02.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ SC 45	5.2.1.199	P 42	L 28	# 167	C/ FM	SC	P 22	L 6	# 41
AcClellan, Brett		Marvell			Marris, Arthur		Cadence	Design Systems	
Comment Type	TR Com	ment Status A		Vendor	Comment Typ	e E	Comment Status A		E
				standard, so why is	Title is wr	ong.			
	on that they may	/ only be used by de	evices from the sa	me vendor?	SuggestedRe	medy			
SuggestedRemedy					Change ti				
lines 28 and 31	e link nartner is	from the same vend	or '				hernet Amendment:	Deremotors for 2 5	Ch/a E Ch/a and 10
esponse	•	onse Status C	01				fications and Management strical Ethernet"	Falameters for 2.5	GD/S, 5 GD/S and 10
ACCEPT IN PR	,								
ACCELLINER							ng page headers to sometł PHY Task Force"	ning other than "IEE	E P802.3ch Multi-Gig
This text is remo	oved as rewritte	n by comment #1.			perhaps o	hange to: "I	EEE P802.3ch Task Force		
FM SC		P 2	L5	# 40	Managem	ent Parame	eters for 2.5 Gb/s, 5 Gb/s a	nd 10 Gb/s Automo	tive Electrical Ethernet"
					Response		Response Status C		
larris Arthur		Cadence Des	sian Systems		Reoponde				
comment Type		Cadence Des ment Status A	0	EZ	ACCEPT		, PLE.		Oten dend for Ethermot
Comment Type I "This amendme management pa pair of conducto uggestedRemedy	ent to IEEE Std arameters for 2.	<i>ment Status</i> A 302.3-2018 adds phy	ysical layer specif 10 Gb/s operation		ACCEPT Change ti Amendme Physical I Gb/s Auto	tle to match ent: _ayer draftifi omotive Elec	,	Parameters for 2.5 (Gb/s, 5 Gb/s, and 10
Comment Type I "This amendme management pa pair of conducto uggestedRemedy Change to:	ent to IEEE Std a arameters for 2. ors suitable for a	ment Status A 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and applications." does n	ysical layer specif 10 Gb/s operation ot read right	ications and n on a single balanced	ACCEPT Change ti Amendme Physical I Gb/s Auto Don't cha	tle to match ent: _ayer draftifi omotive Elec nge the pag	PLE. the first page adding miss cations and Management strical Ethernet" e header as it is supposed	Parameters for 2.5 (to be the Task For	Gb/s, 5 Gb/s, and 10 ce name.
omment Type I "This amendme management pa pair of conducto uggestedRemedy Change to: "This amendme management pa	ent to IEEE Std a arameters for 2. ors suitable for a ent to IEEE Std a arameters for 2.	ment Status A 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and applications." does no 302.3-2018 adds phy	ysical layer specif 10 Gb/s operation ot read right ysical layer specif 10 Gb/s operation	ications and n on a single balanced	ACCEPT Change ti Amendme Physical I Gb/s Auto Don't cha	tle to match ent: .ayer draftifi omotive Elec nge the pag SC FM	PLE. the first page adding miss cations and Management ctrical Ethernet"	Parameters for 2.5 (to be the Task Ford L 48	Gb/s, 5 Gb/s, and 10
Comment Type I "This amendme management pa pair of conducto uggestedRemedy Change to: "This amendme management pa pair of conducto	ent to IEEE Std a arameters for 2. ors suitable for a ent to IEEE Std a arameters for 2. ors suitable for a	ment Status A 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and applications." does no 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and automotive applicatio	ysical layer specif 10 Gb/s operation ot read right ysical layer specif 10 Gb/s operation	ications and n on a single balanced ications and	ACCEPT Change ti Amendme Physical I Gb/s Auto Don't cha	tle to match ent: Layer draftifi motive Elec nge the pag SC FM Natalie	PLE. the first page adding miss cations and Management strical Ethernet" e header as it is supposed P10	Parameters for 2.5 (to be the Task Ford L 48	Gb/s, 5 Gb/s, and 10 ce name.
omment Type "This amendme management pa pair of conducto uggestedRemedy Change to: "This amendme management pa pair of conducto	ent to IEEE Std a arameters for 2. ors suitable for a ent to IEEE Std a arameters for 2. ors suitable for a	ment Status A 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and applications." does no 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and	ysical layer specif 10 Gb/s operation ot read right ysical layer specif 10 Gb/s operation	ications and n on a single balanced ications and	ACCEPT Change ti Amendme Physical I Gb/s Auto Don't cha C/ FM Wienckowski Comment Typ	tle to match ent: ayer draftifi motive Elec nge the pag SC FM Natalie ve E	PLE. the first page adding miss cations and Management trical Ethernet" e header as it is supposed P10 General N	Parameters for 2.5 (to be the Task Ford L 48	Gb/s, 5 Gb/s, and 10 ce name. # <u>57</u>
"This amendme management pa pair of conducto uggestedRemedy Change to: "This amendme management pa pair of conducto esponse	ent to IEEE Std a arameters for 2. ors suitable for a ent to IEEE Std a arameters for 2. ors suitable for a	ment Status A 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and applications." does no 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and automotive applicatio	ysical layer specif 10 Gb/s operation ot read right ysical layer specif 10 Gb/s operation	ications and n on a single balanced ications and	ACCEPT Change ti Amendme Physical I Gb/s Auto Don't cha C/ FM Wienckowski Comment Typ	tle to match ent: Layer draftifi motive Elec nge the pag SC FM Natalie be E 802.3cn-20;	PLE. the first page adding miss cations and Management strical Ethernet" e header as it is supposed P10 General M Comment Status A	Parameters for 2.5 (to be the Task Ford L 48	Gb/s, 5 Gb/s, and 10 ce name. # <u>57</u>
"This amendme management pa pair of conducto SuggestedRemedy Change to: "This amendme management pa pair of conducto Response	ent to IEEE Std a arameters for 2. ors suitable for a ent to IEEE Std a arameters for 2. ors suitable for a	ment Status A 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and applications." does no 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and automotive applicatio	ysical layer specif 10 Gb/s operation ot read right ysical layer specif 10 Gb/s operation	ications and n on a single balanced ications and	ACCEPT Change ti Amendme Physical I Gb/s Auto Don't cha C/ FM Wienckowski Comment Typ IEEE Std SuggestedRe Add: IEE Amendme Gb/s, 200	tle to match ent: Layer draftifi motive Elec nge the pag SC FM Natalie be E 802.3cn-20: medy E Std 802.3 ent 4—This Gb/s, and 4	PLE. the first page adding miss cations and Management ctrical Ethernet" e header as it is supposed P10 General M <i>Comment Status</i> A xx - Amendment 4	Parameters for 2.5 (to be the Task Ford <i>L</i> 48 Notors ges to IEEE Std 800 pecifications and ma	Gb/s, 5 Gb/s, and 10 ce name. # <u>57</u> E 2.3-2018 and adds 50
Comment Type I "This amendme management pa pair of conducto SuggestedRemedy Change to: "This amendme management pa pair of conducto Response	ent to IEEE Std a arameters for 2. ors suitable for a ent to IEEE Std a arameters for 2. ors suitable for a	ment Status A 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and applications." does no 302.3-2018 adds phy 5 Gb/s, 5 Gb/s, and automotive applicatio	ysical layer specif 10 Gb/s operation ot read right ysical layer specif 10 Gb/s operation	ications and n on a single balanced ications and	ACCEPT Change ti Amendme Physical I Gb/s Auto Don't cha C/ FM Wienckowski Comment Typ IEEE Std SuggestedRe Add: IEE Amendme Gb/s, 200	tle to match ent: Layer draftifi motive Elec nge the pag SC FM Natalie be E 802.3cn-20: medy E Std 802.3 ent 4—This Gb/s, and 4	PLE. the first page adding miss cations and Management ctrical Ethernet" e header as it is supposed P10 General N Comment Status A xx - Amendment 4 cn™-20xx amendment includes chan 400 Gb/s Physical Layer sj	Parameters for 2.5 (to be the Task Ford <i>L</i> 48 Notors ges to IEEE Std 800 pecifications and ma	Gb/s, 5 Gb/s, and 10 ce name. # <u>57</u> E 2.3-2018 and adds 50

C/ FM SC FM

P802.3ch D2.1	02.1 Physical Lay	er Specifica	tions and Manag	ement	Parameter	rs for 2	2.5 Gb/	s, 5 Gb/s, and 10 Gb/s Au	ıtom		
C/FM SC FM	P10	L 51	# 58		C/ FM	SC	FM	P11	L 6	# 60	
Wienckowski, Natalie	General Motors	S			Wienckov	wski, Na	talie	General Motors	6		
Comment Type E IEEE Std 802.3cg-20	Comment Status A Dxx - Amendment 5			EZ	Comment IEEE		E 3cm-20	Comment Status A Ixx - Amendment 7			EZ
SuggestedRemedy					Suggeste	dRemed	ly				
Add: Amendment 5-	 after the title for cg and before 	"This amendn	nent"					cm™-20xx			
Response ACCEPT.	Response Status C				Claus Physi	se 150. T ical Laye	Гhis ame er (PHY)	amendment includes changes to endment adds specifications and managemen ASE-SR4.2) and eight pairs (400	t parameters	for 400 Gb/s operat	ion
C/FM SC FM	P11	L 4	# 37		over r	reaches	of at lea			,	,
Wienckowski, Natalie	General Motors	5			100 m						
Comment Type E Missing 149C in the	Comment Status A description of the ammendment.			ΕZ	Response ACCE			Response Status C			
SuggestedRemedy					C/ 00	SC	0	<i>P</i> 1	L18	# 64	
	se 149 and Annex 149A and Anr				Maguire,	Valerie		The Siemon Co	ompany		
	9 and Annex 149A, Annex 149B,	and Annex 14	9C.		Comment	Туре	Е	Comment Status A			ΕZ
Response ACCEPT.	Response Status C				Use o	oxford co	omma.				
ACCEPT.					Suggeste	dRemed	ly				
C/FM SC FM	P11	L 6	# 59		Repla	ace, "2.5	Gb/s, 5	Gb/s and 10 Gb/s" with "2.5 Gb	o/s, 5 Gb/s, ar	nd 10 Gb/s".	
Wienckowski, Natalie	General Motors	5			Response	9		Response Status C			
Comment Type E	Comment Status A			ΕZ	ACCE	EPT.					
IEEE Std 802.3cq-20	0xx - Amendment 6				C/ 00	SC	0	P10	L47	# 117	
SuggestedRemedy					Zimmerm	an Geo	orae	CME Consultin	a/ADI API G	ip, Aquantia, BMW,	Cisco
Add: IEEE Std 802.	3cq™-20xx ⊨amendment includes editorial ar	nd technical co	rrections refinement	te	Comment		E	Comment Status A	.g,,,,	p;;;qaaa; 2;	EZ
	Clause 33 and related portions of		frections, remement	.5,		• •		endments missing from the fror	nt matter (802	.3cn, 802.3cq, and s	soon
Response ACCEPT.	Response Status C				802.3 well.	lcm) whi	ch are n	ow in SA ballot. 802.3cn is now	Amendment	four, before 802.3cg	g, as
AUGER I.					Suggeste	dRemed	ly				
					Insert	t missing	g amendi	ments in correct order in front m	natter		
					-						

Response

ACCEPT.

CI 00 SC 0

Response Status C

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

CI 44	SC 44.1.3	P 28	L 50	# 118		CI 45	SC 45.2.1	P 32	L 29	# 120	
Zimmerma	an, George	CME Consultin	g/ADI, APL G	p, Aquantia, BMW,	Cisco	Zimmerma	an, George	CME Cons	sulting/ADI, APL C	Sp, Aquantia, BMW, C	isco
asteris	O-NEGOTIATIO	Comment Status D N IS OPTIONAL should read neral comment on auto-negoti			EZ	acrony	ium SNR margin m)	Comment Status A " - Minimum should not be	e capitalized (it isr	n't the first word or an	ΕZ
Suggested	IRemedy					Suggestea Chang	e Minimum to m	inimum			
add "F	OR 10GBASE-T	1" after "AUTO-NEGOTIATIO	N IS OPTION	AL"		Response		Response Status C			
Proposed I REJEC	•	Response Status Z				•	PT IN PRINCIPL	,			
		THDRAWN by the commenter				D2.0 a	nd D2.1 or the u	t apply to the substantive nsatisfied negative comm of the recirculation ballot.	ients from earlier b		
C/ 44	SC 44.1.4.4	P 30	L 43	# 66		Make	suggested chang	ge to follow IEEE802.3 sty	/le.		
Tu, Mike		Broadcom		_	-						
Comment [·] I think	51	Comment Status A uld be "Gray code".			EZ						
Suggested Chang	<i>Remedy</i> e "gray code" to	"Gray code"									
Response		Response Status C									
ACCE	PT IN PRINCIPL	.Е.									
D2.1 o		t apply to the substantive char negative comments from earli on ballot.									
	e "gray code" to in this and othe	"Gray-code" as "Gray" is base r Clauses.	d on a name	and this is how it is							

C/ **45** SC **45.2.1**

C/ 45	SC 45.2.1	P32	L 30	# 119
Zimmerman,	George	CME Consu	ting/ADI, APL Gp	, Aquantia, BMW, Cisco
Comment Typ	e E	Comment Status A		Vendor

"PHY Vendor specific" and "Link Partner vendor specific data" isn't a specific enough name for these registers, in the context of clause 45. These registers are specific to MultiGBASE-T1. As labeled, they look like general registers for ANY 802.3 PHY type. Suggest change name to "MultiGBASE-T1 PHY vendor specific data" and "MultiGBASE-T1 link partner PHY vendor specific data". Note also capitalization and alignment of the link partner register name

SuggestedRemedy

Change as per comment. Also change names in 45.2.1.199 and table 45-155f

Response Status C

Response

ACCEPT IN PRINCIPLE.

Resolved by the response to comment 1, copied below.

In Table 45-3:

Change the name of register 1.2316 to "MultiGBASE-T1 user defined data" in subclause 45.2.1.199

Change the name of register 1.2317 to "MultiGBASE-T1 link partner user defined data" in subclause 45.2.1.200

In 45.2.1.199:

Change the title to "MultiGBASE-T1 user defined data register (Register 1.2316)" Change the text to: "The assignment of bits for the MultiGBASE-T1 user defined data register is shown in Table 45–155f. The values of the bits in this register are outside the scope of this standard."

In Table 45-155f:

Change the title to: "MultiGBASE-T1 user defined data register bit definitions"

Change the Name to: "MultiGBASE-T1 user defined data"

Change the Description to: "16 bits of vendor specific data that the PHY sends to its link partner"

Delete the last row of the table.

Change footnote a to "R/W = Read/Write"

In 45.2.1.199.1:

Change the title to: "PHY vendor specific data (1.2316.15:0)"

Change text to: "Bits 1.2316.15:0 contain vendor specific data that the PHY may

communicate to its link partner during training."

Delete 45.2.1.199.2

Create a new level 4 subclause:

"45.2.1.200 MultiGBASE-T1 link partner user defined data register (Register 1.2317)" with text:

"The assignment of bits for the MultiGBASE-T1 link partner user defined data register is shown in Table 45–155g. The values of the bits in this register are outside the scope of this standard."

Create Table 45-155g with title "MultiGBASE-T1 link partner user defined data register bit definitions" and a row with Name entry for 1.2317.15:0 is "Link partner PHY vendor specific

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line C/ 45 SC 45.2.1 Page 4 of 45 9/12/2019 2:11:21 PM

data", Description is "16 bits of vendor specific data that the PHY may receive from its link partner", R/W is "RO", and footnote a is "RO = Read only" Create a new level 5 subclause:

"45.2.1.200.1 Link partner PHY vendor specific data (1.2317.15:0)" with text "Bits 1.2317.15:0 contain vendor specific data that the PHY may receive from its link partner during training."

subclause 45.2.1.200 In 45.2.1.199:

scope of this standard." In Table 45-155f:

		•		
C/ 45	SC 45.2.1	P 32	L31	# 1
Anslow, F	Pete	Ciena		
45 co The n	efinition of registe nventions or in ke ames of the regis	Comment Status A ers 1.2316 and 1.2317 is not eping with "user defined dat ters are such that when this t be clear what they are for.	a" as used in pric	or BASE-T PHYs.
Suggested	dRemedy			
Chang subcla In 45. Chang regist unless OUIs In Tab Chang Deleta Chang Deleta Chang Deleta Creatu "45.2. text: "The a shown identiil NEXT Creatu definil entry Read Creatu	1.199 ge the name of re ause 45.2.1.200 2.1.199: ge the title to "Mu ge the text to: "Th er is shown in Tal s the PHY identifi using the NEXT p ole 45-155f: ge the title to: "Mu e the last row of tl ge footnote a to "I 2.1.199.1: ge the title to: "PH e 45.2.1.199.2 the title to: "PH e 45.2.1.199.2 ge the title to: "PH e 45.2.1.199.2 sassignment of bits n in Table 45–155 fies the link partnet pages." e Table 45-155 st tions" and a body for 1.2317.15:0 is only" e a new level 5 st	ItiGBASE-T1 user defined on the table. R/W = Read/Write" Y vendor specific data (1.23 boclause: E-T1 link partner user define for the MultiGBASE-T1 link g. The values of the bits in the re during Auto-Negotiation the with title "MultiGBASE-T1 link the same as the last row of "Link partner PHY vendor s	E-T1 link partner ata register (Regi MultiGBASE-T1 he bits in this reg to-Negotiation th lata register bit de 316.15:0)" ed data register (le his register are a rough communic k partner user def Table 45-155f ex pecific data" and	a user defined data" in ester 1.2316)" user defined data ister are all zeros rough communicating efinitions" Register 1.2317)" with ined data register is Il zeros unless the PHY rating OUIs using the fined data register bit rcept that the Name footnote a is "RO =
	ng 45.2.1.199.2.	Deenenee Status		
Response	EPT IN PRINCIPL	Response Status C ⊏		
In Tab	ble 45-3: ge the name of re	E. gister 1.2316 to "MultiGBAS	E-T1 user define	d data" in subclause

partner" Delete the last row of the table. Change footnote a to "R/W = Read/Write" In 45.2.1.199.1: Change the title to: "PHY vendor specific data (1.2316.15:0)" Change text to: "Bits 1.2316.15:0 contain vendor specific data that the PHY may communicate to its link partner during training." Delete 45.2.1.199.2 Create a new level 4 subclause: "45.2.1.200 MultiGBASE-T1 link partner user defined data register (Register 1.2317)" with text: "The assignment of bits for the MultiGBASE-T1 link partner user defined data register is shown in Table 45–155g. The values of the bits in this register are outside the scope of this standard." Create Table 45-155g with title "MultiGBASE-T1 link partner user defined data register bit definitions" and a row with Name entry for 1.2317.15:0 is "Link partner PHY vendor specific data", Description is "16 bits of vendor specific data that the PHY may receive from its link partner", R/W is "RO", and footnote a is "RO = Read only" Create a new level 5 subclause: "45.2.1.200.1 Link partner PHY vendor specific data (1.2317.15:0)" with text "Bits 1.2317.15:0 contain vendor specific data that the PHY may receive from its link partner during training." C/ 45 SC 45.2.1.7.4 P33 L5 # 2

Anslow, Pete		Ciena		
Comment Type	Е	Comment Status A	E	ΞZ
The empty rov	ws ir	Table 45-9 and Table 45-10 should contain an ellipsis		
SuggestedRemed	y			

Change the name of register 1.2317 to "MultiGBASE-T1 link partner user defined data" in

Change the Description to: "16 bits of vendor specific data that the PHY sends to its link

Change the title to "MultiGBASE-T1 user defined data register (Register 1.2316)" Change the text to: "The assignment of bits for the MultiGBASE-T1 user defined data register is shown in Table 45–155f. The values of the bits in this register are outside the

Change the title to: "MultiGBASE-T1 user defined data register bit definitions"

Change the Name to: "MultiGBASE-T1 user defined data"

Add an ellipsis to the empty rows (two instances per table)

Response	Response Status C
ACCEPT.	

TYPE: TR/technical required ER/editorial required GR/gene	ral required T/technical E/editorial G/general	C/ 45
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn	SC 45.2.1.7.4
SORT ORDER: Clause, Subclause, page, line		

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J2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 45	SC 45.2.1.7.5	P33	L 3	# 121	C/ 45	SC 4	5.2.1.192	P35	L 41	# 124
Zimmerma	an, George	CME Consult	ing/ADI, APL Gp	, Aquantia, BMW, Cisco	Zimmerm	an, Geor	ge	CME Consult	ing/ADI, APL G	p, Aquantia, BMW, Cisco
Comment PHY n	51	Comment Status A break across lines.		EZ		anges to		Comment Status A user to set precoder select		
instan	n first column of T ces. (do both - thi across lines.)	ables 45-9 and 45-10 and us s way no matter what happe <i>Response Status</i> C			now b force be put the co deterr Also,	etter dele nis preco in the te ntrol reg nined by nowhere	egated to ju oder from th est mode re ister to mode the PHY of do we link	st have made these register ist control the test mode pri- e remote device. For test gister as well, but in no no dify the precoder (either your r by the link partner register PrecodeSel to the precode	recoder forcing, ing purposes, a mal operation ou do it by link pa ers forcing a con	since the user can n override control could case would you want artner request (figuration).
C/ 45	SC 45.2.1.18	P 34	L 24	# 3	Suggester	-		9 from Table 45-155a (pao	19 35 lines 40-4	4)
Anslow, P		Ciena	- 24	# <u>5</u>					, ,	,
Comment		Comment Status A		EZ	Chang	je reserv	ed row in 1	able 45-155a (page 35 line	e 45) from 1.230	J9.8:0 to 1.2309.10:0
"Add" Table	is not a valid editi 45-21 is not being		shown.					8, subclause 149.2.1.192. ge Reserved row to be : 1		
Delete Apply	ge the editing inst e Table 45-21. Paragraph tag "N		ig note below Ta	ble 45-21:"	1.231 1 = U 1.231	3.11 Loo ser Ovei 3.10:9	cal transmit rrride R/W	mit precoder setting 00 =	Normal Operati	
Response ACCE		Response Status C			10 = 1 11 = 1	transmit transmit	with 1+D p with 1-D2 p			
					On pa	ge 41 lin	ne 47, add r	new subclauses after 45.2.	1.196.1 and ren	umber appropriately:
					When value shall t 1.231	bit 1.23 of bits 1. oe ignore 3.10:9, a	13.11 is set .2313.10:9, ed. When b .nd the prec	titter precoder override (1. to one, the local transmitt and the precoder requeste it 1.2313.11 is set to zero, oder is set according to the ed in 149.3.2.2.20. The de	er's precoder sh ed by the link pa the transmitter e value of Preco	rtner in PrecodeSel shall ignore the bits odeSel received from
					When transr the pr using 1.231	bit 1.23 nitter, as ecoder c these bit 3.11 is so	13.11 is set defined in an be set u ts, bit 1.231 et to zero, a	nit precoder setting (1.2313 to one, bits 1.2313.10:9 c 149.3.2.2.20 in the variable sing these bits, and the sp 3.11, and enabling test mo and the precoder is set acc ther, and bits 1.2313.10:9	control the preco e precoder_type becified test can ode 3. During no cording to the va	e. For testing purposes, be carried out in by ormal operation, bit
					Add F	ICS item	ne MM232 a	and MM233(editorial licens	e to number an	d position appropriately).

Add PICS items MM232 and MM233(editorial license to number and position appropriately):

TYPE: TR/technical required ER/editorial required GR/general required T/tech	inical E/editorial G/general	C/ 45	Page 6 of 45
COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE ST.	ATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn	SC 45.2.1.192	9/12/2019 2:11:21 PM

SORT ORDER: Clause, Subclause, page, line

P802.3ch D2.1 22.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

(Feature | Subclause | Value/comment | Status | Support) When bit 1,2313,11 is set to one, the value in bits 1,2313,10.9 control the local

transmitter's precoder | 45.2.1.196.2 | | M | Yes[] No[] When bit 1.2313.11 is set to zero, the value in bits 1.2313.10:9 are ignored and the link partner's request controls the local transmitter's precoder | 45.2.1.196.2 | M | Yes [] No []

On page 102 line 27 (149.3.2.2.20), change "The precoder type is determined by the PCS decoding two bits in InfoField messages received from the remote PHY during training as:" to: "In normal operation (see 45.2.1.196.3) the value of precoder type shall be set to the value of PrecodeSel received from the link partner in the InfoField messages (see 149.4.2.4.5):"

(this PICS is already covered by PCT21)

Response

ACCEPT IN PRINCIPLE.

The following response has minor editorial corrections to the Suggested Remedy.

Delete row for 1.2309.10:9 from Table 45-155a (page 35 lines 40-44)

Response Status C

Change reserved row in Table 45-155a (page 35 line 45) from 1.2309.8:0 to 1.2309.10:0

Delete page 36 lines 40-48, subclause 149.2.1.192.4 and renumber.

On page 41 line 33. Change Reserved row to be : 1.2313.12 | Reserved | Value always 0 | RO

and insert three new rows below the new reserved row:

1.2313.11 ILocal transmitter precoder override | 0 = Normal Operation

1 = User Overrride | R/W

1.2313.10:9 | Local transmit precoder setting | 00 = transmit with no precoder

01 = transmit with 1-D precoder 10 = transmit with 1+D precoder

11 = transmit with 1-D2 precoder | R/W

1.2313.8.2 | Reserved | Value always 0 | RO

On page 41 line 47, add new subclauses after 45.2.1.196.1 and renumber appropriately:

45.2.1.196.2 Local transmitter precoder override (1.2313.11)

When bit 1.2313.11 is set to one, the local transmitter's precoder shall be controlled by the value of bits 1.2313.10:9, and the precoder requested by the link partner in PrecodeSel shall be ignored. When bit 1,2313,11 is set to zero, the transmitter shall ignore bits 1.2313.10:9, and the precoder is set according to the value of PrecodeSel received from the link partner as specified in 149.3.2.2.20. The default value of 1.2313.11 is zero.

45.2.1.196.3 Local transmit precoder setting (1.2313.10:9)

When bit 1.2313.11 is set to one, bits 1.2313.10.9 control the precoder setting of the local transmitter, as defined in 149.3.2.2.20 in the variable precoder type. For testing purposes, the precoder can be set using these bits, and the specified test can be carried out by using these bits, bit 1.2313.11, and enabling test mode 3. During normal operation, bit 1.2313.11 is set to zero, and the precoder is set according to the value of PrecodeSel received from

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

the link partner, and bits 1.2313.10:9 are ignored.

Add PICS items MM232 and MM233(editorial license to number and position appropriately): (Feature | Subclause | Value/comment | Status | Support) When bit 1,2313,11 is set to one, the value in bits 1,2313,10:9 control the local transmitter's precoder | 45.2.1.196.2 | | M | Yes[] No[] When bit 1.2313.11 is set to zero, the value in bits 1.2313.10.9 are ignored and the link partner's request controls the local transmitter's precoder | 45.2.1.196.2 | M | Yes [] No []

On page 102 line 27 (149.3.2.2.20), change "The precoder type is determined by the PCS decoding two bits in InfoField messages received from the remote PHY during training as:" to: "In normal operation (see 45.2.1.196.3) the value of precoder type shall be set to the value of PrecodeSel received from the link partner in the InfoField messages (see 149.4.2.4.5):"

(this PICS is already covered by PCT21)

CI 45	SC	45.2.1.192.3	B P36	L35	# 67
Tu, Mike			Broadcom		
Comment 7	уре	т	Comment Status A		EEE
	•	•	r mode, the PHY should g		0

Link Synchronization, instead of going to Figure 149-33 PHY Control state diagram.

SuggestedRemedy

Delete the entire paragraph.

Response Response Status C

ACCEPT IN PRINCIPLE

This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot.

Delete "The MultiGBASE-T1 PHY executes a full retrain as defined in Figure 149-33 after exiting from reset or low-power mode."

> C/ 45 SC 45.2.1.192.3

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1 45 SC	45.2.1.192.4	P36	L 43	# 165	C/ 45	SC 45.2.1	.193.5	P 38	L 8	# 44
/IcClellan, Brett		Marvell			Slavick, Jeff			Broadcom		
First - "Setting this sentence the written se mode 3. Second - "Du	veral problems subc g these bits forces t makes it appear th tting without other a ring normal operatio	he precoder to the in nat simply writing to action required when on, these bits are se	these bits will can in fact this setting the setting the setting to the setting to the setting to the set set of the set set of the	Precoder ause precoder to use ng is used only for test be precoder requested apresent the value of	believe ti SuggestedRe See Pres Response	ecoder req nis field sho emedy	uested doesi ould be indica _3ch_01_09 <i>Respon</i>	ating the actual state		Precode sed upon description. I receive precoder.
the request, w It is very poor causes issue whether these Further, durin	which has been rece practice to use cor s when read-modify b bits are supposed	eived and set into the figuration bits (R/W -write operations ar to act as RO in nor the setting of the pr	e transmitter. " /) also as status e performed. It is mal mode but R recoder can alrea	bits (usually RO). It	This com Make the Page 37 Page 38	ment has t following o line 21 (Ta line 8 (45.2	he same res changes: ble 45-155b) .1.193.5 hea	ponse as #123. change "Actual pre ider) change "Actual (P38 lines 10-12) to	l precoder selec	cted" to "PrecodeSel",
		•		s defined in	"Bits 1.23 link partr Page 39	310.4:3 cor her via the F line 15 (Ta	tain the requ PrecodeSel b ble 45-155c)	iested precoder sett its in the Infofield (s and Page 38 line 45	ing communica ee 149.4.2.4.4) 5 (45.2.1.194.2	ted by the PHY to the ." header) change
Response ACCEPT IN F These lines a	,	nse Status C ment #124.			read as f "When 1 and whe desired p	ollows: .2311.5 is s n set to a z precoder se	et to a one, ero the PHY		.2311.3:2 for th f PrecodeSel. F	
Graba, Jim Comment Type In Table 45-1 SuggestedRemed	55b, "EEE Ability" s		L7 ity".	# <u>97</u> EZ	"Precode read as f "When 1	line 23 (Ta er requested ollows: .2311.5 is a	d" to "User pi	2311.3:2 are the req	and replace text quested precode	header) change (P39 lines 38-39) to er setting communicated d (see 149.4.2.4.4)."
Response ACCEPT IN F	,	ise Status C								
D2.0 and D2.	t does not apply to 1 or the unsatisfied ne scope of the reci	negative comments								
Maka auggar	ted change to follov	v IEEE802.3 style.								

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line

SC 45.2.1.193.5

CI 45	SC 45.2.1.1	93.5	P 38	L 8	# 122	C/ 45	SC 45.2.1.1	93.5	P 38	L 8	# 123	
immerma	n, George		CME Consul	lting/ADI, APL Gp	, Aquantia, BMW, Cisco	Zimmern	nan, George		CME Consu	Iting/ADI, APL G	o, Aquantia, BMW,	Cisco
the tab langua	I precoder selected le (Actual preco ge (comment F le moot and sho	cted" - title c oder reques PRECD1) is	ted" - suggest the	e table is more ap pted in principle,	<i>Precoder</i> s the name of the bit in propriate. (If the larger this comment should	mess which ones	ment PRECD1) sed up and confus to the request o	The language sing. Which p f the link part	orecoder param ner's transmitte	iters relate to the r is not consisten	Pre or "selected" is all local transmitter an t. The "Link partne REQUEST, which is	r"
Chang	e "Actual preco	der selected	d" to "Actual prec	oder requested".		Suggeste	dRemedy					
Chang Chang	PT IN PRINCIP e per comment e the title of 45 deSel (1.2310.4	LE. #123 .2.1.193.5 fr	se Status C om "Actual preco	der selected (1.2	310.4:3)" to:	Page Page and r "Bits	38 line 8 (45.2.1 eplace text of 45 1.2310.4:3 conta	e 45-155b) ch .193.5 heade .2.1.193.5 (P3 .in the reques	r) change "Actu 38 lines 10-12) ted precoder se	al precoder select to read as follows	d" to "PrecodeSel" ted" to "PrecodeSe : ted by the PHY to ti	
						"Prec read "Whe and v desir 149.4 Page "Prec read Whe comr	coder request over as follows: an 1.2311.5 is set when set to a zerred precoder setti 1.2.4.4." 39 line 23 (Table coder requested" as follows: n bit 1.2311.5 is a nunicated by the	erride" to "Pre t as a one, the o the PHY co ng communio e 45-155c) an to "User prec a one, bits 1.2	coder Selectior PHY shall use ntrols the value cated to the link d Page 39 line oder selection"	 1.2311.3:2 for the of PrecodeSel. Figuration of PrecodeSel. Figuration of the precode set of th	kt (P38 lines 47-48) he value of Precode precodeSel is the elds specified in header) change (P39 lines 38-39) to	Sel, o
							1.2.4.4).		04-4			
						Respons ACC	₽ EPT IN PRINCIP		Status C			
						Page Page and r "Bits	38 line 8 (45.2.1 eplace text of 45 1.2310.4:3 conta	e 45-155b) ch .193.5 heade .2.1.193.5 (P3 .in the reques	r) change "Actu 38 lines 10-12) ted precoder se	al precoder select to read as follows	ted by the PHY to tl	,
						"Pred read "Whe and v	coder request ove as follows: en 1.2311.5 is set vhen set to a zero	erride" to "Pre t to a one, the o the PHY co	coder Selectior PHY shall use ntrols the value	1.2311.3:2 for th of PrecodeSel. F	kt (P38 lines 47-48) e value of Precodes	
	technical requir	ed FR/edit	orial required GR	deneral required	T/technical E/editorial	G/general			CL 4	5	Page 9 of 4	15

TYPE: TR/technical required ER/editorial required GR/gener	al required T/technical E/editorial G/general	CI 45	Page 9 of 45
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn	SC 45.2.1.193.5	9/12/2019 2:11:21 PM
SORT ORDER: Clause, Subclause, page, line			

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

149.4.2.4.4."					CI 45	SC 45.2.1.1	93.5	P38	L 8	# 68
Page 39 line 23 (Ta					Tu, Mike			Broadcom		
"Precoder requester read as follows:	d" to "User pre	coder selection", a	and replace text	(P39 lines 38-39) to	Comment	Туре Е	Comme	ent Status A		Precode
				er setting communicated	The "a	ctual precoder	selected" na	me is confusing t	o readers.	
by the PHY to the li	nk partner via l	the PrecodeSel bi	ts in the Infofield	I (see 149.4.2.4.4)."	Suggested	lRemedy				
C/ 45 SC 45.2.1	.193.5	P 38	L 8	# 4	See p	roposed change	s in tu_3ch_	_01_0919.pdf.		
Anslow, Pete		Ciena			Response		Respons	se Status C		
Comment Type E	Comme	nt Status A		Precoder	ACCE	PT IN PRINCIP	LE.			
The parameter nam text in the descriptic However, the title of	on cell as well a	as the text in 45.2.	1.193.5.	d" and this fits with the h does not match		omment has the	•	onse as #123.		
SuggestedRemedy						the following ch 37 line 21 (Tabl	0	hange "Actual pr	ecoder requeste	d" to "PrecodeSel"
30 ,		om "Actual precod	er selected (1.2	310.4:3)" to: "Actual	Page and re	38 line 8 (45.2.1 place text of 45	.193.5 head .2.1.193.5 (I	ler) change "Actu P38 lines 10-12) t	al precoder selector o read as follows	cted" to "PrecodeSel", s:
Response ACCEPT IN PRINC	,	se Status C						ested precoder se is in the Infofield (0	ted by the PHY to the ."
Change per comme Change the title of 4 "PrecodeSel (1.231	45.2.1.193.5 fro	om "Actual precod	er selected (1.2	310.4:3)" to:	"Preco read a "Wher and w desire	oder request ove s follows: n 1.2311.5 is se hen set to a zer	erride" to "Pr to a one, th the PHY c	ne PHY shall use ontrols the value	", and replace te 1.2311.3:2 for th of PrecodeSel. F	header) change xt (P38 lines 47-48) to e value of PrecodeSel, PrecodeSel is the Ifofield specified in
					0	```	,	and Page 39 line 3 coder selection",	·	header) change (P39 lines 38-39) to

read as follows:

C/ 45 SC 45.2.1.193.5

"When 1.2311.5 is a one, bits 1.2311.3:2 are the requested precoder setting communicated by the PHY to the link partner via the PrecodeSel bits in the Infofield (see 149.4.2.4.4)."

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D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 45	SC 45.2.1.194	P 39	L19	# 98		C/ 45	SC 45.2.1.1	94.1 P38	3 1	_42	# 170	
Graba, Jin	n	Broadcom				Wienckowski	, Natalie	Gener	al Motors			
Comment	Type E	Comment Status A			EZ	Comment Typ	e E	Comment Status	Α			lat
In Tab	ole 45-155c, chan	ge "Slow wake" to "Slow Wak	(e" in order to be	e consistent.				S"; however, the chang				
Suggested	dRemedy							s the name for the set ation is not consistent		to indicate f	the PHY capabi	lity;
Chang docum		of "Slow wake" and "slow wa	ake" into "Slow V	Wake" througout the	e	SuggestedRe	medy					
		Deserves Oferfue O				Make the	following cha	anges:				
Response ACCE	PT IN PRINCIPL	Response Status C E.				P38 L42, To: the In		d P147 L31 - Change:	Infofields			
D2.0 a	and D2.1 or the ur	apply to the substantive cha satisfied negative comments of the recirculation ballot.				P78 L29, To: InfoF		d P144 L11 - Change:	Infofield			
						P177 L16	- Change: ir	nfofield				
		below to make draft consister	nt.			To: InfoF	eld					
		v wake" to "Slow Wake" 40 L45 - change "slow wake"	to "Slow Wake"			Response		Response Status	С			
		-				ACCEPT	IN PRINCIP	LE.				
C/ 45	SC 45.2.1.194	I.1 P38	L 41	# 69		Make the	following cha	andes.				
Tu, Mike		Broadcom						ent to the effect that C	lause 149 use	s a 12 octet	Infofield	
Comment	51	Comment Status A			EZ							
"Reed	-Solomon 'receive	er' interleave setting" does no	ot sound right. De	elete the word 'rece	eiver'.	Change a P802.3ch		of "infofield" with any c	apitalization to	be "Infofiel	d" throughout th	ne
Suggested	dRemedy											
		eed-Solomon receiver interle	ave setting"			C/ 45	SC 45.2.1.1	94.4 P39		_ 38	# 5	
		on interleave setting"				Anslow, Pete		Ciena				
Response		Response Status C				Comment Typ	e E	Comment Status	Α			E.
						The conv 0".	ention used i	in Clause 45 is to use '	'is one" and "i	s zero" rathe	er than "is 1" an	d "is
		apply to the substantive cha satisfied negative comments				SuggestedRe	medy					
11202		of the recirculation ballot.					is 1" to "is or is 0" to "is ze					
						•						
is not	suggested chang	e and additional change to co	orrect "Infofields"	" to "InfoField".		Response		Response Status	С			

C/ 45 SC 45.2.1.194.4

J2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 45 SC 45.2	.1.194.5	P 39	L 45	# 125	CI 45	SC 45.2.1.1	95.1	P 40	L 4 1	# 99	
Zimmerman, George			ing/ADI, APL Gp	, Aquantia, BMW, Cisco	Graba, Jir			Broadcom			
Comment Type TF		ent Status A		Registers	Comment	21		ent Status A	e		EZ
				priate for a read/write note that this language	These	e bits are reques	sted by the l	link partner via Info	field. The curren	it text is confusing].
	RO registers bu	t not for situations		is supposed to write		ge from: " cor		to the link partner			
SuggestedRemedy								c partner via InfoFie	elds"		
Change "shall be	set" to "should b	pe set" on page 39	line 45 and on p	page 39 line 52,	Response			nse Status C			
Response	Respon	se Status C			ACCE	EPT IN PRINCIF	ΥLE.				
ACCEPT IN PRIN	CIPLE.							the substantive change in the substantive comment			
P39 L43 Replace	the existing par	agraph with:						irculation ballot.			
Support for Multic				s bit is set to one. f this bit is set to zero.	Make	requested char	nge to impro	ove clarity.			
				d if it is supported by	C/ 45	SC 45.2.1.1	95.4	P 41	L 5	# 70	
the PHY.				,	Tu, Mike			Broadcom			
And P39 L50 Rep	ace the existing	paragraph with:			Comment	Туре Е	Comm	ent Status A			ΕZ
	-		bit is set to one	. Support for EEE		'local device" ar PHY"?	nd "local PH	IY" are used in this	document. May	be we should stay	/ with
			ero. Support for	EEE operation should	Suggestee	dRemedv					
only be advertised	if it is supporte	d by the PHY.				-	ecs of "local	device" by "local F	PHY" throughout	the document.	
				ement of support for	Response			nse Status C	0		
MultiGBASE-T1 C 1.2311.1 is set to				pport is advertised if bit o		EPT IN PRINCIF	-				
	EE; and in the '	"Value/Comment"	column put: Sup	ement of support for port is advertised if bit o	D2.0 a	and D2.1 or the	unsatisfied	the substantive chain negative comment irculation ballot.			
					Chang	ge "local device	" to "local P	HY" at the following	g locations to ma	ake the draft consi	istent:
					P41 L	.5, P41 L12, P4	6 L8, P55 L	45, P55 L49, P153	L40, P153 L43,	P153 L44	

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

C/ 45 SC 45.2.1.195.4 Page 12 of 45 9/12/2019 2:11:21 PM

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

CI 45	SC 45.2.1.196	.2 P41	L 50	# 6		C/ 45	SC 45.2.1.1	97 P42	L 5	# 155
Anslow, P	Pete	Ciena				McClellan	, Brett	Marvel	l	
Comment	Type E	Comment Status A			EZ	Comment	Туре Т	Comment Status	Δ	SNF
	onvention used in en them.	Clause 45 for the values	s of pairs of bits is to	not include a space				o not match the registe ition of 1/2560 instead o		314 and 1.2315. The
Suggested	dRemedy					Suggested	Remedy			
Chan	ge "value of 0 0" to ge "value of 0 1" to	"value of 01"					5 and 13, delete ented by 0x010		dB represented b	y 0xFF00, and –12.7 dB
	ge "value of 1 0" to					Response		Response Status	C	
Response		Response Status C				ACCE	PT IN PRINCIP	LE.		
ACCE	PT.					P42. L	.5 Change "0x80	100" to "0x80"		
C/ 45	SC 45.2.1.196	.2 P41	L 51	# 146		P42, L	.6 Change "0xFl	-00" to "0xFF"		
McClellan	, Brett	Marvell				P42, L	.6 Change "0x01	00" to "0x01"		
Comment	Type E	Comment Status A			EZ	P42 L	7 Insert the follo	wing text: The assignr	nent of bits in the N	MultiGBASE-T1 SNR
Test r	node 2 is describe	d in 149.5.2.3.1				operat	ting margin regis	ter is shown in Table 4	5–155x.	
Suggested	dRemedy					Add a	register bit defir	iition table (45-155x) wi	th the following 2 c	content rows:
chang	je "149.5.2.3"					1.2314	4.15:8 MultiGl			of current SNR operating
to "14	9.5.2.3.1"						n in dB RO	d Value always 0 F	20	
Response)	Response Status C						e on the table: ^aRO =		
ACCE	EPT.								,	
							.13 Change "0x8 .13 Change "0xF			
							13 Change "0x0			
								lowing text: The assigr s shown in Table 45–15		MultiGBASE-T1 Minimum
						1.2315 margir 1.2315	5.15:8 MultiGl n in dB RO 5.7:0 Reserve	iition table (45-155y) wi BASE-T1 Minimum SNF d Value always 0 F e on the table: ^aRO =	R margin value c	content rows: of minimum observed SNR

C/ 45 SC 45.2.1.197

o/s, 5 Gb/s, and 10 Gb/s Autom

C/ 45 SC 4	5.2.1.199	P 42	L18	# 166	data", Description is ' partner", R/W is "RO
McClellan, Brett Comment Type "The values of		Marvell <i>ment Status</i> A registers are all zero	s unless the PH	<i>Vendor</i> Y identifies the link	Create a new level 5 "45.2.1.200.1 Link pa 1.2317.15:0 contain v during training."
partner during	Auto-Negotiation	through communica	ting OUIs using		C/ 45 SC 45.2.1.1
I suggest born	owing the text from	m Clause 55.			McClellan, Brett
	"If during Auto-N	egotiation both devic		use of the vendor otherwise the bits are	Comment Type E 'Reserved' should be
set to zero."	iges, they may be				SuggestedRemedy
Response ACCEPT IN P	•	onse Status C			change 'Reserved' to 'Link partner vendo
		mment 1, copied be	low.		Response ACCEPT IN PRINCIF
In Table 45-3:			- T1 upor dofino	d data" in subclause	This is moved to a ne
subclause 45. In 45.2.1.199: Change the tit Change the te register is sho scope of this s In Table 45-15 Change the tit Change the N Change the D partner" Delete the las Change footno In 45.2.1.199.	2.1.200 le to "MultiGBASI xt to: "The assign wn in Table 45–1 standard." i55f: le to: "MultiGBAS ame to: "MultiGB, escription to: "16 t row of the table. ote a to "R/W = R 1:	E-T1 user defined da ment of bits for the N 55f. The values of th E-T1 user defined da ASE-T1 user defined bits of vendor specifi	ta register (Regi MultiGBASE-T1 t e bits in this regi ata register bit de data" ic data that the F	user defined data ister are outside the efinitions"	Cl 45 SC 45.2.1.1 Tu, Mike Comment Type T Register 1.2317 cont SuggestedRemedy Under column "Name Response ACCEPT IN PRINCIF This row is deleted by
Change text to communicate Delete 45.2.1. Create a new "45.2.1.200 M text: "The assignme shown in Tabl standard." Create Table	b: "Bits 1.2316.15 to its link partner 199.2 level 4 subclause ultiGBASE-T1 link ent of bits for the e 45–155g. The v 45-155g with title	:0 contain vendor sp during training." : < partner user define MultiGBASE-T1 link alues of the bits in th "MultiGBASE-T1 link	becific data that t d data register (f partner user def his register are of a partner user de	Register 1.2317)" with	

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

"16 bits of vendor specific data that the PHY may receive from its link)", and footnote a is "RO = Read only" subclause:

artner PHY vendor specific data (1.2317.15:0)" with text "Bits vendor specific data that the PHY may receive from its link partner

CI 45	SC	45.2.1.199	P 42	L30	# 147	
McClellan,	Brett		Marvell			
Comment		Е	Comment Status A			Vendo
'Reser	/ed' sh	ould be 'Lin	k partner vendor specific da	ata'		
Suggested		-				
change to 'Link		erved' er vendor sp	pecific data'			
Response			Response Status C			
ACCE	PT IN F	PRINCIPLE				
This is	moved	d to a new s	ubclause with a new name	by comment #1.		
C/ 45		45.2.1.199	P 42	L 30	# 71	
Tu, Mike			Broadcom			
Comment	Гуре	т	Comment Status A			Vendo
Regist	er 1.23	17 contains	the Link partner vendor sp	ecific data.		
Suggested	Remec	ly				
Under	columr	n "Name", c	hange "Reserved" to "Link	partner vendor s	pecific data"	
Response			Response Status C			
ACCE	PT IN F	PRINCIPLE				
This ro	w is de	eleted by co	mment #1			

CI 45 SC 45.2.1.199 Page 14 of 45 9/12/2019 2:11:22 PM

						-						
C/ 45	SC 45.2.3.72	P43	L 42	# 126		C/ 45	SC 4	45.5.3.3	P 54	L 8	# 7	
Zimmerman,	George	CME Consult	ing/ADI, APL Gp	o, Aquantia, BMW	/, Cisco	Anslow, F	Pete		Ciena			
in the OA	-241 bit 3.2308.15 M state diagram (rring to 'state mac	Comment Status A description and 45.2.3.7 45.2.3.72.1 and the sha hine' inappropriately. Th	ll on the OAM st	ate diagram, and	reads	Suggeste	ighest ir dRemed	ly	Comment Status A m is MM231. 27" to "through MM231"			EZ
This is sir request 1 Another c	milar to the chang 327 and I plan to comment fixes the	es in the receive register submit it as a maintenan defect that the OAM sta defect is also in clause	ce request. te diagrams don'	't have shall's	equest	Response ACCI			Response Status C			
		e are NO PICS in clause			oquoor	C/ 78	SC	78.2	P 58	L 53	# 8	
SuggestedRe	emedy					Anslow, F	Pete		Ciena			
from: "Th	is bit shall self cle	ne second sentence in De ar when register 3.2317 i en register 3.2317 is read	is read."	3.15		Comment The b		E Iling of Ta	Comment Status A ble 78-2 should not be "Ve	ery Thin"		EZ
In 45.2.3. and on lin	.72.1 change "sha ne 29 change "Th bit self-clears"	Il be set to one", to "is se is register shall be cleare response Status C	et to one" (P44 L2			Suggeste remo Response ACCI	ve the ov	•	the bottom ruling of Table Response Status C	978-2		
•	IN PRINCIPLE.											
ACCLI	INTRINCITEE.					C/ 78	SC	78.5	P 59	L17	# 9	
		gister shall be cleared w when register 3.2317 is		317 is read.		Anslow, F Comment		E	Ciena Comment Status A			EZ
P46 L34 -	- Delete: Register	3.2313.15 shall be clear	red when registe	r 3.2317 is read.		"Inse	rt an 10tl	h paragrap	ph" should be "Insert a 10	th paragraph"		
Bring in P 3.2317 is		change "Feature": Regist	er 3.2313 is clea	ared when registe	r	<i>Suggeste</i> Chan	<i>dRemed</i> ge "an" t	•				
		rs when register 3.2317 i	s read.			Response	9		Response Status C			
Bring in P	PICS RM135 and F	RM136 and "delete" them	۱.			ACCI	EPT.					
		shall self-clear when reg n registers are loaded by										
	- Change: This re bit self-clears to ir	gister shall be cleared by ndicate …	/ the state mach	ine to indicate								
Bring in P	PICS RM125, RM1	26, and RM129 and "del	ete" them.									

CI 78 SC 78.5

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/98 S	SC 98.5.1	P63	L10	# 52		C/ 104	SC 104.5.6.4	P 67	L 5	# 24	
₋o, William		Axonne Inc.				Wienckows	ki, Natalie	General	Motors		
can do 10	ondense into 1 IG only how w	Comment Status A I variable (mGigT1). If one de ould the incompatible_link wo age 156 is the proper way to a	rk as both woul	d assert mGigT1?	<i>AN</i> er	Comment T		Comment Status A			E
uggestedRei	•						able 104-7" a h 7 L6, P67 L11,	yperlink and remove th	e "forrest green" co	blor.	
Page 156 link_contre	line 22 chang ol_mGigT1 ar	.0 comment 224 ge nd link_status_mGigT1 to nd link_status_mGigT1 where	mGiaT1 is 2 50	SigT1 5GigT1 or		Response ACCEP		Response Status C	:		
10GigT1.			110 g 1 10 2.00	Sigi 1, 00igi 1, 0i		C/ 104	SC 104.9	P68	L1	# 10	
esponse		Response Status C				Anslow, Pet	e	Ciena			
ACCEPT	IN PRINCIPLI	E.				Comment T	vpe E	Comment Status A			l
	nges from D2 change: The	variables link control and link	status are des	signated as			is not a valid e	diting instruction.			
P156 L22 link_contro To: The v link_status 5GBASE-	change: The ol_mGigT1 ar /ariables link_ s_2.5GigT1 fc	variables link_control and link nd link_status_mGigT1, respe- control and link_status are de or 2.5GBASE-T1, link_control_ control_10GigT1 and link_stat	ctively, signated as link 5GigT1 and lin	<_control_2.5GigT k_status_5GigT11 r 10GBASE-T1		"Modify' The inst <i>SuggestedF</i>	is not a valid e ruction is too va emedy ne editing instru	diting instruction. ague to be of any use a uction at the top of page <i>Response Status</i> C	9 68		
P156 L22 link_contro To: The v link_status 5GBASE- / 104	change: The ol_mGigT1 ar variables link_ s_2.5GigT1 fc T1, and link_c SC 104.5.6.4	nd link_status_mGigT1, respe control and link_status are de or 2.5GBASE-T1, link_control_ control_10GigT1 and link_stat	ctively, signated as link 5GigT1 and lin us_10GigT1 for <i>L</i> 40	<_control_2.5GigT k_status_5GigT1 f		"Modify" The inst SuggestedF Delete t Response	is not a valid e ruction is too va emedy ne editing instru	ague to be of any use a uction at the top of page	9 68	# 11	
P156 L22 link_contro To: The v link_status 5GBASE- / 104 S /ienckowski,	change: The ol_mGigT1 ar variables link_ s_2.5GigT1 fc T1, and link_c SC 104.5.6.4 Natalie	nd link_status_mGigT1, respe control and link_status are de or 2.5GBASE-T1, link_control_ control_10GigT1 and link_stat P 66	ctively, signated as link 5GigT1 and lin us_10GigT1 for <i>L</i> 40	<_control_2.5GigT k_status_5GigT11 r 10GBASE-T1		"Modify" The inst SuggestedF Delete t Response ACCEP	is not a valid e ruction is too va emedy ne editing instru T. SC 104.9.3	ague to be of any use a uction at the top of page <i>Response Status</i> C	68	# [<u>1</u>	
P156 L22 link_contro To: The v link_status 5GBASE- 7 104 S Vienckowski,	change: The ol_mGigT1 ar variables link_ s_2.5GigT1 fc T1, and link_c SC 104.5.6.4 Natalie	nd link_status_mGigT1, respe control and link_status are de or 2.5GBASE-T1, link_control_ control_10GigT1 and link_stat <i>P</i> 66 General Motor	ctively, signated as link 5GigT1 and lin us_10GigT1 for <i>L</i> 40	<_control_2.5GigT k_status_5GigT11 r 10GBASE-T1	for	"Modify" The insi SuggestedF Delete t Response ACCEP	is not a valid e ruction is too va emedy ne editing instru T. SC 104.9.3 e	ague to be of any use a uction at the top of page <i>Response Status</i> C <i>P</i> 68	e 68 	# [<u>1</u>	
P156 L22 link_contro To: The v link_status 5GBASE- 104 Vienckowski, comment Typ	change: The ol_mGigT1 ar variables link_ s_2.5GigT1 fc T1, and link_c SC 104.5.6.4 Natalie be E medy ble 104-7" a h	nd link_status_mGigT1, respension control and link_status are de or 2.5GBASE-T1, link_control_ control_10GigT1 and link_stat P66 General Motors Comment Status A	ctively, signated as link 5GigT1 and lin us_10GigT1 for <i>L</i> 40	<_control_2.5GigT k_status_5GigT11 r 10GBASE-T1	for	"Modify" The inst SuggestedF Delete t Response ACCEP C/ 104 Anslow, Pet Comment T The two redunda	is not a valid e ruction is too va emedy ne editing instru T. SC 104.9.3 e pe E items *PSETE nt editing instru	ague to be of any use a uction at the top of page <i>Response Status</i> C <i>P</i> 68 Ciena	L8 L8 nserted by IEEE St page (proposed to b	d 802.3cg-20xx. The e deleted in another	Э
P156 L22 link_contro To: The v link_status 5GBASE- / 104 S Vienckowski, omment Typ uggestedRer Make "Tal Also, P67	change: The ol_mGigT1 ar variables link_ s_2.5GigT1 fc T1, and link_c SC 104.5.6.4 Natalie be E medy ble 104-7" a h	nd link_status_mGigT1, respe control and link_status are de or 2.5GBASE-T1, link_control_ control_10GigT1 and link_stat P66 General Motor <i>Comment Status</i> A	ctively, signated as link 5GigT1 and lin us_10GigT1 for <i>L</i> 40	<_control_2.5GigT k_status_5GigT11 r 10GBASE-T1	for	"Modify" The inst SuggestedF Delete t Response ACCEP C/ 104 Anslow, Pet Comment T The two redunda	is not a valid e ruction is too va emedy ne editing instru T. SC 104.9.3 e ype E items *PSETE nt editing instru t) does not cha	ague to be of any use a uction at the top of page <i>Response Status</i> C <i>P</i> 68 Ciena <i>Comment Status</i> A and *PDTE are being i uction at the top of the p	L8 L8 nserted by IEEE St page (proposed to b	d 802.3cg-20xx. The e deleted in another	Э
P156 L22 link_contro To: The v link_status 5GBASE- 7 104 S Vienckowski, comment Typ uggestedRen Make "Tal	change: The ol_mGigT1 ar variables link_c s_2.5GigT1 fc T1, and link_c SC 104.5.6.4 Natalie ve E medy ble 104-7" a h L4	nd link_status_mGigT1, respension control and link_status are de or 2.5GBASE-T1, link_control_ control_10GigT1 and link_stat P66 General Motors Comment Status A	ctively, signated as link 5GigT1 and lin us_10GigT1 for <i>L</i> 40	<_control_2.5GigT k_status_5GigT11 r 10GBASE-T1	for	"Modify The inst SuggestedR Delete t Response ACCEP Cl 104 Anslow, Pet Comment T The two redunda commel SuggestedR Change	is not a valid e ruction is too va emedy ne editing instru T. SC 104.9.3 e ype E items *PSETE nt editing instru t) does not cha emedy	ague to be of any use a uction at the top of page <i>Response Status</i> C <i>P</i> 68 Ciena <i>Comment Status</i> A and *PDTE are being i uction at the top of the p ange the fact that this er 104.9.3 as follows" to "	L8 nserted by IEEE St page (proposed to b diting instruction sh	d 802.3cg-20xx. The e deleted in another ould include this.	9

C/ 104 SC 104.9.3

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 104 SC 104.9.4.3	P69	L 3	# 12		C/ 125 SC 125.1 P71 L46 # 128	
Anslow, Pete	Ciena				Zimmerman, George CME Consulting/ADI, APL Gp, Aquantia, B	MW, Cisco
Comment Type E "Modify" is not a valid e	Comment Status A diting instruction.			EZ	Comment Type TR Comment Status D "NOTE 2 - AUTO-NEGOTIATION IS OPTIONAL" Auto-Negotiation is only optiona BASE-T1 PHYs.	E. I for the
S <i>uggestedRemedy</i> Change "Modify item" te	o "Change item"				SuggestedRemedy	
Response ACCEPT.	Response Status C				Add "FOR BASE-T1 PHYs" after "AUTO-NEGOTIATION IS OPTIONAL" Proposed Response Response Status Z REJECT.	
C/ 104 SC 104.9.4.3 Wienckowski, Natalie	P 69 General Motors	L 12	# 25		This comment was WITHDRAWN by the commenter.	
Comment Type E	Comment Status A			EZ	C/ 125 SC 125.1.4 P72 L 34 # 26 Wienckowski, Natalie General Motors	
SuggestedRemedy Make "Table 104-7" a h	yperlink.				Comment Type E Comment Status A	E.
Response ACCEPT.	Response Status C				SuggestedRemedy Make "78" a hyperlink.	
C/ 104 SC 104.9.4.3	P 69	L17	# 39		Response Response Status C	
Wienckowski, Natalie	General Motors	;			ACCEPT IN PRINCIPLE.	
Comment Type E SuggestedRemedy	Comment Status A			EZ	This comment does not apply to the substantive changes between IEEE P802.3c D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot.	
Make "Clause 97" a hy	perlink and remove the "forrest	green" color.			Correct the link to improve readability of the draft.	
Response	Response Status C				C/ 125 SC 125.3 P74 L12 # 47	
ACCEPT.					Lo, William Axonne Inc.	
					Comment Type E Comment Status D Table fix gap in column 2 numbers	E
					SuggestedRemedy Remove the gaps in all the numbers in column 2.	
					Proposed Response Response Status Z REJECT.	

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn C/ 125 Page 17 of 45 SC 125.3 9/12/2019 2:11:22 PM SORT ORDER: Clause, Subclause, page, line

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149 SC 149.1.3.1	P77	L 44	# 129	C/ 149	SC 149.1.3.3	B P78	3 L 2 7	# 130
Zimmerman, George	CME Consultir	ng/ADI, APL Gp	, Aquantia, BMW, Cisco	Zimmerman,	George	CME	Consulting/ADI, AP	L Gp, Aquantia, BMW, Cisco
Comment Type E	Comment Status A		EZ	Comment Ty	pe T	Comment Status	Α	EEE
	e the interleaving is describ 16, where it was in the pre		the scrambler is. The			om LPI mode shall not e and an untestable sl		ames to be lost or" is a
SuggestedRemedy				SuggestedRe	emedy			
Change cross-ref from 14	9.3.2.2.18 to 149.3.2.2.16					ent, or change it to rea ames to be lost or corr		to or from LPI mode should
Response	Response Status C						•	
ACCEPT.				Response	IN PRINCIPI	Response Status	C	
C/ 149 SC 149.1.3.3	P78	L 27	# 100	ACCEPT		LE.		
Graba, Jim	Broadcom							y MAC frames to be lost or any MAC frames to be lost
Comment Type E	Comment Status A		EZ	or corrup			expected to cause	any whe hames to be lost
The last part of the senter	ce is missing?			C/ 149	SC 149.1.3.3	3 P78	3 L 3 3	# 101
SuggestedRemedy				Graba, Jim		Broad		
	st part of sentence from: ".	to be lost or"		Comment Ty	pe T	Comment Status		Reject OOS
To: " to be lost or corrup						only available when the	e optional OAM is e	,
•	Response Status C			SuggestedRe	emedv			
ACCEPT.					•	he PHY Health status	received"	
C/ 149 SC 149.1.3.3	P78	L 27	# 42			I MultiGBASE-T1 OAI	V is enabled and th	e PHY Health status
Slavick, Jeff	Broadcom			received		D O (<i>I</i>)	-	
Comment Type E	Comment Status A		EZ	Response REJECT		Response Status	С	
Extra or instead of a perio	d.			REJECT	•			
SuggestedRemedy						ot apply to the substar		
Replace the or with a "."						unsatisfied negative co of the recirculation ba		er dallols. Hence Il
Response	Response Status C				·			
ACCEPT IN PRINCIPLE.					alth status is c vould add red		IITIGBASE-11 OAM	is enabled, so making this
	acccidentally deleted from			0		,	is appouraged to re	submit this comment at SA

C/ 149 SC 149.1.3.3

02.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149	SC 149.1.3.4	P78	L 45	# 102
Graba, Jim		Broadcom		
Comment Ty	pe T	Comment Status A		Synchronization

More details are needed in the sentences between line 45 and line 47. Recommend to use Clause 97 as the baseline, and apply the scaling from 1 usec (Clause 97) to 1.25 usec (Clause 149).

SuggestedRemedy

Change line 45 to line 47 from: "The MASTER PHY sends a synchronization sequence. If there is no response from the SLAVE, the MASTER repeats by sending a synchronization sequence. If the slave detects the sequence, it responds with a synchronization sequence."

To: "The MASTER PHY sends a synchronization sequence for 1.25 μ s. If there is no response from the SLAVE, the MASTER repeats by sending a synchronization sequence every 6.25 μ s. If the slave detects the sequence, it responds with a synchronization sequence for 1.25 μ s (after the MASTER has stopped transmitting)."

Response Status **C**

ACCEPT IN PRINCIPLE.

Delete: The MASTER PHY sends a synchronization sequence. If there is no response from the SLAVE, the MASTER repeats by sending a synchronization sequence. If the slave detects the sequence, it responds with a synchronization sequence. If no other detection happens after the SLAVE response then Link Synchronization is successfully complete, link monitor timers are started, and the PHY Control state diagram starts Training.

C/ 149 SC	149.1.6	P80	L 41	# 137
Zimmerman, Geo	orge	CME Consultin	ng/ADI, APL Gp	, Aquantia, BMW, Cisco
Comment Type	T Commer	nt Status A		EZ
avoid parenth	tate diagrams do not l neses around logical fu	unctions of relation	nal operators (>	, =, <, etc.) or

combinations of AND and OR operations, adopting precedence is recommended. Fortunately, 802.3bt did this work and it is in clause 145.

SuggestedRemedy

Change "The notation used in the state diagrams follows the conventions of 21.5." to "The notation used in the state diagrams follows the conventions of state diagrams as described in 21.5, along with the extensions described in 145.2.5.2.

Response Status	С
	Response Status

ACCEPT IN PRINCIPLE.

This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot.

Make the requested change as current state transitions in our diagrams assume this precedence.

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149	SC 149.2.1.1	P81	L16	# 74	C/ 149	SC 149.2.1.1	.2 P81	L 30	# 76		
Tu, Mike		Broadcom			Tu, Mike		Broadcom				
comment T	Гуре Е Со	omment Status A	:hnc	ology Dependent Interface	Comment	Туре Т	Comment Status D			E	
	-	nk Synchronization". De	elete "algorithm	".	_	Link.request can ronization.	be set by either the Auto-Ne	egotiation or the	PHY Link		
uggested	•	nk Synchronization alg	orithm to "		Suggested	IRemedy					
	the PHY Link Synchr				Chang	e start of this se	ntence from: "Auto-Negotiati	on generates'			
esponse	-	sponse Status C			To: "A	uto-Negotiation o	or PHY Link Synchronization	generates"			
ACCEF	T IN PRINCIPLE.				Proposed		Response Status Z				
—					REJE	CT.					
D2.0 ar		y to the substantive cha fied negative comment recirculation ballot.			This c	omment was WI	THDRAWN by the comment	er.			
Make tl	ne following change to	o correct the draft.			C/ 149	SC 149.2.1.2	P81	L 40	# 77		
Change	e page 81, line 16 and	line 17 from:			Tu, Mike		Broadcom				
"This p	rimitive allows the Aut	o-Negotiation or the PH	HY Link Synchro	onization algorithm to	Comment	• •	Comment Status D				
enable	and disable operation	of the PMA, as specifi	ed in 98.4.2, re	spectively."	PMA_	Link.indication al	so goes to the PHY Link Syr	nchronization.			
To:					Suggested	lRemedy					
		o-Negotiation to enable	e and disable op	peration of the PMA, as			the Auto-Negotiation functio				
specifie	ed in 98.4.2."						legotiation or PHY Link Synd	chronization func	tion"		
/ 149	SC 149.2.1.1.1	P81	L 24	# <u>7</u> 5	Proposed		Response Status Z				
u, Mike		Broadcom			REJE	. ان					
omment T	⁻ уре т Со	omment Status D		EZ	This c	omment was WI ⁻	THDRAWN by the comment	er.			
		t by either the Auto-Ne	gotiation or the	PHY Link							
Synchr	onization.				C/ 149	SC 149.2.1.2	.3 P82	L 8	# 78		
uggested	•				Tu, Mike		Broadcom				
	e line 24 and 25 to:	Negotiation or PHY Lin	k Synchronizat	ion function to disable	Comment	Туре Т	Comment Status D			E	
the PH			ik Oynemonizat		Add a reference to 149.4.2.6.4 PHY Link Synchronization State Diagram.						
		Negotiation or PHY Lir	nk Synchronizat	ion function to enable	Suggested	IRemedy					
the PH		a , <i>i</i> -			Chang	e from: "The effe	ect of receipt of this primitive	is specified in 9	8.4.1."		
roposed F REJEC	•	sponse Status Z					pt of this primitive is specifient nk Synchronization."	d in 98.4.1 for A	uto-Negotiation, a	nd in	
This		AVAI by the comments			Proposed	Response	Response Status Z				
This co		AWN by the commente			REJE	CT.					
					This c	omment was WI ⁻	THDRAWN by the comment	er.			

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line Page 20 of 45

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

Zimmerma	an. Geo	orae		CME Consu	Iting/ADI API G	p, Aquantia, BMW, Cisco
Comment	,	E	Comment			F7
"The s	ubsequ	uent functio	ns of the PC	S Transmit pr	rocess" is meanin n of 65B blocks.	gless, because the
Suggested	Reme	dy				
					•	o "After mapping the PCS Transmit process"
Response ACCE	PT.		Response	Status C		
C/ 149	SC	149.3.2.2		P 91	L13	# 79
Tu, Mike				Broadcom		
Comment	Туре	т	Comment	Status A		RS-FEC
					the same time wi symbols" should	th the RS-FEC be "RS-FEC symbols".
Suggested	Reme	dy				
		sentence fre RS-FE syl		I field, then ac	dd 340 bits of par	ity for the RS-FEC,
				d add 340 bits	s of parity for the	RS-FEC,"
					s of parity for the	RS-FEC,"
To: " <i>Response</i> ACCE Chang 65B bl OAM f	. OAM PT IN I je: The ocks, a ïeld, th	field, then i PRINCIPLE subseque append a 10	nterleave an <i>Response</i> : nt functions ()-bit bits of parity	S <i>tatus</i> C of the PCS Tr	ansmit process th	RS-FEC," nen take a block of fifty e RS-FE symbols, and
To: " Response ACCE Chang 65B bl OAM f then so To: Th blocks	. OAM PT IN I je: The ocks, a ield, th crambl ne subs and a aved R	field, then i PRINCIPLE asubseque append a 10 en add 340 e the result sequent fur opend a 10	nterleave an Response : ob-bit bits of parity ing bits. actions of the -bit OAM fiel	Status C of the PCS Tr y for the RS-F PCS Transm d to each grou	ansmit process th EC, interleave the nit process take L up. This forms the	nen take a block of fifty e RS-FE symbols, and groups of fifty 65B
To: " Response ACCE Chang 65B bl OAM f then so To: Th blocks interlea	. OAM PT IN I je: The ocks, a ield, th crambl ne subs and aj aved R bled.	field, then i PRINCIPLE asubseque append a 10 en add 340 e the result sequent fur opend a 10	nterleave an Response : ob-bit bits of parity ing bits. actions of the -bit OAM fiel	Status C of the PCS Tr y for the RS-F PCS Transm d to each grou	ansmit process th EC, interleave the nit process take L up. This forms the	nen take a block of fifty e RS-FE symbols, and groups of fifty 65B e input to an L-
To: " Response ACCE Chang 65B bl OAM f then so To: Th blocks interlea scram	. OAM PT IN I le: The ocks, a ïeld, th crambl ne subs and a aved R bled.	field, then i PRINCIPLE append a 10 en add 340 e the result sequent fur opend a 10 S-FEC whi 149.3.2.2	nterleave an Response : ob-bit bits of parity ing bits. actions of the -bit OAM fiel	Status C of the PCS Tr y for the RS-F PCS Transm d to each grou 340 parity bits	ansmit process th EC, interleave the nit process take L up. This forms the the resulting L L13	e RS-FE symbols, and groups of fifty 65B input to an L- x 3600 bits are then # 132
To: " Response ACCE Chang 65B bl OAM f then s To: Th blocks interlea scram C/ 149 Zimmerma Comment	. OAM PT IN I je: The ocks, a ïield, th crambl ne subs and a aved R bled. SC an, Geo	field, then i PRINCIPLE e subseque append a 10 e the result sequent fur ppend a 10 S-FEC whi 149.3.2.2 prge E	nterleave an Response : ob-bit bits of parity ing bits. actions of the -bit OAM fiel	Status C of the PCS Tr y for the RS-F PCS Transm d to each grou 340 parity bits P91 CME Consu	ansmit process th EC, interleave the nit process take L up. This forms the the resulting L L13	e RS-FE symbols, and groups of fifty 65B input to an L- x 3600 bits are then
To: " Response ACCE Chang 65B bl OAM f then s To: Th blocks interlea scram C/ 149 Zimmerma Comment Typo: Suggested	. OAM PT IN I le: The ocks, a ield, th crambl ne subs and a aved R bled. SC an, Geo Type RS-FE IRemed	field, then i PRINCIPLE e subseque append a 10 e the result sequent fur opend a 10 S-FEC whi 149.3.2.2 prge E	nterleave an Response 3 In functions ()-bit bits of parity ing bits. Inctions of the -bit OAM field ch adds L x (Comment	Status C of the PCS Tr y for the RS-F PCS Transm d to each grou 340 parity bits P91 CME Consu	ansmit process th EC, interleave the nit process take L up. This forms the the resulting L L13	nen take a block of fifty e RS-FE symbols, and groups of fifty 65B e input to an L- x 3600 bits are then # 132 p, Aquantia, BMW, Cisco

C/ 149	SC 149.3.2.2	P 91	L13	# 48
Lo, William		Axonne Inc.		
Comment Typ Spelling	pe E	Comment Status A		EZ
SuggestedRe RS-FE st	<i>medy</i> nould be RS_F	EC		
Response ACCEPT		Response Status C		
C/ 149	SC 149.3.2.2	P 91	L13	# 43
Slavick, Jeff		Broadcom		
Comment Typ Missing (Comment Status A		EZ
<i>SuggestedRe</i> Change "		ls" to "RS-FEC symbols"		
Response ACCEPT		Response Status C		
C/ 149	SC 149.3.2.2	P 91	L13	# 148
McClellan, Bi	rett	Marvell		
Comment Typ typo	be E	Comment Status A		EZ
SuggestedRe change 'F	•	FEC' in multiple locations		
Response ACCEPT	IN PRINCIPLI	Response Status C E.		
Change of	on P91 L13 and	d P91 L 48		
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 U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line

C/ 149 SC 149.3.2.2 Page 21 of 45 9/12/2019 2:11:22 PM

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149	SC 149.3.2.2	P 91	L33	# 149		C/ 149	SC 149.3.2.2	P 92	L 2	# 157
McClellan	n, Brett	Marvell				McClellan	, Brett	Marvell		
		Comment Status A links to the Link Monitor fund 149.4.2.4	ction.		EZ	<i>Comment</i> Per Fig LPI me	gure 78-1 and 46.	Comment Status A 4 it is not the MAC but t	the RS and LPI Clie	<i>EZ</i> ent that controls entry to
Suggestee	dRemedy					Suggested	Remedy			
chang	ge to 149.4.2.5 to ⁻	149.4.2.4				Chang	je 'MAC' to 'RS'			
Response	;	Response Status C				Response		Response Status C		
ACCE	EPT IN PRINCIPLI	Ε.				ACCE	PT IN PRINCIPLE	Ξ.		
D2.0 a	and D2.1 or the ur	apply to the substantive cha satisfied negative comments of the recirculation ballot.				D2.0 a	and D2.1 or the un	apply to the substantive satisfied negative comr f the recirculation ballot	ments from earlier b	
Corre	ct the link to impro	ove readability of the draft.				Make	the requested cha	inge to fix an error in the	e draft.	
C/ 149	SC 149.3.2.2	P 91	L 41	# 156		C/ 149	SC 149.3.2.2	P 92	L 5	# 81
McClellan	n, Brett	Marvell				Tu, Mike		Broadcor	m	
Comment	Туре Т	Comment Status A			PCS	Comment	Туре Е	Comment Status A		EZ
		ame are then encoded into 1	800 PAM4 symb	ools and transferre	ed	The bl	ock diagramis "sh	own" in Figure 149-5.		
•	entially to the PMA statement is incorr					Suggested	Remedy			
Follov	ving the RS-FEC i	nterleaving, there is no longe ambled prior to PAM4 mappi		me for L=2 or 4.			e the sentence to 149–5."	: "A block diagram of th	e PCS Transmit fu	nctions is shown in
Suggestee	dRemedy					Response		Response Status C		
Delete	e this sentence.					ACCE	PT IN PRINCIPLE			
Response ACCE		Response Status C				D2.0 a	and D2.1 or the un	apply to the substantive satisfied negative comr	ments from earlier b	
C/ 149	SC 149.3.2.2	P91	L 41	# 80		is not	within the scope o	f the recirculation ballot	t.	
Tu, Mike	00 143.3.2.2	Broadcom	241	<i>"</i> [00				ge to be consistent with		
Comment	Туре Т	Comment Status A			PCS			m of the PCS Transmit the PCS Transmit function		
		e is talking about superframes	s. So scale both	number by L.	100	10. 71	blook diagram of			
Suggestee	<i>dRemedy</i> ge "3600 bits" to ":	3600xL bits", and change "18			AM4					
Response		Response Status C								
•	, EPT IN PRINCIPLI	•								
Delete	e this sentence pe	r comment #156								
		d ER/editorial required GR/g			-				149	Page 22 of 45
COMMEN	IT STATUS: D/dis	patched A/accepted R/reject	ted RESPON	NSE STATUS: O/0	open W/wi	ritten C/closed	d U/unsatisfied Z	/withdrawn So	C 149.3.2.2	9/12/2019 2:11:22

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line

9/12/2019 2:11:22 PM

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

Cl 149 SC 149.3.2.2 P92 L12 # 150 McClellan, Brett Marvell Comment Type E Comment Status A SuggestedRemedy change 's_n' to 'S_n' Condent Type E Comment Type Coded< <td>Coded<<td>Coded<<td>Coded<tdcoded<td>CodedCodedCodedCoded<tdcoded<td>CodedCod</tdcoded<td></tdcoded<td></td></td></td>	Coded< <td>Coded<<td>Coded<tdcoded<td>CodedCodedCodedCoded<tdcoded<td>CodedCod</tdcoded<td></tdcoded<td></td></td>	Coded< <td>Coded<tdcoded<td>CodedCodedCodedCoded<tdcoded<td>CodedCod</tdcoded<td></tdcoded<td></td>	Coded <tdcoded<td>CodedCodedCodedCoded<tdcoded<td>CodedCod</tdcoded<td></tdcoded<td>	
Comment Type E Comment Status A 's_n' should be 'S_n' to match usage in 149.3.4 EZ Comment Type E Comment Status A SuggestedRemedy change 's_n' to 'S_n' C SuggestedRemedy Change 'the bits of a transmitted or received block are labeled TxB<31:0> and RxB Response Response Status C C Change 'The bits of a transmitted or received block are labeled TxB<31:0> and RxB ACCEPT IN PRINCIPLE. This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. Response Response Status C Anslow, Pete Ciena Ciena EZ C/ 149 SC 149.3.2.2.3 P93 L52 # 13	3<31:0>			
's_n' should be 'S_n' to match usage in 149.3.4 SuggestedRemedy change 's_n' to 'S_n' Response Response Status C ACCEPT IN PRINCIPLE. This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. Make the requested change to be consistent with the terminology used throughout this document. C/ 149 SC 149.3.2.2.2 P93 L52 # 13 Make the requested change to be consistent with the terminology used throughout this document. C/ 149 SC 149.3.2.2.2 P93 L52 # 13 C/ 149 SC 149.3.2.2.3 P93 L52 # 13	3<31:0>			
SuggestedRemedy C Change 's_n' to 'S_n' Response Status C Response Response Status C ACCEPT IN PRINCIPLE. This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. Comment Status A Make the requested change to be consistent with the terminology used throughout this document. Ci 149 SC 149.3.2.2.2 P93 L52 # 13 Anslow, Pete Ciena Ciena Ci 149 SC 149.3.2.2.3 P93 L22 # 158				
change 's_n' to 'S_n' Response Response Status C ACCEPT IN PRINCIPLE. This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. Make the requested change to be consistent with the terminology used throughout this document. C/ 149 SC 149.3.2.2.2 P93 L 52 # 13 Anslow, Pete Ciena Ciena EZ Ci 149 SC 149.3.2.2.3 P93 L 22 # 158				
Response Response Status C ACCEPT IN PRINCIPLE. This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. Where TxB<0> and RxB<0> represent the first transmitted bit." Make the requested change to be consistent with the terminology used throughout this document. Response Response Status C C/ 149 SC 149.3.2.2.2 P93 L 52 # 13 This comment Status Accept Time Figure. C/ 149 SC 149.3.2.2.2 P93 L 52 # 13 This comment Status Accept Time Figure. C/ 149 SC 149.3.2.2.2 P93 L 52 # 13 This comment Status Accept Time Figure. C/ 149 SC 149.3.2.2.3 P93 L 22 # 158				
Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE. This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. To "The bits of a transmitted or received block are labeled tx_coded<64:0> and rx_coded<64:0> respectively where tx_coded<0> and rx_coded<0> and rx_coded<64:0> respectively where tx_coded<0> and rx_coded<0> and rx_	rst			
This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. Make the requested change to be consistent with the terminology used throughout this document. C/ 149 SC 149.3.2.2.2 P93 L 52 # 13 Anslow, Pete Ciena Ciena Ci 149 SC 149.3.2.2.3 P93 L 22 # 158 Comment Type E Comment Status A EZ Ci 149 SC 149.3.2.2.3 P93 L 22 # 158	rst			
D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. Response Status C Make the requested change to be consistent with the terminology used throughout this document. This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. C/ 149 SC 149.3.2.2.2 P93 L52 # 13 Anslow, Pete Ciena Make the requested change so the text matches the Figure. Comment Type E Comment Status A EZ C/ 149 SC 149.3.2.2.3 P93 L22 # 158				
is not within the scope of the recirculation ballot. ACCEPT IN PRINCIPLE. Make the requested change to be consistent with the terminology used throughout this document. This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. C/ 149 SC 149.3.2.2.2 P93 L52 # 13 Anslow, Pete Ciena EZ C/ 149 SC 149.3.2.2.3 P93 L22 # 158				
document. D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. C/ 149 SC 149.3.2.2.2 P93 L 52 # 13 Anslow, Pete Ciena Make the requested change so the text matches the Figure. Comment Type E Comment Status A				
C/ 149 SC 149.3.2.2.2 P93 L 52 # 13 Anslow, Pete Ciena Make the requested change so the text matches the Figure. Comment Type E Comment Status A EZ C/ 149 SC 149.3.2.2.3 P93 L 22 # 158				
Ansiow, Pete Ciena Comment Type E Comment Status A EZ Ci 149 SC SC 100				
Figures 149-6 and 149-7 now contain two notes each. McClellan. Brett Marvell				
When there is more than one note, the IEEE-SA Standards Style Manual includes "Multiple				
notes in sequence should be numbered "NOTE 1—", "NOTE 2—", etc."	EZ			
Also, there should be no spaces either side of the em-dash. There's no signals defined as TXD<32> to TXD<63>. Only the XGMII TXD<0> to T	(D<31>.			
SuggestedRemedy				
In Figures 149-6 and 149-7: Channe "Note: This" to "NOTE 1. This" SuggestedRemedy				
Change "Note — This" to "NOTE 1—This" Change "Note — Figure" to "NOTE 2—Figure" delete TXD<0>, TXD<31>, TXD<32>, and TXD<63> and move the XGMII line with	signal			
Response Response Status C				
ACCEPT. Response Response Status C				
ACCEPT IN PRINCIPLE.				
This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot.				

C/ 149 SC 149.3.2.2.3 Page 23 of 45 9/12/2019 2:11:23 PM

02.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149	SC 149.3.2.2	.3 P94	L3	# 159		C/ 149 S	SC 149.3.2.	2.3 P94	L24	4 # 152	
/lcClellan	, Brett	Marvell				McClellan, Bre	ett	Marve	II		
Comment There RXD<	's no signals defi	Comment Status A ned as RXD<32> to RXD<	63>. Only the XGM	III RXD<0> to	EZ	Comment Type 149.3.2.3. figure.		Comment Status term 'descrambler' for t		uld probably match it	E. in this
Suggested	Remedy					SuggestedRen	nedy				
		31>, RXD<32>, and RXD<	63> and move the	XGMII line with sig	Inal	change 'so	crambler' to	'descrambler'			
	down to align wi					Response		Response Status	С		
Response ACCE	PT IN PRINCIPL	Response Status C E.									
D2.0 a	and D2.1 or the u	t apply to the substantive on nsatisfied negative commend of the recirculation ballot.				D2.0 and I is not with	D2.1 or the in the scope	ot apply to the substar unsatisfied negative co e of the recirculation ba hange so the Figure m	omments from ea Illot.		
		sted as the current implem	entation could cau	se additional			-				
comm	ents in the future					C/ 149 S	SC 149.3.2.	2.5 <i>P</i> 96	5 L3	# 82	
/ 149	SC 149.3.2.2	.3 P94	L 7	# 151		Tu, Mike		Broad		_	
McClellan	, Brett	Marvell				Comment Type		Comment Status	-		eject OO
Comment	Туре Е	Comment Status A			EZ			GBASE-T1" instead of	2.5G/5G/10GBA	ASE-11 ?	
arrows	s are in wrong dir	ection and should point to	ward the XGMII			SuggestedRen					
Suggested	Remedy							GBASE-T1 PCS" to "M T1 control codes" to "M			
revers	e the arrow direc	tions				Proposed Res	ponse	Response Status	z		
Response ACCE		Response Status C				REJECT.	,		-		
			· -			This comn	nent was W	ITHDRAWN by the co	mmenter.		
2/ 149	SC 149.3.2.2		L7	# 116							
Edem, Bri		Aquantia									
	ure 149.7 the eig	Comment Status A ht arrows from the "Input to drawing should be pointing			EZ	D2.0 and I	D2.1 or the	ot apply to the substar unsatisfied negative co e of the recirculation ba	omments from ea		
	<i>Remedy</i> se the arrows							fully reviewed to see if 1 was intentionally left			

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

C/ 149 SC 149.3.2.2.5 Page 24 of 45 9/12/2019 2:11:23 PM

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149	SC 149.3.2.2	.14	P 98	L28	# 91		C/ 149	SC 14	9.3.2.2.17	P100	L10	# 83			
Tu, Mike			Broadcom				Tu, Mike			Broadcom					
Comment 7	Туре Т	Commer	nt Status A			ΕZ	Comment T	Туре 1	Comr	nent Status A			ΕZ		
Figure	149-6 shows the	PCS bit or	dering, not Figure	149-8.			The ad	ditive scr	ambler is added	after the encoder a	and interleaver. S	So this sentence is	not		
Suggested	Remedv						quite c	orrect.							
	e "Figure 149-8"	to "Figure 1	49-6".				Suggested	Remedy							
Response	0	Pesnons	e Status C							3259:0> prior to ad					
ACCE	PT	response					10: "TX	_RSmess	age<3259:0> pr	ior to the RS-FEC (360,326) encode	er is formed as for	lows:"		
							Also ad	dd indents	at line 12 and l	ine 14.					
C/ 149	SC 149.3.2.2	.14	P 98	L 31	# 90		Response		Respo	nse Status C					
Tu, Mike			Broadcom				ACCEPT IN PRINCIPLE.								
Comment T	Туре Т	Commer	nt Status A			ΕZ	T 1.1			41					
The RS	S-FEC encoder i	nput of 3260) bits consist of tx	_group50x65B A	AND the 10-bit OAN	Λ.				the substantive ch I negative comment					
Suggested	Remedy									irculation ballot.					
			3260-bit vector tx _group50x65B an				Make t	he reque	sted change to f	ix an error in the dra	aft.				
Response			e Status C		-		C/ 149	SC 14	9.3.2.2.17	P 100	L12	# 89			
ACCE	PT IN PRINCIPL	E.					Tu, Mike			Broadcom					
This as	mmant daga na	t annly to th	e substantive cha	ngoo hotwoon II			Comment	Type 1	- Comr	nent Status A			ΕZ		
			e substantive cha				The ma	apping on	line 12 and line	14 is inconsistent	with Figure 149-6	6. The OAM symb	ol is		
is not v	within the scope	of the recirc	ulation ballot.				appended after the fifty 65B blocks, and should be the last symbol entering into each RS FEC encoder. But the mapping on line 12 and line 14 will make the OAM symbol the first								
Make t	he following cha	nge to fix an	error in the draft						RS FEC encode		14 will make the	OAM symbol the	Irst		
Change	e line 31 from: ".	takes the	3260-bit vector tx	_group50x65B,			SuggestedRemedy								
		bit vector, c	onsisting of tx_gr	oup50x65B and	the 10-bit OAM_fie	ld,	Change line 12 from: "tx RSmessage<3259:10> = tx group50x65B<3249:0>."								
and'							To: "tx_RSmessage<3249:0> = tx_group50x65B<3249:0>."								
							Change line 14 from: "tx_RSmessage<9:0> = OAM_field<9:0>."								
							To: "tx_	_RSmess	age<3259:3250	> = OAM_field<9:0	>."				
							Response		Respo	nse Status C					
							ACCE	PT IN PR	NCIPLE.						
										the substantive ch					
							D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it								
							is not within the scope of the recirculation ballot.								
							Make t	he reques	sted change to f	ix an error in the dra	aft.				

C/ 149 SC 149.3.2.2.17 Page 25 of 45 9/12/2019 2:11:23 PM

C/ 149 SC 149	.3.2.2.17	P100	L 48	# 153		C/ 149	SC 149.3.2.	2.18	P101	L 42	# 85
McClellan, Brett		Marvell				Tu, Mike			Broadcom		
Comment Type E	Comm	ent Status A			EZ	Comment Ty	be T	Comm	ent Status A		Terminolo
typo									symbol numbers i	n time, in 149.3.2	2.2.18, 149.3.2.2.19,
SuggestedRemedy							.20, and 149	.3.2.2.21.			
change 'an' to 'a'						SuggestedRe	,				
	,	se Status C					ge 101, line 3 ndex indicatii		new paragraph as ool number".	follows:	
ACCEPT IN PRI	NCIPLE.					2. In in 14	19.3.2.2.18,	149.3.2.2.19	9, 149.3.2.2.20, ar	nd 149.3.2.2.21, a	applying the following
		he substantive cha				changes:					
D2.0 and D2.1 or is not within the s		negative comment	ts from earlier ba	Illots. Hence it					"A_n", where "_" r "B_n", where "_" r		
		culation ballot.					ge all "G(j)" t				lonnatang.
Make the request	ed change to fix	an error in the dra	aft.						"P(j-1)" to "P(n-1)	", and "P(j-2)" to	"P(n-2)".
C/ 149 SC 149	.3.2.2.18	P101	L 35	# 84			ge "M(u)" to ge "P(u)" to '				
Tu, Mike		Broadcom				0.01					den stad MA(s) sub-sus-H
Comment Type E	Comm	ent Status A			EZ	Change page 103, line 6 from "The PAM4 encoded symbols are denoted M(u), where: to "The PAM4 encoded symbols are denoted M(n)."					
Apply subscript for	ormatting on the	index "n" in Dn[0]	and Dn[1].				page 103, li				
SuggestedRemedy						Response		Respon	se Status C		
Apply subscript for	ormatting on the	index "n" in Dn[0]	and Dn[1].			ACCEPT	IN PRINCIP	LE.			
Response	Respon	se Status C				This com	ment does n	ot apply to t	the substantive ch	anges between l	EEE P802.3ch
ACCEPT.									negative commen rculation ballot.	ts from earlier ba	allots. Hence it
						Make the	changes red	quested in to	u_3ch_02_0919.p	df on slides 4, 5,	6, 7, & 9.

C/ 149 SC 149.3.2.2.18

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149	SC 149.3.2.2.19	P 101	L 53	# 133
Zimmermar	n, George	CME Consul	ting/ADI, APL G	o, Aquantia, BMW, Cisco
Comment T	ype E	Comment Status A		EZ
	comma on parent first is converted t	hetical phrase: "Each pai o"	r of bits, {A, B}, v	vhere A is the bit
SuggestedR	Remedy			
		{A, B}, where A is the bit A is the bit arriving first, is		onverted to" to "Each
Response	I	Response Status C		
ACCEP	T IN PRINCIPLE.			
D2.0 an is not w	d D2.1 or the unsati ithin the scope of t	oply to the substantive ch atisfied negative commen he recirculation ballot. ge to improve readability.		
C/ 149	SC 149.3.2.2.20	P102	L 27	# 45
Cl 149 Slavick, Jeff		P 102 Broadcom	L 27	# 45
	f		L 27	# 45
Slavick, Jeff Comment T The pre	f <i>ype</i> TR coder_type is supp	Broadcom	o bits from the Ir	EZ
Slavick, Jeff Comment T The pre	f ype TR coder_type is supp s 96 bits of informa	Broadcom Comment Status A pose to be assigned to tw	o bits from the Ir	EZ
Slavick, Jeff Comment Ty The pre contains SuggestedR Change	f ype TR coder_type is supp s 96 bits of informa Remedy	Broadcom Comment Status A pose to be assigned to tw ation. So which 2 bits sh foField messages" to "the	o bits from the Ir ould be used?	EZ
Slavick, Jeff Comment Ty The pre contains SuggestedR Change	f ype TR coder_type is supp s 96 bits of informa Remedy "two bits in the Int jes (see 149.4.2.4.	Broadcom Comment Status A pose to be assigned to tw ation. So which 2 bits sh foField messages" to "the	o bits from the Ir ould be used?	EZ
Slavick, Jeff Comment T The pre contains SuggestedR Change messag Response	f ype TR coder_type is supp s 96 bits of informa Remedy "two bits in the Int jes (see 149.4.2.4.	Broadcom Comment Status A pose to be assigned to tw ation. So which 2 bits sh foField messages" to "the 5)"	o bits from the Ir ould be used?	EZ
Slavick, Jeff Comment T The pre contains SuggestedR Change messag Response ACCEP This cor	f ype TR coder_type is supp s 96 bits of information <i>Remedy</i> "two bits in the Int pes (see 149.4.2.4. T IN PRINCIPLE. mment does not app	Broadcom Comment Status A pose to be assigned to tw ation. So which 2 bits sh foField messages" to "the 5)" Response Status C	no bits from the Ir ould be used? PrecodeSel fiel panges between I	EZ nfoFields, which d from the InfoField EEE P802.3ch
Slavick, Jeff Comment Ty The pre contains SuggestedR Change messag Response ACCEP This cor D2.0 an	f ype TR coder_type is supp s 96 bits of information Remedy "two bits in the Int es (see 149.4.2.4. T IN PRINCIPLE. mment does not ap d D2.1 or the unsat	Broadcom Comment Status A pose to be assigned to tw ation. So which 2 bits sh foField messages" to "the 5)" Response Status C	no bits from the Ir ould be used? PrecodeSel fiel panges between I	EZ nfoFields, which d from the InfoField EEE P802.3ch
Slavick, Jeff Comment Ty The pre contains SuggestedR Change messag Response ACCEP This cor D2.0 an is not wi	f ype TR coder_type is supp s 96 bits of information Remedy "two bits in the Im- les (see 149.4.2.4. T IN PRINCIPLE. mment does not ap id D2.1 or the unsati ithin the scope of t	Broadcom Comment Status A pose to be assigned to tw ation. So which 2 bits sh foField messages" to "the 5)" Response Status C oply to the substantive ch atisfied negative commen	to bits from the Ir ould be used? PrecodeSel fiel anges between I ts from earlier ba	EZ nfoFields, which d from the InfoField EEE P802.3ch

	SC 149.3.2.2.2	0 <i>P</i> 1	02	L51	# 22	
Wienckow	vski, Natalie	Gene	eral Motor	S		
Comment What i	<i>Type</i> E is "PAM4 mode"?	Comment Status	Α			Precode
	<i>IRemedy</i> je: PAM4 mode AM4 encoding					
Response ACCE	PT IN PRINCIPLE.	Response Status	С			
D2.0 a is not Make Chang	omment does not a and D2.1 or the uns within the scope of the following chang ge: when entering f	atisfied negative of the recirculation b ge to increase read PAM4 mode	comments allot.	from earlier ba		
C/ 149	hen transitioning to	0	04	L 39	# 86	
Tu, Mike	00 140.0.2.0		dcom	200	# 00	
ra, minto		Brea	acom			
<i>Comment</i> Redur	<i>Type</i> E idant statement?	Comment Status	Α			E
Redur	idant statement?	Comment Status	Α			E
Redur Suggested Chang and fif	idant statement?	ted into a 10-bit O "	AM field,		the 64B/65B b	
Redur Suggested Chang and fif	idant statement? <i>IRemedy</i> Je from: " separa ty 64B/65B blocks.	ted into a 10-bit O "	AM field, and fifty 64		the 64B/65B b	
Redur Suggested Chang and fif To: " Response	idant statement? <i>IRemedy</i> Je from: " separa ty 64B/65B blocks.	ted into a 10-bit O " 10-bit OAM field ar <i>Response Status</i>	AM field, and fifty 64		the 64B/65B b	
Redur Suggested Chang and fif To: " Response ACCE This c D2.0 a	idant statement? <i>IRemedy</i> ge from: " separa ty 64B/65B blocks. . separated into a ²	ted into a 10-bit O " 10-bit OAM field an <i>Response Status</i> apply to the substa atisfied negative o	AM field, and fifty 64 C comments	B/65B blocks." nges between l	EEE P802.3ch	llocks,

C/ 149 SC 149.3.2.3

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149	SC 149.3.2.3	P105	L15	# 134
Zimmerma	an, George	CME Consu	ulting/ADI, APL G	o, Aquantia, BMW, Cisc
	subject to the timir 7. 46.1.7 is the ma	Comment Status A ng requirements of 46.1.7" apping of primitives. Do yo		
Suggested Chang	<i>Remedy</i> ge 46.1.7 to 46.3. ²	1.5		
Response ACCE		Response Status C		
C/ 149	SC 149.3.2.3.	1 P105	L37	# 87
Tu, Mike		Broadcom		
<i>Comment</i> The de	51	Comment Status D consider the interleved case	ses.	Reject OC
To: "	ge from: " from	rx_PAM4_0 to rx_PAM4_1 0 to rx_PAM4_1800xL-1, w 1 case)."		
Proposed REJE	<i>Response</i> CT.	Response Status Z		
This c	omment was WIT	HDRAWN by the commer	nter.	

C/ 149	SC 14	9.3.6	P108	L16	# 160
McClellar	, Brett		Marvell		
Comment	Туре -	T Comi	ment Status A		EZ
mode descr using awkw	when it ge ibed in 149 the sleep	enerates 8 RS-F 9.3.2.2.22. The t signal" age and why refe	transmit function of the	l entirely of LF e link partner	PI control characters, as
Suggeste	dRemedy				
gener	transmit fu ating the s	leep signal com	IY initiates a transition prised of 8 RS-FEC fr J in 149.3.2.2.22. "		
Response	;	Respo	onse Status C		
ACCE	EPT IN PR	INCIPLE.			
D2.0	and D2.1 o	or the unsatisfied	o the substantive chan d negative comments circulation ballot.		
Make	the reque	sted change to i	ncrease reader under	standing.	
C/ 149	SC 14	9.3.6	P108	L31	# 154
McClellar	, Brett		Marvell		

Comment Type E	Comment Status A
"offset by the linl	k partner's."
awkward langua	ge
SuggestedRemedy	

change to "offset between the link partners."

Response Response Status C

ACCEPT IN PRINCIPLE.

This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot.

Make requested change to improve clarity.

ΕZ

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149 SC 149.3.6	P 109	L 37	# 161		C/ 149	SC	149.3.6.1	P 109	L 47	# 104
McClellan, Brett	Marvell				Graba, Jim	I		Broadcom		
Comment Type T	Comment Status A			EZ	Comment	Гуре	Е	Comment Status A		E
The prior paragraphs ta changed topic to receiv	alk about the transmitter and er behavior.	signaling, sudde	nly this paragraph	1				ence is confusing and redund can be found in 149.4.2.4.10		
quiet-refresh cycle."	occurs at the transmission of ed text prior to figure 149-14	the alert signal i	indicating the end	of	transm partial	ít 65B PHY f PHY f	RS-FEC fr rames of th rame Coun	entering the COUNTDOWN s ame to within +0/–4 × S (See e MASTER as seen at the Si t shall match the MASTER In	Table 149–1 f _AVE MDI. The	or definition of S.) e SLAVE InfoField
Response ACCEPT IN PRINCIPL This comment does no D2.0 and D2.1 or the u	Response Status C				SLAVE MASTE	e the 's PF ER's P or the i	ast two ser C24 are +0, FC24." requiremen	ntences: "For 10GBASE-T1, t /-4, +0/-2, and +0/-1 partial ts on the SLAVE and the MA	rames respect	tively with respect to the
is not within the scope					Response			Response Status C		
	ange to increase reader unde	erstanding.			ACCE	PT IN	PRINCIPLE	<u>.</u>		
Cl 149 SC 149.3.6.1 McClellan, Brett	P109 Marvell	L 45	# 162		D2.0 a	nd D2	1 or the un	apply to the substantive char satisfied negative comments f the recirculation ballot.		
frame Count"	Comment Status A in SLAVE mode is responsib PHYs in slave mode must syn		zing its Partial PH	EEE Y	Make t	he su	ggested cha	ange to eliminate redundant s	pecifications in	n the draft.
SuggestedRemedy										
change ""An EEE-capa to "A PHY"	ble PHY"									
Response ACCEPT IN PRINCIPL	Response Status C E.									
D2.0 and D2.1 or the u	t apply to the substantive cha nsatisfied negative comment of the recirculation ballot.									
Make requested chang	e to fix an error in the draft.									

C/ 149 SC 149.3.6.1

C/ 149	SC 149.3.6.1	P 109	L 47	# 163
McClellan	, Brett	Marvell		
Comment	Туре Т	Comment Status A		EZ
and + This s	0/–1 partial frame	BASE-T1, and 2.5GBASE-T1 s respectively with respect to cts the prior sentence which r	the MASTER's	PFC24."
Suggested	dRemedy			
	the sentence			
Response		Response Status C		
ACCE	PT IN PRINCIPL	•		
Th :		kanalista tha airbatantina sha		
		t apply to the substantive chans as at is fied negative comments		
is not	within the scope	of the recirculation ballot.		
Make draft.	the change sugge	ested by comment 104 to ren	nove redundant	specifications in the
Repla		ntences: "For 10GBASE-T1,		
	E's PFC24 are +(ER's PFC24."	0/–4, +0/–2, and +0/–1 partial	frames redraftti	vely with redraftt to the
		nts on the SLAVE and the MA	ASTER frame al	ignment, see
149.4	.2.4.10."			
C/ 149	SC 149.3.6.1	P109	L 52	# 105
Graba, Jir	n	Broadcom		
Comment	Туре Т	Comment Status A		EEE
The fo	ormula may result	in non-integer output for the	RS-FEC frame	count.
Suggested	dRemedy			
Chan	ge the formula to:	" RS-FEC frame count = flo	or (PFC24 / 4) n	nod 96."
Response		Response Status C		
ACCE	PT IN PRINCIPL	•		
				
		t apply to the substantive chans as the substantive comments to the substantion of the substant of the substa	0	
		of the recirculation ballot.		
is not				
	the suggested of			
	the suggested ch	ange to correct an error in th	e draff.	
	the suggested ch	ange to correct an error in th	e draft.	

C/ 149	SC 149.3.6.1	P110	L 3	# 106
Graba, Jim		Broadcom		
Comment Typ	be T	Comment Status A		EEE

Inconsistent usage of the term "RS-FEC frame count".

The term "RS-FEC frame count" is a continous counter of the RS-FEC frames. But in Table 149-5, it is used to indicate the length of LPI signals.

SuggestedRemedy

In Table 149-5, change the top row of the second column from "RS-FEC frame count" to "Number of RS-FEC frame periods".

Response Response Status C

ACCEPT IN PRINCIPLE.

This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it s not within the scope of the recirculation ballot.

Make the suggested change to correct an error in the draft.

C/ 149	SC 149.3.6.1	P110	L 26	# 51
Lo, William		Axonne Inc.		
Comment Tv	pe T	Comment Status		PCS

The paragraph mentions 2 benefits. The first one listed does not sound like a benefit. The intended benefit is that the ALERTs do not overlap, but we determined that they may overlap a little bit given the tolerance in the standard. The fact that the ALERTs mostly do not overlap is still a benefit. Rephrase as shown below.

SuggestedRemedy

Change "may overlap" to "mostly will not overlap"

Response Response Status C

ACCEPT IN PRINCIPLE.

Change: This offsets the MASTER and SLAVE ALERT start times by alert_period/2 and provides the following two benefits: The MASTER and SLAVE allowable ALERT transmissions may overlap and ALERT does not overlap the device's own refresh.

To: This offsets the MASTER and SLAVE ALERT start times by alert_period/2 and provides two benefits. The first benefit is that ALERT transmissions do not overlap with the device's own refresh. The second benefit is that the MASTER and SLAVE ALERT transmissions generally do not overlap, and only overlap at the limits of tolerances.

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

C/ 149 SC 149.3.6.1 Page 30 of 45 9/12/2019 2:11:23 PM

02.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149 SC 149.3	3.6.2	P111	L3	# 107		C/ 149	SC 14	9.3.6.3	P111	L9	# 164
Graba, Jim		Broadcom				McClellan,	Brett		Marvell		
Comment Type T	Comme	ent Status A			EEE	Comment	Туре -	т	Comment Status A		EE
It is not clear what	it means by "th	ne transmitter shall	stop transmittin	g".							ces 149.3.4 however the
SuggestedRemedy							d and the oriate PAN		sequence are not spec	cified in 149.3.4. It a	also fails to refer to the
Change the senter	ice from: "Durir	ng the quiet period	the transmitter s	shall stop transmi	tting."	appior			Jing.		
To: "During the qui PMA_UNITDATA.r			all pass zeros to	the PMA via the			e "Two-le		1 refresh symbols are g		PMA side-stream vn in Figure 149–11 with
Response ACCEPT IN PRIN	•	se Status C				the exe symbo	ception th I to be tra	at the In	fofield consists of a sec d is XORed with the last	uence of 128 zero 10 bits of the PAN	s. The 10-bit OAM //2 refresh transmission.
This comment doe D2.0 and D2.1 or t is not within the sc Make the suggeste	he unsatisfied i ope of the recir	negative comments rculation ballot.	s from earlier ba			scram to "Tw 149.3. seque	olers free o-level PA 5.1 of S_r nce of 128	-running AM refre n defined 8 zeros.	lescribed in 149.3.4 sha from PCS Reset. " sh symbols are generat d in 149.3.5 with the exo The 10-bit OAM symbo n transmission."	ed from the T_n ma ception that the Info	apping defined in
C/ 149 SC 149.3	6.6.3	P111	L8	# <u>1</u> 08		Response			Response Status C		
Graba, Jim		Broadcom				ACCE	PT IN PR				
Comment Type T		ent Status A			EEE	This a	non ont d	laaa nat	apply to the substantiv	a bangaa batwaan	
The "side-stream s SuggestedRemedy	crambler" is in	the PCS, not in the	e PMA.			D2.0 a	nd D2.1 d	or the un	apply to the substantive satisfied negative comr of the recirculation ballo	nents from earlier b	
Delete "PMA" from	this sentence.					Maket	he follow	ina chan	ge to correct an error ir	the draft	
Response	Respon	se Status C				Marc		ing chai			
ACCEPT IN PRIN	CIPLE.								I refresh symbols are g lescribed in 149.3.4 and		PMA side-stream vn in Figure 149–11 with
This comment doe D2.0 and D2.1 or t is not within the sc	he unsatisfied i	negative comments				symbo The tra	l to be tra aining seq	ansmitteo quence c	fofield consists of a sec d is XORed with the las lescribed in 149.3.4 sha from PCS Reset. "	10 bits of the PAN	A2 refresh transmission.
Make the suggeste	ed change to co	orrect an error in th	e draft.			149.3. The 10	5.1 of S_r	n defined I symbol	sh symbols are generat d in 149.3.5, with the ex to be transmitted is XO	ception that the Inf	ofield consists of zeros.

refresh transmission."

C/ 149 SC 149.3.6.3

02.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

/ 149	SC 149.3.6.3	P111	L 9	# 109		C/ 149	SC	149.3.6.3	P111	L11	# 110
araba, Jim		Broadcom				Graba, Jin	n		Broadcom		
omment T	ype T	Comment Status A			EEE	Comment	Туре	Е	Comment Status A		E
Mentior	of Infofield is di	istracting. And there aren't 12	28 InfoField bits						ning sequence described in		
uggestedF	Remedy					mode, inform		ne scramble	ers free-running from PCS F	Reset" is confusir	ng and adds no new
	e " with the exce					Suggestea		dv			
	consists of a se	equence of 128 zeros".						entence.			
esponse		Response Status C				Response			Response Status C		
ACCEP	T IN PRINCIPLI	Ε.						PRINCIPLI	•		
This co	mment does not	apply to the substantive cha	nges between l	EEE P802.3ch		,.00L					
		nsatisfied negative comments	from earlier ba	allots. Hence it					apply to the substantive characteristic		
IS NOLW	iumi ule scope o	of the recirculation ballot.							nsatisfied negative comment of the recirculation ballot.	s nom earlier ba	
Make th	e following char	nge to correct an error in the	draft.								
change		A refresh symbols are genera	ated using the P	MA side-stream		Make	the foll	lowing char	nge to correct an error in the	draft.	
the exce symbol The trai scramb to "Two 149.3.5 The 10-	eption that the Ir to be transmitte ning sequence o lers free-running -level PAM refre .1 of S_n define	described in 149.3.4 and exa- nofield consists of a sequence d is XORed with the last 10 b described in 149.3.4 shall be from PCS Reset. " ish symbols are generated fro d in 149.3.5, with the exception to be transmitted is XORed	e of 128 zeros. its of the PAM2 used during the pm the T_n map on that the Infol	The 10-bit OAM 2 refresh transmiss 2 LPI mode, with th oping defined in field consists of ze	sion. ne	scram the exisymbo The tra scram to "Tw 149.3. The 10	bler po ception of to be aining s blers fr vo-level 5.1 of s 0-bit O	olynomials on that the Ir transmitte sequence of ree-running I PAM refre S_n define	A refresh symbols are gener described in 149.3.4 and exa fofield consists of a sequen d is XORed with the last 10 described in 149.3.4 shall be g from PCS Reset. " sh symbols are generated fi d in 149.3.5, with the except to be transmitted is XORed	actly as is shown ce of 128 zeros. bits of the PAM2 e used during the rom the T_n map ion that the Infof	n in Figure 149–11 wit The 10-bit OAM Prefresh transmission PLPI mode, with the oping defined in field consists of zeros
						C/ 149	SC	149.3.7.3	P116	L 50	# 111
						Graba, Jin	n		Broadcom		
						Comment	Туре	т	Comment Status A		
						The R	FER M	Ionitor state	e monitors the RS-FEC fram	e error ratio.	
						Suggestea	Reme	dy			
									ors the received signal for h æived signal for high RS-FE		
						Response			Response Status C		
						ACCE	PT IN	PRINCIPLI	Ξ.		
						This o	0 m m 0 i	nt daga nat	apply to the substantive ch	angaa hatwaan l	

This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot.

Make requested change to improve clarity.

TYPE: TR/technical required ER/editorial required GR/gene	ral required T/technical E/editorial G/general	C/ 149	Page 32 of 45
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn	SC 149.3.7.3	9/12/2019 2:11:23 PM
SORT ORDER: Clause, Subclause, page, line			

02.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149 SC 149.3.7.3 P117 L1 # 112	C/ 149 SC 149.3.8.1 P117 L45 # 114	
Graba, Jim Broadcom	Graba, Jim Broadcom	
Comment Type E Comment Status A	EZ Comment Type T Comment Status A	E
"65B-RS_FEC" should be "65B RS-FEC".	In Figure 149-16, there are no states named "SEND_LPI" or "SEND_WAKE". In Figure 149-16, there are no states named "SEND_LPI" or "SEND_WAKE". In Figure 149-16, there are no states named "SEND_LPI" or "SEND_WAKE".	
SuggestedRemedy	20, there is SEND_WAKE, but no SEND_LPI. The text should refer to the correct s Figure 149-17.	tates in
Change "65B-RS_FEC" to "65B RS-FEC".	SuggestedRemedy	
Response Response Status C	1. Change "SEND LPI" to "TX L".	
ACCEPT IN PRINCIPLE.	2. Change "SEND_WAKE" to "TX_WN". 3. Change "Figure 149-16" to "Figure "149-17".	
This comment does not apply to the substantive changes between IEEE P802.3ch	Response Response Status C	
D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot.	ACCEPT IN PRINCIPLE.	
Make requested change to fix typo.	This comment does not apply to the substantive changes between IEEE P802.3ch	
C/ 149 SC 149.3.8.1 P117 L40 # 113	 D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it is not within the scope of the recirculation ballot. 	
Graba, Jim Broadcom Comment Type T Comment Status A	EZ Make suggested changes to fix errors in the draft.	
In Figure 149-18, there are no states named "RECEIVE LPI" or "RECEIVE WAKE".	C/ 149 SC 149.3.8.2 P121 L14 # 53	
	Lo, William Axonne Inc.	
1. Change "RECEIVE LPI" to "RX L".	Comment Type TR Comment Status A	EE
2. Change "RECEIVE_WAKE" to "RX_W". 3. Change "Figure 149-18" to "Figure "149-19".	Fix corner case out of sync condition between Figure 149-17 and 149-20 Scenario:	
Response C	LPI is send at the initial RS frame just as lp_low_snr=1 TX L state is entered and tx lpi req never gets set to true	
ACCEPT IN PRINCIPLE.	Stuck in TX_L state since it is waiting for tx_lpi_active to go true.	
This comment does not apply to the substantive changes between IEEE P802.3ch	Meanwhile in Figure 149-20 stuck at TX_NORMAL since tx_lpi_req remains false	
D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it	so never enters into SEND_SLEEP to set tx_lpi_active to true. So we are deadlocked Figure 149-17 waiting for tx_lpi_active to go true	
is not within the scope of the recirculation ballot.	while Figure 149-20 is waiting for tx_lpi_req to go true.	
Make suggested changes to fix errors in the draft.	Remedy below breaks the dead lock.	
Make suggested shanges to fix errors in the draft.	SuggestedRemedy	
	Change:	
	(lp_low_snr + T_TYPE(tx_raw) = (C + D + E + S + T)) * tx_lpi_active	
	0)
	(lp_low_snr + T_TYPE(tx_raw) = (C + D + E + S + T)) * tx_lpi_active To:)

C/ 149 SC 149.3.8.2 Page 33 of 45 9/12/2019 2:11:23 PM

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149	SC 149.3.8.3	P125	L 3	# 88	C/ 149	SC 149.3.9.	1	P 125	L 36	# 138	
Tu, Mike		Broadcom			Zimmerm	an, George		CME Consult	ing/ADI, APL G	o, Aquantia, BMW, C	isco
Comment	Туре Т	Comment Status A		E	Z Comment	Type E	Comment S	Status A			E
	ıgh both 3.0.14 a 2.14 here.	nd 3.2322.14 are copies of ea	ich other, I thnk	it is better to refer to			10-bit field" - the I as the OAM fie			10-bit field And	
Suggested	lRemedy				Suggestee	dRemedy					
Chang	ge "3.0.14" to "3.2	2322.14".						PHY frame" t	o "A 10-bit field i	n each PHY frame	
Response		Response Status C				ed for the OAM					
ACCE	PT IN PRINCIPL	Ε.			Response ACCE	EPT IN PRINCIP	Response S LE.	tatus C			
D2.0 a is not Make instea	and D2.1 or the u within the scope change to improv d of the generic b	t apply to the substantive cha nsatisfied negative comments of the recirculation ballot. /e understanding. Other Clau bits even though they have the	s from earlier ba ses reference t e same impact.	llots. Hence it neir specific bits	D2.0 a is not Make	and D2.1 or the within the scope suggested char	ot apply to the s unsatisfied nega of the recircula ge to clarify drat 21 change "OAI	tive comment tion ballot. ft.	s from earlier ba	allots. Hence it	
C/ 149	SC 149.3.9	P125	L12	# 127	C/ 149	SC 149.3.9.	2 12	P129	L17	# 27	
Zimmerma	an, George	CME Consulti	ng/ADI, APL Gp	, Aquantia, BMW, Ciso	0	vski, Natalie	2.12	General Moto		<i>π</i> <u>2</u> 1	—
Comment	Type TR	Comment Status A		OA	M		Comment S		JIS		E
There	is no requiremer	t for the OAM state diagrams			Comment	Туре Е	Comment 3	status A			<i>E.</i>
Suggested	•				Suggeste	Domody					
		ence in first paragraph of 149			Suggestee	ge: 149B					
		to the state diagrams in Figur 149.11.4.2.8 OAM:	re 149-24 and F	Igure 149-25." Add		nnex 149B					
		149.3.9.4 Conforms to Fig	ure 149-24 and	149-25 OAM: M Ye	s Response		Response S	tatus C			
[] No [-				ACCE	EPT IN PRINCIP	LE.				
Response		Response Status C			This						
ACCE	PT IN PRINCIPL	E.					ot apply to the s unsatisfied nega				
		t apply to the substantive cha					e of the recircula				
		nsatisfied negative comments of the recirculation ballot.	from earlier ba	llots. Hence it	Corre	ct the link to imp	rove readability	of the draft.			
Make	suggested chang	es to clarify requirement whe	n OAM is imple	mented.							

C/ 149 SC 149.3.9.2.12

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

comment Type E Comment Status A EZ Figure 149-23 has been changed so that the coefficient "A2 = 1" is adjacent to an arrow that just production. In this version of the figure it is unclear what function is performed with "A2 = 1" EZ UrgestedRemedy If the intent is different from this then clarify what it is. EZ esponse Response Status C C ACCEPT IN PRINCIPLE. Remove arrows from all "A_x" and just put the name by the symbol/line as is done in Figure 149-10. This comment Type T Comment Type T Comment Status A EZ (149 SC 149.4.2.1 P142 L16 # [139] "The MultiGBASE-11 PMA shall take no longer than 100 ms to enter the PCS_DATA state after exiting from reset or low power mode." is a non-interoperable way of stating a statup time requires be allocated to opt training state in one phy an another training state in another phy. To get interoperability, startup time must be allocated to phy conto states. Startup uggestedRemedy Task force to discuss. (this requires some consensus building - sorry!) Startup	C/ 149 SC 14	9.3.9.2.13	P 130	L 6	# 14	C/ 149	SC 149.4.2.2	2 P 142	L 29	# 92
Figure 149-23 has been changed so that the coefficient "A2 = 1" is adjacent to an arrow that just points to another line. Treadoutsy, this was an input to a multiply function. In this version of the figure it is unclear what function is performed with "A2 = 1" gggestedRamedy If the intent is obmpty multiply by 1, then reinstate the multiply symbol. If the intent is obmpty multiply by 1, then reinstate the multiply symbol. If the intent is offerent from this then clarify what its. seponse Response Status C ACCEPT IN PRINCIPLE. Response Status C Integrating a first in the compart that the consulting/ADI, APL GP, Aquantia, BMW, Olsco and merting state in on orger than 100 ms to enter the PCS_DATA state after exiting from reset or low power mode." Is a non-interoperable way of stating a statup time raupies and status C ACCEPT IN PRINCIPLE. The MultiGBASE-T1 PMA shall take no longer than 100 ms to enter the PCS_DATA state after exiting from reset or low power mode. "Is a non-witce perability, starup time must be allocated to one finang state in one phy and another training state in another phy. To get interoperability, starup time must be allocated to one finang state in one phy and another training state in another phy. To get interoperability, starup time must be allocated to one finang state in constraing state in another phy. To get interoperability, starup time must be allocated to one finang state in constraing state in another phy. To get interoperability, starup time must be allocated to meriming state in another phy. To get interoperability, starup time must be allocated to meriming state in another phy. To get interoperability is starup time must be allocated to meriming state in another phy. To get interoperability, starup time must be allocated to meriming state	Anslow, Pete		Ciena			Souvignie	r, Tom	Broadcom		
The interview of the figure it is unclear what function is performed with "A2 = 1" SuggestedRemedy If the intent is to simply multiply by 1, then reinstate the multiply symbol. The intent is to simply multiply by 1, then reinstate the multiply symbol. If the intent is to simply multiply by 1, then reinstate the multiply symbol. The intent is to simply multiply by 1, then reinstate the multiply symbol. If the intent is to simply multiply by 1, then reinstate the multiply symbol. The intent is then clarify what it is. esponse Response Status C ACCEPT IN PRINCIPLE. Remove arrows from all "A_X" and just put the name by the symbol/line as is done in Figure 149-10. /149 SC 149.4.2.1 P142 L16 # [139] immerman, George CME Consulting/ADI, APL GP, Aquantia. BMW, Clasco morner 15 for a son-interoperable way of stating a startup fime requirement. The startup time may be allocated to one training state in another phy. To get interoperability, startup time must be allocated to one training state in another phy. To get interoperability, startup time must be allocated to one training state in one phy and another training state in another phy. To get interoperability, startup time must be allocated to one training state in one phy another training state in another phy. To get interoperability, startup time must be allocated to one training state in another phy. To get interoperability, startup time must be allocated to one training state in another phy. To get interoperability, startup time must be allocated to another phy. To get interoperability, startup time meant by "each indeField shall be transmi	Comment Type	E Commei	nt Status A		E	Z Comment	Type TR	Comment Status A		E
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	And: Delete Pl	CS item PR2 (149 [·]	11431 page 18	1 line 47)						
		C C 11011 1 12 (140.	· · · · · · · · · , page 10							

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

C/ 149 SC 149.4.2.4 Page 35 of 45 9/12/2019 2:11:24 PM

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149 SC 149.4.2.4 P143 L 37 # 96	C/ 149 SC 149.4.2.4.5 P L # 168
Souvignier, Tom Broadcom	Razavi, Alireza Aquantia
Comment TypeTComment StatusAEZField "MSG24" in Figure 149-27 not defined. Figure 149-27 not needed since it is shown in figures 149-28 and Figure 149-29 for both PMA states.EZ	Comment Type E Comment Status R E
SuggestedRemedy	SuggestedRemedy
Remove Figure 149-27 and change first sentence of paragraph on page 143 line 30 to "The 12-octet InfoField shall include the fields in 149.4.2.4.2 through 149.4.2.4.8, also shown in Figure 149–28 and Figure 149–29."	Response Response Status C REJECT.
Response Response Status C ACCEPT IN PRINCIPLE.	empty comment
This comment does not apply to the substantive changes between IEEE D002 2ch	C/ 149 SC 149.4.2.4.5 P145 L45 # 73
This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it	Tu, Mike Broadcom
is not within the scope of the recirculation ballot.	Comment Type T Comment Status A E
	Need to define the bit mapping of InterleaverDepth and PrecodeSel. SuggestedRemedy Change line 45 from: " PHY capability bits is Oct10<2:1> = InterleaverDepth, Oct10<4:3>
C/ 149 SC 149.4.2.4 P143 L46 # 95 Souvignier, Tom Broadcom Comment Type T Comment Status A EZ Figure 149–28—InfoField TRAINING format octets 8/9/10 should be labeled "PHY Capability Bits" as indicated in subclause 149.4.2.4.5 and Table 149-12 EZ	SuggestedRemedy
C/ 149 SC 149.4.2.4 P143 L46 # 95 Souvignier, Tom Broadcom Comment Type T Comment Status A EZ Figure 149–28—InfoField TRAINING format octets 8/9/10 should be labeled "PHY Capability Bits" as indicated in subclause 149.4.2.4.5 and Table 149-12 EZ	SuggestedRemedy Change line 45 from: " PHY capability bits is Oct10<2:1> = InterleaverDepth, Oct10<4:3> = PrecodeSel," To: " PHY capability bits is Oct10<2:1> = InterleaverDepth[1:0], Oct10<4:3> = PrecodeSel[1:0]," Response Response Status
2/ 149 SC 149.4.2.4 P143 L46 # 95 Souvignier, Tom Broadcom Somment Type T Comment Status A EZ Figure 149–28—InfoField TRAINING format octets 8/9/10 should be labeled "PHY Capability Bits" as indicated in subclause 149.4.2.4.5 and Table 149-12 EZ SuggestedRemedy Change "UsrCfgCap" to "PHY Capability Bits" in Figure 149–28	SuggestedRemedy Change line 45 from: " PHY capability bits is Oct10<2:1> = InterleaverDepth, Oct10<4:3> = PrecodeSel," To: " PHY capability bits is Oct10<2:1> = InterleaverDepth[1:0], Oct10<4:3> = PrecodeSel[1:0]," Response Response Status C ACCEPT.
2/ 149 SC 149.4.2.4 P143 L46 # 95 Souvignier, Tom Broadcom Somment Type T Comment Status A EZ Figure 149–28—InfoField TRAINING format octets 8/9/10 should be labeled "PHY Capability Bits" as indicated in subclause 149.4.2.4.5 and Table 149-12 EZ SuggestedRemedy Change "UsrCfgCap" to "PHY Capability Bits" in Figure 149–28	SuggestedRemedy Change line 45 from: " PHY capability bits is Oct10<2:1> = InterleaverDepth, Oct10<4:3> = PrecodeSel," To: " PHY capability bits is Oct10<2:1> = InterleaverDepth[1:0], Oct10<4:3> = PrecodeSel[1:0]," Response Response Status CI 149 SC 149.4.2.4.5 P145 L47 T2
C/ 149 SC 149.4.2.4 P143 L46 # 95 Souvignier, Tom Broadcom Sourignier, Tom To Comment Status A Figure 149–28 Broadcom SourigestedRemedy Change "UsrCfgCap" to "PHY Capability Bits" in Figure 149–28 Response Response Status C ACCEPT IN PRINCIPLE. ACCEPT IN PRINCIPLE.	SuggestedRemedy Change line 45 from: " PHY capability bits is Oct10<2:1> = InterleaverDepth, Oct10<4:3> = PrecodeSel," To: " PHY capability bits is Oct10<2:1> = InterleaverDepth[1:0], Oct10<4:3> = PrecodeSel[1:0]," Response Response Status ACCEPT. C/ 149 SC 149.4.2.4.5 P145 L47 Tu, Mike Broadcom
/ 149 SC 149.4.2.4 P143 L46 # 95 ouvignier, Tom Broadcom omment Type T Comment Status A EZ Figure 149–28—InfoField TRAINING format octets 8/9/10 should be labeled "PHY Capability Bits" as indicated in subclause 149.4.2.4.5 and Table 149-12 EZ uggestedRemedy Change "UsrCfgCap" to "PHY Capability Bits" in Figure 149–28 EZ esponse Response Status C ACCEPT IN PRINCIPLE. This comment does not apply to the substantive changes between IEEE P802.3ch D2.0 and D2.1 or the unsatisfied negative comments from earlier ballots. Hence it	SuggestedRemedy Change line 45 from: " PHY capability bits is Oct10<2:1> = InterleaverDepth, Oct10<4:3> = PrecodeSel," To: " PHY capability bits is Oct10<2:1> = InterleaverDepth[1:0], Oct10<4:3> = PrecodeSel[1:0]," Response Response Status C/ 149 SC SC 149.4.2.4.5 P145 L47 # 72 Tu, Mike Broadcom Vended Comment Type T Comment Status A
Cl 149 SC 149.4.2.4 P143 L46 # 95 Souvignier, Tom Broadcom Comment Type T Comment Status A EZ Figure 149–28—InfoField TRAINING format octets 8/9/10 should be labeled "PHY Capability Bits" as indicated in subclause 149.4.2.4.5 and Table 149-12 EZ SuggestedRemedy Change "UsrCfgCap" to "PHY Capability Bits" in Figure 149–28 Response Response Response Status C ACCEPT IN PRINCIPLE. This comment does not apply to the substantive changes between IEEE P802.3ch EE	SuggestedRemedy Change line 45 from: " PHY capability bits is Oct10<2:1> = InterleaverDepth, Oct10<4:3> = PrecodeSel," To: " PHY capability bits is Oct10<2:1> = InterleaverDepth[1:0], Oct10<4:3> = PrecodeSel[1:0]," Response Response Status C ACCEPT. C/ 149 SC 149.4.2.4.5 P145 L47 # 72 Tu, Mike Broadcom Comment Type T Comment Status A Vender Need to define the bit mapping of VendorSpecificData. VendorSpecificData. VendorSpecificData.

C/ 149 SC 149.4.2.4.5

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

	SC 149.4.2.4.6	P146	L16	# 136	C/ 149	SC 149.4.2.4.	10 P147	L35	# 169
Zimmermar	n, George	CME Consultir	ng/ADI, APL Gp,	Aquantia, BMW, Cisco	Razavi, Alirez	a	Aquantia		
interval hang fo	y constraint on Data is 450 baud interva r 16776960*80nsec	Comment Status A aSwPFC24 is that it is 24 b ls, which at 10 gig is 80 ns = 1.342 seconds, which is chronization countdown a	sec. As it is, thi s WAY too long	s allows startup to for a 100 msec total	Master, S 802.3bz fe	e interoperabili lave and other or interoperabi	Comment Status A by during the training phase, steps of training must be ob- lity and just scale the timing y min_wait_timer.	oserved. We pro	pose to the text of
reasona		0 (40 usec) should be mor usec). Also, DataSwPFC2 not be able to sync.				lgure 149_33 a	is attached and include the	associated Tabl	le 145.15 in section
SuggestedF					MASTER	SLĂVE	line 35 to read as follows MAX REQUIRED TIME		
Add nev minimu	w final sentence to e m of 64 and a max	end of paragraph in 149.4. imum of 512 from the curr	.2.4.6: "DataSwF ent PFC24 value	PFC24 shall be a e."	 Traning	Silent	40.00 msec		
Response ACCEP	<i>R</i> T IN PRINCIPLE.	esponse Status C			Training PCS Test TOTAL	Training PCS Test	57.02 msec 0.98 msec 98.00 msec		
D2.0 ar is not w Add nev	nd D2.1 or the unsat within the scope of th w final sentence to o	ply to the substantive char isfied negative comments le recirculation ballot. end of paragraph in 149.4. aximum of 4785 from the	from earlier bal	lots. Hence it PFC24 shall be a	This comi and D2.1		apply to the substantive cha ied negative comments from		
C/ 149	SC 149.4.2.4.10	P147	L 26	# 94			defined on slide 5 of zimme EE 802.3 stlye.	rman_3ch_01b_	_0919.pdf, with editorial
Souvignier,	Tom	Broadcom					necessary PICS.		
	AVE should align its	Comment Status A s tranmit frames before it s nments during training.	starts transmisio	<i>PMA</i> n. Otherwise MASTER	Editorial i		iecessary FICS.		
align	e from: "During start "	up, prior to entering the Co entering the TRAINING s							
Response	- · ·	esponse Status C		J					
ACCEF									

C/ 149 SC 149.4.2.4.10

C/ 149 SC 149.4.2	6.4	P151	L25	# 15	C/ 149	SC 149.4.	2.6.4	P151	L25	# 115	
Wienckowski, Natalie		General Motors			Edem, B	ian		Aquantia			
Comment Type E In state diagrams, the have the variable_nai		uldn't include "=t		e", instead you shoul	-	e 149-32, trans		nent Status A IGDET_WAIT to SII	_ENT_WAIT the	condition is missp	E2 belled
 SuggestedRemedy		_			••	<i>dRemedy</i> ge send_s_sid	aet to send	s siadet			
In Figure 149-32, cha L25 & L31: "send_s_ L39: "power_on = tru L40: "mr main reset	sigdet = false" to e" to "power_on	o "!send_s_sidgo "	det"		Response		Respo	nse Status C			
L40: "mr_autoneg_e L49: "mr_autoneg_e	hable = true" to '	"mr_autoneg_en			D2.0	and D2.1 or th	e unsatisfied	the substantive cha negative comment irculation ballot.			
Response ACCEPT IN PRINCIF	Response S LE.	Status C				suggested ch					
This comment does r	ot apply to the s	substantive chan	ges between	IEEE P802.3ch	C/ 149	SC 149.4.	5	P155	L 4	# 16	
D2.0 and D2.1 or the is not within the scope			from earlier ba	allots. Hence it	Wiencko	wski, Natalie		General Moto	ors		
					Commen	Туре Е	Comn	nent Status A			E
Make the suggested of send_s_sigdet.	change to match	n the IEEE802 st	yle. In additic	n, correct the spellin				s shouldn't include " and !variable_name		", instead you sho	uld
7 149 SC 149.4.2	6.4	P151	L25	# 135	Suggeste	dRemedy					
Zimmerman, George Comment Type E typo: send_s_sidget = SuggestedRemedy change send_s_sidge Response	et to send_s_sig <i>Response</i> S	Status A det	g/ADI, APL G	o, Aquantia, BMW, C	EZ L4 & EZ L4 & L6 & L6 & L45: L46: L46:	L12: "mr_auto L14: "auto_ne	g_imp = true neg_enable g_imp = fals neg_enable " to "!hi_rfer to "hi_rfer" true" to "bloc	" to "auto_neg_imp = true" to "mr_auto e" to "!auto_neg_im = false" to "!mr_aut " k lock"	neg_enable" ıp"		
ACCEPT IN PRINCIP	'LE.				Response	;	Respo	nse Status C			
This comment does r D2.0 and D2.1 or the is not within the scop Make suggested char	unsatisfied negates of the recircula	ative comments			This D2.0	and D2.1 or th	not apply to e unsatisfied	the substantive change in the substantive change in the substantive comment irculation ballot.			
					Make	the suggested	l change to r	natch the IEEE802	style.		

C/ 149 SC 149.4.5 Page 38 of 45 9/12/2019 2:11:24 PM

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149 SC 149.4.5	P156	L 2	# 17		C/ 149	SC 149.7.1.1	1 .	P164	L 30	# 142
Wienckowski, Natalie	General Mot	ors			Zimmerma	an, George	CM	/IE Consu	lting/ADI, APL G	o, Aquantia, BMW, Cis
Comment Type E	Comment Status A			EZ	Comment 7	Туре Е	Comment Stat	us A		
	e transitions shouldn't include me for true and !variable_nam		e", instead you sho	bluc			r several link segr Equation 149-18) n			s defined for insertion 9.7
SuggestedRemedy					Suggested	Remedy				
L2: "mr_autoneg_er L4: "auto_neg_imp = L4: "mr_autoneg_er	ange the following: = true" to "auto_neg_imp" able = true" to "mr_autoneg_e = false" to "!auto_neg_imp" able = false" to "!mr_autoneg_ le = true" to "pcs_data_mode" Response Status C	_enable"			parame shown Insert (Followe Delete 18) rea	eters are specifi in Equation 149 (new) Equation ed by "See Tabl lines 30 through ads:	ied to different upp 0-17". 149-17, which is th le 149-1 for definiti h 33, so that 149.7	er frequer e current on of S." .1.1 after t	cies, given by the Equation 149-18:	types, link segment e parameter Fmax Fmax = 4000 X S rently 149-17, now 149
ACCEPT IN PRINCI	, PLE.				t is the	frequency in Mi	Hz; 1 <= f <= Fma:	X.		
This commont doos	act apply to the substantive of	angaa hatwaan	IEEE DOOD Job		The ins	sertion loss is ill	ustrated in Figure	149-42.		
D2.0 and D2.1 or the	not apply to the substantive ch unsatisfied negative commen e of the recirculation ballot.				Response ACCEF	PT IN PRINCIPI	Response State	us C		
Make the suggested	change to match the IEEE802	2 style.			This co	omment does no	ot apply to the subs	stantive ch	anges between l	EEE P802.3ch
C/ 149 SC 149.5.1	.1 <i>P</i> 158	L 24	# 46		D2.0 a	nd D2.1 or the u	unsatisfied negative of the recirculation	e commer	its from earlier ba	allots. Hence it
Gubow, Marty	Keysight Teo		# 40		IS HOLV	within the scope		i Dallot.		
Comment Type T	Comment Status A	Jinologies		testing	Make s	suggested chang	ge to clarify draft.			
	ansmitter connection to an os	cilloscope utilize	s two 50-ohm cha	0	C/ 149	SC 149.7.1.3	3	P165	L 31	# 140
Figure 149-36 should		·			Zimmerma	an, George	CI	/IE Consu	lting/ADI, APL G	o, Aquantia, BMW, Cis
SuggestedRemedy					Comment 1	Туре Е	Comment Stat	us A		
Receommned new fi	jure 149-36				The Re	eturn loss sectio	on actually is 3 sub	clauses, o	ne for each PHY	type.
	Response Status C					149.7.1.3 into 1	49.7.1.3.1 2.5GBA nent return loss, an			loss, 149.7.1.3.2 1 link segment return
ACCEPT IN PRINCI	ΊΕ.				Response		Response Stat	us C		
Replace Figure 149-	36 with the figure in gubow_3c	h_01a_0919.pd	f.		ACCE	PT IN PRINCIPI	LE.			
					D2.0 a	nd D2.1 or the u	ot apply to the sub- unsatisfied negative of the recirculation	e commer		
					Make s	suggested chang	ge to help the read	er.		

 TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
 C/
 149
 Page 39 of 45

 COMMENT STATUS: D/dispatched A/accepted R/rejected
 RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
 SC
 149
 9/12/2019 2:11:24 PM

 SORT ORDER: Clause, Subclause, page, line
 SC
 149
 9/12/2019 2:11:24 PM

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149 SC 149.	7.1.3	P 166	L 24	# 62	C/ 149	SC 149.7.1.4	1 P	167	L35	# 63	
Ohni, Josef		MD Elektronik			Ohni, Jos	ef	MD	Elektronik			
Comment Type E	Commen	t Status A		E	Z Comment	Type E	Comment Statu	s A			ΕZ
first part. The freq				2N belongs only to the part. This ist not		equation defined id part.	d by parts (149–24).	The frequ	ency point 750	belongs to the first	and
consistent.					Suggeste	dRemedy					
SuggestedRemedy					Chan	ge the first part "	30 ≤ f ≤ 750 MHz" to	° "30 ≤ f <	750 MHz"		
Change the secor	id part "480/2N ≤ i	f ≤ 3000 MHz" to	"480/2N ≤ f < 3	000"	Response	9	Response Status	C C			
Response ACCEPT IN PRIN	•	Status C			ACCE	EPT IN PRINCIPI	LE.				
This comment do D2.0 and D2.1 or is not within the so	the unsatisfied ne	gative comments			D2.0	and D2.1 or the ι	ot apply to the subst insatisfied negative of the recirculation	comments			
Make change to fi	x type				Make	change to fix typ	00.				
	,				C/ 149	SC 149.7.2.1	I P	169	L9	# 143	
C/ 149 SC 149.	7.1.3	P167	L 23	# 141	Zimmerm	an, George	CM	E Consulti	ng/ADI, APL Gp	, Aquantia, BMW,	Cisco
Zimmerman, George		CME Consultir	ng/ADI, APL Gp	o, Aquantia, BMW, Cisc	o Comment	Type TR	Comment Statu	s A		Rejec	t OOS
Comment Type T	Commen	t Status A		E	Z Itisin	nportant to limit t	he noise ingress eve	en outside	the bandwidth	of the PHY, especi	ally if
While the title for (this is due to freq factor, which mak	uency overlaps), l	but is confusing.		only shows 2 curves onger has the "N"		IEXT and PSAFE	are to be used toge EXT characteristic ne				or all
SuggestedRemedy					Suggeste	dRemedy					
Divide Figure 149 delete the figure.	43 into 3 figures,	one for 2.5G, one	e for 5G and on	e for 10G. Alternately,			e 169 line 9 and Pa		e 6 with 4000 M	Hz.	
Response	Pesnonse	Status C			Response		Response Status	S C			
ACCEPT IN PRIN	•	Status C			ACCE	EPT IN PRINCIPI	LE.				
	UII LL.				Make	the change in th	e Suggested Remed	dy.			
This comment do D2.0 and D2.1 or	the unsatisfied ne	gative comments				poll #1					
is not within the se	cope of the recircu	lation ballot.				•					
Make suggested of	hange to help the	e reader.				eve we need to do BASE-T1 and 5G	o something for the l BASE-T1.	higher frec	uency PSANE	XT and PSAFEXT 1	or
					Y: 22 N: 2						
					D2.0	and D2.1 or the ι	ot apply to the substa Insatisfied negative of the recirculation	comments			
TYPE: TR/technical re COMMENT STATUS:				T/technical E/editoria		d U/unsatisfied	7/withdrawn	C/ 149 SC 149	-	Page 40 o 9/12/2019	

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line

SC 149.7.2.1

9/12/2019 2:11:24 PM

02.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

	C 149.9.2.1	P172	L 24	# 144	C/ 149
Zimmerman, G	ieorge	CME Consul	ting/ADI, APL Gp	, Aquantia, BMW, Cisco	Lo, William
Comment Type		Comment Status A		testing	Comment Typ
		specify equipment, and ca all conform to the potentia			Table fix
		HY (149.9.2.2). 802.3cg			SuggestedRe
		awn from the remedies the		0	Remove
SuggestedRem	nedy				Proposed Rea
	nall conform" to comply" in 14	is expected to conform" 9.9.2.2.	in 149.9.2.1, and	shall comply" with "is	REJECT.
Response		Response Status C			This com
ACCEPT IN	N PRINCIPLE.				
This comm	ant daga not a	anky to the sylhotoptive ch	anges hetween IF		C/ 149
		pply to the substantive ch atisfied negative commen			Wienckowski
		the recirculation ballot.			Comment Typ
Make the s	uggested chan	ge to conform with latest	agreed text in oth	er projects	
Make the s	uggested chan	ge to conform with latest	agreed text in oth	er projects.	SuggestedRe
	uggested chan e PICS ES3 an	•	agreed text in oth	er projects.	
Also, delete	00	•	agreed text in oth	er projects. # 145	
Also, delete	e PICS ES3 an C 149.9.2.2	d ES4. P 172	L43		Make "Cla Response
Also, delete C/ 149 So Zimmerman, G	e PICS ES3 an C 149.9.2.2 ieorge	d ES4. P 172	L43	# 145	Make "Cl <i>Response</i> ACCEPT
Also, delete Cl 149 St Zimmerman, G Comment Type	e PICS ES3 an C 149.9.2.2 seorge T	d ES4. P 172 CME Consul	L 43 ting/ADI, APL Gp	# 145 , Aquantia, BMW, Cisco <i>testing</i>	Make "Cl <i>Response</i> ACCEPT This com
Also, delete Cl 149 St Zimmerman, G Comment Type IEEE Std 8 CISPR 25 t	e PICS ES3 an C 149.9.2.2 George T 02.3 does not i test methods").	d ES4. P172 CME Consul Comment Status A restrict the EMC test meth The integrating system	L 43 ting/ADI, APL Gp. nods ("PHY shall I will specify the tes	# 145 , Aquantia, BMW, Cisco <i>testing</i> be tested according to st methods to be used,	Make "Cl <i>Response</i> ACCEPT This com D2.0 and
Also, delete Cl 149 St Zimmerman, G Comment Type IEEE Std 8 CISPR 25 t and even th	e PICS ES3 an C 149.9.2.2 George T 02.3 does not r test methods"). hough they usu	d ES4. P172 CME Consul Comment Status A restrict the EMC test meth The integrating system ally are CISPR25, there is	L 43 ting/ADI, APL Gp. nods ("PHY shall I will specify the tes	# 145 , Aquantia, BMW, Cisco <i>testing</i> be tested according to st methods to be used,	Make "Cl Response ACCEPT This com D2.0 and is not with
Also, delete Cl 149 St Zimmerman, G Comment Type IEEE Std 8 CISPR 25 t and even th inappropria	e PICS ES3 an C 149.9.2.2 George T 02.3 does not r test methods"). hough they usu	d ES4. P172 CME Consul Comment Status A restrict the EMC test meth The integrating system ally are CISPR25, there is	L 43 ting/ADI, APL Gp. nods ("PHY shall I will specify the tes	# 145 , Aquantia, BMW, Cisco <i>testing</i> be tested according to st methods to be used,	Make "Cl Response ACCEPT This com D2.0 and is not with
Also, delete Cl 149 St Zimmerman, G Comment Type IEEE Std 8 CISPR 25 t and even th inappropria SuggestedRem	e PICS ES3 an C 149.9.2.2 George T 02.3 does not n test methods"). hough they usu the to require it.	d ES4. P172 CME Consul Comment Status A restrict the EMC test meth The integrating system of ally are CISPR25, there is	L43 ting/ADI, APL Gp. nods ("PHY shall I will specify the tes s no need to put t	# 145 , Aquantia, BMW, Cisco <i>testing</i> be tested according to st methods to be used, hat here, and	Make "Cl Response ACCEPT This com D2.0 and is not with
Also, delete Cl 149 St Zimmerman, G Comment Type IEEE Std 8 CISPR 25 t and even th inappropria SuggestedRem Delete "The	e PICS ES3 an C 149.9.2.2 George T 02.3 does not r test methods"). hough they usu the to require it. hedy e PHY shall be	d ES4. P172 CME Consul Comment Status A restrict the EMC test meth The integrating system ally are CISPR25, there is	L43 ting/ADI, APL Gp, nods ("PHY shall I will specify the tes s no need to put t PR 25 test method	# 145 , Aquantia, BMW, Cisco <i>testing</i> be tested according to st methods to be used, hat here, and	Make "Cl Response ACCEPT This com D2.0 and is not with Correct th C/ 149
Also, delete Cl 149 Su Zimmerman, G Comment Type IEEE Std 8 CISPR 25 t and even th inappropria SuggestedRem Delete "The the PHY's I	e PICS ES3 an C 149.9.2.2 ieorge T 02.3 does not n test methods"). hough they usu te to require it. hedy e PHY shall be EMC performan	d ES4. P172 CME Consul Comment Status A restrict the EMC test meth The integrating system ally are CISPR25, there is tested according to CISP	L43 ting/ADI, APL Gp, nods ("PHY shall I will specify the tes s no need to put t PR 25 test method	# 145 , Aquantia, BMW, Cisco <i>testing</i> be tested according to st methods to be used, hat here, and	Make "Cl. Response ACCEPT This com D2.0 and is not with Correct th C/ 149 Wienckowski
Also, delete Cl 149 St Zimmerman, G Comment Type IEEE Std 8 CISPR 25 t and even th inappropria SuggestedRem Delete "The the PHY's I Response	e PICS ES3 an C 149.9.2.2 ieorge T 02.3 does not n test methods"). hough they usu te to require it. hedy e PHY shall be EMC performan	d ES4. P172 CME Consul Comment Status A restrict the EMC test meth The integrating system v ally are CISPR25, there is tested according to CISP nee in terms of radio frequencies	L43 ting/ADI, APL Gp, nods ("PHY shall I will specify the tes s no need to put t PR 25 test method	# 145 , Aquantia, BMW, Cisco <i>testing</i> be tested according to st methods to be used, hat here, and	Make "Cl. Response ACCEPT This com D2.0 and is not with Correct th C/ 149 Wienckowski Comment Typ
Also, delete Cl 149 Su Zimmerman, G Comment Type IEEE Std 8 CISPR 25 t and even the inappropria SuggestedRem Delete "The the PHY's I Response ACCEPT IN	e PICS ES3 an C 149.9.2.2 ieorge T :02.3 does not n test methods"). hough they usu te to require it. hedy e PHY shall be EMC performan	d ES4. P172 CME Consul Comment Status A restrict the EMC test meth The integrating system v ally are CISPR25, there is tested according to CISP nce in terms of radio freque Response Status C	L43 ting/ADI, APL Gp, hods ("PHY shall I will specify the tes s no need to put t PR 25 test method uency (RF) immur	# 145 , Aquantia, BMW, Cisco <i>testing</i> be tested according to st methods to be used, hat here, and s defined to measure hity and RF emissions."	Make "Cl Response ACCEPT This com D2.0 and is not with Correct th C/ 149 Wienckowski Comment Typ Incorrect
Also, delete Cl 149 So Zimmerman, G Comment Type IEEE Std 8 CISPR 25 t and even th inappropria SuggestedRem Delete "The the PHY's I Response ACCEPT IN This comm	e PICS ES3 an C 149.9.2.2 George T (02.3 does not n test methods"). hough they usu te to require it. hedy e PHY shall be EMC performan N PRINCIPLE. eent does not ap	d ES4. P172 CME Consul Comment Status A restrict the EMC test meth The integrating system of ally are CISPR25, there is tested according to CISP nce in terms of radio freque Response Status C poply to the substantive ch	L43 ting/ADI, APL Gp, hods ("PHY shall I will specify the tes s no need to put t PR 25 test method Jency (RF) immur	# 145 , Aquantia, BMW, Cisco <i>testing</i> be tested according to st methods to be used, hat here, and as defined to measure hity and RF emissions."	Make "Cl. Response ACCEPT This com D2.0 and is not with Correct th C/ 149 Wienckowski Comment Typ Incorrect SuggestedRe
Also, delete Cl 149 So Zimmerman, G Comment Type IEEE Std 8 CISPR 25 t and even th inappropria SuggestedRem Delete "The the PHY's B Response ACCEPT IN This comm and D2.1 or	e PICS ES3 an C 149.9.2.2 George T (02.3 does not n test methods"). hough they usu te to require it. hedy e PHY shall be EMC performan N PRINCIPLE. eent does not ap	d ES4. P172 CME Consul Comment Status A restrict the EMC test meth The integrating system of ally are CISPR25, there is tested according to CISP nce in terms of radio freque Response Status C poly to the substantive ch d negative comments from	L43 ting/ADI, APL Gp, hods ("PHY shall I will specify the tes s no need to put t PR 25 test method Jency (RF) immur	# 145 , Aquantia, BMW, Cisco <i>testing</i> be tested according to st methods to be used, hat here, and as defined to measure hity and RF emissions."	Make "Cl. Response ACCEPT This com D2.0 and is not with Correct th C/ 149 Wienckowski Comment Typ Incorrect SuggestedRe
Also, delete Cl 149 St Zimmerman, G Comment Type IEEE Std 8 CISPR 25 t and even th inappropria SuggestedRem Delete "The the PHY's I Response ACCEPT IN This comm and D2.1 of the scope of	e PICS ES3 an C 149.9.2.2 George T 002.3 does not n test methods"). hough they usu te to require it. hough they usu the to require it. hough the to require it. hough they usu the to r	d ES4. P172 CME Consul Comment Status A restrict the EMC test meth The integrating system of ally are CISPR25, there is tested according to CISP nce in terms of radio freque Response Status C poly to the substantive ch d negative comments from	L43 ting/ADI, APL Gp. hods ("PHY shall I will specify the tes s no need to put t PR 25 test method uency (RF) immur anges between IE m earlier ballots. H	 # 145 Aquantia, BMW, Cisco <i>testing</i> be tested according to st methods to be used, hat here, and Is defined to measure nity and RF emissions." 	ACCEPT This com D2.0 and is not with Correct th C/ 149 Wienckowski Comment Typ Incorrect SuggestedRe Change:

Remove the text as suggested and remove PICS ES5 on P190 L20.

	SC 149.10	P173	L23	# 49	
Lo, William	1	Axonne Ind	с.		
Comment T Table f	<i>Type</i> E ïx gap in column	Comment Status D 3 numbers			EZ
<i>Suggested</i> Remov		the numbers in column 3.			
Proposed F REJEC	•	Response Status Z			
This co	omment was WIT	HDRAWN by the comme	enter.		
C/ 149	SC 149.11.4.	1 <i>P</i> 175	L 28	# 28	
Wienckows	ski, Natalie	General M	otors		
Comment T	Туре Е	Comment Status A			E.
Make "	Clause 98" in Fe	ature column a hyperlink.			
ACCEF This co D2.0 a	PT IN PRINCIPL omment does not nd D2.1 or the ur	Response Status C	changes between		
ACCEF This cc D2.0 ai is not v	PT IN PRINCIPL omment does not nd D2.1 or the ur vithin the scope of	Response Status C E. apply to the substantive on satisfied negative comme	changes between ents from earlier ba		
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ACCER This cc D2.0 ai is not v Correc C/ 149 Wienckows	PT IN PRINCIPL omment does not nd D2.1 or the ur vithin the scope of t the link to impro SC 149.11.4.3 ski, Natalie	Response Status C E. apply to the substantive of satisfied negative common of the recirculation ballot. ove readability of the draft 2.1 P176 General M	changes between ents from earlier ba t. L 27	allots. Hence it	
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This cc D2.0 ai is not v Correct C/ 149 Wienckows Comment T Incorre Suggested	PT IN PRINCIPL omment does not nd D2.1 or the un vithin the scope of t the link to impro- SC 149.11.4.2 ski, Natalie Type E sct link trying to g Remedy	Response Status C E. t apply to the substantive of satisfied negative comme of the recirculation ballot. ove readability of the draft 2.1 P176 General M Comment Status A	changes between ents from earlier ba t. <i>L</i> 27 lotors	allots. Hence it	E

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

C/ **149** SC **149.11.4.2.1**

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/149SC149.11.4.3.4P184Wienckowski, NatalieGeneral MotorsComment TypeEComment StatusA	L6 # <u>30</u>	EZ	C/ 149 SC 149.11. Wienckowski, Natalie Comment Type E		al Motors	# 33	EZ
SuggestedRemedy Make "Table 149-10" in Feature column a hyperlink.			5	" in Feature column a h			
Response Response Status C ACCEPT.			Response ACCEPT IN PRINCIF	Response Status PLE.	С		
C/149SC149.11.4.3.4P184Wienckowski, NatalieGeneral MotorsComment TypeEComment StatusA	L7 # <u>31</u>	EZ	D2.0 and D2.1 or the is not within the scop	not apply to the substant unsatisfied negative co e of the recirculation bal prove readability of the c	mments from earlier t llot.		
SuggestedRemedy			C/ 149 SC 149.11.	4.6 <i>P</i> 18	9 L 27	# 34	
Make "Table 149-11" in Feature column a hyperlink.			Wienckowski, Natalie	Genera	al Motors		
Response Response Status C ACCEPT.			Comment Type E	Comment Status	Α		EZ
Cl 149 SC 149.11.4.3.6 P185 Wienckowski, Natalie General Motors	L 33 # <u>32</u>		<i>SuggestedRemedy</i> Make "149.5.2" in Fe	ature column a hyperlinl	k.		
Comment Type E Comment Status A		EZ	Response ACCEPT.	Response Status	с		
SuggestedRemedy			C/ 149 SC 149.11.	4.6 <i>P</i> 18	9 L 2 8	# 35	
Make "Clause 98" in Feature column a hyperlink.			Wienckowski, Natalie	Genera	al Motors		
Response Response Status C ACCEPT IN PRINCIPLE.			Comment Type E	Comment Status	Α		EZ
This comment does not apply to the substantive change D2.0 and D2.1 or the unsatisfied negative comments fro			<i>SuggestedRemedy</i> Make "149.5.3" in Fe	ature column a hyperlinl	k.		
is not within the scope of the recirculation ballot.			Response ACCEPT.	Response Status	с		

C/ 149 SC 149.11.4.6

D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ 149A SC 149A.2	P 192	L 36	# 61	C/ 149B SC 149B.4.2.3	P 202	L 8	# 50
Wienckowski, Natalie	General Motors	6		Lo, William	Axonne Inc.		
Comment Type E Clarify that the environn defined test method.	Comment Status A nental conditions in 149A are	the applicable	<i>testing</i> conditions for the	Font size of text in boxes and t	nment Status A text in arrows are not c	onsistent	
SuggestedRemedy				SuggestedRemedy Make font sizes of text consist	ent		
Change: Measurement To: These test methods	s are performed at are applicable for temperatu	re of			oonse Status C		
Response	Response Status C			ACCEPT.			
ACCEPT IN PRINCIPLI Change: Measurement	E. s are performed at 23°C ± 5°0	C and relative h	numidity of 25% to 75%.	This comment does not apply to D2.0 and D2.1 or the unsatisfient is not within the scope of the rest	ed negative comments		
To: These test methods 62153-4-7.	s are applicable for temperatu	re and humidit	y as specified by IEC	Make all text size 8 to be cons	istent.		
C/ 149A SC 149A.5.4	P197	L 4 1	# 36	C/ 149B SC 149B.4.2.3	P202	L15	# 19
Wienckowski, Natalie	General Motors			Wienckowski, Natalie	General Motor	s	
Comment Type E	Comment Status A	-	EZ	Comment Type E Con Different font sizes in Figure 14	nment Status A 49B-2		
S <i>uggestedRemedy</i> Make "Figure 149A–3" i	n Feature column a hyperlink			SuggestedRemedy Change all text in figure to be 8			
Response ACCEPT IN PRINCIPLI	Response Status C			Response Resp ACCEPT.	oonse Status C		
				C/ 149B SC 149B.4.2.3	P202	L15	# <u>1</u> 8
	apply to the substantive char satisfied negative comments			Wienckowski, Natalie	General Motor	s	
is not within the scope of	of the recirculation ballot.			Comment Type E Com	nment Status A		
Correct the link to impro	ve readability of the draft.			In state diagrams, the transitio have the variable_name for tru			e", instead you should
				SuggestedRemedy In Figure 149B-2, change the f L15 & L28: "mr_rx_clear_rec= L28: "mr_rx_clear_rec=false"	true" to "mr_rx_clear_r	rec"	
				Response Resp	oonse Status C		

C/ 149B SC 149B.4.2.3

02.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

/ 149B SC 149B.4.		L 38	# 20	C/ 149C SC 149C.1	P 203	L11	# 38			
/ienckowski, Natalie	General Motors	3		Wienckowski, Natalie	General Moto	rs				
<i>Comment Type</i> E Different font sizes in	Comment Status A Figure 149B-3		EZ	Comment Type T Comment Status D 149C 149C has no informationon return loss						
SuggestedRemedy Change all text in figu	re to be 8.0 pt				ormation on insertion loss and		ameters			
Response	Response Status C			To: provides information on insertion loss parameters						
ACCEPT.				Proposed Response REJECT.	Response Status Z					
C/ 149B SC 149B.4 . Tu, Mike	2.3 P202 Broadcom	L 44	# 65	This comment was W	er.					
Comment Type T	Comment Status A		EZ	C/ Annex SC 149C.1	P 203	L12	# 56			
51	equest rec clear" is not defined	1.		DiMinico, Christopher	MC Communi	ications				
SuggestedRemedy				Comment Type TR	Comment Status A		149C			
	transition condition should be c	hanged to [.] "m	r tx clear rec = true"							
Response	Response Status C	nangoa to. m			information on return loss para and RX function illustrated in F		hannel defined			
ACCEPT IN PRINCIP	PLE.			SuggestedRemedy						
Change "mr_tx_reque	est_rec_clear = true" to "mr_tx_o	clear_rec"		See presentation dim	inico 3ch 02 0919.pdf					
C/ 149B SC 149B.4.	2.3 P202	L 44	# 21	Response	Response Status C					
Wienckowski, Natalie	General Motors	6		ACCEPT IN PRINCIF	,					
0,	Comment Status A e transitions shouldn't include "= me for true and !variable_name		EZ ", instead you should	Add the text proposed IEEE 802.3 style.	d in diminico_3ch_02c_0919.pc	গ with editorial I	license to conform to			
SuggestedRemedy										
	nge the following" _rec_clear = true" to "mr_tx_req ared = true" to "mr_rx_rec_clear		, 1 1							
Response	Response Status C									
ACCEPT IN PRINCIP										
	inge the following" _rec_clear = true" to "mr_tx_clea ared = true" to "mr_rx_rec_clear									

C/ Annex SC 149C.1 P802.3ch D2.1 D2.1 Physical Layer Specifications and Management Parameters for 2.5 Gb/s, 5 Gb/s, and 10 Gb/s Autom

C/ Annex SC 149	C.1 P	203	L35	# 55	
DiMinico, Christopher	MC	Communica	itions		
Comment Type T Change Max PCE	Comment Statu 8 length from 4.5" to 3" m		ntative of MAX	(implementations.	149C
In equation (1490 In equation (1490	delete 4.5" two places. –1) change 4.5" to 3". –4) change 4.5" to 3". 9C–1 values per support	ing presenta	tion.		
diminico_3ch_01_	_0919.pdf				
Response ACCEPT IN PRIN	Response Statu	s C			
•• • •					
diminico_3ch_01a	length change, the lengt		-	·	
diminico_3ch_01a In addition to the C/ Annex SC 1490	a_0919.pdf. length change, the lengt C.2 F	hs were char	nged to SI uni	ts, mm.	
diminico_3ch_01a In addition to the C/ Annex SC 1490 DiMinico, Christopher	a_0919.pdf. length change, the lengt C.2 F MC	hs were char 203 Communica	nged to SI uni	ts, mm.	EZ
diminico_3ch_01a In addition to the C/ Annex SC 1490 DiMinico, Christopher Comment Type E	a_0919.pdf. length change, the lengt C.2 F MC <i>Comment Statu</i>	hs were char 203 Communica	nged to SI uni	ts, mm.	EZ
diminico_3ch_01a In addition to the Cl Annex SC 1490 DiMinico, Christopher Comment Type E SuggestedRemedy	a_0919.pdf. length change, the lengt C.2 F MC <i>Comment Statu</i> ace circuit <i>Response Statu</i>	hs were char 203 Communica as A	nged to SI uni	ts, mm.	EZ

C/ Annex SC 149C.2