Proposed Response Response Status O uggestedRemedy Replace: "Note that m equals the number of PCSLs and n equals the number 212.5 Gb/s interface lanes for each xBASE-R m:n PMA." O O With: "Note that m equals the number of PCSLs and n equals the number PMALs for each xBASE-R m:n PMA." Similar updates can be made thoughout Clause 176 where there are referecnes to "212.5 Gb/s interface lanes" such as line 51 on page 292.	Opsasnick,	Eugene	Broadcom			Simila	r undatas con b	a mode to 176 E 1		
Now that PMAL is a defined term, it can be used to replace term "212.5 Gb/s interface lanes". uggestedRemedy Replace: "Note that m equals the number of PCSLs and n equals the number 212.5 Gb/s interface lanes for each xBASE-R m:n PMA." With: "Note that m equals the number of PCSLs and n equals the number PMALs for each xBASE-R m:n PMA." Similar updates can be made thoughout Clause 176 where there are referecnes to "212.5 Gb/s interface lanes" such as line 51 on page 292.	Comment Ty	ype E	Comment Status X				•			
Replace: "Note that m equals the number of PCSLs and n equals the number 212.5 Gb/s interface lanes for each xBASE-R m:n PMA." With: "Note that m equals the number of PCSLs and n equals the number PMALs for each xBASE-R m:n PMA." Similar updates can be made thoughout Clause 176 where there are referecnes to "212.5 Gb/s interface lanes" such as line 51 on page 292.		at PMAL is a de	efined term, it can be used to re	eplace term "2"	12.5 Gb/s interface	Proposed	Response	Response Status O		
"Note that m equals the number of PCSLs and n equals the number 212.5 Gb/s interface lanes for each xBASE-R m:n PMA." With: "Note that m equals the number of PCSLs and n equals the number PMALs for each xBASE-R m:n PMA." Similar updates can be made thoughout Clause 176 where there are referecnes to "212.5 Gb/s interface lanes" such as line 51 on page 292.	SuggestedR	Remedy								
Gb/s interface lanes" such as line 51 on page 292.	"Note the lanes for With: "Note the	hat m equals th or each xBASE- hat m equals th	R m:n PMA."							
roposed Response Response Status O				where there ar	e referecnes to "212.5					
	Proposed Re	esponse	Response Status O							

C/ 176 SC 176.4.1

D/ 176 SC 176.4.1 P277 L52 # 420	C/ 176 SC 176.4.3.2.1 P286 L30 # 86
Nicholl, Gary Cisco Systems	Opsasnick, Eugene Broadcom
Comment Type T Comment Status X	Comment Type E Comment Status X
Figure 176-2. I find the "symbol demultiplexing" block to be somewhat confusing as block is essentially a "blind 20-bit demux and slip" function, and only truly represen symbol demux when the 20-bit demux aligns with the 20-bit symbol-pair boundaries confirmed by the subsequent 'alignment marker lock" function. It is actually the combination of the "blind 20-bit demux and slip" and "alignment marker lock" function perform the "symbol demux".	same 20-bit symbol-pair boundary" can be made more clear by stating what is meant by the "same boundary".
SuggestedRemedy	from:
I think at this level the functional block diagram would be much easier to understar were to combine the "symbol demultiplexing" and "Alignment marker lock" functiona blocks into a single functional block called "Symbol demultiplexing". This functiona would internally be comprised of two blocks, "20-bit demux and slip" and "alignment lock". These two blocks would be described later in the subclause (perhaps with the block diagram).	to: This process of a one-bit slip followed by alignment marker search continues until all eight rker PCS lanes have alignment marker lock using the 20-bit boundary set by the demultiplexer."
A presentation will be provided with more details on this proposal.	C/ 176 SC 176.4.4.2.1 P289 L25 # 483
Proposed Response Response Status O	
	Opsasnick, Eugene Broadcom Comment Type T Comment Status X
C/ 176 SC 176.4.2.4.2 P 281 L 32 # 96 Nicholl, Shawn AMD Comment Type TR Comment Status X	Definition of variable restart_lock_demux <y> states that it is set to true in the SYMBOL_LOCK_RESTART state, but is is actually set to true in two separate states in state diagram Figure 176-10.</y>
Comment Type TR Comment Status X Currently says " and for the 400GBASE-R 32:4 PMA, the odd lanes" SuggestedRemedy	SuggestedRemedy Change: "Boolean variable that is set to true in the SYMBOL_LOCK_RESTART state to
Propose " and for the 400GBASE-R 16:2 PMA, the odd lanes"	restart" To: "Boolean variable that is set to true in the SYMBOL_LOCK_RESTART and
Proposed Response Response Status O	SLIP_CONTROL states to restart" Proposed Response Response Status O
	C/ 176 SC 176.4.4.2.3 P290 L4 # 484
	Opsasnick, Eugene Broadcom
	Comment Type E Comment Status X
	Numbers less than or equal to 10 (ten) should be written out.
	SuggestedRemedy
	Change: "Counts 3 alignment marker intervals." To: "Counts three alignment marker intervals."
	5

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line C/ 176 SC 176.4.4.2.3 Page 18 of 107 2025-01-03 11:17:24 A

C/ 176 SC 17	6.4.4.3	P 290	L 34	# 145	C/ 176
He, Xiang		Huawei			Opsasn
Comment Type 1	Comn	nent Status X			Comme
The index y is no	ot a PMAL but a	PAML number.			In th
SuggestedRemedy					mac an a
Change "where	y is the input PM	IAL" to "where y is	the input PMAL r	number"	tran
Proposed Response	Respo	nse Status O			und true 12 s
C/ 176 SC 17	6.4.4.3	P 291	L 2	# 84	false
Opsasnick, Eugene		Broadcom			119 trop
Comment Type	R Comn	nent Status X			tran
) to enter the LOSS !signal_ok_mux) sh		ET state in Figure 176- this condition	Suggesi In th ALI0
SuggestedRemedy					Propose
Change the ope reset + !all_locke to:		n to enter LOSS_O	F_ALIGNMENT	state from:	
reset + !signal_c	ok_mux + !all_lo	cked_mux			C/ 176
Proposed Response	Respo	nse Status O			Opsasn
					Comme
					In F SYN
					Suggest

C/ 176	SC	176.4.4.3	P 291	L16	# 83
Opsasnick	k, Euge	ne	Broadcom		
Comment	Туре	т	Comment Status X		

In the Figure 176-9 state diagram, after entering ALIGNMENT_FAIL state, the state machine will transition immediately to LOSS_OF_ALIGNMENT_STATE. There should be an arc added from ALIGNMENT_FAIL to LOSS_OF_ALIGNMENT (as an unconditional transition). Adding this arc will make the state diagram easier for the reader to understand. Without this arc, the reader must figure out that setting restart_lock_mux to true causes restart_lock in Figure 119-2 to be true, and that variable causes the Fig. 119-12 state machine to go to the LOCK_INIT state which sets the amps_lock
In the variable all_locked in clause 119 also becomes false. And then all_lock_mux in CL 176 takes the value of CL 119 all_locked. And finally the user can see that (!all_locked_mux) is an open arrow global transition condition to the LOSS_OF_ALIGNMENT state.

SuggestedRemedy

In the Figure 176-9 state diagram, add an unconditional transition arc (UCT) from the ALIGNMENT_FAIL state to the LOSS_OF_ALIGNMENT state.

Proposed	Response	Response Status	0			
C/ 176	SC 176.4.4.3	P 2 9	92	L17	# 485	
Opsasnic	k, Eugene	Broad	lcom			
Comment	Туре Е	Comment Status	Х			
	'	ate transitions out of ART do not have a d	_			
Suggeste	dRemedy					

Unconditional state transitions should be labelled "UCT".

Proposed Response Response Status **0**

C/ 176 SC 176.5.4	4.1.5 <i>P</i> 319	L 48	# 20	C/ 176	SC 176.7.4	Р	298	L 3	# 19
Brown, Matt	Alphawave Se	mi		Brown, Ma	tt	Alpl	nawave Sen	ni	
Comment Type T	Comment Status X			Comment	Туре т	Comment Statu	s X		
lane, this index "i" wil	ally used for the lane number. Si ill cause some ambiguity in the n For similar bin counters defined in e.	nanagement va	riables and MDIO	were m	nandatory but no ng is needed fo	35 adopted respons ot the checker. The r PMD and AUI com	PRBS31Q p	battern checke	block error counters r with block error
SuggestedRemedy				00		31Q pattern check i	s mandator	V.	
	defined in 177.5.4.1.5 change th s in Clause 45 appropriately.	e index "i" to "k	". Also update Table	Proposed F		Response Status		, .	
Proposed Response	Response Status 0								
				Cl 176	SC 176.7.4.	I P	298	L16	# 394
C/ 176 SC 176.5.4	1.1.5 <i>P</i> 319	L 48	# 13	Shrikhande	e, Kapil	Mai	vell		
Brown, Matt	Alphawave Se	mi		Comment	Type TR	Comment Statu	s X		
lane, this index "i" wil	Comment Status X ally used for the lane number. Si Il cause some ambiguity in the n	nanagement va	riables and MDIO	the bin in 175.	counters define 2.5.3). The cou		es (see FEC	codeword err	be aligned to match for bin counter definition bin counters in
	For similar bin counters defined in	n 174A.6 and 17	76.7.4.1 the index "k" is	Currented	Domodu				
wood for this purpose				Suggestea	Remeay				
used for this purpose SuggestedRemedy	9.				in counter defin				finition in 175.2.5.3, and
SuggestedRemedy For the bin counters	e. defined in 177.5.4.1.5 change th s in Clause 45 appropriately.	e index "i" to "k	". Also update Table	Align b	in counter defin clude counter s	ition format in 176.7 ize in the definition i Response Status	n 176.7.4.1.		finition in 175.2.5.3, and
SuggestedRemedy For the bin counters 177-7 and definitions	defined in 177.5.4.1.5 change th	e index "i" to "k	". Also update Table	Align b also ine	in counter defin clude counter s	ze in the definition i	n 176.7.4.1.		finition in 175.2.5.3, and
uggestedRemedy For the bin counters 177-7 and definitions	defined in 177.5.4.1.5 change th s in Clause 45 appropriately.	e index "i" to "k	". Also update Table	Align b also ine	in counter defin clude counter s	ize in the definition i Response Status	n 176.7.4.1.		finition in 175.2.5.3, and # 12
uggestedRemedy For the bin counters 177-7 and definitions roposed Response	defined in 177.5.4.1.5 change th s in Clause 45 appropriately. <i>Response Status</i> O		·	Align b also in Proposed F	in counter defin clude counter s Response SC 176.7.4 .	ize in the definition i Response Status	n 176.7.4.1. s O	L 26	
For the bin counters a 177-7 and definitions proposed Response 176 SC 176.7.4	defined in 177.5.4.1.5 change th s in Clause 45 appropriately. <i>Response Status</i> O 4 <i>P</i> 298	L 3	". Also update Table # 18	Align b also in Proposed F Cl 176	in counter defin clude counter s Response SC 176.7.4 . ⁴	ize in the definition i Response Status	n 176.7.4.1. s O 298 nawave Sen	L 26	
SuggestedRemedy For the bin counters of 177-7 and definitions Proposed Response C/ 176 SC 176.7.4 Brown, Matt	defined in 177.5.4.1.5 change th s in Clause 45 appropriately. <i>Response Status</i> O 4 <i>P</i> 298 Alphawave Se	L 3	·	Align b also ind Proposed F C/ 176 Brown, Ma Comment T Some o	in counter defin clude counter s Response SC 176.7.4. tt Type T of the block error	ize in the definition i Response Status P Napl Comment Statu pr counters may incr	n 176.7.4.1. s O 298 nawave Sen s X ement close	L 26 ni ed to once per	# 12 block. As such, these
For the bin counters of 177-7 and definitions Proposed Response 7 176 SC 176.7.4 Brown, Matt Comment Type T Subclause 176.7.4 sp are optional but does	defined in 177.5.4.1.5 change th s in Clause 45 appropriately. <i>Response Status</i> O 4 <i>P</i> 298 Alphawave Se <i>Comment Status</i> X pecifies that test pattern generat s not elaborate which ones. Nece	L 3 mi ors and checke essary pattern g	# 18	Align b also inc Proposed F Cl 176 Brown, Ma Comment T Some counte ensure	in counter defin clude counter s Response SC 176.7.4. tt Type T of the block error rs, if 32 bits, wil	ize in the definition i Response Status Response Status P Alpl Comment Statu or counters may incr I saturate around 30 least 15 minutes be	n 176.7.4.1. s O 298 nawave Sen s X ement close s seconds af	L 26 ni ed to once per fter being rese	# 12 block. As such, these to zero. In order to
SuggestedRemedy For the bin counters of 177-7 and definitions Proposed Response Cl 176 SC 176.7.4 Brown, Matt Comment Type T Subclause 176.7.4 sp are optional but does PRBS31Q, PRBS130	defined in 177.5.4.1.5 change th s in Clause 45 appropriately. <i>Response Status</i> O 1 <i>P</i> 298 Alphawave Se <i>Comment Status</i> X pecifies that test pattern generat s not elaborate which ones. Nece Q, SSPRQ, and square wave. N	L 3 mi ors and checke essary pattern g	# 18	Align b also inc Proposed F Cl 176 Brown, Ma Comment T Some counte ensure	SC 176.7.4 . Type T of the block error rs, if 32 bits, will that there is at 3 should be large	ize in the definition i Response Status Response Status P Alpl Comment Statu or counters may incr I saturate around 30 least 15 minutes be	n 176.7.4.1. s O 298 nawave Sen s X ement close s seconds af	L 26 ni ed to once per fter being rese	# 12 block. As such, these to zero. In order to
SuggestedRemedy For the bin counters of 177-7 and definitions Proposed Response Cl 176 SC 176.7.4 Brown, Matt Comment Type T Subclause 176.7.4 sp are optional but does PRBS31Q, PRBS130 PRBS31Q and PRBS SuggestedRemedy	defined in 177.5.4.1.5 change the s in Clause 45 appropriately. <i>Response Status</i> O 4 <i>P</i> 298 Alphawave Se <i>Comment Status</i> X pecifies that test pattern generat s not elaborate which ones. Nece Q, SSPRQ, and square wave. N S13Q.	<i>L</i> 3 mi ors and checke essary pattern g ecessary patter	# 18 r defined in 120.5.11.2 generators are n checkers are	Align b also in Proposed F C/ 176 Brown, Ma Comment T Some of counte ensure 2, and Suggested Specify	in counter defin clude counter s Response SC 176.7.4.4 tt Type T of the block error rs, if 32 bits, wil that there is at 3 should be larg Remedy	ize in the definition i Response Status Response Status P Alpi Comment Statu or counters may incr I saturate around 30 least 15 minutes be ger.	n 176.7.4.1. s O 298 nawave Sen s X ement close 9 seconds af tween reset	L 26 ni ed to once per fter being rese and saturatio	# 12 block. As such, these to zero. In order to
SuggestedRemedy For the bin counters 177-7 and definitions Proposed Response Cl 176 SC 176.7.4 Brown, Matt Comment Type T Subclause 176.7.4 sp are optional but does PRBS31Q, PRBS130 PRBS31Q and PRBS SuggestedRemedy	defined in 177.5.4.1.5 change the s in Clause 45 appropriately. <i>Response Status</i> O 4 <i>P</i> 298 Alphawave Se <i>Comment Status</i> X pecifies that test pattern generat s not elaborate which ones. Nece Q, SSPRQ, and square wave. N S13Q. for each pattern generator and cl	<i>L</i> 3 mi ors and checke essary pattern g ecessary patter	# 18 r defined in 120.5.11.2 generators are n checkers are	Align b also in Proposed F C/ 176 Brown, Ma Comment T Some of counte ensure 2, and Suggested Specify	SC 176.7.4. tt Type T of the block error rs, if 32 bits, will that there is at 3 should be larg Remedy y the counter siz- herwise.	ize in the definition i Response Status Response Status P Alpi Comment Statu or counters may incr I saturate around 30 least 15 minutes be ger.	n 176.7.4.1. s O 298 nawave Sen s X ement close seconds af tween reset	L 26 ni ed to once per fter being rese and saturatio	# 12 block. As such, these to zero. In order to n, bin counters for 0, 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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

Cl	176	
SC	176.7.4.1	

C/ 176 SC 176.	B P199	L 9	# 22	C/ 176	SC 176.8	P 299	L 6	# 225
Brown, Matt	Alphawave Se	emi		de Koos, A	ndras	Microchip Tec	hnology	
Comment Type T	Comment Status X			Comment T	уре Т	Comment Status X		
one for 800GBASI SuggestedRemedy	DGBASE-R, 400GBASE-R, and 1. E-R PMAs may need to be refined		As are TBD and the	equal to does no	those of the 8 thave the 'De	for the '1.6TBASE-R 8:16 PM 300GBASE-R 4:32 PMA or 32:4 lay odd PCSLs by one symbol' s negligible in the context of the	4 PMA. It is tru function (176.4	e that the 1.6T PMA
Expect a contribut	on with proposals. 6, Table 116-7, 169-4, and Table	174-4 with the	adopted numbers	Suggested	Remedy			
Proposed Response	Response Status O			For the	'1.6TBASE-R	8:16 PMA or 16:8 PMA' delay o 2 PMA or 32:4 PMA'	constraints, use	the same values as
				Proposed F	esponse	Response Status 0		
C/ 176 SC 176.	3 P 299	L 4	# 451					
Shrikhande, Kapil	Marvell			C/ 176	SC 176.8	P 299	L 6	# 223
Comment Type TR				de Koos, A	ndras	Microchip Tec	hnology	
In Table 176-7, co	mplete the TBD delay values for the	he SM-PMAs.		Comment T	ype T	Comment Status X		
A presentation will Proposed Response	be provided for the TBD values in Response Status O	1 Table 176-7.		PMA de	elay constraint	d deskew (compensating for sh ? I think not. This should be so d in the PMA's delay constraint?	een as the dela	
C/ 176 SC 176.8	B P 299	L 6	# 226	Proposed F	esponse	Response Status O		
de Koos, Andras	Microchip Teo	hnology						
Comment Type T	Comment Status X							
just be a wire? Is it because it cou PMA? Assuming the 4:4	the value for a 4:4 PMA so large resonably be implemented with PMA value is correct, the same ru ble the values of the 1:8, 2:16, an	a 4:32 PMA in les can be used	series with a 32:4 d for the 1:1, 2:2 and					
SuggestedRemedy								
For the '200GBAS of the '200GBASE For the '400GBAS of the '400GBASE For the '1.6TBASE	E-R 1:1 PMA' delay constraint val -R 1:8 PMA or 8:1 PMA' delay con E-R 2:2 PMA' delay constraint val -R 2:16 PMA or 16:2 PMA' delay du E-R 8:8 PMA' delay constraint valu R 8:16 PMA or 16:8 PMA' delay co	nstraints. ues, double the constraints. les, double the	delay constraint values					
Proposed Response	Response Status 0							
	•							

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 176 SC 176.8 Page 21 of 107 2025-01-03 11:17:24 A

/ 176 SC 176.8	P 299	L6	# 222	C/ 176	SC	176.8	P 299	L 21	# 224
e Koos, Andras	Microchip Te	chnology		de Koos,	Andras		Microchip Te	chnology	
omment Type T	Comment Status X			Comment	Туре	т	Comment Status X		
400GBASE-R) PMA careful to avoid doub (which is for the *sur	delay of the 1:8 and 8:1 (for 2 s is complicated because of the ple-accounting the delay due to n* of Rx and Tx) should thus b (not 2x the intentional skew). on only once.	e 2CW skew intro this skew! The e calculated as the	oduced. Must be max delay constraint ne max base delay plus	Table may g isolati <i>Suggested</i>	176-6, get confi on, one dRemed	a footnot used: loo could cc dy	sed to specify the max delay e to the table is required to ex king at the delay through the onclude that they should each	xplain the metho Rx PMA in isola	d. Otherwise, readers ition, and the Tx PMA it
uggestedRemedy							after the table: lay constraint is respect to the	e sum of Rx and	Tx delays the
PMA or 32:4 PMA, p	As use the base max delay vale resumably?) plus the intention		800GBASE-R 4:32	intenti	ional sk	ew for the	e 1:8 and 8:1 PMAs (51.2ns) nly ONCE.		
Skew = 2 FEC CWs	= 51.2ns for 200Gbps			Proposed	Respor	nse	Response Status 0		
Maximum (bit time): Maximum (pause_qu Maximum (ns): 46.0 For the 2:16, 16:2, P PMA or 32:4 PMA, p Skew = 2 FEC CWs 400GBASE-R 2:16 F Maximum (bit time):	BASE-R 1:8 PMA or 8:1 PMA : mum (bit time): 36864 + 40960 = 77824 mum (pause_quanta): 72 + 80 = 152 mum (ns): 46.08 + 51.2 = 97.28 The 2:16, 16:2, PMAs use the base max delay value (same as the 800GBASE-R 4:32 or 32:4 PMA, presumably?) plus the intentional skew. t = 2 FEC CWs = 25.6ns for 400Gbps BBASE-R 2:16 PMA or 16:2 PMA : mum (bit time): 36864 + 20480 = 57334 mum (pause_quanta): 72 + 40 = 112		ne 800GBASE-R 4:32	Suggestee	de, Kapi <i>Type</i> blete the d <i>Reme</i> c sentatio	TR subclau dy on will be	P 299 Marvell Comment Status X se 176.9 on Skew Constraints provided to update the Skew Response Status O		
roposed Response	Response Status 0			C/ 176	SC	176.9	P 299	L 24	# 26
				Brown, Ma	att		Alphawave S	Semi	
				Comment	Туре	т	Comment Status X		
				define		6, 169, ai	not defined for the PMAs. How nd 174 and thus the numbers	,	
				Suggestee					
							with proposals.		
				Proposed	Respor	nse	Response Status O		

Page 22 of 107 2025-01-03 11:17:24 A

C/ 176

SC 176.9

Morrie Arthur	P 300	L15	# 5	C/ 176B SC 176B.6	.2 P695	L 28	# 417
Marris, Arthur	Cadence Des			Nicholl, Gary	Cisco System		
Comment Type T	Comment Status X	3 - ,		Comment Type TR	Comment Status X		
Table 176–8 needs p				21	Reference to "Figure 176B-2" s	hould be "Fgure	176B-3"
SuggestedRemedy				SuggestedRemedy	-	-	
	—PMA/PMD registers" in IEEE	Std 802.3 for the	e correct MDIO	,	B-2" to "Figure 176B-3".		
register bit reference	s			Proposed Response	Response Status O		
Proposed Response	Response Status O						
				C/ 176C SC 176C.3	P 701	L 47	# 436
C/ 176B SC 176B.3		L12	# 378	Dudek, Mike	Marvell		
D'Ambrosia, John		S. Subsidiary of H	Huawei	Comment Type T	Comment Status X		
Comment Type E	Comment Status X			It might be confusing	that "any PMA" includes bit mu	uxed PMA's	
	luded to highlight the co-exister the figure uses generic languag			SuggestedRemedy			
Add "BM-" or "SM-" a	as appropriate to the PMA subla	wer hoves in Fig	176B-4 `	200GAUI-1, m:2 PM			,
	as appropriate to the PMA subla Response Status O	ayer boxes in Fig	176B-4.`	400GAUI-2, m:4 PM 176." to "The PMA a 1, m:2 SM-PMA for 400GAUI-2, m:4 SM	A for A for 800GAUI-4, and m:8 PMA bove the 200 Gb/s per lane AU -PMA for 800GAUI-4, and m:8 \$	I-C2C is any m:	as specified in Clause 1 SM-PMA for 200GA
Proposed Response	Response Status O	ayer boxes in Fig	176B-4.` # 424	400GAUI-2, m:4 PM 176." to "The PMA a 1, m:2 SM-PMA for 400GAUI-2, m:4 SM Clause 176.	A for 800GAUI-4, and m:8 PMA bove the 200 Gb/s per lane AU -PMA for 800GAUI-4, and m:8 \$	I-C2C is any m:	1 SM-PMA for 200GA
Proposed Response	Response Status O			400GAUI-2, m:4 PM 176." to "The PMA a 1, m:2 SM-PMA for 400GAUI-2, m:4 SM	A for 800GAUI-4, and m:8 PMA bove the 200 Gb/s per lane AU	I-C2C is any m:	as specified in Clause 1 SM-PMA for 200GA
Proposed Response 7 176B SC 176B.4 Dudek, Mike	Response Status O			400GAUI-2, m:4 PM 176." to "The PMA a 1, m:2 SM-PMA for 400GAUI-2, m:4 SM Clause 176.	A for 800GAUI-4, and m:8 PMA bove the 200 Gb/s per lane AU -PMA for 800GAUI-4, and m:8 \$	I-C2C is any m:	as specified in Clause 1 SM-PMA for 200GA
Proposed Response 2/ 176B SC 176B.4 Dudek, Mike Comment Type TR The editor's notes do	Response Status O .1 P660 Marvell Comment Status X o not appear to be correct for the	L 51 e AUI's in the tab	# 424	400GAUI-2, m:4 PM 176." to "The PMA a 1, m:2 SM-PMA for 400GAUI-2, m:4 SM Clause 176.	A for 800GAUI-4, and m:8 PMA bove the 200 Gb/s per lane AU PMA for 800GAUI-4, and m:8 \$ <i>Response Status</i> 0	I-C2C is any m:	as specified in Clause 1 SM-PMA for 200GA
Proposed Response C/ 176B SC 176B.4 Dudek, Mike Comment Type TR The editor's notes do is not clause 176C.	Response Status O .1 P660 Marvell Comment Status X o not appear to be correct for the It should only apply to the PMA'	L 51 e AUI's in the tab	# 424 bles. E.g. 200GAUI-8 es to the PMA's are	400GAUI-2, m:4 PM 176." to "The PMA a 1, m:2 SM-PMA for 400GAUI-2, m:4 SM Clause 176. Proposed Response	A for 800GAUI-4, and m:8 PMA bove the 200 Gb/s per lane AU PMA for 800GAUI-4, and m:8 \$ <i>Response Status</i> 0	I-C2C is any m: ² SM-PMA for 1.6 ³	as specified in Clause 1 SM-PMA for 200GA TAUI-8, as specified i
Proposed Response 2/ 176B SC 176B.4 Dudek, Mike Comment Type TR The editor's notes do is not clause 176C. not what the editor's should not be change	Response Status O .1 P660 Marvell Comment Status X o not appear to be correct for the	L 51 e AUI's in the tab 's and the change yer in the first row	# 424 bles. E.g. 200GAUI-8 es to the PMA's are of Table 176B-1	400GAUI-2, m:4 PM 176." to "The PMA a 1, m:2 SM-PMA for 400GAUI-2, m:4 SM Clause 176. Proposed Response	A for 800GAUI-4, and m:8 PMA bove the 200 Gb/s per lane AU PMA for 800GAUI-4, and m:8 s Response Status O	I-C2C is any m: ² SM-PMA for 1.6 ³	as specified in Clause 1 SM-PMA for 200GA TAUI-8, as specified i
Proposed Response 2 176B SC 176B.4 Dudek, Mike Comment Type TR The editor's notes do is not clause 176C. not what the editor's	Response Status O .1 P660 Marvell Comment Status X o not appear to be correct for the It should only apply to the PMA' note implies. E.G. The sublay	L 51 e AUI's in the tab 's and the change yer in the first row	# 424 bles. E.g. 200GAUI-8 es to the PMA's are of Table 176B-1	400GAUI-2, m:4 PM 176." to "The PMA a 1, m:2 SM-PMA for 400GAUI-2, m:4 SM Clause 176. Proposed Response Cl 176C SC 176C.4 Dudek, Mike Comment Type T The procedure in An	A for 800GAUI-4, and m:8 PMA bove the 200 Gb/s per lane AU PMA for 800GAUI-4, and m:8 \$ <i>Response Status</i> O .1 <i>P</i> 702 Marvell <i>Comment Status</i> X nex 163A calls for the computa	I-C2C is any m: ² SM-PMA for 1.6 ³ <i>L</i> 43 tions in 163A.3. ²	as specified in Clause 1 SM-PMA for 200GA TAUI-8, as specified in # 437 1 and 163.4.1 which
Croposed Response Cr 176B SC 176B.4 Dudek, Mike Comment Type TR The editor's notes do is not clause 176C. not what the editor's should not be change be correct as it is: SuggestedRemedy	Response Status O .1 P660 Marvell Comment Status X o not appear to be correct for the It should only apply to the PMA' note implies. E.G. The sublay ed from 200GBASE-R 8:n PMA	L51 e AUI's in the tak 's and the change 'er in the first row to 200GBASE-R	# 424 bles. E.g. 200GAUI-8 es to the PMA's are of Table 176B-1 8 8:8 PMA it appears to	400GAUI-2, m:4 PM 176." to "The PMA a 1, m:2 SM-PMA for 400GAUI-2, m:4 SM Clause 176. Proposed Response Cl 176C SC 176C.4 Dudek, Mike Comment Type T The procedure in An refer to calculations	A for 800GAUI-4, and m:8 PMA bove the 200 Gb/s per lane AU PMA for 800GAUI-4, and m:8 \$ <i>Response Status</i> 0 .1 <i>P</i> 702 Marvell <i>Comment Status</i> X	I-C2C is any m: ² SM-PMA for 1.6 ³ <i>L</i> 43 tions in 163A.3. ²	as specified in Clause 1 SM-PMA for 200GA TAUI-8, as specified i # 437 1 and 163.4.1 which
Proposed Response Cl 176B SC 176B.4 Dudek, Mike Comment Type TR The editor's notes do is not clause 176C. not what the editor's should not be change be correct as it is: SuggestedRemedy Make the necessary	Response Status O .1 P660 Marvell Comment Status X o not appear to be correct for the It should only apply to the PMA' note implies. E.G. The sublay ed from 200GBASE-R 8:n PMA changes and delete the editor's	L51 e AUI's in the tak 's and the change 'er in the first row to 200GBASE-R	# 424 bles. E.g. 200GAUI-8 es to the PMA's are of Table 176B-1 8 8:8 PMA it appears to	400GAUI-2, m:4 PM 176." to "The PMA a 1, m:2 SM-PMA for 400GAUI-2, m:4 SM Clause 176. Proposed Response Cl 176C SC 176C.4 Dudek, Mike Comment Type T The procedure in An refer to calculations SuggestedRemedy	A for 800GAUI-4, and m:8 PMA bove the 200 Gb/s per lane AU PMA for 800GAUI-4, and m:8 s <i>Response Status</i> O .1 <i>P</i> 702 Marvell <i>Comment Status</i> X nex 163A calls for the computation n Annex 93A that are different for	I-C2C is any m: ² SM-PMA for 1.6 ³ <i>L</i> 43 tions in 163A.3. ² from those for 20	as specified in Clause 1 SM-PMA for 200GA TAUI-8, as specified i # 437 1 and 163.4.1 which 00G in Annex 178A.
Cl 176B SC 176B.4 Cl 176B SC 176B.4 Dudek, Mike Comment Type TR The editor's notes do is not clause 176C. not what the editor's should not be change be correct as it is: SuggestedRemedy	Response Status O .1 P660 Marvell Comment Status X o not appear to be correct for the It should only apply to the PMA' note implies. E.G. The sublay ed from 200GBASE-R 8:n PMA changes and delete the editor's	L51 e AUI's in the tak 's and the change 'er in the first row to 200GBASE-R	# 424 bles. E.g. 200GAUI-8 es to the PMA's are of Table 176B-1 8 8:8 PMA it appears to	400GAUI-2, m:4 PM 176." to "The PMA a 1, m:2 SM-PMA for 400GAUI-2, m:4 SM Clause 176. Proposed Response Cl 176C SC 176C.4 Dudek, Mike Comment Type T The procedure in An refer to calculations SuggestedRemedy	A for 800GAUI-4, and m:8 PMA bove the 200 Gb/s per lane AU PMA for 800GAUI-4, and m:8 \$ <i>Response Status</i> O .1 <i>P</i> 702 Marvell <i>Comment Status</i> X nex 163A calls for the computation n Annex 93A that are different for e procedure in Annex 163A but to	I-C2C is any m: ² SM-PMA for 1.6 ³ <i>L</i> 43 tions in 163A.3. ² from those for 20	as specified in Clause 1 SM-PMA for 200GA TAUI-8, as specified i # 437 1 and 163.4.1 which 00G in Annex 178A.

C/ 176C SC 176C.4.1

	P703	L23	# 405	C/ 176C S	C 176C.4.3	P703	L23	# 540
C/ 176C SC 176C.4.3			# 195		0 1700.4.3			# 548
Brown, Matt	Alphawave Se	emi		Heck, Howard	_	TE Connectivit	ty	
Comment Type T	Comment Status X			Comment Type		Comment Status X		
Value for "Signal to AC	C common-mode noise ratio, S	SCMR (min)" is I	BD.	Minimum s	signal to AC c	ommon-mode noise ratio (SC	CMR) is TBD in	D1.3.
SuggestedRemedy				SuggestedRen	nedy			
Expect a contribution v	vith proposals.					aken from KR Table 178-6. A	A presentation is	s planned to support
Proposed Response	Response Status 0				sted remedy.			
				Proposed Res	bonse	Response Status O		
C/ 176C SC 176C.4.3	P 703	L23	# 438	01 4700		0700	1.00	# [540
Dudek, Mike	Marvell				SC 176C.4.3	P703	L 26	# 549
Comment Type T	Comment Status X			Heck, Howard		TE Connectivit	ty	
The Signal to AC com	mon-mode ratio is TBD. It is I	ikely that similar	performance devices	Comment Type	∀	Comment Status X		
will be used for C2C as	s for KR	-		Minimum o	common-mod	e to common-mode return los	ss (RLcc) is TBI	D in D1.3.
SuggestedRemedy				SuggestedRen	nedy			
Change TBD to 15 the	same as for KR Remove the	e Editor's note o	n page 705 line 19			, taken from KR Table 178-6	A presentation	is planned to suppor
Dropood Dooponoo				the sugges	stou ronnouy.			
Proposed Response	Response Status O			the sugges Proposed Res		Response Status 0		
	Response Status O	L 23	# 439	Proposed Res	ponse		/ 00	# 100
C/ 176C SC 176C.4.3	Response Status O	L23	# 439	Proposed Res		P 703	L 26	# [196
C/ 176C SC 176C.4.3 Dudek, Mike	Response Status O	L 23	# 439	Cl 176C S Brown, Matt	bonse SC 176C.4.3	P 703 Alphawave Se		# [196
C/ 176C SC 176C.4.3 Dudek, Mike Comment Type T	Response Status O P 703 Marvell	-		Cl 176C S Brown, Matt Comment Type	bonse SC 176C.4.3	P 703 Alphawave Se Comment Status X	mi	
C/ 176C SC 176C.4.3 Dudek, Mike Comment Type T The common-mode to	Response Status O P703 Marvell Comment Status X	-		Cl 176C S Brown, Matt Comment Type	bonse SC 176C.4.3	P 703 Alphawave Se	mi	
Dudek, Mike Comment Type T The common-mode to	Response Status O P703 Marvell Comment Status X common-mode return loss is	-		Cl 176C S Brown, Matt Comment Type	C 176C.4.3 T Common-mo	P 703 Alphawave Se Comment Status X	mi	
Cl 176C SC 176C.4.3 Dudek, Mike Comment Type T The common-mode to performance devices v	Response Status O P703 Marvell Comment Status X common-mode return loss is vill be used for C2C as for KR	-		Cl 176C S Brown, Matt Comment Type Value for " SuggestedRen	C 176C.4.3 T Common-mo	P 703 Alphawave Se <i>Comment Status</i> X de to common-mode return lo	mi	

C/ 176C SC 176C.4.3

C/ 176C SC 176C.4.	.3.1 <i>P</i> 704	L17	# 169	C/ 176C	SC 176C.4.	3.2	P705	L 4	# 440
Bruckman, Leon	Nvidia	217	# 109	Dudek, Mił		5.2	Marvell		# 440
Comment Type T	Comment Status X			Comment		Comment			
21	ining has a defined acronnym a	alreadv used in t	his Annex in 176C.3.					The probability f	for measurement
SuggestedRemedy		, ,		should					equate even for the
Change: "inter-sublay To: "ILT"	ver link training"			Suggested	Remedy				
Proposed Response	Response Status O			Remov	ve the exception	า.			
rioposeu nesponse	Response Status 0			Proposed I	Response	Response S	Status O		
C/ 176C SC 176C.4.	3.1 <i>P</i> 704	L19	# 139	01 4700	00 4700 4		0705	1.04	"
Slavick, Jeff	Broadcom			C/ 176C	SC 176C.4.	3.4	P705	L 24	# 197
Comment Type TR	Comment Status X			Brown, Ma		_	Alphawave S	emi	
steady state measure	ement is also needed by ILT			Comment		Comment			
SuggestedRemedy				Except	ions for SNR_I	SI method is TE	3D.		
5	e voltage specifiction needed in	n 178B.11.4 is sj	pecified in 178.9.2.4" to	Suggested	-				
the subclause.				Expect	a contribution	with proposals.			
Proposed Response	Response Status O			Proposed F	Response	Response S	Status O		
C/ 176C SC 176C.4.	3.1 <i>P</i> 704	L19	# 134	C/ 176C	SC 176C.4.	3.4	P 705	L 25	# 550
Slavick, Jeff	Broadcom			Heck, How	vard		TE Connectiv	vity	
Comment Type TR	Comment Status X			Comment	Туре Т	Comment	Status X		
	s and presets that are supporte of the 178B over interfaces wi					for signal-to-re		bol-interference	ratio (SNR_ISI) is
SuggestedRemedy				Suggested	Remedy				
"The coefficients and	n editorial license at the end of presets supported by the C2C			Remov		ons TBD." A pre	esentation is pl	anned to suppor	t the suggested
k_list = {-3, -2 -1, 0 preset 1 preset 2 preset 3 preset 4 preset 5"	, 1}			Proposed F	Response	Response S	Status O		
Proposed Response	Response Status O								

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 176C SC 176C.4.3.4 Page 25 of 107 2025-01-03 11:17:25 A

C/ 176C SC 176C.4								
	.3.5 P705	L 43	# 442	CI 176C SC	C 176C.4.3.5	P 705	L 51	# 441
Dudek, Mike	Marvell			Dudek, Mike		Marvell		
Comment Type T	Comment Status X			Comment Type	TR Cor	nment Status X		
The procedure in 163 for 200G in Annex 17	3A.3.2.2 refer to calculations in 78A.	Annex 93A that a	are different from those	reflections fi	om the end of the	nal is listed as TBD. longest path expecte	d within a compo	nent and, as simila
SuggestedRemedy				•	•	be used as for KR, the	same value as fo	or KR is reasonable
	e procedure in Annex 163A.3.2.2 x 93A with those of Annex 178A			Ū.	D to 400. Remov	e the editor's note on	page 706 line 4	
Proposed Response	Response Status O			Proposed Respo	onse Res _l	bonse Status O		
	.3.5 <i>P</i> 705	L 50	# 551	C/ 176C SC	C 176C.4.4.3	P 706	L 47	# 199
			# 551	Brown, Matt		Alphawave S	emi	
Heck, Howard	TE Connectiv	ity		Comment Type	T Cor	nment Status X		
Comment Type T	Comment Status X			Values/equa	tions for RL_cd a	re TBD.		
The length of the refi	lection signal, N, for ERL calcula	ation is TBD.		SuggestedReme	edy			
SuggestedRemedy				Expect a co	ntribution with pro	posals.		
	UI, taken from KR Table 178-8. e values for KR and C2C identic	al. The proposed	d value scales to	Proposed Respo	onse Res _l	oonse Status O		
	ction in unit interval. A presenta	tion is planned to						
account for the reduct suggested remedy.				CI 176C SC	C 176C.4.4.3	P 706	L 47	# 443
account for the reduct suggested remedy.	ction in unit interval. A presenta			C/ 176C SC Dudek, Mike	C 176C.4.4.3	P 706 Marvell	L 47	# 443
account for the reduct suggested remedy. Proposed Response	ction in unit interval. A presentat						L 47	# 443
account for the reduc suggested remedy. Proposed Response Cl 176C SC 176C.4	ction in unit interval. A presentat Response Status O .3.5 P705	L 50	# <u>198</u>	Dudek, Mike Comment Type The differen	T Cor	Marvell mment Status X non-mode return loss	is TBD. It is an i	important paramete
Account for the reduct suggested remedy. Proposed Response CI 176C SC 176C.4 Brown, Matt	ction in unit interval. A presentat Response Status O .3.5 P705 Alphawave Se	L 50		Dudek, Mike <i>Comment Type</i> The differen for system p	T Cor tial-mode to comm erformance, but p	Marvell mment Status X non-mode return loss proceeding to working	is TBD. It is an i group ballot will b	important paramet
account for the reduc suggested remedy. Proposed Response Cl 176C SC 176C.4 Brown, Matt Comment Type T	ction in unit interval. A presentat Response Status O .3.5 P705 Alphawave Se Comment Status X	<i>L</i> 50 emi		Dudek, Mike <i>Comment Type</i> The differen for system p	T Cor tial-mode to comm erformance, but p	Marvell mment Status X non-mode return loss	is TBD. It is an i group ballot will b	important paramet
account for the reduc suggested remedy. Proposed Response Cl 176C SC 176C.4 Brown, Matt Comment Type T	ction in unit interval. A presentat Response Status O .3.5 P705 Alphawave Se	<i>L</i> 50 emi		Dudek, Mike Comment Type The differen for system p are not avail from 100G.	T Con tial-mode to comm erformance, but p able. Without fur	Marvell mment Status X non-mode return loss proceeding to working	is TBD. It is an i group ballot will b	important paramet
account for the reduc suggested remedy. Proposed Response Cl 176C SC 176C.4 Brown, Matt Comment Type T	ction in unit interval. A presentat <i>Response Status</i> O .3.5 <i>P</i> 705 Alphawave Se <i>Comment Status</i> X the reflection signal", N, is TBD	<i>L</i> 50 emi		Dudek, Mike Comment Type The differen for system p are not avail from 100G. SuggestedReme Use 25-0.36	T Con tial-mode to comm erformance, but p able. Without fun edy f from 0.05 to 27.1	Marvell mment Status X non-mode return loss proceeding to working	is TBD. It is an i group ballot will b could be relaxed it .8GHz to 60GHz.	important paramet be delayed if value t should be scaled

C/ 176C SC 176C.4.4.3 Page 26 of 107 2025-01-03 11:17:25 A

C/ 176C SC 176C.4	.4.4.1 P707	L 44	# 444	C/ 176C SC 176C.4.4.2 P708 L31 # 200
Dudek, Mike	Marvell	- • •		Brown, Matt Alphawave Semi
Comment Type T	Comment Status X			Comment Type T Comment Status X
51	nulates non-equalizable distorti	ions not equalizat	ble	Values for N_p is TBD.
SuggestedRemedy				SuggestedRemedy
Change "equalizable	" to "non-equalizable"			Expect a contribution with proposals.
Proposed Response	Response Status O			Proposed Response Response Status O
C/ 176C SC 176C.4	.4.4.2 P708	L 31	# 446	CI 176C SC 176C.4.4.2 P708 L33 # 445
Dudek, Mike	Marvell			Dudek, Mike Marvell
Comment Type T	Comment Status X			Comment Type T Comment Status X
	BD. This should be related to t ve to 50 make Np=50	the reference equ	alizer length. As the	The target BER is approx 1e-5 so a lower probability than 1e-3 should be used. J4u03 is now used for KR.
SuggestedRemedy				SuggestedRemedy
Change Np to 50				Use J4u03 and equations 178-2 and 178-3.
Proposed Response	Response Status O			Proposed Response Response Status O
C/ 176C SC 176C.4	.4.4.2 P708	L31	# 552	C/ 176C SC 176C.4.4.3 P709 L30 # 201
	TE Connectiv	vity		Brown, Matt Alphawave Semi
Heck, Howard				Comment Type T Comment Status X
	Comment Status X			
Comment Type T	Comment Status X ength, Np, for ITT noise calibrat	tion is TBD in D1.	3.	Values for IL_dd are TBD.
Comment Type T The linear fit pulse le		tion is TBD in D1.	3.	Values for IL_dd are TBD. SuggestedRemedy
Comment Type T The linear fit pulse le SuggestedRemedy				_
The linear fit pulse le SuggestedRemedy Change TBD to 22 U	ength, Np, for ITT noise calibrat	p802.3ck to acco	unt for the reduction in	SuggestedRemedy

C/ 176C SC 176C.4.4.4.3

C/ 176C SC 176C.4.4.4.3	P709 L30	# 252	C/ 176C SC	C 176C.4.4	.5 P710	L 4	# 253
Ghiasi, Ali	Ghiasi Qunatum/Marvell		Ghiasi, Ali		Ghiasi G	Qunatum/Marvell	
Comment Type TR Comm	ent Status X		Comment Type	TR	Comment Status X		
Receiver interference tolerance p	parameters are TBD				e with noise, ISI, and SJ		
SuggestedRemedy					ise will render JTOL test SJ, the test method exist		
Per https://www.ieee802.org/3/dj, folowing parameters: Receiver package class A or B Test1: 10.5 to 11.5 dB	/public/24_07/heck_3dj_01a_2	407.pdf recommend the	concern abo leagcy goes	out block en back to 25 tress will d	ror the JTOL test should SG-KR which only tested o good job tracking SJ a	d be comprehensive. I the receiver with SJ	The KR/C2C JTOL , we all know any
Test2: 31.5 to 32.5 dB			SuggestedReme	edy			
Proposed Response Respor	ose Status O				FOL test is used for C2N and noise added to Broa		
C/ 176C SC 176C.4.4.4.3	P709 L31	# 553	Proposed Resp	onse	Response Status O		
Heck, Howard	TE Connectivity						
Comment Type T Comm	ent Status X		C/ 176C SC	C 176C.5	P 710	L 25	# 554
Min/max insertion loss, Ildd, for F	Rx ITT is TBD for all combination	ons of low/high loss channel	Heck, Howard		TE Conr	nectivity	
and class A/B package.			Comment Type	т	Comment Status X		
SuggestedRemedy					um insertion loss at 53.2	125 GHz in Table 17	6C-5 is TBD in D1.3.
A presentation is planned to prop	oose specific values.		SuggestedRem	edv			
Proposed Response Respor	nse Status O		Change TBI	D to 32 dB,	based upon results pre j/public/24_07/heck_3dj_		
C/ 176C SC 176C.4.4.4.3	P709 L31	# 448	Proposed Resp	onse	Response Status O		
Dudek, Mike	Marvell						
	ent Status X		CI 176C SC	C 176C.5	P 710	L 25	# 202
Table 176C-4 contains many TBI			Brown, Matt		Alphawa	ave Semi	
both package class A and classE shortest C2C link we expect. Th minus the package loss. 32dB h	e Maximum should be the ma as been adopted for C2M with	x TP0d to TP5d supported	<i>Comment Type</i> Value for "N		Comment Status X sertion loss at 53.125 G		
requirement, so suggest 30dB as	a reasonable value for C2C		SuggestedReme	edy			
SuggestedRemedy			Expect a co	ontribution v	vith proposals.		
Make the Test 1 values 9.5 min 1 A values 23.5 min 24.5max and o Table 176-5 clarify that the Maxir make the value 30dB.	class B values 19.5min 20.5m	ax. In section 176.5.2 and	Proposed Respo	onse	Response Status O		

Proposed Response Response Status **0**

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 176C	
SC 176C.5	

Page 28 of 107 2025-01-03 11:17:25 A

C/ 176C SC 176C.5.1	P 711	L 37	# 203	C/ 176C SC 176C.5	.2 P713	L 36	# 254
Brown, Matt	Alphawave Se	emi		Ghiasi, Ali	Ghiasi Quna	atum/Marvell	
Comment Type E	Comment Status X			Comment Type TR	Comment Status X		
46.25 has orange highl	light.			Channel ILD is TBD			
SuggestedRemedy				SuggestedRemedy			
Remove highlight.					802.org/3/dj/public/24_07/hec	k_3dj_01a_2407.	pdf recommend
Proposed Response	Response Status 0			channel ILD of 32 dE			
				Proposed Response	Response Status O		
CI 176C SC 176C.5.1	P 711	L 37	# 559				
Heck, Howard	TE Connectivi	ity		C/ 176C SC 176C.5		L 36	# 204
Comment Type E	Comment Status X			Brown, Matt	Alphawave	Semi	
	gle-ended receiver transmitte ge. This value is consistent w			Comment Type T Value for maximum	Comment Status X L dd at Nyquist frequency is	TBD.	
	3						
0 0 0	3			SuggestedRemedy			
SuggestedRemedy Remove the orange hig							
SuggestedRemedy				SuggestedRemedy	_ , , , , ,		
SuggestedRemedy Remove the orange hig Proposed Response	ghlighting. Response Status O	L 33	# [449	SuggestedRemedy Expect a contribution	with proposals. Response Status O	L37	# 555
SuggestedRemedy Remove the orange hig Proposed Response	ghlighting. Response Status O			SuggestedRemedy Expect a contribution Proposed Response	with proposals. Response Status O	L37	# 555
SuggestedRemedy Remove the orange hig Proposed Response C/ 176C SC 176C.5.2 Dudek, Mike	ghlighting. Response Status O P713			SuggestedRemedy Expect a contribution Proposed Response Cl 176C SC 176C.5	with proposals. Response Status O	L37	# <u>555</u>
SuggestedRemedy Remove the orange hig Proposed Response Cl 176C SC 176C.5.2 Dudek, Mike Comment Type T The Channel performar the equivalent equation	ghlighting. <i>Response Status</i> O <i>P</i> 713 Marvell <i>Comment Status</i> X nce cannot easily be describe and figure have been remo	L 33 ed by a frequenc ved from Clause	# 449	SuggestedRemedy Expect a contribution Proposed Response CI 176C SC 176C.5 Heck, Howard Comment Type T	with proposals. <i>Response Status</i> O 3.2 <i>P</i> 713 TE Connect	L 37 ivity	
SuggestedRemedy Remove the orange hig Proposed Response Cl 176C SC 176C.5.2 Dudek, Mike Comment Type T The Channel performan the equivalent equation specification provides t	ghlighting. Response Status O P713 Marvell Comment Status X nce cannot easily be describe	L 33 ed by a frequenc ved from Clause	# 449	SuggestedRemedy Expect a contribution Proposed Response Cl 176C SC 176C.5 Heck, Howard Comment Type T Recommended max	n with proposals. Response Status O 2.2 P713 TE Connect Comment Status X	L 37 ivity	
SuggestedRemedy Remove the orange hig Proposed Response Cl 176C SC 176C.5.2 Dudek, Mike Comment Type T The Channel performar the equivalent equation specification provides t SuggestedRemedy	ghlighting. <i>Response Status</i> O <i>P</i> 713 Marvell <i>Comment Status</i> X nce cannot easily be described as and figure have been remond the critical requirement for the	L 33 ed by a frequenc ved from Clause	# 449	SuggestedRemedy Expect a contribution Proposed Response Cl 176C SC 176C.5 Heck, Howard Comment Type T Recommended max D1.3. SuggestedRemedy Change the sub-clau	n with proposals. <i>Response Status</i> O .2 <i>P</i> 713 TE Connect <i>Comment Status</i> X mum insertion loss at 53.125 use to be consistent with the approximation of the status of th	L 37 ivity GHz and its defin pproach in 178.10	ing equation is TBD in 0.2: Remove the
SuggestedRemedy Remove the orange hig Proposed Response Cl 176C SC 176C.5.2 Dudek, Mike Comment Type T The Channel performar the equivalent equation	ghlighting. <i>Response Status</i> O <i>P</i> 713 Marvell <i>Comment Status</i> X nce cannot easily be described as and figure have been remond the critical requirement for the	L 33 ed by a frequenc ved from Clause	# 449	SuggestedRemedy Expect a contribution Proposed Response Cl 176C SC 176C.5 Heck, Howard Comment Type T Recommended max D1.3. SuggestedRemedy Change the sub-clau equation and plot, an	n with proposals. <i>Response Status</i> O .2 <i>P</i> 713 TE Connect <i>Comment Status</i> X mum insertion loss at 53.125	<i>L</i> 37 ivity GHz and its defin pproach in 178.10 loss to be consist	ing equation is TBD in

C/ 176C SC 176C.5.2

CI 176C SC 176C.5.3	B P 714	L34	# 205	C/ 176D	SC 176D.5.3	P 724	L 6	# 350
Brown, Matt	Alphawave Se	emi		Ran, Adee		Cisco		
Comment Type T	Comment Status X			Comment T	ype TR	Comment Status X		
Value for minimum cha	annel ERL is TBD.			R_peak	for host output	is TBD.		
SuggestedRemedy				Since w	ve have a refere	ence model for the C2M h	ost, the "difference'	' method can be used
Expect a contribution v	with proposals.			for R_p	eak, as has bee	en done for SNDR (now d	ISNDR). This would	remove dependence
Proposed Response	Response Status O				uirements on th in future drafts	e test fixture specification).	is and on the host n	nodel (in case these
				SuggestedF	Remedy			
CI 176C SC 176C.5.3	B P 714	L34	# 450		the minimum R	_peak requirement to be	relative to what the	reference transmitter
Dudek, Mike	Marvell					re details will be provided		
Comment Type T	Comment Status X			Proposed R	esponse	Response Status O		
	stringent BER requirement tha ent than the KR value of 11dB ue equal to 13dB. <i>Response Status</i> O			Cl 176D Brown, Mat Comment T Value fo	уре Т	P 724 Alphawav <i>Comment Status</i> X se peak ratio, Rpeak (mir		# 206
				SuggestedF	Remedy			
C/ 176C SC 176C.5.3	B P 714	L34	# 556	Expect	a contribution w	vith proposals.		
Heck, Howard	TE Connectivi	ity		Proposed R	lesponse	Response Status 0		
Comment Type T	Comment Status X							
	6C.5.3 lists the channel ERL a num), which was the value add							
SuggestedRemedy								
	in 176C.5.3 to a value of 9.7 of 17.2. A presentation is plann	,	•					
Proposed Response	Response Status 0		-					
	·							

C/ 176D SC 176D.5.3

C/ 176D SC 176D	5.3 P724	L 38	# 219	C/ 176D	SC 176D.5.3	P 724	L 40	# 540
Rysin, Alexander	NVIDIA			Dawe, Pier	S	Nvidia		
Comment Type TR	Comment Status X			Comment 7	Type TR	Comment Status X		
noise and do not re characteristics of p are highly depende	surements at TP1a are highly a flect actual uncorrelated jitter. The actical channels between TP0d nt on the transmitted signal amp	hese effects are and TP1a - loss plitude. Accountir	exacerbated by the and reflections, and ng only for the faster	bandwi J4u03 s	dths, losses and	the "jitter measurement" me amplitudes for host output. yond the state of the art. EO spec item.	This is particula	rly obvious for J3u03;
•	k for practical channels at 106.2 met (and sometimes cannot be			Suggestedl	Remedy			
equipment PPG. TI	ill better quantify phase-only un	sin_3dj_01a_24	07. A different	Delete xECQ.	this method. Us	se an eye spec to control sigr	nal quality, follow	ving the evolution of
Presentation is plan	ined.		·	Proposed F	Response	Response Status O		
SuggestedRemedy								
Other method of ur	correlated jitter measurement sl	hould be conside	ered.	C/ 176D	SC 470D 5 4	P 725	1.24	# 054
Proposed Response	Response Status O				SC 176D.5.4		L 24	# 351
				Ran, Adee		Cisco		
				Comment 7	51	Comment Status X		
C/ 176D SC 176D	5.3 P724	L 39	# 261	R_peal	k for module out	put is TBD.		
Ghiasi, Ali	Ghiasi Qunat	tum/Marvell		Sincov	vo havo a roforo	nce model for the C2M modu	ila tha "difforan	co" mothod can bo
Comment Type TR	Comment Status X					is been done for SNDR (now	,	
of stressor. We rep	no effective output compliance to placed VEC with with JRMS, EO jitter is sufficent for receive com	J, and J4U wiho		depend	lence of the req	uirements on the test fixture s in future drafts).	,	
SuggestedPornedy				The mo	odule reference	model in Table 176D-5 incluc	des two test case	es for "transmission lir

SuggestedRemedy

TDECQ method works given all the data presentated and with the work of OIF LPO and RTLR developing. TDECQ/EECQ already captrues the jitter as shown in ghiasi_3dj_01a_2409 but also captures amplitude penalty and the effect of PM to AM conversion in thre same way as receiver will observe the penalty. EECQ for receive stress measurement and caliburation we need to do the follwing: Add editor note encouraging data if current jitter test method can be used for receive

compliance and encourage data on EECQ for receive compliance.

Proposed Response Response Status **0**

SuggestedRemedy

Define the minimum R_peak requirement to be relative to what the reference transmitter will create with the test fixture used. A contribution with more details will be provided.

1 length". Case 2 is the longer one and should be used for the reference R_peak.

Proposed Response Response Status **O**

C/ 176D	SC 176D.5.4	P 7 :	25	L 24	# 207
Brown, Mat	t	Alpha	awave Semi		
Comment 7 Value f		Comment Status e peak ratio, Rpeak		D.	
S <i>uggestedl</i> Expect	Remedy a contribution wi	th proposals.			
Proposed F	Response	Response Status	0		

Page 31 of 107 2025-01-03 11:17:25 A

V 176D SC 176D.5.	.4	P 725	L 38	# 262	C/ 176D	SC 176D.	6.2	P 729	L16	# 389
Shiasi, Ali	G	hiasi Qunatu	m/Marvell		Noujeim, L	eesa		Google		
Comment Type TR	Comment Sta	tus X			Comment 7	Type TR	Comme	ent Status X		
We currenlty have no of stressor. We repla that using transmit jitt	aced VEC with with	JRMS, EOJ,	, and J4U wihou	2M or input caliburtion at any demonstration	is incor	rect; C0 repr	esents part of	Single ended pac the partial host ch age-to-board interf	annel, while Cp	e at port 1" descriptior is "Single ended
uggestedRemedy					Suggestedl	Remedy				
TDECQ method work RTLR developing. TI	DECQ/EECQ alrea	dy captrues t	the jitter as show	wn in			ed package ca bard interface		1" to "Single end	led board capacitance
measurement and ca	me way as receiver aliburation we need	r will observe to do the foll	the penalty. EE wing:	ECQ for receive stress	Proposed F	Response	Respons	se Status O		
Add editor note encor compliance and enco				used for receive	C/ 176D	SC 176D.	6.2	P 729	L 22	# 390
Proposed Response Response Status O			Noujeim, L	eesa		Google				
					Comment 7	Type TR	Comme	ent Status X		
/ 176D SC 176D.5.	.4	P 725	L38	# 220	Capaci				ith the package,	so description "Single
7 176D SC 176D.5 . Rysin, Alexander		P 725 VIDIA	L 38	# 220	Capaci	package cap		s not associated w	ith the package,	so description "Single
Rysin, Alexander Comment Type TR	N' Comment Sta	VIDIA tus X			Capaci ended <i>Suggestedl</i> Change	package cap Re <i>medy</i> e "Single enc	acitance at Po ed package ca	s not associated w ort 2" is incorrect.	2" to "Single end	so description "Single ded board capacitance
Rysin, Alexander Comment Type TR J4u and JRMS meas noise and do not refle characteristics of pra- the transmitted signa	N Comment Sta surements at TP4 ar ect actual uncorrela actical test fixtures - al amplitude. Accour	VIDIA tus X re highly affe tted jitter. The loss and refl nting only for	cted by the effe ese effects are ections, and are the faster edge	ects of slew rate and exacerbated by the e highly dependent on es does not work for	Capaci ended <i>Suggestedl</i> Change	package cap R <i>emedy</i> e "Single enc d-model-to-te	acitance at Po ed package ca est_connector	s not associated w rt 2" is incorrect. apacitance at port	2" to "Single end	
tysin, Alexander <i>comment Type</i> TR J4u and JRMS meas noise and do not reflecharacteristics of pra- the transmitted signa practical channels at	N Comment Sta surements at TP4 ar ect actual uncorrela actical test fixtures - al amplitude. Accour 106.25 Gbd rate. T	VIDIA tus X re highly affe ated jitter. The loss and refl nting only for The issue was	cted by the effe ese effects are ections, and are the faster edge s demonstrated	ects of slew rate and exacerbated by the e highly dependent on es does not work for in	Capaci ended Suggested Change at boar	package cap R <i>emedy</i> e "Single enc d-model-to-te	acitance at Pc ed package ca est_connector <i>Respons</i>	s not associated w ort 2" is incorrect. apacitance at port interface (port 2)"	2" to "Single end	
ysin, Alexander comment Type TR J4u and JRMS meas noise and do not refle characteristics of pra- the transmitted signa	N Comment Sta surements at TP4 ar ect actual uncorrela actical test fixtures - al amplitude. Accour 106.25 Gbd rate. T A different method	VIDIA tus X re highly affe ated jitter. The loss and refl nting only for The issue was lology that wi	cted by the effe ese effects are ections, and are the faster edge s demonstrated Il better quantify	ects of slew rate and exacerbated by the e highly dependent on es does not work for in	Capaci ended Suggested Change at boar Proposed F	package cap Remedy e "Single enc d-model-to-te Response	acitance at Pc ed package ca est_connector <i>Respons</i>	a not associated w ort 2" is incorrect. apacitance at port interface (port 2)" se <i>Status</i> O	2" to "Single end <i>L</i> 26	led board capacitance
ysin, Alexander omment Type TR J4u and JRMS meas noise and do not refle characteristics of pra- the transmitted signa practical channels at rysin_3dj_01a_2407. uncorrelated jitter has	N Comment Sta surements at TP4 ar ect actual uncorrela actical test fixtures - al amplitude. Accour 106.25 Gbd rate. T A different method	VIDIA tus X re highly affe ated jitter. The loss and refl nting only for The issue was lology that wi	cted by the effe ese effects are ections, and are the faster edge s demonstrated Il better quantify	ects of slew rate and exacerbated by the e highly dependent on es does not work for in	Capaci ended Suggested/ Change at board Proposed F C/ 176D Ghiasi, Ali	package cap Remedy e "Single enc d-model-to-te Response SC 176D .	acitance at Po ed package ca est_connector <i>Respons</i> 5.2	s not associated w wrt 2" is incorrect. apacitance at port interface (port 2)" se Status O P730 Ghiasi Qunat	2" to "Single end <i>L</i> 26	led board capacitance
ysin, Alexander <i>comment Type</i> TR J4u and JRMS meas noise and do not reflect characteristics of prac- the transmitted signar practical channels at rysin_3dj_01a_2407. uncorrelated jitter has	N Comment Sta surements at TP4 ar ect actual uncorrela actical test fixtures - al amplitude. Accour : 106.25 Gbd rate. T . A different method s to be explored. Pr	VIDIA trus X re highly affe ted jitter. The loss and refl nting only for The issue was lology that wi resentation is	cted by the effe ese effects are ections, and are the faster edge s demonstrated Il better quantify s planned.	ects of slew rate and exacerbated by the e highly dependent on es does not work for in y phase-only	Capaci ended Suggested Change at boar Proposed F Cl 176D Ghiasi, Ali Comment 7	package cap Remedy e "Single enc d-model-to-te Response SC 176D.	acitance at Po ed package ca est_connector <i>Respons</i> 5.2 <i>Comme</i>	s not associated w wrt 2" is incorrect. apacitance at port interface (port 2)" se Status O P730 Ghiasi Qunat ent Status X	2" to "Single end <i>L</i> 26 um/Marvell	led board capacitance
ysin, Alexander <i>comment Type</i> TR J4u and JRMS meas noise and do not refle characteristics of pra- the transmitted signa practical channels at rysin_3dj_01a_2407. uncorrelated jitter has uggestedRemedy Other method of unco	N <i>Comment Sta</i> surements at TP4 ar ect actual uncorrela actical test fixtures - al amplitude. Accour 106.25 Gbd rate. T A different method s to be explored. Pr	VIDIA trus X re highly affe ated jitter. The loss and refl nting only for The issue was lology that wi resentation is surement sho	cted by the effe ese effects are ections, and are the faster edge s demonstrated Il better quantify s planned.	ects of slew rate and exacerbated by the e highly dependent on es does not work for in y phase-only	Capaci ended Suggested Change at boar Proposed F Cl 176D Ghiasi, Ali Comment 7	package cap Remedy e "Single enc d-model-to-te Response SC 176D. Fype TR gDC1 gain f	acitance at Po ed package ca est_connector <i>Respons</i> 5.2 <i>Comme</i>	s not associated w wrt 2" is incorrect. apacitance at port interface (port 2)" se Status O P730 Ghiasi Qunat ent Status X	2" to "Single end <i>L</i> 26 um/Marvell	ded board capacitance # 265
ysin, Alexander omment Type TR J4u and JRMS meas noise and do not refle characteristics of pra- the transmitted signa practical channels at rysin_3dj_01a_2407. uncorrelated jitter has uggestedRemedy Other method of unco	N Comment Sta surements at TP4 ar ect actual uncorrela actical test fixtures - al amplitude. Accour : 106.25 Gbd rate. T . A different method s to be explored. Pr	VIDIA trus X re highly affe ated jitter. The loss and refl nting only for The issue was lology that wi resentation is surement sho	cted by the effe ese effects are ections, and are the faster edge s demonstrated Il better quantify s planned.	ects of slew rate and exacerbated by the e highly dependent on es does not work for in y phase-only	Capaci ended Suggested/ Change at boar Proposed F Cl 176D Ghiasi, Ali Comment 7 Typical	package cap Remedy e "Single end d-model-to-te Response SC 176D. Type TR I gDC1 gain f CR	acitance at Po ed package ca est_connector <i>Respons</i> 5.2 <i>Comme</i>	s not associated w wrt 2" is incorrect. apacitance at port interface (port 2)" se Status O P730 Ghiasi Qunat ent Status X	2" to "Single end <i>L</i> 26 um/Marvell	ded board capacitance # 265
Rysin, Alexander Comment Type TR J4u and JRMS meass noise and do not reflect characteristics of practice the transmitted signar practical channels at rysin_3dj_01a_2407. uncorrelated jitter has SuggestedRemedy	N <i>Comment Sta</i> surements at TP4 ar ect actual uncorrela actical test fixtures - al amplitude. Accour 106.25 Gbd rate. T A different method s to be explored. Pr	VIDIA trus X re highly affe ated jitter. The loss and refl nting only for The issue was lology that wi resentation is surement sho	cted by the effe ese effects are ections, and are the faster edge s demonstrated Il better quantify s planned.	ects of slew rate and exacerbated by the e highly dependent on es does not work for in y phase-only	Capaci ended Suggested Change at boar Proposed F C/ 176D Ghiasi, Ali Comment 7 Typical as KR/0 Suggested	package cap Remedy e "Single end d-model-to-te Response SC 176D. Type TR I gDC1 gain f CR	acitance at Po ed package ca est_connector <i>Respons</i> 5.2 Comme or C2M is just	s not associated w wrt 2" is incorrect. apacitance at port interface (port 2)" se Status O P730 Ghiasi Qunat ent Status X	2" to "Single end <i>L</i> 26 um/Marvell	ded board capacitance # 265

C/ 176D SC 176D.6.2

C/ 176D SC 176D.7.1	P 731	L 25	# 539	C/ 176D SC 17	76D.7.6	P 733	L 2	# 425
Dawe, Piers	Nvidia			Dudek, Mike		Marvell		
Comment Type TR	Comment Status X			Comment Type	T Comme	nt Status X		
scrambled signal, so it probability of 1e-7 impli	period of at least 128 UI" is s s not relevant. Also the scop ies an expensively long time o Q or SSPRQ wherever feasibl	e CRU is not lik collecting data.	ely to lock to it. A Signals should be	transmitter train	ing. This is particul s are only required	ularly important fo	or chip to module	hort links at the start of where multi-rate eak output amplitude of
SuggestedRemedy				SuggestedRemedy				
	onable and statistically releva utput where the loss to the of			making that cha	T-OF-SYNC value ange for KR, CR an	d C2C as well.	.025 in table 176	D-8. Consider
Proposed Response	Response Status O			Proposed Response	e Respons	e Status O		
Proposed Response								
				C/ 176D SC 17	76D.7.7	P 733	L 45	# 423
C/ 176D SC 176D.7.6	P 732	L 50	# 140	Dudek, Mike		Marvell		
Slavick, Jeff	Broadcom			Comment Type	TR Comme	nt Status X		
SuggestedRemedy	Comment Status X nent is also needed by ILT voltage specifiction needed in	n 178B.11.4 is s	pecified in 176D.7.4" to	from the Rx into measurement p measurement p is not the case	o the Tx. This is Of point is relatively sm	K for 100GBASE- all due to having st critical system where with a high	CR1 as the Rx s to get through the through the channel los	e channel to get to the swill be large. This
Proposed Response	Response Status 0			SuggestedRemedy				
				Add an addition	al exception "- For			
C/ 176D SC 176D.7.6	P 732	L 50	# 135					to peak PAM4 signals
Slavick, Jeff	Broadcom			should be adde	d for the module ou			
Comment Type TR	Comment Status X			risetime.	_	_		
	and presets that are supporte f the 178B over interfaces wit			Proposed Response	e Respons	e Status O		
SuggestedRemedy								
	editorial license at the end of resets supported by the C2M }							
Proposed Response	Response Status 0							

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 176D SC 176D.7.7 Page 33 of 107 2025-01-03 11:17:25 A

C/ 176D	SC 176D.7.11	P 734	L33	# 396
Healey, Adan	า	Broadcom Inc.		
Comment Typ	be T	Comment Status X		

The amplitude tolerance of a receiver is defined to be the maximum amplitude at which the block error ratio requirement is met when in DATA mode. The test condition is stated to be preset 1 (no equalization). However, the subclause also states that the receiver "is allowed to control the transmit equalizer coefficients of its partner using the ILT protocol (see 176D.7.6) to create suitable output signal." This means that receiver can change the transmitter configuration to something other than preset 1 resulting in a signal with lower amplitude, higher equalization, or some combination thereof prior to reaching DATA mode. This calls into question why the receiver is required to meet block error ratio requirements for preset 1 in DATA mode. It would be more justifiable to require a receiver to be able to acquire training frame lock when connected to a transmitter with maximum amplitude and in the preset 1 configuration. However, this only requires reliable detection of DMEencoded (PAM-2) data at a lower effective rate. This can be expected to be a (much) lower bar than meeting block error ratio requirements in DATA mode. Note the Clause 178 and Annex 176C do not include amplitude tolerance requirements while Clause 179 and Annex 176D do. There is no obvious reason why amplitude tolerance requirements are needed in some cases but not in others since ILT is available throughout.

SugaestedRemedv

Remove the amplitude tolerance requirements from Clause 179 and Annex 176D. If it is deemed necessary to state that a receiver must be able to acquire training frame lock over some range of transmitter parameters, and thereby enable transmitter configuration via ILT, then the requirement should be restated in these terms and applied to all relevant clauses and annexes (including Clause 178 and Annex 176D).

Proposed Response

Response Status **O**

C/ 176D	SC 176D.7.11	P 734	L 34	# 352
Ran, Adee		Cisco		

Comment Type TR Comment Status X

It is preferable to define amplitude tolerance in terms of v f of the connected transmitter at its compliance point (as done in 179.9.5.2, following comment #406 against D1.2) rather than peak-to-peak differential voltage, which depends on the pattern and the loss at the measurement point.

SugaestedRemedv

. .

In the first paragraph, change "defined as the maximum initial peak-to-peak output" to "defined as the maximum steady-state voltage (see 176D.7.4)".

In the second paragraph, change "The initial peak-to-peak output is defined as the peak-topeak differential output (see 176D.7.1), with equalization set to preset 1 (see Table 176D-8), of the transmitter that is connected to "The steady-state voltage is measured for the transmitter that is connected".

In Table 176D-3 and Table 176D-5, change the parameter name from "Amplitude tolerance" to "Amplitude tolerance (v f)" and change the value from 1 to 0.5.

Implement with editorial license.

Proposed Response	Response Status	0

C/ 176D	SC 176D.7.1	2 P 735	L13	# 208
Brown, Ma	itt	Alphawave S	Semi	
Comment	Туре Т	Comment Status X		
Values	for channel ILdo	d are TBD.		
Suggested	lRemedy			
Expect	t a contribution w	rith proposals.		
_	_			

Proposed Response Response Status 0

				. <u> </u>					
C/ 176D SC 176D.7.	12 P735	L13	# 353	C/ 176D	SC 176D.7.1	1 2 F	°735	L14	# 354
an, Adee	Cisco			Ran, Adee		Cis	CO		
omment Type TR	Comment Status X			Comment T	ype TR	Comment State	us X		
In Table 176D-9, the t	test channel insertion loss for	all module tests i	s TBD.	In Table	e 176D-9, "Hos	t channel paramete	ers" is TBD		
	min/max die-to-die IL minus th h is equal to the IL allocation t		r the module, plus the						able 176D-5. This tabl " is already defined.
The test channel inclu	ides a mated test fixture as a	minimum.		SuggestedF "In row	,	parameters", change	e "Host tes	t" column from T	BD to "Table 176D-5
	e (for test 1) should represent a s just the mated test fixture, w			Proposed R	Response	Response Statu	is O		
	e (for Test 2) should be based hown in Figure 176D-6.	on the adopted (C2M die-to-die channel	C/ 176D	SC 176D.7.1	2 F	°735	L14	# 209
uggestedRemedy				Brown, Mat	t	Alp	hawave S	emi	
Module test 1 (low los	IL", change column values (cu ss) - Min: 9.25, Max: 10.25 ss) - Min - 31.5, Max: 32.5	rrently TBD) as fo	bllows:	Comment 7 Value fo		<i>Comment Statu</i> el parameters" is TI			
roposed Response	Response Status O			SuggestedF Expect	Re <i>medy</i> a contribution v	with proposals.			
	10 0705	140	" 050	Proposed R	Response	Response Statu	is O		
/ 176D SC 176D.7.		L13	# 259						
hiasi, Ali	Ghiasi Qunat	um/Marvell		C/ 176D	SC 176D.7.1	1 3.2 F	^{>} 739	L9	# 260
omment Type TR	Comment Status X	`		Ghiasi, Ali		Gh	iasi Qunat	um/Marvell	
	tolerance parameters are TBI	5		Comment T	ype TR	Comment Stati	us X		
the folowing paramete Receiver package cla Test1: 12.5 to 13.5 dE Test2: 31.5 to 32.5 dE	ss A or B 3	i_3dj_01_2405.p	df, and recommend	have no broadba concerr leagcy SerDes	b broadband no and noise with a about block e goes back to 25 unstress will d	SJ, the test method rror the JTOL test s 5G-KR which only t	L test usel l exist to pe should be c ested the r	ess. C2M JTOL erform such as te comprehensive. eceiver with SJ,	has always included est and given the The KR/C2C JTOL
Proposed Response	Response Status O			absent					
					t weaken C2M	JTOL test by not in band noise is redcu			hange No broadband
				Proposed R		Response Statu	,		
					•		-		

C/ 176D SC 176D.7.13.2

C/ 177	SC 177.1.4	P 307	L 26	# 274
Ran, Adee		Cisco		

Comment Type TR Comment Status X

In Figure 177-2, the receive direction is shown as if the first function is PAM4 decoding and the rest of the data path is defined as bits.

This description matches a hard-decoding operation, but the inner FEC is assumed to have a soft decoder, as stated in 177.5.4.

In a soft-decoding receiver, the "PAM4 decoding" operation is actually part of the "Inner FEC decode" block.

The PAM4 (hard) decoding is required for the inner FEC sync - since this cannot rely on the decoder output - but the rest of the data path (deinterleaving and decoding) should operate on the input symbols directly. The suggested remedy is based on this idea.

SuggestedRemedy

Move the "PAM4 decoding" and "inner FEC sync" operations to a separate branch. Make the output of the "Inner FEC sync" a dashed-line input into the "pad removal" (a separate block) and the deinterleaver (renamed from "1:8 bit-pair deinterleaver" to "1:8 symbol deinterleaver").

The main input to the deinterleaver block is the signal from the sublayer below.

In the "PAM4 decoding" subclause 177.5.1, add a statement that this function includes hard decision and is used only for initial synchronization. The output of this function is not used in the remainder of the data path, since the "Inner FEC decode" function in 177.5.4 performs the required decoding.

In the "PAM4 deinterleaving" subclause 177.5.3 change the title to "1:8 symbol deinterleaving" and in its text change "bit pairs" to "input symbols".

Proposed Response Response Status **O**

C/ 177	SC 177.1.4	P 307	L 31	# 148
He, Xiang		Huawei		

Comment Type TR Comment Status X

There should be some test patter checker on the receive path. A contribution will be provided to support this with block diagrams.

SuggestedRemedy

Add "test pattern check" on the receive path on the PAM4 decode box, similar as in Figure 176-2.

Proposed Response Response Status **O**

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

C/ 177	SC 177.2	P 307	L 47	# 486	
Opsasnick,	Eugene	Broadcor	n		

Comment Type E Comment Status X

"may" indicates an optional function. In the context of the first paragraph in 177.2, "might" could be preferred.

SuggestedRemedy

Change: "For the 200GBASE-R Inner FEC, the client sublayer may be the 200GBASE-R 8:1 SM-PMA or 200GBASE-R 1:1 SM-PMA."

To: "For the 200GBASE-R Inner FEC, the client sublayer might be a 200GBASE-R 8:1 SM-PMA or a 200GBASE-R 1:1 SM-PMA."

And make similar changes to each sentence in the first paragraph of 177.2.

Proposed Response Response Status **0**

C/ 177	SC 177.2	P 308	L 22	# 487
Opsasnic	k, Eugene	Broadcom		
A	T	O		

Comment Type T Comment Status X

The last sentence prior to Table 177-1 states "When the value of SIGNAL_OK is IN_PROGRESS or FAIL, the corresponding rx_symbol parameters on all lanes are unspecified.". This implies the rx_symbol parameters have valid values when SINGAL_OK is OK or READY. However, the READY value is set when "all_synced==false". Shouldn't the rx_symbol parameter also be invalid/unspecified when the SIGNAL_OK is READY?

The same may be true for the SINGNAL_OK description immediately prior to Table 177-2 on page 309.

SuggestedRemedy

Change: "When the value of SIGNAL_OK is IN_PROGRESS or FAIL, the corresponding rx_symbol parameters on all lanes are unspecified."

To: "When the value of SIGNAL_OK is READY, IN_PROGRESS or FAIL, the corresponding rx_symbol parameters on all lanes are unspecified."

Proposed Response Response Status **O**

CI	177		
SC	177.2		

Page 36 of 107 2025-01-03 11:17:25 A

C/ 177	SC 177.3.	P 308	L 44	# 275	
Ran, Adee		Cisco			

Comment Type TR Comment Status X

The statement that the PMD service interface is in instance of the inter-sublayer service interface is misleading.

The service interface semantics in 116.3.3.1.1 state that tx_symbol and rx_symbol are either from a set of two values (NRZ) or from a set of four values (PAM4).

In this interface (which is the service interface below the inner FEC), the tx_symbol parameters are PAM4 symbol streams, but contrary to what's written here, the rx_symbol are not PAM4 symbol streams - they are converted to PAM4 symbols by the inner FEC's decoding function.

The final sentence of this paragraph states that rx_symbol "may include an implementationdependent set of values that are beyond the scope of this standard" which is an awkward way of saying it is not PAM4 symbols. In fact, 177.5.4 states that the decoder requires "a higher resolution than two bits for each received PAM4 symbols" (sic), so "more than PAM4" is a requirement, not "may".

A similar problem exists in the definitions of the PMD service interfaces in 182.3 and 183.3, and in 185.3 (this PMD uses the inner FEC in 184 - but there is no definition of the interface below the inner FEC in clause 184).

SuggestedRemedy

Separate this paragraph into two, one for transmit direction and one for receive direction.

In the transmit direction, the service interface primitives (PMD:IS_UNITDATA_i.request and PMD:IS_SIGNAL.indication) are as defined in the generic inter-sublayer service interface (as written in D1.3).

In the receive direction, PMD:IS_SIGNAL.indication is as defined by the generic intersublayer service interface, but PMD:IS_UNITDATA_i.indication is modified from that service interface, in that the rx_symbol parameters are taken from a set of more than four values, as generated by the PMD's service interface. The size of this set is implementation dependent.

Apply similar changes in the PMD service interface definitions in 182.3, 183.3, and 185.3.

Proposed Response Response Status O

 CI 177
 SC 177.4
 P 309
 L 27
 # 121

 Slavick, Jeff
 Broadcom

 Comment Type
 T
 Comment Status
 X

 Introductory sentence could be useful

 SuggestedRemedy

Add the following to 177.4 "The following processes are performed independently on each FEC service interface input lane.

Proposed Response Response Status **0**

C/ 177	SC 177.4	P332	L 26	# 10
Brown, M	att	Alphawave Semi		
Comment	Type T	Comment Status X		

In order to properly test the performance of an optical link for PMD that uses the Inner FEC a PRBS31 test pattern with Inner FEC encoding is required. The generator and checker may be defined in the Inner FEC sublayer or in the PMA sublayer above the Inner FEC.

SuggestedRemedy

At the input to the convolutional interleaver on the transmit path add the ability to insert a PRBS31 (not PRBS31Q) test pattern and at the output of the convolutional deinterleaver on the receive path add the ability to check a PRBS31 pattern. If the PRBS31 checker is defined in the Inner FEC sublayer then the block error counters as defined in 176.7.4.1 will also need to be added. Alternately source and terminate the PRBS31 pattern on the PMA above the Inner FEC; PRBS31 will need to be added (in addition to PRBS31Q).

Proposed Response Response Status **O**

C/ 177	SC 177.4.1	P 309	L 32	# 276
Ran, Adee		Cisco		
Comment T	vpe ER	Comment Status X		

"4-symbol" is used only here, elsewhere the term "symbol guartet" is used instead.

SuggestedRemedy

Change to "symbol quartet"

Proposed Response Response Status **O**

C/ 177 SC 177.4.1

CI 177 SC 177	.4.1.1	P 310	L 29	# 120	C/ 177	SC 1	77.4.1.3		P 310	L 47	# 45
Slavick, Jeff		Broadcom			Huber, Th	omas			Nokia		
Comment Type T	R Commen	nt Status X			Comment	Туре	т	Comment S	tatus X		
The demultiplexin the Inner FEC.	ng function refers t	to "service interfa	ace below the PI	MA" but this is above	tolerar	nce in th	e inner FE	EC than in 800	GBASE-R P	CS, but the text s	ricter maximum skew ays " Skew betweer
SuggestedRemedy	cention that it oper	ates on the Inne	r FEC service in	terface input lanes"				efined in 172.2 n Skew of 25 r			SE-R deskew function
				lenace input lanes	Suggested	Remedy	/				
Proposed Response		e Status O			PCSL	s is remo		efined in 172.2		nge the text to reat to reat to reat that a maximum	ad " Skew between Skew of 25 ns is
CI 177 SC 177	.4.1.2	P310	L36	# 419	Proposed	Respon	se	Response St	atus O		
Nicholl, Gary		Cisco Systen	ns			1					
Comment Type T	Commen	nt Status X									
I think the senter	ice "The data				C/ 177	SC 1	77.4.1.3		P 310	L 52	# 46
				y as the first sentence	Huber, Th	omas			Nokia		
				performed as defined in	Comment	Туре	т	Comment S	tatus X		
l tihnk it would be alignment marke		Figure 177-3 to s 200G/400G to	show the symbol be "off to the sid		tolerar PCSL	nce in th s is remo	e inner FE oved as de	EC than in 800	GBASE-R P .5.1, except	CS, but the text s that the 1.6TBAS	ricter maximum skew ays " Skew betweer E-R deskew function
(indicating that th	ie main data path i	is passthrough a	ind is not altered	in any way).	Suggested	Remed	/				
SuggestedRemedy					Use la	inguage	more like	what 175.2.5.	1 uses. Cha	nge the text to rea	ad " Skew between
Delete the senter	nce "The data path	n is not altered" o	on line 36.		PCSL	s is remo	oved as de	efined in 175.2	.5.1, except	that a maximum	Skew of 25 ns is

Update the 200GBASE-R/400GBASE-R portion of Figure 177-3 as described in the comment.

Proposed Response Response Status 0 Proposed Response Response Status **0**

supported between PCS lanes..."

C/ 177 SC 177.4.1.3

C/ 177	SC 177.4.1.5	P 311	L15	# 277	C/ 177	SC	177.4.2	P 311	L 25	# 34	
Ran, Adee		Cisco			Huber, The	mas		Nokia			
omment	Туре Т	Comment Status X			Comment	Гуре	т	Comment Status X			
	ader may be cur ASE-R PHYs.	ious why symbol multiplexin	g is not performe	d for 200GBASE-R and	delays	for eac	h delay li	bit repetetive. The four p ne for each rate in detail, f the same thing.			ıe
perforn		ta on each PCS lane already (as illustrated in Figure 176			Suggested Rewrite		•	aphs to be algorithmic ra	ther than per-rate.		
Suggested		a explicitly.			"The fi	st line	(Delay Lii	ne 0) delays the data by	4x2xQ RS-FEC sym		
Add ar "NOTE output	informative not	e at the end of 177.4.1.5: -R and 400GBASE-R PHYs, w the PCS is already symbo			The va Add a the val Delete	lues of able w ue of Q the sei	Q are sh ith a colu t. ntence at	Q RS-FEC symbols, and own in table 177-X." mn for the rate (200GBA lin 51 that starts with "Th	SE-R, 400GBASE-F	R, etc.) and a column t	
roposed I	Response	Response Status 0			bullet I	st that	follows (t	his information is replace	d by the table).		
					Proposed I	Respon	se	Response Status 0			
/ 177	SC 177.4.2	P311	L18	# 146	C/ 177	SC	177.4.2	P311	L 26	# 279	
e, Xiang	-	Huawei			Ran, Adee			Cisco			
omment		Comment Status X			Comment		ER	Comment Status X			
l ne tei lane".	rm "PIVIA lane" is	s not accurate. Within the Ini	her FEC sublayer	, it is an "inner FEC				n the 4 paragraphs about	delay lines, and pe	riods are inconsistent.	
uggested	Remedy				Suggested	Remed	ly				
0	e "PMA lane" to Response	"Inner FEC lane", to be cons Response Status O	sistent within the	clause.				add commas after "200Gl 3 paragraphs.	BASE-R" and before	e "and the last line".	
					Add a	period a	at the end	d of the second and third	paragraphs.		
/ 177	SC 177.4.2	P 311	L 24	# 278	Proposed I	Respon	se	Response Status O			
an, Adee		Cisco									
omment		Comment Status X			C/ 177	SC	177.4.2	P311	L 42	# 115	_
		eled "Delay Line 2") is actua			Slavick, Je	ff		Broadcon	n		
		described as being compos (0 and 1) and the third does		baths, of which the first	Comment	Гуре	TR	Comment Status X			
uggested	-		not.		The de	skewe	d data is f	fed into the covolutioner.			
00		is subclause and change Fi	aure 177-4 per th	is comment, changing	Suggested	Remed	'y				
•	Line n" to "interl	5	<u></u>		Chang	e " The	input dat	ta from the FEC service in kewed PMA lane is fed in	nterface lane is fed to"	into"	
Implem	nent any additior	nal edits required by this cha	nge with editorial	license.	Proposed I			Response Status O			
roposed I	Response	Response Status O									
	STATUS: D/dis	ed ER/editorial required GR spatched A/accepted R/reje ibclause, page, line				Z/with	Idrawn		177 2 177.4.2	Page 39 of 1 2025-01-03	

C/ 177 SC 177.4.2.5	P 311	L10	# 489	C/ 177 SC 177.4.	5 P313	L 24	# 281
Opsasnick, Eugene	Broadcom			Ran, Adee	Cisco		
Comment Type E	Comment Status X			Comment Type ER	Comment Status X		
The plural of PCSL ahou	uls be PCSLs, not PCSLS.			Missing commas			
SuggestedRemedy				SuggestedRemedy			
Change "PCSLS" to "PC				Add a comma after ' Add commas before	'flows". and after "m<119:0>".		
Proposed Response	Response Status O			Proposed Response	Response Status O		
C/ 177 SC 177.4.2.5	P 311	L 50	# 490			·	"
Opsasnick, Eugene	Broadcom			C/ 177 SC 177.4.		L 51	# 283
Comment Type TR	Comment Status X			Ran, Adee	Cisco		
Incorrect cross-reference	e.			Comment Type TR	Comment Status X		
SuggestedRemedy					s4,i, s5,i, s6,i) is the binary version 2/7) with primitive polynomial 3		ng to the element α_i i
,	to "Figure 177-4"						
Change "Figure 177-5" t	to "Figure 177-4". Response Status O			but per Equation 177	s bits are the binary representa 7-2 these are actually the binar hat creates α_i . I suspect these	y coefficients in t	the linear combination
Change "Figure 177-5" t Proposed Response	Response Status O	/ 34	# 280	but per Equation 177	7-2 these are actually the binar	y coefficients in t	the linear combination
Change "Figure 177-5" t Proposed Response Cl 177 SC 177.4.4	Response Status 0	L34	# 280	but per Equation 177 of a_0 through a_6 t SuggestedRemedy Move the quoted set	7-2 these are actually the binar that creates α_i. I suspect these ntence after the subsequent on	y coefficients in t e are not the san ne (which states t	the linear combination ne. that the elements can
Change "Figure 177-5" t Proposed Response Cl 177 SC 177.4.4 Ran, Adee	Response Status 0 P312 Cisco	L 34	# 280	but per Equation 173 of α_0 through α_6 t SuggestedRemedy Move the quoted set be expressed as a li	7-2 these are actually the binar that creates α_i . I suspect these ntence after the subsequent on near combination), and change	y coefficients in t e are not the san ne (which states t e "binary vector c	the linear combination ne. that the elements can
Change "Figure 177-5" t Proposed Response Cl 177 SC 177.4.4 Ran, Adee Comment Type ER The last sentence in 177 bit 9 is transmitted last". not for the circular shift (Response Status 0	C symbol, bit 0 i elevant for the 12	is transmitted first and 20-bit block creation,	but per Equation 173 of α_0 through α_6 t SuggestedRemedy Move the quoted set be expressed as a li	7-2 these are actually the binar that creates α_i. I suspect these ntence after the subsequent on	y coefficients in t e are not the san ne (which states t e "binary vector c	the linear combination ne. that the elements can
Change "Figure 177-5" t Proposed Response Cl 177 SC 177.4.4 Ran, Adee Comment Type ER The last sentence in 177 bit 9 is transmitted last". not for the circular shift (symbol).	Response Status O P312 Cisco Comment Status X 7.4.4 is "Within each RS-FEG The transmission order is re	C symbol, bit 0 i elevant for the 12	is transmitted first and 20-bit block creation,	but per Equation 17 of α_0 through α_6 t <i>SuggestedRemedy</i> Move the quoted set be expressed as a li "binary coefficients of	7-2 these are actually the binar that creates α_i. I suspect these near combination), and change of the linear combination that creates <i>Response Status</i> O	y coefficients in t e are not the san ne (which states t e "binary vector c	the linear combination ne. that the elements can
Change "Figure 177-5" t Proposed Response Cl 177 SC 177.4.4 Ran, Adee Comment Type ER The last sentence in 177 bit 9 is transmitted last". not for the circular shift (symbol). SuggestedRemedy	Response Status O P312 Cisco Comment Status X 7.4.4 is "Within each RS-FE The transmission order is re (circular shift would be the sa	C symbol, bit 0 i elevant for the 12	is transmitted first and 20-bit block creation,	but per Equation 17 of α_0 through α_6 t SuggestedRemedy Move the quoted set be expressed as a li "binary coefficients of Proposed Response	7-2 these are actually the binar that creates α_i. I suspect these near combination), and change of the linear combination that creates <i>Response Status</i> O	y coefficients in t e are not the san he (which states t e "binary vector c reates".	the linear combination ne. that the elements can corresponding to" to
Change "Figure 177-5" t Proposed Response Cl 177 SC 177.4.4 Ran, Adee Comment Type ER The last sentence in 177 bit 9 is transmitted last". not for the circular shift (symbol). SuggestedRemedy Move the quoted senten	Response Status O P312 Cisco Comment Status X 7.4.4 is "Within each RS-FE The transmission order is re (circular shift would be the sa	C symbol, bit 0 i elevant for the 12	is transmitted first and 20-bit block creation,	but per Equation 17 of α_0 through α_6 the SuggestedRemedy Move the quoted set be expressed as a li "binary coefficients of Proposed Response Cl 177 SC 177.4.5	 7-2 these are actually the binar that creates α_i. I suspect these these combination, and change of the linear combination, and change <i>Response Status</i> 0 5 P313 	y coefficients in t e are not the san he (which states t e "binary vector c reates".	the linear combination ne. that the elements can corresponding to" to
Change "Figure 177-5" t Proposed Response Cl 177 SC 177.4.4 Ran, Adee Comment Type ER The last sentence in 177 bit 9 is transmitted last". not for the circular shift (symbol). SuggestedRemedy Move the quoted senten	Response Status O P312 Cisco Comment Status X 7.4.4 is "Within each RS-FE The transmission order is re (circular shift would be the sa	C symbol, bit 0 i elevant for the 12	is transmitted first and 20-bit block creation,	but per Equation 177 of a_0 through a_6 t SuggestedRemedy Move the quoted set be expressed as a li "binary coefficients of Proposed Response CI 177 SC 177.4.4 Ran, Adee Comment Type ER	7-2 these are actually the binar that creates α_i . I suspect these ntence after the subsequent on near combination), and change of the linear combination that cl <i>Response Status</i> O 5 P313 Cisco	y coefficients in t e are not the san he (which states t e "binary vector c reates". <i>L</i> 51	the linear combination ne. that the elements can corresponding to" to # 282
Change "Figure 177-5" t Proposed Response Cl 177 SC 177.4.4 Ran, Adee Comment Type ER The last sentence in 177 bit 9 is transmitted last". not for the circular shift (symbol). SuggestedRemedy	Response Status O P312 Cisco Comment Status X 7.4.4 is "Within each RS-FE The transmission order is re (circular shift would be the sa	C symbol, bit 0 i elevant for the 12	is transmitted first and 20-bit block creation,	but per Equation 177 of a_0 through a_6 t SuggestedRemedy Move the quoted set be expressed as a li "binary coefficients of Proposed Response Cl 177 SC 177.4. Ran, Adee Comment Type ER the integer i is a sca	 7-2 these are actually the binar that creates α_i. I suspect these these combination, and change of the linear combination that creates <i>Response Status</i> O 5 <i>P</i>313 Cisco <i>Comment Status</i> X lar, not a vector, so it should not combine the subsequent of the linear combination that creates a status of the linear combination the linear combination the linear combination the linear	y coefficients in t e are not the san he (which states t e "binary vector c reates". <i>L</i> 51	the linear combination ne. that the elements can corresponding to" to # 282

C/ 177 SC 177.4.5

C/ 177	SC 177.4.5	P314	L1	# 284	C/ 177	SC 177.4	.9 P3	17 L4	# 286
Ran, Adee		Cisco			Ran, Adee		Cisco)	
omment T	ype ER	Comment Status X			Comment	Type TR	Comment Status	х	
instance	es of "and", and	n the first paragraph spans 5 2 instances of "where". It is out there seems to be no furth	difficult to follow		betwee	en an Inner F	s are used to test adjace EC and external testing	equipment"	
uggestedF	Remedy				Which	adjacent lay	er interfaces? and what i	s "testing between'	?
Rewrite	this sentence,	preferably breaking it into mo	re readable piec	es.	These	generators a	are only in the output dire	ction, so they can	only be used to drive the
roposed R	esponse	Response Status O					ace (which is then used w		
•					Suggested	Remedy			
C/ 177	SC 177.4.7	P315	L10	# 285			ese test patterns can be	used to drive the P	MD service interface for
Ran, Adee		Cisco			Proposed F	0	Response Status	•	
The exa It would	te is" act rate depends be helpful for tl	Comment Status X s on the input rate which has he reader to write the ratio of erably be placed in the "sum	the output rate a	and the input rate. This	 C/ 177 Ran, Adee	SC 177.4	.9 P3 Cisco		# 287
SuggestedF	Remedy				Comment		Comment Status	х	
	tatement about	ne nominal rate". the ratio, here and in 177.1.3 <i>Response Status</i> 0	3.		lane. The de	finitions in c		renced include diffe	r is enabled on the same erent control variables and covered in 45.2.1.170.
C/ 177	SC 177.4.7.1	P316	L 6	# 421		hat some of t bits per lane) are not per-lane b	out here all patterns have
Dudek, Mike	e	Marvell			Suggested	Remedy			
	S descriptions in	Comment Status X n table 177-4 have the MSB the vectors in Annex 177A. Ir			genera	tors on a lar	stating that all generator e affects only that lane, a d on the same lane is no	and that the behavi	enabling any of the patter or when more than one
		shown as the left most bit in a AS being transmitted in the o		e 177-8 however might	Proposed I	Response	Response Status	0	
SuggestedF	Remedy								
Clarify F	Figure 177-8 to	match the text and Annex							
)ronood D									

Proposed Response Response Status **0**

C/ 177 SC 177.4.9 Page 41 of 107 2025-01-03 11:17:25 A

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

7 177	SC 177.5	P317	L 27	# 123	C/ 177	SC 177.5.	1.1	P 317	L 41	# 288
Slavick, Je	ff	Broadcom			Ran, Adee			Cisco		
Comment [*]	Type TR	Comment Status X			Comment 7	Туре Т	Comment	Status X		
Introdu	ctory sentence	could be useful					g is enabled, the ne process speci			esses the detected
uggested	,				In prac	tice, the proc	essing is equiva	lent only if hard	decoding is perfe	ormed (i.e., in the initia
	e following to 17 ervice interface	7.5 "The following processes input lane.	are performed in	ndependently on each	operati	on is perform			d that the Inner F ecoding is perfor	FEC decoding med separately as par
roposed I	Response	Response Status O				decoding. be beneficial	to inform the rea	ader of this diffe	rence.	
2 177	SC 177.5.1	P338	L 27	# 9			edy assumes tha MD, as suggest			tion is performed on
srown, Ma	tt	Alphawave Se	emi		Suggested	Remedy				
omment		Comment Status X					note at the end o			14 decembre - 16 d
path or		and PRBS31Q generators w .9). A checker on the input of a PMD or link.			affects					14 decoding, it also tput of the PAM4
uggested Add Pl	•	RBS31Q pattern checkers to th	ne input of the Ir	nner FEC receive path.	Proposed F	Response	Response	Status O		
roposed I	Response	Response Status O			C/ 177	SC 177.5	1.1	P317	L 43	# 491
					Opsasnick	, Eugene		Broadcom		
					Comment 7	Гуре Е	Comment	Status X		
									ph of 177.5.1.1 i t should be spelle	s hard to understand. ed out.
					Suggested	Remedy				
					"If ILT the pre is disat	coding state	on the link partn	er transmitter is able mr_training	requested using	enable (see 178B.15), the ILT function. If ILT coding state on the linl
					(see 17 reques	78B.15), prec ted by the re	oding of the rece	eived data is en If ILT is disable	abled at the link p	mr_training_enable partner (transmitter) as pding of data at the
					Proposed F	Response	Response	Status O		

C/ 177 SC 177.5.1.1

	P 318	L 4	# 501	C/ 177	SC 177.5.2	P 318	L 7	# 290
Opsasnick, Eugene	Broadcom			Ran, Adee		Cisco		
omment Type ER	Comment Status X			Comment 7	Type TR	Comment Status X		
Extra "to" and missing	verb in second sentence of 17	77.5.2.				nterleaving and synchronizatio	n is performed c	on bit pairs, since the
uggestedRemedy					rely on the FE	decoder.	the input symbo	Is into PAM4 and the
Change:				into bite	s. '	,	. ,	
and then removed be	inserted as pad (see 177.4.7) ore the received data is proces		ne to the data stream			einterleaving is later performed currently not stated.	on the input syr	nbols, which are mo
to: "The eight codewords	inserted as pad (see 177.4.7)	are used to fran	ne the data stream and	Suggestedl	Remedy			
	ore the received data is proces					he alignment found by the initia		
roposed Response	Response Status 0				-	for deinterleaving of soft input	s into the inner	FEC decoding.
				Proposed F	Response	Response Status O		
177 SC 177.5.2	P318	L 7	# 289	<u> </u>	SC 177.5.2	P318	L19	# 440
in, Adee	Cisco			C/ 177			L19	# 116
omment Type TR	Comment Status X			Slavick, Je		Broadcom		
"Blind 1:8 bit-pair deir performed to eight Inr	terleaving (each pair of bits co er FEC flows"	rresponding to a	a PAM4 symbol) is	Comment 7 The sta	51	Comment Status X u can identify flow 0 and how	its done should	be one paragraph
It is unclear what "blin occasional use is inco	d" refers to in this operation. "b nsistent.	olind" is no defin	ed in 802.3 and its	S <i>uggestedl</i> Combir	,	& 5 in 177.5.2.		
	re adequate here.			Proposed F	Response	Response Status O		
Perhaps "initial" is mo								
•					<u> </u>	Data	L10	# 488
uggestedRemedy	ial" in the quoted sentence and se.	d the one with th	e other instance of	C/ 177 Opsasnick	SC 177.5.4	P319 Broadcom	210	
uggestedRemedy Change "blind" to "init "blind" in this subclau		d the one with th	e other instance of	Opsasnick,	, Eugene	Broadcom	210	
uggestedRemedy Change "blind" to "init "blind" in this subclau	se.	d the one with th	e other instance of	Opsasnick, Comment 1	, Eugene	Broadcom Comment Status X	210	
uggestedRemedy Change "blind" to "init	se.	d the one with th	e other instance of	Opsasnick, <i>Comment 1</i> Typo in Suggestedl	, Eugene <i>Type</i> E a tense of "PAM <i>Remedy</i>	Broadcom Comment Status X I4 symbols".	210	
uggestedRemedy Change "blind" to "init "blind" in this subclau	se.	d the one with th	e other instance of	Opsasnick, <i>Comment 1</i> Typo in Suggestedl Change	, Eugene <i>Type</i> E tense of "PAM <i>Remedy</i> e: " for each	Broadcom Comment Status X	210	

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 177 SC 177.5.4

C/ 177 SC 177.5.4	P 319	L10	# 291	C/ 177	SC 177.5.4		P 319	L11	# 293
Ran, Adee	Cisco			Ran, Adee		Ci	sco		
omment Type E	Comment Status X			Comment Ty	be TR	Comment Stat	tus X		
"The Inner FEC deco two bits for each rece	der is a soft-decision decoder sived PAM4 symbols"	that requires a h	igher resolution than	"The dec value"	oder evaluate	es the incoming coo	deword and	d determines the	most likely codeword
Wording can be impr	oved.					oder is not a codew a vector of "soft" sa			er of a set of 128-bit
iggestedRemedy				codeword			ampies mai		a transmitteu
Change to	ding assumes soft-decision op	oration that roau	uiros a resolution of	SuggestedRe	emedy				
	r each received symbol".	eration that lequ		00		ler evaluates the in	ncoming blo	ock of 64 rx_syml	bol inputs and
oposed Response	Response Status O			determine	es the most lil	kely codeword valu	ue".		
	,			Proposed Re	sponse	Response State	us O		
177 SC 177.5.4	P319	L11	# 292		00 477 5 4	4.5		1.50	# 440
an, Adee	Cisco				SC 177.5.4		P 319	L 52	# 118
							oadcom		
mment Type TR	Comment Status X			Slavick, Jeff					
The assumed correct	tion capability of the decoder is			Comment Ty		Comment Stat	tus X		
The assumed correct Also, it is not stated v	tion capability of the decoder is what happens when a codewor	d is uncorrectabl		Comment Ty			tus X	ith "Note' could b	e a bit misleading
The assumed correct Also, it is not stated v decoder does not ma	tion capability of the decoder is what happens when a codewor rk the data as error in any way	d is uncorrectabl (since it is an in	nner code) but it is not	Comment Ty	ecifyng the be	Comment Stat	tus X	ith "Note' could b	e a bit misleading
The assumed correct Also, it is not stated v decoder does not ma stated. The error pat	tion capability of the decoder is what happens when a codewor rk the data as error in any way terns that appear in this case a	d is uncorrectabl (since it is an in are not described	nner code) but it is not d.	Comment Tyj We're sp SuggestedRe Change t	ecifyng the be e <i>medy</i> he last senter	Comment Stat ehavior of bin 3, so nce to read "Error I	tus X starting w		
The assumed correct Also, it is not stated w decoder does not ma stated. The error pat Compare to the RS-F	tion capability of the decoder is what happens when a codewor ink the data as error in any way terns that appear in this case a EC decoder specification in 91	d is uncorrectabl (since it is an in are not described 1.5.3.3 (where th	nner code) but it is not d. nere are normative	Comment Tyj We're sp SuggestedRe Change t	ecifyng the be e <i>medy</i> he last senter	Comment Stat ehavior of bin 3, so	tus X starting w		
The assumed correct Also, it is not stated w decoder does not ma stated. The error pat Compare to the RS-F	tion capability of the decoder is what happens when a codewor rk the data as error in any way terns that appear in this case a	d is uncorrectabl (since it is an in are not described 1.5.3.3 (where th	nner code) but it is not d. nere are normative	Comment Tyj We're sp SuggestedRe Change t	ecifyng the be emedy he last senter I in an Inner F	Comment Stat ehavior of bin 3, so nce to read "Error I	tus X o starting w		
The assumed correct Also, it is not stated v decoder does not ma stated. The error pat Compare to the RS-F specifications for corr	tion capability of the decoder is what happens when a codewor ink the data as error in any way terns that appear in this case a EC decoder specification in 91	d is uncorrectabl r (since it is an in are not described 1.5.3.3 (where th table error marki	nner code) but it is not d. nere are normative ing).	Comment Tyj We're sp SuggestedRe Change t corrected	ecifyng the be emedy he last senter I in an Inner F	Comment Stat ehavior of bin 3, so nce to read "Error I FEC codeword."	tus X o starting w		
The assumed correct Also, it is not stated v decoder does not ma stated. The error pat Compare to the RS-F specifications for corr	tion capability of the decoder is what happens when a codewor rk the data as error in any way terns that appear in this case a FEC decoder specification in 91 rection capability and uncorrect	d is uncorrectabl r (since it is an in are not described 1.5.3.3 (where th table error marki	nner code) but it is not d. nere are normative ing).	Comment Typ We're sp SuggestedRe Change t corrected Proposed Re	ecifyng the be emedy he last senter I in an Inner F sponse	Comment Stat ehavior of bin 3, so nce to read "Error I EC codeword." Response State	tus X o starting w bin 3 incrm us O	ents when three	or more bits are
The assumed correct Also, it is not stated v decoder does not ma stated. The error pat Compare to the RS-F specifications for corr This is important info implementation.	tion capability of the decoder is what happens when a codeworn ink the data as error in any way terns that appear in this case a FEC decoder specification in 91 rection capability and uncorrect rmation for testing, monitoring	d is uncorrectabl r (since it is an in are not described 1.5.3.3 (where th table error marki	nner code) but it is not d. nere are normative ing).	Comment Typ We're sp SuggestedRe Change t corrected Proposed Re	ecifyng the be emedy he last senter I in an Inner F	Comment Stat ehavior of bin 3, so nce to read "Error I FEC codeword." Response State	tus X o starting w bin 3 incrm us O P319		
The assumed correct Also, it is not stated we decoder does not ma stated. The error pat Compare to the RS-F specifications for corr This is important info implementation. The suggested remeet	tion capability of the decoder is what happens when a codewor rk the data as error in any way terns that appear in this case a FEC decoder specification in 91 rection capability and uncorrect	d is uncorrectabl r (since it is an in are not described 1.5.3.3 (where th table error marki and analyzing th	nner code) but it is not d. ere are normative ing). ne performance of an	Comment Typ We're sp SuggestedRe Change t corrected Proposed Re Cl 177 Ran, Adee	ecifyng the be emedy he last senter l in an Inner F sponse SC 177.5.4.1	Comment Stat ehavior of bin 3, so nce to read "Error I EC codeword." Response State	tus X o starting w bin 3 incrm us O P 319 sco	ents when three	or more bits are
The assumed correct Also, it is not stated we decoder does not ma stated. The error pat Compare to the RS-F specifications for correct This is important info implementation. The suggested remeen https://www.ieee802.	tion capability of the decoder is what happens when a codewor ink the data as error in any way terns that appear in this case a FEC decoder specification in 91 rection capability and uncorrect rmation for testing, monitoring dy is based on slide 9 of	d is uncorrectabl r (since it is an in are not described 1.5.3.3 (where th table error marki and analyzing th	nner code) but it is not d. ere are normative ing). ne performance of an	Comment Typ We're sp SuggestedRe Change t corrected Proposed Re Cl 177 Ran, Adee Comment Typ	ecifyng the be emedy he last senter l in an Inner F sponse SC 177.5.4.1	Comment Stat ehavior of bin 3, so nce to read "Error I EC codeword." Response State I.1 Comment Stat	tus X o starting w bin 3 incrm us O P 319 sco tus X	ents when three	or more bits are # <mark>294</mark>
The assumed correct Also, it is not stated w decoder does not ma stated. The error pat Compare to the RS-F specifications for corr This is important info implementation. The suggested remen https://www.ieee802.	tion capability of the decoder is what happens when a codewor ink the data as error in any way terns that appear in this case a FEC decoder specification in 91 rection capability and uncorrect rmation for testing, monitoring dy is based on slide 9 of	d is uncorrectabl r (since it is an in are not described 1.5.3.3 (where th table error marki and analyzing th	nner code) but it is not d. ere are normative ing). ne performance of an	Comment Ty We're sp SuggestedRe Change t corrected Proposed Re CI 177 Ran, Adee Comment Ty "The outp	ecifyng the be emedy he last senter l in an Inner F sponse SC 177.5.4.1 De ER but of the Inne	Comment Stat ehavior of bin 3, so nee to read "Error I EC codeword." Response State I.1 Comment Stat er FEC decoder wil	tus X o starting w bin 3 incrm us O P 319 sco tus X	ents when three	or more bits are # 294
The assumed correct Also, it is not stated w decoder does not ma stated. The error pat Compare to the RS-F specifications for corr This is important info implementation. The suggested remen- https://www.ieee802. ggestedRemedy Add some test e.g. "The decoder is expe	tion capability of the decoder is what happens when a codewor ink the data as error in any way terns that appear in this case a FEC decoder specification in 91 rection capability and uncorrect rmation for testing, monitoring dy is based on slide 9 of org/3/df/public/22_05/22_0517, ected to correct all codewords in	d is uncorrectabl (since it is an in are not described 1.5.3.3 (where th table error marki and analyzing th /bliss_3df_01a_2 n which hard dec	nner code) but it is not d. ere are normative ing). ne performance of an 220517.pdf. cision would result in up	Comment Ty We're sp SuggestedRe Change t corrected Proposed Re CI 177 Ran, Adee Comment Ty "The outp	ecifyng the be emedy he last senter l in an Inner F sponse SC 177.5.4.1	Comment Stat ehavior of bin 3, so nee to read "Error I EC codeword." Response State I.1 Comment Stat er FEC decoder wil	tus X o starting w bin 3 incrm us O P 319 sco tus X	ents when three	or more bits are # 294
The assumed correct Also, it is not stated w decoder does not ma stated. The error pat Compare to the RS-F specifications for corr This is important info implementation. The suggested remet https://www.ieee802. ggestedRemedy Add some test e.g. "The decoder is expe to one bit error and m decoded correctly wil	tion capability of the decoder is what happens when a codeworn ink the data as error in any way terns that appear in this case a FEC decoder specification in 91 rection capability and uncorrect rmation for testing, monitoring dy is based on slide 9 of org/3/df/public/22_05/22_0517, ected to correct all codewords in nost codewords with up to three I contain at least four bit errors	d is uncorrectabl (since it is an in are not described 1.5.3.3 (where th table error marki and analyzing th /bliss_3df_01a_2 n which hard dec e bit errors. Code	nner code) but it is not d. ere are normative ing). ne performance of an 220517.pdf. cision would result in up	Comment Ty We're sp SuggestedRe Change t corrected Proposed Re Cl 177 Ran, Adee Comment Ty "The outp corrected The outp	ecifyng the be emedy he last senter l in an Inner F sponse SC 177.5.4.1 De ER but of the Inne I codewords." ut is not a sep	Comment Stat ehavior of bin 3, so nce to read "Error I "EC codeword." <i>Response Statt</i> 1.1 Cit Comment Stat er FEC decoder wil	tus X o starting wi bin 3 incrm us O P319 sco tus X II recognize	ents when three	or more bits are # 294 d codewords as
The assumed correct Also, it is not stated w decoder does not ma stated. The error pat Compare to the RS-F specifications for corr This is important info implementation. The suggested remet https://www.ieee802. ggestedRemedy Add some test e.g. "The decoder is expe to one bit error and m decoded correctly wil	tion capability of the decoder is what happens when a codeworn ink the data as error in any way terns that appear in this case a FEC decoder specification in 91 rection capability and uncorrect rmation for testing, monitoring dy is based on slide 9 of org/3/df/public/22_05/22_0517, ected to correct all codewords in nost codewords with up to three	d is uncorrectabl (since it is an in are not described 1.5.3.3 (where th table error marki and analyzing th /bliss_3df_01a_2 n which hard dec e bit errors. Code	nner code) but it is not d. ere are normative ing). ne performance of an 220517.pdf. cision would result in up	Comment Ty We're sp SuggestedRe Change t corrected Proposed Re Cl 177 Ran, Adee Comment Ty "The outp corrected The outp	ecifyng the be emedy he last senter l in an Inner F sponse SC 177.5.4.1 De ER but of the Inne I codewords." ut is not a sep of codeword it	Comment Stat ehavior of bin 3, so nce to read "Error I "EC codeword." <i>Response State</i> 1.1 Cis <i>Comment Stat</i> er FEC decoder wil	tus X o starting wi bin 3 incrm us O P319 sco tus X II recognize	ents when three	or more bits are # 294 d codewords as
The assumed correct Also, it is not stated w decoder does not ma stated. The error pat Compare to the RS-F specifications for corr This is important info implementation. The suggested rement https://www.ieee802. ggestedRemedy Add some test e.g. "The decoder is expet to one bit error and m decoded correctly will Or modifications of the	tion capability of the decoder is what happens when a codeworn ink the data as error in any way terns that appear in this case a FEC decoder specification in 91 rection capability and uncorrect rmation for testing, monitoring dy is based on slide 9 of org/3/df/public/22_05/22_0517, ected to correct all codewords in nost codewords with up to three I contain at least four bit errors	d is uncorrectabl (since it is an in are not described 1.5.3.3 (where th table error marki and analyzing th /bliss_3df_01a_2 n which hard dec e bit errors. Code	nner code) but it is not d. ere are normative ing). ne performance of an 220517.pdf. cision would result in up ewords that are not	Comment Ty We're sp SuggestedRe Change t corrected Proposed Re Cl 177 Ran, Adee Comment Ty "The outp corrected The outp the type of SuggestedRe Change t	ecifyng the be emedy he last senter l in an Inner F sponse SC 177.5.4.1 De ER but of the Inne I codewords." ut is not a sep of codeword it emedy o	Comment Stat ehavior of bin 3, so nce to read "Error I "EC codeword." <i>Response Statu</i> 1.1 Cit <i>Comment Statu</i> er FEC decoder wil parate entity, it is a t came from. The c	tus X o starting wi bin 3 incrm us O P319 sco tus X Il recognize a block of 1 counter is in	ents when three L 21 e the miscorrected 20 bits that has n hternal to the dec	or more bits are # 294 d codewords as

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 177 SC 177.5.4.1.1 Page 44 of 107 2025-01-03 11:17:25 A

C/ 177	SC 177.5.4.1.	.1 P319	L 24	# 117	C/ 177	SC 177.5.4	4.1.4	P319	L 45	# 108
Slavick, .	Jeff	Broadcom			Mi, Guang	can		Huawei Tech	nologies Co., Lto	j
Commen	t Type T	Comment Status X			Comment	Type ER	Comm	ent Status X		
		clause 45 here, I think we w	ant that all to be in	n the tables		EC bin counters implicit.	ers can be us	sed to roughly mea	sure pre-Inner Fl	EC BER. Pre-FEC
00	edRemedy				Suggested					
ln 17	te the "(see 45.2.1. 7.5.4.1 add the fol bles is specified in	lowing senetence "Mapping	of the counters to	management	chang	e to "pre-Inner				
	d Response	Response Status O			Proposed	Response	Respon	se Status O		
					C/ 177	SC 177.5.4	4.1.5	P319	L 49	# 395
Cl 177	SC 177.5.4.1.	.2 P319	L 29	# 295	Shrikhand	e. Kapil		Marvell		
Ran, Ade	e	Cisco			Comment	· •	Comm	ent Status X		
to be	uncorrected Inner F corrected by the c phrase "able to be	corrected by the decoders"			better Suggested Align b	align to the FE	C codeword	eword error bin co error bin counter in t in 177.5.4.1.5 to t se Status 0	n 175.2.5.3.	4.1.5 could be edited to n 175.2.5.3.
	der, not in the code unclear to me if a d	eword. lecoder is even allowed to "	not correct" a cod	eword. Does it mean	1 Toposou I					
It is u that h	unclear to me if a d nard detection wou	lecoder is even allowed to " Id result in 4 errors, such the	at the decoder is u	insure of the most	·	SC 177.5.	7	P320	/ 15	# 122
It is u that h likely	unclear to me if a d nard detection wou codeword, so it ju	lecoder is even allowed to "	at the decoder is u ts (stripping the pa	insure of the most arity bits)? if that is	C/ 177	SC 177.5.7	7	P 320 Broadcom	L15	# 122
It is u that h likely done	unclear to me if a d nard detection wou codeword, so it ju , then the (normati	lecoder is even allowed to " Id result in 4 errors, such that spits the hard-detected bi	at the decoder is u ts (stripping the pa The decoder evalu	ansure of the most arity bits)? if that is ates the incoming	C/ 177 Slavick, Je	eff		Broadcom	L15	# 122
It is u that h likely done code	unclear to me if a d nard detection wou codeword, so it ju , then the (normati	lecoder is even allowed to " Id result in 4 errors, such th st spits the hard-detected bi ve?) statement in 177.5.4 "	at the decoder is u ts (stripping the pa The decoder evalu	ansure of the most arity bits)? if that is ates the incoming	Cl 177 Slavick, Je Comment	eff Type TR	Comm	Broadcom ent Status X		
It is u that h likely done code Suggeste At the code	unclear to me if a d nard detection wou codeword, so it ju , then the (normati word and determin edRemedy e minimum change word with errors th	lecoder is even allowed to " Id result in 4 errors, such th st spits the hard-detected bi ve?) statement in 177.5.4 "	at the decoder is u ts (stripping the pa The decoder evalu I value" is not true n uncorrected Inn	ansure of the most arity bits)? if that is ates the incoming er FEC codeword is a	Cl 177 Slavick, Je Comment We're	eff <i>Type</i> TR restoring to th tate it's the or	Comm e data strear	Broadcom ent Status X n to its original ord	er, but it could ha	# <u>122</u> ave errors in the so we ar end SM-PMA not th
It is u that h likely done code Suggeste At the code	unclear to me if a d nard detection wou codeword, so it ju , then the (normati word and determin edRemedy e minimum change	lecoder is even allowed to " Id result in 4 errors, such that st spits the hard-detected bi ive?) statement in 177.5.4 " hes the most likely codeword the quoted statement to "A	at the decoder is u ts (stripping the pa The decoder evalu I value" is not true n uncorrected Inn	ansure of the most arity bits)? if that is ates the incoming er FEC codeword is a	Cl 177 Slavick, Je Comment We're can't s	eff <i>Type</i> TR restoring to th tate it's the or ne.	Comm e data strear	Broadcom ent Status X n to its original ord	er, but it could ha	ave errors in the so we
It is u that h likely done code Suggeste At the code misco	unclear to me if a d nard detection wou codeword, so it ju , then the (normati word and determin edRemedy e minimum change word with errors th orrection".	lecoder is even allowed to " Id result in 4 errors, such the st spits the hard-detected bi ive?) statement in 177.5.4 " les the most likely codeword the quoted statement to "A lat the decoder chose not to ext in 177.5.4 to cover this po	at the decoder is u ts (stripping the pa The decoder evalu I value" is not true In uncorrected Inn correct due to a h	insure of the most arity bits)? if that is ates the incoming er FEC codeword is a igh probability of	Cl 177 Slavick, Je Comment We're can't s local o Suggested Chang	eff Type TR restoring to th tate it's the or ne. IRemedy Ie "to restore t	<i>Comm</i> e data strean ignial data fro he original da	Broadcom ent Status X n to its original ord om the SM-PMA ar	er, but it could ha nd that'd be the fa ne BASE-R SM-F	ave errors in the so we ar end SM-PMA not th PMA." to be "to restore

C/ 177 SC 177.5.7

C/ 177 SC 177.6.2.1	1 P 320	L33	# 493	C/ 177	SC 177.6.2.1	P 320	L 43	# 492
Opsasnick, Eugene	Broadcom			Opsasnick, I	Eugene	Broadcom		
Comment Type E	Comment Status X			Comment Ty	rpe ER	Comment Status X		
The word AND should	be lowercase.			The wor	d boolean shou	ld be capitalized.		
SuggestedRemedy				SuggestedR	emedy			
	ht flows AND the Inner FEC /s and the Inner FEC"			fas_valio	i	"Boolean" in the definition of	these variables	::
Proposed Response	Response Status O			Inner_FE slip_don test_cw test_fas	EC_sync_statu: e	3		
C/ 177 SC 177.6.2.1	1 P 320	L 34	# 494	Proposed Re	esponse	Response Status O		
Opsasnick, Eugene	Broadcom			,				
Comment Type E	Comment Status X							
Remove comma used compound sentance.	between phrases when it is no	ot separating inc	lependent clauses of a	C/ 177	SC 177.6.2.1	P 320	L 53	# 88
1				Opsasnick, I	0	Broadcom		
SuggestedRemedy				Comment Ty	rpe T	Comment Status X		
change: " is identified and to: " is identified and	ed, and is set to false …" d is set to false …"					o in the definition of the "rese a cross-reference to 45.2.1.1		
Proposed Response	Response Status 0			(Table 1	77-6) should in	stead be used for the cross re	eference to CL	45 registers).
				SuggestedR	emedy			
C/ 177 SC 177.6.2.1	1 P 320	L 34	# 296	Remove	the cross-refer	rence text "(see 45.2.1.1.1)" f	rom the definition	on of reset in 177.6.2.1.
Ran, Adee	Cisco	204	11 230	Add the	definition of "FI	EC_reset" to the list of variab	les in 177.6.2.1	as: "Boolean variable
	Comment Status X			that is tr	ue when set by	a management entity and is	false otherwise	".
· · · //· ·		the energy where	avea flow was in true		reset to the N	IDIO control variables table (Table 177-6) in	subclause 177 10 with
	nced does not (strictly) cover he Inner FEC flow 0 is not ider		sync_now <x> is true</x>			7.6.2.1 and 45.2.1.1 and the N		
Also, "and" here has n	o special meaning and should	not be capitaliz	ed.	Proposed Re	esponse	Response Status O		
SuggestedRemedy				•		,		
Change "set to false w Change "AND" to "and	when sync_flow <x> is false for d".</x>	any x" to "set to	false otherwise".					
Proposed Response	Response Status 0							

C/ 177 SC 177.6.2.1

C/ 177 SC 177.6.2.1 P321 L2 # 498	CI 177 SC 177.6.2.1 P321 L22 # 495
Dpsasnick, Eugene Broadcom	Opsasnick, Eugene Broadcom
Comment Type T Comment Status X	Comment Type TR Comment Status X
The definition of the variable restart_inner_fec_sync states it is set by a process, but it can now be set by two separate processes.	The varaible "valid_cw" is used in the state diagram in Figure 177-10 and should be added to the list of variable definitions.
SuggestedRemedy	SuggestedRemedy
Replace: "A Boolean variable that is set by the Inner FEC synchronization process \dots "	Add definition of "valid_cw" to list of variable definitions in 177.6.2.1 in alphabetical order.
with: "A Boolean variable that is set by the Inner FEC synchronization process or the InnerFEC pad detection process"Proposed ResponseResponse StatusO	Suggested definition (to make CAL_SYNDROME function obsolete): "A boolean variable that is set to true when the calculated syndrome of the Inner FEC codeword beign tested is zero and is set to false otherwise."
	Proposed Response Response Status O
C/ 177 SC 177.6.2.1 P321 L13 # 497	
Dpsasnick, Eugene Broadcom	CI 177 SC 177.6.2.2 P321 L26 # 496
Comment Type TR Comment Status X	Opsasnick, Eugene Broadcom
The definition of sync_flow <x> should be made more clear. What does it mean to be "in a flow of Inner FEC"? Also, a range of values should be given as "A to B" instead of "A:B".</x>	Comment Type T Comment Status X
SuggestedRemedy Suggest changing the definition of sync_flow <x> from: "A Boolean variable that is set to true when the receiver has found the correct boundary of</x>	The function CAL_SYNDROME is not necessary and should be removed from the list of functions and from the state diagram in figure 177-10. The variable "valid_cw" (definition is missing), should be defined to make this function not necessary.
codewords in a flow of Inner FEC, where x = 0:7"	SuggestedRemedy
to: "A Boolean variable that is set to true after the inner FEC codeword boundary is found for	Remove CAL_SYNDROME from the list of functions. Remove CAL_SYNDROME from figure 177-10 in states CW_CHECK_1, CW_CHECK_2 and CW_CHECK_3
an inner FEC flow, where x=0 to 7 and represents an inner FEC flow ID before identifing the actual inner FEC flow numbering."	Also remove references to CAL_SYNDROME in definition of bad_cw_cnt and valid_cw_cn counters in 177.6.2.3
Proposed Response Response Status O	Change the definition of bad_cw_cnt from: "Counts the number of invalid Inner FEC codewords based on the output of CAL_SYNDROME function. A codeword is considered invalid when its syndrome is non- zero." to: "Counts the number of invalid inner FEC codewords received within a period of 150 codewords."
	Change the definition of valid_cw_cnt from: "Counts the number of valid Inner FEC codewords based on the output of CAL_SYNDROME function. A codeword is considered valid when its syndrome is zero."
	to: "Counts the number of valid inner FEC codewords within a period of 50 codewords."

C/ 177 SC 177.6.2.2 Page 47 of 107 2025-01-03 11:17:25 A

C/ 177 SC 177.6.2.3	P 321	L 45	# 502	C/ 177	SC 177.6.3	P 321	L 54	# 500
Opsasnick, Eugene	Broadcom			Opsasnick	, Eugene	Broadcom		
Comment Type TR	Comment Status X			Comment	Type TR	Comment Status X		
	t" is "Counts the interval of In		ords between two	Should	d add a statemer	nt that a PAD detection proces	ss is required fo	r each input lane.
, ,	s the interval value? How ma	ny codewords?		Suggested	IRemedy			
SuggestedRemedy				Chang				
	plicitly state the number of coc the subclause with this info		d to be counted or else	"Pad d	letection process	s follows the process shown ir	n Figure 177–10	."
Proposed Response	Response Status O					ection process as illustrated i or each input lane in the rece		ram in Figure 177–10
C/ 177 SC 177.6.3	P 321	L 53	# 499	Proposed I	Response	Response Status O		
Opsasnick, Eugene	Broadcom							
Comment Type TR	Comment Status X			C/ 177	SC 177.6.3	P 322	L 4	# 507
	t that the 8 self-sync process			Opsasnick	, Eugene	Broadcom		
		state that X sucr			•			
and spell out the word s required on each input			r processes are	Comment	Туре Е	Comment Status X		
required on each input						Comment Status X ce is needed between the log	ical-OR (+) opei	ator and variable nam
required on each input					re 176-10, a spa		ical-OR (+) opei	ator and variable nam
required on each input SuggestedRemedy Change: "The Inner FEC sublaye		sync processes a		In figur S <i>uggested</i>	re 176-10, a spa IRemedy			ator and variable nam
required on each input SuggestedRemedy Change: "The Inner FEC sublaye 177–10 to identify the b	lane. er shall implement eight self-s	sync processes a		In figur <i>Suggested</i> Replac	re 176-10, a spa IRemedy ce "+restart_inne	ce is needed between the log	ner_fec_sync".	ator and variable nam
required on each input uggestedRemedy Change: "The Inner FEC sublaye 177–10 to identify the b to: "The Inner FEC sublaye Figure 177–10 for each	lane. er shall implement eight self-s poundaries of the Inner FEC c er shall implement eight self-s i input lane in the receive dire	sync processes odewords." synchronization ction. Each sync	s shown in Figure processes as shown in chronization process	In figur <i>Suggested</i> Replac	re 176-10, a spa <i>IRemedy</i> ce "+restart_inne ake the same ch	ce is needed between the log er_fec_sync" with "+ restart_in	ner_fec_sync".	ator and variable nam
required on each input uggestedRemedy Change: "The Inner FEC sublaye 177–10 to identify the b to: "The Inner FEC sublaye Figure 177–10 for each	lane. er shall implement eight self-s poundaries of the Inner FEC c er shall implement eight self-s	sync processes odewords." synchronization ction. Each sync	s shown in Figure processes as shown in chronization process	In figur <i>Suggested</i> Replac And m	re 176-10, a spa <i>IRemedy</i> ce "+restart_inne ake the same ch	ce is needed between the log er_fec_sync" with "+ restart_in nange in Figure 177-11 on page	ner_fec_sync".	ator and variable nam
required on each input SuggestedRemedy Change: "The Inner FEC sublaye 177–10 to identify the b to: "The Inner FEC sublaye Figure 177–10 for each operates independantly codewords."	lane. er shall implement eight self-s poundaries of the Inner FEC c er shall implement eight self-s i input lane in the receive dire	sync processes odewords." synchronization ction. Each sync	s shown in Figure processes as shown in chronization process	In figur Suggested Replac And m Proposed I	IRe 176-10, a spa IRemedy ce "+restart_inne ake the same ch Response SC 177.6.3	ce is needed between the log er_fec_sync" with "+ restart_in nange in Figure 177-11 on pag <i>Response Status</i> O	ner_fec_sync". ge 323, line 4.	
required on each input SuggestedRemedy Change: "The Inner FEC sublaye 177–10 to identify the b to: "The Inner FEC sublaye Figure 177–10 for each operates independantly codewords."	lane. er shall implement eight self-s oundaries of the Inner FEC c er shall implement eight self-s i input lane in the receive dire v on an Inner FEC flow to iden	sync processes odewords." synchronization ction. Each sync	s shown in Figure processes as shown in chronization process	In figur Suggested Replac And m Proposed I CI 177 Opsasnick Comment	Re 176-10, a spa Remedy ce "+restart_inne ake the same ch Response SC 177.6.3 c, Eugene Type TR	ce is needed between the log er_fec_sync" with "+ restart_in hange in Figure 177-11 on pag <i>Response Status</i> 0 <i>P</i> 322	uner_fec_sync". ge 323, line 4.	# 504
required on each input SuggestedRemedy Change: "The Inner FEC sublaye 177–10 to identify the b to: "The Inner FEC sublaye Figure 177–10 for each operates independantly codewords."	lane. er shall implement eight self-s oundaries of the Inner FEC c er shall implement eight self-s i input lane in the receive dire v on an Inner FEC flow to iden	sync processes odewords." synchronization ction. Each sync	s shown in Figure processes as shown in chronization process	In figur Suggested Replac And m Proposed I CI 177 Opsasnick Comment T In figur	Re 176-10, a spa (Remedy ce "+restart_inne ake the same ch Response SC 177.6.3 c, Eugene Type TR re 176-10, the co	ce is needed between the log er_fec_sync" with "+ restart_in hange in Figure 177-11 on pag <i>Response Status</i> O <i>P</i> 322 Broadcom <i>Comment Status</i> X	uner_fec_sync". ge 323, line 4.	# 504
required on each input SuggestedRemedy Change: "The Inner FEC sublaye 177–10 to identify the b to: "The Inner FEC sublaye Figure 177–10 for each operates independantly	lane. er shall implement eight self-s oundaries of the Inner FEC c er shall implement eight self-s i input lane in the receive dire v on an Inner FEC flow to iden	sync processes odewords." synchronization ction. Each sync	s shown in Figure processes as shown in chronization process	In figur Suggested Replac And m Proposed f Cl 177 Opsasnick Comment In figur Suggested	Remedy ce "+restart_inne ake the same ch Response SC 177.6.3 c, Eugene Type TR re 176-10, the co IRemedy	ce is needed between the log er_fec_sync" with "+ restart_in hange in Figure 177-11 on pag <i>Response Status</i> O <i>P</i> 322 Broadcom <i>Comment Status</i> X	uner_fec_sync". ge 323, line 4.	# 504

C/ 177 SC 177.6.3

	P 322	L12	# 505	C/ 177 SC 177.	.6.3 P	322	L23	# 503
Opsasnick, Eugene	Broadcom			Opsasnick, Eugene	Broa	adcom		
Comment Type ER	Comment Status X			Comment Type TR	R Comment Statu	s X		
In figure 176-10, in CV increment operator ++	V_CHECK_3 state, the extra s should be removed.	pace between va	ariable names and	written with the co	n state CW_CHECK_1, to ondition in parentheses o			
SuggestedRemedy				in 1.2.1.				
Replace "cw_cnt ++" v	vith "cw_cnt++"			SuggestedRemedy				
and replace "bad_cw_cnt -	++" with "bad_cw_cnt++"			Change: "if valid_cw				
Proposed Response	Response Status O			valid_cw_cnt++" to: "valid_cw_cnt++ (i	(if valid_cw)"			
C 177 SC 177.6.3	P 322	L 21	# 506	in three places: in	CW_CHECK1, CW_CH	IECK_2 and	CW_CHECK3	states.
Opsasnick, Eugene	Broadcom			Proposed Response	Response Status	s O		
Comment Type E	Comment Status X							
In figure 176-10, the n	ew state UNSYNC could use a	a better name.		C/ 177 SC 177.	.6.3 P	323	L 6	# 508
SuggestedRemedy				Opsasnick, Eugene	Broa	adcom		
	NC" to be "RESTART_SYNC"			Comment Type TR	R Comment Statu	s X		
Proposed Response	Response Status O			In figure 177-11, t should have differ	there are three separate strent names.	states with t	he name, COU	INT_NEXT. They
C 177 SC 177.6.3	P322	L 22	# 119	SuggestedRemedy				
Slavick, Jeff	Broadcom				EXT as-is at line 6. e "COUNT_NEXT" to "C)"	
Comment Type TR	Comment Status X				e "COUNT_NEXT" to CO			
	from INNER_FEC_SYNC can't			Proposed Response	Response Status	s O		
In Fig 177-10 the exit any sync_flow is false process to set it to true								
any sync_flow is false process to set it to true				C/ 177 SC 177.	.6.3 P	323	L9	# 509
any sync_flow is false process to set it to tru uggestedRemedy Create new variable "r	e. none_synced" A Boolean va			Cl 177 SC 177. Opsasnick, Eugene		323 adcom	L 9	# 509
any sync_flow is false process to set it to tru SuggestedRemedy Create new variable "r sync_flow <x> is false</x>	е.				Broa	adcom	L9	# 509
any sync_flow is false process to set it to tru- SuggestedRemedy Create new variable "r sync_flow <x> is false any x. In Fig. 177-10 replace</x>	e. none_synced" A Boolean va	false when sync	_flow <x> is true for</x>	Opsasnick, Eugene <i>Comment Type</i> TR	Broa	adcom s X	-	
any sync_flow is false process to set it to tru SuggestedRemedy Create new variable "r sync_flow <x> is false any x.</x>	e. none_synced" A Boolean va for all eight flows and is set to	false when sync	_flow <x> is true for</x>	Opsasnick, Eugene <i>Comment Type</i> TR In figure 177-11, tl	Broa R Comment Statu	adcom s X	-	
any sync_flow is false process to set it to tru- SuggestedRemedy Create new variable "r sync_flow <x> is false any x. In Fig. 177-10 replace to be UCT</x>	e. none_synced" A Boolean va for all eight flows and is set to	false when sync	_flow <x> is true for _INIT to GET_BLOCK</x>	Opsasnick, Eugene <i>Comment Type</i> TR In figure 177-11, tl comment #389.	Broa <i>Comment Statu</i> there is an incomplete ch IIT state, add:	adcom s X	-	

I YPE: I R/technical required ER/editorial required GR/gene	rai required T/technical E/editorial G/general	U 177	Page 49 of 107
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed Z/withdrawn	SC 177.6.3	2025-01-03 11:17:25 A
SORT ORDER: Clause, Subclause, page, line			

CI 177 SC 177.6	.3 P323	L13	# 510	C/ 177	SC 177.10	P 325	L 9	# 147
Opsasnick, Eugene	Broadcom			He, Xiang		Huawei		
Comment Type ER	Comment Status X			Comment 7	уре Т	Comment Status X		
	BAD_FAS state, the extra space ++ should be removed.	e between variat	ble names and		EC enable la oved in the ne	ne x" variables are not defir xt draft.	ned or backed by ar	ny proposal, and should
SuggestedRemedy				Suggested	Remedy			
Replace "bad_fas_	cnt ++" with "bad_fas_cnt++"			Remov	e rows "Inner	FEC enable lane 0" throug	h "Inner FEC enable	e lane 7" in Table 177-
Proposed Response	Response Status O			Proposed F	esponse	Response Status 0		
C/ 177 SC 177.6	.3 P323	L 29	# 297	C/ 177	SC 177.10	P 325	L 29	# 1
Ran, Adee	Cisco			Marris, Arth	ur	Cadence	Design Systems	
Comment Type ER	Comment Status X			Comment 7	ype TR	Comment Status X		
	ere are two states titled "COUNT	_NEXT", with id	lentical operations and	Change	the "enable"	control variables to a single	e "reset" variable	
transition conditions		hauld ha dalata	۲)	Suggested	Remedy			
i assume both are i	required (if not, the bottom one sl		J).		2			
				In Table	e 177–6 renar	ne "Inner FEC enable lane	0" to "Inner FEC rea	set"
,				Make th	ne variable ref	erence be to 177.6.2.1 (wh	ere Inner FEC rese	t is defined)
Rename the states	to COUNT_NEXT_1 and COUN	T_NEXT_2.		Make tł Delete	ne variable ref rows for "Inne	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In	ere Inner FEC rese	t is defined)
Rename the states	to COUNT_NEXT_1 and COUN Response Status 0	T_NEXT_2.		Make th Delete Delete	ne variable ref rows for "Inne editor's note b	erence be to 177.6.2.1 (wh	ere Inner FEC rese ner FEC enable Ian	t is defined) e 7"
Rename the states		T_NEXT_2.		Make th Delete Delete In Table in the re	ne variable ref rows for "Inne editor's note b e 45–177a del ow for "1.2400	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In elow Table 177-6 ete rows "Inner FEC enable .0" change "enable" to "res	ere Inner FEC rese ner FEC enable Ian e Iane 1" to "Inner F set"	t is defined) e 7" EC enable lane 7" and
Rename the states Proposed Response	Response Status O	T_NEXT_2.	# 27	Make th Delete Delete In Table in the re On pag	ne variable ref rows for "Inne editor's note b e 45–177a del ow for "1.2400 e 320 line 53	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In elow Table 177-6 ete rows "Inner FEC enable	ere Inner FEC rese ner FEC enable Ian e Iane 1" to "Inner F set"	t is defined) e 7" EC enable lane 7" and
Rename the states Proposed Response	Response Status O	L17	# 27	Make th Delete Delete In Table in the ro On pag "45.2.1	e variable ref rows for "Inne editor's note b e 45–177a del ow for "1.2400 e 320 line 53 213a"	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In elow Table 177-6 ete rows "Inner FEC enable .0" change "enable" to "res for the reset variable chang	ere Inner FEC rese ner FEC enable Ian e Iane 1" to "Inner F set"	t is defined) e 7" EC enable lane 7" and
Rename the states Proposed Response	Response Status O	L17	# 27	Make th Delete Delete In Table in the re On pag	e variable ref rows for "Inne editor's note b e 45–177a del ow for "1.2400 e 320 line 53 213a"	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In elow Table 177-6 ete rows "Inner FEC enable .0" change "enable" to "res	ere Inner FEC rese ner FEC enable Ian e Iane 1" to "Inner F set"	t is defined) e 7" EC enable lane 7" and
Rename the states Proposed Response Cl 177 SC 177.8 Brown, Matt Comment Type T	Response Status O P 324 Alphawave Se	L 17 emi		Make th Delete Delete In Table in the ro On pag "45.2.1 Proposed F	ne variable ref rows for "Inne editor's note b e 45–177a del ow for "1.2400 e 320 line 53 213a" 'esponse	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In elow Table 177-6 ete rows "Inner FEC enable" .0" change "enable" to "res for the reset variable chang <i>Response Status</i> O	ere Inner FEC rese ner FEC enable lan e lane 1" to "Inner F et" je the cross referen	t is defined) e 7" EC enable lane 7" and ce from "45.2.1.1.1" to
Rename the states Proposed Response Cl 177 SC 177.8 Brown, Matt Comment Type T Skew constraints and defined in 116, 169	Response Status O P 324 Alphawave Se <i>Comment Status</i> X re not defined for the PMAs. How and 174 and thus the numbers.	L 17 emi vever, the skew The PMA skew	at each interface is constraints may be	Make th Delete Delete In Table in the ro On pag "45.2.1	e variable ref rows for "Inne editor's note b e 45–177a del ow for "1.2400 e 320 line 53 213a"	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In elow Table 177-6 ete rows "Inner FEC enable .0" change "enable" to "res for the reset variable chang	ere Inner FEC rese ner FEC enable Ian e Iane 1" to "Inner F set"	t is defined) e 7" EC enable lane 7" and
Rename the states Proposed Response T 177 SC 177.8 Brown, Matt Comment Type T Skew constraints ai defined in 116, 169 derived from these.	Response Status O P 324 Alphawave Se <i>Comment Status</i> X re not defined for the PMAs. How and 174 and thus the numbers. Note however, that the combina	L 17 emi vever, the skew The PMA skew	at each interface is constraints may be	Make th Delete Delete In Table in the ro On pag "45.2.1 Proposed F	e variable ref rows for "Inne editor's note b e 45–177a del ow for "1.2400 e 320 line 53 213a" desponse SC 177.10	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In elow Table 177-6 ete rows "Inner FEC enable" .0" change "enable" to "res for the reset variable chang <i>Response Status</i> O	ere Inner FEC rese ner FEC enable Ian e Iane 1" to "Inner F set" ge the cross referen	t is defined) e 7" EC enable lane 7" and ce from "45.2.1.1.1" to
Rename the states Proposed Response TTT SC 177.8 Brown, Matt Comment Type T Skew constraints and defined in 116, 169 derived from these, above will need to state	Response Status O P 324 Alphawave Se <i>Comment Status</i> X re not defined for the PMAs. How and 174 and thus the numbers.	L 17 emi vever, the skew The PMA skew	at each interface is constraints may be	Make th Delete Delete In Table in the ro On pag "45.2.1 Proposed F	e variable ref rows for "Inne editor's note b e 45–177a del ow for "1.2400 e 320 line 53 213a" Pesponse SC 177.10 t	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In elow Table 177-6 ete rows "Inner FEC enable" .0" change "enable" to "res for the reset variable chang <i>Response Status</i> 0 <i>P</i> 326	ere Inner FEC rese ner FEC enable Ian e Iane 1" to "Inner F set" ge the cross referen	t is defined) e 7" EC enable lane 7" and ce from "45.2.1.1.1" to
Rename the states Proposed Response TTT SC 177.8 Brown, Matt Comment Type T Skew constraints an defined in 116, 169 derived from these. above will need to s StuggestedRemedy	Response Status O P324 Alphawave Se Comment Status X re not defined for the PMAs. How 0, and 174 and thus the numbers. Note however, that the combina share any skew allocation.	L 17 emi vever, the skew The PMA skew	at each interface is constraints may be	Make th Delete In Table in the ro On pag "45.2.1 Proposed F CI 177 Brown, Mat Comment 7	e variable ref rows for "Inne editor's note b e 45–177a del ow for "1.2400 e 320 line 53 213a" esponse SC 177.10 t type T	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In elow Table 177-6 ete rows "Inner FEC enable" .0" change "enable" to "res for the reset variable chang <i>Response Status</i> O <i>P</i> 326 Alphawav	ere Inner FEC rese ner FEC enable Ian e Iane 1" to "Inner F set" ge the cross referen <i>L</i> 9 re Semi	t is defined) e 7" EC enable lane 7" and ce from "45.2.1.1.1" to # <u>17</u>
Rename the states Proposed Response Cl 177 SC 177.8 Brown, Matt Comment Type T Skew constraints at defined in 116, 169 derived from these. above will need to s SuggestedRemedy Expect a contributio	Response Status O P 324 Alphawave Se Comment Status X re not defined for the PMAs. How , and 174 and thus the numbers. Note however, that the combina share any skew allocation.	L 17 emi vever, the skew The PMA skew	at each interface is constraints may be	Make th Delete In Table in the ro On pag "45.2.1 Proposed F CI 177 Brown, Mat Comment 7	e variable ref rows for "Inne editor's note b e 45–177 a del ow for "1.2400 e 320 line 53 213a" esponse SC 177.10 t t ype T e 177-6 the er	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In elow Table 177-6 ete rows "Inner FEC enable .0" change "enable" to "res for the reset variable chang <i>Response Status</i> O <i>P</i> 326 Alphawav <i>Comment Status</i> X	ere Inner FEC rese ner FEC enable Ian e Iane 1" to "Inner F set" ge the cross referen <i>L</i> 9 re Semi	t is defined) e 7" EC enable lane 7" and ce from "45.2.1.1.1" to # <mark>17</mark>
Proposed Response Cl 177 SC 177.8 Brown, Matt Comment Type T Skew constraints ai defined in 116, 169 derived from these. above will need to s SuggestedRemedy	Response Status O P324 Alphawave Se Comment Status X re not defined for the PMAs. How 0, and 174 and thus the numbers. Note however, that the combina share any skew allocation.	L 17 emi vever, the skew The PMA skew	at each interface is constraints may be	Make th Delete In Table in the ro On pag "45.2.1 Proposed F C/ 177 Brown, Mat Comment 7 In Table Suggested	e variable ref rows for "Inne editor's note b e 45–177a del ow for "1.2400 e 320 line 53 213a" Pesponse SC 177.10 t SC 177.10 t t 2 177-6 the er Remedy	erence be to 177.6.2.1 (wh r FEC enable lane 1" to "In elow Table 177-6 ete rows "Inner FEC enable .0" change "enable" to "res for the reset variable chang <i>Response Status</i> O <i>P</i> 326 Alphawav <i>Comment Status</i> X	ere Inner FEC rese ner FEC enable Ian e Iane 1" to "Inner F set" ge the cross referen <i>L</i> 9 re Semi I in this clause nor a	t is defined) e 7" EC enable lane 7" and ce from "45.2.1.1.1" to # <u>17</u> are they necessary.

C/ 177 SC 177.10

% 177 SC 177.10.	P 325	L 9	# 298	C/ 177	SC 17	7.10.	P 325	L 40	# 300
Ran, Adee	Cisco			Ran, Adee	•		Cisco		
Comment Type TR	Comment Status X			Comment	Type 1	٢R	Comment Status X		
editor's note, these va				throug	h 7) but th	ne varia	s is defined here and in clause ble definition in 177.6.2.1 inclue which is not defined per lane.		
There idea of disabling have never been discu	the FEC and the behaviors of seed.	of the encoder a	nd decoder in this state	Suggested	lRemedy				
				Chang	e the map	oping to	be a single bit.		
	a way to power down the FEC ct functions can be used. Ho fied in a standard.			Proposed I	Response)	Response Status O		
SuggestedRemedy				C/ 177	SC 17	7.10.	P 328	L 48	# 301
Delete the "Inner FEC registers in clause 45.	enable" control variables in ta	able 177-6 and t	ne corresponding MDIO	Ran, Adee	•		Cisco		
Proposed Response	Deenenee Statue			Comment	Туре 1	ſR	Comment Status X		
roposed Response	Response Status O			The "a subcla		ables li	sted in Table 177-7 do not app	ear in the va	riable reference
C/ 177 SC 177.10. Ran, Adee	P 325 Cisco	L 39	# 299	Also, fo bit per		bility it i	s sufficient to have one bit for t	he whole inn	er FEC sublayer (not a
Comment Type TR	Comment Status X			Suggested	Remedy				
The status variable na 177.4.1.2. It is defined	me "pmal_locked_demux" is in 176.4.4.2.1.	not mentioned ir	the referenced				ability bits in the corresponding rather than per-lane.	g subclauses	
Also, it is a per-lane va	riable.			Proposed I	Response)	Response Status O		
SuggestedRemedy									
	s-reference to clause 176, or us variables for this function			C/ 178	SC 17	8.7.1	P338	L 42	# 28
Proposed Response	Response Status O			Brown, Ma			Alphawave Sem	ni	
Toposed Nesponse	Response Status 0			Comment [®] The sk		-	Comment Status X n previous generations should l	be fine.	
				Suggested	lRemedv				
				00	the editor	r's note			

C/ 178 SC 178.7.1

C/ 178 SC 178.7.2	P 339	L12	# 29	C/ 178	SC 178.8.9	1	P 340	L 34	# 137
Brown, Matt	Alphawave Se	emi		Slavick, Je	eff	Br	oadcom		
Comment Type T	Comment Status X			Comment	Type TR	Comment Stat	tus X		
Skew constraints for	1.6TBASE-R based on 800GB	ASE-R should b	be fine.	steady	state measurem	nent is also neede	d by ILT		
SuggestedRemedy				Suggested	IRemedy				
Delete the editor's no	ote.			Add "T	he steady state	voltage specifictio	n needed ir	n 178B.11.4 is sp	pecified in 178.9.2.4" t
Proposed Response	Response Status 0				bclause.				
	,			Proposed I	Response	Response State	us O		
C/ 178 SC 178.8.1	P 339	L 39	# 256	CI 470	SC 178.9.3.3		D047	1.24	# 400
Ghiasi, Ali	Ghiasi Qunat	um/Marvell		C/ 178		-	P 347	L 34	# 426
Comment Type TR	Comment Status X			Dudek, Mil			arvell		
Location of AC coupl	ing may also be on chip and st	ating TP0 to TP	5 would not allow that	Comment		Comment Stat			to a maximum peak to
Add note to the figure	e that AC coupling shown betwe	een TP3 and TF	25 but actual	compli		vill overload the R>	k making it i	incapable of redu	ucing the amplitude
implementation may	·			•	h the training pro	otocol.			
	be on chip. Response Status O			Suggested	IRemedy			IC condition in t	blo 170.9 to 0.8 i/
	·			Suggested Either	IRemedy change the value	e of C(0) in the OL			able 179-8 to 0.8 +/- nal subsection called
Proposed Response	Response Status O	L 32	# 126	Suggested Either 0.025 "Recei	Remedy change the value (see separate co iver Overload".	e of C(0) in the OL omment on Chip to Fhat states "The re	o Module) o eciver shall	or add an addition also meet the in	nal subsection called terference tolerance
Proposed Response	Response Status O	L 32		Suggested Either 0.025 "Recei require	Remedy change the value (see separate co iver Overload". T ements of 178.9.3	e of C(0) in the OL omment on Chip to That states "The re 3.3 when the test t	o Module) o eciver shall transmitter l	or add an addition also meet the in has an initial pea	nal subsection called terference tolerance ak to peak output
Proposed Response Cl 178 SC 178.8.9 Slavick, Jeff	Response Status 0	L 32		Suggested Either 0.025 "Recei require amplitu	Remedy change the value (see separate co iver Overload". T ements of 178.9.3 ude of 1.0V and t	e of C(0) in the OL omment on Chip to Fhat states "The re	Module) o eciver shall transmitter l ne output an	or add an addition also meet the in has an initial pea nplitude of the te	terference tolerance ak to peak output
Proposed Response Cl 178 SC 178.8.9 Slavick, Jeff Comment Type TR Listing the coefficient	Response Status O P340 Broadcom	ed by the PMD I	# <u>126</u> here will lay the	Suggested Either 0.025 "Recei require amplitu	Remedy change the value (see separate co iver Overload". T ements of 178.9.3 ude of 1.0V and t ed. Make simila	e of C(0) in the OL omment on Chip to Fhat states "The re 3.3 when the test t the limitation on th	Module) o eciver shall transmitter l ne output an use 179 and	or add an addition also meet the in has an initial pea nplitude of the te	nal subsection called terference tolerance ak to peak output
Proposed Response Cl 178 SC 178.8.9 Slavick, Jeff Comment Type TR Listing the coefficient groundwork for reuse SuggestedRemedy	Response Status O P340 Broadcom Comment Status X is and presets that are supporte of the 178B over interfaces wi	ed by the PMD I th differing supp	# <u>126</u> here will lay the port.	Suggested Either 0.025 "Recei require amplitu remove Proposed	Remedy change the value (see separate co iver Overload". T ements of 178.9.3 ude of 1.0V and t ed. Make simila Response	e of C(0) in the OL omment on Chip to That states "The re 3.3 when the test to the limitation on th ar changes in Clau <i>Response State</i>	Module) o eciver shall transmitter l ne output an use 179 and us O	or add an additio also meet the in has an initial pea nplitude of the te d Annex 176C	nal subsection called terference tolerance ak to peak output est transmitter is
Proposed Response Cl 178 SC 178.8.9 Slavick, Jeff Comment Type TR Listing the coefficient groundwork for reuse SuggestedRemedy Add the following with	Response Status O P340 Broadcom Comment Status X is and presets that are supporte of the 178B over interfaces wi	ed by the PMD I th differing supp paragraph of 17	# <u>126</u> here will lay the bort. 78.8.9	Suggested Either 0.025 "Recei require amplitu remove Proposed I	Remedy change the value (see separate co iver Overload". T ements of 178.9.3 ude of 1.0V and t ed. Make simila Response SC 178.9.3.3	e of C(0) in the OL omment on Chip to That states "The re 3.3 when the test i the limitation on th ar changes in Clau <i>Response State</i>	Module) o eciver shall transmitter l ne output an use 179 and <i>us</i> O P346	br add an addition also meet the in has an initial pea nplitude of the te d Annex 176C	nal subsection called terference tolerance ak to peak output
Proposed Response Cl 178 SC 178.8.9 Slavick, Jeff Comment Type TR Listing the coefficient groundwork for reuse SuggestedRemedy Add the following with "The coefficients and k_list = {-3, -2 -1, 0	Response Status O P340 Broadcom Comment Status X is and presets that are supported of the 178B over interfaces with n editorial license after the first presets supported by the PMD	ed by the PMD I th differing supp paragraph of 17	# <u>126</u> here will lay the bort. 78.8.9	Suggested Either 0.025 "Recei require amplitu remove Proposed I C/ 178 Heck, How	Remedy change the value (see separate co iver Overload". T ements of 178.9.3 ude of 1.0V and t ed. Make simila Response SC 178.9.3.3 vard	e of C(0) in the OL omment on Chip to That states "The re 3.3 when the test i the limitation on th ar changes in Clau <i>Response State</i>	Module) o eciver shall transmitter I ne output an use 179 and <i>us</i> O P346 E Connectivi	br add an addition also meet the in has an initial pea nplitude of the te d Annex 176C	nal subsection called terference tolerance ak to peak output est transmitter is
Proposed Response Cl 178 SC 178.8.9 Slavick, Jeff Comment Type TR Listing the coefficient groundwork for reuse SuggestedRemedy Add the following witt "The coefficients and k_list = {-3, -2 -1, 0 preset 1	Response Status O P340 Broadcom Comment Status X is and presets that are supported of the 178B over interfaces with n editorial license after the first presets supported by the PMD	ed by the PMD I th differing supp paragraph of 17	# <u>126</u> here will lay the bort. 78.8.9	Suggested Either 0.025 "Recei require amplitu remove Proposed I C/ 178 Heck, How Comment	IRemedy change the value (see separate co iver Overload". T ements of 178.9.3 ude of 1.0V and t ed. Make simila Response SC 178.9.3.3 vard Type T	e of C(0) in the OL omment on Chip to That states "The re 3.3 when the test if the limitation on th ar changes in Clau <i>Response State</i> .2 TE <i>Comment State</i>	 Module) o eciver shall transmitter la output an use 179 and use 1	or add an addition also meet the in has an initial pea nplitude of the te d Annex 176C <i>L</i> 25	# 557
Proposed Response Cl 178 SC 178.8.9 Slavick, Jeff Comment Type TR Listing the coefficient groundwork for reuse SuggestedRemedy Add the following with "The coefficients and k_list = {-3, -2 -1, 0	Response Status O P340 Broadcom Comment Status X is and presets that are supported of the 178B over interfaces with n editorial license after the first presets supported by the PMD	ed by the PMD I th differing supp paragraph of 17	# <u>126</u> here will lay the bort. 78.8.9	Suggested Either 0.025 ("Recei require amplitu remove Proposed I C/ 178 Heck, How Comment D1.3 h	IRemedy change the value (see separate co iver Overload". T ements of 178.9.3 ude of 1.0V and t ed. Make simila Response SC 178.9.3.3 vard Type T	e of C(0) in the OL omment on Chip to That states "The re 3.3 when the test i the limitation on th ar changes in Clau <i>Response State</i> .2 TE <i>Comment Stat</i> r ITT noise calibra	 Module) o eciver shall transmitter la output an use 179 and use 1	or add an addition also meet the in has an initial pea nplitude of the te d Annex 176C <i>L</i> 25	nal subsection called terference tolerance ak to peak output est transmitter is
Proposed Response Cl 178 SC 178.8.9 Slavick, Jeff Comment Type TR Listing the coefficient groundwork for reuse SuggestedRemedy Add the following with "The coefficients and k_list = {-3, -2 - 1, 0 preset 1 preset 2 preset 3 preset 4	Response Status O P340 Broadcom Comment Status X is and presets that are supported of the 178B over interfaces with n editorial license after the first presets supported by the PMD	ed by the PMD I th differing supp paragraph of 17	# <u>126</u> here will lay the bort. 78.8.9	Suggested Either 0.025 ("Recei require amplitu remove Proposed I C/ 178 Heck, How Comment D1.3 h	IRemedy change the value (see separate co iver Overload". T ements of 178.9.3 ude of 1.0V and t ed. Make simila Response SC 178.9.3.3 vard Type T nas N_p = 400 for alues used in price	e of C(0) in the OL omment on Chip to That states "The re 3.3 when the test i the limitation on th ar changes in Clau <i>Response State</i> .2 TE <i>Comment Stat</i> r ITT noise calibra	 Module) o eciver shall transmitter la output an use 179 and use 1	or add an addition also meet the in has an initial pea nplitude of the te d Annex 176C <i>L</i> 25	# 557
Proposed Response Cl 178 SC 178.8.9 Slavick, Jeff Comment Type TR Listing the coefficient groundwork for reuse SuggestedRemedy Add the following with "The coefficients and k_list = {-3, -2 -1, 0 preset 1 preset 2 preset 3	Response Status O P340 Broadcom Comment Status X is and presets that are supported of the 178B over interfaces with n editorial license after the first presets supported by the PMD	ed by the PMD I th differing supp paragraph of 17	# <u>126</u> here will lay the bort. 78.8.9	Suggested Either 0.025 "Recei require amplitu remove Proposed I Cl 178 Heck, How Comment D1.3 h with va Suggested Chang	IRemedy change the value (see separate co iver Overload". T ements of 178.9.3 ude of 1.0V and t ed. Make simila Response SC 178.9.3.3 vard Type T has N_p = 400 for alues used in prior IRemedy the N_p from 400 for	e of C(0) in the OL omment on Chip to That states "The re 3.3 when the test i the limitation on th ar changes in Clau <i>Response State</i> .2 TE <i>Comment Stat</i> r ITT noise calibra or standards.	 Module) o eciver shall transmitter lae output an use 179 and use 179 and use Connectivity P346 Connectivity tus X tion. This is with the value 	or add an addition also meet the in has an initial pea nplitude of the te d Annex 176C <i>L</i> 25 ity s inconsistent wit	# 557

Cl	178
SC	178.9.3.3.2

C/ 178 SC 178.9.3.3	B.3 P347	L14	# 447	CI 178 SC 178	.14.4.5	P 361	L 29	# 257
Dudek, Mike	Marvell			Ghiasi, Ali		Ghiasi Qunat	um/Marvell	
Comment Type T	Comment Status X			Comment Type TI	R Commei	nt Status X		
Scrambled idle cannot	be used with the test method	d defined in 174A	6.1	Location of AC co	oupling may also l	be on chip and st	ating TP0 to TP5	would not allow that
SuggestedRemedy				SuggestedRemedy				
	fined in 174A.6.1 or a74A7.1	. Make the sam	e change to C2C on	change TP0 to T	P5 to TP0d to TP	5d		
page 709 line 21				Proposed Response	Respons	e Status O		
Proposed Response	Response Status O							
				C/ 178A SC 178	A	P 757	L 26	# 360
C/ 178 SC 178.10.1	P 350	L 38	# 558	Shakiba, Hossein		Huawei Tech	nologies Canada	l
Heck, Howard	TE Connectiv	rity		Comment Type T	Comme	nt Status X	-	
Comment Type E	Comment Status X			Add quantization	noise.			
	gle-ended receiver terminatio onsistent with those in 179 an		ighlighted in	SuggestedRemedy				
SuggestedRemedy								er to slides 2-4 of the
Remove the orange high	ahliahtina.			supporting docum	nent for the propo	sed sub-section of	content and text.	
Proposed Response	Response Status O			Proposed Response	Response	e Status O		
				CI 178A SC 178	A.1.3	P 748	L15	# 47
CI 178 SC 178.10.6	P 354	L 52	# 255	Mellitz, Richard		Samtec		
Ghiasi, Ali	Ghiasi Qunat	um/Marvell		Comment Type TI	R Commei	nt Status X		
Comment Type TR Location of AC couplin	Comment Status X g may also be on chip and st	ating TP0 to TP	5 would not allow that					n a uniform frequency ncy of at least 67 GHz
SuggestedRemedy				SuggestedRemedy				
change TP0 to TP5 to	TP0d to TP5d			Referencing word	ling in 179B.2.1 a	ind 179B.3.1.		
				Insert line:	filtering, significar	nt nower exists at	nove the stop free	quency or the stop
Proposed Response	Response Status 0				a local resonance	e or anti-resonan		COM and ERL are to

C/ 178A SC 178A.1.3

CI 178A SC 178A.1	I.3 P748	L15	# 535	C/ 178A SC 178A.1	.4.3 P751	L 31	# 388
Dawe, Piers	Nvidia			Noujeim, Leesa	Google		
Comment Type T	Comment Status X			Comment Type TR	Comment Status X		
Unnecessary ambig write methods of im	uity, and 802.3 is not a test s plementation.	pec. We define te	erms by procedures, not		ble 178A-5 is not associate citance at Port 2" is incorre		e, so description "Single
SuggestedRemedy				SuggestedRemedy			
	t frequency no greater than t t frequency of 10 MHz to a s				ed package capacitance at connector interface (port 2		nded capacitance at
Proposed Response	Response Status O			Proposed Response	Response Status 0		
C/ 178A SC 178A.	I.3 P758	L35	# 536	C/ 178A SC 178A.1	.6.4 P754	L 9	# 537
Dawe, Piers	Nvidia			Dawe, Piers	Nvidia		
Comment Type T				0	Comment Status X		
Not clear what "High cursor, or he should	Comment Status X nest allowed tap index" mear count from 1, or from 0, or s which might be the same thi	omething else. Als	so, Fig 178A-9 and	proper receiver front	st pole in the CTLE, always end filter. We need to ma	ke a careful compro	mise between the
Not clear what "High cursor, or he should 178A-10 have N_w "index" SuggestedRemedy	nest allowed tap index" mear count from 1, or from 0, or s which might be the same thin	omething else. Als	so, Fig 178A-9 and	f_p2, the fixed higher proper receiver front- receiver front-end filt in S-parameters, and Butterworth filter.	st pole in the CTLE, always	ke a careful compro er limitations and th	mise between the e maximum frequency
Not clear what "High cursor, or he should 178A-10 have N_w "index" SuggestedRemedy Please align and ex	nest allowed tap index" mear count from 1, or from 0, or s which might be the same thin plain the terminology	omething else. Als	so, Fig 178A-9 and	f_p2, the fixed higher proper receiver front- receiver front-end filt in S-parameters, and Butterworth filter. SuggestedRemedy	st pole in the CTLE, always end filter. We need to mal er, coax connector and oth I f_p2. At least for a BT filt	ke a careful compro er limitations and th er, 5th order works	mise between the le maximum frequency well, but this is a
Not clear what "High cursor, or he should 178A-10 have N_w "index" SuggestedRemedy	nest allowed tap index" mear count from 1, or from 0, or s which might be the same thin	omething else. Als	so, Fig 178A-9 and	f_p2, the fixed higher proper receiver front- receiver front-end filt in S-parameters, and Butterworth filter. SuggestedRemedy	st pole in the CTLE, always end filter. We need to mal er, coax connector and oth	ke a careful compro er limitations and th er, 5th order works	mise between the le maximum frequency well, but this is a
Not clear what "High cursor, or he should 178A-10 have N_w "index" SuggestedRemedy Please align and ex	nest allowed tap index" mean count from 1, or from 0, or s which might be the same thin plain the terminology <i>Response Status</i> O	omething else. Als	so, Fig 178A-9 and	f_p2, the fixed higher proper receiver front- receiver front-end filt in S-parameters, and Butterworth filter. SuggestedRemedy Combine f_p2 and th Proposed Response	st pole in the CTLE, always end filter. We need to mal er, coax connector and oth I f_p2. At least for a BT filt he receiver front-end filter, t <i>Response Status</i> O	ke a careful compro er limitations and th er, 5th order works ake f_p2 out of the	mise between the le maximum frequency well, but this is a COM tables.
Not clear what "High cursor, or he should 178A-10 have N_w "index" SuggestedRemedy Please align and exp Proposed Response	nest allowed tap index" mean count from 1, or from 0, or s which might be the same thin plain the terminology <i>Response Status</i> O	omething else. Als ng. 802.3ck has "D	so, Fig 178A-9 and FE maximum span", not	f_p2, the fixed higher proper receiver front- receiver front-end filt in S-parameters, and Butterworth filter. SuggestedRemedy Combine f_p2 and th	st pole in the CTLE, always end filter. We need to mal er, coax connector and oth I f_p2. At least for a BT filt he receiver front-end filter, t Response Status 0 .7 P754	ke a careful compro er limitations and th er, 5th order works take f_p2 out of the <i>L</i> 32	mise between the the maximum frequency well, but this is a COM tables. # <u>364</u>
Not clear what "High cursor, or he should 178A-10 have N_w "index" SuggestedRemedy Please align and ex Proposed Response	hest allowed tap index" mean count from 1, or from 0, or s which might be the same thin plain the terminology <i>Response Status</i> O 1.4.3 P751	omething else. Als ng. 802.3ck has "D	so, Fig 178A-9 and FE maximum span", not	f_p2, the fixed highes proper receiver front- receiver front-end filt in S-parameters, and Butterworth filter. SuggestedRemedy Combine f_p2 and th Proposed Response C/ 178A SC 178A.1 Shakiba, Hossein	st pole in the CTLE, always end filter. We need to mal er, coax connector and oth I _p2. At least for a BT filt ne receiver front-end filter, to <i>Response Status</i> O .7 P754 Huawei T	ke a careful compro er limitations and th er, 5th order works ake f_p2 out of the	mise between the the maximum frequency well, but this is a COM tables. # <u>364</u>
Not clear what "High cursor, or he should 178A-10 have N_w "index" SuggestedRemedy Please align and exp Proposed Response Cl 178A SC 178A. ⁻ Noujeim, Leesa Comment Type TR Capacitance C0 in t is incorrect; C0 repr	hest allowed tap index" mean count from 1, or from 0, or s which might be the same thin plain the terminology <i>Response Status</i> O 1.4.3 P751 Google <i>Comment Status</i> X able 178A-5, "Single ended p esents part of the partial hos	omething else. Als ng. 802.3ck has "Di <i>L</i> 21 package capacitand c channel, while Cp	so, Fig 178A-9 and FE maximum span", not # [387 ce at port 1" description o (in Table 178A-4) is	f_p2, the fixed highes proper receiver front- receiver front-end filt in S-parameters, and Butterworth filter. SuggestedRemedy Combine f_p2 and th Proposed Response Cl 178A SC 178A.1 Shakiba, Hossein Comment Type T Following first comm	st pole in the CTLE, always end filter. We need to mal er, coax connector and oth I f_p2. At least for a BT filt he receiver front-end filter, t Response Status 0 .7 P754	ke a careful compro er limitations and th er, 5th order works cake f_p2 out of the <i>L</i> 32 Fechnologies Canac	mise between the le maximum frequency well, but this is a COM tables. # <u>364</u>
Not clear what "High cursor, or he should 178A-10 have N_w "index" SuggestedRemedy Please align and ex Proposed Response Cl 178A SC 178A. ⁻ Noujeim, Leesa Comment Type TR Capacitance C0 in t is incorrect; C0 repr "Single ended packa	nest allowed tap index" mean count from 1, or from 0, or s which might be the same thin plain the terminology <i>Response Status</i> O 1.4.3 P751 Google <i>Comment Status</i> X able 178A-5, "Single ended p	omething else. Als ng. 802.3ck has "Di <i>L</i> 21 package capacitand c channel, while Cp	so, Fig 178A-9 and FE maximum span", not # [387 ce at port 1" description o (in Table 178A-4) is	f_p2, the fixed highes proper receiver front- receiver front-end filt in S-parameters, and Butterworth filter. SuggestedRemedy Combine f_p2 and th Proposed Response Cl 178A SC 178A.1 Shakiba, Hossein Comment Type T Following first comm SuggestedRemedy	st pole in the CTLE, always end filter. We need to mal er, coax connector and oth i f_p2. At least for a BT filt he receiver front-end filter, to <i>Response Status</i> O .7 P754 Huawei T <i>Comment Status</i> X ent, "sampler" should be re	ke a careful compro er limitations and th er, 5th order works cake f_p2 out of the <i>L</i> 32 Fechnologies Canac	mise between the e maximum frequency well, but this is a COM tables. # <u>364</u>
Not clear what "High cursor, or he should 178A-10 have N_w "index" SuggestedRemedy Please align and exp Proposed Response Cl 178A SC 178A. ⁻ Noujeim, Leesa Comment Type TR Capacitance C0 in t is incorrect; C0 repr "Single ended packa SuggestedRemedy	hest allowed tap index" mean count from 1, or from 0, or s which might be the same thin plain the terminology <i>Response Status</i> O 1.4.3 P751 Google <i>Comment Status</i> X able 178A-5, "Single ended p esents part of the partial hos age capacitance at the packa	omething else. Als ng. 802.3ck has "Di <i>L</i> 21 package capacitance channel, while Cp ge-to-board interfa	so, Fig 178A-9 and FE maximum span", not # 387 ce at port 1" description o (in Table 178A-4) is ace".	f_p2, the fixed highes proper receiver front- receiver front-end filt in S-parameters, and Butterworth filter. SuggestedRemedy Combine f_p2 and th Proposed Response Cl 178A SC 178A.1 Shakiba, Hossein Comment Type T Following first comm SuggestedRemedy Change "sampler" to	st pole in the CTLE, always end filter. We need to mal er, coax connector and oth i f_p2. At least for a BT filt he receiver front-end filter, to <i>Response Status</i> O .7 P754 Huawei T <i>Comment Status</i> X ent, "sampler" should be re	ke a careful compro er limitations and th er, 5th order works cake f_p2 out of the <i>L</i> 32 Fechnologies Canac	mise between the e maximum frequency well, but this is a COM tables. # <u>364</u>
Not clear what "High cursor, or he should 178A-10 have N_w "index" SuggestedRemedy Please align and ex Proposed Response Cl 178A SC 178A. ⁻ Noujeim, Leesa Comment Type TR Capacitance C0 in t is incorrect; C0 repr "Single ended packa SuggestedRemedy Change "Single end	hest allowed tap index" mean count from 1, or from 0, or s which might be the same thin plain the terminology <i>Response Status</i> O 1.4.3 P751 Google <i>Comment Status</i> X able 178A-5, "Single ended p esents part of the partial hos	omething else. Als ng. 802.3ck has "Di <i>L</i> 21 package capacitance channel, while Cp ge-to-board interfa	so, Fig 178A-9 and FE maximum span", not # 387 ce at port 1" description o (in Table 178A-4) is ace".	f_p2, the fixed highes proper receiver front- receiver front-end filt in S-parameters, and Butterworth filter. SuggestedRemedy Combine f_p2 and th Proposed Response Cl 178A SC 178A.1 Shakiba, Hossein Comment Type T Following first comm SuggestedRemedy	st pole in the CTLE, always end filter. We need to mal er, coax connector and oth i f_p2. At least for a BT filt he receiver front-end filter, to <i>Response Status</i> O .7 P754 Huawei T <i>Comment Status</i> X ent, "sampler" should be re	ke a careful compro er limitations and th er, 5th order works cake f_p2 out of the <i>L</i> 32 Fechnologies Canac	mise between the le maximum frequency well, but this is a COM tables. # <u>364</u>

C/ 178A SC 178A.1.7

C/ 178A SC 178A.1.7 P754 L50 # 361	CI 178A SC 178A.1.7 P755 L19 # 363
Shakiba, Hossein Huawei Technologies Canada	Shakiba, Hossein Huawei Technologies Canada
Comment Type T Comment Status X	Comment Type T Comment Status X
Following first comment, Figure 178A-7 should show addition of the quantization noise after	Following first comment, Equation (178A-14) should include quantization noise PSD.
the sampler.	SuggestedRemedy
SuggestedRemedy Add quantization noise to the figure. Please refer to slide 5 of the supporting document for	Add quantization noise PSD to the equation and its description to the descriptions. Pleas
the proposed change.	refer to slide 7 of the supporting document for the proposed change.
Proposed Response Response Status O	Proposed Response Response Status O
C/ 178A SC 178A.1.7 P755 L2 # 362	C/ 178A SC 178A.1.7.3 P756 L12 # 511
	Li, Mike Intel
Shakiba, Hossein Huawei Technologies Canada	Comment Type TR Comment Status X
Comment Type T Comment Status X Following first comment, Table 178A-9 should include quantization noise parameters.	Including sigma_x^2 in EQ (178A-18) is incorrect. It will make the TX noise modualtion depedent which is wrong.
SuggestedRemedy	SuggestedRemedy
Add two quantization noise parameters to the table. Please refer to slide 6 of the	Remove the sigma_x^2 in EQ (178A-18)
supporting document for the proposed change.	Proposed Response Response Status O
Proposed Response Response Status O	
	C/ 178A SC 178A.1.8.1 P757 L18 # 367
Ø 178A SC 178A.1.7 P755 L 15 # 365	Shakiba, Hossein Huawei Technologies Canada
Shakiba, Hossein Huawei Technologies Canada	Comment Type T Comment Status X
Comment Type T Comment Status X Following first comment, "sampler" should be replaced with "quantizer".	Following first comment, quantization noise should be added before sampler output is applied to the feed-forward filter in Figure 178A-9.
SuggestedRemedy	SuggestedRemedy
Change "sampler" to "quantizer".	Add quantization noise to the figure. Please refer to slide 8 of the supporting document for the proposed change.
Proposed Response Response Status O	Proposed Response Response Status O
	rioposeu nesponse response sialus U

C/ 178A SC 178A.1.8.1

C/ 178A SC 178A.1.8.1 P75	57 L 43	# 366	C/ 178A SC 178A	A.1.9	P 761	L10	# 368
Shakiba, Hossein Huawe	ei Technologies Canada		Shakiba, Hossein		Huawei Tech	nologies Canada	
Comment Type T Comment Status	х		Comment Type T	Comment	Status X		
Following first comment, "sampler" should be	e replaced with "quantize	er".	Following first com	nment, Equation (1	78A-34) should	l include quantiza	ation noise PSD.
SuggestedRemedy			SuggestedRemedy				
Change "sampler" to "quantizer". Proposed Response Response Status	0		Add quantization r document for the p		quation. Please	e refer to slide 9 c	of the supporting
rioposed Response Response Status	0		Proposed Response	Response	Status O		
C/ 178A SC 178A.1.8.1 P75	58 L 33	# 534		10	P 761	L 14	# 371
Dawe, Piers Nvidia	I			4.1.9			
Comment Type E Comment Status	Х		Shakiba, Hossein	0		nologies Canada	
If Nb is the number of feedback taps, Nf is the			Comment Type T	Comment			T h's 's wet see the state
Although OIF use it for something else. 10G has:	BASE-LRM uses EqNT	and EqNb. 802.3ck	the referenced sec				This is not captured in
DFE maximum span including floating taps N	N_f (but it doesn't have r	eceiver FFE taps so	SuggestedRemedy				
the contradiction doesn't apply) and Number of DFE floating tap banks N bg.			,	and possibly equa	tion to the sect	ion to hiahliaht du	ual-Dirac jitter noise
5 1 = 5			amplification by H				
SuggestedRemedy Change Number of (FFE) taps per floating ta	ap group, from Nf to N_f	g	Proposed Response	Response	Status O		
Proposed Response Response Status	0		0/ 4701 00 4704		0704		"
			C/ 178A SC 178A	A.1.10.2	P 761	L51	# 369
C/ 178A SC 178A.1.9 P76	51 L	# 372	Shakiba, Hossein	a		nologies Canada	
Shakiba, Hossein Huawe	ei Technologies Canada		Comment Type T	Comment			ana a aluma fan slavistan
Comment Type T Comment Status Xtalk noise has not been mentioned in this s		because this noise		sity function of the	quantization n		procedure for deriving ion to the probability
will also be amplified by the receiver FFE.			SuggestedRemedy				
SuggestedRemedy			00 ,	d text in slides 10-1	1 of the suppo	rting document b	efore the last sentence
Add sufficient text and possibly equation to the	he section to include xta	lk noise and highlight	of the paragraph.			-	
its amplification by Hrxffe.			Proposed Response	Response	Status O		
Proposed Response Response Status							

C/ 178A SC 178A.1.10.2

C/ 178A SC 178A.1.1	0.2 P762	L11	# 383	C/ 178B SC 178B	P 765	L 22	# 544
Healey, Adam	Broadcom Inc.			Dawe, Piers	Nvidia		
Comment Type T	Comment Status X			Comment Type TR	Comment Status X		
	tes that the content of NOTE			Explain the interacti	on between this annex and Clau	ise 73 AN	
	e amplitude step. This placeho nex 93A and no proposals for			SuggestedRemedy			
	tor's note no longer seems to			Per comment			
SuggestedRemedy Remove the editor's no	te.			Proposed Response	Response Status O		
Proposed Response	Response Status 0			C/ 178B SC 178B.	5 P766	L33	# 355
				Ran, Adee	Cisco		
7 178A SC 178A.1.1	P 762	L 39	# 370	Comment Type E	Comment Status X		
hakiba, Hossein	Huawei Techne	ologies Canada	a		aphs of 178B.5 are not about the	e protocol, but at	oout AUI components
omment Type T	Comment Status X			and PMDs. They seem to belon	g to 178B.4, based on its title.		
	t, quantization noise should be	e added before	sampler output is	SuggestedRemedy			
	ard filter in Figure 178A-10.			Move these paragra	ohs to 178B.4.		
uggestedRemedy				Proposed Response	Response Status O		
Add quantization noise the proposed change.	to the figure. Please refer to s	slide 12 of the s	supporting document for	r roposed nesponse			
Proposed Response	Response Status 0			C/ 178B SC 178B.	5 P 767	L1	# 381
				Healey, Adam	Broadcom Inc	с.	
/ 178B SC 178B	P 765	L19	# 542	Comment Type T	Comment Status X		
Dawe, Piers	Nvidia				ng" bit is in the control field. Also		ence to 178B.8.8 doe
Comment Type TR	Comment Status X			·	nition of the "Continue training" b	oit.	
This annex needs an ir	troductory diagram, and the te	erminology nee	ds cleaning up	SuggestedRemedy			
				Change to "The cor 178B.7.2) if training	tinue training bit in the control finities in the control finite is enabled."	eld of the training	g frames (see
SuggestedRemedy Per comment Proposed Response				Proposed Response	Response Status 0		

C/ 178B SC 178B.5

CI 178B SC 178B.7	P 774	L11	# 515	C/ 178B	SC 178B.11	.2 P780	L 5	# 512
Dawe, Piers	Nvidia			Dawe, Piers		Nvidia		
Comment Type TR	Comment Status X			Comment Ty	vpe TR	Comment Status X		
and the default startu to start a lane at max	preset 1, the loudest, is used up. While it makes sense to mu imum crosstalk, which exceed th may be connected.	easure a large sig	gnal, it is bad practice	crosstall	k, and the volta ay be connect	the loudest. But it is bad p age can exceed the 900 m∖ ed.		
SuggestedRemedy				00		association between 1 and (hofoult:	
Change 1 0 1 from R	eserved to Preset 6;					of preset 1 and OUT_OF_S		0 to 0 0 0 0.75 0.
In 178B.11.2, add lin In 178B.14.3.1, ic_se	es for preset 6;			Proposed R		Response Status O		
Proposed Response	Response Status 0			C/ 178B	SC 178B.11	.4 <i>P</i> 781	L33	# 133
				Slavick, Jeff		Broadcom		
7 178B SC 178B.1	1.2 P779	L38	# 125	Comment Ty		Comment Status X		
Slavick, Jeff	Broadcom	230	π 125	,		oefficients may be different	for various compo	onents
Comment Type TR	Comment Status X			SuggestedR	emedy			
	have check for unsupported re	quests		00		, 0, 1} in the definition of k_l	ist with "is defined	bv the AUI compone
		440010.		or PMD'		, ., ., <u>-</u>		
SuggestedRemedy change the else to be	e "else if CHECK_REQ(ic_req)"		Proposed R	esponse	Response Status O		
add "else ic_sts = up	dated coeff_sts = not supporte	d" before the end	d if	C/ 178B	SC 178B.11	.4 <i>P</i> 781	L37	# 136
add the following afte	er the end if			•••••			L31	# 130
CHECK_REQ(ic_req)			Slavick, Jeff		Broadcom		
• • •	against the list of specified pre quested preset is specified and		•	Comment Ty		Comment Status X	rom 126 for 170	
	quested preset is specified and	riaise otrierwise.				surement technique differs f	10111 136 101 179.	
Implement with edito	rial license			SuggestedR				
Proposed Response	Response Status 0				the "(see `136	o.9.3.1.2)"		
				Proposed R		Response Status O		

C/ 178B SC 178B.11.4

V 178B SC 178B.14.2.1	P 783	L10	# 356	C/ 178B SC 178B.	14.2.1	P 783	L 22	# 543
Ran, Adee	Cisco			Dawe, Piers		Nvidia		
comment Type TR Commen	t Status X			Comment Type TR	Commer	nt Status X		
The NOTE about SIGNAL_OK seer adjacent_remote_rts.		· –		This says "There is because it seems t				
Also, "the other interface of the devi is true).	ice" is not defined	for an endpoint	(when client_is_pcs	SuggestedRemedy As it seems the inte				
Also, I am not sure the concept of " module, where one interface is the NOTE nor the text in 178B.5 addres	PMD and the othe			50GBASE-CR and link_fail_inhibit_tim link_fail_inhibit_tim	er does not appl			
uggestedRemedy				Proposed Response	Response	e Status O		
Define an additional variable adjace								
of the appropriate primitive (as the or client_is_pcs is true.	current note expla	ains) and is unde	fined when	C/ 178B SC 178B.	14.2.1	P 783	L 31	# 382
Redefine adjacent_remote_rts and	adjacent_isl_read	ly based on the i	new variable.	Healey, Adam		Broadcom Ind	.	
					•			
Add whatever is needed to cover the	e optical module (case.		Comment Type T	Commer	nt Status X		
Add whatever is needed to cover th oposed Response Response	e optical module Status O	case.		The "Continue train				
roposed Response Response	Status O		# 124	The "Continue train SuggestedRemedy Change the last set	ing" bit is in the	control field.		
roposed Response Response	Status O	L13	# 124	The "Continue train SuggestedRemedy Change the last ser encoded as the "co	ing" bit is in the ntence of the de ntinue training"	e control field. efinition of local_ribit in the control f		
roposed Response Response / 178B SC 178B.14.2.1 lavick, Jeff	Status O P783 Broadcom		# 124	The "Continue train SuggestedRemedy Change the last set	ing" bit is in the ntence of the de ntinue training"	control field.		
roposed Response Response	Status O P783 Broadcom t Status X	L13		The "Continue train SuggestedRemedy Change the last set encoded as the "co Proposed Response	ing" bit is in the ntence of the de ntinue training" <i>Response</i>	e control field. efinition of local_ribit in the control f	field of transmitte	
roposed Response Response	Status O P783 Broadcom t Status X nd the listed situa	L 13	bical use case but	The "Continue train SuggestedRemedy Change the last ser encoded as the "co	ing" bit is in the ntence of the de ntinue training" <i>Response</i>	e control field. efinition of local_ribit in the control f		
oposed Response Response 178B SC 178B.14.2.1 avick, Jeff omment Type TR Commen "other" interface is a bit ambigous a does not cover all use cases. As a forwarding modes.	Status O P783 Broadcom t Status X nd the listed situa	L 13	bical use case but	The "Continue train SuggestedRemedy Change the last sei encoded as the "co Proposed Response	ing" bit is in the ntence of the de ntinue training" <i>Response</i> 14.3.5	e control field. efinition of local_ri bit in the control f e Status O P 789	field of transmitte	ed training frames."
roposed Response Response 1 178B SC 178B.14.2.1 lavick, Jeff comment Type TR Commen "other" interface is a bit ambigous a does not cover all use cases. As a forwarding modes. uggestedRemedy Rename client_is_pcs to be "uses_	Status O P783 Broadcom t Status X nd the listed situa remote PCS (after local_clock_only"	L 13 ations are the typer a XS) could do and update the	bical use case but b either local or clock definition to be	The "Continue train SuggestedRemedy Change the last ser encoded as the "co Proposed Response Cl 178B SC 178B. Slavick, Jeff	ing" bit is in the ntence of the de ntinue training" <i>Response</i> 14.3.5 <i>Commer</i>	e control field. efinition of local_ribit in the control field e Status O P789 Broadcom nt Status X	field of transmitte	ed training frames." # <mark>141</mark>
roposed Response Response 1 178B SC 178B.14.2.1 lavick, Jeff omment Type TR Commen "other" interface is a bit ambigous a does not cover all use cases. As a forwarding modes. uggestedRemedy Rename client_is_pcs to be "uses_" "Boolean variable that indicates if th	Status O P783 Broadcom t Status X nd the listed situa remote PCS (after local_clock_only" he PMA will never	L 13 ations are the typer a XS) could do and update the swap to a forwa	bical use case but b either local or clock definition to be	The "Continue train SuggestedRemedy Change the last ser encoded as the "co Proposed Response Cl 178B SC 178B. Slavick, Jeff Comment Type TR	ing" bit is in the ntence of the de ntinue training" <i>Response</i> 14.3.5 <i>Commer</i>	e control field. efinition of local_ribit in the control field e Status O P789 Broadcom nt Status X	field of transmitte	ed training frames." # <mark>141</mark>
roposed Response Response 7 178B SC 178B.14.2.1 lavick, Jeff omment Type TR Commen "other" interface is a bit ambigous a does not cover all use cases. As a forwarding modes. uggestedRemedy Rename client_is_pcs to be "uses_" "Boolean variable that indicates if th example this will be true for the first	Status O P783 Broadcom t Status X nd the listed situa remote PCS (after local_clock_only" he PMA will never PMA below the F	L 13 ations are the typer a XS) could do and update the swap to a forwa RS."	bical use case but b either local or clock definition to be Irded clock. For	The "Continue train SuggestedRemedy Change the last sei encoded as the "co Proposed Response Cl 178B SC 178B. Slavick, Jeff Comment Type TR Ambigous transition	ing" bit is in the ntence of the de ntinue training" <i>Response</i> 14.3.5 <i>Commer</i> if timer_done a	e control field. efinition of local_ri bit in the control f <i>e Status</i> O <i>P</i> 789 Broadcom <i>nt Status</i> X and tf_lock both c	field of transmitte	ed training frames." # [<u>141</u> usly
roposed Response Response 178B SC 178B.14.2.1 lavick, Jeff Interface is a bit ambigous a does not cover all use cases. As a forwarding modes. uggestedRemedy Rename client_is_pcs to be "uses_" "Boolean variable that indicates if the example this will be true for the first Replace both uses of client_is_pcs	Status O P783 Broadcom t Status X nd the listed situa remote PCS (after local_clock_only" he PMA will never PMA below the F	L 13 ations are the typer a XS) could do and update the swap to a forwa RS."	bical use case but b either local or clock definition to be Irded clock. For	The "Continue train SuggestedRemedy Change the last ser encoded as the "co Proposed Response Cl 178B SC 178B. Slavick, Jeff Comment Type TR Ambigous transition SuggestedRemedy	ing" bit is in the intence of the de ntinue training" <i>Response</i> 14.3.5 <i>Commer</i> if timer_done a er_done *" to the	e control field. efinition of local_ri bit in the control f <i>e Status</i> O <i>P</i> 789 Broadcom <i>nt Status</i> X and tf_lock both c	field of transmitte	ed training frames." # [<u>141</u> usly

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 178B SC 178B.14.3.5

C/ 178B SC 178B.14.3.5	P 790 L 20	# 142	C/ 178B SC 178B.1		L 6	# 7
Slavick, Jeff B	broadcom		Marris, Arthur	Cadence Des	sign Systems	
Comment Type E Comment Sta	atus X		Comment Type T	Comment Status X		
Fig 178B-9 has text box overlapping line	es		MDIO register bit refe	rences need to be added to Ta	ables 178B-6 an	d 178B-7
SuggestedRemedy			SuggestedRemedy			
tf_offset in GET_NEW_MARKER is cov	vering up lies		Consider a proposal of	on how to do this during the Ja	inuary 2025 802.	3dj task force meeting
Proposed Response Response Sta	tus O		Proposed Response	Response Status 0		
C/ 178B SC 178B.14.3.5	P790 L20	# 143	C/ 178B SC 178B.1	5 P 792	L13	# 170
Slavick, Jeff B	broadcom		Bruckman, Leon	Nvidia		
Comment Type E Comment Sta	atus X		Comment Type TR	Comment Status X		
Fig 178B-9 has an extraneous line			The Management tab	les need to be updated		
SuggestedRemedy			SuggestedRemedy			
extran to th right of the UCT exiting PC	DLARIY_INVERT		Update Tables 178B-	6 and 176B-7 variables and re	ferences. Refer	to lane 0 of the
Proposed Response Response Sta	tus O		upstream interface ar Table 162–7).	nd add a footnote for the other	interfaces/lanes	(similar to Clause 162
			Proposed Response	Response Status O		
C/ 178B SC 178B.14.3.5	P 790 L 27	# 144	Troposed Nesponse			
Slavick, Jeff B	roadcom		C/ 179 SC 179.7.1	P 368	L 41	# 30
Comment Type TR Comment Sta	atus X		Brown, Matt	Alphawave S	emi	
Fig 178B-9 needs to clarify the transition	ns out of TEST_MARKER.		Comment Type T	Comment Status X		
SuggestedRemedy			21	om previous generations shou	ld be fine.	
Change the transition from TEST_MAR	—	· —	SuggestedRemedy	1 0		
!inverse_valid_marker) + (polarity_corre	ection * inverse_valid_marke	r)"	Delete the editor's no	te		
Change the transition from TEST_MAR "!polarity_correction * inverse_marker_v	—	to be	Proposed Response	Response Status O		
Proposed Response Response Sta	tus O					

C/ 179 SC 179.7.1

C/ 179 SC 179.7.2	P 369	L12	# 31	C/ 179 SC	179.9.4	P374	L 6	# 185
Brown, Matt	Alphawave Se	emi		Brown, Matt		Alphawave	Semi	
Comment Type T	Comment Status X			Comment Type	т	Comment Status X		
Skew constraints for 1	.6TBASE-R based on 800GBA	SE-R should b	e fine.	Values for R_	_peak are ⁻	TBD.		
SuggestedRemedy				SuggestedRemed	dy			
Delete the editor's note	е.			Expect a con	ntribution wi	th proposals.		
Proposed Response	Response Status O			Proposed Respo	nse	Response Status O		
C/ 179 SC 179.8.9	P372	L 34	# 138	C/ 179 SC	179.9.4	P374	L 22	# 221
Slavick, Jeff	Broadcom			Rysin, Alexander	r	NVIDIA		
Comment Type TR	Comment Status X			Comment Type	TR	Comment Status X		
steady state measurer	ment is also needed by ILT					ements at TP2 are highly a		
SuggestedRemedy						actual uncorrelated jitter. T		
Add "The steed wetsete	wells an an addiction was also in	4700 44 4 10 00	n a aifi a al in 170 0 1 1 0					
to the subclause.	voltage specifiction needed in Response Status O	178B.11.4 is s	pecified in 179.9.4.1.2"	highly depend does not wor numbers can equipment Pl methodology	dent on the k for practi not be met PG. The is that will be	e transmitted signal amplitu cal channels at 106.25 Gbc t (and sometimes cannot bo sue was demonstrated in n etter quantify phase-only un	de. Accounting of d rate and the cur e measured) ever ysin_3dj_01a_240	nly for the faster edges rently proposed with commercial test 07. A different
to the subclause. Proposed Response		178B.11.4 is s <i>L</i> 43	pecified in 179.9.4.1.2" # 132	highly depend does not word numbers can equipment Pl methodology Presentation	dent on the k for practi not be met PG. The is that will be is planned	e transmitted signal amplitu cal channels at 106.25 Gbc t (and sometimes cannot bo sue was demonstrated in n etter quantify phase-only un	de. Accounting of d rate and the cur e measured) ever ysin_3dj_01a_240	nly for the faster edges rently proposed with commercial test 07. A different
to the subclause. Proposed Response Cl 179 SC 179.8.9	Response Status O			highly depend does not wor numbers can equipment Pl methodology Presentation SuggestedRemed	dent on the k for practi not be met PG. The is that will be is planned dy	e transmitted signal amplitu cal channels at 106.25 Gbc t (and sometimes cannot bo sue was demonstrated in n etter quantify phase-only un	de. Accounting or d rate and the cur e measured) ever vsin_3dj_01a_240 correlated jitter h	nly for the faster edges rently proposed a with commercial test 07. A different as to be explored.
to the subclause. Proposed Response Cl 179 SC 179.8.9 Slavick, Jeff Comment Type TR	Response Status O P 372 Broadcom Comment Status X	L 43	# [<u>132</u>]	highly depend does not word numbers can equipment Pl methodology Presentation SuggestedRemed Other method	dent on the k for practi- not be met PG. The is that will be is planned dy d of uncorre	e transmitted signal amplitu cal channels at 106.25 Gbd (and sometimes cannot be sue was demonstrated in n etter quantify phase-only ur elated jitter measurement s	de. Accounting or d rate and the cur e measured) ever vsin_3dj_01a_240 correlated jitter h	nly for the faster edges rently proposed a with commercial test 07. A different as to be explored.
to the subclause. Proposed Response CI 179 SC 179.8.9 Slavick, Jeff Comment Type TR Listing the coefficients	Response Status O P 372 Broadcom	L 43 d by the PMD h	# [<u>132</u>] here will lay the	highly depend does not wor numbers can equipment Pl methodology Presentation SuggestedRemed	dent on the k for practi- not be met PG. The is that will be is planned dy d of uncorre	e transmitted signal amplitu cal channels at 106.25 Gbd (and sometimes cannot be sue was demonstrated in n etter quantify phase-only ur	de. Accounting or d rate and the cur e measured) ever vsin_3dj_01a_240 correlated jitter h	nly for the faster edges rently proposed a with commercial test 07. A different as to be explored.
to the subclause. Proposed Response Cl 179 SC 179.8.9 Slavick, Jeff Comment Type TR Listing the coefficients groundwork for reuse of SuggestedRemedy	Response Status O P372 Broadcom Comment Status X and presets that are supporte of the 178B over interfaces wit	L 43 d by the PMD h h differing supp	# 1 <u>32</u> here will lay the port.	highly depend does not word numbers can equipment Pl methodology Presentation SuggestedRemed Other method	dent on the k for practi- not be met PG. The is that will be is planned dy d of uncorre	e transmitted signal amplitu cal channels at 106.25 Gbd (and sometimes cannot be sue was demonstrated in n etter quantify phase-only ur elated jitter measurement s	de. Accounting or d rate and the cur e measured) ever vsin_3dj_01a_240 correlated jitter h	nly for the faster edges rently proposed a with commercial test 07. A different as to be explored.
to the subclause. Proposed Response Cl 179 SC 179.8.9 Slavick, Jeff Comment Type TR Listing the coefficients groundwork for reuse of SuggestedRemedy Add the following with	Response Status O P372 Broadcom Comment Status X and presets that are supporte of the 178B over interfaces wit editorial license after the first p presets supported by the PMD	L 43 d by the PMD h h differing supp paragraph of 17	# 1 <u>32</u> here will lay the bort. 79.8.9	highly depend does not word numbers can equipment Pl methodology Presentation SuggestedRemed Other method	dent on the k for practi- not be met PG. The is that will be is planned dy d of uncorre	e transmitted signal amplitu cal channels at 106.25 Gbd (and sometimes cannot be sue was demonstrated in n etter quantify phase-only ur elated jitter measurement s	de. Accounting or d rate and the cur e measured) ever vsin_3dj_01a_240 correlated jitter h	nly for the faster edges rently proposed with commercial test 07. A different as to be explored.

C/ 179 SC 179.9.4

C/ 179 SC 179.9.4.1	P374	L6	# 303	C/ 179	SC 179.9.4.1.	.3 P377	′ L19	# 514
Ran, Adee	Cisco			Dawe, Pier	rs	Nvidia		
comment Type TR	Comment Status X			Comment	Type TR	Comment Status	K	
for R_peak, as has been	ree host classes. e model for each host clas done for SNDR (now dSNI est fixture specifications ar	DR). This would i	remove dependence of	and the to start 100G/I	e default startup. a lane at maxim	num crosstalk, which ex may be connected to a	e to measure a large xceeds the 900 mV li	signal, it is bad practice
change in future drafts).				Suggested	Remedy			
SuggestedRemedy				Chang	e OUT_OF_SYN	IC and preset 1 from 0	0 0 1 0 to 0 0 0 0.75	0, with the usual
Define the minimum R_po will create with the test fix A contribution with more of		tive to what the r	eference transmitter		row for preset 6,	values 0 0 0 1 0, witho 'and OUT_OF_SYNC"		table footnote, change .6.
Proposed Response	Response Status O			Proposed I	Response	Response Status	D	
SC 179.9.4.1.1	P376	L 2	# 513	C/ 179	SC 179.9.4.1.	.3 P377	۲ L 19	# 516
113 00 113.3.4.1.1	F 370	L Z	# 313	0/ 1/3	00 173.3.4.1.	.3 311	L 19	
	Nvidia	L Z	# 513	Dawe, Pier		Nvidia	L 19	
awe, Piers		LZ	# 013	-	rs		-	
awe, Piers omment Type TR At present, the same pres and the default startup. V	Nvidia	for a special mea easure a large sig	asurement condition gnal, it is bad practice	Dawe, Pier <i>Comment</i> This ta 10, Co	rs <i>Type</i> T ble and Table 17	Nvidia Comment Status) 76D-8 say that for OUT state diagram, shows ti	(_OF_SYNC, ic_req i	s N/A yet Figure 178B- SYNC state, ic_req is s
Dawe, Piers <i>comment Type</i> TR At present, the same present, the same present, the same present of the	Nvidia Comment Status X set 1, the loudest, is used f While it makes sense to me	for a special mea easure a large sig s the 900 mV lim	asurement condition gnal, it is bad practice hit for 50G/lane and	Dawe, Pier <i>Comment</i> This ta 10, Co	rs Type T ble and Table 17 efficient update s et 1. This seem	Nvidia Comment Status) 76D-8 say that for OUT state diagram, shows ti	(_OF_SYNC, ic_req i	s N/A yet Figure 178B-
Dawe, Piers Comment Type TR At present, the same present, the same present, the same present, the same present the default startup. We to start a lane at maximum to start a lane at maximum 100G/lane AUIs which may aligned for convenience. SuggestedRemedy	Nvidia Comment Status X set 1, the loudest, is used f While it makes sense to me m crosstalk, which exceeds ay be connected to a 200G	for a special mea easure a large sig s the 900 mV lim S AUI. C2C, C2N	asurement condition gnal, it is bad practice it for 50G/lane and M, CR and KR can stay	Dawe, Pier Comment This ta 10, Co to pres Suggested Here, c "N/A" r	rs Type T ble and Table 17 efficient update s et 1. This seem Remedy one could make t ow, and rely on t	Nvidia Comment Status) 76D-8 say that for OUT state diagram, shows the s inconsistent.	(_OF_SYNC, ic_req i hat in the OUT_OF_s erstand by deleting th	s N/A yet Figure 178B- SYNC state, ic_req is so ne first column and the
At present, the same present, the same present, the same present and the default startup. We to start a lane at maximum 100G/lane AUIs which may aligned for convenience. <i>uggestedRemedy</i> Assuming we like the ass 179.9.4.1.3 as 0 0 0 1 0. In 179.9.4.1.2, 179.9.5.3. Similarly in and 176D.7.1.	Nvidia Comment Status X set 1, the loudest, is used f While it makes sense to me m crosstalk, which exceeds	for a special mea easure a large sig s the 900 mV lim S AUI. C2C, C2M efault, change this .75 0. .12.4, change 1 t	asurement condition gnal, it is bad practice hit for 50G/lane and M, CR and KR can stay is to preset 6, defined in to 6.	Dawe, Pier Comment This ta 10, Co to pres Suggested Here, c	rs Type T ble and Table 17 efficient update s aet 1. This seems Remedy one could make t ow, and rely on t 7.6.	Nvidia Comment Status) 76D-8 say that for OUT state diagram, shows the s inconsistent.	(_OF_SYNC, ic_req hat in the OUT_OF_s erstand by deleting th table. If so, similar to	s N/A yet Figure 178B- SYNC state, ic_req is so ne first column and the
awe, Piers <i>comment Type</i> TR At present, the same prese and the default startup. We to start a lane at maximum 100G/lane AUIs which may aligned for convenience. <i>uggestedRemedy</i> Assuming we like the ass 179.9.4.1.3 as 0 0 0 1 0. In 179.9.4.1.2, 179.9.5.3. Similarly in and 176D.7.1. correct.	Nvidia <i>Comment Status</i> X set 1, the loudest, is used f While it makes sense to me m crosstalk, which exceeds ay be connected to a 200G sociation between 1 and de Preset 1 becomes 0 0 0 0 3, 179.9.5.3.5 and 176D.7. 2.2, but in 176D.7.11, "pre	for a special mea easure a large sig s the 900 mV lim S AUI. C2C, C2M efault, change this .75 0. .12.4, change 1 t	asurement condition gnal, it is bad practice hit for 50G/lane and M, CR and KR can stay is to preset 6, defined in to 6.	Dawe, Pier Comment This ta 10, Co to pres Suggested Here, c "N/A" r 176D.7	rs Type T ble and Table 17 efficient update s aet 1. This seems Remedy one could make t ow, and rely on t 7.6.	Nvidia Comment Status) 76D-8 say that for OUT state diagram, shows the s inconsistent. the table easier to under the table easier to under the text just above the Response Status	(_OF_SYNC, ic_req i hat in the OUT_OF_s erstand by deleting the table. If so, similar to D	s N/A yet Figure 178B- SYNC state, ic_req is so ne first column and the
Dawe, Piers <i>comment Type</i> TR At present, the same present and the default startup. We to start a lane at maximum 100G/lane AUIs which may aligned for convenience. <i>uggestedRemedy</i> Assuming we like the ass 179.9.4.1.3 as 0 0 0 1 0. In 179.9.4.1.2, 179.9.5.3. Similarly in and 176D.7.1. correct.	Nvidia <i>Comment Status</i> X set 1, the loudest, is used to while it makes sense to me m crosstalk, which exceeds ay be connected to a 200G sociation between 1 and de Preset 1 becomes 0 0 0 0 3, 179.9.5.3.5 and 176D.7.	for a special mea easure a large sig s the 900 mV lim S AUI. C2C, C2M efault, change this .75 0. .12.4, change 1 t	asurement condition gnal, it is bad practice hit for 50G/lane and M, CR and KR can stay is to preset 6, defined in to 6.	Dawe, Pier Comment This ta 10, Co to pres Suggested Here, c "N/A" r 176D.7 Proposed F	rs Type T ble and Table 17 efficient update s et 1. This seems Remedy one could make t ow, and rely on t 7.6. Response SC 179.9.4.1 .	Nvidia Comment Status) 76D-8 say that for OUT state diagram, shows the s inconsistent. the table easier to under the table easier to under the text just above the Response Status	COF_SYNC, ic_req i hat in the OUT_OF_s erstand by deleting th table. If so, similar to D	s N/A yet Figure 178B- SYNC state, ic_req is some first column and the ext may be needed in
Dawe, Piers <i>Comment Type</i> TR At present, the same present and the default startup. We to start a lane at maximum 100G/lane AUIs which may aligned for convenience. <i>SuggestedRemedy</i> Assuming we like the ass 179.9.4.1.3 as 0 0 0 1 0. In 179.9.4.1.2, 179.9.5.3. Similarly in and 176D.7.1. correct.	Nvidia <i>Comment Status</i> X set 1, the loudest, is used f While it makes sense to me m crosstalk, which exceeds ay be connected to a 200G sociation between 1 and de Preset 1 becomes 0 0 0 0 3, 179.9.5.3.5 and 176D.7. 2.2, but in 176D.7.11, "pre	for a special mea easure a large sig s the 900 mV lim S AUI. C2C, C2M efault, change this .75 0. .12.4, change 1 t	asurement condition gnal, it is bad practice hit for 50G/lane and M, CR and KR can stay is to preset 6, defined in to 6.	Dawe, Pier Comment This ta 10, Co to pres Suggested Here, c "N/A" r 176D.7 Proposed I	rs <i>Type</i> T ble and Table 17 efficient update s et 1. This seems <i>Remedy</i> one could make t ow, and rely on t 7.6. <i>Response</i> <i>SC</i> 179.9.4.1 . illiam	Nvidia <i>Comment Status</i>) 76D-8 say that for OUT state diagram, shows the s inconsistent. the table easier to under the table easier to under the table easier to under <i>Response Status</i> (.3 P377	COF_SYNC, ic_req i hat in the OUT_OF_s erstand by deleting the table. If so, similar to D	s N/A yet Figure 178B- SYNC state, ic_req is some first column and the ext may be needed in
awe, Piers omment Type TR At present, the same prese and the default startup. We to start a lane at maximum 100G/lane AUIs which may aligned for convenience. uggestedRemedy Assuming we like the ass 179.9.4.1.3 as 0 0 0 1 0. In 179.9.4.1.2, 179.9.5.3. Similarly in and 176D.7.1. correct.	Nvidia <i>Comment Status</i> X set 1, the loudest, is used f While it makes sense to me m crosstalk, which exceeds ay be connected to a 200G sociation between 1 and de Preset 1 becomes 0 0 0 0 3, 179.9.5.3.5 and 176D.7. 2.2, but in 176D.7.11, "pre	for a special mea easure a large sig s the 900 mV lim S AUI. C2C, C2M efault, change this .75 0. .12.4, change 1 t	asurement condition gnal, it is bad practice hit for 50G/lane and M, CR and KR can stay is to preset 6, defined in to 6.	Dawe, Pier Comment This ta 10, Co to pres Suggested Here, c "N/A" r 176D.7 Proposed I C/ 179 Simms, W Comment Table where	rs <i>Type</i> T ble and Table 17 efficient update s et 1. This seems <i>Remedy</i> one could make t ow, and rely on t 7.6. <i>Response</i> <i>SC</i> 179.9.4.1 . illiam <i>Type</i> TR 179-8 - Coefficier	Nvidia <i>Comment Status</i>) 76D-8 say that for OUT state diagram, shows the s inconsistent. the table easier to under the text just above the <i>Response Status</i> (.3 P377 NVIDIA <i>Comment Status</i>) nt initial conditions con I to 0.5. Preset3 uses	COF_SYNC, ic_req i hat in the OUT_OF_s erstand by deleting th table. If so, similar to b L20	s N/A yet Figure 178B- SYNC state, ic_req is so he first column and the ext may be needed in # 457 etween preset 1 and 2
At present, the same present the default startup. We to start a lane at maximum 100G/lane AUIs which may aligned for convenience. <i>uggestedRemedy</i> Assuming we like the ass 179.9.4.1.3 as 0 0 0 1 0. In 179.9.4.1.2, 179.9.5.3. Similarly in and 176D.7.1.	Nvidia <i>Comment Status</i> X set 1, the loudest, is used f While it makes sense to me m crosstalk, which exceeds ay be connected to a 200G sociation between 1 and de Preset 1 becomes 0 0 0 0 3, 179.9.5.3.5 and 176D.7. 2.2, but in 176D.7.11, "pre	for a special mea easure a large sig s the 900 mV lim S AUI. C2C, C2M efault, change this .75 0. .12.4, change 1 t	asurement condition gnal, it is bad practice hit for 50G/lane and M, CR and KR can stay is to preset 6, defined in to 6.	Dawe, Pier Comment This ta 10, Co to pres Suggested Here, c "N/A" r 176D.7 Proposed I C/ 179 Simms, W Comment Table where	rs <i>Type</i> T ble and Table 17 efficient update s et 1. This seems <i>Remedy</i> one could make to ow, and rely on to 7.6. <i>Response</i> <i>SC</i> 179.9.4.1. illiam <i>Type</i> TR 179-8 - Coefficier C(0) goes from 1 sor which may no	Nvidia <i>Comment Status</i>) 76D-8 say that for OUT state diagram, shows the s inconsistent. the table easier to under the text just above the <i>Response Status</i> (.3 P377 NVIDIA <i>Comment Status</i>) nt initial conditions con I to 0.5. Preset3 uses	COF_SYNC, ic_req i hat in the OUT_OF_s erstand by deleting th table. If so, similar to b L20	s N/A yet Figure 178B- SYNC state, ic_req is so he first column and the ext may be needed in # 457 etween preset 1 and 2
Dawe, Piers <i>Comment Type</i> TR At present, the same present and the default startup. We to start a lane at maximum 100G/lane AUIs which may aligned for convenience. <i>SuggestedRemedy</i> Assuming we like the ass 179.9.4.1.3 as 0 0 0 1 0. In 179.9.4.1.2, 179.9.5.3. Similarly in and 176D.7.1. correct.	Nvidia <i>Comment Status</i> X set 1, the loudest, is used f While it makes sense to me m crosstalk, which exceeds ay be connected to a 200G sociation between 1 and de Preset 1 becomes 0 0 0 0 3, 179.9.5.3.5 and 176D.7. 2.2, but in 176D.7.11, "pre	for a special mea easure a large sig s the 900 mV lim S AUI. C2C, C2M efault, change this .75 0. .12.4, change 1 t	asurement condition gnal, it is bad practice hit for 50G/lane and M, CR and KR can stay is to preset 6, defined in to 6.	Dawe, Pier Comment This ta 10, Co to pres Suggested Here, c "N/A" r 176D.7 Proposed f C/ 179 Simms, W Comment Table of where precurs Suggested	rs <i>Type</i> T ble and Table 17 efficient update s set 1. This seems <i>Remedy</i> one could make t ow, and rely on t 7.6. <i>Response</i> <i>SC</i> 179.9.4.1 . illiam <i>Type</i> TR 179-8 - Coefficient C(0) goes from 1 sor which may no <i>Remedy</i>	Nvidia <i>Comment Status</i>) 76D-8 say that for OUT state diagram, shows the s inconsistent. the table easier to under the text just above the <i>Response Status</i> (.3 P377 NVIDIA <i>Comment Status</i>) nt initial conditions con I to 0.5. Preset3 uses	L_{20}	s N/A yet Figure 178B- SYNC state, ic_req is so the first column and the ext may be needed in # 457 etween preset 1 and 2 adds additional

C/ 179 SC 179.9.4.1.3 Page 62 of 107 2025-01-03 11:17:26 A

C/ 179 SC 179.9.4	.5 P378	L 50	# 304	C/ 179	SC 179.9.4.6	P 381	L 21	# 306
Ran, Adee	Cisco			Ran, Adee		Cisco		
Comment Type T	Comment Status X			Comment Typ	e TR	Comment Status X		
illustration.	Iculation of dSNDR may be sor ar calculation of dR_peak and of 163A-1.			As noted	in https://www ing measuren	fer to 120D.3.1.8.1 for the pro ieee802.org/3/dj/public/24_1 nents from different transition:	1/ran_3dj_06a_	2411.pdf, the method
SuggestedRemedy						additive noise (which is alway		
"measured SNDR".	.4.5 similar to Figure 163A–1 b the figure with editorial license. <i>Response Status</i> 0		e SNDR" and	asymmetri jitter) are amplify th	ric, the distribu mirror images	ising/falling transitions. If the itions created by the noise all of each other, and combining additive noise. Especially, the n.	one (in the abse g them as in the	nce of clock phase 120D method would
						rmation from multiple transition		he accuracy of the
C/ 179 SC 179.9.4	.5.3 P 380	L6	# 538	measurer	nent in the pre	esence of additive (vertical) no	DISE.	
Dawe, Piers Comment Type TR	Nvidia Comment Status X				od of combini dependence.	ng the distributions should be	improved to mi	tigate additive noise
	ipe for Reference SNDR is far t	too arcane		SuggestedRe	medy			
SuggestedRemedy		loo aroano.		A contribu	ition with furth	er details is planned.		
,	Reference SNDR values for the	host loss catego	pries and presets	Proposed Res	sponse	Response Status 0		
Proposed Response	Response Status O			C/ 179	SC 179.9.4.6	P 381	L 26	# 541
				Dawe, Piers		Nvidia		
	Daca	L 22	# 305	Comment Typ	e TR	Comment Status X		
C/ 179 SC 179.9.4	.5.3 P 380							the second of the second se
Ran, Adee Comment Type TR	Cisco Comment Status X ned since T_r is not provided.		- <u></u>	bandwidth be beyond	ns, losses and	the "jitter measurement" met amplitudes. This is particula he art. EOJ should be part o	rly obvious for J	3u03; J4u03 seems to
Ran, Adee Comment Type TR H_t(f) is not fully defin	Cisco Comment Status X			bandwidth be beyond	hs, losses and d the state of t spec item.	amplitudes. This is particula	rly obvious for J	3u03; J4u03 seems t
Ran, Adee Comment Type TR H_t(f) is not fully defin	Cisco Comment Status X ned since T_r is not provided.			bandwidth be beyond separate SuggestedRe	hs, losses and d the state of t spec item. <i>medy</i>	amplitudes. This is particula	rly obvious for J f an eye spec lil	3u03; J4u03 seems t te EECQ, not a
Ran, Adee Comment Type TR H_t(f) is not fully defin SuggestedRemedy	Cisco Comment Status X ned since T_r is not provided.		- <u></u>	bandwidth be beyond separate SuggestedRe	hs, losses and d the state of t spec item. <i>medy</i>	amplitudes. This is particula the art. EOJ should be part o	rly obvious for J f an eye spec lil	3u03; J4u03 seems to ke EECQ, not a

C/ 179 SC 179.9.4.6

C/ 179	SC 179.9.5	P384	L10	# 307	C/ 179	SC 179.9.5.3	P 385	L 31	# 308
Ran, Adee		Cisco			Ran, Adee		Cisco		
Comment T	Type TR	Comment Status X			Comment	Туре Т	Comment Status X		
voltage SuggestedF Change TP2)". Change	(v_f) rather than Remedy e the parameter e the value from footnote a.	e definition in 179.9.5.2 is no n peak-to-peak. Therefore, th name from "Amplitude tolera 1 to 0.5. <i>Response Status</i> O	e value 1 Volt is	inadequate.	addres The pa the cor "interna equaliz Deviati item b signal measu	sed". Ittern generator ir responding KR to al loss" is not extra ration as part of the ion from the referring of 179.9.5.3.3, in into the device m	The internal loss of the test in this case is expected to be est, there is no provision for ernally observable and is po he instrument's calibration. ence transmitter model is ac stead of the reference T_r (i odel). This may be emphasi erent list item (similar to iter	an instrument-g just "a complian ssibly compensa ddressed by usir which models th zed by separatir	grade equipment (unlike at transmitter). The ated for by internal ang the measured T_r in the transition time of the ang the transition
were ba this prea the con	Type TR opted values for ased on https://v esentation has an inector allocation	P 385 Google Comment Status X test channel insertion loss fo www.ieee802.org/3/dj/public/2 n error: the "MCB IL = 3.5 dB nof 2.45dB. The current 3.5	24_11/ran_3dj_0 " should be 5.95 dB results in a d	03_2411.pdf. Slide 4 of 5dB so that it includes louble-counting of the	calcula Reorde	ate the measurem ation of the chann er the list with edi the editor's note.			
insuffici	ient to appropria	; the test channel insertion lo tely stress the receiver unde values would be too small.			C/ 179 Ran, Adee	SC 179.11	P 390 Cisco	L 33	# 309
SuggestedF	Remedy				Comment		Comment Status X		
		nsertion losses in Table 179-		(high loss) columns		51	bly class" has been used as	a placeholder fo	or several drafts. No

Increase test channel insertion losses in Table 179-11 Test Case 2 (high loss) columns from (34.55,29.55,24.55)+/-0.5dB to (37,32,27)+/-0.5 dB.

Proposed Response Response Status 0

SuggestedRemedy

Unify the document by changing any other term referring to the cable assembly class with editorial license.

Delete the editor's note.

Proposed Response Response Status 0

comments have been received to use another term. It is suggested to formally adopt this term.

C/ 179 SC 179.11

C/ 179	SC 179.11	P390	L 48	# 258	C/ 179	SC	179.11.1	P3	01	L 28	# 311
Ghiasi, Ali	-	Ghiasi Qunati		π 230	Ran, Adee		173.11.1	Cisco		L 20	
Comment		Comment Status X			Comment		т	Comment Status			
We ha		e low frequency cust off but ke	ept the capacitor	value the same, 100	The re	eferenc	e differenti		ed, but t	here are also co	mmon-mode and mode-
Suggested	IRemedy				Suggested	dReme	dy				
If we g	jo with 33 nF the	e cutoff is 96 kHz for 50 Ohms	and 104 kHz fo	r 46.5 Ohms, I suggest	Add a	specifi	cation for o	common-mode impe	dance o	f 25 Ohm, with e	ditorial license.
0	with min of 33 r on 47 nF.	F otherwise the next value is	36 nF (less com	mon) followed by more	Proposed	Respo	nse	Response Status	0		
Proposed I	Response	Response Status O									
					C/ 179	SC	179.11.7	P 3	93	L 48	# 312
C/ 179	SC 179.11	P 391	L 5	# 310	Ran, Adee	Э		Cisco	1		
Ran, Adee	-	Cisco	-•		Comment	Туре	Е	Comment Status	Х		
Comment	Type TR	Comment Status X						COM is included in T e and referring to it i			n exception for some
		ssembly characteristics summ state the expected reach of ea			Suggested	dReme	dy				
	ation for the rea		acti class, which	is the most useful	Repla	ce "3 d	B" with a re	eference to Table 17	9-13 wit	h editorial licens	ie.
		ID clauses include this informatic to the second seco		s a NOTE in 179.11	Proposed	Respo	nse	Response Status	0		
Comm	ent #100 agains	st D1.2 suggested modifying th	he table to inclue	de this information.	C/ 179	SC	179.11.7.1	1 P3	94	L 27	# 466
		oport for the idea, but the reac	h values in the s	suggested remedy were	Kocsis, Sa	am		Ampl	nenol		
incorre	CL.				Comment	Туре	т	Comment Status	Х		
CA-A:	0.5 m	ssion, the expected reach per	cable assembly	class is:				l model parameters previous specification			COM perofmance. C0 is
CA-B: CA-C:					Suggested	dReme	dy				
CA-D:	-				Set to	0, OR	remove CO	and C1 parameters	;		
Suggested	IRemedy				Proposed	Respo	nse	Response Status	0		
https://	/www.ieee802.o	es shown on slide 37 of rg/3/dj/public/24_11/ran_3dj_(ected Reach" row are as listed									
		9.11 to a NOTE (informative) i tor's note in 179.11.	n Table 179-13.								
Droposed	Doononoo	Deenenaa Statua									

Proposed Response Response Status **O**

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 179 SC 179.11.7.1

	7.1 P39	95 L2	27	# 391	C/ 179	SC	179.11.7.1	P 395	L 33	# 393
Noujeim, Leesa	Goog	le			Noujeim,	Leesa		Google		
Comment Type TR	Comment Status	х			Comment	Туре	TR (Comment Status X		
is incorrect; C0 repres package capacitance SuggestedRemedy	ble 179-16 "Single end sents part of the partial at the package-to-boa d package capacitance ard interface (port 1)" <i>Response Status</i>	I host channel, w Ird interface". e at port 1" to "Si	vhile Cp is "Śi	ngle ended	Cable gener coax o measu Howe lumpe remov partial	Àssem ations, t connecto urement ver, in th ed eleme ve the re l host ch	bly Test Fixtu been used to o or and the CA calibration pl ne 200Gbps/la ent compensa iflections due nannel model	ents a shunt capacitance res (cl 179B.3). This cap compensate fthe discont TF printed circuit board ane generation the coax tion is ineffective. A dif to the 50 ohm RF conne transmission line (chara (typ 92.5 ohm board im	bacitance C1 ma inuity on the CAT transmission line ax connector ma connector is mul ferent method sh actor and launch to cteristic impedan	y have, in prior F between the RF . Note that the ting interface. tiple UI long and so a ould be developed to that sits between the ce 92.5 ohms.) and
C/ 179 SC 179.11.	7.1 <i>P</i> 39	95 L3	33	# 392			nd the MDI co	nnector).		
Noujeim, Leesa	Goog	le			Suggester		-		and the second of the T	
Comment Type TR	Comment Status	х					nd time-gate t asurements.	he RF coax connector/la	iunch out of the I	P1-TP4 cable
	ole 179-16 is not assoc citance at Port 2" is inc		ackage, so de	escription "Single	Proposed	Respon	nse R	esponse Status O		
SuggestedRemedy										
	d package capacitance t_connector interface (ingle ended b	oard capacitance	<i>Cl</i> 179 Simms, W		179.11.7.1	P 396 NVIDIA	L 44	# 456
Proposed Response	Response Status	0			Comment		т	Comment Status X		
					Table	179-18 s the pre	- COM param	neter values uses a value as 0.50 (-0.025) from tab		
					Suggestee	dRemea	ly			
					Make	COM ta	ble entry 0.47	75 (0.5-0.025)		
					Proposed	Respon	ise R	esponse Status O		
					C/ 179	SC	179.11.7.1	P 397	L 38	# 533
					Dawe, Pie	ers		Nvidia		
					Comment	Туре	Е (Comment Status X		
					Put C	OM para	ameters in the	e COM parameter table		
					Suggestee	dRemea	ly			
					Add a	referen	ce receiver m	ethod row for COM para o the DER_0 row	meter table, valu	e FFE-DFE or FFE-

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn SC 179.11.7.1 2025-01-03 11:17:26 A SORT ORDER: Clause, Subclause, page, line

C 179 SC 179.1	1722	P398	L 32	# 313	C/ 179	SC 179.14	P400	L10	# 90
an, Adee		Cisco	-02	" 010	Opsasnick		Broadcor	-	" 00
omment Type E	Comment				Comment		Comment Status X		
Some of the param 179.11.7.2.1).	eters are given in	Table 179-17 (as in the case of	the signal path in	In Tab	le 179-20, the va	ariable PMD_reset has a that subclause does not		
uggestedRemedy					Suggested	Remedy			
Change "using the and Table 179-17."		ole 179–16" to '	'using the param	eters in Table 179–16	variabl	e similar to 180.	clause to CL 179 (perhap 5.6, 181.5.6, 182.5.6, 18		
roposed Response	Response S	Status O					and subclause text: eset is asserted, the PME	D shall be reset as de	efined in 45.2.1.1.1.".
/ 179 SC 179.1	1.7.2.2	P 398	L34	# 314	And ch Clause		reference in Table 179-2	0 from 178B.14.2.1 t	to this new subclause
an, Adee <i>omment Type</i> TR The calculation of t "The parameter z_p	o^(h) for the transr	ludes:	rom the aggress	or path column"		ext as above.	ould also be added as 17 Response Status 0	78.8.10 titled "PMD re	eset function" withthe
But there is no such Similarly for the FE Comparing to 162.2 each one but the va	XT (line 46). 11.7.1.1 and 162.1			pecified separately in	<i>Cl</i> 179A Ghiasi, Ali	SC 179A.4	Р 799 Ghiasi Q	L12 unatum/Marvell	# 267
uggestedRemedy		, , , , , , , , , , , , , , , , , , ,			Comment Host c	•••	Comment Status X actually package+Host P	СВ	
The reference to th The text in 179.11.7 S is the measured Impalement with ec	7.2.2 can refer to t NEXT/FEXT inste	the similar text	in 179.11.7.2.1, v	vith an exception that	Suggested Sugge is inclo	st to call it Host	package + host PCB, as	the channel may imp	play the connector los
Proposed Response	Response S	Status O			Proposed I	Response	Response Status O		
7 179 SC 179.1	2	P 399	L 21	# 315					
Ran, Adee		Cisco							
<i>Comment Type</i> ER The PMD is specific and is irrelevant he	ed in 179.8 and 17		ontains managen	nent variable mapping					
SuggestedRemedy Change the referen	nce per the comme	ent.							
Proposed Response	Response S								
	,	-							

C/ 179A SC 179A.4

C/ 179A SC 179A.4	P 799	L16	# 000	C/ 179A SC 179A.5	P 801	L 47	# 500
			# 266			L47	# 532
Ghiasi, Ali	Ghiasi Qunatu	m/Marvell		Dawe, Piers	Nvidia		
Comment Type TR	Comment Status X			Comment Type TR	Comment Status X		
Recommended chann	el IL in table 179A-1 don't add	up		17.5			
SuggestedRemedy				SuggestedRemedy			
	art of channel, with loss of 2.45	dB connector a	and 3.8 dB HCB sums	17.75, twice			
Host-Low=12.75-6.25 Host-Med=17.75-6.25 Host-Med=22.75-6.25	=11.5 dB			Proposed Response	Response Status O		
Proposed Response	Response Status O			C/ 179A SC 179A.5	P 802	L12	# 560
				Heck, Howard	TE Connectiv	ity	
C/ 179A SC 179A.4	P800	L 22	# 268	Comment Type T	Comment Status X		
SuggestedRemedy	Ghiasi Qunatu Comment Status X dB is the target loss and not m m the 179A-3 title and add targ	in loss	loss	budget values at 53. SuggestedRemedy	n in Figure 179A-3 to "Channel I	·	
Proposed Response	Response Status O			Proposed Response	Response Status O		
C/ 179A SC 179A.5	P 799	L16	# 458	C/ 179A SC 179A.5	P 802	L13	# 531
Kocsis, Sam	Amphenol			Dawe, Piers	Nvidia		
Comment Type T ILddCA,min is greater	Comment Status X than ILddCH,min			Comment Type TR 13 dB = (16+4.45-	Comment Status X +4.45)-(2*9.75)		
SuggestedRemedy				SuggestedRemedy			
suggesteurreineuy		hat testing the l	I ddCH min condition is	13 dB = (16+8.25-	+8.25)-(2*9.75)		
,	o provide context and explain the	lat tooting the i					
,	o provide context and explain the	hat testing the i		Proposed Response	Response Status O		

C/ 179A SC 179A.5

C/ 179B SC 179B.(n	new) <i>P</i> 811	L 54	# 455	C/ 179B S	C 179B.2.1	P 803	L39	# 357
Sekel, Steve	Wilder Techn	ologies		Ran, Adee		Cisco		L
Comment Type T	Comment Status X	-		Comment Type	TR	Comment Status X		
differential (50 ohm s which does not exist (in time delay) of this	e is 92.5 ohm differential, with ingle ended). This introduces in application environment. La discontinunity will change som the test fixtures should be specif	a discontunity in b measurements ne compliance m	the test environment s suggest the location leasurement results.	Assuming t reference, I	hat the conti Equation 179	loss for TP2/TP3 test fixture ributed S-parameters in seke 9B-1 should be a polynomial puld be generated according	el_3dj_02_2407 in sqrt(f) fitted to	
SuggestedRemedy						nt of 179B.2.1 (TP2 or TP3 to let at 53.125 GHz.	est fixture inserti	on loss) can be
	ented with proposed location of			SuggestedRem	•			
Proposed Response	ixtures will be presented in con Response Status O	inibulon duning o	02.3 Interim meeting	00		er details is planned.		
r roposed Nesponse	Response Status 0			Proposed Resp	oonse	Response Status O		
C/ 179B SC 179B.1	P803	L 23	# 527					
Dawe, Piers	Nvidia				C 179B.2.1	P 803	L 39	# 453
Comment Type TR	Comment Status X			Sekel, Steve		Wilder Techn	ologies	
address the other spe	opted a reference impedance o ecs. All these parameters are o we can use whatever impeda	measured with a	VNA which does the	Comment Type ILdd is liste		Comment Status X		
SuggestedRemedy	we can use whatever impeda		с.	SuggestedRem	ledy			
55 ,	erence impedances for all spec	items in this anr	nex.			quations will be presented w terim meeting.	ith measuremen	t data in contribution
Proposed Response	Response Status O			Proposed Resp	oonse	Response Status O		
C/ 179B SC 179B.2.	.1 P803	L 39	# 210	C/ 179B S	C 179B.2.1	P 804	L1	# 379
Brown, Matt	Alphawave S	emi		D'Ambrosia, Jo	hn	Futurewei, U.	S. Subsidiary of	Huawei
Comment Type T Value for ILdd_rfref is	Comment Status X s TBD.			Comment Type There does		Comment Status X	? is this an edito	rial issue?
SuggestedRemedy				SuggestedRem	ledy			
Suggesteakemeay				Add figure	to 179B-1			
Expect a contribution	with proposals.			•				

C/ 179B SC 179B.2.1

C/ 179B SC 179B.3.1	P 804	L 44	# 358	C/ 179B SC 179B.4	P 805	L14	# 48
Ran, Adee	Cisco			Mellitz, Richard	Samtec		
Comment Type TR	Comment Status X			Comment Type TR	Comment Status X		
	loss for the Cable assembly			instrument quality fideli	.4.6 may be necessary, they ty required to make repeatal		
	buted S-parameters in seke B-2 should be a polynomial			measurements.			
loss.				SuggestedRemedy Add a section.			
Alternatively, the conten replaced by the IL budge	t of 179B.3.1 (cable asseml et at 53.125 GHz.	oly test fixture ins	sertion loss) can be		or greater than the specified		
SuggestedRemedy				model parameters per l	neters) with a new table like Host class)	Table 179–17 (P	artial host channel
A contribution with furthe	er details is planned.			Test case:1, 2,3	,		
Proposed Response	Response Status O			Tx Package class:B,B, Rx Package class:A,A,I MLSE: 0.0.1	В 3		
C/ 179B SC 179B.3.1	P804	L 44	# 211		s/taps_span(UI):6/14-2/4-50 on line 1 length,zp1: 45, 45,		5-2/4-80
			# 211		on line 1 length, zp1: 43, 45, 45, 50, 50, 50, 50, 50, 50, 50, 50, 50, 5		
Brown, Matt	Alphawave S	emi		Partial Tx host PCB tran	nsmission line length, Zp: 0,2	220,109	
Comment Type T	Comment Status X				nsmission line length, Zp: 0,	0,109	
Value for ILdd_catfref is	TBD.			tx C0: 0,1.0e-5,1.0e-5 Rx C0: 0,0,1.0e-5			
SuggestedRemedy				Tx C1: 0,2.9e-5,2.9e-5			
Expect a contribution with	th proposals.			Rx C1:0,0,2.9e-5			
Proposed Response	Response Status O			DER0: 2.0e-5, 2.0e-5,1	.0e-4		
				COM min: 5.3, 4.6, 4 Die-to-die losses for ca	ses 1,2, and 3 are about 20,	32 and 40 dB r	espectively
					ission defined in Table 176		
C/ 179B SC 179B.3.1	P 804	L 49	# 528	parameters)		- (
Dawe, Piers	Nvidia			See presentation.			
Comment Type TR	Comment Status X			Proposed Response	Response Status O		
In line with how host los	s for products is treated						
SuggestedRemedy				C/ 179B SC 179B.4.1	P 805	L 21	# 213
	PCB reference insertion loss			Brown, Matt	Alphawave S	emi	
	Iment (coax) connector to the MCB reference loss + HCB			Comment Type T	Comment Status X		
loss, and things are a lit				Values for ILdd_MTFm	ax and ILdd_MTFmin are TE	BD.	
Proposed Response	Response Status O			SuggestedRemedy			
. ,				Expect a contribution w	ith proposals.		
				Proposed Response	Response Status O		
				FILIDUSED RESOUNSE	RESOLUSE STATUS D		

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/generalC/179BPage 70 of 107COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawnSC 179B.4.12025-01-03 11:17:26 ASORT ORDER: Clause, Subclause, page, lineSC 179B.4.1SC 179B.4.12025-01-03 11:17:26 A

C/ 179B SC 179B.4.1		L 48	# 459	C/ 179B SC 179B.4.2	P807	L 4	# 214
Kocsis, Sam	Amphenol			Brown, Matt	Alphawave S	emi	
Comment Type T The value for the FOM	Comment Status X 1_ILD is TBD			Comment Type T Com Reference to "Table TBD".	ment Status X		
SuggestedRemedy				SuggestedRemedy			
Replace TBD with value	ue as proposed in kocsis_3dj_	01_2501		Provide reference to intended ta	able.		
Proposed Response	Response Status O			Proposed Response Respo	onse Status O		
C/ 179B SC 179B.4.1	I P805	L 48	# 212	C/ 179B SC 179B.4.2	P 807	L 4	# 460
Brown, Matt	Alphawave Se	emi		Kocsis, Sam	Amphenol		
Comment Type T	Comment Status X			Comment Type T Com	ment Status X		
Value for maximum F	OM_ILD is TBD.			The table reference for unspeci	fiied MTF ERL parar	meters is TBD.	
SuggestedRemedy				SuggestedRemedy			
Expect a contribution	with proposals.			Replace TBD with "Table 179-1	8"		
Proposed Response	Response Status O			Proposed Response Respo	onse Status O		
C/ 179B SC 179B.4.1	I P806	L1	# 380	C/ 179B SC 179B.4.2	P 807	L7	# 530
D'Ambrosia, John	Futurewei, U.	S. Subsidiary of	Huawei	Dawe, Piers	Nvidia		
Comment Type ER	Comment Status X			Comment Type TR Com	ment Status X		
There doesn't appear SuggestedRemedy	to be a figure - was it deleted?	' is this an edito	rial issue?	The round trip loss to the MCB so an ERL of 10.3 dB is very w		from one side, a	nd more from the othe
add figure to 179B-2				SuggestedRemedy			
Proposed Response	Response Status O			Now that we have a suitable rel	ference differential in	npedance, choos	se a suitable ERL limit
				Proposed Response Respo	onse Status O		
C/ 179B SC 179B.4.2		L 4	# 49	l			
Mellitz, Richard	Samtec						
Comment Type TR	Comment Status X						
table is TBD							
table is TBD SuggestedRemedy Replace Table TBD w	ith Table 93A–4						

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 179B SC 179B.4.2 Page 71 of 107 2025-01-03 11:17:26 A

C/ 179B SC 179B.4.2	P807	L10	# 463	C/ 179B SC 179B.4.	6 P810	L 29	# 525
Kocsis, Sam	Amphenol			Dawe, Piers	Nvidia		
Comment Type T	Comment Status X			Comment Type T	Comment Status X		
The value for Z_t, the s reference is not listed	singled-ended source terminat	tion resistiance f	for TDR and ERL	Some parameters are SuggestedRemedy	in the paragraphs, others are	e in the tables.	
SuggestedRemedy				00 y	fMin fMax fStep (max) to the	table(s)	
Add Z_t to Table179B- impendance of 92.5oh	1, with a proposed value of 46 m	6.25ohm, to aligi	n with ERL reference	Proposed Response	Response Status O		
Proposed Response	Response Status O						
				C/ 179B SC 179B.4.0	6 <i>P</i> 810	L 30	# 526
C/ 179B SC 179B.4.3	P807	L 47	# 529	Dawe, Piers	Nvidia		
Dawe, Piers	Nvidia			Comment Type T	Comment Status X		
Comment Type TR	Comment Status X			Don't put unnecessary	y ambiguity in a definition.		
The maximum frequen we are committed to the	cies in this annex are a mix of le expense and they can all be specified more stringently that	e 67. Test fixtur	es, like other test	0	equency spacing of 10 MHz" t	o " frequency spa	acing of 10 MHz"
The maximum frequen we are committed to th equipment, should be important relative to low differential-mode spece	cies in this annex are a mix of le expense and they can all be specified more stringently than w frequencies for mixed-mode	e 67. Test fixtur n product. High	es, like other test frequencies are as		equency spacing of 10 MHz" t Response Status 0	o " frequency spa	acing of 10 MHz"
The maximum frequen we are committed to th equipment, should be important relative to low differential-mode spect SuggestedRemedy	cies in this annex are a mix of le expense and they can all be specified more stringently than w frequencies for mixed-mode s.	e 67. Test fixtur n product. High and common-n	res, like other test frequencies are as mode specs as for	Change "maximum fre	Response Status O	o " frequency spa <i>L</i> 36	acing of 10 MHz" # <u>524</u>
The maximum frequen we are committed to th equipment, should be important relative to low differential-mode spece SuggestedRemedy Change the 60 GHz to	cies in this annex are a mix of the expense and they can all be specified more stringently than w frequencies for mixed-mode s. 67 GHz, 3 places. Adjust the	e 67. Test fixtur n product. High and common-n	res, like other test frequencies are as mode specs as for	Change "maximum fre Proposed Response	Response Status O		
The maximum frequen we are committed to the equipment, should be s important relative to low differential-mode spect SuggestedRemedy Change the 60 GHz to	cies in this annex are a mix of le expense and they can all be specified more stringently than w frequencies for mixed-mode s.	e 67. Test fixtur n product. High and common-n	res, like other test frequencies are as mode specs as for	Change "maximum fre Proposed Response Cl 179B SC 179B.4.	Response Status O 6 P810		
The maximum frequen we are committed to the equipment, should be s important relative to low differential-mode spece SuggestedRemedy Change the 60 GHz to Proposed Response	 cies in this annex are a mix of the expense and they can all be specified more stringently than w frequencies for mixed-mode s. 67 GHz, 3 places. Adjust the Response Status O 	e 67. Test fixtur n product. High and common-n graphs accordi	res, like other test frequencies are as node specs as for ingly.	Change "maximum fre Proposed Response Cl 179B SC 179B.4.0 Dawe, Piers Comment Type E I don't know why the w	<i>Response Status</i> O 6 P810 Nvidia	L 36	# <u>524</u> se in the FEXT, NEXT
The maximum frequen we are committed to the equipment, should be s important relative to low differential-mode spect SuggestedRemedy Change the 60 GHz to Proposed Response	cies in this annex are a mix of specified more stringently than w frequencies for mixed-mode s. 67 GHz, 3 places. Adjust the <i>Response Status</i> O <i>P</i> 809	e 67. Test fixtur n product. High and common-n	res, like other test frequencies are as mode specs as for	Change "maximum fre Proposed Response Cl 179B SC 179B.4.0 Dawe, Piers Comment Type E I don't know why the w	Response Status O 6 P810 Nvidia Comment Status X ralues in the NEXT table shou	L 36	# <u>524</u> se in the FEXT, NEXT
The maximum frequen we are committed to the equipment, should be s important relative to low differential-mode specs SuggestedRemedy Change the 60 GHz to Proposed Response CI 179B SC 179B.4.4 Kocsis, Sam Comment Type T	cies in this annex are a mix of the expense and they can all be specified more stringently than w frequencies for mixed-mode s. 67 GHz, 3 places. Adjust the <i>Response Status</i> O <i>P</i> 809 Amphenol <i>Comment Status</i> X	e 67. Test fixtur n product. High and common-n g graphs accordi	tes, like other test frequencies are as mode specs as for ingly. # 464	Change "maximum fre Proposed Response Cl 179B SC 179B.4.0 Dawe, Piers Comment Type E I don't know why the v and IXT table. Also, T SuggestedRemedy	Response Status O 6 P810 Nvidia Comment Status X ralues in the NEXT table shou	L 36 Id differ from tho ry, isn't really a ta	# <u>524</u> se in the FEXT, NEXT able.
The maximum frequen we are committed to the equipment, should be s important relative to low differential-mode specs SuggestedRemedy Change the 60 GHz to Proposed Response CI 179B SC 179B.4.4 Kocsis, Sam Comment Type T	cies in this annex are a mix of le expense and they can all be specified more stringently than w frequencies for mixed-mode s. 67 GHz, 3 places. Adjust the <i>Response Status</i> O <i>P</i> 809 Amphenol	e 67. Test fixtur n product. High and common-n g graphs accordi	tes, like other test frequencies are as mode specs as for ingly. # 464	Change "maximum fre Proposed Response Cl 179B SC 179B.4.0 Dawe, Piers Comment Type E I don't know why the v and IXT table. Also, T SuggestedRemedy Combine Table 179B-	Response Status O 6 P810 Nvidia Comment Status X values in the NEXT table shou Fable 179B, with only one entry	L 36 Id differ from tho ry, isn't really a ta	# <u>524</u> se in the FEXT, NEXT able.
The maximum frequen we are committed to the equipment, should be s important relative to low differential-mode spect SuggestedRemedy Change the 60 GHz to Proposed Response CI 179B SC 179B.4.4 Kocsis, Sam Comment Type T	cies in this annex are a mix of specified more stringently than w frequencies for mixed-mode s. 67 GHz, 3 places. Adjust the <i>Response Status</i> O <i>P</i> 809 Amphenol <i>Comment Status</i> X s incorrect (for the range 12.85	e 67. Test fixtur n product. High and common-n g graphs accordi	tes, like other test frequencies are as mode specs as for ingly. # 464	Change "maximum fre Proposed Response Cl 179B SC 179B.4.0 Dawe, Piers Comment Type E I don't know why the v and IXT table. Also, T SuggestedRemedy Combine Table 179B- 179B-3 and 179B-5.	Response Status O 6 P810 Nvidia Comment Status X values in the NEXT table shou Table 179B, with only one entri -2 and 179B-4, using an additi	L 36 Id differ from tho ry, isn't really a ta	# <u>524</u> se in the FEXT, NEXT able.

C/ 179B SC 179B.4.6

C/ 179B SC 179B.4.6							
J 179D 30 179B.4.0	P 810	L 44	# 53	C/ 179B SC 179B.4.	6 P810	L 45	# 465
lellitz, Richard	Samtec			Kocsis, Sam	Amphenol		
Comment Type TR	Comment Status X			Comment Type T	Comment Status X		
A_nt is not aligned with	reference transmitter			Value for rise/fall time	e in Table 179B-2 is inconsister	nt with Table 17	′9B-4.
SuggestedRemedy				SuggestedRemedy			
Replace 400 mV with 4	81 mV (table 179B-2)			Update Tnt to 4.25ps			
Proposed Response	Response Status O			Proposed Response	Response Status O		
C/ 179B SC 179B.4.6	P810	L 44	# 523	C/ 179B SC 179B.4.	6 <i>P</i> 811	L 8	# 216
Dawe, Piers	Nvidia			Brown, Matt	Alphawave Se	emi	
Comment Type T	Comment Status X			Comment Type E	Comment Status X		
across clauses would b	ny value we like for A_nt and e desirable, people may exp			It is out of convention Similar issue in Table	to specify a value "Less than x 179B-5.	xx".	
silicon.				a i i b i			
				SuggestedRemedy			
SuggestedRemedy	N/- 500 N/			Change "Integrated n	ear-end crosstalk noise voltage	e" to "Integrated	d near-end crosstalk
Change them from 600				Change "Integrated n noise voltage (max)"	Ū.	e" to "Integrated	d near-end crosstalk
Change them from 600	mV to 500 mV <i>Response Status</i> O			Change "Integrated n	BD" to "TBD"	e" to "Integrated	d near-end crosstalk
Change them from 600				Change "Integrated n noise voltage (max)" Change "Less than T	BD" to "TBD"	" to "Integrated	d near-end crosstalk
Change them from 600 Proposed Response		L 45	# 52	Change "Integrated n noise voltage (max)" Change "Less than T Make similar updates	BD" to "TBD" in Table 179B-5.	e" to "Integrated	d near-end crosstalk
Change them from 600 Proposed Response Cl 179B SC 179B.4.6	Response Status O	L 45	# 52	Change "Integrated n noise voltage (max)" Change "Less than T Make similar updates Proposed Response	BD" to "TBD" in Table 179B-5. <i>Response Status</i> O		
Change them from 600 Proposed Response Cl 179B SC 179B.4.6 Mellitz, Richard	Response Status 0 P810	L 45	# 52	Change "Integrated n noise voltage (max)" Change "Less than T Make similar updates Proposed Response	BD" to "TBD" in Table 179B-5. <i>Response Status</i> O 6 P811	L8	d near-end crosstalk # 215
Change them from 600 Proposed Response Cl 179B SC 179B.4.6 Mellitz, Richard	Response Status O P810 Samtec Comment Status X	L 45	# 52	Change "Integrated n noise voltage (max)" Change "Less than T Make similar updates Proposed Response C/ 179B SC 179B.4. Brown, Matt	BD" to "TBD" in Table 179B-5. <i>Response Status</i> O 6 P811 Alphawave Se	L8	
Change them from 600 Proposed Response Cl 179B SC 179B.4.6 Mellitz, Richard Comment Type TR T_nt is not aligned with	Response Status O P810 Samtec Comment Status X	L 45	# 52	Change "Integrated n noise voltage (max)" Change "Less than T Make similar updates Proposed Response Cl 179B SC 179B.4. Brown, Matt Comment Type T	BD" to "TBD" in Table 179B-5. <i>Response Status</i> O 6 <i>P</i> 811 Alphawave Se <i>Comment Status</i> X	L 8 emi	# 215
Change them from 600 Proposed Response Cl 179B SC 179B.4.6 Mellitz, Richard Comment Type TR T_nt is not aligned with	Response Status 0 P810 Samtec Comment Status X reference transmitter	L 45	# 52	Change "Integrated n noise voltage (max)" Change "Less than T Make similar updates Proposed Response Cl 179B SC 179B.4. Brown, Matt Comment Type T Value for maximum "	BD" to "TBD" in Table 179B-5. <i>Response Status</i> O 6 P811 Alphawave Se	L 8 emi	# 215
Change them from 600 Proposed Response Cl 179B SC 179B.4.6 Mellitz, Richard Comment Type TR T_nt is not aligned with SuggestedRemedy	Response Status 0 P810 Samtec Comment Status X reference transmitter	L 45	# <u>52</u>	Change "Integrated n noise voltage (max)" Change "Less than T Make similar updates Proposed Response Cl 179B SC 179B.4. Brown, Matt Comment Type T	BD" to "TBD" in Table 179B-5. <i>Response Status</i> O 6 P811 Alphawave Se <i>Comment Status</i> X ntegrated near-end crosstalk n	L 8 emi	# <u>215</u>

C/ 179B SC 179B.4.6

C/ 179B SC 179B.4.6	P811	L 8	# 461	C/ 179B SC 179B.4.6	P811	L 31	# 54
Kocsis, Sam	Amphenol			Mellitz, Richard	Samtec		
Comment Type T	Comment Status X			Comment Type TR	Comment Status X		
The value for SFP224	MTF ICN is TBD			T_nt and T_ft is not al	igned with reference transmit	ter	
SuggestedRemedy				SuggestedRemedy			
Replace TBD with valu	e as proposed in kocsis_3dj_	01_2501		Replace 6 ps with 4 ps	(table 179B-4)		
Proposed Response	Response Status O			Proposed Response	Response Status O		
C/ 179B SC 179B.4.6	P811	L11	# 56	C/ 179B SC 179B.4.6	P811	L 43	# 217
Mellitz, Richard	Samtec			Brown, Matt	Alphawave Se	emi	
Comment Type TR	Comment Status X			Comment Type T	Comment Status X		
ICN should be adjuste	d for PAM4			Values for crosstalk no	bise are TBD.		
SuggestedRemedy				SuggestedRemedy			
Adjust ICN results from	n Equation 92-44 and 92-48	by multiplying by	/ sigma_X (0.7454)	Expect a contribution w	vith proposals.		
Proposed Response	Response Status O			Proposed Response	Response Status O		
C/ 179B SC 179B.4.6	P811	L 28	# 55	C/ 179B SC 179B.4.6	P811	L 43	# 462
Vellitz, Richard	Samtec			Kocsis, Sam	Amphenol		
Comment Type TR	Comment Status X			Comment Type T	Comment Status X		
	gned with reference transmitt	er		The value(s) for Multi-la	ane MTF ICN is TBD.		
SuggestedRemedy				SuggestedRemedy			
	481 mV (table 179B-4)			•••	e as proposed in kocsis_3dj_	01_2501	
Proposed Response	Response Status 0			Proposed Response	Response Status O		
C/ 179B SC 179B.4.6	P811	L 31	# 522	C/ 179B SC 179B.4.6	P 811	L 43	# 454
Dawe, Piers	Nvidia			Sekel, Steve	Wilder Techn	ologies	
Comment Type TR The rise time for FOM	Comment Status X _ILD, SFP NEXT, and multi-la	ne NEXT and F	EXT, are expected to	Comment Type T Values for MDFEXT, N	Comment Status X IDNEXT and Total ICN are lis	ited as TBD	
				SuggestedRemedy			
be the same.							
be the same. SuggestedRemedy					with measuremnt data will be	e presented in co	ontribuion during 802.3
	s, twice			Proposed values along Interim meeting Proposed Response	g with measuremnt data will be	e presented in co	ontribuion during 802.3

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line C/ 179B SC 179B.4.6 Page 74 of 107 2025-01-03 11:17:26 A

C/ 179B SC 179B4.1	P 805	L 48	# 50	C/ 179D SC 179D.1.1	P828	L 34	# 518
Mellitz, Richard	Samtec			Dawe, Piers	Nvidia		
Comment Type TR	Comment Status X			Comment Type T Comm	ent Status X		
FOM_ILD is TBD				This says "a common set of elect			
SuggestedRemedy				length". What length(s) it enable breakout, and it is not accurate.	s is not relevant to	this discussion of	connector types and
Based on posted MTF of	channel, sekel_3dj_02_2407	7 replace TBD dE	3 with 0.16 dB	SuggestedRemedy			
Proposed Response	Response Status 0			Delete "enabling a 1 m length"			
				Proposed Response Respon	se Status O		
C/ 179B SC 179B4.1	P 806	L 46	# 51				
Mellitz, Richard	Samtec			C/ 180 SC 180.3	P 412	L15	# 227
Comment Type TR	Comment Status X			Ghiasi, Ali	Ghiasi Qunati	um/Marvell	
T_t is not aligned with r	eference transmitter			Comment Type TR Comm	ent Status X		
SuggestedRemedy				Signal_OK as shown in Fig 180-2	2 is from the Inner s	sublayer above th	en goes into ILT box
Replace 6 ps with 4 ps				on TX and another ILT box on the	• -		bout Signal_OK the
Proposed Response	Response Status 0			jump into inter-suplayer variables	before intorudcing	ILI.	
				SuggestedRemedy		h	add a set an as. The
C/ 179C SC 179C.1	P814	L12	# 519	Referencing Fig 180-2 would be l PMD in this clause support Inter-		1 0 1	
Dawe, Piers	Nvidia			Proposed Response Respon	se Status O		
Comment Type E Media Dependent Interf	Comment Status X						
SuggestedRemedy Medium Dependent Inte	erface						

C/ 180 SC 180.3

	SC 180.5.1	P 413	L 27	# 316	C/ 180	SC	180.5.4	P 415	L1	# 318
Ran, Adee		Cisco			Ran, Adee			Cisco		
Comment 7	ype TR	Comment Status X			Comment 7	Туре	TR	Comment Status X		
block d their ac	iagram, but it is ljacent PMAs.	PMD block diagram", and the not - it is a block diagram of	the full link betw	een two PMDs and	via the	PMD :	service int		·	·
remedy	is one possibili	s it is, but the title and the tex ity, but variations of it can be	used.		shown	in the		e; the service interface conve The variable has a different		
		ilar subclauses 181.5.1, 182. ave a separate PMD block di			Suggested	Remed	dy			
"A bloc		e PMD transmit/receive path					loted sente			
Suggestedl	Remedv				•			other optical PMD clauses as	necessary, wit	n editorial license.
Change	-	title to "PMD specification po k diagram".	ints". Change th	e text to refer to the	Proposed F	Respor	nse	Response Status O		
Change	e the figure title	to align with the description.			C/ 180	SC	180.7.1	P418	L12	# 319
Implem	ent as annronri	ate in all optical PMD clauses	s with editorial lic	rense	Ran, Adee			Cisco		
Proposed F		Response Status 0			Comment 7	Туре	т	Comment Status X		
Toposeu T	esponse	Response Status U			PMDs.			eturn loss tolerance in 200Gl the transmitter's connector; i		
C/ 180	SC 180.5.1	P 414	L 24	# 317	specific	cation	for a 200G	BASE-DR1 with a multi-fibe		
Ran, Adee		Cisco						ngle-lane MDI. RINxxOMA in this case be i	moneurod with	rofloctanco
Comment 7	уре Е	Comment Status X						le-lane MDI?	neasured with a	aTelleclarice
The tex	t boxes in Figur	e 180-2 are somewhat clutte	red.		Suggested	Remed	dv			
Suggestedl	Remedy				00		•	er is and where this distinction	on should be ma	ade.
		erface labels to "PMD:IS_UN i.indication" (instead of "0 to 3		st" and	Whatev		solution i	s, implement similarly in clau	se 182 as nece	ssary, with editorial
NA	ne text "For clar	ity" to the bottom of the dia	gram, and prece	ede it with "NOTE".	Proposed F	Respor	nse	Response Status O		
Move ti		other optical PMD clauses as	necessary, with	editorial license.						
	ent similarly in	•								

C/ 180 SC 180.7.1

C/ 180	SC 180.7.1	P 463	L 26	# 344	C/ 180	SC 180.7.3	P 420	L 46	# 231
Ran, Adee		Cisco			Ghiasi, Ali		Ghiasi Qu	unatum/Marvell	
Comment 7	Туре Е Со	mment Status X			Comment	Type TR	Comment Status X		
	esult of the resolution of the words "each						.1 dB is too small for this I	PMD type	
these p lane". Appare creates	parameters outside the ently the whole table is s unnecessary clutter in	e table; for example for applicable for each la n the table and elsewh	ne. The current pere in the clause	arameter naming , and having "each	0.58 d 400GE DGD t	ASE-DR MPI p B ASE-DR2/8000 ne total penalty and reduce cat	enalty is 0.4 dB with 0.18 GBASE-DR4/800GBASE-I for this PMD is 0.3 dB. M le plant loss from 3 dB to Response Status 0	DR8 MPI penalty is (ake the MPI/DGD p).12 dB with 0.18 dB enalty 0.5 dB for all
	n some of the parame	ters and not on others	can raise questio	ons.	,	,			
Suggested		bla baadhaa Dalata itt			01.400	00 400 7 0	D 470	1.40	# 222
	on each lane" to the tal ssary, add text above		rom the rows it a	ppears on.	C/ 180	SC 180.7.3	P473	L 46	# 233
					Ghiasi, Ali			Inatum/Marvell	
	"each lane" from the n the table).	names of the paramete	ers elsewhere in ti	his clause (e.g. the text			Comment Status X .4 dB is too small for 2000	BASE-DR and too	generaous for
roposed F	SC 180.7.3	P 420 Cisco	L 24	# <u>320</u>	is 0.63 400GE DGD t an acc	ASE-DR-2 MP dB ASE-DR2/8000 ne total penalty eptable alterna	BASE-DR4/800GBASE-I for this PMD is 0.28 dB.	DR8 MPI penalty is 0 We can either define of connectros to 4 f	0.1 dB with 0.18 dB e different link budget,
omment		mment Status X	D to MDI optical	specifications".	stay w Proposed		B budget. See Ghiasi_3 Response Status O	dj_02_2501	
	e subclause content do le for other specificatio			ly explains the	C/ 180	SC 180.8	P 421	L 41	# 321
remedy	an be solved by renam y is one option, but oth		inging the hierarc	hy. The suggested	Ran, Adee Comment	Type ER	Cisco <i>Comment Status</i> X t the" appear twice in succ	ession	
	,	2nd-level subclause a	fter the 180.8 (th	at is, a new 180.9) and	Suggested Delete	Remedy		6351011.	
					Proposed	Response	Response Status O		
Implem	nent similarly in other c	optical PMD clauses as	s necessary, with	editorial license.	1		•		
roposed I	Response Res	sponse Status O	-						
COMMENT	•	ed A/accepted R/reje		T/technical E/editorial G SE STATUS: O/open W/w	0	Z/withdrawn		180 2 180.8	Page 77 of 107 2025-01-03 11:17:2

C/ 180	SC 180.8	P 421	L 42	# 322	C/ 180	SC 180	.8.1	P 422	L 43	# 324
Ran, Adee		Cisco			Ran, Adee			Cisco		
Comment T	ype TR	Comment Status X			Comment	Туре Е		Comment Status X		
	e definitions in ⁷ in 180.9.	180.9" seems irrelevant. There	e are not specific	ations related to Table	A rang Suggested		d value	es is usually indicated by "a t	o b" (see 14.2 i	n the style manual).
SuggestedF	Remedy				Chang					
Delete '	"per the definiti	ions in 180.9".								
Implem	ent similarly in	other optical PMD clauses as	necessary, with	editorial license.	Proposed	Response		Response Status O		
Proposed R	Response	Response Status O			C/ 180	SC 180	.8.1	P 422	L 44	# 325
					Ran, Adee			Cisco		
C/ 180	SC 180.8	P 422	L17	# 323	Comment	Туре ТІ	र	Comment Status X		
Ran, Adee		Cisco			Disper	sion slope	unit is	ps/(nm^2 km).		
_	max is the max	Comment Status X kimum differential group delay ere are both a definition of an				EE SA styl		.3) requires parentheses in s e says a multiplication sign is		ve often do not follow
		ere are both a definition of an			Suggested	Remedy				
Acknow	vledging that th	is footnote appears in many cl ay of specifying things.	·	. ,		arentheses ler adding		plication sign.		
	·				Impler	nent simila	ly in o	ther optical PMD clauses as	necessary, with	editorial license.
	be preferable bonding receive	to separate the definition to a r specification.	subclause, and	possibly add a	Proposed	Response		Response Status O		
SuggestedF	Remedy									
		ave DGD tolerance as a receiv colerate" to "that a receiver is e								
If this is	a receiver req	uirement, add a row in Table 1	180-8 with "DGD	tolerance".						
	bly, either way, it in a footnote.	, create a new subclause in 18	0.9 with a defini	tion of DGD, instead of						
Implem Proposed R	2	other optical PMD clauses as Response Status O	necessary, with	editorial license.						

C/ 180 SC 180.8.1

C/ 180 SC 180	.8.3	P 423	L 45	# 326	C/ 180	SC 180.8.3.1	.1	P 424	L1	# 328
an, Adee	С	isco			Ran, Adee			Cisco		
omment Type T	Comment Sta	atus X			Comment 7	ype ER	Comment S	Status X		
	te MDI definitions for e				Table 1	80-14 is for 800	GBASE-DR4.			
even appear in th		cribed by Anne	ex 180A (the wo	ord "breakout" does not	Suggestedl	Remedy				
	,				Change	e the reference	to Table 180-13	3.		
assignments" (18 DR1 (180.8.3.2) t	mentioned in NOTE particles (0.8.3.1), there are norm (0.8.3.1), there are norm (0.8.3.1), there are normalized the (0.8.3.3) do not addres	mative ("shall' address the p	") MDI requirem	nents for 200GBASE- wider MDIs for this	Proposed F	Response	Response S	Status O		
and 800G.					C/ 180	SC 180.8.3.2	2	P 426	L 33	# 329
SuggestedRemedy					Ran, Adee			Cisco		
	references to the alter	native MDIs (180.8.3.3 and 1	180.8.3.4) and to	Comment 7	ype ER	Comment S	Status X		
Annex 180A.	a reference to the alte	rnative MDL (1	190 9 3 4) and t	to Annex 180A	No nee	d for quotes in '	fiber optic cabl	ling".		
			100.0.3.47 and 1							
		,	,		Suggestedl	Remedy				
Consider adding		,	,	eakout" and a reference	00	Re <i>medy</i> the quotes.				
Consider adding to Annex 180A.	a statement in the text	of 180.8.3 wit	th the word "bre	eakout" and a reference	Delete	the quotes.	other optical PI	MD clauses as	s necessary, with	editorial license.
Consider adding to Annex 180A. Implement simila	a statement in the text ly in other optical PME	of 180.8.3 wit D clauses as r	th the word "bre	eakout" and a reference	Delete	the quotes. ent similarly in	other optical PI <i>Response</i> S		s necessary, with	editorial license.
Consider adding to Annex 180A. Implement simila	a statement in the text	of 180.8.3 wit D clauses as r	th the word "bre	eakout" and a reference	Delete	the quotes. ent similarly in	•		necessary, with	editorial license.
Consider adding to Annex 180A. Implement simila Proposed Response	a statement in the text ly in other optical PME <i>Response Sta</i>	of 180.8.3 wit D clauses as r <i>tus</i> O	th the word "bre	eakout" and a reference editorial license.	Delete	the quotes. ent similarly in	Response S		s necessary, with	editorial license. # <u>330</u>
Consider adding to Annex 180A. Implement simila Proposed Response	a statement in the text ly in other optical PME Response Sta 8.3.1.1	of 180.8.3 wit D clauses as r <i>tus</i> O	th the word "bre	eakout" and a reference	Delete Implem Proposed F	the quotes. ent similarly in Response	Response S	Status O		
Consider adding to Annex 180A. Implement simila roposed Response 1 180 SC 180 can, Adee	a statement in the text ly in other optical PME Response Sta 8.3.1.1	of 180.8.3 with D clauses as r <i>tus</i> O P 423 Eisco	th the word "bre	eakout" and a reference editorial license.	Delete Implem Proposed F Cl 180 Ran, Adee Comment 1	the quotes. ent similarly in Response SC 180.8.3.2 Type TR	Response S	P 426 Cisco Status X	L 41	# 330
Consider adding to Annex 180A. Implement simila Proposed Response Cl 180 SC 180 Ran, Adee Comment Type El "leftmost" and "rig	a statement in the text ly in other optical PME <i>Response Sta</i> 8.3.1.1 C R <i>Comment Sta</i> phtmost" are standard	of 180.8.3 with D clauses as r <i>tus</i> O P423 Sisco atus X English words	th the word "bre necessary, with <i>L</i> 52 s (that appear ir	eakout" and a reference editorial license. # <u>327</u>	Delete Implem Proposed F Cl 180 Ran, Adee Comment 1 The NC	the quotes. ent similarly in Response SC 180.8.3.2 Type TR	Response S Comment S mitter compliar	Status O P 426 Cisco Status X nce testing doe	L 41	
Consider adding to Annex 180A. Implement simila Proposed Response 21 180 SC 180 Ran, Adee Comment Type El "leftmost" and "rig	a statement in the text Iy in other optical PME Response Sta 8.3.1.1 C Comment Sta	of 180.8.3 with D clauses as r <i>tus</i> O P423 Sisco atus X English words	th the word "bre necessary, with <i>L</i> 52 s (that appear ir	eakout" and a reference editorial license. # <u>327</u>	Delete Implem Proposed F Cl 180 Ran, Adee Comment 1 The NC	the quotes. ent similarly in Response SC 180.8.3.2 Type TR DTE about trans ments subclaus	Response S Comment S mitter compliar	Status O P 426 Cisco Status X nce testing doe	L 41	# 330
Consider adding to Annex 180A. Implement simila Proposed Response Cl 180 SC 180 Ran, Adee Comment Type El "leftmost" and "rig hyphenated comp	a statement in the text ly in other optical PME <i>Response Sta</i> 8.3.1.1 C R <i>Comment Sta</i> phtmost" are standard	of 180.8.3 with D clauses as r <i>tus</i> O P423 Efficience atus X English words rd and do not	th the word "bre necessary, with <i>L</i> 52 s (that appear ir	eakout" and a reference editorial license. # <u>327</u>	Delete Implem Proposed F Cl 180 Ran, Adee Comment 1 The NC require Suggested	the quotes. ent similarly in Response SC 180.8.3.2 Type TR DTE about trans ments subclaus	Response S Comment S mitter compliar	Status O P 426 Cisco Status X nce testing doe	L 41	# 330
Consider adding to Annex 180A. Implement simila Proposed Response Cl 180 SC 180 Ran, Adee Comment Type El "leftmost" and "rig hyphenated comp Note that 180.8.3	a statement in the text ly in other optical PME <i>Response Sta</i> 8.3.1.1 C <i>Comment Sta</i> phtmost" are standard pounds are nonstandar	of 180.8.3 with D clauses as r <i>tus</i> O P423 Efficience atus X English words rd and do not	th the word "bre necessary, with <i>L</i> 52 s (that appear ir	eakout" and a reference editorial license. # <u>327</u>	Delete Implem Proposed F Cl 180 Ran, Adee Comment 1 The NC require Suggested	the quotes. ent similarly in Response SC 180.8.3.2 Type TR DTE about trans ments subclaus Remedy this NOTE.	Response S Comment S mitter compliar	Status O P 426 Cisco Status X nce testing doa quired.	L 41	# 330
Consider adding to Annex 180A. Implement simila Proposed Response Cl 180 SC 180 Ran, Adee Comment Type El "leftmost" and "rig hyphenated comp Note that 180.8.3 SuggestedRemedy	a statement in the text ly in other optical PME <i>Response Sta</i> 8.3.1.1 C <i>Comment Sta</i> phtmost" are standard pounds are nonstandar	of 180.8.3 with D clauses as r <i>tus</i> O <i>P</i> 423 cisco <i>atus</i> X English words rd and do not words.	th the word "bre necessary, with <i>L</i> 52 s (that appear ir help the reader	eakout" and a reference editorial license. # <u>327</u> n dictionaries). The	Delete Implem Proposed F Cl 180 Ran, Adee Comment 1 The NC require Suggestedl Delete	the quotes. ent similarly in Response SC 180.8.3.2 Type TR DTE about trans ments subclaus Remedy this NOTE.	Response S Comment S mitter compliar es. It is not req	Status O P 426 Cisco Status X nce testing doa quired.	L 41	# 330
Consider adding to Annex 180A. Implement simila Proposed Response Cl 180 SC 180 Ran, Adee Comment Type El "leftmost" and "rig hyphenated comp Note that 180.8.3 SuggestedRemedy Change to "leftmo	a statement in the text I'y in other optical PME <i>Response Sta</i> 8.3.1.1 C <i>Comment Sta</i> phtmost" are standard pounds are nonstandard 1.3 uses the correct w	of 180.8.3 with D clauses as r <i>tus</i> O P 423 disco <i>atus</i> X English words rd and do not words.	th the word "bre necessary, with <i>L</i> 52 s (that appear ir help the reader	eakout" and a reference editorial license. # <u>327</u> n dictionaries). The	Delete Implem Proposed F Cl 180 Ran, Adee Comment 1 The NC require Suggestedl Delete	the quotes. ent similarly in Response SC 180.8.3.2 Type TR DTE about trans ments subclaus Remedy this NOTE.	Response S Comment S mitter compliar es. It is not req	Status O P 426 Cisco Status X nce testing doa quired.	L 41	# 330

C/ 180 SC 180.8.3.2

	P 427	L 45	# 236	C/ 180 SC 1	180.9.5	P 430	L 22	# 240
Ghiasi, Ali	Ghiasi Qunat	um/Marvell		Ghiasi, Ali		Ghiasi Qunat	tum/Marvell	
Comment Type TR	Comment Status X			Comment Type	TR	Comment Status X		
Counter propagating	traffic must be active for these	tests		TDECQ masu	remnt nee	eds to define test condition v	when there is an	optional AUI
SuggestedRemedy				SuggestedRemed	У			
at maximum OMA ap PRBS31Q, or a valid	ragrpah, Counter-propagating a oplied to the module under test 100GBASE-R, 200GBASE-R, See Ghiasi_3dj_01_2501 Response Status 0	TP3. The crosst	talk pattern can be	conforming im applicable mo Module stress recovered AUI	plementa dule stres ed input t I clock dri	o the list of requiremetns in tion must meet TDECQ with s input test as in 176C.4.4.5 olerance, or 120E.3.4.1 Moo ving the TDECQ pattern.	n the exposed Al 5 Receiver jitter t dule stressed inp	JI configured for tolerance, 120G.3.4.3 but test and the
				Proposed Respon	se	Response Status O		
C/ 180 SC 180.9.4	P 430	L 32	# 186					
Brown, Matt	Alphawave S	emi		C/ 180 SC 1	180.9.5	P 430	L 22	# 244
Comment Type T	Comment Status X			Ghiasi, Ali		Ghiasi Qunat	tum/Marvell	
Value for minimum "r	number of equalizer pre-cursor	taps" is TBD.		Comment Type	TR	Comment Status X		
				100.0		a second second second based of a TDE		
	ue to 0 allowing the number of	pre-cursor taps to	o vary from 0 to 3 or	either we need	d to devel	op a Golden hardwre referei	nce receiver or v	
Either set the the val	ue to 0 allowing the number of n/maximum columns with a val			either we need TDECQ test m	d to devel nethod to		nce receiver or v	
Either set the the value straddle the minimum				either we need TDECQ test m SuggestedRemed Instead the red capturing 10	d to develor nethod to y commence SSPRQ w	op a Golden hardwre referer capture block erros/penalty. lation is to measure block The vaveforms which forms 6553	nce receiver or v DECQ where blo 35 FEC symbols,	ock TDECQ is by , ~120 KP4 FEC blocks
Either set the the value straddle the minimum Proposed Response	n/maximum columns with a val Response Status O			either we need TDECQ test m SuggestedRemed Instead the re- capturing 10 \$ or 30 interleav blocks are pro	d to develo nethod to y commence SSPRQ w red KP4 F cessed as	op a Golden hardwre referer capture block erros/penalty. lation is to measure block Th aveforms which forms 6553 EC blocks when 4-with way s in definition in	nce receiver or v DECQ where blo 35 FEC symbols, interleaving. E	ve have to improve ock TDECQ is by , ~120 KP4 FEC blocks ach of the 30 KP4
Either set the the value straddle the minimum Proposed Response	n/maximum columns with a val Response Status O	ue of 3, permittin	g only a value of 3.	either we need TDECQ test m SuggestedRemed Instead the red capturing 10 S or 30 interleav blocks are pro https://www.ie	d to devel nethod to y commenc SSPRQ w red KP4 F cessed a ee802.org	op a Golden hardwre referer capture block erros/penalty. lation is to measure block Th vaveforms which forms 6553 EC blocks when 4-with way s in definition in g/3/dj/public/24_09/healey_3	nce receiver or v DECQ where blo 35 FEC symbols, interleaving. E 3dj_02a_2409.pc	ve have to improve ock TDECQ is by , ~120 KP4 FEC blocks ach of the 30 KP4 If proposal. Use worst
Either set the the value straddle the minimum Proposed Response Cl 180 SC 180.9.5 Johnson, John Comment Type TR	n/maximum columns with a val Response Status O P430 Broadcom Comment Status X	ue of 3, permittin	g only a value of 3. # 171	either we need TDECQ test m SuggestedRemed Instead the red capturing 10 or 30 interleav blocks are pro https://www.ie 3 blocks from	d to devel- nethod to y commence SSPRQ w red KP4 F cessed a ee802.org each grou F. Then c	op a Golden hardwre referer capture block erros/penalty. lation is to measure block Th vaveforms which forms 6553 EC blocks when 4-with way s in definition in g/3/dj/public/24_09/healey_3 up of 30 blocks then combin calculate block TDECQ, add	nce receiver or v DECQ where blo 35 FEC symbols, interleaving. E 3dj_02a_2409.pc e 3 worst blocks	ve have to improve ock TDECQ is by , ~120 KP4 FEC blocks ach of the 30 KP4 If proposal. Use worst from the 4 group to
Either set the the value straddle the minimum Proposed Response Cl 180 SC 180.9.5 Johnson, John Comment Type TR The TDECQ test met which is not appropria	n/maximum columns with a val Response Status O P 430 Broadcom	Le of 3, permittin	g only a value of 3. # <u>171</u> rget SER of 4.8e-4, -1, the appropriate	either we need TDECQ test m SuggestedRemed Instead the red capturing 10 S or 30 interleav blocks are pro https://www.ie 3 blocks from create the PDI	d to devel nethod to y commence SSPRQ w red KP4 F cessed a ee802.org each grou F. Then c asi_3dj_03	op a Golden hardwre referer capture block erros/penalty. lation is to measure block Th vaveforms which forms 6553 EC blocks when 4-with way s in definition in g/3/dj/public/24_09/healey_3 up of 30 blocks then combin calculate block TDECQ, add	nce receiver or v DECQ where blo 35 FEC symbols, interleaving. E 3dj_02a_2409.pc e 3 worst blocks	ve have to improve ock TDECQ is by , ~120 KP4 FEC blocks ach of the 30 KP4 If proposal. Use worst from the 4 group to
Either set the the value straddle the minimum Proposed Response Cl 180 SC 180.9.5 Johnson, John Comment Type TR The TDECQ test met which is not appropria value for 200G/lane A	n/maximum columns with a value Response Status O Broadcom Comment Status X thod points to clause 121.8.5.3 ate for 200G/lane AUIs. As give	Le of 3, permittin	g only a value of 3. # <u>171</u> rget SER of 4.8e-4, -1, the appropriate	either we need TDECQ test m SuggestedRemed Instead the re- capturing 10 S or 30 interleav blocks are pro https://www.ie 3 blocks from create the PDI dB. See Ghia	d to devel nethod to y commence SSPRQ w red KP4 F cessed a ee802.org each grou F. Then c asi_3dj_03	op a Golden hardwre referer capture block erros/penalty. lation is to measure block Th aveforms which forms 6553 EC blocks when 4-with way s in definition in g/3/dj/public/24_09/healey_3 up of 30 blocks then combin calculate block TDECQ, add 3_2501	nce receiver or v DECQ where blo 35 FEC symbols, interleaving. E 3dj_02a_2409.pc e 3 worst blocks	ve have to improve ock TDECQ is by , ~120 KP4 FEC blocks ach of the 30 KP4 If proposal. Use worst from the 4 group to
straddle the minimum Proposed Response Cl 180 SC 180.9.5 Johnson, John Comment Type TR The TDECQ test met which is not appropria value for 200G/lane A SuggestedRemedy Add a new exception	n/maximum columns with a value Response Status O Broadcom Comment Status X thod points to clause 121.8.5.3 ate for 200G/lane AUIs. As give AUIs should be 4.56e-4 for unc	Le of 3, permittin	g only a value of 3. # <u>171</u> rget SER of 4.8e-4, -1, the appropriate	either we need TDECQ test m SuggestedRemed Instead the re- capturing 10 S or 30 interleav blocks are pro https://www.ie 3 blocks from create the PDI dB. See Ghia	d to devel nethod to y commence SSPRQ w red KP4 F cessed a ee802.org each grou F. Then c asi_3dj_03	op a Golden hardwre referer capture block erros/penalty. lation is to measure block Th aveforms which forms 6553 EC blocks when 4-with way s in definition in g/3/dj/public/24_09/healey_3 up of 30 blocks then combin calculate block TDECQ, add 3_2501	nce receiver or v DECQ where blo 35 FEC symbols, interleaving. E 3dj_02a_2409.pc e 3 worst blocks	ve have to improve ock TDECQ is by , ~120 KP4 FEC blocks ach of the 30 KP4 If proposal. Use worst from the 4 group to

C/ 180 SC 180.9.5

C/ 180	SC 180.9.5	P 430	L30	# 251	C/ 180	SC 180.9.5	P	430	L 35	# 331
Ghiasi, Ali		Ghiasi Qunatu	m/Marvell		Ran, Adee		Cise	0		
Comment T	ype TR	Comment Status X			Comment T	ype TR	Comment Statu	s X		
Number	of pre-cursor is	s maximum with min TBD					30-18 says "Relative			
SuggestedF	-				value.					t is the largest positiv
floating		ng Sept 2024 meeting to go wit v, given than agreement merge of 15.			normali		n tap's coefficient or			coefficient limits are s are such that the
Proposed R	esponse	Response Status O			l suspe	ct the answer i	s "both" but it is not	clear from	the text.	
					Suggested	Remedy				
C/ 180 Dudek, Mike	SC 180.9.5	P 430 Marvell	L 32	# 422	Change values	e footnote a to are relative to t	read "The main tap i his tap's coefficient.	s marked l "	oy i=0. The mini	mum and maximum
Comment T		Comment Status X			Implem	ent similarly in	other optical PMD of	lauses as	necessary, with	editorial license.
different	t tap allocation	plementation and becasue the for the TDECQ reference equa alizer should be made the sam	alizer for the diff	ferent clauses the	Proposed R		Response Status		· · · · , · · · · ·	
numper										
the TDE for 8000 for 2000 of post of	CQ reference e BBASE-FR4-50 BBASE-DR1-2 cursor taps of 1	aps however the minimum nun equalizer is TBD in table 180-1 00 in table 181-13 and 800GBA etc in table 182-18 the forma 3 implying a minimum number	8 (for 200GBA SE-FR4 etc. in t is different wit	SE-DR1 etc.) as it is table 183- 14 whereas h a maximum number	specifie	<i>Type</i> T 80-8. Footnote as the target va	Comment Statu b redundantly defin lue 1 so it doesn't ne	es the limit	t of FFE gain. TI	he row for FFE gain botnote. However, the
the TDE for 8000 for 2000 of post of SuggestedF Make th	CQ reference e BBASE-FR4-50 BBASE-DR1-2 cursor taps of 1 Remedy te format of the	equalizer is TBD in table 180-1 00 in table 181-13 and 800GBA etc in table 182-18 the forma 3 implying a minimum number tables the same. Adopt a min	8 (for 200GBA: SE-FR4 etc. in t is different wit r of pre-cursor t nimum number	SE-DR1 etc.) as it is table 183- 14 whereas h a maximum number aps of 2.	Comment T Table 1 specifie footnote	<i>Type</i> T 80-8. Footnote as the target va e is helpful to e	Comment Statu	s X es the limit eed to be r	t of FFE gain. TI	
the TDE for 8000 for 2000 of post of SuggestedF Make th and mat	CQ reference e BBASE-FR4-50 BBASE-DR1-2 cursor taps of 1 <i>Remedy</i> le format of the ximum number	equalizer is TBD in table 180-1 00 in table 181-13 and 800GBA etc in table 182-18 the forma 3 implying a minimum number tables the same. Adopt a min of ppre-cursor taps of 3 for all	8 (for 200GBA: SE-FR4 etc. in t is different wit r of pre-cursor t nimum number	SE-DR1 etc.) as it is table 183- 14 whereas h a maximum number aps of 2.	Comment 7 Table 1 specifie footnote Suggestedf	Type T 80-8. Footnote es the target va e is helpful to e Remedy	Comment Statu b redundantly defin lue 1 so it doesn't ne xplain what FFE gai	s X es the limit eed to be r n is.	t of FFE gain. TI epeated in the fo	
the TDE for 8000 for 2000 of post of SuggestedF Make th	CQ reference e BBASE-FR4-50 BBASE-DR1-2 cursor taps of 1 <i>Remedy</i> le format of the ximum number	equalizer is TBD in table 180-1 00 in table 181-13 and 800GBA etc in table 182-18 the forma 3 implying a minimum number tables the same. Adopt a min	8 (for 200GBA: SE-FR4 etc. in t is different wit r of pre-cursor t nimum number	SE-DR1 etc.) as it is table 183- 14 whereas h a maximum number aps of 2.	Comment 7 Table 1 specifie footnote Suggestedf	Type T 80-8. Footnote ss the target value is helpful to e e is helpful to e Remedy e footnote b to	Comment Statu b redundantly defin lue 1 so it doesn't ne	s X es the limit eed to be r n is. equalizer co	t of FFE gain. TI epeated in the fo	
the TDE for 8000 for 2000 of post of SuggestedF Make th and ma: Proposed R	CQ reference e BBASE-FR4-50 BBASE-DR1-2 cursor taps of 1 Remedy le format of the ximum number esponse	equalizer is TBD in table 180-1 00 in table 181-13 and 800GBA etc in table 182-18 the forma 3 implying a minimum number tables the same. Adopt a min of ppre-cursor taps of 3 for all <i>Response Status</i> O	8 (for 200GBA SE-FR4 etc. in t is different with r of pre-cursor t nimum number the tables.	SE-DR1 etc.) as it is table 183- 14 whereas h a maximum number aps of 2. of pre-cursor taps of 2	Comment T Table 1 specifie footnote Suggested Change	Type T 80-8. Footnote ss the target value is helpful to e e is helpful to e Remedy e footnote b to	Comment Statu b redundantly defin lue 1 so it doesn't ne xplain what FFE gai	s X es the limit eed to be r n is. equalizer co	t of FFE gain. TI epeated in the fo	he row for FFE gain botnote. However, the
the TDE for 8000 for 2000 of post of uggestedR Make th and mai roposed R	CQ reference e BBASE-FR4-50 BBASE-DR1-2 cursor taps of 1 Remedy e format of the ximum number esponse SC 180.9.5	equalizer is TBD in table 180-1 00 in table 181-13 and 800GBA etc in table 182-18 the forma 3 implying a minimum number tables the same. Adopt a mi of ppre-cursor taps of 3 for all <i>Response Status</i> O <i>P</i> 430	8 (for 200GBA: SE-FR4 etc. in t is different wit r of pre-cursor t nimum number	SE-DR1 etc.) as it is table 183- 14 whereas h a maximum number aps of 2.	Comment T Table 1 specifie footnote Suggested Change	Type T 80-8. Footnote ss the target value is helpful to e e is helpful to e Remedy e footnote b to	Comment Statu b redundantly defin lue 1 so it doesn't ne xplain what FFE gai	s X es the limit eed to be r n is. equalizer co	t of FFE gain. TI epeated in the fo	
the TDE for 8000 for 2000 of post of SuggestedR Make th and ma: Proposed R C/ 180 Johnson, Jo	CQ reference e BBASE-FR4-50 BBASE-DR1-2 cursor taps of 1 Remedy the format of the ximum number esponse SC 180.9.5 ohn	equalizer is TBD in table 180-1 00 in table 181-13 and 800GBA etc in table 182-18 the forma 3 implying a minimum number tables the same. Adopt a min of ppre-cursor taps of 3 for all <i>Response Status</i> O <i>P</i> 430 Broadcom	8 (for 200GBA SE-FR4 etc. in t is different with r of pre-cursor t nimum number the tables.	SE-DR1 etc.) as it is table 183- 14 whereas h a maximum number aps of 2. of pre-cursor taps of 2	Comment T Table 1 specifie footnote Suggested Change	Type T 80-8. Footnote ss the target value is helpful to e e is helpful to e Remedy e footnote b to	Comment Statu b redundantly defin lue 1 so it doesn't ne xplain what FFE gai	s X es the limit eed to be r n is. equalizer co	t of FFE gain. TI epeated in the fo	
the TDE for 8000 for 2000 of post of SuggestedF Make th and mai Proposed R C/ 180 Comment T In Table	CQ reference e BBASE-FR4-50 BBASE-DR1-2 (cursor taps of 1 Remedy e format of the ximum number esponse SC 180.9.5 ohn ype TR a 180-18, the miser proposals, thi	equalizer is TBD in table 180-1 00 in table 181-13 and 800GBA etc in table 182-18 the forma 3 implying a minimum number tables the same. Adopt a mi of ppre-cursor taps of 3 for all <i>Response Status</i> O <i>P</i> 430	8 (for 200GBA: SE-FR4 etc. in t is different with r of pre-cursor t nimum number the tables.	SE-DR1 etc.) as it is table 183- 14 whereas h a maximum number aps of 2. of pre-cursor taps of 2 # 172	Comment T Table 1 specifie footnote Suggested Change	Type T 80-8. Footnote ss the target value is helpful to e e is helpful to e Remedy e footnote b to	Comment Statu b redundantly defin lue 1 so it doesn't ne xplain what FFE gai	s X es the limit eed to be r n is. equalizer co	t of FFE gain. TI epeated in the fo	
the TDE for 8000 for 2000 of post of SuggestedF Make th and ma: Proposed R C/ 180 Johnson, Jo Comment T In Table of furthe	CQ reference e BASE-FR4-50 BASE-DR1-2 cursor taps of 1 Remedy the format of the kimum number esponse SC 180.9.5 bhn ype TR a 180-18, the minute er proposals, thi 4.	equalizer is TBD in table 180-1 10 in table 181-13 and 800GBA etc in table 182-18 the formar 3 implying a minimum number tables the same. Adopt a min of ppre-cursor taps of 3 for all Response Status O P430 Broadcom Comment Status X inimum number of equalizer pro-	8 (for 200GBA: SE-FR4 etc. in t is different with r of pre-cursor t nimum number the tables.	SE-DR1 etc.) as it is table 183- 14 whereas h a maximum number aps of 2. of pre-cursor taps of 2 # 172	Comment T Table 1 specifie footnote Suggested Change	Type T 80-8. Footnote ss the target value is helpful to e e is helpful to e Remedy e footnote b to	Comment Statu b redundantly defin lue 1 so it doesn't ne xplain what FFE gai	s X es the limit eed to be r n is. equalizer co	t of FFE gain. TI epeated in the fo	
the TDE for 8000 for 2000 of post of SuggestedR Make th and ma: Proposed R C/ 180 Iohnson, Jo Comment T In Table of furthe 121.8.5 SuggestedR Change	CQ reference e BASE-FR4-50 BASE-DR1-2 cursor taps of 1 Remedy the format of the kimum number esponse SC 180.9.5 bhn ype TR a 180-18, the minute er proposals, thi 4.	equalizer is TBD in table 180-1 00 in table 181-13 and 800GBA etc in table 182-18 the forma 3 implying a minimum number tables the same. Adopt a min of ppre-cursor taps of 3 for all <i>Response Status</i> O <i>P</i> 430 Broadcom <i>Comment Status</i> X inimum number of equalizer pr is value should be 0, consister 180-18 to 0.	8 (for 200GBA: SE-FR4 etc. in t is different with r of pre-cursor t nimum number the tables.	SE-DR1 etc.) as it is table 183- 14 whereas h a maximum number aps of 2. of pre-cursor taps of 2 # 172	Comment T Table 1 specifie footnote Suggested Change	Type T 80-8. Footnote ss the target value is helpful to e e is helpful to e Remedy e footnote b to	Comment Statu b redundantly defin lue 1 so it doesn't ne xplain what FFE gai	s X es the limit eed to be r n is. equalizer co	t of FFE gain. TI epeated in the fo	

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 180 SC 180.9.5 Page 81 of 107 2025-01-03 11:17:26 A

C/ 180	SC 180.9.5	P 431	L 9	# 332	C/ 180	SC 180.	9.11	P 433	L12	# 334
Ran, Adee	e	Cisco			Ran, Adee			Cisco		
Comment	Type TR	Comment Status X			Comment	Type ER	l	Comment Status X		
		ble 180-19 contains the term st paragraph of this subclaus	,	d this term also	result of	consistent w	ith tha	an important observation t at of the older method. This , the equation does not ma	s is important in	formation for the reader;
		term means. DGD is defined			Suggested	Remedy				
		o times; based on this definit t does not have a mean.	ion, it is not a far	dom vanable (given a		informative				
	ect that the inten	nt is just that the DGD of the	channel is below	the maximum value,				f RINxxOMA in equation 18 surement method defined i		to make the result
Suggested	, ,				Implem	nent similarl	y in ot	ther optical PMD clauses a	s necessary, wi	th editorial license.
If the i	2	late a mean of some distribut as appropriate.	ion of DGD, clari	fy what that distribution	Proposed I	Response		Response Status O		
Impler	ment similarly in	other optical PMD clauses as	s necessary, with	editorial license.	C/ 180	SC 180.	9.13	P433	L 37	# 335
Proposed	Response	Response Status O			Ran, Adee			Cisco		
					Comment	Type TR		Comment Status X		
<i>Cl</i> 180 Ran, Adee	SC 180.9.10	P 432 Cisco	L 35	# 333				the RINxxOMA of the SRS pecified in Table 180–7".	test transmitter	are said to be "no
Comment		Comment Status X						ion ratio it just says "as giv		
	51	time measurement is defined	with good detail	but it is unclear		the receiver		nitter, or no higher than the	e minimum (beca	ause the intent is to
whethe	er the reference	equalizer is to be used in the					,			
affect	the result).							assumes that ER is just rees not the case, something e		
		IA (180.9.11) it is specified ex qualizer. I assume this shoul			Suggested	Remedy		-		
Suggested		qualizer. I assume this shoul			Chang	e "are as gi	ven in	" to "are within the limits sp	pecified in".	
	-	eference equalizer is to be us	ed or not		Implem	nent similarl	v in of	ther optical PMD clauses a	s necessary, wi	th editorial license.
Opeen	y mouler are re				Proposed I		,	Response Status 0		
Impler	ment similarly in	other optical PMD clauses as	s necessary with	editorial license		looponoo				
•	Response	Response Status O	s necessary, with	cultorial license.						
ropoodu	response									

C/ 180 SC 180.9.13

C/ 180 SC 180.10.1	P 433	L 47	# 336	C/ 180A	SC 180A	P831	L6	# 517
Ran, Adee	Cisco	- 71	# 350	Dawe, Piers		Nvidia	20	
,	Comment Status X			Comment T		Comment Status X		
Why is "IEC 62368-1" in gr Similarly for IEC references	reen? It is not expected to	o become an act	ive cross-reference.	This sa While 8	ys "informative 02.3 should ac	" while line 18 says "This anne knowledge the reality and imp nnectors, and as there are so	ortance of brea	kout, it does not have
	3 11 100.10.2.					ed. Leave it to the MSAs, TIA		n module formats, that
SuggestedRemedy Change the format of these	e references to regular te	ext.		SuggestedF	Remedy	describes", like 179D.		
Implement similarly in othe	er optical PMD clauses as	s necessary, with	editorial license.	e				
Proposed Response R	Response Status O			Proposed R	kesponse	Response Status O		
	P 435	L 46	# [227]	C/ 181	SC 181.1	P 438	L 49	# 338
		L 40	# 337	Ran, Adee		Cisco		
Ran, Adee Comment Type ER ("PMD_signal_detect_3, to	Cisco Comment Status X			Comment T 169.2 is	<i>ype</i> ER s included in th	Comment Status X is amendment.		
SuggestedRemedy				SuggestedF Make it	R <i>emedy</i> an active link.			
Delete "to".				Proposed R	Response	Response Status 0		
Implement similarly in othe	•	s necessary, with	i editorial license.					
Proposed Response R	Response Status O			C/ 181	SC 181.3	P 440	L 2	# 228
				Ghiasi, Ali		Ghiasi Qunatu	um/Marvell	
C/ 180A SC 180A	P 831	L1	# 57	Comment T	ype TR	Comment Status X		
D'Ambrosia, John	Futurewei, U.	.S. Subsidiary of	Huawei			n Fig 180-2 is from the Inner s		
Comment Type TR 0	Comment Status X					box on the RX has Signal_OF or variables before intorudcing		about Signal_OK then
This is a resubmission of C				SuggestedF				
The annex is not written in breakout implementation, a				00		would be helfull here. After th	ne 1st paragrap	h add sentence: The
Additionally, Clauses 180 a	and 182 are making norm	native statements				oport Inter-sublayer Layer Trai		
despite the annex then pro WHile the comment was re encouraged."			iled proposal is	Proposed R	Response	Response Status O		
SuggestedRemedy								
Implement attached file ("d	lambrosia_3dj_01_25010	02.pdf") with edit	orial license.					
Proposed Response R	Response Status O							

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

 C/
 181
 Page 8

 SC
 181.3
 2025-0

Page 83 of 107 2025-01-03 11:17:26 A

C/ 181	SC 181.3	P 440	L 6	# 339	C/ 181 SC 181.7.1 P445 L13 # 342
Ran, Adee		Cisco			Ran, Adee Cisco
omment	Type ER	Comment Status X			Comment Type TR Comment Status X
For this Using ' appear	"n" just makes li	ber of PMD lanes is always 4 fe harder for the reader, espe the clause, and in some plac sed.	cially since n (w	ith this meaning) only	The specification of "Total average launch power" is 6 dB higher (a factor of 4 in power) than the per-lane average launch power. This makes the "total" specification redundant - if each lane meets its specification then t total will also be met; if the total fails, one of the lanes must also fail.
Note th	nat the "n" in 800	GAUI-n is a different variable	e and should be	kept as is.	The same holds for the FR4/LR4 WDM transmitters in Table 183-4.
uggested	Remedy				SuggestedRemedy
	e to "where i = 0 "The number of	to 3". parallel streams, n, is 4.".			Delete the "Total" row. Add a footnote for the "each lane" row stating that the maximum total power is 6 dB above the per-lane maximum or 10.9 dB.
	5.4 change n to 5.5. in Table 18	4. 1-15, and in Table 181-16, cl	hange "n-1" to 3		Implement similarly in 183.7.1 with modified values as necessary.
Proposed I		Response Status O			Proposed Response Response Status O
	<u> </u>	P440	1.05	# 040	C/ 181 SC 181.7.3 P448 L48 # 232
7 181	SC 181.4.1	Cisco	L 25	# 340	Ghiasi, Ali Ghiasi Qunatum/Marvell
Ran, Adee Comment 3		Comment Status X			Comment Type TR Comment Status X
	s included in thi				MPI/DGP penalty of 0.5 dB maybe to small for this PMD type
Suggested		s amonamont.			SuggestedRemedy
	t an active link.				The MPI penalty is 0.41 dB and DGD penalty is 0.18 the total penalty is 0.59 dB, not considering worst case current 0.5 dB mabe be acceptable. See Ghiasi_3dj_02_2501
Proposed I		Boononoo Statua			Proposed Response Response Status O
Toposeu i	response	Response Status O			Tresponse Status
2/ 181	SC 181.4.2	P 440	L 28	# 341	C/ 181 SC 181.9 P451 L51 # 237
Ran, Adee		Cisco			Ghiasi, Ali Ghiasi Qunatum/Marvell
Comment 1 169.5 i	Type ER s included in thi	Comment Status X s amendment.			Comment Type TR Comment Status X Counter propagating traffic must be active for these tests
Suggested	Remedy				SuggestedRemedy
Make i	t an active link (twice).			Add the following paragrpah, Counter-propagating asynchronous optical signal (crosstalk
Proposed I	Response	Response Status O			at maximum OMA applied to the module under test TP3. The crosstalk pattern can be PRBS31Q, or a valid 100GBASE-R, 200GBASE-R, or 400GBASE-R, or 800GBASE-R, o 1.6TBASE-R signal. See Ghiasi_3dj_01_2501
					Proposed Response Response Status O

 TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
 C/
 181

 COMMENT STATUS: D/dispatched A/accepted R/rejected
 RESPONSE STATUS: O/open W/written C/closed Z/withdrawn
 SC
 181.9

 SORT ORDER: Clause, Subclause, page, line
 SC
 181.9
 SC
 181.9

Page 84 of 107 2025-01-03 11:17:26 A

C/ 181	SC 181.9.5	P 454	L 4	# 173
Johnson,	John	Broadcom		
Comment	Type TR	Comment Status X		
which	is not appropriate	d points to clause 121.8.5.3, of for 200G/lane AUIs. As give Is should be 4.56e-4 for unco	n in Table 174	A-1, the appropriate
Suggested	Remedy			
	new exception to et PAM4 symbol e	the list: error ratio of 4.56e-4."		
Proposed	Response	Response Status O		
C/ 181	SC 181.9.5	P 454	L 22	# 245
Ghiasi, Ali		Ghiasi Qunatu	ım/Marvell	
Comment	Type TR	Comment Status X		
either	we need to devel	or measurement but the TDE op a Golden hardwre referen capture block erros/penalty.		
Suggestea	Remedy			
		lation is to measure block TD vaveforms which forms 65535		

capturing 10 SSPRQ waveforms which forms 65535 FEC symbols, ~120 KP4 FEC blocks, or 30 interleaved KP4 FEC blocks when 4-with way interleaving. Each of the 30 KP4 blocks are processed as in definition in

https://www.ieee802.org/3/dj/public/24_09/healey_3dj_02a_2409.pdf proposal. Use worst 3 blocks from each group of 30 blocks then combine 3 worst blocks from the 4 group to create the PDF. Then calculate block TDECQ, add line item to table 181-7 with limit of 3.6 dB. See Ghiasi_3dj_03_2501

Proposed Response Response Status **0**

C/ 181	SC	181.9.5	P 454	L	22	# 241
Ghiasi, Ali			Ghiasi Q	unatum/Mar	vell	
Comment	Туре	TR	Comment Status X			
TDEC	Q mas	uremnt ne	eds to define test condit	ion when the	ere is an	optional AUI
Suggested	Reme	dy				
confor applic Modul	ming ir able mo e stres	nplementa odule stres sed input t	o the list of requiremetrs tion must meet TDECQ is input test as in 176C. olerance, or 120E.3.4.1 ving the TDECQ patterr	with the exp 4.4.5 Receiv Module stre	oosed Al ver jitter t essed inp	JI configured for olerance, 120G.3.4. out test and the
Proposed	Respo	nse	Response Status 0			
C/ 181	SC	181.9.5	P 454	L	30	# 187
Brown, Ma	att		Alphawa	ve Semi		
Comment	Type	т	Comment Status X			
Value Suggested	for min	iimum "nui dy	mber of equalizer pre-cu	·		to vary from 0 to 3 o
Value Suggested Either stradd	for mir Remed set the le the r	imum "nui dy the value ninimum/n		er of pre-cur	sor taps	
Value Suggester Either stradd Proposed	for mir IRemed set the le the r Respon	imum "nui dy the value ninimum/n	nber of equalizer pre-cu to 0 allowing the numbe naximum columns with a	er of pre-curs a value of 3,	sor taps	ng only a value of 3.
Value Suggester Either stradd Proposed Cl 181	for mir IRemed set the le the r Respon	imum "nui dy the value ninimum/n	mber of equalizer pre-cu to 0 allowing the numbe naximum columns with a <i>Response Status</i> O <i>P</i> 454	er of pre-cura a value of 3,	sor taps permittir 30	
Value Suggested Either stradd Proposed Cl 181 Ghiasi, Ali	for mir IRemed set the le the r Respon	imum "nui dy the value ninimum/n	mber of equalizer pre-cu to 0 allowing the numbe naximum columns with a <i>Response Status</i> O <i>P</i> 454	er of pre-curs a value of 3,	sor taps permittir 30	ng only a value of 3.
Value Suggester Either stradd Proposed Cl 181 Ghiasi, Ali Comment	for mir IRemed set the Ile the r Respon	the value ninimum/n nse 181.9.5 TR	mber of equalizer pre-cu to 0 allowing the number naximum columns with a <i>Response Status</i> O <i>P</i> 454 Ghiasi Q	er of pre-cur a value of 3, L unatum/Mar	sor taps permittir 30	ng only a value of 3.
Value Suggester Either stradd Proposed Cl 181 Ghiasi, Ali Comment Numb	for mir for mir <i>Remea</i> set the le the r <i>Respon</i> <i>SC</i> <i>Type</i> er of pr	imum "nui dy the value ninimum/n nse 181.9.5 TR e-cursor is	mber of equalizer pre-cu to 0 allowing the number naximum columns with a <i>Response Status</i> O <i>P</i> 454 Ghiasi Q <i>Comment Status</i> X	er of pre-cur a value of 3, L unatum/Mar	sor taps permittir 30	ng only a value of 3.
Value Suggester Either stradd Proposed Cl 181 Ghiasi, Ali Comment Numb Suggester What floatin	for mir for mir <i>IRemed</i> set the le the r <i>Respon</i> <i>SC</i> <i>Type</i> er of pr <i>IRemed</i> was ag g at lea	imum "nui dy the value ninimum/n nse 181.9.5 TR e-cursor is dy reed durin	mber of equalizer pre-cu to 0 allowing the number naximum columns with a <i>Response Status</i> O <i>P</i> 454 <i>Ghiasi Q</i> <i>Comment Status</i> X s maximum with min TBI g Sept 2024 meeting to , given than agreement	er of pre-curs a value of 3, L unatum/Mar D go with fixed	sor taps permittir 30 vell d 3 pre-c	# 250
Value Suggested Either stradd Proposed Cl 181 Ghiasi, Ali Comment Numb Suggested What floatin 3 simi	for min for min Remed set the le the r Respon SC Type er of pr dRemed was ag g at lea lar to F	imum "nun dy the value ninimum/n nse 181.9.5 TR e-cursor is dy reed durin ist for now FE length	mber of equalizer pre-cu to 0 allowing the number naximum columns with a <i>Response Status</i> O <i>P</i> 454 <i>Ghiasi Q</i> <i>Comment Status</i> X s maximum with min TBI g Sept 2024 meeting to , given than agreement	er of pre-curs a value of 3, L unatum/Mar D go with fixed	sor taps permittir 30 vell d 3 pre-c	# 250
Value Suggester Either stradd Proposed Cl 181 Ghiasi, Ali Comment Numb Suggester What floatin	for min for min Remed set the le the r Respon SC Type er of pr dRemed was ag g at lea lar to F	imum "nun dy the value ninimum/n nse 181.9.5 TR e-cursor is dy reed durin ist for now FE length	mber of equalizer pre-cu to 0 allowing the number naximum columns with a <i>Response Status</i> O <i>P</i> 454 <i>Ghiasi</i> Q <i>Comment Status</i> X is maximum with min TBI g Sept 2024 meeting to , given than agreement of 15.	er of pre-curs a value of 3, L unatum/Mar D go with fixed	sor taps permittir 30 vell d 3 pre-c	# 250

C/ 181 SC 181.9.5

C/ 181 SC 181.9.5	5 P 454	L31	# 174	C/ 182 SC 182.3	P 465	L6	# 229
Johnson, John	Broadcom			Ghiasi. Ali	Ghiasi Qunat	•	
Comment Type TR	Comment Status X			Comment Type TR	Comment Status X		
	minimum number of equalizer p this value should be 0, consiste			on TX and another IL	in Fig 180-2 is from the Inner s T box on the RX has Signal_O er variables before intorudcing	K out. We talk	hen goes into ILT box about Signal_OK then
uggestedRemedy				SuggestedRemedy			
Change TBD in Tabl Delete the associate	ed editors note.	Kaal dalata Tabl			2 would be helfull here. After t pport Inter-sublayer Layer Tra		
and refer to Table 18	sideration: If the specs are ident 80-18.	lical, delete Tabl	e 181-13 completely	Proposed Response	Response Status O		
Proposed Response	Response Status 0						
				C/ 182 SC 182.7.1	P 471	L 27	# 33
/ 181 SC 181.9.1	11 P456	L 39	# 343	Landry, Gary	Texas Instrum	nents	
an, Adee	Cisco			Comment Type TR	Comment Status X		
omment Type E	Comment Status X			OMAouter vs max(TE values were changed	CQ, TDECQ) figure was not u in D1.3.	pdated when the	e OMAouter (min)
	ncludes a specific value of xx, 1	7.1, but the text	still has "xx".	SuggestedRemedy			
	se text to use the specific value.				natch D1.3 data. To be specific TDECQ) < 0.9 dB and 1.2+ma		
	80.9I.11 add "with xx equal to 17	7.1".		Proposed Response	Response Status O		
Proposed Response	Response Status O						
				C/ 182 SC 182.9	P 480	L 45	# 238
/ 181 SC 181.9.1	13 P 457	L 7	# 263	Ghiasi, Ali	Ghiasi Qunat	um/Marvell	
	Ghiasi Qunatu	um/Marvell		Comment Type TR	Comment Status X		
,				Counter propagating	well's way at his setting far these		
comment Type TR	Comment Status X			Counter propagating	raffic must be active for these	tests	
,				SuggestedRemedy	rame must be active for these	tests	
Comment Type TR Reference 121.8.10	doesn't exist			SuggestedRemedy Add the following par- at maximum OMA ap	agrpah, Counter-propagating a plied to the module under test	synchronous op TP3. The cross	talk pattern can be
Reference 121.8.10 SuggestedRemedy	doesn't exist			SuggestedRemedy Add the following par- at maximum OMA ap PRBS31Q, or a valid	agrpah, Counter-propagating a	synchronous op TP3. The cross	talk pattern can be

 C/
 182
 Page 8

 SC
 182.9
 2025-0

Page 86 of 107 2025-01-03 11:17:26 A

	SC 182.9.1	P 481	L9	# 345	C/ 182	SC 182	.9.1	P 507	L9	# 112
Ran, Adee	е	Cisco			Mi, Guang	can		Huawei Tech	nologies Co., Lto	d
Comment	Type TR	Comment Status X			Comment	Туре Т	R Cor	nment Status X		
Comment Type TR Comment Status X Pattern 3 as defined in 177.4.9.2 is PRBS31Q without the inner FEC encoding. In contrast, Pattern 5 us defined to include the Inner FEC encoding. Table 182-17 says RS and SRS can be tested with either pattern 3 or pattern 5. To measure the block error ratio in either of these tests, the Inner FEC encoding is required. This cannot be achieved for per-lane testing with the current test pattern definition. Note that measuring the pre-FEC BER with PRBS31Q (without inner FEC encoding) may seem like a desirable test, but this cannot be the normative requirement, since it does not account for correlated errors that the PMD's receiver can cause. SuggestedRemedy Either redefine pattern 3 in 177.4.9.2 to include the inner FEC encoding, or change the reference to the PMA's PRBS31Q and specify that the Inner FEC has to be able to add inner FEC encoding to this signal. Proposed Response Response Status O					 Table 182-12 lists the pattern that will be used by the PMDs in CL182 and its last column gives references of the definition of these test pattern. This table can be found in all PMI clauses. Table 182-12 uses the subclauses in CL177 Inner FEC as reference sources for all test pattern, because the PMD interfaces with inner FEC sublayer. This is good for test pattern 5 and 7 where the test pattern is encoded by the 800GBASE-R Inner FEC. However, for other test patterns that are generic to all PMDs, referencing to the original source would be a better choice. Take square wave as an example, CL 177.4.9.4 says "The Inner FEC may optionally support a square wave (quaternary) test-pattern generator, as specified in 120.5.11.2.4, on each transmit output lane towards the PMD service interface." This subclause is not defining the pattern of square wave, rather stating a function of the Inner FEC sublayer. For readers who want to know the definition of squarewave, one will have jump again to 120.5.11.2.4. Therefore it is better to just reference directly to 120.5.11.2.4. Table 182-12. SuggestedRemedy change the defined in reference to in 120.5.11.2.2 				n be found in all PMD reference sources for r. This is good for test E-R Inner FEC. ncing to the original C may optionally fied in a interface." This a function of the Inner ewave, one will have to	
Proposed .					Proposed			bonse Status \mathbf{O}		
Proposed							Resi	DODSE STATUS		
		P 507	L 8	# 111	Fioposeu	tesponse	100			
C/ 182	SC 182.9.1	P 507 Huawei Tech	L 8 nologies Co., Lt	# <u>111</u>	Froposed	(esponse	100			
Proposed I Cl 182 Mi, Guang Comment	SC 182.9.1 gcan		L8 nologies Co., Lt		Fioposed	(esponse	100			

Take square wave as an example, CL 177.4.9.4 says "The Inner FEC may optionally support a square wave (quaternary) test-pattern generator, as specified in 120.5.11.2.4, on each transmit output lane towards the PMD service interface." This subclause is not defining the pattern of square wave, rather stating a function of the Inner FEC sublayer. For readers who want to know the definition of squarewave, one will have to jump again to 120.5.11.2.4. Therefore it is better to just reference directly to 120.5.11.2.4 in Table 182-12.

SuggestedRemedy

change the defined in reference to 120.5.11.2.4

Proposed Response Response Status **O**

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 182 SC 182.9.1 Page 87 of 107 2025-01-03 11:17:26 A

C/ 182 SC 182.9.1	P 507	L16	# 98
			# 30
Mi, Guangcan	Huawei Teo	chnologies Co., Lto	d
Comment Type TR	Comment Status X		
gives references of the clauses. Table 182-12 all test pattern, becaus pattern 5 and 7 where However, for other tes	e definition of these test pat 2 uses the subclauses in CL se the PMD interfaces with i the test pattern is encoded st patterns that are generic to	tern. This table car 177 Inner FEC as inner FEC sublaye by the 800GBASE	n be found in all PMD reference sources for er. This is good for test E-R Inner FEC.
support a square wave 120.5.11.2.4, on each subclause is not defin FEC sublayer. For rea	e (quaternary) test-pattern g transmit output lane toward ing the pattern of square wa ders who want to know the	enerator, as speci ls the PMD service ave, rather stating a definition of square	fied in e interface." This a function of the Inner ewave, one will have to
	Comment Type TR Table 182-12 lists the gives references of th clauses. Table 182-12 all test pattern, becau pattern 5 and 7 where However, for other tes source would be a bet Take square wave as support a square wave 120.5.11.2.4, on each subclause is not defin FEC sublayer. For rea jump again to 120.5.1	Comment TypeTRComment Status XTable 182-12 lists the pattern that will be used by gives references of the definition of these test patter clauses. Table 182-12 uses the subclauses in CL all test pattern, because the PMD interfaces with pattern 5 and 7 where the test pattern is encoded However, for other test patterns that are generic to source would be a better choice.Take square wave as an example, CL 177.4.9.4 st support a square wave (quaternary) test-pattern g 120.5.11.2.4, on each transmit output lane toward subclause is not defining the pattern of square wave FEC sublayer. For readers who want to know the jump again to 120.5.11.2.4. Therefore it is better to Table 182-12.	Comment Type TR Comment Status X Table 182-12 lists the pattern that will be used by the PMDs in CL18 gives references of the definition of these test pattern. This table can clauses. Table 182-12 uses the subclauses in CL177 Inner FEC as all test pattern, because the PMD interfaces with inner FEC sublaye pattern 5 and 7 where the test pattern is encoded by the 800GBASE However, for other test patterns that are generic to all PMDs, reference would be a better choice. Take square wave as an example, CL 177.4.9.4 says "The Inner FE support a square wave (quaternary) test-pattern generator, as speci 120.5.11.2.4, on each transmit output lane towards the PMD service subclause is not defining the pattern of square wave, rather stating a FEC sublayer. For readers who want to know the definition of square jump again to 120.5.11.2.4. Therefore it is better to just reference di Table 182-12.

SuggestedRemedy

change the defined in reference to in 120.5.11.2.1

Proposed Response Response Status **0**

SuggestedRemedy

change the defined in reference to in 120.5.11.2.3

Proposed Response Response Status **0**

C/ 182	SC 182.9.5	P 483	L1	# 346	
Ran, Adee		Cisco			

Comment Type TR Comment Status X

"Target PAM4 symbol error ratio of 9.6 x 10^-3"

If this value is used instead of 4.8e-4 as TDECQ was originally defined, then TDECQ of an ideal transmitter would be negative, because the normalization factor Q_t is "consistent with the BER and target symbol error ratio for Gray coded PAM4" (which is 4.8e-4).

This makes TDECQ something other than a "penalty" as it is typically understood.

In addition, as demonstrated by several presentations, TDECQ with such high SER is not feasible, as test signal achieving the maximum TDECQ cannot be measured..

It would make more sense to keep the target PAM4 SER as 4.8e-4 (with the same Q_t) and instead relax the maximum TDECQ value in this clause by a factor corresponding to the lower Q function of the higher SER, to allow a more closed eye:

- For SER=4.8e-4: Q(SER*2/3)=-3.414 (as in 121.8.5.3)

- For SER=9.6e-3: Q(SER*2/3)=-2.489

- 10*log10(3.414/2.489)=1.37 dB

Thus the relaxation should be 1.37 dB.

SuggestedRemedy

Change the target PAM4 SER to 4.8e-4. Change the maximum TDECQ and TECQ from 3.2 dB to 3.2+1.37=4.57 dB. Make corresponding changes to the receiver specifications (SECQ) in Table 181–6.

Implement similarly in clause 183 with modified values as necessary, with editorial license.

Proposed Response Response Status O

C/ 182	SC 182.9.5	P 483	L17	# 246
Ghiasi, Ali		Ghiasi Qunatu	m/Marvell	
0		O		

Comment Type TR Comment Status X

182.2 require block error measurement but the TDECQ is an average penalty measurement, either we need to develop a Golden hardwre reference receiver or we have to improve TDECQ test method to capture block erros/penalty.

SuggestedRemedy

Instead the recommendation is to measure block TDECQ where block TDECQ is by capturing 10 SSPRQ waveforms which forms 65535 FEC symbols, ~120 KP4 FEC blocks, or 30 interleaved KP4 FEC blocks when 4-with way interleaving. Each of the 30 KP4 blocks are processed as in definition in

https://www.ieee802.org/3/dj/public/24_09/healey_3dj_02a_2409.pdf proposal. Use worst 3 blocks from each group of 30 blocks then combine 3 worst blocks from the 4 group to create the PDF. Then calculate block TDECQ, add line item to table 182-7 with limit of 3.6 dB. See Ghiasi_3dj_03_2501

Proposed Response Response Status **O**

C/ 182 S	C 182.9.5	P 483	L17	# 242
Ghiasi, Ali		Ghiasi Qunat	um/Marvell	
Commont Tuno	то	Commont Status V		

Comment Type **TR** Comment Status **X**

TDECQ masuremnt needs to define test condition when there is an optional AUI

SuggestedRemedy

Add following codition to the list of requiremeths in 180.9.5: Where AUI is exposed, a conforming implementation must meet TDECQ with the exposed AUI configured for applicable module stress input test as in 176C.4.4.5 Receiver jitter tolerance, 120G.3.4.3 Module stressed input tolerance, or 120E.3.4.1 Module stressed input test and the recovered AUI clock driving the TDECQ pattern. See Ghiasi_3dj_01_2501

Proposed Response Response Status **O**

C/ 182 SC 182.9.5

C/ 182 SC 1	82.9.5	P 483	L25	# 249	C/ 182	SC 182.	12	P 490	L3	# 109
Ghiasi, Ali		Ghiasi Qunatu	m/Marvell		Mi, Guango	an		Huawei Tecl	nnologies Co., Lt	d
Comment Type	TR	Comment Status X			Comment T	ype ER		Comment Status X		
Number of pre-	-cursor is	not maximum but rather just	3		type 40	0GBASE-D	R4 is	not the PMD type of claus	e 182	
SuggestedRemedy	/				SuggestedF	Remedy				
	t for now,	g Sept 2024 meeting to go wit given than agreement merge			1.6TBA	SE-DR8-2"		SE-DR1-2, 400GBASE-D	R2-2, 800GBASI	E-DR4-2, and
	-				Proposed R	Response		Response Status 0		
Proposed Respons	se	Response Status O								
					C/ 182	SC 182.	12	P 490	L8	# 110
C/ 182 SC 1	82.9.5	P 483	L 25	# 175	Mi, Guango	an		Huawei Tecl	nnologies Co., Lt	d
Johnson, John		Broadcom			Comment T			Comment Status X	0	
Comment Type	TR	Comment Status X			PMD ty	pes should	be up	dated in the text.		
blank. In the a	bsence of	nimum number of equalizer p f further proposals, this FFE	definition should	be the same as given	SuggestedF					
the 5-tap FFE of			or taps should b	e 0, consistent with				E-DR4" to " type 200GBA\$ 1.6TBASE-DR8-2"	SE-DR1-2, 400G	BASE-DR2-2,
	defined in		or taps should b	e 0, consistent with		AŚĖ-DR4-2			SE-DR1-2, 400G	BASE-DR2-2,
the 5-tap FFE of SuggestedRemedy Format Table 1 cursor taps), ar Delete the asso For the editor's	defined in / 182-18 to nd change ociated ec s consider	be the same as Table 180-14 e the minimum number of pre- ditors note. ation: If the specs are identi	8 (delete the row e-cursor taps to	<i>i</i> for number of post- 0.	800GB/	AŚĖ-DR4-2	2, and	1.6TBASE-DR8-2"	L6	BASE-DR2-2, # <u>230</u>
the 5-tap FFE of SuggestedRemedy Format Table 1 cursor taps), ar Delete the asso For the editor's and refer to Ta	defined in / 182-18 to nd change ociated ed s consider able 180-1	121.8.5.4. be the same as Table 180-18 e the minimum number of pre- ditors note. ration: If the specs are identi 8.	8 (delete the row e-cursor taps to	<i>i</i> for number of post- 0.	800GB/ Proposed R C/ 183	AŚĖ-DR4-2 Response SC 183 .:	2, and 3	1.6TBASE-DR8-2" Response Status O P494	L6	
the 5-tap FFE of SuggestedRemedy Format Table 1 cursor taps), ar Delete the asso For the editor's and refer to Ta Proposed Respons	defined in / 182-18 to nd change ociated ec s consider able 180-1 se	121.8.5.4. be the same as Table 180-18 e the minimum number of pre ditors note. ation: If the specs are identi 8. <i>Response Status</i> O	8 (delete the row e-cursor taps to cal, delete Table	v for number of post- 0. 9 182-18 completely	800GB/ Proposed R C/ 183 Ghiasi, Ali Comment T Signal_ on TX a	AŚĖ-DR4-2 Response SC 183.: Type TR OK as shor and another	2, and 3 wn in I	1.6TBASE-DR8-2" Response Status O P494 Ghiasi Quna Comment Status X Fig 180-2 is from the Inner iox on the RX has Signal_C	<i>L</i> 6 itum/Marvell sublayer above DK out. We talk	# 2 <u>30</u> then goes into ILT box
the 5-tap FFE of SuggestedRemedy Format Table 1 cursor taps), ar Delete the asso For the editor's and refer to Ta Proposed Respons	defined in / 182-18 to nd change ociated ed s consider able 180-1	121.8.5.4. be the same as Table 180-18 e the minimum number of pre- ditors note. ation: If the specs are identi 8. <i>Response Status</i> O <i>P</i> 483	8 (delete the row e-cursor taps to cal, delete Table <i>L</i> 25	<i>i</i> for number of post- 0.	800GB/ Proposed R C/ 183 Ghiasi, Ali Comment T Signal_ on TX a jump in	ASE-DR4-2 Response SC 183.: Type TR OK as sho and another to inter-sup	2, and 3 wn in I	1.6TBASE-DR8-2" <i>Response Status</i> O <i>P</i> 494 Ghiasi Quna <i>Comment Status</i> X Fig 180-2 is from the Inner	<i>L</i> 6 itum/Marvell sublayer above DK out. We talk	# 2 <u>30</u> then goes into ILT box
the 5-tap FFE of SuggestedRemedy Format Table 1 cursor taps), ar Delete the asso For the editor's and refer to Ta Proposed Respons Cl 182 SC 18 Brown, Matt	defined in / 182-18 to nd change ociated ec s consider able 180-1 se	121.8.5.4. be the same as Table 180-18 e the minimum number of pre ditors note. ation: If the specs are identi 8. <i>Response Status</i> O	8 (delete the row e-cursor taps to cal, delete Table <i>L</i> 25	v for number of post- 0. 9 182-18 completely	800GB/ Proposed R C/ 183 Ghiasi, Ali Comment T Signal_ on TX a jump in SuggestedF Referer	ASE-DR4-2 Response SC 183.3 Type TR OK as sho and another to inter-sup Remedy ncing Fig 18	2, and 3 • ILT b layer •	1.6TBASE-DR8-2" Response Status O P494 Ghiasi Quna Comment Status X Fig 180-2 is from the Inner iox on the RX has Signal_C	L6 atum/Marvell sublayer above DK out. We talk g ILT. the 1st paragrap	# 230 then goes into ILT box about Signal_OK then h add sentence: The
the 5-tap FFE of SuggestedRemedy Format Table 1 cursor taps), ar Delete the asso For the editor's and refer to Ta Proposed Respons Cl 182 SC 18 Brown, Matt Comment Type	defined in / 182-18 to nd change ociated ec s consider able 180-1 se 82.9.5 T	121.8.5.4. be the same as Table 180-11 e the minimum number of pre ditors note. ation: If the specs are identi 8. <i>Response Status</i> O <i>P</i> 483 Alphawave Se	8 (delete the row e-cursor taps to cal, delete Table <i>L</i> 25 mi	v for number of post- 0. e 182-18 completely # 189	800GB/ Proposed R C/ 183 Ghiasi, Ali Comment T Signal_ on TX a jump in SuggestedF Referer	ASE-DR4-2 Response SC 183.: Type TR OK as shor and another to inter-sup Remedy ncing Fig 18 this clause	2, and 3 • ILT b layer •	1.6TBASE-DR8-2" Response Status O P494 Ghiasi Quna Comment Status X Fig 180-2 is from the Inner iox on the RX has Signal_C variables before intorudcin rould be helfull here. After	L6 atum/Marvell sublayer above DK out. We talk g ILT. the 1st paragrap	# 230 then goes into ILT box about Signal_OK then h add sentence: The
the 5-tap FFE of SuggestedRemedy Format Table 1 cursor taps), ar Delete the asso For the editor's and refer to Ta Proposed Respons Cl 182 SC 18 Brown, Matt Comment Type Value for minin SuggestedRemedy Either set the th	defined in / 182-18 to nd change ociated ec s consider ible 180-1 se 82.9.5 T num "num / the value t	121.8.5.4. be the same as Table 180-18 e the minimum number of pre- ditors note. ration: If the specs are identi 8. <i>Response Status</i> O <i>P</i> 483 Alphawave Se <i>Comment Status</i> X	8 (delete the row e-cursor taps to cal, delete Table <i>L</i> 25 mi aps" is not spec ore-cursor taps to	for number of post- 0. 182-18 completely # 189 fied.	800GB/ Proposed R Cl 183 Ghiasi, Ali Comment T Signal_ on TX a jump in SuggestedF Referer PMD in	ASE-DR4-2 Response SC 183.: Type TR OK as shor and another to inter-sup Remedy ncing Fig 18 this clause	2, and 3 • ILT b layer •	1.6TBASE-DR8-2" <i>Response Status</i> O <i>P</i> 494 Ghiasi Quna <i>Comment Status</i> X Fig 180-2 is from the Inner iox on the RX has Signal_C variables before intorudcin rould be helfull here. After ort Inter-sublayer Layer Tr	L6 atum/Marvell sublayer above DK out. We talk g ILT. the 1st paragrap	# 230 then goes into ILT box about Signal_OK then h add sentence: The

Cl	183
SC	183.3

C/ 183	SC 183.7.3	P 502	L 46	# 234	C/ 183	SC 183.9.5	P 509	L 4	# 243
Ghiasi, Ali		Ghiasi Qunatu	m/Marvell		Ghiasi, Ali		Ghiasi C	unatum/Marvell	
Comment Ty	ype TR	Comment Status X			Comment	Type TR	Comment Status X		
MPI/DG	P penalty of 0.5	5 dB is larger than needed for	800GBASE-FR	4	TDECO	a masuremnt n	eeds to define test condit	tion when there is a	n optional AUI
SuggestedR	Remedy				Suggested	Remedy			
	D can be reduc 3dj_02_2501	ed to 0.4 dB then link budget	increased by 0.	1 dB. See	conforr	ning implement	to the list of requiremetn ation must meet TDECC	with the exposed A	UI configured for
Proposed Re	esponse	Response Status O			Module	e stressed input	ess input test as in 176C. tolerance, or 120E.3.4.1 riving the TDECQ pattern	Module stressed in	put test and the
C/ 183	SC 183.7.3	P 502	L 46	# 235	Proposed F	Response	Response Status O		
Ghiasi, Ali		Ghiasi Qunatu	m/Marvell						
Comment Ty	ype TR	Comment Status X			C/ 183	SC 183.9.5	P 509	L 4	# 247
MPI/DG	P penalty of 0.5	5 dB is larger than needed for	800GBASE-LR	4	Ghiasi, Ali		Ghiasi C	unatum/Marvell	
SuggestedR	Remedy				Comment	Type TR	Comment Status X		
MPI/DG DGD.	D can be reduc See Ghiasi_3d	ed to 0.3 dB then link budget j_02_2501	increased by 0.	1 dB or allocated to			ror measurement but the elop a Golden hardwre re		
Proposed Re	esponse	Response Status 0			TDECO	Q test method to	o capture block erros/per	nalty.	
					Suggested	Remedy			
C/ 183	SC 183.9	P 506	L38	# 239			ndation is to measure blo waveforms which forms		
Ghiasi, Ali		Ghiasi Qunatu	m/Marvell				FEC blocks when 4-with as in definition in	way interleaving.	Each of the 30 KP4
Comment Ty	ype TR	Comment Status X					rg/3/dj/public/24_09/heal	ey_3dj_02a_2409.p	df proposal. Use worst
Counter	propagating tra	affic must be active for these t	ests				oup of 30 blocks then cor		
SuggestedR	Remedy						and 4.0 dB for 800GBA		
at maxin PRBS31	num OMA appl 1Q, or a valid 10	grpah, Counter-propagating as ied to the module under test 1 00GBASE-R, 200GBASE-R, c See Ghiasi_3dj_01_2501	P3. The crosst	alk pattern can be	Proposed I		Response Status O		— ,

Proposed Response

Response Status 0

C/ 183 SC 183.9.5

C/ 183 SC 183.9.	5 P 509	L14	# 176	C/ 183	SC 183.9.13	P 512	L12	# 264
Johnson, John	Broadcom			Ghiasi, Ali		Ghiasi Quna	atum/Marvell	
Comment Type TR	Comment Status X			Comment	Type TR	Comment Status X		
	minimum number of equalizer p			Refere	nce 121.8.10 do	esn't exist		
of further proposals, 121.8.5.4.	this value should be 0, consiste	ent with the 5-tap	FFE defined in	Suggested	Remedy			
				The co	rrect reference	is 121.8.9		
SuggestedRemedy Change TBD in Tab Delete the associate For the editor's cons		ical delete Tabl	e 183-14 completely	Proposed I	Response	Response Status 0		
and refer to Table 1				C/ 184	SC 184.1.2	P 515	L 35	# 375
Proposed Response	posed Response Response Status O					Futurewei, I	U.S. Subsidiary of	Huawei
				Comment	Type TR	Comment Status X		
C/ 183 SC 183.9.	5 P 509	L14	# 248	0	4-1 does not sho MEDIUM.	ow the correct boundaries of	f a PHY. It ends a	at the PMD sublayer,
Ghiasi, Ali	Ghiasi Qunati	um/Marvell		Suggested	Remedy			
Comment Type TR	Comment Status X			Chang	e lower boundar	y of PHY to the bottom of the	ne PMD sublayer	box.
Number of pre-curso	or is maximum with min TBD			Proposed I	Response	Response Status O	·	
SuggestedRemedy				- 1		•		
	uring Sept 2024 meeting to go w now, given than agreement merg ath of 15.			C/ 184	SC 184.2	P517	L 34	# 149
Proposed Response	Response Status O			He, Xiang		Huawei		
				Comment	51	Comment Status X		
				Clause	814 Inner FEC	for 800GBASE-LR1 did not	include any test	patterns.
C/ 183 SC 183.9.	5 P 509	L14	# 188	Suggested				
Brown, Matt	Alphawave Se	emi				at least one test pattern for		
Comment Type T	Comment Status X			pattern		er box. Also insert a subclau	se in 164.4.11 de	scholing the test
Value for minimum '	'number of equalizer pre-cursor	taps" is TBD.		Proposed F	()	Response Status O		
SuggestedRemedy								
	lue to 0 allowing the number of m/maximum columns with a valu							
Proposed Response	Response Status 0							

C/ 184 SC 184.2

C/ 184	SC 184.4.1	P 519	L 5	# 409	C/ 184	SC 184.4.3	P 520	L 2	# 156
Maniloff, I	Eric	Ciena			Bruckman	, Leon	Nvidia		
Comment	Туре Т	Comment Status X			Comment	Type TR	Comment Status X		
The P symbo	PCS for 800GBAS	clause 172.2.5.1 for alignmen SE-LR1 only requires deskew			the od and th	ld to odd. Also it	nply that the even PCS lanes may imply that the PCS lane -31 to pcsla flows 16-31. This 84.4.2.	s 0-15 are map	ped to pcsla flows 0-15
00	dRemedy				Suggested	Remedy			
Updat	te the text to defin	ne the requirement as a 20-bit	deskew		00		and the deviation of the first second		E 1040 and
Proposed	Response	Response Status O			related		provided with a detailed propo v a more generic example and		5
C/ 184	SC 184.4.1	P 519	L 5	# 472	Proposed	Response	Response Status O		
Kota, Kisł	nore	Marvell Semic	conductor						
Comment	Type TR	Comment Status X			C/ 184	SC 184.4.5	P 522	L 5	# 35
Lane	deskew has beer	n changed from the adopted b	aseline require	ment of RS(544,514)	Huber, Th	omas	Nokia		
	•	full RS(544,514) codeword al	•	, ,, ,,	Comment	Туре Т	Comment Status X		
		tead of codeword alignment) f							
tolera alignn	nce of 1024b whi nent lock in D1.3	ed to have a burst tolerance w ich is considered acceptable f refers to 172.2.5.1 for deskew Il the PCS lanes. The permuta	or this interface v. However, 172	. Specifically, lane 2.2.5.1 specifies a	as the showr	remainder from in Equation (1	parity polynomial says "A par the division (modulo 2) of m(84-2)". The intent of this is that the generator polynomial in	x) x x^16 by the at the resulting	generator polynomial parity polynomial p(x) i
	```	dual 10-bit RS symbol bound	,	•	Suggested	dRemedy			
unrea	sonable burden o	on implementations which are	targeted at low	-power applications	Chang	no the text to rec	d: "A parity polynomial $p(x)$ of	f dogroo 15 is d	ofined as the remaind

#### SuggestedRemedy

Change the text to reflect the intention from the baseline adopted at Berlin meeting and ensure consistency with the 20-bit alignment adopted in the OIF 800LR IA. Supporting presentation to be provided.

Proposed Response Re

Response Status **O** 

Change the text to read: "A parity polynomial p(x) of degree 15 is defined as the remainder from the division (modulo 2) of m(x) x x^16 by the generator polymomial, as shown in Equation (184-2)."

Proposed Response Response Status **O** 

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 184 SC 184.4.5 Page 93 of 107 2025-01-03 11:17:26 A

C/ 184	SC 184.5.7	P 528	L <b>8</b>	# 347	C/ 184	SC 184.5.7.1	I P 535	L9	# 348
Ran, Adee		Cisco			Ran, Adee		Cisco		
Comment T	ype TR	Comment Status X			Comment	Type TR	Comment Status X		
Also, it	is not stated wh	on capability of the decoder is nat happens when a codeword	d is uncorrectab			ner FEC does n corrected), as ir	ot have bin counters defined 1177.5.4.1.5.	(binning codewo	ords by the number of
		the data as error in any way erns that appear in this case a			Suggested	-			
		C decoder specification in 91					177.5.4.1.5, but possibly wit correct more bit errors).	h a larger numb	er of bins (assuming th
specific	ations for corre	ction capability and uncorrect	able error mark	ing).	Proposed F	Response	Response Status O		
This is	important inforn	nation for testing, monitoring a	and analyzing th	ne performance of an					
implem	entation.				C/ 184	SC 184.5.7.2	2 P 528	L <b>20</b>	# 473
<b>T</b> 1		the base of an all da O of			Kota, Kisho	ore	Marvell Sem	iconductor	
		/ is based on slide 9 of g/3/df/public/22_05/22_0517/	bliss 3df 01a	220517 pdf modified to	Comment	Type <b>TR</b>	Comment Status X		
		parity bits and thus d_min=8					n uncorrected codeword as "		
Suggested	Remedy						s errors that were not correct ed or not completely correcte		
Add so	me test e.g.						letectable as uncorrected co		
		ted to correct all codewords in ost codewords with up to seve			Suggested	Remedy			
decode	d correctly will o	contain at least eight bit errors above if necessary.		dewords that are not		ord with errors w	o something similar to: "An u vhich are detectable at the de		
		s for additional text (either the ontributions in this area.	e one above or o	otherwise), add an	Proposed I		Response Status 0		
Proposed F	Response	Response Status O							
C/ 184	SC 184.5.7	P <b>528</b>	L 36	# 32					
Brown, Mat	t	Alphawave Se	emi						
Comment T	<i>Туре</i> <b>Т</b>	Comment Status X							
Bin cou	inters are not pr	ovided for the BCH codeword	ls.						
Suggested	Remedy								
		ed in the same way as for the ange the index "i" to "k", set th							

codewords with 4 or more bits corrected.

Proposed Response Response Status **0** 

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 184 SC 184.5.7.2 Page 94 of 107 2025-01-03 11:17:26 A

C/ 184	SC 184.5.7.2	2 P 535	L19	# 349	C/ 184	SC 184.9		P 535	L15	# 2
Ran, Adee	9	Cisco			Marris, Art	hur		Cadence Des	sign Systems	
comment	Type TR	Comment Status X			Comment	Type TR	Comment	Status X		
		incorrected CW counter" see			Make I	EC_reset re	eference Inner FE	C control regist	er 1.2400	
	le of detecting ci rrected.	odewords that are uncorrecta	ible, or that may	have been	Suggested	Remedy				
This c uncorr	apability exists in ectable errors).	n the RS-FEC (and there is a Is it assumed that a soft-deci d or a "not completely correc	sion BCH decod		Chang 47	e variable na	me from "FEC_re	set" to "Inner_	_	a so on page 530 line C enable lane 7" and
		formation about the assume			in the r	ow for "1.240 ge 530 line 4	00.0" change "ena	able" to "reset"		from "45.2.1.1.1" to
		cted codeword is counted in ot detect an uncorrectable co		odeword, suggesting	Proposed I	Response	Response	Status O		
uggested	Remedy									
		st about the ability to detect u	incorrected code	words (and how it can	C/ 185	SC 185.3	.1.1 800GBASE-L	. P <b>545</b>	L13	# 72
	ne) somewhere i ange the definitio	n this clause. on of this counter to account f	or not being able	of such detection.	Sluyski, M	ke		Cisco		
	Response	Response Status <b>0</b>	gg		Comment	Туре Е	Comment	Status X		
					This cl	ause include	a reference (184	4.11.1) and lat	er to (185.5.2).	
					Suggested	Remedy				
C/ <b>184</b> Opsasnicł	SC 184.6.2.2	2 P 530 Broadcom	L <b>47</b>	# 89					85-2 instead of tex 185-5 than text ir	t 184.4.11.1 (Picture 185.5.2.
Comment		Comment Status X			Proposed I	Response	Response	Status <b>O</b>		
FEC_I	eset is referred	to in the definition of the "res								
		a cross-reference to 45.2.1.			C/ 185	SC 185.5	2	P <b>548</b>	L 29	# 99
	er bit number,	has a cross reference to 184	.o.z.z as well as	CL 45 and the MDIO			.5		-	# 99
-	Remedy				Mi, Guang		Comment		nologies Co., Ltd	
	•	erence text "(see 45.2.1.1.1)"	from the definition	on of reset in 184.6.2.2.	Comment	51			transmitting Inne	r FEC Tx_XI, Tx_XQ
Remove the cross-reference text "(see 45.2.1.1.1)" from the definition of reset in 184.6.2.2. Add the definition of "FEC_reset" to the list of variables in 184.6.2.2 as: "Boolean variable that is true when set by a management entity and is false otherwise". Proposed Response Response Status <b>O</b>				Tx_YI, Tx_YQ not cle	and signals used ar what is the	d by the transmitti e meaning of Inne	ng PMD to ger r FEC in this se	erate the DP-16Q	AM symbols.", it is laces in this clause,	
roposea	Response	Response Status O				•		e referred to as	s lour analog signa	115.
					Suggested	-	itting Innor EEC 7		" to "the analog"	Tx_XI, Tx_XQ,"
					change			$\Lambda_{\Lambda_i}$ ,	to the analog	IX_XI, IX_XQ,
					Proposed I	-	Response	_		

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

C/ 185	Page 95 of 107
SC 185.5.3	2025-01-03 11:17:26 A

C/ 185 SC 185.6.1	P 550	L <b>42</b>	# 397	C/ 185 SC 185.6.1	P 551	L <b>5</b>	# 474
Maniloff, Eric	Ciena			Kota, Kishore	Marvell Sem	iconductor	
Comment Type <b>T</b>	Comment Status X			Comment Type TR	Comment Status X		
Transmitter, and require SuggestedRemedy	specification of 35dB is lowe es allocating additional penal ansmitter OSNR from 35 dB	ty due to the add		185.5. Unlike previou derived from the uppe not possible to desigr	e: phase noise mask frequences s coherent interfaces 800GBA er layers. Without a clear spect n to the specified phase noise lso related to this spec.	ASE-LR1 clocking c on the phase no	on the line interface ise of those layers, it
Proposed Response	Response Status 0			SuggestedRemedy			
C/ 185 SC 185.6.1	P 550	L <b>52</b>	# 190	IMDD clauses such a be provided.	nit clock phase noise mask sp s Clause 124. Recommendat		
Brown, Matt Comment Type <b>T</b>	Alphawave Se Comment Status X	emi		Proposed Response	Response Status <b>O</b>		
The value for TX laser	frequency slew rate: post ac	quisition (max)" i	IS IBD.	<b>. </b>			
SuggestedRemedy Expect a contribution w		quisition (max)" i	s IBD.		P 551 Ciena <i>Comment Status</i> X erop with OIF 800LR, a higher	L <b>34</b> r damage thresho	# 399
SuggestedRemedy Expect a contribution w Proposed Response	ith proposals. Response Status <b>O</b>			Maniloff, Eric <i>Comment Type</i> <b>T</b> In order to ensure inte <i>SuggestedRemedy</i>	Ciena Comment Status X erop with OIF 800LR, a higher	r damage thresho	
SuggestedRemedy Expect a contribution w Proposed Response 	ith proposals. Response Status <b>O</b> P <b>550</b>	L <b>52</b>	s TBD. # <u>398</u>	Maniloff, Eric Comment Type <b>T</b> In order to ensure inte SuggestedRemedy Increase specification	Ciena <i>Comment Status</i> <b>X</b> erop with OIF 800LR, a higher n for Receiver Damage thresh	r damage thresho	
SuggestedRemedy Expect a contribution w Proposed Response 	ith proposals. <i>Response Status</i> <b>O</b> <i>P</i> <b>550</b> Ciena			Maniloff, Eric <i>Comment Type</i> <b>T</b> In order to ensure inte <i>SuggestedRemedy</i>	Ciena Comment Status X erop with OIF 800LR, a higher	r damage thresho	
SuggestedRemedy Expect a contribution w Proposed Response Cl 185 SC 185.6.1 Maniloff, Eric Comment Type T Tx laser frequency slew	ith proposals. Response Status <b>O</b> P <b>550</b>	<i>L</i> 52	# <mark>398</mark>	Maniloff, Eric Comment Type <b>T</b> In order to ensure inte SuggestedRemedy Increase specification	Ciena <i>Comment Status</i> <b>X</b> erop with OIF 800LR, a higher n for Receiver Damage thresh	r damage thresho	
SuggestedRemedy Expect a contribution w Proposed Response Cl 185 SC 185.6.1 Maniloff, Eric Comment Type T Tx laser frequency slew	ith proposals. <i>Response Status</i> <b>O</b> <i>P</i> <b>550</b> Ciena <i>Comment Status</i> <b>X</b> vrate: post acquisition (max)	<i>L</i> 52	# <mark>398</mark>	Maniloff, Eric Comment Type T In order to ensure inte SuggestedRemedy Increase specification Proposed Response Cl 185 SC 185.6.2 Maniloff, Eric	Ciena <i>Comment Status</i> X erop with OIF 800LR, a higher of for Receiver Damage thresh <i>Response Status</i> O <i>P</i> 551 Ciena	r damage thresho old to -2 dBm.	ld should be specified
SuggestedRemedy Expect a contribution w Proposed Response Cl 185 SC 185.6.1 Maniloff, Eric Comment Type T Tx laser frequency slew rate post acquisition sh SuggestedRemedy	ith proposals. <i>Response Status</i> <b>O</b> <i>P</i> <b>550</b> Ciena <i>Comment Status</i> <b>X</b> vrate: post acquisition (max)	<i>L</i> 52 is currently lister acquisition rate.	# 398 d as TBD. The slew	Maniloff, Eric Comment Type T In order to ensure inte SuggestedRemedy Increase specification Proposed Response Cl 185 SC 185.6.2 Maniloff, Eric Comment Type E	Ciena <i>Comment Status</i> <b>X</b> erop with OIF 800LR, a higher a for Receiver Damage thresh <i>Response Status</i> <b>O</b> <b>P551</b> Ciena <i>Comment Status</i> <b>X</b>	r damage thresho old to -2 dBm. <i>L</i> 46	ld should be specified # <mark>400</mark>
SuggestedRemedy Expect a contribution w Proposed Response Cl 185 SC 185.6.1 Maniloff, Eric Comment Type T Tx laser frequency slew rate post acquisition sh SuggestedRemedy Replace the TBD for T	ith proposals. <i>Response Status</i> <b>O</b> <i>P</i> <b>550</b> Ciena <i>Comment Status</i> <b>X</b> <i>y</i> rate: post acquisition (max) ould be slower than the pre-a	<i>L</i> 52 is currently lister acquisition rate.	# 398 d as TBD. The slew	Maniloff, Eric <i>Comment Type</i> <b>T</b> In order to ensure inte <i>SuggestedRemedy</i> Increase specification <i>Proposed Response</i> <i>Cl</i> <b>185</b> <i>SC</i> <b>185.6.2</b> Maniloff, Eric <i>Comment Type</i> <b>E</b> State of polarization (	Ciena <i>Comment Status</i> X erop with OIF 800LR, a higher of for Receiver Damage thresh <i>Response Status</i> O <i>P</i> 551 Ciena	r damage thresho old to -2 dBm. <i>L</i> <b>46</b> this refers to the	ld should be specified # <mark>400</mark>
SuggestedRemedy Expect a contribution w Proposed Response Cl 185 SC 185.6.1 Maniloff, Eric Comment Type T Tx laser frequency slew rate post acquisition sh SuggestedRemedy	ith proposals. <i>Response Status</i> <b>O</b> <i>P</i> <b>550</b> Ciena <i>Comment Status</i> <b>X</b> v rate: post acquisition (max) ould be slower than the pre-a	<i>L</i> 52 is currently lister acquisition rate.	# 398 d as TBD. The slew	Maniloff, Eric <i>Comment Type</i> <b>T</b> In order to ensure inte <i>SuggestedRemedy</i> Increase specification <i>Proposed Response</i> <i>Cl</i> <b>185</b> <i>SC</i> <b>185.6.2</b> Maniloff, Eric <i>Comment Type</i> <b>E</b> State of polarization ( The term used in 802 <i>SuggestedRemedy</i>	Ciena <i>Comment Status</i> <b>X</b> erop with OIF 800LR, a higher of for Receiver Damage thresh <i>Response Status</i> <b>O</b> <i>P</i> <b>551</b> Ciena <i>Comment Status</i> <b>X</b> max) is not the correct entry,	r damage thresho old to -2 dBm. <i>L</i> 46 this refers to the beed (max)	ld should be specified # <mark>400</mark>

C/ 185 SC 185.6.2

C/ 185 SC 185.6.3	P 552	L14	# 178	C/ 185	SC 185.9.1	P 557	L <b>21</b>	# 102
Sheffi, Nir	Alphawave			Mi, Guangcar	า	Huawei Tech	nologies Co., Lto	tt
Comment Type T	Comment Status X			Comment Typ	be TR	Comment Status X		
	power budget is 6.8 dB if al between TX power specified is 6.3 dB.			LO linewio 1MHz.	dth (max) wa	s limited to 100kHz. While the	e Tx laser line wi	dth max. is limited to
SuggestedRemedy						coherent modules to use a sig processing thus should be ab		
Either increase TX powe Table 185-7 to 0.	r by 0.5 dB in Table 185-5 o	set the allocation	on for penalties in	linewidth.				
Proposed Response	Response Status O			should be signal pas	e based on th ssing the ET	e receiver in TECQ/TDECQ, e bare minimum capability of CC measurement provde eno	any LR1 cohere ugh confidence t	nt Rx, so that a Tx hat it can work with an
C/ 185 SC 185.7	P <b>552</b>	L <b>45</b>	# 101			form a cohernet optic link with	th sufficient FLR	performance.
Mi, Guangcan	Huawei Techn	ologies Co., Ltd		SuggestedRe				
Comment Type TR	Comment Status X	0				ssity of requiring LO linewidth vidth requirement.	of 100kHz in E-T	CC measurement.
	mplex fiber optic link segmen SMF, which would be a dupl erve.			Proposed Res	sponse	Response Status <b>O</b>		
SuggestedRemedy				C/ 185	SC 185.12.4	.1 <i>P</i> 562	L10	# 401
clarify the prupose of this	s sentence. Or delerte it.			Maniloff, Eric		Ciena		
Proposed Response	Response Status 0			Comment Typ	be T	Comment Status X		
				Transmitt	er nominal c	enter frequency is not applica	ble to this PMD.	
C/ 185 SC 185.8.3	P555	L <b>34</b>	# 157	SuggestedRe Delete thi	-			
Bruckman, Leon	Nvidia			Proposed Res	•	Response Status <b>O</b>		
Comment Type TR	Comment Status X ngth (range) in Table 185-5			r roposed nes	sponse			
	figuri (range) in rable 165-5							
SuggestedRemedy	requeres (renge)" in Table 1	QEE than make	noming consistent	C/ 185	SC 185.12.4	.1 <i>P</i> 562	L13	# 402
Update also Table 185-1	requency (range)" in Table 1 1 row 2.	55-5, then make	naming consistent.	Maniloff, Eric		Ciena		
	gth (range) to Table 185-5.			Comment Typ		Comment Status X		
				Receiver	nominal cent	ter frequency is not applicable	e to this PMD	
If not, add Lane wavelen	Response Status 0							
	Response Status <b>O</b>			SuggestedRe Delete thi				

C/ 185 SC 185.12.4.1

Maniloff, Eric Ciena Comment Type T Comment Status X SMSR is not defined as a parameter in clause 185	Maniloff, Eric Ciena Comment Type T Comment Status X
	Comment Type T Comment Status X
	800GBASE-LR1 is an unamplified PMD, ROSNR is not defined
SuggestedRemedy Delete this entry.	SuggestedRemedy Delete entries OM11 and OM13
Proposed Response Response Status <b>O</b>	Proposed Response Response Status <b>O</b>
C/ 185 SC 185.12.4.4 P563 L34 # 405	Cl 185 SC 185.12.4.24 P562 L40 # 403
Maniloff, Eric Ciena	Maniloff, Eric Ciena
Comment Type T Comment Status X	Comment Type T Comment Status X
Adjustable range of transmit optical power is not defined for clause 185	PMD receive center frequency ability is not applicable to this PMD SuggestedRemedy
SuggestedRemedy	Delete this entry.
Delete this entry.	Proposed Response Response Status <b>O</b>
Proposed Response Response Status O	
C/ 185 SC 185.12.4.4 P563 L36 # 406	C/ 185 SC 185.2 Error ratio alloca P 542 L 36 # 71
Maniloff, Eric Ciena	Sluyski, Mike Cisco
Comment Type <b>T</b> Comment Status <b>X</b> Minimum average channel power at maximum adjustable power setting is not applicable to	Comment Type E Comment Status X Does IEEE style allow embedded parameter values as part of the text (e.g. BERadded equal to 3.2 x 10-5 and BERadded equal to 6.4 x 10-5)
clause 185 PMDs	SuggestedRemedy
SuggestedRemedy	A small table might be clearer than values buried In text.
Delete this entry.	Proposed Response Response Status <b>O</b>
Proposed Response Response Status <b>O</b>	Response status O
	C/ 185A SC 185A P839 L6 # 520
	Dawe, Piers Nvidia
	Comment Type TR Comment Status X ETCC is normative, like TDECQ or COM.
	SuggestedRemedy
	Change "informative" to "normative.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/generalC/185APage 98 of 107COMMENT STATUS: D/dispatched A/accepted R/rejectedRESPONSE STATUS: O/open W/written C/closed Z/withdrawnSC185A2025-01-03 11:17:26 ASORT ORDER: Clause, Subclause, page, line

C/ 185A SC 185A	P 839	L15	# 521	C/ 185A	SC 185A.2.3	.2 P843	L <b>4</b>	# 177
Dawe, Piers	Nvidia			Johnson, Jo	hn	Broadcon	n	
Comment Type TR	Comment Status X			Comment T	ype TR	Comment Status X		
802.3 is not a test	spec. There was an 802.3 tes	t spec once, but it v	was withdrawn.			e lowpass filter bandwidth		
SuggestedRemedy						test method. The value 55% of signaling rate, res		
	nition of what we mean by ET	CC, rather than "def	fines test		MDs that refer		, <i>, , , .</i>	
methodologies".				SuggestedF	Remedy			
Proposed Response	Response Status <b>O</b>				"with a 3 dB b e signaling rate	andwidth equal to $65 \pm 1$ e, $\pm 1$ GHz."	GHz" to "with a 3 d	B bandwidth equal to 0.5
C/ 185A SC 185A	.2.3 P842	L 22	# 475	Proposed R	esponse	Response Status 0		
Kota, Kishore	Marvell Se	miconductor						
Comment Type TR	Comment Status X			C/ 185A	SC 185A.2.4	P 843	L <b>35</b>	# 408
	ignal processing described in			Maniloff, Er	с	Ciena		
	ase recovery" block which is r	equired to allow relation	axation of the TX I-Q		_			
skow to the 0.75ns	spec in Table 185-5			Comment T	ype <b>T</b>	Comment Status X		
SuggestedRemedy	spec in Table 185-5.			Text is	needed to fill in	entries for 185A.2.4.1, 18 and 185A.2.4.10	85A.2.4.2, 185A.2.4	1.3, 185A.2.4.4,
SuggestedRemedy Add post-equalizer	spec in Table 185-5. stage to the digital signal proc	cessing. Presentation		Text is	needed to fill in 4.7, 185A.2.4.9	entries for 185A.2.4.1, 18	85A.2.4.2, 185A.2.4	1.3, 185A.2.4.4,
SuggestedRemedy Add post-equalizer		cessing. Presentation		Text is i 185A.2. SuggestedF	needed to fill in 4.7, 185A.2.4.9 Remedy	entries for 185A.2.4.1, 18		
SuggestedRemedy	stage to the digital signal proc	cessing. Presentatio		Text is i 185A.2. SuggestedF	needed to fill in 4.7, 185A.2.4.§ Remedy bution with the	entries for 185A.2.4.1, 18 ), and 185A.2.4.10		
SuggestedRemedy Add post-equalizer	stage to the digital signal proc Response Status <b>O</b>	L 38		Text is 1 185A.2. SuggestedF A contri	needed to fill in 4.7, 185A.2.4.§ Remedy bution with the	entries for 185A.2.4.1, 18 9, and 185A.2.4.10 definitions for these para		
SuggestedRemedy Add post-equalizer Proposed Response	stage to the digital signal proc Response Status <b>O</b>		on to be provided.	Text is 185A.2. SuggestedF A contri Proposed R	heeded to fill in 4.7, 185A.2.4.§ Remedy bution with the esponse	entries for 185A.2.4.1, 18 9, and 185A.2.4.10 definitions for these para <i>Response Status</i> <b>O</b>	meters will be prov	ided.
SuggestedRemedy Add post-equalizer Proposed Response Cl 185A SC 185A	stage to the digital signal proc Response Status O .2.3 P842		on to be provided.	Text is 185A.2. SuggestedF A contri Proposed R Cl 185A	A.7, 185A.2.4.5 Remedy bution with the esponse SC <b>185A.2.4</b>	entries for 185A.2.4.1, 18 9, and 185A.2.4.10 definitions for these para <i>Response Status</i> <b>O</b> <i>P</i> 843		
SuggestedRemedy Add post-equalizer Proposed Response Cl 185A SC 185A Ran, Adee Comment Type TR Figure 185A-4 inclu	stage to the digital signal proc Response Status O .2.3 P842 Cisco Comment Status X udes the word "decisioning". T	L 38	ars in 185A.2.3.7. It is	Text is 185A.2. SuggestedF A contri Proposed R C/ <b>185A</b> Issenhuth,	Arr, 185A.2.4.9 Remedy bution with the esponse SC 185A.2.4	entries for 185A.2.4.1, 18 9, and 185A.2.4.10 definitions for these para <i>Response Status</i> <b>O</b> <i>P</i> 843 Huawei	meters will be prov	ided.
SuggestedRemedy Add post-equalizer Proposed Response Cl 185A SC 185A Ran, Adee Comment Type TR Figure 185A-4 inclu not defined anywhe	stage to the digital signal proc Response Status O .2.3 P842 Cisco Comment Status X udes the word "decisioning". T ere, and I think it is not part of	L 38	ars in 185A.2.3.7. It is	Text is 185A.2. SuggestedF A contri Proposed R C/ 185A Issenhuth, Comment T	Arrowski standard Science Scie	entries for 185A.2.4.1, 18 b, and 185A.2.4.10 definitions for these para <i>Response Status</i> <b>O</b> <i>P</i> <b>843</b> Huawei <i>Comment Status</i> <b>X</b>	meters will be prov	ided. # <u>82</u>
SuggestedRemedy Add post-equalizer Proposed Response Cl 185A SC 185A Ran, Adee Comment Type TR Figure 185A-4 inclu	stage to the digital signal proc Response Status O .2.3 P842 Cisco Comment Status X udes the word "decisioning". T ere, and I think it is not part of	L 38	ars in 185A.2.3.7. It is	Text is 185A.2. SuggestedF A contri Proposed R Cl 185A Issenhuth, Comment T There a	A.7, 185A.2.4.9 Remedy bution with the esponse SC 185A.2.4 Fom ype <b>T</b> re 7 missing pa	entries for 185A.2.4.1, 18 9, and 185A.2.4.10 definitions for these para <i>Response Status</i> <b>O</b> <i>P</i> 843 Huawei	meters will be prov	ided. # <u>82</u>
SuggestedRemedy Add post-equalizer Proposed Response Cl 185A SC 185A Ran, Adee Comment Type TR Figure 185A-4 inclu not defined anywhe few instances in Go The act of deciding	stage to the digital signal proc Response Status O .2.3 P842 Cisco Comment Status X udes the word "decisioning". T ere, and I think it is not part of	L 38 his word also appea the English languag a receiver is comm	to be provided. # 359 ars in 185A.2.3.7. It is ge, although there are a only called "slicing".	Text is 185A.2. SuggestedF A contri Proposed R Cl 185A Issenhuth, Comment T There a SuggestedF Replace	A,7, 185A.2.4.9 Remedy bution with the esponse SC 185A.2.4 Fom ype T re 7 missing pa Remedy e the TBDs with	entries for 185A.2.4.1, 18 b, and 185A.2.4.10 definitions for these para <i>Response Status</i> <b>O</b> <i>P</i> <b>843</b> Huawei <i>Comment Status</i> <b>X</b>	meters will be provi <i>L</i> 36 are currently TBD	ided. # <u>82</u> in this subclause.
SuggestedRemedy Add post-equalizer Proposed Response Cl 185A SC 185A Ran, Adee Comment Type TR Figure 185A-4 inclu not defined anywhe few instances in Go The act of deciding The suggested rem	stage to the digital signal proc Response Status O .2.3 P842 Cisco Comment Status X udes the word "decisioning". T ere, and I think it is not part of pogle search.	L 38 his word also appea the English languag a receiver is comm	to be provided. # 359 ars in 185A.2.3.7. It is ge, although there are a only called "slicing".	Text is 185A.2. SuggestedF A contri Proposed R C/ 185A Issenhuth, Comment T There a SuggestedF Replace be prov	A.7, 185A.2.4.9 Remedy bution with the esponse SC 185A.2.4 Form ype T re 7 missing pa Remedy e the TBDs with ded.	entries for 185A.2.4.1, 18 9, and 185A.2.4.10 definitions for these para <i>Response Status</i> <b>O</b> <i>P</i> <b>843</b> Huawei <i>Comment Status</i> <b>X</b> arameter definitions which parameter definitions as	meters will be provi <i>L</i> 36 are currently TBD	ided. # <u>82</u> in this subclause.
SuggestedRemedy Add post-equalizer Proposed Response Cl 185A SC 185A Ran, Adee Comment Type TR Figure 185A-4 inclu- not defined anywhe few instances in Go The act of deciding The suggested rem SuggestedRemedy	stage to the digital signal proc Response Status O .2.3 P842 Cisco Comment Status X udes the word "decisioning". T ere, and I think it is not part of pogle search.	L 38 his word also appea the English languag a receiver is comm	to be provided. # 359 ars in 185A.2.3.7. It is ge, although there are a only called "slicing".	Text is 185A.2. SuggestedF A contri Proposed R Cl 185A Issenhuth, Comment T There a SuggestedF Replace	A.7, 185A.2.4.9 Remedy bution with the esponse SC 185A.2.4 Form ype T re 7 missing pa Remedy e the TBDs with ded.	entries for 185A.2.4.1, 18 9, and 185A.2.4.10 definitions for these para <i>Response Status</i> <b>O</b> <i>P</i> 843 Huawei <i>Comment Status</i> <b>X</b> arameter defintions which	meters will be provi <i>L</i> 36 are currently TBD	ided. # <u>82</u> in this subclause.

C/ 185A SC 185A.2.4

C/ 186	C/ 186 SC 186.2.3.6 P572 L51 # 38
Huber, Thomas Nokia	Huber, Thomas Nokia
Comment Type T Comment Status X	Comment Type T Comment Status X
In the work to define the alignment marker location transparency (AMLT) feature that is needed for the 800GBASE-ER1 PHY, it has become evident that the model of this PHY a	With the addition of the AML field, the overhead is no longer a subset of what is in the IA. Also, the reference to ITU-T G.709.6 should be to ITU-T G.709.1
a separate PCS creates some difficulties, largely because that model does not match the OIF 800ZR specification with which we are trying to align. The introduction of the AMLT	SuggestedRemedy
feature exacerbates the misalignment and requires PHY-specific behaviors to be introduced to the 800GXS, which is not really consistent with the concept of the XS as being PHY-agnostic.	Revise the text to read: "The frame overhead is based on the frame defined in subcl 4.3.3 of OIF-800ZR-01.0, which is a subset of what is defined in Recommendation I G.709.1."
SuggestedRemedy	Proposed Response Response Status O
Two broad options: modify clause 171 to include specification of a separate 800GBASE-	
ER1 PHY_XS to avoid introducing PHY-specific behavior to the 800GXS, or revise clause 186 to define an ER1 FEC sublayer rather than a PCS sublayer to avoid the need for an >	S C/ 186 SC 186.2.3.6.10 P575 L34 # 218
that is specific to the ER1 PHY. A more detailed presentation will be provided.	Slavick, Jeff Broadcom
Proposed Response Response Status <b>O</b>	Comment Type TR Comment Status X
	The definition of what values is sent in the AML, how the TAML and RAML are gene
7/ 186 SC 186 P576 L6 # 182	and passed between layers, and how monitoring of the RAML location in the data structure needs improvement
	needs improvement.
Brown, Matt Alphawave Semi	
Brown, Matt Alphawave Semi	needs improvement. SuggestedRemedy
Brown, Matt Alphawave Semi Comment Type E Comment Status X The acronym AMs is used but never defined. Better to just spell it out. Exception is if it is used specifically for a field name of "AM".	needs improvement. <i>SuggestedRemedy</i> Presentation will be provided.
Brown, Matt Alphawave Semi Comment Type E Comment Status X The acronym AMs is used but never defined. Better to just spell it out. Exception is if it is used specifically for a field name of "AM".	needs improvement. <i>SuggestedRemedy</i> Presentation will be provided.
Brown, Matt Alphawave Semi Comment Type E Comment Status X The acronym AMs is used but never defined. Better to just spell it out. Exception is if it is used specifically for a field name of "AM". SuggestedRemedy Change "AMs" to "alignment markers".	needs improvement. SuggestedRemedy Presentation will be provided. Proposed Response Response Status <b>O</b>
Brown, Matt Alphawave Semi Comment Type E Comment Status X The acronym AMs is used but never defined. Better to just spell it out. Exception is if it is used specifically for a field name of "AM". SuggestedRemedy Change "AMs" to "alignment markers".	needs improvement. SuggestedRemedy Presentation will be provided. Proposed Response Response Status O Cl 186 SC 186.2.4.1 P580 L20 # 127
Brown, Matt Alphawave Semi Comment Type E Comment Status X The acronym AMs is used but never defined. Better to just spell it out. Exception is if it is used specifically for a field name of "AM". SuggestedRemedy Change "AMs" to "alignment markers". Proposed Response Response Status O	needs improvement. SuggestedRemedy Presentation will be provided. Proposed Response Response Status O Cl 186 SC 186.2.4.1 P580 L20 # 127 Slavick, Jeff Broadcom
Brown, Matt       Alphawave Semi         Comment Type       E       Comment Status X         The acronym AMs is used but never defined. Better to just spell it out. Exception is if it is used specifically for a field name of "AM".         SuggestedRemedy       Change "AMs" to "alignment markers".         Proposed Response       Response Status       O         Cl 186       SC 186.2.2       P 568       L 23       # 37	needs improvement. SuggestedRemedy Presentation will be provided. Proposed Response Response Status O Cl 186 SC 186.2.4.1 P 580 L 20 # 127 Slavick, Jeff Broadcom Comment Type T Comment Status X Don't have the counters be their own sub-headings, just be inline functionality that is
Brown, Matt       Alphawave Semi         Comment Type       E       Comment Status X         The acronym AMs is used but never defined. Better to just spell it out. Exception is if it is used specifically for a field name of "AM".       SuggestedRemedy         Change "AMs" to "alignment markers".       Proposed Response       Response Status       O         C/       186       SC 186.2.2       P 568       L 23       # 37         Huber, Thomas       Nokia       Nokia       Nokia       Nokia	needs improvement. SuggestedRemedy Presentation will be provided. Proposed Response Response Status O Cl 186 SC 186.2.4.1 P 580 L 20 # 127 Slavick, Jeff Broadcom Comment Type T Comment Status X Don't have the counters be their own sub-headings, just be inline functionality that is the decoder.
Brown, Matt       Alphawave Semi         Comment Type       E       Comment Status X         The acronym AMs is used but never defined. Better to just spell it out. Exception is if it is used specifically for a field name of "AM".       BuggestedRemedy         Change "AMs" to "alignment markers".       Change "AMs" to "alignment markers".         Proposed Response       Response Status O         C/ 186       SC 186.2.2       P 568       L 23       # 37         Huber, Thomas       Nokia       Nokia       Somment Type       T       Comment Status X         The AM field was renamed FAM to clarify that it is not the 800GBASE-R AMs.       Source AMs.       Source AMs.	needs improvement.         SuggestedRemedy         Presentation will be provided.         Proposed Response       Response Status         Cl 186       SC 186.2.4.1       P 580       L 20       # 127         Slavick, Jeff       Broadcom         Comment Type       T       Comment Status       X         Don't have the counters be their own sub-headings, just be inline functionality that is the decoder.       SuggestedRemedy         Add this sentence prior to the 186.2.4.1.1 heading "The following counters shall be
Brown, Matt       Alphawave Semi         Comment Type       E       Comment Status X         The acronym AMs is used but never defined. Better to just spell it out. Exception is if it is used specifically for a field name of "AM".       SuggestedRemedy         Change "AMs" to "alignment markers".       Change "AMs" to "alignment markers".         Proposed Response       Response Status       O         C/ 186       SC 186.2.2       P 568       L 23       # 37         Huber, Thomas       Nokia       Nokia       Comment Type       T       Comment Status       X         The AM field was renamed FAM to clarify that it is not the 800GBASE-R AMs.       SuggestedRemedy       SuggestedRemedy       SuggestedRemedy	needs improvement.         SuggestedRemedy         Presentation will be provided.         Proposed Response       Response Status O         Cl 186       SC 186.2.4.1       P 580       L 20       # 127         Slavick, Jeff       Broadcom         Comment Type       T       Comment Status X         Don't have the counters be their own sub-headings, just be inline functionality that is the decoder.         SuggestedRemedy         Add this sentence prior to the 186.2.4.1.1 heading "The following counters shall be implemented to aid a network operator in determining the link quality."         Remove the sub-headings of 186.2.4.1.1-4 and make them inline definitions like is determining the link quality.

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line C/ 186 SC 186.2.4.1 Page 100 of 107 2025-01-03 11:17:27 A

C/ 186	SC 186.2.4.4	P 581	L34	# 191	C/ 186	SC 186.3.3.2.	2 P 594	L 19	# 158
Brown, Ma	itt	Alphawave Se	emi		Bruckman, L	eon	Nvidia		
Comment [·]	Туре Т	Comment Status X			Comment Ty	pe TR	Comment Status X		
The va	llue for "number o	of bit errors detected is increa	ased" is TBD.		Although TS and PS are different for X and Y only the FAW is used to lock and identify the				
Suggested							-16). No indication as how can choose to use TS and		
Expect	t a contribution w	ith proposals.			SuggestedRe	emedy			
Proposed I	Response	Response Status O			Delete: "	using the multi-	-frame alignment signal, tra	ining sequence,	and pilot sequence"
					Proposed Re	sponse	Response Status <b>O</b>		
C/ 186	SC 186.3.3	P 587	L <b>34</b>	# 39					
Huber, The		Nokia			C/ 186	SC 186.4.2.1	P 597	L <b>6</b>	# 41
Comment	51	Comment Status X			Huber, Thom	as	Nokia		
		of hierarchy in the PMA claus CS has Transmit and Recde			Comment Ty	pe T	Comment Status X		
below	that. This seems	to have been inherited from		ive as level 4 headings t don't distinguish Tx			ntains 32 bytes that are pro		
below and R> Suggested	that. This seems directions as cle Remedy	s to have been inherited from early as this PMA does.	other PMAs tha	t don't distinguish Tx	detail), th 28 bytes bytes; the	that are reserv e 28 bytes that	ntains 32 bytes that are proved (0x00). The alignment pare transmitted as 0x00 are	process should o	nly be looking at the 32
below and R> Suggested Remov	that. This seems directions as cle <i>Remedy</i> ve the extra layer	to have been inherited from	other PMAs tha	t don't distinguish Tx	detail), th 28 bytes bytes; the SuggestedRe	that are reserv e 28 bytes that emedy	ed (0x00). The alignment p are transmitted as 0x00 ar	process should o e not required to	nly be looking at the 32 match.
below and R> Suggested Remov	that. This seems directions as cle <i>Remedy</i> ye the extra layer e functions.	s to have been inherited from early as this PMA does.	other PMAs tha	t don't distinguish Tx	detail), th 28 bytes bytes; the SuggestedRe Revise th alignmen "A Boole	that are reserv e 28 bytes that emedy he definition of it pattern rather an variable that	ed (0x00). The alignment	process should o e not required to the 32 bytes that	nly be looking at the 32 match. have the frame
below and R> Suggested Remov receive	that. This seems directions as cle <i>Remedy</i> ye the extra layer e functions.	s to have been inherited from early as this PMA does. of hierarchy. Make 186.3.3 <i>Response Status</i> <b>O</b>	other PMAs tha	t don't distinguish Tx	detail), th 28 bytes bytes; the SuggestedRe Revise th alignmen "A Boole	that are reserv e 28 bytes that emedy ne definition of it pattern rather an variable tha gnment mecha	ed (0x00). The alignment p are transmitted as 0x00 ar fam_valid to consider only than the entire FAM field: t is set to true if the first 250	process should o e not required to the 32 bytes that	nly be looking at the 32 match. have the frame
below and R> Suggested Remov receive Proposed I CI 186	that. This seems directions as cle Remedy ye the extra layer of functions. Response SC <b>186.3.3.1</b> .	s to have been inherited from early as this PMA does. of hierarchy. Make 186.3.3 <i>Response Status</i> <b>O</b>	other PMAs tha	t don't distinguish Tx	detail), th 28 bytes bytes; the SuggestedRe Revise th alignmen "A Boole frame alig	that are reserv e 28 bytes that emedy ne definition of it pattern rather an variable tha gnment mecha	ed (0x00). The alignment p are transmitted as 0x00 ar fam_valid to consider only t than the entire FAM field: t is set to true if the first 250 nism sequence"	process should o e not required to the 32 bytes that	nly be looking at the 32 match. have the frame
below and R> Suggested Remov receive Proposed I C/ 186 Huber, The	that. This seems directions as cle Remedy ve the extra layer e functions. Response SC 186.3.3.1. omas	s to have been inherited from early as this PMA does. of hierarchy. Make 186.3.3 <i>Response Status</i> <b>O</b> <b>2</b> <i>P</i> <b>589</b>	other PMAs tha	t don't distinguish Tx	detail), th 28 bytes bytes; the SuggestedRe Revise th alignmen "A Boole frame alig Proposed Re	that are reserv e 28 bytes that emedy ne definition of it pattern rather an variable tha gnment mecha	ed (0x00). The alignment p are transmitted as 0x00 ar fam_valid to consider only t than the entire FAM field: t is set to true if the first 250 nism sequence"	process should o e not required to the 32 bytes that	nly be looking at the 32 match. have the frame
below and R> Suggested Remov receive Proposed I C/ 186 Huber, The Comment	that. This seems c directions as cle <i>Remedy</i> ve the extra layer e functions. <i>Response</i> SC <b>186.3.3.1.</b> omas <i>Type</i> <b>T</b> re 186-13, 'mfas'	s to have been inherited from early as this PMA does. of hierarchy. Make 186.3.3 <i>Response Status</i> <b>O</b> <b>2 P589</b> Nokia <i>Comment Status</i> <b>X</b> should be 'faw' to align with t	other PMAs that the transmit fund <i>L</i> 17 the text in 186.3.	t don't distinguish Tx ctions, and 186.3.4 the # 40 3.1.5 (faw is used here	detail), th 28 bytes bytes; the SuggestedRe Revise th alignmen "A Boole frame alig Proposed Re	that are reserv e 28 bytes that emedy he definition of it pattern rather an variable tha gnment mecha sponse	ted (0x00). The alignment p are transmitted as 0x00 are fam_valid to consider only t than the entire FAM field: t is set to true if the first 250 nism sequence" Response Status <b>O</b>	brocess should o e not required to the 32 bytes that 6 bits of the FAM	nly be looking at the 32 match. have the frame I field are a valid PCS
below and R> Suggested Remov receive Proposed I CI 186 Huber, Tho Comment In figur to avoi	that. This seems directions as cle <i>Remedy</i> ve the extra layer e functions. <i>Response</i> <i>SC</i> <b>186.3.3.1.</b> omas <i>Type</i> <b>T</b> re 186-13, 'mfas' d conflict with the	s to have been inherited from early as this PMA does. of hierarchy. Make 186.3.3 <i>Response Status</i> <b>O</b> <b>2</b> <i>P</i> <b>589</b> Nokia <i>Comment Status</i> <b>X</b>	other PMAs that the transmit fund <i>L</i> 17 the text in 186.3.	t don't distinguish Tx ctions, and 186.3.4 the # 40 3.1.5 (faw is used here	detail), th 28 bytes bytes; the SuggestedRe Revise th alignmen "A Boole frame alig Proposed Re	that are reserve e 28 bytes that emedy he definition of it pattern rather an variable tha gnment mecha isponse SC 186.5	ed (0x00). The alignment p are transmitted as 0x00 are fam_valid to consider only than the entire FAM field: t is set to true if the first 250 nism sequence" Response Status <b>O</b> P605	brocess should o e not required to the 32 bytes that 6 bits of the FAM	nly be looking at the 32 match. have the frame I field are a valid PCS
below and R> Suggested Remov receive Proposed I C/ 186 Huber, The Comment In figur to avoi	that. This seems directions as cle Remedy ve the extra layer of functions. Response SC 186.3.3.1. SC 186.3.3.1. SType T re 186-13, 'mfas' d conflict with the Remedy	s to have been inherited from early as this PMA does. of hierarchy. Make 186.3.3 <i>Response Status</i> <b>O</b> <b>2 P589</b> Nokia <i>Comment Status</i> <b>X</b> should be 'faw' to align with t	other PMAs that the transmit fund <i>L</i> 17 the text in 186.3.	t don't distinguish Tx ctions, and 186.3.4 the # 40 3.1.5 (faw is used here	detail), th 28 bytes bytes; the SuggestedRe Revise th alignmen "A Boole frame alig Proposed Re C/ 186 Brown, Matt Comment Ty	that are reserve e 28 bytes that emedy he definition of it pattern rather an variable that gnment mecha sponse SC 186.5 pe T	red (0x00). The alignment p are transmitted as 0x00 are fam_valid to consider only of than the entire FAM field: t is set to true if the first 250 nism sequence" <i>Response Status</i> <b>O</b> <i>P</i> 605 Alphawave S	brocess should o e not required to the 32 bytes that 6 bits of the FAM	nly be looking at the 32 match. have the frame I field are a valid PCS
below and R> Suggested Remov receive Proposed I CI 186 Huber, The Comment In figur to avoi Suggested Chang	that. This seems directions as cle Remedy ve the extra layer e functions. Response SC 186.3.3.1. omas Type T re 186-13, 'mfas' d conflict with the Remedy e mfas to faw	s to have been inherited from early as this PMA does. of hierarchy. Make 186.3.3 <i>Response Status</i> <b>O</b> <b>2</b> <i>P</i> <b>589</b> Nokia <i>Comment Status</i> <b>X</b> should be 'faw' to align with t e MFAS field in the PCS fram	other PMAs that the transmit fund <i>L</i> 17 the text in 186.3.	t don't distinguish Tx ctions, and 186.3.4 the # 40 3.1.5 (faw is used here	detail), th 28 bytes bytes; the SuggestedRe Revise th alignmen "A Boole frame alig Proposed Re C/ 186 Brown, Matt Comment Ty	that are reserve e 28 bytes that emedy he definition of it pattern rather an variable tha gnment mecha isponse SC 186.5 pe T hits for 800GBA	red (0x00). The alignment p are transmitted as 0x00 are fam_valid to consider only f than the entire FAM field: t is set to true if the first 250 nism sequence" Response Status <b>O</b> P605 Alphawave S Comment Status <b>X</b>	brocess should o e not required to the 32 bytes that 6 bits of the FAM	nly be looking at the 32 match. have the frame I field are a valid PCS
below and R> Suggested Remov receive Proposed I CI 186 Huber, The Comment In figur to avoi	that. This seems directions as cle Remedy ve the extra layer e functions. Response SC 186.3.3.1. omas Type T re 186-13, 'mfas' d conflict with the Remedy e mfas to faw	s to have been inherited from early as this PMA does. of hierarchy. Make 186.3.3 <i>Response Status</i> <b>O</b> <b>2 P589</b> Nokia <i>Comment Status</i> <b>X</b> should be 'faw' to align with t	other PMAs that the transmit fund <i>L</i> 17 the text in 186.3.	t don't distinguish Tx ctions, and 186.3.4 the # 40 3.1.5 (faw is used here	detail), th 28 bytes bytes; the SuggestedRe Revise th alignmen "A Boole frame alig Proposed Re C/ 186 Brown, Matt Comment Ty, Delay lim SuggestedRe	that are reserve e 28 bytes that emedy he definition of it pattern rather an variable tha gnment mecha isponse SC 186.5 pe T hits for 800GBA	ed (0x00). The alignment p are transmitted as 0x00 are fam_valid to consider only t than the entire FAM field: t is set to true if the first 250 nism sequence" Response Status <b>0</b> P605 Alphawave S Comment Status <b>X</b> SE-ER1 PC1 are TBD.	brocess should o e not required to the 32 bytes that 6 bits of the FAM	nly be looking at the 32 match. have the frame I field are a valid PCS

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

Cl	186	
SC	186.5	

Page 101 of 107 2025-01-03 11:17:27 A

CI 186 SC 186.5	P605	L <b>40</b>	# 73	C/ 187 SC 187.2	P615	L <b>34</b>	# 75			
Sluyski, Mike	Cisco			Sluyski, Mike	Cisco					
Comment Type TR	Comment Status X			Comment Type E	Comment Status X					
The maximum delay (sum of transmit	contributed by the 800GBASE-	ER1 PCS and 8	00GBASE-ER1 PMA	Reference 174A.4 is	not linked.					
(	t one end of the link) shall be n	o more than TBI	D bit times (TBD	SuggestedRemedy Link reference to 174A.4						
SuggestedRemedy				Proposed Response	Response Status <b>O</b>					
	ovide delay measurement resu surementd is 3.3uSec for PCS		1 PHY in January	Cl 187 SC 187.3.1	.1 800GBASE-E <i>P</i> 618	L13	# 76			
Proposed Response	Response Status O			Sluyski, Mike	Cisco					
				Comment Type E	Comment Status X					
C/ 186 SC 186.5	P605	L <b>40</b>	# 192	This clause include a	reference (186.3.3.1.6) and la	ter to (187.5.2).				
Brown. Matt	Alphawave S	emi		SuggestedRemedy						
Comment Type <b>T</b> Delay constraints are	Comment Status X				d clearer to reference Figure 18 ). Likewise Reference to Figure					
2	, IDD.			Proposed Response	Response Status O					
SuggestedRemedy	with proposale									
Expect a contribution				CI 187 SC 187.5.3	P621	L <b>29</b>	# 100			
Proposed Response	Response Status <b>O</b>			Mi, Guangcan	Huawei Tech	nologies Co., Ltd				
				Comment Type ER	Comment Status X					
C/ 187 SC 187.1	P <b>614</b>	L <b>8</b>	# 74	51	ams carry a combination of the	transmitting Inn	er FEC Tx_XI, Tx_XQ,			
Sluyski, Mike	Cisco			Tx_YI, and						
Comment Type E	Comment Status X				by the transmitting PMD to gen and 800GBASE-ER1 do not us					
	nerated by these PMD types ar		ng a dual	same issue as the se						
	quadrature amplitude modulati	on		SuggestedRemedy						
SuggestedRemedy	and a standard with a second state	ha la lí c'anul		change "the transmit	ting Inner FEC Tx_XI, Tx_XQ,	" to "the analog	g Tx_XI, Tx_XQ,"			
	as in signals or the are should	be is it singular.		Proposed Response	Response Status 0					
Proposed Response	Response Status <b>O</b>									

C/ 187 SC 187.5.3

CI 187 SC 187.5.	5 P 622	L <b>8</b>	# 103	C/ 187	SC 187.6.2	P 624	L14	# 104		
Mi, Guangcan	Huawei Tech	nologies Co., Ltd		Mi, Guangcan Huawei Technologies Co., Ltd						
Comment Type TR	Comment Status X			Comment Ty	/pe TR	Comment Status X				
receiver power min	power limit of -18dBm for signal value defined in Table 187-6 is - be below average receive powe	18dBm. For PME		max. av	erage launch	d of 800GBASE-ER1-20 and 80 power of 800GBASE-ER1 was channel characteristic.				
SuggestedRemedy				SuggestedR	emedy					
19dBm) and the ave	5dB margin between power leve erage receive power min (-17.5d pe -19.5dBm or -20dBm for PMI	Bm). Change the	average optical power	link loss	•	assuming max. Transmit outpu	t power of 8000	BASE-ER1, and 0dB		
Proposed Response	Response Status <b>O</b>	_signal_detect=	0	Proposed R	esponse	Response Status <b>O</b>				
				C/ 187	SC 187.6.2	P <b>624</b>	L16	# 60		
C/ 187 SC 187.6.		L <b>32</b>	# 193	Sluyski, Mik	е	Cisco				
Brown, Matt Alphawave Semi					/pe TR	Comment Status X				
Comment Type T ETCC limits are TB	Comment Status X				Receive pow r average tota	er (max) and Average receive   I power?	oower (min)? Is	this average signal		
SuggestedRemedy				SuggestedR	emedy					
Expect a contributio				Coherer power".	nt recievers ca	n distinguish signal power. Cla	rify by adding "	Average receive signa		
Proposed Response	Response Status <b>O</b>			Proposed R	esponse	Response Status O				
C/ 187 SC 187.6.	2 P603	L16	# 79	 C/ 187	SC 187.6.2	P624	L17	# 179		
Sluyski, Mike	Cisco			Sheffi, Nir		Alphawave				
Comment Type TR	Comment Status X			Comment T	/pe T	Comment Status X				
Average Receive po power or average to	ower (max) and Average receive tal power?	power (min)? Is	this average signal	The ET	, CC has no effe	ect on the transmit launch pow sed to Clause 185.	er (min) and av	erage receive launch		
SuggestedRemedy				SuggestedR						
	can distinguish signal power. Cla	arify by adding "A	verage receive signal	00		ion for the transmitter "Average	launch power	(min)" (Table 187-5)		
power". Proposed Response	Response Status <b>O</b>			and the	receiver "Avei	rage receive power (min)" (Tab (Table 185-5 and Table 185-6)	le 187-7) to be			
	•			Similar	U Clause 105	(1 able 105-5 and 1 able 105-0)				

C/ 187 SC 187.6.2

	_									
C/ 187 SC 18		L <b>40</b>	# 80	C/ 187	SC 187.8.3	P <b>627</b>	L <b>42</b>	# 159		
Sluyski, Mike	Cisco			Bruckman,	Leon	Nvidia				
Comment Type <b>1</b>	R Comment Status X			Comment T	ype TR	Comment Status X				
Differential group	o delay (max)^c should be defin	ed as a statistical va	lue.	There is	s no Lane wave	elength (range) in Table 187-5				
SuggestedRemedy				SuggestedF	Remedy					
relationship betw defined probabili	C. "Due to the statistical nature reen maximum DGD (DGDmax stically. The probability of the ir x can be inferred from its Maxw	) and mean DGD (Denstantaneous DGD e	GDmean) can only be	Update	also Table 187 Idd Lane wavel	frequency (range)" in Table 18 '-11 row 2. ength (range) to Table 187-5. <i>Response Status</i> <b>0</b>	37-5, then mak	e naming consistent.		
	this specification the ratio of DC $_{0.4}$ a 4.1 × 10-6 probability of the									
Proposed Response	Response Status 0			C/ 187	SC 187.8.6	P <b>628</b>	L <b>8</b>	# 160		
				Bruckman,	Leon	Nvidia				
C/ 187 SC 18	7.8.1 <i>P</i> 606	L12	# 81	Comment T Redund	<i>ype</i> ER lant "is".	Comment Status X				
Sluyski, Mike	Cisco			Suggested	Remedy					
	<b>R</b> Comment Status <b>X</b> iramed in payload?					quality metric is used to define ity metric used to define"	9"			
SuggestedRemedy Assumed to be f	ramed but make it clear			Proposed R	Response	Response Status O				
Proposed Response	Response Status 0			C/ 187	SC 187.9	P <b>629</b>	L1	# 63		
				Sluyski, Mił	ke	Cisco				
/ 187 SC 18	7.8.1 P627	L9	# 105	Comment T	ype E	Comment Status X				
Mi, Guangcan	li, Guangcan Huawei Technologies Co., Ltd					ETCC test setup and calculation is not limited to ER1 and ER1-20. Should the test setup and calculation be relocated to it's own or a different clause?				
	R Comment Status X			Suggested	Remedy					
PRBS31 can be	encoded by PCS or FEC, not F	UMY		00	,	8.6 Extened transmsitter const	ellation closure	e - definition.		
SuggestedRemedy change to PRBS	31 encoded by the 800GBASE	-ER1 PCS and PMA		Proposed R	Response	Response Status O				

C/ 187 SC 187.9

C/ 187 SC 187.12	.4.1 <i>P</i> 634	L10	# 410	C/ 187 SC 187.12.4.4	P <b>635</b>	L 36	# 414
Maniloff, Eric	Ciena			Maniloff, Eric	Ciena		
Comment Type T	Comment Status X			Comment Type T Comment	t Status X		
Transmitter nominal	center frequency is not applical	ble to this PMD.		Minimum average channel power at	maximum adju	stable power setti	ing is not applicable to
SuggestedRemedy				clause 187 PMDs			
Delete this entry.				SuggestedRemedy			
Proposed Response	Response Status 0			Delete this entry.			
				Proposed Response Response	Status O		
C/ 187 SC 187.12	.4.1 P634	L13	# 411	C/ 187 SC 187.12.4.4	P635	L <b>41</b>	# 415
Maniloff, Eric	Ciena					L41	# 415
Comment Type T	Comment Status X			Maniloff, Eric	Ciena		
Receiver nominal ce	nter frequency is not applicable	e to this PMD		51	t Status X	Development	
SuggestedRemedy				Clause 187 PMDs are not amplified, defined.	, receiever OSN	R and tolerance	are not applicable or
Delete this entry.				SuggestedRemedy			
Proposed Response	Response Status O			Delete entries OM11 and OM13			
				Proposed Response Response	Status O		
C/ 187 SC 187.12	.4.2 P634	L <b>40</b>	# 412				
Maniloff, Eric	Ciena			C/ 187 SC 187.12.4.6	P636	L <b>21</b>	# 416
Comment Type T	Comment Status X			Maniloff, Eric	Ciena		
PMD receive center	frequency ability is not applicab	ole to this PMD		Comment Type T Comment	t Status X		
SuggestedRemedy				Clause 187 is not a DWDM PMD			
Delete this entry.				SuggestedRemedy			
Proposed Response	Response Status 0			Delete entry for DWDM black link			
				Proposed Response Response	Status O		
C/ 187 SC 187.12	.4.4 P635	L <b>34</b>	# 413				
Maniloff, Eric	Ciena						
Comment Type T	Comment Status X						
Adjustable range of t optical power is not o	transmit defined for clause 187						
SuggestedRemedy							
SuggestedRemedy Delete this entry.							

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 187 SC 187.12.4.6

C/ 187 SC Table 1	87-5 P623	L	# 69	C/ 187 SC Table 18	7-5 P623	L <b>21</b>	# 58
Sluyski, Mike	Cisco			Sluyski, Mike	Cisco		
Comment Type TR	Comment Status X			Comment Type TR	Comment Status X		
Tx clock phase noise SuggestedRemedy	total periodic jitter (max)	<ul> <li>specified in Table</li> </ul>	185-5	Signaling rate 118.2 +/ 118.200000000 is belo	- 20ppm GBd is rounded. w allowed min.		
,	with Table 185-5 pg. 551	lines 13		SuggestedRemedy			
Proposed Response	Response Status <b>O</b>			The exact rate is 118.2 118.200986536 min. 118.203350603 nom. 118.205714670 max.	03350603 GBd.		
Cl 187 SC Table 1 Sluyski, Mike	87-5 P623 Cisco	L	# 66	Proposed Response	Response Status O		
Comment Type <b>T</b> Tx laser frequency st	Comment Status X ability: post-acquistion.			C/ 187 SC Table 18	7-5 P623	L <b>5</b> 1	# 64
SuggestedRemedy	ability: poor acquiotion.			Sluyski, Mike	Cisco		
Not required (see line	19)			Comment Type T	Comment Status X		
Proposed Response	Response Status <b>O</b>			Tx laser frequency slev 187-5?	v rate: pre-acquistion (max).	Specified in table	e 185-5 is it required for
				SuggestedRemedy			
C/ 187 SC Table 1		L	# 68		ER1-20 does not include DW vers laser tuning and converge		
Sluyski, Mike	Cisco			Proposed Response	Response Status 0		
Comment Type TR	Comment Status X total integrated random ji	ttor (max) chacifi	d in Table 195 5				
				C/ 187 SC Table 18	7-5 <i>P</i> 623	L <b>52</b>	# 65
SuggestedRemedy	with Table 185-5 pg. 551	lines 12		Sluyski, Mike	Cisco		
Proposed Response	Response Status <b>O</b>			Comment Type T	Comment Status X		
Toposed Response				51	v rate: post-acquistion (max).	Specified in tabl	le 185-5 is it required
C/ 187 SC Table 1	87-5 P623	L	# 67	SuggestedRemedy			
Sluyski, Mike	Cisco			Not required. (see line	19)		
Comment Type <b>TR</b> Tx clock phase noise in Table 187-5?	Comment Status X phase noise mask freque	ency (max). Specifi	ed in 185-5 is it required	Proposed Response	Response Status O		
SuggestedRemedy		lines 5-11					
,	with Table 185-5 pg. 551	11163 3-11					

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 Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 187 SC Table 187-5 Page 106 of 107 2025-01-03 11:17:27 A

01.407	00 T-11 (0	<b>7.0</b> Doo <i>4</i>	1.40	# [50]	0/ 407 0	O T-11- 407	0	1.4.4	# 04
C/ 187	SC Table 187		L10	# 59		C Table 187-		L11	# 61
Sluyski, M		Cisco			Sluyski, Mike	TD	Cisco		
Comment Signal		Comment Status X - 20ppm GBd is rounded	4		Comment Type	e TR ersion waeleng	Comment Status X		
	000000000 is belo				·		Jui		
Suggested	dRemedy				SuggestedRem		ER1 application over C-b	and 1550nm?	
118.20 118.20	xact rate is 118.2 00986536 min. 03350603 nom. 05714670 max.	03350603 GBd.			Proposed Resp		Response Status <b>0</b>		
Proposed	Response	Response Status O							
C/ 187	SC Table 187	7-7 P624	L	# 70					
Sluyski, M	ſike	Cisco							
<i>Comment</i> RX ac		Comment Status X me to acquire and lock t	o valid signal.						
Suggested Time t Sec.		gnal in the presence of a	a valid input signal. R	ecommend 10 (max)					
Proposed	Response	Response Status O							
C/ 187	SC Table 187	7-8 P625	L <b>40</b>	# 62					
Sluyski, M	like	Cisco							
Comment	Type TR	Comment Status X							
Differe	ential group delay	r (max)^c should be defi	ned as a statistical va	alue.					
Suggested	dRemedy								
relatio define	onship between m ed probabilistically	e to the statistical natur aximum DGD (DGDma . The probability of the be inferred from its Max	x) and mean DGD (D Instantaneous DGD e	e dispersion (PMD), the GDmean) can only be exceeding any given					
		ecification the ratio of D × 10-6 probability of the							
Proposed	Response	Response Status O							