C/ 0	SC 0	P1	LO	# [I -1	C/ FM	SC FM	P 2	L1	# I-142
Hajduczen	iia, Marek	Charter Comr	nunications		Wienckow	/ski, Natalie	General Moto	ors Company	
Comment	Type G	Comment Status D		EZ	Comment	Type E	Comment Status D		
It seen	ns unlikely that	.3cw (Amendment #8) is appr	oved before .3cy	/ (Amendment #9). I	Incorr	ect formatting.			
.3cw b	ecomes Amenc	Iment #8.	, i.e., .scy becom	les Amenument #9 and	Suggestee	dRemedy			
Suggested	Remedy				Remo	ove "bold" style fr	rom "T" in "This".		
Chang	ge .3cy amendm	ent number from #9 to #8 and	d notify .3cw of t	ne change.	Proposed	Response	Response Status W		
Proposed	Response	Response Status W			PROF	POSED ACCEPT	Г.		
PROP	OSED ACCEPT	г.			C/ FM	SC FM	P 7	L 24	# <u>I-15</u>
C/ FM	SC FM	P1	L10	# I-14	Grow, Rob	pert	RMG Consult	ting	
Grow Rob	pert	RMG Consult	ina		Comment	Type E	Comment Status D		
Comment	Type E	Comment Status D	ing	EZ	lt look	s like Merek has	s double billing (TF editor abov	ve list plus in the	list here).
It appe the cu	ears to me that t rrent draft). I do	his project is likely to get to R n't find any order dependency	evCom before F y between P802	802.3cw (D2.0 being 3cw/D2.0 and	Suggestee Delete	<i>dRemedy</i> e Mr. Hajduczeni	ia at line 24.		
P802.3	3cy/D3.0.				Proposed	Response	Response Status W		
Suggested	Remedy				PROF	POSED ACCEPT	Г.		
If Mr. L that cv to ame	Law concurs: 1. w is not in prope endment 8.	renumber to Amendment 8, 2 r order now), 3. remove cw de	2. remove cw from escription on page	m list at line 28 (note je 12 and renumber cy	C/ FM	SC FM	P 7	L 24	# I-143
Proposed	Response	Response Status W			Wienckow	/ski, Natalie	General Moto	ors Company	
PROP	OSED ACCEPT	IN PRINCIPLE.			<i>Comment</i> Partic	<i>Type</i> E ipant name is du	Comment Status D uplicated. All names of officer	s are removed fr	om general list exce
1. renu	umbered to Ame	endment 8,			one.				-
2. rem	loved cw from lis	st at line 28 (note that cw is no	ot in proper orde	r now),	Suggestee	dRemedy			
3. iem	ioved cw descrip	blion on page 12 and renumber	er cy to amendin		Remo	ve duplicate of "	'Hajduczenia, Marek" in gener	al list it is include	ed above as the Tas
C/ FM	SC FM	P1	L 33	# I-16	Proposed	Booponoo			
Grow, Rob	pert	RMG Consult	ing				response Status w		
Comment	Type E	Comment Status D		EZ	FROF	OSED ACCEPT	1.		
With a	a 22 Dec 2022 b	allot close, it is unlikely D3.1 v	will be created th	is year.					
Suggested	dRemedy								
A frien needs	ndly reminder that to be updated a	at in addition to the title page a at page 1, line 33 and page 2	and header draft line 46, and in pa	date the copyright year age footer.					
Proposed	Response	Response Status W							
PROP	OSED ACCEPT	Г.							

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: Page, Line

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-													
C/ FM	SC FM	P10	L 4	# I-17		C/ 45	SC	45.2.1.244	4.1	P 26	L 23	# -	103
Grow, Rol	bert	RMG Consul	lting			Ran, Adee	Э		C	sco Systen	ns, Inc.	_	
Comment	Type ER	Comment Status D			ΕZ	Comment	Туре	т	Comment Sta	tus D		ML	ltiGBASE-T1
This be IE	boxed paragraph is EE Std 802.3cy-20	s published in the approved 02x.	standard, so the	e self reference sho	ould	"Reed 165.3	l-Solom .2.2.15	on interlea for 25GBA	aving is described SE-T1"	d in 149.3.2	2.2.15 for MultiGI	BASE-T1 an	d
Suggeste	dRemedy					But th	o dofini	ition of Mult		4 407 inclu		T1 (in additi	on to
Chan	ge P802.3cy to IE	EE Std 802.3cy-202x.				2.5GE	BASE-T	1, 5GBASE	E-T1, and 10GB	ASE-T1).	uues 236BASE-		
Proposed		Response Status W				Simila	arly in th	ne subsequ	ient sentence an	d in other p	olaces (e.g., 45.2	2.1.246.1, 45	.2.1.246.2).
	OSED ACCELL.					Suggestee	dReme	dy					
C/ 45	SC 45.2.1.16	P 24	L 44	# 1-30		Chang	ge both	instances	of "MultiGBASE	T1" to "2.5	GBASE-T1, 5GE	BASE-T1, an	d
Zimmerm	an, George	Cisco Syster	ns, Inc.,CME Co	onsulting,CommSco	pe,M	10GB	ASE-1	1".					
Comment	Туре Е	Comment Status D			ΕZ	Implei	ment el	sewhere as	s necessary.				
Table	45-19 is significa	ntly separated from the edit	ing instruction.			Proposed	Respo	nse	Response Stat	us W			
Suggeste	dRemedy					PROF	POSED	ACCEPT I	IN PRINCIPLE.				
Chan its ed	ge pagination (e.g iting instruction ar	., force new page before 45 d before editing instruction	5.2.1.16) so that to insert 45.2.1.	Table 45-19 stays v 16.a	with	Chan	ged bot	h instances	s of "MultiGBASI	E-T1" to "2.	5GBASE-T1, 5G	BASE-T1, a	nd
Proposed	Response	Response Status W				TUGE	ASE-I	Ι.					
PROF	POSED ACCEPT.					C/ 45	SC	45.2.1.244	4.1	P 26	L 23	# -	31
01.45	CC 45 0 4 40	Det	1 47	4		Zimmerma	an, Geo	orge	C	sco Systen	ns, Inc.,CME Co	nsulting,Con	nmScope,M
0/ 45	30 45.2.1.16	P 24	L41	# 1-144		Comment	Туре	Е	Comment Sta	tus D		ML	ltiGBASE-T1
Wienckow	vski, Natalie	General Mot	ors Company			25GB	ASE-T	1 is a MULT	TIGBASE-T1 PH	Y as well.	This occurs in m	ultiple places	s in clause
Comment	Type E	Comment Status D			ΕZ	45. (C	ommen	its marked	MGB11)				
grami	mar					Suggested	dReme	dy					
Suggeste Chan	<i>dRemedy</i> ae: as shown follo	ows				Chanç 2.5GE	ge insei BASE-T	rted text "fo 1, 5GBASE	or MultiGBASE-T E-T1, and 10GB/	1 and 165. ASE-T1; an	3.2.2.15 for 25G d 165.3.2.2.15 f	BASE-T1." t or 25GBASE	o "for -T1."
To: a	is follows					Proposed	Respo	nse	Response Sta	tus W			
Proposed	Response	Response Status W				PROF	POSED	ACCEPT.					
PROF	POSED ACCEPT.												

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C/ 45 SC 45.2.1.244.1 P26 L29 # 1-104	Cl 45 SC 45.2.1.245.1 P27 L10 # 1-34
Ran, Adee Cisco Systems, Inc.	Zimmerman, George Cisco Systems, Inc.,CME Consulting,CommScope,M
Comment Type TR Comment Status D	Comment Type E Comment Status D MultiGBASE-T1
"If bits 1.2311.12:11 are set to these undefined values, the PHY will communicate these	25GBASE-T1 is a MULTIGBASE-T1 PHY as well. (MGBT1)
values to the link partner"	SuggestedRemedy
The term "undefined" (and sometimes "not defined") seems incorrect here - the values are defined, but are invalid in some cases. All the other text in 45.2.1 seems to use the word "invalid" for values that are not allowed.	Change inserted text "for MultiGBASE-T1 and 165.3.2.4.5 for 25GBASE-T1." to "for 2.5GBASE-T1, 5GBASE-T1, and 10GBASE-T1; and 165.3.2.4.5 for 25GBASE-T1."
Also, "will" is deprecated and should only used in statements of fact. In this case, since the value is invalid ("undefined") saving that the PHX will communicate is likely not a	
requirement but rather allowed behavior, so "may" is preferable.	Cl 45 SC 45.2.1.244.1 P27 L 24 # 1-32
Also, it is not stated how a receiver that receives an invalid value and does not support it is expected to behave. To prevent such a receiver from "taking the blame", the behavior should be stated as "undefined".	Zimmerman, GeorgeCisco Systems, Inc.,CME Consulting,CommScope,MComment TypeEComment StatusDMultiGBASE-T125GBASE-T1 is a MULTIGBASE-T1 PHY as well. (MGBT1)
SuggestedRemedy	SuggestedRemedy
Change all instances of "undefined" and "not defined" in 45.2.1.244.1 and 45.2.1.245.1, and in Table 45-206 and Table 45-207, to "invalid".	Change inserted text "for MultiGBASE-T1 and 165.3.2.4.5 for 25GBASE-T1." to "for 2.5GBASE-T1, 5GBASE-T1, and 10GBASE-T1; and 165.3.2.4.5 for 25GBASE-T1."
Change "will" to "may" in 45.2.1.244.1. Change "will indicate" to "indicates" in 45.2.1.245.1.	Proposed Response Response Status W PROPOSED ACCEPT.
Append the following sentence to the end of the second paragraph of 45.2.1.244.1 and the second paragraph of 45.2.1.245.1: "The behavior of a receiver that receives an invalid interleave request is undefined".	Cl 45 SC 45.2.1.246.1 P27 L 26 # 1-35
Proposed Response Response Status W	Zimmerman, George Cisco Systems, Inc.,CME Consulting,CommScope,M
PROPOSED ACCEPT IN PRINCIPLE.	Comment Type E Comment Status D MultiGBASE-11
	25GDASE-TTIS & MOLTIGDASE-TTPHY & Well. (MGBTT)
Applied suggested changes with the appropriate underline and strikethrough.	SuggestedRemedy
C/ 45 SC 45.2.1.245.1 P27 L9 # [-33	T1." to "for 2.5GBASE-T1, 5GBASE-T1, and 10GBASE-T1; and in 165.5.1 and 1 able 165-11 for 25GBASE-
Zimmerman, George Cisco Systems, Inc.,CME Consulting,CommScope,M	11 for 25GBASE-T1."
Comment Type E Comment Status D MultiGBASE-T1	Proposed Response Response Status W
25GBASE-T1 is a MULTIGBASE-T1 PHY as well. (MGBT1)	PROPOSED ACCEPT.
SuggestedRemedy Change inserted text "for MultiGBASE-T1 and 165.3.2.2.15 for 25GBASE-T1." to "for 2.5GBASE-T1, 5GBASE-T1, and 10GBASE-T1; and 165.3.2.2.15 for 25GBASE-T1."	
Proposed Response Response Status W	

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Proposed Responses			IE	EE P802.3cy [03.0 10G+ Aut	to Task	Force Initia	al Sponsor ba	llot comme	ents		
C/ 45	SC 45.2.1.246	5.2	P 27	L 36	# <mark>I-36</mark>		C/ 45	SC 45.2.1.2	46.3	P 27	L 44	# <mark>I-37</mark>
Zimmeri Commer 25G	man, George <i>nt Type</i> E BBASE-T1 is a MUL [*]	C <i>Comment Sta</i> TIGBASE-T1 PH	isco System atus D IY as well. (ns, Inc.,CME Cons MGBT1)	sulting,CommSco <i>MultiGBA</i>	pe,M SE-T1	Zimmerm <i>Comment</i> 25GB	an, George t <i>Type E</i> BASE-T1 is a MU	Comme ILTIGBASE-	Cisco Syster <i>nt Status</i> D T1 PHY as well.	ms, Inc.,CME Cor (MGBT1)	nsulting,CommScope,M MultiGBASE-T1
Suggest Cha 2.50	<i>tedRemedy</i> ange inserted text "fo GBASE-T1, 5GBASI	or MultiGBASE-T E-T1, and 10GB	[1 and 165.; ASE-T1; an	3.2.2.20 for 25GB d 165.3.2.2.20 for	ASE-T1." to "for 25GBASE-T1."		Suggeste Chan 2.5GI	<i>dRemedy</i> ge inserted text ['] BASE-T1, 5GBA	"for MultiGBA	ASE-T1 and 165. 10GBASE-T1; ar	3.2.2.20 for 25GI nd 165.3.2.2.20 fo	BASE-T1." to "for or 25GBASE-T1."
Propose PRC	ed Response OPOSED ACCEPT.	Response Sta	tus W				Proposea PROI	l Response POSED ACCEP	Respons T.	e Status W		
Cl 45 Ran, Ad Comme "165 Also Suggest Cha	SC 45.2.1.246 lee nt Type E 5.3.2.2.20 25GBASE o in 45.2.1.246.3. tedRemedy ange to "in 165.3.2.2	5.2 Comment Sta E-T1" .20 for 25GBAS	P27 isco System atus D E-T1", in bo	L 37 is, Inc. th places.	# <u>I-105</u>	EZ	CI 45 Zimmerm Comment The r 165-1 defini which frame times	SC 45.2.3.8 an, George t <i>Type</i> TR fer_timer does n (3), hence it does tion says within (n ever starts (or sc. RFRX_CNT_ in clause 149, a	7.2 Comme ot appear in s not appear one rfer_time resets) rfer_ LIMIT is a co ind 732 160 l	P28 Cisco System Int Status D the RFER Monito to control the hig er interval, this is timer appears to onstant set to 88 bit times in claus	L 12 ms, Inc.,CME Cor or State Diagram gh_rfer state. Wh in disagreement count RFRX_CN frames. This equ e 165. Note the	# 1-38 nsulting,CommScope,M (Fig 149-15 or Figure ile the variable with the state diagram, IT_LIMIT RS-FEC Jates to 281 600 bit error rate is still 16
Propose PRC	ed Response OPOSED ACCEPT.	Response Sta	tus W				block anyw corre	s out of 88 block ays. (note - this a ct a double/incor	s received a appears to be sistent requi	ccording to the s e an error in the l rement in clause	tate diagram, whi base standard an e 149)	ch would be high id the change would
Cl 45 Wiencko Comme miss Suggest	SC 45.2.1.246 owski, Natalie <i>nt Type</i> E sing "for" <i>tedRemedy</i> ert "for" between 165	5.2 Comment Sta 5.3.2.2.20 and 24	P 27 eneral Moto <i>htus</i> D 56BASE-T1	L 38 irs Company	# [<u>1-145</u>	EZ	Suggeste P28 L frame Add 1 asser interv one F Delet	dRemedy _10 & 11 (2 occu ss" I49.3.7.2.2 to the ted TRUE when ral." to "Boolean RFRX_CNT_LIM e definition of rfe	rences): Cha e draft, chang the rfer_cnt variable that IT interval." r_timer at 16	ange "within one ging the definitior reaches 16 error is asserted TRU 55.3.7.2.3 (P67 L	rfer_timer interva n of hi_rfer from "I s in one rfer_time E when the rfer_c 35 to 38).	l" to "within 88 RS-FEC Boolean variable that is अ cnt reaches 16 errors in
Aisc Propose PRC	o on P27L45. ed Response OPOSED ACCEPT.	Response Sta	tus W				Proposed PROI	I Response POSED ACCEP ⁻	Respons T.	e Status W		

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IEEE P802.3cy D3.0 10G+ Auto Task Force Initial Sponsor ballot comments

Cl 45	SC 45.2.3.87	.2 P 28	L13	# I-39	C/ 1
Zimmerm	an, George	Cisco Sys	stems, Inc.,CME Co	nsulting,CommScope,M	Ran
Comment	tType E	Comment Status D		EZ	Con
165.3 alrea	8.8 does not define dy referenced 149	e the hi_rfer variable - cla 0.3.8.1 so the addition is	ause 165 defines it b unnecessary.	by reference to the	
Suggeste	dRemedy				
delete	e "and 165.3.8"				
Proposed	l Response	Response Status W			Sug
PRO	POSED ACCEPT				
CI 78	SC 78.5	P30	L10	# I-81	Proj
Jonsson,	Ragnar	Marvell S	emiconductor, Inc.		
Comment	tType TR	Comment Status D			
Value	es for case-1 and	case-2 are incorrect in ta	ble 78-4.		-
Suggeste	dRemedy				Ran
Chan	ge values for case	e-1 to 15.9744, 15.9744,	and 10.6496. Chan	ge values for case-3 to	Cor
43.92 Dronocoo	.96, 43.9296, anu / Deenenee	So.0040.			
Proposed	Response	Response Status W			
FRUI	-03ED ACCEPT				
C/ 165	SC 165.1.3	P 31	L31	# I-40	
Zimmerm	an, George	Cisco Sys	stems, Inc.,CME Co	nsulting,CommScope,M	
Comment	tType E	Comment Status D		EZ	
"an e	ffective rate of 25	Gb/s on each pair" - the	re is only one pair, s	o "each" is redundant.	
Suggeste	dRemedy				0
delete	e "on each pair"				Sug
Proposea	Response	Response Status W			
PRO	POSED ACCEPT	IN PRINCIPLE.			
The c	comment is actual	ly against page 37, not 3	1. Deleted "on each	pair"	-
					Pro

C/ 105	SC 105.1.3	P33	L 48	# I-106
Ran, Adee		Cisco System	ns, Inc.	
Comment T	Туре Е	Comment Status D		EZ
The ed	itorial instruction	is unclear (a reader of this a	amendment may	not have 802.3cz).
For cor for 250 802.3c	nsistency with th BASE-T1 shoul z).	e order in Figure 105-1 and d appear after the paragraph	the list in 105.1.2 n for 25GBASE-/	2, the new paragraph AU (inserted by
Suggested	Remedy			
Change modifie	e the editorial ins ed by IEEE Std 8	struction to "Insert a new par 02.3cz-202x) as follows".	agraph at the en	d of 105.1.3 (as
Proposed F	Response	Response Status W		
PROP	OSED ACCEPT.			
C/ 105	SC 105.1.3	P33	L 51	# I-107
Ran, Adee		Cisco Systen	ns, Inc.	
Comment T	Type TR	Comment Status D		
"25GB/ over a balance	ASE-T1 represe point-to-point sir ed pair of condu	nts… and baseband medium ngle balanced pair of conduc ctors"	n, for data comm tors… for transm	unication at 25Gb/s hission on a single
This te	xt is unnecessar	ily wordy.		
25GB/ point si conduc	ASE-T1 does no ingle balanced p ctors is the basel	t "use a baseband medium f air of conductors"; the point- band medium.	or data commun to-point single b	ication over a point-to- alanced pair of
It is suf	fficient to mentio	n "single balanced pair of co	nductors" once.	
Suggested	Remedy			
Change "25GB/ Sublay commu 25GBA	e the text of the I ASE-T1 represen er (PCS) and Ph unication at 25GI SE-T1 uses Rec	new paragraph to read: nts Physical Layer devices u nysical Medium Attachment (b/s over a point-to-point sing ed-Solomon FEC and PAM4	sing Clause 165 PMA) sublayer, le balanced pair modulation".	Physical Coding for data of conductors.
Proposed F	Response	Response Status W		

PROPOSED ACCEPT.

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IEEE P802.3cy D3.0 10G+ Auto Task Force Initial Sponsor ballot comments

C/ 105	SC 105.1.3	P34	L 1	# I-108		C/ 165	SC 165.1	P 36	L 10	# 1-7
Ran, Adee		Cisco Systen	ns, Inc.			Grow, Rob	pert	RMG Consult	ting	
Comment	Туре Е	Comment Status D			ΕZ	Comment	Type TR	Comment Status D		
Accord after n	ding to the Illumin nulti-pair ones of	nati order (e.g. in Table 125- the same speed.	-1), single twiste	ed pair PHYs are list	ed	Incorre 802.3-	ect use of acron 2022, 1.5 says:	ym PHY in text "25GBASE-T1 "PHY Physical Layer device	1 Physical Laye e (PHY)". Also,	r (PHY)". IEEE Std the text is inconsistent
Suggested	lRemedy					with Fi	igure 165-1 whe	ere the optional Autonegotiatio	on sublayer is als	so part of the PHY.
Chang	e "before the row	v for 25GBASE-T" to "after the second s	he row for 25GE	BASE-T".		Suggested	dRemedy			
Proposed PROP	Response OSED ACCEPT.	Response Status W				Chang Physic Autone	ge "Together, the cal Layer (PHY) egotiation subla	e corresponding PCS, PMA su " to "Together, the correspond yers comprise a 25GBASE-T1	ublayers compri ding PCS, PMA 1 Physical Laye	se a 25GBASE-T1 , and optional r device (PHY).
C/ 105	SC 105.2	P34	L 20	# I-109		Proposed PROP	Response POSED ACCEP ⁻	Response Status W		
Ran, Adee		Cisco Systen	ns, Inc.							
Comment	Type E	Comment Status D			ΕZ	C/ 165	SC 165.1	P 36	L16	# 1-93
The ec	ditorial instruction	is phrased out of order; the	table has been	modified by 802.3c	Ζ,	Rolfe, Ben	ijamin	Blind Creek A	Associates	
Suggester	Bomodu					Comment	Туре Т	Comment Status D		EZ
Insert phrase	"(as modified by e from the end of	IEEE Std 802.3cz-202x)" aft the instruction.	ter "Table 105-2	", and delete the sa	me	"may" standa statem	is used to desc ard. How the sta nent this is station	ribe an optional behavior (requ andard is used is not within sc ng a possibility with respect to	uirement) within cope of the stand the use of this	the scope of this dard. As an informative standard. The correct
Proposed	Response	Response Status W				word f	or that is "can".			
PROP	OSED ACCEPT.					Suggested	dRemedy			
CL 405	SC 405 5	D 35	1.01	# 1440		Chang	ge "may" to "car)"		
C/ 1 05	50 105.5	P 35	L 2 1	# 1-110		Proposed	Response	Response Status W		
Ran, Adee		Cisco Systen	ns, Inc.			PROP	OSED ACCEP	Т.		
Comment Table	<i>Type</i> E 105-3 is also mod	Comment Status D dified by 802.3cz.			ΕZ	C/ 165	SC 165.1.1	P36	L 28	# I-111
Suggested	IRemedy					Ran, Adee)	Cisco System	ns, Inc.	
Insert	"(as modified by	IEEE Std 802.3cz-202x)" aft	ter "Table 105-3	".		Comment	Type E	Comment Status D		EZ
Proposed	Response	Response Status W				"The te	erm 'MultiGBAS	E-T1' when used in this claus	e refers to"	
, PROP	, OSED ACCEPT.					Comm	nas would make	the parenthetical clearer.		
						Suggester	Remedy	•		
						Chang	ge to "The term	'MultiGBASE-T1', when used	in this clause, re	efers to"
						Proposed PROP	Response POSED ACCEP	Response Status W		

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C/ 165 S	C 165.1.2	P 36	L34	# I <u>-112</u>		C/ 165	SC ·	165.1.3	P 38	L 7	# I-114
Ran, Adee		Cisco Systems	, Inc.			Ran, Adee	•		Cisco Syst	ems, Inc.	
Comment Type	Е	Comment Status D			ΕZ	Comment	Туре	TR	Comment Status D		
"The relatio	onship are	shown" - mismatch				EEE is	s not a s	specificati	on for reducing power con	sumption; it is an	optional way to
SuggestedRem Change "ar	<i>edy</i> e shown" to	"is shown"				or its p	bartner r	nay be al	ble reduce power (by unsp	ecified means).	eans), such that a PHY
Proposed Resp	onse	Response Status W				Even if	f EEE is	s supporte	ed, a device does not nece	essarily save pow	ver.
PROPOSE	D ACCEPT.					Suggested	Remed	ly			
C/ 165 S	C 165.1.2	P36	L 35	# <mark>I-8</mark>		Chang indicat consur	je "is ab te perioo mption.'	le to redu ds of low	ice power consumption du link utilization, providing o	ring periods of lo oportunity for red	w link utilization" to "can ucing power
Grow, Robert Comment Type The PCS a present.	TR nd PMA only	RMG Consultin Comment Status D connect to the medium wher	g the optional <i>i</i>	AN sublayer is not		Proposed PROP	Respon OSED	se ACCEPT	Response Status W IN PRINCIPLE.		
SuggestedRem Change to: clause, whi	<i>edy</i> "The PHY s le the option	ublayers shown shaded in Fig al Auto-Negotiation sublayer f	gure 165–1 ar or a 25GBASI	e specified in this E-T1 PHY is defined	in	Chang indicat consur	te period mption,	ds of low	luce power consumption c link utilization, providing a	n opportunity for i	reducing power
Clause 98. layer to the	The 25GBA medium."	SE-T1 PHY connects one Cla	ause 4 Media	Access Control (MA	C)	C/ 165 Zimmerma	an, Geor	165.1.3 rge	P 38 Cisco Syst	<i>L</i> 12 ems, Inc.,CME C	# <u>II-41</u> onsulting,CommScope,M
Proposed Resp	onse	Response Status W				Comment	Туре	Ē	Comment Status D		EZ
PROPOSE	D ACCEPT.					"The C	DAM for	25GBAS	E-T1 information is excha	nged" is awkward	d word order
C/ 165 S	C 165.1.3	P 37	L 31	# I-113		Suggested	Remed	ly OAM for	25CBASE T1 information	to "The OAM inf	ormation for 25GRASE
Ran, Adee		Cisco Systems	, Inc.			T1"	le me				
Comment Type There is on	T ly one pair in	Comment Status D the medium of this PHY.		EZ	, pair	Proposed PROP	Respon	se ACCEPT.	Response Status W		
SuggestedRem Delete "on	<i>edy</i> each pair".					-					
Proposed Resp PROPOSE	oonse D ACCEPT.	Response Status W									

Pa **38** Li **12**

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CI 165	SC 165 1 3	P38	/ 13	# 1115	CL 165	SC 165 1 3 1	P38	/ 29	# 1116	
Pan Ada	00 103.1.3	Cisco System		# [- 113	Pan Ada		Cisco System		<i>"</i> [-110	B
Comment	Type TP Co	mment Status D	ns, mc.		Comment	Type TP	Comment Status D	13, 110.		
The te	erm "out of band" is defi	ned in 1.4.442 as "us	ing a frequency t	hat is within the pass	"the F	CS receives eigh	at 25GMII data octets"			
of the	transmission facility bu	t outside a frequency	range normally u	used for data	These	could be either o	data or control.			
transn	nission".		0 7		Suaaeste	dRemedv				
The O	AM signaling does not	match this definition	on the contrary	it is in-band per the	Delete	e "data".				
definit	ion in 1.4.359: "within th	ne bandwidth of the in	formation chann	el".	Proposed	Response	Response Status W			
Thora	are acvered instances of	of this issertant use of	"out of bond" in	the base standard	PROF	POSED ACCEPT				
which	should be dealt with the	ough maintenance; b	ut a new clause	should be correct.			•			
					C/ 165	SC 165.1.3.1	P 38	L 35	# I-58	
(See d	comment R1-9 against l	P802.3cz D3.1)			Jonsson,	Ragnar	Marvell Semi	conductor, Inc.		
Suggestee	Remedy				Comment	Туре Е	Comment Status D			ΕZ
Chang	ge "The OAM for 25GB/	SE-T1 information is	exchanged betv	veen two 25GBASE-T1	"an" s	hould be used for	r 8460-bit block			
OAM	for 25GBASE-T1 inform	ation is exchanged b	etween two 25GI	BASE-T1 PHYs in-band,	Suggeste	dRemedy				
by inte	erleaving it with the 25 0	GB/s Ethernet data str	eam".		chang	e "a 8460-bit bloo	ck" to "an 8460-bit block"			
Altern	atively, delete the sente	ence to avoid the "ban	d" terms.		Proposed	Response	Response Status W			
Proposed	Response Res	nonse Status W			PROF	OSED ACCEPT				
PROF						00 405 4 0 4	Dee	1.05		
1101					C/ 165	SC 165.1.3.1	P 38	L 35	# I-146	
Chang PHYs OAM t by inte	ged "The OAM for 25GE out of band, that is, out for 25GBASE-T1 inform arleaving it with the 25 (BASE-T1 information is side of the specified 2 action is exchanged be BB/s Ethernet data stu	s exchanged bei 25 Gb/s Ethernet etween two 25Gl ream".	tween two 25GBASE-T1 t data stream" to "The BASE-T1 PHYs in-band,	Wienckow <i>Comment</i> grami	rski, Natalie <i>Type</i> E nar	General Moto Comment Status D	ors Company		ΕZ
	00 405 4 0	Dee	1.10	" [10]	Suggeste	dRemedy				
C/ 165	SC 165.1.3	P 38	L19	# 1-42	Chan	ge: a 8460-bit				
Zimmerma	an, George	Cisco Syster	ns, Inc.,CME Co	nsulting,CommScope,M	To: a	n 8460-bit				
Comment	Type TR Co.	mment Status D			Proposed	Response	Response Status W			
have l the on unbala	the single balanced pail eft out of the overview a ly thing matters to the F anced conductors and r	r of conductors." In ou any reference to the li PMA is the link segme neet the specs, the P	r zeal to reference nk segment spect ent. If someone MA would still su	ce the conductors, we cified in 165.7. Besides, could do this on pport it.	PROF	OSED ACCEPT				
Suggested	Remedy									
chang specif	e "over the single balar ications of 165.7"	ced pair of conductor	s" to "over a link	segment meeting the						
Proposed	Response Res	ponse Status W								
PROF	OSED ACCEPT.	-								

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

Pa **38** Li **35**

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C/ 165	SC 165.1.3.1	P 38	L 35	# I-59	C/ 165	SC 165.1.3	P 39	L 32	# <u>I-</u> 9
Jonsson, F	Ragnar	Marvell Semic	conductor, Inc.		Grow, Rob	pert	RMG C	consulting	
Comment	Туре Е	Comment Status D		EZ	Comment	Type TR	Comment Status	D	
lt woul "RS-Fl	d be better to introc EC input superfram	luce the term of "RS-FEC e".	input frame" her	e before introducing	Figure arrow	at line 46, but al	es the optional AN subla lso with MDI+ and MDI-	ayer. (Problems wit at line 32.) This con	h the bottom left to right uld be handled with a
Suggested	Remedy to "Next_a 10-bit (DAM field is appended to f	orm an 8460-bit	RS-FEC input frame "	3, or c	hanging the figu	ure to indicate the opptic	onal AN layer is not	shown.
Deserves					Suggested	Remedy			
Proposed	OSED ACCEPT IN	Response Status W PRINCIPLE.			l favor the MI Figure	: "NOTE 3The DI." Make consi 165-3 will need	e optional AN sublayer is istent changes to Figure I a NOTE 1 and NOTE 2	a not shown betwee 165-3 (if adding th 2).	n the PMA sublayer and e preferred NOTE 3,
Chang	ed: Next, a 10-bit (DAM field is appended to f	form a 8460-bit b	olock.	Proposed	Response	Response Status	W	
10. N	ext, a 10-bit OAM II	eid is appended to form ar	1 6460-DIL KS-FE		PROP		T IN PRINCIPLE.		
C/ 165	SC 165.1.3.1	P 38	L 35	# I-117	۸ ddaa		ontional AN authoraria	and chown botwood	n the DMA sublever and
Ran, Adee		Cisco System	ns, Inc.		the MI	DI." to Figure 16	5-2	s not shown betwee	in the PiviA sublayer and
Comment	Туре Е	Comment Status D		TBD	Made	consistent chan	iges to Figure 165-3 add	ding "NOTE 2The	optional AN sublayer is
The te additio	rms "RS-FEC frame in to the usual mean	e", "superframe", "training ning of "frame" as a MAC	frames", "PHY frame (see 1.4.3	rame", "framing", in 85); "frame" is often	not sh NOTE	own between th 1	e PMA sublayer and the	e MDI." and renumb	pered existing note to
used v	with not qualifier, lea	aving it to the reader to uno	derstand it from t	the context.	C/ 165	SC 165.1.3	P 39	L 39	# I-10
This lo	ose terminology is	unfortunate. Although it or	iginates from ea	rlier projects, there are	Grow, Rob	pert	RMG C	consulting	
efforts	to use the term "co viguous) and it may	deword" for RS-FEC block	ks (which is quite	e established and	Comment	Туре Е	Comment Status	D	Ε
new pi	oject	ar the following terminolog			The ve arrow	ertical interface I on the left at line	lines are not consistent. es 30 through 35, but or	On the left, the MI n the right, the MDI	I aligns with the transition line if extended would not
For co	(referring to RS-FE	EC) -> codeword	ly replacements.		Suggester				
"Super	rframe" -> codeword	d group					signal lines and placer	ent of the vertical	IDI line so that if
"Traini "Frami	ng trame" - retain (ι ing" -> alignment (ir	used in several other place the receive direction), "ei	es) but only as a ncoding" (in the t	qualified term ransmit direction).	extend	ded, it would trar	nsect the signal lines.		
Suggested	Remedy			·	Proposed	Response	Response Status	W	
Chang	e to the terminology	y described in the comme	nt, with editorial	license.	PROP	OSED ACCEPT	T IN PRINCIPLE.		
lf this i fully qu	s not done, ensure ualified.	that all instances of "fram	e" that do not ref	er to MAC frames are	Adjust transe	ed the MDI+/ME	DI- signal lines and plac es.	ement of the vertica	al MDI line so that it would
Proposed	Response	Response Status W			"plane	the vertical syr	nc_link_control line to th	e left so it does not	cross the MID Interface
PROP	OSED ACCEPT IN	PRINCIPLE.			1				
Resolv	ved in comment #i-8	38.							

Pa **39** Li **39** ΕZ

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C/ 165	SC 165.1.3	P 39	L 46	# <mark>I-11</mark>		C/ 165	SC	165.2.2.1.1	P43	L 29	# I-147	
Grow, Rob	pert	RMG Consulti	ng			Wienckow	/ski, Na	talie	General Motor	rs Company		
Comment	Type E	Comment Status D			ΕZ	Comment	Туре	Е	Comment Status D			ΕZ
Puttin	g PHY and the pa	renthetical text on different li	nes makes rea	dability worse.		gramr	nar					
Suggestee	dRemedy					Suggestee	dRemed	ły				
Put al	I the text on one li	ne.				Chang	ge: an 2	5GMII				
Proposed	Response	Response Status W				To: a	25GMII					
PROF	POSED ACCEPT.					Also,	P43L42	, P56L45				
						Proposed	Respor	ise	Response Status W			
C/ 165	SC 165.1.3.2	P 40	L17	# 1-2		PROF	POSED	ACCEPT.				
Maguire, \	/alerie	Copperopolis				C/ 165	SC	165.2.2.9.1	P 48	L 41	# I-148	
Comment	Type E	Comment Status D			ΕZ	Wienckow	vski Nat	alie	General Motor	rs Company		
Enclos	se the id est exam	ples in parenthesis to be co	nsistent with th	e parent document.		Comment	Tvne	F	Comment Status D	3 Company		F7
Suggested	dRemedy					incorr	ect form	nat				
for the test m	e transmitter and r nodes and electric	eceiver, are specified" with, al specifications for the trans	electrical para mitter and rece	neters of the PMA (iver) are specified".	(i.e.,	Suggestee Chang doucu	dRemed ge the fo iment, e	ly ormat for th e.g. remove	e TRUE and FALSE statem the "" and add a tab betwo	ents to match the transformed to the second se	ne remainder of the SE and the description	on.
Proposed	Response	Response Status W				Proposed	Respor	nse	Response Status W			
PROF	POSED ACCEPT.					PROF		ACCEPT				
C/ 165	SC 165.1.4	P 40	L 51	# <u> </u> -118		1101	OOLD	NOOLI II.				
Ran, Adee	e	Cisco System	s, Inc.									
Comment	Type TR	Comment Status D										
"25GE seque	BASE-T1 signaling	is performed by the PCS ge	enerating contir	uous code-group								
The "c has a parage	continuous code-g single pair, and u raph).	roup sequences" seem to co ses a sequence of PAM4 syn	ome from multi- mbols (item b ir	pair PHYs. This PH the list following th	IY nis							
Also, i	in 165.3.2.2, P52	L29, and 165.3.2.3, P61 L50).									
Suggestee	dRemedy											
Chang	ge "continuous co	de-group sequences" to "a s	equence of PA	M4 symbols".								
Chano	ge "code-groups" i	o "symbols" in the other two	locations provi	ded in the commen	ıt.							
Proposed	Response	Response Status W										
PROF	POSED ACCEPT.											

Pa **48** Li **41**

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C/ 165	SC 165.3.2.2	: F	^o 52	L 37	# I-119	C/ 165	SC 165.3.2	2.	P 52	L 54	#	-88
Ran, Adee Comment	e Type TR	Cis Comment Statu	co Systems, Ind Js D	.		Jonsson, I <i>Comment</i>	Ragnar <i>Type</i> E	Comment S	Marvell Sem Status D	iconductor, Inc.		
"the that re	PCS Transmit fu	unction shall use a control"	65B coding tecl	nnique to gene	erate code-groups	The re be be	elative relations	ship between vario an informative tex	ous frame alig	gnments can be plain this relatior	confusing a nship.	nd it would
"code 65B b (FEC, in oth	-groups" is inade locks represent o OAM) before the er BASE-T PHYs	quate here; it seem data and control cha e data is converted).	ns to originate fi aracters, but the to PAM4 symb	rom existing B ere are additic ols (correspor	ASE-T PHYs. The onal processing steps iding to code-groups	<i>Suggested</i> Add ta "The i frame and sl	dRemedy able on slide 4 nformation in T s. The values a ave."	of jonsson_tu_zin able 165-XX sho are given in terms	nmerman_3c ws the period of PFC24, w	y_01_08_22_22 and relative offs hich are synchro	, with the fol set of the sta onized betwe	llowing text: art of various een master
The s	uggested remedy	/ is a possible repla	acement text; ot	her changes i	may be possible, but	Proposed	Response	Response S	tatus W			
the te	rm "code-group"	should not be used	1.			PROF	OSED ACCEF	PT IN PRINCIPLE				
Chang "the P throug in Fig	ge the quoted ser CS Transmit fun gh 165.3.2.2.21 to ure 165-5."	ntence to ction shall use the o generate the data	transmit proces a stream and PA	s specified in AM4 symbol s	165.3.2.2.13 tream, as illustrated	Addec https:/ with th Addec the pe of PF0	table from slid /www.ieee802. he following title the following t riod and relativ C24, which are	de 4 of org/3/cy/public/au e: Table 165-XX text under the new e offset of the sta synchronized bel	ug22/jonsson -Frame align wly added: "T art of various tween master	_tu_zimmerman ment parameters 'he information ir frames. The valu r and slave."	_3cy_01_08 3 1 Table 165- ues are give	3_22_22.pdf, •XX shows n in terms
Proposed	Response	Response Statu	us W			CI 165	SC 165 3 2		D 53	1	# [101
PROF	POSED ACCEPT	IN PRINCIPLE.				C/ 105	30 103.3.2		- JJ	<i>L</i>	#	-121
						Ran, Adee		Commont	Cisco Syster	ms, Inc.		
The c need	urrent text is ider a Maintenance R	itical to that in Clau equest against Cla	use 149. If this iuse 149.	is changed as	proposed, we may	Incorr the co are de	ect hierarchy; t ntent in the sul tails of "Use of	he subclause hea bsequent subclau f blocks".	ading "65B R ises, 165.3.2	S-FEC transmiss .2.3 through 165	sion code" a .3.2.2.17, m	ddresses all ost of which
						The h	ierarchy is unn cally the same	ecessarily deep, a title.	and can be fla	attened; 165.3 a	nd 165.3.2 h	nave
						Suggestee	dRemedy					
						Move	163.3.2.2.3 thr	ough 163.3.2.2.1	7 to be below	the current 163	.3.2.2.2.	
						Flatter its thre (PCS)	n the hierarchy ee subclauses functions")	by removing the upwards to the pa	subclause 16 arent subclau	65.3.2 ("PCS fun ise 165.3 ("Physi	ctions") and cal Coding	l promoting Sublayer
						Proposed	Response	Response S	tatus W			
						PROF	OSED ACCEF	PT IN PRINCIPLE				
						Moved	d 165.3.2.2.3 th	nrough 165.3.2.2.	17 to be belo	w the current 16	5.3.2.2.2.	
						We ca up une	annot just delet der 165.3.	e 165.3.2 as it inc	cludes conter	nt and a Figure.	Those had t	to be moved

TYPE: TR/technical required ER/editorial required GR/gener	al required T/technical E/editorial G/general	Pa 53	Page 11 of 31
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn	Li	1/13/2023 10:43:33 AM
SORT ORDER: Page, Line			

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											• • •		
C/ 165	SC 165.3.2.2	P 53	L11	#	^t I-120		C/ 165	SC 165.3.2.2	2.3 P5	5	L 20	# I-6	3
Ran, Adee		Cisco Syster	ms, Inc.				Jonsson, F	Ragnar	Marv	ell Semicondu	uctor, Inc.		
Comment	Type TR Con	nment Status D				,	Comment	Type E	Comment Status	D		·	
In Figu modul	ire 165-5, the "circled la c 2 addition), but it is no	rge plus sign" seem: t stated explicitly, Co	s to denote a bity ompare to Figure	wise XOF e 165-9 w	R operation (hich has a	(or	Figure	165-7 PCS RX	bit ordering should be	e placed in PC	CS Receive	function sect	ion
legenc	for its operations.						Suggested	Remedy					
Figure	165-6 and Figure 165-7	7 also use similar, bu	it different "nlus	sian in a	circle"		place	somewhere in se	ections 165.3.2.3 PC	S Receive fur	nction		
riguio				Signina			Proposed	Response	Response Status	W			
The sa	ame symbol is also used	d in Equation 165-4 v	vithout explicit de	efinition.			PROP	OSED REJECT					
Note the Not	nat the established conv ter (^_see Table 21-1)	vention for XOR is a	gate symbol, and	d in text t	he caret		The re	ference to Figur	e 165-7 is in subclau	se 165.3.2.2.2	2. No chang	es to the drat	ft needed.
	Remedy						C/ 165	SC 165.3.2.2	2.3 P5	5	L 20	# I-6	2
Add a	legend explaining the "c	circled plus sign" in t	ne figures.				Jonsson, F	Ragnar	Marv	ell Semicondu	uctor, Inc.		
	logona orpianing no		ie ligaleel				Comment	Туре Е	Comment Status	D			Ε
Chang	e to the "^" symbol in E	quation 165-4 and a	dd "where ^ deno	otes the >	KOR operati	ion".	since	the RS-FEC enc	oder/decoder and int	erleaver/deint	erleaver are	e specified in	different
Proposed	Response Resp	oonse Status W					orderii	ns, it would be b ng.	eller to have separate		SKS III FIGUI	e 103-7 FC3	
PROP	OSED ACCEPT.						Suggested	Remedy					
C/ 165	SC 165.3.2.2.2	P 54	L17	#	[±] 1-60		have s orderii	separate RS-FEC	C decoder and deinte	rleaver blocks	s in Figure 1	65-7 PCS R)	K bit
Commont	kagnar Turpo E Cor	Marvell Sem	iconductor, inc.			E7	Proposed	Response	Response Status	w			
since t	he RS-FEC encoder/de	coder and interleave	r/deinterleaver a	re specif	ied in differe	ent	PROP	OSED ACCEPT					
section	ns, it would be better to	have separate functi	on blocks in Figu	ure 165-6	PCS TX bi	t		SC 465 3 3 6		E	1 47	# 14	20
orderir	ıg.						0/100	30 103.3.2.2			L41	# [-1.	22
Suggested	Remedy						Ran, Adee		Cisco	Systems, Inc	C.		5
have s	eparate RS-FEC Encoc	ler and interleaver bl	ocks in Figure 1	65-6 PCS	5 IX bit orde	ering.	"The v	<i>Type</i> I alue of the data/	ctrl header is shown	D as a binary va	alue Binarv	values are sl	ے hown with
Proposed PROP	Response Resp OSED ACCEPT.	oonse Status W					the first	st transmitted bit	(the LSB) on the left	."	alde. Dinary		
							data/c senter	trl header is a sin nce is meaningle	ngle bit - there is no l ss and quite confusir	_SB and no "fi ng.	irst" transmi	itted bit. So th	nis
							Note t only a Also th repeat	hat the value of t ppears in Figure ne "notation conv the same inforn	he data/ctrl header b 149–8, which is refe ventions" in 165.3.2.2 nation.	it is not shown renced along v 2.3 already cov	n in any figu with 149.3.2 ver binary v	ure in this clau 2.2.4 in 165.3 alues. No neo	use; it .2.2.4. ed to
							Suggested	Remedy					
							Delete	the quoted text.					
							Proposed	Response	Response Status	w			
							PROP	OSED ACCEPT					
			/	a T //								D	40 - (0)
TPE: TR/	technical reduired ER/6	euliorial reduired Gh	vueneral reduire	u i/tech	inical E/edit	ioriai G/a	eneral			Pa 55		Pade	12 01 31

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C/ 165	SC 165.3.2.2.7	P 56	L18	# I-123		C/ 165	SC ·	165.3.2.2.	15	P 57	L 24	# I-124	
Ran, Adee		Cisco System	ns, Inc.			Ran, Adee				Cisco System	ns, Inc.		
Comment	Туре Т	Comment Status D			ΕZ	Comment	Туре	ER	Commen	t Status D			ΕZ
In this specifi "is/are	subclause the text ed"; also in 165.3.2 as specified".	refers to a corresponding 2.2.8; in 165.3.2.2.11 it is "	subclause in 14 shall be specifie	9 with "shall be as ed"; but in all others	3	In the e and su	express iggests	sion "m_{8 that "L-1"	846 × L-1}" a is evaluated	nd similar ones, I first (despite ha	, the spacing in t aving no parenth	he subscript is unusua leses).	al,
						Also, a	a dash i	s used ins	stead of a m	inus sign.			
This is	inconsistent, and	results in having arbitrary F	PICS items.			Suggested	Remed	ly					
It seen PICS (ns that "shall" is ur if there are any)	nnecessary here and create	es a burden for	people who read th	e	In this change	and all e the da	similar ex ash to a m	pressions (ii iinus sign (o	n 165.3.2.2.15, ⁻ r en dash).	165.3.2.2.16, an	d Figure 165–8),	
Suggested Chang	<i>Remedy</i> e all instances of r	eferences to 149.3.2.2.x to	be consistent:	"is/are as specified	l in	Prefera minus	ably, rei sign ins	move the stead.	spaces arou	ind the multiplica	ation sign and a	d spaces around the	
<refere< td=""><td>ence>".</td><td></td><td></td><td></td><td></td><td>Proposed I</td><td>Respon</td><td>se</td><td>Response</td><td>Status W</td><td></td><td></td><td></td></refere<>	ence>".					Proposed I	Respon	se	Response	Status W			
Delete	PICS that become	e unnecessary as a result o	of this change.			PROP	OSED	ACCEPT	IN PRINCIP	LE.			
Proposed I PROP	Response OSED ACCEPT.	Response Status W	c .			In this change	and all ed the c	similar ex dash to a r	pressions (ii minus sign (n 165.3.2.2.15, ⁻ or en dash).	165.3.2.2.16, an	d Figure 165–8),	
C/ 165	SC 165.3.2.2.1	1 P56	L 34	# I-102		Remov instead	ved the d.	spaces a	round the m	ultiplication sign	and add spaces	around the minus sig	jn
Comment	amin Type T	Blind Creek A	ssociates		F7	C/ 165	SC	165 3 2 2	16	P 57	/ 34	# 1-61	
"Order	ed set control chai	racters shall be specified for	or MultiGBASE-	T1 PHYs in	LZ	lanaaan D	00	100.0.2.2.		Monual Cami		" [0]	
149.3.2	2.2.11" is incorrect	use of "shall". As written i	it is declaring a	requirement of the		Comment	type	F	Commen	Marven Serni	iconductor, inc.		F7
standa	rd not the impleme	entation of the standard. T	he control chara	acters "are as" spec	cified	There a	are 90 i	∟ paritv svm	bols, the inc	tex goes up to 8	39 not 33		L2
we ma	ndating those cont	trol characters (and only the	ose) be used or	simply saying it's t	the	Suggested	Romod	h.	,				
same a	as specified in the	reference clause? I'm gue	essing from the	prior clause the		change	from r	y 133 to n	1 89 and fro	m nl 33 to nl 8	39		
lateri	out am probably w	rong about that ;-)				needs	to be u	pdated to	"m846 × L-	l, m846 × L-2,	,m1, m0, P1,89	ə,, PL,89,, p1,0,	
Suggested	Remedy					, pL,	0,"						
Ordere	a set control chara	acters are as specified for r	MUITIGBASE-11	PHYS IN 149.3.2.2	.11	Proposed I	Respon	ise	Response	Status W			
Proposed I PROP	Response OSED ACCEPT IN	Response Status W				PROP	OSED /	ACCEPT.					
Chang T1 PH	ed the text to read Ys in 149.3.2.2.11	"Ordered set control chara " + deleted the associated	acters are as sp PICS item.	ecified for MultiGBA	ASE-								

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C/ 165	SC 165.3.2.2.	17	P 58	L 29	#	-125	C/ 165	SC 165.3.2.2	.17	P 58	L 43	# <u>I-127</u>
Ran, Adee) Tana -	0	Cisco System	ns, Inc.			Ran, Adee		0	Cisco System	ns, Inc.	
Comment	Type E	Comme	nt Status D	a sector de la face de la	10 h 'tell	ΕZ	Comment	Type TR	Comment	Status D		
The fir The ne the nu	ext sentence of thi ext sentences hav mber of symbols.	s subciaus ve three ins	e states that "the tances of "ten-bi	t" as an adjectiv	e of the syn	nbol, after	m(x) is of the	tion (165–2) defin s not one specific data.	polynomial,	age polynomial and it cannot be	e defined as suc	n. It is a representation
The in is mer	itial sentence is s ntioned; combined	ufficient, ar I with the n	nd there is no ne umber of symbol	ed to write "ten-l s, this does not	oit" every tir contribute t	ne a symbol o readability.	"Equa symbo	tion (165–3) defir ols p21 to p0"	ies the parity	polynomial p(x)) whose coefficie	nts are the parity
Suggested	Remedy						Simila remair	rly, the parity poly nder of division of	/nomial is no m(x) by g(x)	t defined by this , as indicated in	s equation, but b the subsequent	y the calculation of the text.
Delete	e "ten-bit" before "	RS-FEC" ti	hree times in this	paragraph.				ha ancadar illust	otod in Figur	o 165 0 is not i	ist a shift registe	.r
Proposed	Response	Respons	e Status W				A150, 1		ateu in Figui	e 105-9 is not je	ust a shirt registe	.
PROP	OSED ACCEPT.						(See c	comment R1-22 a	gainst P802.	3cz D3.1)		
C/ 165	SC 165.3.2.2.	17	P 58	L 41	# [-126	Suggested	Remedy				
Ran, Adee	•		Cisco Systen	ns, Inc.			Chang	e the quoted sen	tences to, re	spectively,		
Comment The pr	<i>Type</i> TR rimitive polynomia	Commei Il is x^10+x	<i>nt Status</i> D ∕3+1; equating it	to 0x409 is cont	fusing, and	is arguably	"The c coeffic	contents of the RS cients are the me	S-FEC messa ssage symbo	age are represe Is m521 to m0 a	nted by a polync as shown in Equ	mial m(x) whose ation (165–2)"
an abi	use of notation.						and					
Note t	hat 802.3cz uses	simply x^1	0+x^3+1 (see 16	6.2.2.4)			"The r	ority not reamined		ated on the rem	aindar of nalyna	mial division of m(v) by
Suggested Delete	dRemedy e "0x409=".						g(x). It	s coefficients p89	to p0, as sh	own in Equation	n (165–3), are th	e parity symbols".
Proposed PROP	Response OSED ACCEPT.	Respons	e Status W				Chang "The p compu	ge from parity polynomial i uted using the shi	s the remain ft register im	der from the div plementation illu	rision of m(x) by ustrated in Figure	g(x). This can be e 165–9"
							to The ca	alculation of the c	oefficients of	p(x) is illustrate	d in Figure 165-	-9".
							Proposed PROP	Response OSED ACCEPT.	Response	Status W	J	
							C/ 165	SC 165.3.2.2	.17	P 59	L 19	# I-128
							Ran, Adee	•		Cisco System	ns, Inc.	
							Comment	Type E	Comment	Status D		E
							Comm	as should be pla	ced before a	nd after parenth	eticals.	
							Suggested	lRemedy				
							Add co	ommas after "m_	845" and afte	er "p_0".		
							Proposed PROP	Response OSED ACCEPT.	Response	Status W		
TYPE: TR	/technical required	d ER/edito	rial required GR	general require	d T/technic	al E/editorial G/	general			Pa 5 9	9	Page 14 of 31

SORT ORDER: Page, Line

C/ 165	SC 165.3.2.2.17	P 59	L 46	# I-71	C/ 165	SC 16	5.3.2.2.18	P60	L 27	# I-130
Jonsson,	Ragnar	Marvell Sem	iconductor, Inc.		Ran, Adee			Cisco Syster	ns, Inc.	
Comment	Type E Con	nment Status D			Comment	Туре	T Comm	nent Status D		
There	e are two tables marked	Table 165-1, one on	page 59 and one o	n page 60.	In this	subclaus	e there is no "sha	all" for the referenc	e to the correspon	ding clause 149
Suggestee	dRemedy				SUDCIA	use, uniii	ke the subsequer	it ones.		
Updat	te table numbers to avoid	d duplicate numberin	g.		Consis	stency				
Proposed	Response Resp	oonse Status W			Suggested	Remedy				
PROF	POSED REJECT.				Either	add "sha	II" here or delete	it from 165.3.2.2.1	9 through 165.3.2.2	2.21.
This is	s one and the very same	table. Note that Tab	e draft needed	60 has "(continued)"	Adjust	PICS ac	cordingly.			
					Proposed	Response	e Respoi	nse Status W		
C/ 165	SC 165.3.2.2.17	P 59	L 50	# I-129	PROP	OSED A	CCEPT IN PRINC	JPLE.		
Ran, Adee	e 	Cisco Syster	ms, Inc.		Delete	d "shall" :	statements from	165.3.2.2.19 throu	gh 165.3.2.2.21.	
Comment	Type E Con	nment Status D	!	EZ	Adjust	ed PICS	accordingly			
This s	should be fixed.	jests that the first two	o columns are sepa	arate from others.				5.54		
T 1				n IIII an daarbara faans	C/ 165	50 16	5.3.2.2.22	P 61	L 9	# I-131
0 to 1	able could be improved b 2: and change column la	by adding a leftmost (bels to "g_{i}", "g_{1	coiumn witn neadin 3+i}", "a {26+i}", et	g "I" and values from c., such that the	Ran, Adee	-		Cisco Syster	ns, Inc.	
conte	nt of each cell is clearly	described by its row	and column headin	gs.	Comment	lype dootod to	E Comm	ient Status D	not formattad as a	EZ
Suggestee	dRemedy				i ne in	dented te	ext seems to be a	list of items, but is	not formatted as s	ucn.
Chang	ge the column ruling to h	ave regular line widt	h between columns	s 2 and 3.	There	are some	e other lists in the	draft where this sh	nould be applied to	0.
Consi	ider improving the table a	as suggested in the c	comment		Suggested	Remedy				
Proposed	Response Res	onse Status W			Chang	e formatt	ting to a dashed li	st (DL). Apply else	where as necessa	ry with editorial
PROF	POSED ACCEPT IN PRI				license). De seu seu s				
					Proposed	Response	e Respoi	nse Status W		
In Tab (from	ble 165-1, changed the v	ertical column separ	ation line between	columns 2 and 3	PROP	USED A		JPLE.		
(nom	the left) to be the same	weight as the rest of			Chang	ed forma	tting to a dashed	list (DL).		
					C/ 165	SC 16	65.3.2.2.22	P61	L 41	# 1-82
					Jonsson, F	Ragnar		Marvell Sem	conductor, Inc.	
					Comment	Туре	TR Comm	nent Status D		
					Values	in Table	165-2 are incorre	ect.		
					Suggested	Remedy				
					Chang	e the val	ues in Table 165-	2 to: 16, 48, 15.97	44, 28, and 9.3184	
					Proposed	Response	e Respoi	nse Status 🛛 🛛 🛛 🖤		
					PROP	OSED A	CCEPT.			
TYPE: TR	R/technical required ER/e	editorial required GR	/general required	T/technical E/editorial G	/general	/		Pa 6	1	Page 15 of 31
COMMEN	IT STATUS: D/dispatche	d A/accepted R/rej	ected RESPONS	SESTATUS: O/open W/v	vritten C/closed	U/unsa	tisfied Z/withdrav	vn <i>Li</i> 4	1	1/13/2023 10:43:33 A

Proposed Responses IEEE P802.3cy D3.0 10G+ Auto Task Force Initial Sponsor ballot comments C/ 165 SC 165.3.2.3 P61 L 50 # I-132 C/ 165 P65 L7 SC 165.3.6 # 1-64 Ran. Adee Cisco Systems, Inc. Jonsson, Ragnar Marvell Semiconductor. Inc. Comment Type т Comment Status D Comment Type Е Comment Status D "The PCS Receive function accepts received code-groups provided by the PMA Receive In Figure 165-11, the master is missing a valid alert starting at 92. function" SuggestedRemedy SuggestedRemedy Add the missing valid alert start at 92 for master Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED REJECT. Implemented changes per slide 10 in No suggested remedy was provided. https://www.ieee802.org/3/cy/public/jun22/jonsson_etal_3cy_01a_06_07_22.pdf C/ 165 SC 165.3.4 P63 L31 # I-133 C/ 165 SC 165.3.6 P65 L16 # 1-83 Ran. Adee Cisco Systems, Inc. Jonsson, Ragnar Marvell Semiconductor, Inc. Comment Type Е Comment Status D Comment Type E Comment Status D The content of this subclause (Side-stream scrambler polynomials) is not helpful; the PCS The arrow for lpi slave offset is not correctly aligned in Figure 165-11. scrambler is already addressed in 165.3.2.2.18 (by reference to 149.3.2.2.18, which has SuggestedRemedy the required pointer to 149.3.4). There is no reference to this subclause in this draft. Change the alignment of the arrow for lpi_slave_offset in Figure 165-11, to end at frame 42 SuggestedRemedy (beginning of refresh frame). Delete 165.3.4. Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Implemented changes per slide 10 in Deleted 165.3.4 and scrubbed PICS https://www.ieee802.org/3/cy/public/jun22/jonsson_etal_3cy_01a_06_07_22.pdf # 1-66 C/ 165 SC 165.3.6 P65 L7 P65 C/ 165 SC 165.3.6 L 34 # 1-84 Jonsson, Ragnar Marvell Semiconductor. Inc. Marvell Semiconductor, Inc. Jonsson, Ragnar Comment Type TR Comment Status D Comment Type Ε Comment Status D Figure 165-12 - Incorrect Valid alert start for the Master at 0? The arrow for lpi_slave_offset is not correctly aligned in Figure 165-12. SuggestedRemedy SugaestedRemedv The alert signal for master at location zero should be removed from Figure 165-12 Change the alighment of the arrow for lpi_slave_offset in Figure 165-12, to end at frame 42 (beginning of refresh frame). Proposed Response Response Status W Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. PROPOSED ACCEPT IN PRINCIPLE. Implemented changes per slide 10 in https://www.ieee802.org/3/cy/public/jun22/jonsson_etal_3cy_01a_06_07_22.pdf Implemented changes per slide 10 in https://www.ieee802.org/3/cy/public/jun22/jonsson_etal_3cy_01a_06_07_22.pdf

TYPE: TR/technical required ER/editorial required GR/generation	al required T/technical E/editorial G/general	Pa 65	Page 16 of 31
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn	Li 34	1/13/2023 10:43:33 AM
SORT ORDER: Page, Line			

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C/ 165	SC 165.3.6	P66	L 9	#	I-87	C/ 165	SC 165.3	3.6.1	P 66	L18	# I-134
Jonsson,	Ragnar	Marvell Sem	iconductor, Inc.			Ran, Adee			Cisco Syste	ms, Inc.	
Comment	t Type E	Comment Status D				Comment	Type ER	Con	nment Status D		
The n simila chang	names "lpi_slave_ ar to "lpi_offset" us ged to "lpi_slave_	offset" and "lpi_master_offs sed in clause 149, but have refresh_start" and "lpi_mast	et" can be confus a different mean er_refresh_start"	sing, bec ing. They '.	ause they ar should be	"Alert, beginr	a four RS-F ing of any e	EC frame lo ighth RS-FE	ng sequence (alert_ C frame counting fr	length), shall sta om the start of th	rt four frames after the e QR cycle"
Suggeste	edRemedy					This is	an awkward	lly phrased a	sentence, and the "s	shall" seems inac	lequate; this is a
Repla occur	ace all occurrence rances of "Ipi_mas	s of "lpi_slave_offset" with " ster_offset" with "lpi_master_	lpi_slave_refresh _refresh_start".	n_start" a	nd replace all	Also, t	he final sent	ence in this	paragraph (only sta	rting at frame 92)	contradicts the
Proposed	l Response	Response Status W				beginr	ning ("any"),	adding to the	e confusion.	0 /	
PROF	POSED ACCEPT	•									
						This p way. F	aragraph is f Perhaps it is r	ollowed by t enough to p	ables which seem to bint to the tables.	o say the same tl	ning in a more formal
						Suggested	IRemedy				
						Chang that ca denote	e to "Alert is an start only es the 0-base	a sequence at the begin ed index of t	e of length alert_leng ning of RS-FEC fram he RS-FEC frame c	gth RS-FEC fram ne u for specific v ounting from the	es (see Table 165-3) /alues of u (where u start of the QR cycle).
						When is 1, th	slow wake is ne only valid	s 0, the valid location for	locations for Alert a Alert is u=92."	are when u mod 8	8 = 4. When slow wake
						Altern	atively, delet	e the text de	scription and use a	reference to tabl	es 165-4 and 165-5.
						Proposed	Response	Resp	onse Status W		
						PROF	OSED ACC	EPT IN PRI	NCIPLE.		
						Chang that ca denote	led to "Alert an start only es the 0-base	is a sequence at the begin and index of t	ce of length alert_len ning of RS-FEC frar he RS-FEC frame c	ngth RS-FEC fram me u for specific v counting from the	nes (see Table 165-3) /alues of u (where u start of the QR cycle).
						When is 1, th	slow wake is ie only valid	s 0, the valid	locations for Alert a Alert is u=92."	are when u mod 8	3 = 4. When slow wake

Pa **66** Li **18**

SORT ORDER: Page, Line

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C/ 165	SC 165.3.6.1	P66	L 21	# I-135	C/ 165	SC 165.3.6	.1 P	66	L 25	# I-65
Ran, Adee		Cisco Syster	ns, Inc.		Jonsson, F	Ragnar	Mary	ell Semi	conductor, Inc.	
Comment	Type TR Com	ment Status D			Comment	Type TR	Comment Status	5 D		
"Slow ' anywh After a	Wake" is mentioned here ere. It also appears in ta long search I found an I	e for the first time, a bles 165-4 and 165- InfoField bit called "\$	nd does not seen 5. SlowWakeReque	n to be defined	Senter When startin This is	nce above Tab Slow Wake is g at RS-FEC fr only true for th	le 165-4: active, alert can be tra ame 92. ne master - the slave o	ansmitteo	d in only a single C transmit starting a	R cycle location, t RS-FEC frame 44.
165.4.	2.4.5. But there is no var	iable called "Slow W	/ake" and it is no	t defined that	Suggester	lRemedy		,	5	
SlowW anothe	akeRequest in the PHY er effect.	capability bits is ser	nt based on some	e variable that has	Need t "Wher	o add starting Slow Wake is	postion for slave in the active, alert can be tr	e paragra ansmitte	aph above table 16 d in only a single (5-4: QR cycle location,
SlowW expect	/akeRequest and "slow v ed to link them.	vake" are not the sa	me thing, and rea	aders should not be	startin in Figu	g at RS-FEC fr ire 165-12."	ame 92 for the maste	r and RS	FEC frame 44 for	the slave, as shown
Suggested	Remedy				Proposed	Response	Response Status	w		
At the in som	minimum, Change "slow e appropriate place in th	v wake" to "SlowWak le text.	eRequest" and a	dd "(see 165.4.2.4.5)"	PROP	OSED ACCEF	ΥТ.			_
					C/ 165	SC 165.3.6	P	66	L 29	# I-85
Prefera	ably, add a variable defin /akeRequest bit and the	nition and a more de	tailed explanation	of the other: Lassume	Jonsson, F	Ragnar	Mary	ell Semi	conductor, Inc.	
is it the	e local SlowWakeReques	st rather than the rei	mote one that cor	ntrols it?	Comment	Туре т	Comment Status	5 D		
Proposed	Response Resp	onse Status W			The tx	_refresh_active	e condition is not corre	ect in tab	le 165-4.	
PROP	OSED ACCEPT IN PRIN	NCIPLE.			Suggested	Remedy				
P78 L₄ P65 L₄	10 – changed "immediate 1 – at the end of the line	ely following a refres added the following	h" to "once per Q "The alert signal	R cycle" is restricted to starting	In Tab mod(u mod(u	le 165-4, chan , lpi_qr_time) < , lpi_qr_time) <	ge "lpi_slave_offset – < lpi_slave_offset" to " < lpi_slave_offset + lpi	lpi_refres pi_slave _refresh_	sh_time ≤ _offset ≤ _time"	
at prec	letermined RS-FEC fram	ne count values, whe	ere the allowed va	alues depend on if the	Proposed	Response	Response Status	w		
P65 L2	21 – changed "Slow Wak	te not active" to "SlowW	wWakeRequest i	s not set" tr"	PROP	OSED ACCEP	, т.			
P66 L2	21 – changed "Slow Wak 27 – changed "Slow Wak 27 – changed "Slow Wak	te is active to "Slow e is active" to "Slow e" to "SlowWakeRe	WakeRequest is uest	set"	C/ 165	SC 165.3.6	.1 P	66	L 39	# I-136
P66 L2	27 – changed "Slow Wak	e" to "SlowWakeRe	quest"		Ran, Adee		Cisc	o System	ns, Inc.	
P66 L2	22 – changed "starting at	RS-FEC frame 92"	to "starting at RS	-FEC frame 92 for	Comment	Туре Е	Comment Status	5 D		EZ
P66 L ²	18 – changed "Alert, a for	ur RS-FEC frame lo	ng sequence (ale	rt_length), shall start"	Why is per PH	s v used in tabl IY, no need for	e 165-5 where u is us ⁻ two variables.	ed in tab	le 165-4? There is	only one frame count
not set	t, alert shall start"	e long sequence (al	ert_lengtri). whe	1 SlowwakeRequest is	Suggested Chanc	<i>Remedy</i> e "v" to "u" in t	able 165-5.			
					Proposed	Response	Response Status	w		
TYPE: TR/	technical required ER/e	ditorial required GR	/general required	T/technical E/editorial G) /general written C/closed	l I/unsatisfier	Z/withdrawn	Pa 60	6	Page 18 of 31

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C/ 165	SC 165.3.6	P66	L 41	# I-86	C/ 165	SC 165.4.1	P 74	L	# 1-72
Jonsson, F	Ragnar	Marvell Semic	conductor. Inc.		Jonsson.	Ragnar	Marvell Sen	niconductor. Inc.	
Comment	Туре Т	Comment Status D	, .		Comment	Type E	Comment Status D	, .	Ež
The tx	_refresh_active c	ondition is not correct in tabl	e 165-5.		Figure	165-16 - send_s	s_sigdet output from Link S	ynchronization blo	ock is missing
Suggested	IRemedy				Suggestee	Remedy			
In Tab mod(v	le 165-5, change , lpi_qr_time) < lp	"lpi_master_offset – lpi_refr i_master_offset" to "lpi_mas	esh_time ≤ ter_offset ≤		Add s add s	end_s_sigdet to F end_s_sigdet.	-igure 165-16. Figure 149–	26 can be used as	s reference for how to
mod(v,	, lpi_qr_time) < lp	I_master_offset+ lpi_refresh	_time"		Proposed	Response	Response Status W		
Proposed I	Response	Response Status W			PROF	OSED ACCEPT.			
PROP	USED ACCEPT.				C/ 165	SC 165.4.2.4	.5 P78	L 39	# 1-92
C/ 165	SC 165.7.2.3	P 67	L 31	# I-56	Jonsson, I	Ragnar	Marvell Sen	niconductor, Inc.	
Zimmerma	in, George	Cisco System	s, Inc.,CME Cor	nsulting,CommScope,M	Comment	Туре Е	Comment Status D		EZ
Comment	Туре Т	Comment Status D		EZ	With o	hange in LPI sigi	naling, there is 1 RS FEC fi	rame gap betweer	n end of Refresh and
There rfer tin	is no mention of 2 ner is deleted as	KGMII in 149.3.7.2.3 timers.	(note that this e	dit accomodates if the	Alert				
Suggested	IRemedy	Won)			Suggestee	Remedy			
Replac	ce first sentence of	of 165.3.7.2.3 with "The PCS	s timers are as c	efined in 149.3.7.2.3	Chanę wake	ge "transmit alert alert time slot"	only immediately following	a refresh" to "tran	smit alert only in slow
with th	e following modifi	cations:			Proposed	Response	Response Status W		
Proposed I PROP	Response OSED ACCEPT.	Response Status W			PROF	OSED ACCEPT.			
	00 /07 0 7 0	2-4	/ =0	"	C/ 165	SC 165.4.2.4	.5 P78	L 44	# I-137
C/ 165	SC 165.3.7.3	P70	L 50	# I-12	Ran, Adee	•	Cisco Syste	ems, Inc.	
Grow, Rob	ert	RMG Consult	ing		Comment	Туре Т	Comment Status D		EZ
Comment	Type E	Comment Status D		EZ	"The r	emaining bits sha	all be reserved and set to 0	." - reserved bits a	are listed in the table;
Figure Also a	165-14 isn't man NOTE" is inform	datory, the functionality spece	cified in the figur	e can be mandatory. andatory statements	"shall	be reserved" is m	neaningless.		
about	this exist somewh	here in the draft.			Also,	reserved should b	be ignored on receipt, other	wise they can't be	e defined in the future.
Suggested	lRemedy				Reser	ved fields are als	o mentioned in 165.4.2.4.7	with insufficient e	xplanation.
NOTE-	—The functionalit	y in this figure is mandatory	for a PHY with	he EEE capability.	Suggester	Remedv			
Proposed I PROP	Response OSED ACCEPT.	Response Status W			Chang ignore	ge the quoted ser d upon receipt."	ntence in 165.4.2.4.5 to "Re	eserved bits shall b	be transmitted as 0 and
					Chane	ge the last senten d upon receipt".	ce in 165.4.2.4.7 to "All res	served fields are tr	ansmitted as 0 and
					Proposed PROF	Response OSED ACCEPT	Response Status W		

TYPE: TR/technical required ER/editorial required GR/gener	al required T/technical E/editorial G/general	Pa 78	Page 19 of 31
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn	Li 44	1/13/2023 10:43:33 AM
SORT ORDER: Page, Line			

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C/ 165	SC 165.4.2.6	P81	L 25	# I-94		C/ 165	SC 165	.5.1.1		P 92	L18	#	I-4
Rolfe, Ber	ijamin	Blind Creek As	ssociates			Boyer, Ricl	า			Aptiv - Signa	I and Power So	utions	
Comment	Туре Т	Comment Status D			EZ	Comment	Туре Т		Comment	Status D			
Since "The r period It may parag gener: receiv is inte	may is equivalen- ecciver may not r ls of the SEND_S r or may not not n raph is an informa ator, and then talk e? Which isn't ar nded.	t to "may or may not", I'm not necessarily receive a continue signal." ecessarily? Figuring it out fro ative description of a possible king about what the receiver r n optional behavior, but seem	sure what this bus PN sequer om context didr implementation nay or may no s to just an obs	line means: ice between separ n't work either, as n of the PN seque t or may not not servation? No ide	rate the ence a what	The B/ measu the PS measu capturi then F PSD m	ALUN in Fig rement is in D measure rement can ng device) igure 165-2 neasureme Remedy	gure 1 not rec ement. n be m instea 27 can nt.	65-27 is not o quired. Elimir . If the Balun nade with digi ad of a BALU be removed	defined. Use of nate the use of and spectrum tal signal analy N and spectrur and existing F	of BALUN and sy the BALUN and analyzer is elim yzer (DSA) (a.k. n analyzer. If th igure 165-25 ca	bectrum a I spectrun inated, th a. Digital is propos n be refer	nalyzer for this n analyzer for en the PSD Scope or al is accepted, enced for the
Suggestee	dRemedy					Remov	/e Figure 1	65-27	and reference	e Figure 165-2	25 for PSD mask	test	
Delete	e the sentence.					Kennes	ic riguic i	00 21					
Proposed PROF	Response POSED ACCEPT.	Response Status W				Chang "Trans measu	e Figure 16 mitter test rement"	65-25 (config	description fr uration 1 for 1	om. transmitter dro	op, transmitter li	nearity, a	nd jitter
C/ 165	SC 165.4.4.1	P 86	L 50	# I-95		TO, "Trans	mitter test	config	uration 1 and	4 for transmit	er droop, transr	nitter linea	arity, jitter and
Rolfe, Ber	ijamin	Blind Creek As	ssociates			power	spectrarue	insity i	measuremen		power level mea	suremen	15
Comment Incorr	<i>Type</i> T ect use of "may".	Comment Status D This should be "can".			EZ	Chang •Remo •Remo	e reference ve wording	es con 1 in line 165-27	ncerning Figur e 18 page 92 7 on page 93	re 165-27 as fo "Figure 165-2"	ollows. 7".		
Suggestee	dRemedy					•Chang	ge "165-27	" on pa	age 95 line 5	3 to "165-25".			
Chang	ge "may" to "can"					Proposed	Response		Response	Status W			
Proposed PROF	Response POSED ACCEPT.	Response Status W				PROP	OSED ACC	CEPT	IN PRINCIPL	.E.			
						Remov	ed Figure	165-27	7 and referen	ce Figure 165	25 for PSD mas	sk test.	
C/ 165	SC 165.4.5	P 90	L 51	# I-18		Chang	ed Figure	165-25	5 description	from.			
Grow, Rob	pert	RMG Consulti	ng			"Trans	mitter test	config	uration 1 for t	ransmitter dro	op, transmitter li	nearity, a	nd jitter
Comment	Туре Е	Comment Status D			EZ	measu To	rement						
*** Co	mment submitted	I with the file image.png attac	hed ***			"Trans	mitter test	config	uration 1 for t	transmitter dro	op, transmitter li	nearity, jit	ter and power
The st	tate diagram isn't	required, the functionality is r	equired.			spectra	al density n	neasu	rement and t	ransmit power	level measurem	ents"	
Suggested	dRemedy					Chang	ed referen	ces co	oncerning Fig	ure 165-27 as i	follows.		
NOTE	The functioality	of this state diagram is only i	equired when	the PHY supports	EEE.	•Remo	ved wordir	ig in lir	ne 18 page 9	2 "Figure 165-:	27".		
Proposed	Response	Response Status W				•¤emo •Chano	vea rigure aed "165-2	7" on r	zi on page 93	5. 53 to "165-25"			
PROF	POSED ACCEPT.	-1				Chang							
						Also o	n P95L52 o	change	ed "configurat	tion 4" to "conf	iguration 1".		

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C/ 165 SC 165.5.	1.1 P93	L11	# I-5	C/ 165	SC 165.5.3	P 94	L17	# I-19
Mcclellan, Brett	Marvell Semi	iconductor, Inc.		Chang, Ja	ie-yong	Keysight Tech	hnologies	
Comment Type E	Comment Status D			Comment	Type T	Comment Status D	-	EZ
"Figure 165–27—Tr measurementand tr There are only 3 tes	ansmitter test configuration 4 fo ansmit power level measureme t configurations defined in this	or power spectra ent" subclause. The	l density label for this	Unles made	s specified otherwis at TP2 utilizing a te	se, all transmitter measurer est configuration that meets	ments and tests s the specificatio	defined in 165.5.3 are ns in 165.5.5.
configuration should	d be '3'.			Suggeste	dRemedy			
SuggestedRemedy				Unles made	s specified otherwis at TP2 utilizing a te	se, all transmitter measurer est system configuration that	ments and tests at meets the spe	defined in 165.5.3 are cifications in 165.5.5
change configuration	on 4° to "configuration 3" and ass	sociated reference	ces, ie. page 95 line 52	and a	Tourth-order Besse	I- I nomson low-pass filter v	with 16 GHZ @-3	dB bandwidth.
Proposed Response	Response Status W			Proposed	Response	Response Status W		
PROPOSED ACCE	PT IN PRINCIPLE.			PROF	POSED ACCEPT.			
The same commen	t disposition detail as in comme	ent #i-4		C/ 165	SC 165.5.3	P 94	L 22	# <mark>I-</mark> 97
Cl 165 SC 165.5.	3 P93	L 51	# [-3	Rolfe, Ber	njamin	Blind Creek A	Associates	
Maguire, Valerie	Copperopolis	3		Comment	Туре Т	Comment Status D		
Comment Type E	Comment Status D		EZ	Not su	ure the intent of "the	at may not be testable in ar	n implemented s	ystem" - is this
Enclose the id est e	xample in parenthesis to be co	nsistent with the	parent document.	Then	TP0 and TP5 may	be omitted is what is mean	t? The "may not	t" is a clue that "mav" is
SuggestedRemedy				being	used incorrectly.		,,	
Penlace "shall be /	C-coupled i.e. it shall present	a high DC com	mon-mode impedance	Suggeste	dRemedy			
at the MDI." with, "s	hall be AC-coupled (i.e., it shall	present a high l	DC common-mode	Delete	e the sentence or re	write with correct use of no	ormative languag	je.
impedance at the M	DI).".			Proposed	Response	Response Status W		
Proposed Response	Response Status W			PROF	POSED ACCEPT IN			
PROPOSED ACCE	PT.							
Cl 165 SC 165.5.	3 P93	L 53	# I-96	Delete points	ed "Informative Ann TP0 and TP5 that	ex 165A provides informati may not be testable in an i	ion on paramete mplemented sys	rs associated with test tem."
Rolfe, Benjamin	Blind Creek /	Associates		C/ 165	SC 165.5.3.3	P 94	L 48	# I-73
Comment Type T	Comment Status D		EZ	Jonsson	Ragnar	Marvell Semi	conductor. Inc.	
"There may be vario	ous methods for AC-coupling in	actual implement	ntations." is	Comment	Type TR	Comment Status D		
inappropriate use of	"may". Should be "can" (statir	ng a possibility, r	not a normative option).	The ii	tter requirements ha	ave become too strict, and	do not strike the	right balance between
SuggestedRemedy				the co	omplexity of the PM	A implementation and the o	complexity of the	clock generation, x-tal,
Change "may" to "c	an"			etc.				
Proposed Response	Response Status W			Suggeste	dRemedy			
PROPOSED ACCE	PT.			Chang to an 1MHz	ge "jitter relative to a unjittered reference to 100MHz, and le	an unjittered reference sha shall be less than 0.4 ps, v ss than 1ps when measure	II be less than 0. when measured ed with bandwidth	4 ps" to "jitter relative with bandwidth from n from 10kHz to 1MHz."
				Proposed	Response	Response Status W		
				PROF	POSED ACCEPT.			

TYPE: TR/technical required ER/editorial required GR/generation	al required T/technical E/editorial G/general	Pa 94	Page 21 of 31
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn	Li 48	1/13/2023 10:43:33 AM
SORT ORDER: Page, Line			

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C/ 165	SC 165.5.3.3.	I P95	L13	# I-6	C/ 165	SC 165.6	P 101	L 3	# I-99
Mcclellan, Bre	tt	Marvell Semice	onductor, Inc.		Rolfe, Be	njamin	Blind Cre	ek Associates	
Comment Typ	e E	Comment Status D			EZ Commen	Туре Т	Comment Status D		
Figure 16	5–25 is not co	nfiguration 3, it is configuration	on 1.		This	sentence says th	at 25GBASE-T1 makes e	extensive use of fun	ctions that may not be
SuaaestedRe	nedv				provi	ded. So a confor	ming implementation mal	kes extensive use o	of functions not present
change 'c	onfiguration 3'	to 'configuration 1'			some	the optional fun	re that is not what is mea ctions may (or may not) b	nt. Not sure what is le used WHEN they	are provided? Is this an
Proposed Res	nonse	Response Status W			optio	nal requirement,	a recommendation, or a r	nandatory requirem	ient to use these
PROPOS	ED ACCEPT.				funct	ons when they a the in this conte	re available? I can only g	uess. Also not sur	e what "extensive use" Hard to write a validation
						or that!	ki. Less than always and	more mannever.	
C/ 165	SC 165.5.5.1	P 98	L 35	# I-98	Well	one guess is give	en in the proposed change	е.	
Rolfe, Benjam	in	Blind Creek As	sociates		Suggeste	dRemedy			
Comment Typ	e T	Comment Status D			<i>EZ</i> 25GE	ASE-T1 may ma	ke use of the manageme	ent functions provide	ed by the optional MDIO
As describ	bed in 6.4 of th	e IEEE SA Standards Board	Operations Ma	anual, a note to a figur	e (Clau optio	se 45), and the onal Auto-Negotia	ion (Clause 98) when the	onfiguration function	ns provided by the
Is information I think "ca	n" is the corre	ting normative language ("ma	iy") is wrong. idina "should" h	nere :-).	Proposed	Response	Response Status W		
SuggestedRe	nedv		0	.,	PRO	POSED ACCEP			
Change "r	nav" to "can"								
Proposed Res	nonse	Response Status M			Rem	oved "extensive"	page 101, line 3		
PROPOS	FD ACCEPT				C/ 165	SC 165.7.1.	1 P 102	L 1	# I-139
					Ran, Ade	9	Cisco Sy	stems, Inc.	
C/ 165	SC 165.5.5.2	P 98	L 45	# I-138	Commen	Type TR	Comment Status D		
Ran, Adee		Cisco Systems	s, Inc.		Figur	e 165–34 does n	ot illustrate an insertion lo	oss - it is a limit line	
Comment Typ	e E	Comment Status D			EZ	oppligg to Figure	165 25 Eiguro 165 26 E	iauro 165 27 Eigur	o 165.29 and Eigura
Bad justifi	cation				165-3	9 (different titles	, but similar lack of "limit").	e 105-50, and Figure
SuggestedRei	nedy				Suggeste	dRemedy			
fix it					Chan	ge "The insertior	loss is illustrated in Figu	re 165–34" to "The	25GBASE-T1 link
Proposed Res	ponse	Response Status W			segm	ent insertion los	s limit is illustrated in Figu	re 165–34".	
PROPOS	ED ACCEPT.				Char	ae the fiaure title	to "Insertion loss calcula	ted limit in Equatior	n (165–19)". Add a label
					"mee	ts equation cons	traint" above the plot in th	e figure.	
					Imple	ment correspond	ling changes in the other	figures listed in the	comment and the text
					piece	ung morn.			
					Dronooo	Posponso	Deenenee Status		

Pa **102** Li **1**

IEEE P802.3cy D3.0 10G+ Auto Task Force Initial Sponsor ballot comments

C/ 165 SC 165.7.1	.3.1 <i>P</i> 102	L 43	# 1-55	C/ 165	SC 165.7.	1.3.3	P104	L 2	# I-43
Zimmerman, George	Cisco Syster	ms, Inc.,CME Co	onsulting,CommScope,M	Zimmerma	an, George		Cisco System	ns, Inc.,CME Co	nsulting,CommScope,M
Comment Type T	Comment Status D			Comment	Туре Е	Com	ment Status D		EZ
Lower limit of specifi	cation for link segment return	loss is out of ste	p with other parameters	confu	sing word orde	r makes it s	ound like the 100 of	nm resistive tern	nination is part of the
SuggestedRemedy				exam	ple of the plug	terminated	cable.		
Change 30 MHz to 1	0 MHz			Suggeste	dRemedy				
Proposed Response PROPOSED ACCEF Changed 30 MHz to	Response Status W PT IN PRINCIPLE. 10 MHz. Also updated P102L	51 from 30 to 10	, and Figure 165-35.	chang with th with th in a p end te	le "the link seg ne far end term ne far end term lug, the measu ermination."	ment side o hinated in 10 hinated in 10 hrement is of	of the MDI, e.g., the 00 \Ohm resistance. 00 \Ohm resistance. n the cabling betwee	plug if the cable " to "the link seg For example, if en the (de-embe	is terminated in a plug, ment side of the MDI the cable is terminated dded) plug and the far
C/ 165 SC 165.7.1	3.2 P103	/ 29	# 1-20	Proposed	Response	Respo	onse Status W		
	CommSoon	- 20	" 120	PROF	POSED ACCE	PT.			
Comment Type T	Comment Status X	J	TBD	CI 165	SC 165 7	1 2 2	P104	/ 16	# 122
Its good to have the	time domain criteria in addition	n to the usual fre	quency domain. But the	0/ 100		1.5.5	, 104	210	" I ⁻ 23
REM peak criteria is	sufficient, and ETM is not nee	eded. The freque	ency domain provides	Larsen, W	ayne	0			
sufficient protection a	against broad echo.			Comment	<i>Type</i> I	Comn	ment Status D	to the notruel n	had of the whole
SuggestedRemedy				freque	encv response	inase adjus	unwrapped phase. b	ut this is not cle	ar.
Remove the ETM inf	ormation from the title and tab	ole 165-15, and r	emove sections	Suggester	dRemedy				
165.7.1.3.4 and 165.	7.1.3.6.			Clarify	/ this is wrapp	ed phase, if	that is what is mean	nt.	
Proposed Response	Response Status O			Proposed	Response	Pospo	neo Status W		
				PROF					
C/ 165 SC 165.7.1	.3.2 P103	L 30	# I-22		OOLD AOOL		OII EE.		
Larsen, Wayne	CommScope	9		Addeo	the following	range stater	ment on P104 L18 "	for 0 < k <= K_N	I" for the H_k line in
Comment Type T	Comment Status X	-	TBD	equat	ion (165-22)				
If I understand well, t	the Nyquist frequency is 7031.	.25 MHz, and the	e reader is to measure	C/ 165	SC 165.7.	1.3.3	P 104	L 29	# I-24
4096 frequency point	ts at 2.5 MHz spacing. If this i	is not right, pleas	se clarify it. This means	Larsen, W	ayne		CommScope		
vet equation 165-22	cy points at 7030 and 7032.5 r	INHZ, but not at t on the frequenc	ne Nyquist frequency, v point at the Nyquist	Comment	Туре Т	Comn	nent Status X		TBD
frequency.			, point at the right duet	The p	rocedure in ste	ep 2b effecti	vely throws away all	I the frequency r	epsonse above the
SuggestedRemedy					st frequency.				
Adjust to provide a fr	equency point at the Nyquist f	frequency, or oth	erwise clarify.	Suggester	urkemeay	he frequent	v rooponoo noi-t- f	am Nuquiat t= 1	0.240 MUIT or don't
Proposed Response	Response Status O			meas	ure them.	ne irequenc	y response points fr	om nyquist to 1	0,240 MHZ of don (
				Proposed	Response	Respo	nse Status O		

TYPE: TR/technical required ER/editorial required GR/general	al 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: Page, Line	

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Pa **104**

Li **29**

IEEE P802.3cy D3.0 10G+ Auto Task Force Initial Sponsor ballot comments

C/ 165	SC 165.7.1.3.	3 <i>P</i> 104	L 45	# <mark>I-67</mark>		CI O	SC O)	P 105	L11	# I-74	
Jonsson, F	Ragnar	Marvell Semi	conductor, Inc.			Jonsson,	Ragnar		Marvell Sem	iconductor, Inc.		
Comment	Type E	Comment Status D			EZ	Commen	t Type	Е	Comment Status D			EZ
Equati power strang	ion 165-26 looks l of e. The relative le.	bad. The exponential is bett size of sigma and the sum	er represented a mation range ma	s a function than a likes the equation	a look	There Suggeste	e is an su dRemedy	bscript for	RE in equation (165-28)			
Suggested	Remedy					Chan	ge subsc	ript for RE	from k to r: "RE_r(k)"			
Use e	xp(j*(2*pi*k_n)/(2*	K_N)) and adjust the size o	f sigma.			Proposed	Respons	se	Response Status W			
Proposed	Response	Response Status W				PRO	POSED A	ACCEPT IN	N PRINCIPLE.			
PROP	OSED ACCEPT.					Chan	ged per s	suggested	remedy but comment is ag	gainst 165.7.1.3.3	3	
C/ 165	SC 165.7.1.3.	3 P 105	L 3	# I-90		C/ 165	SC 1	165.7.1.3.3	P105	L 12	# 1-44	
Jonsson, F Comment Equat Suggested Increa Proposed PROP	Ragnar Type E ion 165-27 looks a <i>Remedy</i> se the relative siz <i>Response</i> OSED ACCEPT.	Marvell Semi Comment Status D awkward. The of sigma compared to the Response Status W	conductor, Inc.	ts.	EZ	Zimmerm Commen typo (shoul Suggeste Chan Proposec PRO	an, Georg t <i>Type</i> obscures d be "r", i <i>dRemed</i> y ge RE su <i>I Respons</i> POSED A	ge T technical not "k" y ub k to RE s se ACCEPT.	Cisco Syster Comment Status D meaning of the equation - sub r on left hand side of E Response Status W	ns, Inc.,CME Cor there is no "r" - s Equation 165-28	nsulting,CommSc	ope,M EZ
C/ 165	SC 165.7.1.3.	3 <i>P</i> 105	L 9	# 1-25		C/ 165	SC 1	65.7.1.3.4	P105	L 24	# 1-75	
Larsen, W Comment typo ir Suggested In equ	ayne Type E subscript, appar <i>IRemedy</i> ation 165-28, cha Response	CommScope Comment Status D ently nge from RE(sub-k) to RE(s	sub-r)		EZ	Jonsson, Commen The H the re Suggeste	Ragnar t <i>Type</i> H sequencest of the <i>dRemedy</i>	E ces are inti section.	Marvell Sem <i>Comment Status</i> D roduced as singular, but a	iconductor, Inc. re always used a	s plural sequence	EZ es in
PROP	OSED ACCEPT.	Response Status W				Unan H_k" H_k,i	ge meas to "meas "	surements o	of the insertion loss which i	are represented as	a complex seque as complex seque	ences
						Proposed	l Respons	se	Response Status W			
						PRO	POSED A	ACCEPT.				

Pa **105** Li **24**

IEEE P802.3cy D3.0 10G+ Auto Task Force Initial Sponsor ballot comments

C/ 165 SC 165.7.1	I.3.4 <i>P</i> 105	L 24	# 1-76	C/ 165	SC 165.7.1.	3.4 <i>P</i> 105	L 40	# I-48
Jonsson, Ragnar	Marvell Semi	conductor, Inc.		Zimmerr	nan, George	Cisco Syste	ems, Inc.,CME Cor	sulting,CommScope,M
Comment Type E	Comment Status D			EZ Comme	nt Type TR	Comment Status D		
Confusing curly brac	ket in (165-30).			Inde	xed term N sub k	is not defined. Is this mean	nt to just be "N"? V	/hile there is a value
SuaaestedRemedv				on li	ne 49, there is no	indication of how that varies	xs with the index k.	
Remove the "{" in fro	ont of (165-30)			Suggest	edRemedy			
Proposed Response	Boononoo Statua W			Cha	nge N sub k to "N	" or some other variable, al	ternatively define a	new variable, or the
	Response Status W			inde	xing needed.			
FROFUSED ACCEP	-1.			Propose	d Response	Response Status W		
C/ 165 SC 165.7.1	I.3.4 P105	L 25	# I-26	PRO	POSED REJECT	Г.		
Larsen, Wayne	CommScope			N_k	differs from N and	d is a constant that represer	nts the number of fi	equency bins used in
Comment Type T	Comment Status D			dela	y estimation. It is	defined in the line immediat	ely after the equati	on.
Since capital letter H	l is used in 165.7.1.3.3, it is cor	nfusing to use it a	again here with a		nange to the drat	t needed.		
different meaning.				C/ 165	SC 165.7.1.	3.3 P105	L 40	# I-91
SuggestedRemedy				Jonsson	, Ragnar	Marvell Ser	niconductor, Inc.	
Use a different letter				Comme	nt Type E	Comment Status D		EZ
Proposed Response	Response Status W			Equ	ation 165-32 woul	d benefit from better format	ting.	
PROPOSED ACCEP	PT IN PRINCIPLE.			Suaaest	edRemedv			
See comment #i-75				The with	subscripts and su	uperscripts for the summatic gma summation symbols	on symbols need to	be smaller and aligned
C/ 165 SC 165.7.1	I.3.4 P105	L 36	# <u>I-27</u>	Propose	d Response	Response Status W		
Larsen, Wayne	CommScope			PRO	POSED ACCEP	T.		
Comment Type T	Comment Status D							
This is an unnecessa	arily restrictive and fancy way o	f determining the	e delay, subject to	C/ 165	SC 165.7.1.	3.4 P105	L 42	# I-80
errors and misunder	standing. Also, delay is depend	dant on frequenc	y, you might conside	r Jonsson	, Ragnar	Marvell Ser	niconductor, Inc.	
determining it at eac	h frequency point, instead of ap	oplying this estim	ate of the delay	Comme	nt Type T	Comment Status D		
	chey.			The	calculations in (1	65-32) relay on "unwrap" in	(165-31). If this unv	vrapping can be error
Suggesteakerneay	with 'Determine the delay by an	· · · · · · · · · · · · · · · · · · ·	ib o d'	pror	e, if it is not done	carefully, especially at high	frequencies on lor	ig cables. The
	with Determine the delay by an	y convenient me	lnou	unw	rapping and other	outliers, and make the corr	esponding correction	on to the calculations.
Proposed Response	Response Status W			Suggest	edRemedy			
PROPOSED REJEC	CT.			bbA	exception handlin	na for outliers in equation (1)	35-32)	
The equation may lo	ok complicated partly because	of its less than d	esirable formattina.	Dramon	d Deenenee		00 02j.	
Otherwise, it is a sim	ple linear fit to the phase. It is	one of the widely	used methods to	Propose	u response	Response Status W		
estimate the delay. T	This delay represent the length	of the cable and	it is frequency	PRO	POSED REJECT	l.		
independent. As suc	in, no changes to the draft are r	ieeded at this tin	ie.	The	proposed change	in the comment does not c	ontain sufficient de	tail so that the task
				grou	p can understand	I the specific changes being	suggested by the	commenter.

TYPE: TR/technical required ER/editorial required GR/gener	al required T/technical E/editorial G/general	Pa 105	Page 25 of 31
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C/ 165	SC 165.7.1.3	.4 P105	L 42	# I-79	C/ 165	SC 165.7.1.	3.4	P 105	L 43	# I-46
Jonsson, F	Ragnar	Marvell Semic	onductor, Inc.		Zimmerm	an, George		Cisco Systen	ns, Inc.,CME Co	nsulting,CommScope,M
Comment	Туре т	Comment Status D			Comment	t Type E	Commer	nt Status D		EZ
Equati equati	ion (165-32) is us ons. However, th	ed to calculate delay, which i ere is no metric to evaluate if	s then key com the calculated	ponent of following delay is accurate or	equat case	tion typo - lower (pi).	case "pi" is m	neant in the deno	ominator, not a p	roduct operator (upper
1easu				be delected.	Suggeste	dRemedy				
Suggested	Remedy	atondard array of the line fit	and act on upp	or limit on the allowed	chang	ge "pi" in denomi	nator of equa	ation 165-32 to lo	ower case.	
standa	ard error if the ET	M metric is to be used.	and set an upp		Proposed	l Response	Respons	e Status 🛛 W		
Proposed	Response	Response Status W			PRO	POSED ACCEPT	Г.			
PROP	OSED REJECT.				C/ 165	SC 165.7.1.	3.4	P 105	L 48	# <mark>I-51</mark>
The pi group	oposed change i can understand t	n the comment does not con he specific changes being su	tain sufficient de	etail so that the task commenter.	Zimmerm <i>Commen</i> i	an, George t <i>Type</i> T	Commei	Cisco Systen nt Status D	ns, Inc.,CME Co	nsulting,CommScope,M
C/ 165	SC 165.7.1.3	.4 P105	L 42	# I-78	Low f parar	requency limit of neters. Likely to	100 MHz is i b high for ech	much higher thar	n specification of bitrary.	other link segment
Jonsson, F	Ragnar	Marvell Semic	onductor, Inc.		Suaaeste	dRemedv	-		·	
Comment	Туре Е	Comment Status D			Chan	ge 100 MHz to 1	0 MHz and 4	.1 GHz to 4.01 G	Hz.	
Equat pre-co	on (165-32) is m mputed and repl	ore complex than it has to be aced by function of K_S and	, since sum of k N_S	and sum of k can be	Proposed	l Response	Response	e Status W		
Suggested	Remedy				PRO	POSED REJECT				
Repla	ce the sum of k a	nd sum of k^2 with fixed term	s of K_s and N	_k	The f	requency range i	s chosen to l	be far away from	band edges. Th	e lower limit does not
Proposed	Response	Response Status W			have	to coincide with	he lower limi	t used in IL mea	surment. It shoul	d ideally be much
PROP	OSED REJECT.				highe FTM	r to avoid any ph	ase variation	and to effects of changes of changes of the set of changes of the set of changes of the set of the	ther than latency	of the channel. There
The pr group	oposed change i can understand t	n the comment does not con he specific changes being su	tain sufficient de	etail so that the task commenter.	indica No ch	ation of the proble nange to the draf	em with this f t needed.	requency range.		
C/ 165	SC 165.7.1.3	.4 P105	L 42	# I-77						
Jonsson, F	Ragnar	Marvell Semic	onductor, Inc.							
Comment Improp	<i>Type</i> E per capitalization	Comment Status D of pi in (165-32)		EZ						
Suggested Chang	<i>IRemedy</i> je capitalized pi i	n (165-32) to lower case pi								
Proposed PROP	Response OSED ACCEPT.	Response Status W								

Pa **105** Li **48**

C/ 165 SC 165.7.1.3.4	P 105	L 49	# 1-49	C/ 165	SC 165.7.1	.3.4	P106	L 6	# 1-28
Zimmerman, George	Cisco System	s, Inc.,CME Co	onsulting,CommScope,M	Larsen, W	/ayne		CommScope		
Comment Type T C	Comment Status D			Comment	Туре Т	Commen	t Status D		
"With k_s = 40, and N_k = 1 and N_k are constants used to table 165-15.	1600, the linear fit is calc d in the calculation? If so	culated…" - is th o, they should b	nis trying to say that k_s be explained and added	It is il delay secor	ogical and dan A short link w dary reflections	gerous to throw rith low IL cable s that might be	away the part c , and highly refle harmful, which t	of the tail that is active connector his ignores.	past the round trip rs, might have
SuggestedRemedy				Suggeste	dRemedy				
Add explanatory text for the there (apologies, the draft p good suggestion). Change in Table 165 15 the linear f	meaning of k_s and N_ rovides insufficient expla sentence at P105 L49 to	k to Table 165- anation for this o read "Using th	15 and add these values commenter to offer a ne values of k_s and N_k	Delet altern There	e the 3rd row of ative would be, are other alter	f equation 165- increase L(sub natives.	34 and apply the b-e) to twice the	e second row for RT delay, or to	[·] all m < n. An 1.2 times the RT delay.
				Proposea	Response	Response	Status W		
Proposed Response Re	esponse Status W			PRO	POSED REJEC	τ.			
Changed sentence at P105 the linear fit" Cl 165 SC 165.7.1.3.4 Zimmerman, George Comment Type TR C IF the echo response is trur estimates, not the minimum SuggestedRemedy	L49 to read "Using the v P106 Cisco System Comment Status D Incated, it should be trunc a, and the floor function f	L 2 L 2 Las, Inc.,CME Co cated to the MA urther minimize	# <u>1-45</u> msulting,CommScope,M XIMUM of the two delay s it.	The E that th not re functi As su metric reflec estim is not (and a No ch	TM is a measure very near-en- presentative of on of MDI RL work, these majors of micro-reflection and any ottation is on the lation is on the lok to over-estimation other potentiange to the dramatical structure of the dramatic	ire of the behaves and and very far- what is seen in which are not ind r reflections sho ections. The true her potential or low side as we mate the length tial ones beyon aft needed.	vior of micro-refle end major reflec in real deploymer cluded in isolate build ideally be e incation is intend les due to double may only lose a o which woud the ind that) in the ec	ections and not tions of a chann nt. Those major d measurement xcluded from th ed to eliminate e reflection. It is small portion of en include the fa ho pulse respor	major reflections. Note lel measurement are reflections are also s of a cable harness. e calculatio of any the far-end major ok if the length micro-reflections. But it ir-end major refelection use.
change minimum to maximu	um and floor to ceil in eq	uation 165-33.		C/ 165	SC 165.7.1	.3.4	P 106	L 13	# 1-50
Proposed Response Re	esponse Status W			Zimmerm	an, George		Cisco System	ns, Inc.,CME Co	nsulting,CommScope,M
PROPOSED REJECT.				Comment	Type TR	Commen	t Status D		
The ETM is a measure of th that the very near-end and v not representative of what is function of MDI RL which ar	ne behavior of micro-refle very far-end major reflec s seen in real deploymer re not included in isolate	ections and not tions of a chanı nt. Those major d measuremen	major reflections. Note nel measurement are reflections are also ts of a cable harness.	"to ca single The c that "	lculate the asso number, it is d lefinition for ET m" varies the pa	ociated REM. T lefined as a fun M needs to spe artial response	he ETM(m) is th ction of an argun cify the value of substituted for h	his REM calculation ment in equation k to which ETM n_n) It appears	ted for…" REM is not a n 165-29. (REM(k)). 1(m) relates (we know to be "Ndiscard_etm".

SuggestedRemedy

Replace text after "to calculate" in step 8 with "to calculate each ETM(m) using the value of g \sub n \sup m as the value of REM(k) in Equation 165-29 evaluated at k equal to Ndiscard etm."

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Proposed Response Response Status W PROPOSED ACCEPT.

As such, these major reflections should ideally be excluded from the calculatio of any metric for micro-reflections. The truncation is intended to eliminate the far-end major

estimation is on the low side as we may only lose a small portion of micro-reflections. But it

is not ok to over-estimate the length which woud then include the far-end major refelection

reflection and any other potential ones due to double reflection. It is ok if the length

(and any other potential ones beyond that) in the echo pulse response.

No change to the draft needed.

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C/ 165 SC 10	65.7.1.3.4	P106	L13	# 1-89	C/ 165	SC 165.7.1.3.4	P106	L 30	# I-47
Jonsson, Ragnar <i>Comment Type</i>	E Comm	Marvell Semico ent Status D	onductor, Inc.		Zimmerm Comment	an, George <i>Type</i> TR Co.	Cisco System mment Status D	ns, Inc.,CME Co	nsulting,CommScope,M
It is not clear w SuggestedRemedy Change "evalua Proposed Respons PROPOSED A	hat k value in REI ated at Ndiscard_ e Respor CCEPT.	M(k) to use for the E etm" to "evaluated a use Status W	TM(m) t k=Ndiscard_et	m"	The t create exten link s minin of the comn	uncation of the echo res es the potential for missi d the resulting time dela agment delay. Additiona ized - complicated and issues noted make the renters opinion.	sponse based on delay ng reflections due to r y of the echo response ally, delay dispersion o enabled by the 100 M ETM less useful and r	y length is funda nismatch of shor e relative to the of low frequency Hz cutoff on the more problemation	mental to the ETM and t segments which can mean-square estimated echo is assumed to be measurement of IL. All c than it is worth, in this
C/ 165 SC 10	65.7.1.3.5	P106	L16	# I-21	Suggeste	dRemedy			
Larsen, Wayne		CommScope			Delet	e 165.7.1.3.4 and 165.7. e last row of Table 165-	1.3.6. Change title of 5 (Ndiscard etm). De	165.7.1.3.2 to R lete PICS LSC4	lesidual echo metric. (P128 L24)
Comment Type This document acceptance crit	T Comm specifies a partici eria based on it.	ent Status D ular way of obtaining It is usual to specify	a time respons acceptance bas	e, then a numerical sed on the physical	Proposed PROI	Response Res POSED ACCEPT.	ponse Status W		
phenomenon, r graphical illustr	not based on a pa ation of the accep	rticular way of meas stance criteria like fig	uring it. Also, it ure 165-35.	would benefit from a	C/ 165	SC 165.7.1.3.5	P106	L 37	# I-69
SuggestedRemedy	•	Ū			Jonsson,	Ragnar	Marvell Semi	conductor, Inc.	
In 165.7.1.3.5, associated limit	describe the retur ts. Provide a grap	n loss in energy retu phical illustration. Th	rned per time ir ie present text o	nterval, and the can be retained as an	Comment The f	<i>Type</i> E Contracting of equation 16	mment Status D 5-36 needs improvem	ent	EZ
Proposed Respons PROPOSED R	e Respor EJECT.	nse Status W			Suggeste The F m for formu	dRemedy EM_Limit should be left the upper line should be la.	aligned to the curly b better separated , so	racket, for both o that it is a limit a	conditions. The range of and not part of the
The proposed of group can unde	change in the com erstand the specifi	ment does not conta ic changes being sug	ain sufficient de ggested by the o	tail so that the task commenter.	Proposed	Response Res	ponse Status W		
C/ 165 SC 1/	65.7.1.3.5	P106	L17	# 1-29	PROI	POSED ACCEPT.			
Larsen Wavne		CommScope		120	C/ 165	SC 165.7.1.3.5	P106	L 41	# I-68
Comment Type typo in reference	E Comm	ent Status D		Ε	Z Jonsson, Comment	Ragnar <i>Type</i> E Co.	Marvell Semi mment Status D	conductor, Inc.	
SuggestedRemedy					The s	tatement "REM_Limit is	the limit of REM as de	efined in Equatio	n (165–35)" is
Change the ref	erence 165.7.3.2	to 165.7.3.3. Also o	n line 33, chang	e 165.7.1.3.2	contu	sing, because REM_LIN	nit is not defined in 16	0-30.	
to165.7.1.3.4.	_	_			Clarif	the definition of REM	Limit		
Proposed Respons	e Respor	ise Status W			Proposeo	Response Res	nonse Status W		
PROPOSED A	CCEPT.				PROI	POSED REJECT.			
					The p group	roposed change in the c can understand the spe	comment does not con ecific changes being si	ntain sufficient de uggested by the	etail so that the task commenter.
TYPE: TR/technica	I required ER/edit	torial required GR/g A/accepted R/reject	eneral required	T/technical E/editoria	al G/general W/written C/close	d U/unsatisfied Z/witho	Pa 10 Irawn <i>Li</i> 41	D6 1	Page 28 of 31 1/13/2023 10:43:5

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

1/13/2023 10:43:34 AM

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C/ 165 SC 165.7.2.1 P108 L24 # [-52	C/ 165 SC 165.9.2.2 P112 L # I-100
Zimmerman, George Cisco Systems, Inc.,CME Consulting,CommScope,M	Rolfe, Benjamin Blind Creek Associates
Comment Type TR Comment Status D Lower limit of specification for PSANEXT is impractical and out of step with other parameters SuggestedRemedy	Comment Type T Comment Status D "In addition, the system may need to comply with more stringent requirements for the limitation of electromagnetic interference" is using "may" in a statement of requirement that is out of scope of this standard. Don't need the state the obvious anyway.
Change 1 MHz lower limit to 10 MHz	SuggestedRemedy
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.	Proposed Response Response Status W PROPOSED ACCEPT.
Changed 1 MHz lower limit to 10 MHz and updated Figure 165-38	C/ 165 SC 165.9.2.2 P112 L21 # 1-101
CI 165 SC 165.7.2.2 P109 L18 # [1-53] Zimmerman, George Cisco Systems, Inc.,CME Consulting,CommScope,M Comment Type TR Comment Status D Lower limit of specification for PSAACRF is impractical and out of step with other parameters SuggestedRemedy Change 1 MHz lower limit to 10 MHz Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. V V V	Rolfe, Benjamin Blind Creek Associates Comment Type T Comment Status This sentence uses 'may' incorrectly. This could be "can" but really this sentence contains no useful information so best to delete it. SuggestedRemedy Delete sentence Proposed Response Response Status W PROPOSED ACCEPT.
Changed 1 MHz lower limit to 10 MHz and updated Figure 165-39	Cl 165 SC 165.9.2.2 P112 L 27 # [-13
Cl 165 SC 165.8.2.1 P 109 L 21 # [-54] Zimmerman, George Cisco Systems, Inc.,CME Consulting,CommScope,M Comment Type T Comment Status D Lower limit of specification for MDI return loss is out of step with other parameters SuggestedRemedy Change 5 MHz lower limit to 10 MHz Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.	Grow, Robert RMG Consulting Comment Type E Comment Status D E In general, we should refer to implementations, not implementers. SuggestedRemedy and PHY implementations conform" Proposed Response Response Status W PROPOSED ACCEPT.
Changed 5 MHz lower limit to 10 MHz on page 110 line 21 and updated Figure 165-40	

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C/ 165	SC 16	5.10	P112	L 32	# I-140	C/ 165	SC	165.10	P	112	L 44	# I-141
Ran, Adee	Э		Cisco Systems	, Inc.		Ran, Adee	9		Ciso	o Syster	ns, Inc.	
Comment	Туре 1	ΓR	Comment Status D			Comment	Туре	TR	Comment Statu	s D		
"Tran: prese meas unit o These expos encoc In oth delay: easily It may "meas Suggester Chan Proposed PROF	smit data c ntation of t i data by th e delays ca sed and the ding and sc er PHY typ s, but there y be accep sured", bec dRemedy ge "is meas POSED AC	delay is r the same the input he PHY t annot be e data pr crambling bes, the s e is no se ernally o table to cause the sured" to cause The CCEPT.	neasured from the input of a e unit of data by the PHY to to of a given unit of data at the o the 25GMII" measured separately in prace esented at the 25GMII is not g operations. specification is indeed for the eparate definition; the reasor r using test equipment, using _define_ the delays in each de ey cannot be measured separate o "is defined", twice in the qui <i>Response Status</i> W	given unit of c he MDI. Recei MDI to the pr etice; the 25GM easy to identi a sum of the tr is that the su g a loopback c direction, but n arately.	data at the 25GMII to the ive data delay is resentation of the same MII is typically not fy on the MDI due to the ansmit and receive data m_is_ measurable onfiguration. not using the word	The d long F multip actual This n layer a Add to at the power The la potent Suggested Provic Provic Provic Proposed PROF	elay lim RS-FEC le block delays neans t alone. T o that th fundan consu trial/tech dReme de an a de an o and la Respo POSED	hits specifie block size ks, required s of real implic the practica This is usual the strong re- nental frequent mption of s ency and h nnical feasi dy nalysis of e verview of t tency are a nse REJECT.	ed in Table 165-16 e with large overhead d in practice to miti- plementations will a ally not considered eceiver required for- uency, with PAM4 such receivers been high power, combin- ibility combination for expected power. the targeted applic acceptable for thes <i>Response Status</i>	are very ad (RS-F gate erro not be m vill be ab attractiv channel modulatin n assess ed, raise or the ne ations of e applica s W	large; I assume EC(936,846)!), or bursts. Therefuch smaller than out 10 microsecter s with insertion on and full-duple ed? doubts about be w port type. 25GBASE-T1 a tions.	they are a result of and the interleaving ore, it is likely that th the specified maxin conds due to the phy loss exceeding >30 ex signaling; Has the road market
						rne p group	ropose can un	d change in Iderstand t	h the comment doe he specific change	s not col s being s	suggested by the	e commenter.
						C/ 165A	SC	165A.1	Р	132	L 30	# <u>I-57</u>
						Zimmerma	an, Geo	orge	Ciso	o Syster	ns, Inc.,CME Co	onsulting,CommSco
						Comment	Туре	т	Comment Statu	s D		
						The cl confus conne	lause 1 sing in ctors a	65 link seg context of t nd length a	gment doesn't neec the figure, suggest are requirements.	further ong a link	definition here, a longer than 11r	and the parenthetical n… or that the
						Suggested	dReme	dy				
						delete	e "(up to	o 2 in-line c	connectors and up	o at leas	t 11m length)"	
						Proposed PROF	Respo POSED	nse ACCEPT.	Response Status	5 W		
						PROF	OSED	ACCEPT.				

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IEEE P802.3cy D3.0 10G+ Auto Task Force Initial Sponsor ballot comments

C/ 165A	SC 165A.1	P13	2 L 34	. #	1-70
Jonsson, R	agnar	Marvell Semiconductor, Inc.			
Comment T	Гуре Е	Comment Status	D		EZ
The phrase "at least" should be removed in Figure 165A-1. Otherwise, the cable can be more than 11m, which is not the intention and this would increase the echo canceler complexity					
Suggested	Remedy				
The wo	ords "at least" sl	hould be removed			
or replace	the text in the	paranthesis with "see	165.7"		
Proposed F	Response	Response Status	w		
PROP	OSED ACCEPT	IN PRINCIPLE.			
Remov	ed "at least"				

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