C/ 000 SC 0 P L	# 190	CI 000	SC O	P 28	L 48	# 83
Ansiow, Pere Clena		Remein, Du	ane	Huawei Tech	noiogies	
Comment Type TR Comment Status D The current draft contains two different variants of 25 Gb/s Ethernet we insertion/deletion has to be performed in order to convert from one type OTN will have to do) due to one containing CWMs and the other not. While the exact requirements of the objective: "Provide appropriate sup somewhat vague, I do not consider that this has been met. Suggested Remedy	orn, BT here idle e to the other (at the oport for OTN" are	I questi Have y positior of spee of time Here a	ype IR on the wisdor ou enquired if o yet to make ds rather thar (AEO). e some locati	to of changing from a list of spe 400 Gb/s will use this same fu such a determination? If not it globally assert that the function ons I noticed this issue (search	eds to " xx Gb/s nction in each o might be a betto on will be useful n for "Gb/s or gr	Ist of speeds, CC s or greater speed". case? Is 400 G even in a er idea to extend the list I from now utill the end reater"):
Add CWMs to all 25 Gb/s Ethernet PHYs as per the proposal in http://www.ieee802.org/3/by/public/Sep15/trowbridge_3by_01_0915.pd	f	Scl 30.3.2. 30.5.1.	pg In 1.5 28 48 1.4 30 30			
Proposed Response Response Status W PROPOSED REJECT. Pending presentation and task force discussion. See comments 136, 137, 138, and 139.		45.2.1.: 78.1.3.: 78.1.3.: 78.1.3.: 78.5.2 78.5.2 Other in	2.3 35 39 3.1 73 38 (in 3.1 73 42 (in 3.1 73 47 (in 77 23 (in r 77 26 (her stances of th	this case the issue exist in the this case the issue exist in the this case the issue exist in the ew title "and greater-speed") e the implication is that 25G ca s issue may exist in the draft.	origional text) origional text) origional text) an be extend wi	th CAUI-4)
C/ 000 SC 0 P L	# 233	Suggestedl	Remedy			
Donahue, Curtis UNH-IOL		Rather	than changing	to an "or grater" construct ext	end these list b	y adding 25 Gb/s.
Comment Type E Comment Status D There are only two instances (that I found) in text (not including subclar of "PMD Transmit function" (note the captial "T"). 112.5, pg 185, ln 50 112.5, pg 185, ln 50 112.5, pg 186, ln 51 Same goes for "PMD Receive function" 112.5, pg 185, ln 50 112.5, pg 185, ln 50 112.5.3, pg 187, ln 6 All other instances are lowercase. SuggestedRemedy Make consistent throughtout draft. Either capitalize the "t"/"r" or make " Proposed Response Response Status PROPOSED ACCEPT IN PRINCIPLE. Use "PMD transmit function" throughout in place of "PMD Transmit function" also, use "PMD receive function" throughout in place of "PMD Received"	bucket use title or in PICS) "T"/"R" lowercase. ction".	Proposed F PROPC See co	esponse DSED ACCEF mments 179 a	Response Status W T IN PRINCIPLE. nd 135.		

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

C/ 000 SC 0

C/ 000 SC 0	P 45	L 6	# 82	C/ 001	SC 1.1.	3.2	P 25	L 21	# 152
Comment Type TR Here your are defini always a bad idea of	Comment Status D ng one register in two places wi	th different defines	<i>two definitions</i> ntions. Dual definition is ise idea	Comment 7 25GAU	ype T is different used for c	nt for a	Comment Status D chip to module and chip to ch	ip. Calling it a	25GAUI definition single interface that
108.6.9 FEC_symbol FEC_symbol_error_ corrected when FEC in 45.2.1.106 (1.210	ol_error_counter counter is a 32-bit counter that 2_align_status is true. This varia , 1.211).	counts once for able is mapped	r each 10-bit symbol to the registers defined	Suggested Replace with "Ty and one	Remedy e "The 250 vo version e intended	GAUI i s of 2 for us	s intended for use as a chip-to 5GAUI are specified one inter as a chip-to-module interface	o-chip or a chi nded for use as ce."	p-to-module interface". s a chip-to-chip interface
91.6.11 FEC_symbol FEC_symbol_error_	ol_error_counter_i counter_i, where i=0 to 3, is a 3	2-bit counter th	at counts once for each	Proposed R PROPC	esponse ISED REJ	IECT.	Response Status W		
10-bit symbol corrected on FEC lane i when fec_align_status is true. These variables are mapped to the registers defined in 45.2.1.106 and 45.2.1.107 (1.210 to 1.217). SuggestedRemedy				The wo 2015). I made to	ding is co f changes the defin	onsiste are m itions	ent with the definitions for XLA nade to the definition of 25GA for XLAUI and CAUI.	UI and CAUI i UI similar chai	n P802.3bx D3.2 (802.3- nges should also be
SuggestedRemedy In 45.2.1.106 remove the reference to 108.6.9 In 108.6.9 change the wording to: "FEC_symbol_error_counter is defined in 91.6.11 for i=0. This variable is mapped to the registers defined in 45.2.1.106 (1.210, 1.211)."				It is sug request	gested that against 8	at the 02.3-2	commenter address this for X 2015 and the result can be use	(LAUI and CAI ed in P802.3by	UI as a maintenance y for 25GAUI.
Proposed Response	Response Status W			Cl 001 Remein Du	SC 1.3		P 25 Huawei Techn	L 35	# 67
PROPOSED ACCE	PT IN PRINCIPLE.			Comment 7				ologies	hunkot
Rename FEC_symb	ool_error_counter to FEC_symb	ol_error_counte	er_0 in 108.6.9 and all	In Draft	3.2 of 802	2.3bx t	the removed footnote is 18 no	t 16	DUCKEL
Replace the text in 1	108.6.9 with:			SuggestedF change	Remedy to 18				
"FEC_symbol_error for each 10-bit symb mapped to the regis this clause, all symb counter."	_counter_0, as defined in 91.6.1 ool corrected in lane 0 when FEG ters defined in 45.2.1.106 (1.21) ools are assigned to lane 0 and a	11, is a 32-bit co C_align_status 0, 1.211). For tl all symbol error	ounter that counts once is true. This variable is he RS-FEC defined in s are counted by this	Proposed F PROPC	esponse ISED ACC	CEPT.	Response Status W		

C/ 001 SC 1.3

C/ 001 Law, David	SC 1.4.64a	<i>Р</i> 29 НР	5 L 46	# 207	<i>Cl</i> 001 Remein, D	SC 1.5 Duane		<i>Р</i> 26 Нuawei Те	L 35 echnologies	# 68
Comment Should 1.4.64 Suggested Chang 1.4.64 Proposed I	<i>Type</i> E I this item be place '10/10G-EPON'. <i>Remedy</i> e subclause num c to read 1.4.64a <i>Response</i>	Comment Status see after 1.4.77 '10 C ber 1.4.64a to read and 1.4.64d to read Response Status	D Sigabit Sixteen-Bit Inte 1.4.77a and 1.4.64b to 1.4.64b. W	bucket rface (XSBI)' rather than read 1.4.77b. Change	Comment If you Suggestee Swap Proposed PROF	Type E want these dRemedy 25GMII and Response OSED ACC	Col inserted in a I 25GAUI Res EPT IN PR	mment Status D alphabetical order t ponse Status W INCIPLE.	hey should start in	bucket alphabetical order
PROP Chang 1.4.64	OSED ACCEPT e subclause num a to 1.4.77a	IN PRINCIPLE.			Swap <i>Cl</i> 030 Zimmerma	the order of SC 30.2 an, George	25GMII and	d 25GAUI. <i>P</i> 28 CME Con:	L 48 sulting, Inc.	# 179
1.4.640 1.4.640 1.4.640 1.4.640 1.4.640 1.4.640 1.4.640	c to 1.4.64a d to 1.4.64b e to 1.4.64c i to 1.4.64d g to 1.4.64e h to 1.4.64f to 1.4.64g				Comment "For o presu (400G the so (note chang	Type EF peration at mes choices b/s, possibl ope of this p that edits on e below is n	R Con 10 Gb/s (ins s made at of e 50 Gb/s, 2 project. n line 52 to g nade)	mment Status D eert 'or greater speed ther speeds under 200 Gb/s, etc.). ad genericize the medi	ed') (strikeout '40 G development or yet ding in 25Gb/s spe ia independent inte	<i>list of speeds, CC</i> 6b/s, and 100 Gb/s')" t to be balloted eed only remains within orface are still OK if the
<i>Cl</i> 001 Remein, D	SC 1.4.64h uane	P 2 0 Huaw	5 <i>L</i> 21 ei Technologies	# 77	[also:	page 30 line	e 30, page 3	35, line 39,]		
Comment ⁷ Perhap not be fiber", ¹ Is this bi-dired	Type T by this is more of found in the stan "duplex singl mod a special two stractional capabilitie	Comment Status a question but what dard (D3.2 802.3bx; de fiber", "duplex SM anded fiber? Or perha s?	D is a "duplex multimode looked for "duplex mu F fiber", and "duplex S aps it is a single strand	duplex definition, BTI e fiber"? The term could ltimode fiber", "duplex SMF" all to no avail). d of fiber that has special	Suggested Delete specif "For o Editor	e inserted 'o ic list: peration at ' to search for Response	r greater spo 10 Gb/s, (in: pr similar ins <i>R</i> es	eed', reverse strike sert 25 Gb/s), 40 G stances of "or great	out, and add in 25 b/s, and 100 Gb/s, ter speed" and corr	Gb/s speed to read as a ," rect the same.
Suggested Replac	Remedy e "duplex" with "s	single"			PROF	POSED ACC	EPT IN PR	INCIPLE.		
Proposed I PROP Delete	Response OSED ACCEPT "a duplex".	Response Status IN PRINCIPLE.	w		Make Page Page Page Page	suggested o 28 line 48 30 line 30 35 line 40 77 line 24 (s	change with see also res	editorial license at ponse to comment	following places: 135)	
					See c	omments 13	35 and 83.			

C/ 030 SC 30.2.1.5 Page 3 of 63 2015-09-09 3:48:35 PM

C/ 030 SC 30.3.2.1.2	2 <i>P</i> 28 HP	L 10	# 205	C/ 030 Law, David	SC 30.3.2.1.	5 <i>P</i> 28 HP	L 52	# 214
Comment Type E The IEEE P802.3bw ar modifying this subclaus	Comment Status D mendment, which is likely to se which should be noted in t	publish before th he editing instru	<i>Bucket</i> iis draft, is also ctions.	Comment T Not sure 81-3 is I	ype T why the refer been removed	Comment Status D ences to the encoding for "Re by this draft.	eceive Error" in	Bucket Table 46-4 and Table
SuggestedRemedy Suggest the editing ins changed to read 'Insert by IEEE Std 802.3bw-2	truction for 30.3.2.1.2 'aPhy1 t the following new entry in "/ 201X) before the entry for 400	Type' and 30.3.2 APPROPRIATE S GBASE-R:'.	1.3 'aPhyTypeList' be SYNTAX" (as modified	SuggestedF Sugges changed Table 4	<i>emedy</i> t that ' to indi d to read ' to 6-4 and Table	cate "Receive Error" on the r indicate "Receive Error" on th 81-3).'	nedia independ ne media indep	ent interface.' be endent interface (see
Proposed Response PROPOSED ACCEPT	Response Status W			Proposed R PROPC	esponse ISED ACCEPT	Response Status W		
C/ 030 SC 30.3.2.1.8 Marris, Arthur	5 P 28 Cadence Des	L 31 sign Syste	# 50	C/ 030 Geoff Thom	SC 30.3.2.1.	5 <i>P</i> 29 GraCaSI S.A	L 1	# 234
Comment Type E There is too much lega	Comment Status D		bucket	Comment T This line present	ype E e discusses "co in half-duplex	Comment Status D Dilisions" unconditionally when mode.	eas collisions a	<i>legacy text</i> are only
SuggestedRemedy Prune the text to includ legacy text to show the Also do the same for 3 Proposed Response PROPOSED ACCEPT	e only the text that has been context of the modified text. 0.5.1.1.2, 30.5.1.1.4, 30.5.1. <i>Response Status</i> W	n modified and a 1.17 and 30.5.1.	minimmum amount of 1.18	SuggestedF CHANG only ond shall no TO REF valid Ca counter	Remedy E THE TEXT the per valid Ca t increment.;" AD:"At all spee irrierEvent and shall not incre	THAT READS: "At all speeds rrierEvent and if a collision is ds this counter shall be incre if a collision is present in hal ment.;"	this counter sh present this co mented only on f-duplex mode,	nall be incremented ounter nce per this
See also comments 18	3 and 208			Proposed R	esponse	Response Status W		
Cl 030 SC 30.3.2.1.8 Remein, Duane	5 P 28 Huawei Tech	L 31 nologies	# 69	The sug P802.3t	gested change	e is to legacy text in the base	document and	so it is out of scope for
Comment Type E For consistency with of SuggestedRemedy Remove "ATTRIBUTE" Proposed Response	Comment Status D ther sub-clauses of Cl 30 it w " Response Status W	rould be better to	Bucket	As the o modifica	commenter not ation is redund	es, collisions can only occur ant.	n half-duplex m	node; so the suggested
PROPOSED ACCEPT								

C/ 030 SC 30.3.2.1.5 Page 4 of 63 2015-09-09 3:48:35 PM

C/ 030	SC 30.5.1.1.15	P 31	L7	# 227
Law, David		HP		

Comment Type TR Comment Status D

Subclause 110.6 'FEC mode' and 111.6 'FEC mode' both list three FEC modes, 'RS-FEC Mode', 'BASE-R FEC mode' and 'no-FEC mode' and then state 'Each FEC sublayer can be either enabled or disabled, according to AN resolution or management control.'. Based on this it would seem that the 'aFECAbility' attribute defined in subclause 30.5.1.1.15 and the 'aFECmode' attribute define in subclause 30.5.1.1.16 need to be updated.

SuggestedRemedy

[1] Suggest that the aFECAbility behaviour be updated to read:

A read-only value that indicates if the PHY supports an optional (see 65.2 and Clause 74) or mandatory (see Clause 74, 91 and 108) FEC sublayer for forward error correction.

[2] Suggest that the aFECmode enumerations be updated to read:

unknown initializing, true state not yet known disabled FEC disabled BASE-R enabled BASE-R FEC enabled RS-FEC enabled RS-FEC enabled enabled FEC enabled

[3] Suggest that the aFECmode behaviour be updated to read:

A read-write value that indicates the mode of operation of the FEC sublayer for forward error correction (see 65.2 and Clause 74, 91 and 108).

A GET operation returns the current mode of operation of the PHY. A SET operation changes the mode of operation of the PHY to the indicated value. The enumerations 'BASE-R enabled' and 'RS-FEC enabled' are only used for 25GBASE-CR, 25GBASE-CR-S, 25GBASE-KR and 25GBASE-KR-S PHYs where operation in the no-FEC mode maps to the enumerations 'disabled', operation in the BASE-R FEC mode maps to the enumerations 'BASE-R enabled', and operation in the RS-FEC mode maps to the enumerations 'RS-FEC enabled' (see 110.6 and 111.6).

When Clause 73 Auto-Negotiation is enabled for a 25GBASE-R PHY, a SET operation is not allowed and a GET operation maps to the variables FEC_enable in Clause 74 and FEC_enable in Clause 108. When Clause 73 Auto-Negotiation is enabled for a non-25GBASE-R PHY supporting Clause 74 FEC a SET operation is not allowed and a GET operation maps to the variable FEC_enable in Clause 74.

If a Clause 45 MDIO Interface is present, then this attribute maps to the FEC control register (see 45.2.8.3) for 1000BASE-PX, to the BASE-R FEC control register (see 45.2.1.93) and the 25G RS-FEC Enable bit in the RS-FEC control register (see 45.2.1.01) for 25GBASE-R, or the FEC enable bit in the BASE-R FEC control register (see 45.2.1.93).;

Proposed F PROP	Response OSED ACCEPT.	Response Status	w		
C/ 030	SC 30.5.1.1.1	7 P 3	51	L 17	# 85
Laubach, N	lark	Broad	dcom	Corporation	
Comment 7	Туре Е	Comment Status	D		Bucke
Consid "value<	er making "10 Gt <dash>units", etc.</dash>	o/s" non-breaking. E . in the draft where i)o san it mak	ne for any similar "val es visual sense.	ue <space>units" or</space>
Suggested	Remedy				
As per	comment.				
Proposed F	Response	Response Status	w		
PROP	OSED ACCEPT.				
C/ 030	SC 30.5.1.1.2	P 2	9	L 11	# 206
Law, David		HP			
Comment T	Туре Е	Comment Status	D		Bucke
The IE modify the edi	EE P802.3bw am ing the "APPROF ting instructions.	endment, which is PRIATE SYNTAX" s	ikely t ection	to publish before this on of this attribute which	draft, is also n should be noted in
Suggested	Remedy				
Sugges change modifie	st the editing instr ed to read 'Insert ed by IEEE Std 80	ruction for aMAUTy the following new ei 02.3bw-201X) befor	pe "Af htries e the r	PPROPRIATE SYNT/ in "APPROPRIATE S entry for 40GBASE-R	AX" section be YNTAX" (as :'.
Proposed F	Response	Response Status	w		
PROP	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: Clause, Subclause, page, line

C/ 030 SC 30.5.1.1.2 Page 5 of 63 2015-09-09 3:48:35 PM

C/ 030	SC 30.5.1.1.2	2 P 29	L 17	# 182	C/ 030	SC	30.5.1.1.	2	P 29	L 17	# 177
Zimmerman,	George	CME Consult	ting, Inc.		Zimmerma	in, Geo	orge		CME Consu	lting, Inc.	
Comment Ty	vpe TR	Comment Status D			Comment	Туре	Е	Comm	ent Status D		bucket
The PMA 25GBAS but are " (Clause	A for 25GBASE E-CR, 25GBA PMD" per their 109). Text in li	E-R is not "unspecified", but SE-CR-S, 25GBASE-KR, ar describing clauses (110, 11 ines 17 through 25 incorrect	is the 25GBASE nd 25GBASE-KR 11, 112), paired v ly identifies these	-R PMA in clause 109. -S are not "PMA/PMD" vith a 25GBASE-R PMA e as "PMA/PMD" types.	"shield 40GBA Additic which	led cop ASE-CI onally, t defines	oper balar R4 for exa this descr s the PME	aced cablir ample). iption "shie Os.	ng" is usually "shie elded balanced co	Ided balanced co	pper cabling" (see owhere in clause 110
(note line	e 26, 25GBASI	E-SR IS Written correctly)			Suggested	IRemed	dy				
(there is "25GBAS	also a potentia SE-R")	al naming problem that both	the PCS and the	PMA are called	Replac instanc	ce "shie ces, lin	elded cop es 17 & 2	per balanc 0)	ed cabling" with "	shielded balanced	d copper cabling" (2
SuggestedRe	emedy				Proposed	Respor	nse	Respor	se Status W		
Change	"unspecified P	MA" to be "25GBASE-R PM	A specified in cla	ause 109 with undefined	PROP	OSED	ACCEPT				
Change	"PMA/PMD" to	read "PCS/PMA" and inser	t "PMD" before "	as specified" in lines	C/ 030	SC	30.5.1.1.	2	P 29	L 17	# 215
17, 19, 2	21, 23, and 25 t	to make them read as, for ex	kample:	11 I. O.	Law, David	ł			HP		
"25GBAS 110" (sir	SE-R PCS/PM milar to entry fo	A over shielded copper bala or 25GBASE-SR)	nced cable PMD	as specified in Clause	Comment	Туре	т	Comm	ent Status D		
Proposed Re	esponse	Response Status W			l believ	ve the i	idea behir	nd this attr	ibute is to report t	he enumeration '2	SGBASE-R' when the
PROPOS	, SED ACCEPT	IN PRINCIPLE.			PMD t	ype is i the oth	unknown,	for examp	ble when there is r	o pluggable mod	ule inserted, and then
					identifi	ed. Ba	sed on th	is the enu	meration '25GBAS	E-SR' is describe	ed as '25GBASE-R
See also	comment 215				PCS/P	MA ov	er multim	ode fiber F	PMD as specified	in Clause 112'. O	ther enumerations
Change	to:				howev	er, suc	h as '25G	BASE-KR	, are described a	s a '25GBASE-R	PMA/PMD' over a
5					enume	eration	25GBAS	E-SR'. whi	ich would also ma	tch existing enum	eration such as
25GBAS	SE-R PCS a	s specified in Clause 107 wi	th PMA as speci	fied in Clause 109 over	'40GB	ASE-R	', and its a	associated	I PMDs.	0	
undefine	a PiviD				Suggested	Reme	dy				
25GBAS	E-CR 25GB	ASE-R PCS/PMA over shiel	ded copper bala	nced cable PMD as	Chang	e the e	enumerati	on '25GBA	SE-CR' to read '2	5GBASE-R PCS	PMA over shielded
specified	d in Clause 110)			copper	r balan	ced cable	PMD as s	specified in Clause	e 110'.	
25GBAS	E-CR-S 25GB	ASE-R PCS/PMA over shiel	lded copper bala	nced cable PMD as	Chang	e the e r balan	enumerati ced cable	PMD as s	SE-CR-S to read	1 25GBASE-R PC	S/PMA over shielded
specified	d in Clause 110	without support for RS-FEC	C		Chang	e the e	enumerati	on '25GBA	SE-KR' to read '2	5GBASE-R PCS	PMA over an electrical
					backpl	ane PN	MD as spe	ecified in C	lause 111'.		
25GBAS Clause 1	DE-KR 25GB/	ASE-R PCS/PMA over an el	ectrical backplar	ie PIVID as specified in	Chang	e the e	enumerati kolana Pl	on '25GBA MD as sne	SE-KR-S' to read	25GBASE-R PC	S/PMA over an
050040					Proposed	Respor	nse	Respor	se Status W	i i wallout suppor	
25GBAS Clause 1	bE-KR-S 25GB I11 without sur	ASE-R PUS/PMA over an el	iectrical backplar	he PiviD as specified in	PROP	OSED	ACCEPT	IN PRINC	CIPLE.		
25GBAS 112	E-SR 25GB	ASE-R PCS/PMA over multi	mode fiber PMD	as specified in Clause	See co	ommen	nt 182				

C/ 030 SC 30.5.1.1.2

		-				
Cl 030 SC 30.5.1.1.2 P 29	L 30 # 18	CI 030	SC 30.5.1.1	.4 P 29	L 52	# 208
Hajduczenia, Marek Bright House Netwo	ork	Law, David		HP		
Comment Type ER Comment Status D	bucket	Comment Typ	e E	Comment Status D		bucke
"Change "BEHAVIOUR DEFINED AS" section of 30.5.1.1 like this, we only include the second para that isbeing mo comments on text that was not changed.	.2 as follows:" - typically, in cases dified to avoid attracting	The IEEE modifying in the edit	P802.3bw the "BEHA ing instructi	amendment, which is likely to p VIOUR DEFINED AS" section ons. In addition to avoid the po	publish before th of this attribute otential misunde	nis draft, is also which should be noted erstanding that this
SuggestedRemedy		change ur	ndoes the IE	EEE P802.3bw change, sugges	st that only the c	changed text of the
Remove first para (lines 32-43) and change editorial note	to read "Change second	SuggestedRe	medy		the dian.	
There are also other locations in Clause 30, e.g., 30.5.1.1 where similar change should be applied, i.e., show only cl and scrub paras with text that are not being modified. In 3	.4, 30.5.1.1.17, 30.5.1.1.18 hanges to specific para of interest 60.5.1.1.18 (for example), the only	[1] Chang in the "BE [2] Delete of the first	e the editing HAVIOUR all the text sentence o	g instructions to read 'Change DEFINED AS" section of 30.5. shown for the 'BEHAVIOUR D of the sixth paragraph.	the first sentend 1.1.4 as follows EFINED AS' se	e of the sixth paragraph ' ction with the exception
change is in first sentence of "BEHAVIOUR DEFINED AS SYNTAX:"	:" and "APPROPRIATE	Proposed Res	ponse	Response Status W		
Proposed Response Response Status W		PROPOS	ED ACCEP	Т.		
PROPOSED ACCEPT.		See comr	nent 18 and	150.		
See comments 50 and 208.		C/ 030	SC 30.5.1.1	.4 P 30	L 1	# 1
C/ 030 SC 30.5.1.1.2 P 29 Law, David HP	L 39 # 216	Lewis, Jon <i>Comment Typ</i> If the MAI	e E Lisa 10 M K	Dell Comment Status D	or consistency	Bucke
Comment Type T Comment Status D To support the enumerations '25GBASE-CR', '25GBASE- '25GBASE-KR-S' when a Clause 45 MDIO interface is pre-	Bucket CR-S', '25GBASE-KR' and esent, the new RS-FEC control	SuggestedRe Change 1	medy 0M b/s to 1	0 Mb/s.		
register defined in subclause 45.2.1.101 needs to be acce enabled or not. Based on this a reference to subclause 45 register' should be added to the list of register.	essed to determine if RS-FEC is 5.2.1.101 'RS-FEC control	Proposed Res PROPOS	ponse ED ACCEP	Response Status W T IN PRINCIPLE.		
SuggestedRemedy Change the text ' the PMA/PMD control 1 register speci	fied in 45.2.1.1, and the PCS	This text i P802.3by	s part of the	e base standard and modification	ons to this text a	are out of scope for
25G RS-FEC Enable bit in the RS-FEC control register, a	nd the PCS control 1 register'.	The sugg	ested reme	dy to Comment 50 proposes to	o remove this te:	xt since it is not being

Proposed Response Response Status W

PROPOSED ACCEPT.

modified by P802.3by. See comment 50.

C/ 030 SC 30.5.1.1.4 Page 7 of 63 2015-09-09 3:48:35 PM

bucket

Bucket

CI 030	SC 30.5.1.1.4	P 30	L 30	# 217	C/ 030	SC :	30.6.1.1.5	P 32	L 22	# 235
Law, David		HP			Geoff Thor	npson		GraCaSI S.A		
Comment 7	Туре Т	Comment Status D			Comment	Гуре	E	Comment Status D		format
Since II would b	EEE P802.3by us be better to modif	ses the 10Gb/s RS (see sub y the 10Gb/s text to add 25	oclause 106.1 'Ove Gb/s rather than th	erview') suggest it ne 40Gb/s and	In this Not all	clause of them	the coding/ n are show	/appearance of the referen n in green.	ce links is not c	onsistent.
100Gb/ 100Gb/	/s text. As an asion/s text should be t	te, I think the reference to F	igure 46-11 in the	currently 40Gb/s and	Suggested	Remed	ly			
and Me	edia Independent	Interface for 40 Gb/s and 1	00 Gb/s operation	(XLGMII and CGMII)'	Modify	to be ir	n accordan	ce with 802.3 practice for o	drafts.	
and sin	ice subclause 81.	3.4, which is also reference	d, states 'The RS	shall implement the	Proposed I	Respon	se	Response Status W		
link fau	it signaling state	diagram (see Figure 81-9).			PROP	OSED F	REJECT.			
Suggested	Remedy				Oakili				4	ann an Ilinha that naint ta
Sugges	st that:				Uniy III within t	he P80	side of the 12.3bv doci	ument are not to be shown	to be snown in (1 in areen.	green. Links that point to
[1] The	change on line 3	0 is removed so the text rea	ads 'For 40 Gb/s a	nd 100 Gb/s the	01.000	00.0		D a a	<u> </u>	# [54
enumei [2] Tho	rations'.	changed to read 'Ear 10 G	o/s the enumeratio	ns ' to road 'Ear 10	C/ U3U	SC :	30.6.1.1.5	P 33	L 11	# 51
Gb/s ar	nd 25 Gb/s the er	numerations'.			Marris, Arti	- -	_	Cadence Des	sign Syste	
Proposed F	Response	Response Status W			Comment	Гуре	E	Comment Status D		bucket
PROPO	DSED ACCEPT.				New te	xt has i	not been ui	nderlined		
					Suggested	Remed	<i>y</i>			
C/ 030	SC 30.6.1.1.5	P 32	L 16	# 19	Underl	ne "RS	FEC25G	Req" and "BASE-RFEC25	G Req"	
Hajduczenia	a, Marek	Bright House	Network		Proposed I	Respon	se	Response Status W		
Comment 7	Type ER	Comment Status D		legacy text	PROP	DSED /	ACCEPT.			
Rather	than list the whol	e aAutoNegLocalTechnolog	yAbility list of PH	remove	C/ 031B	SC 3	31B 3 7	P 199	/ 14	# 57
(includi	ive) - editorial inst	truction is already clear and	sufficient for edito	r to merge in new	Marris, Arth	nur		Cadence Des	sian Syste	
listings	in order.				Comment	Type	E	Comment Status D	3 - 9 - 9	legacy text
Suggestedl	Remedy				Too m	ich lea:	∟ acv text			legacy lext
Per cor	mment				0					
Proposed F	Response	Response Status W			Suggested	Remed	y 			
PROPO	OSED ACCEPT.				legacy	text to	show the c	context of the modified text.	Make similar c	hange in the PICS.
					Proposed I	Respon	se	Response Status W		J
					PROP	DSED /	ACCEPT.			
					See al	so comi	ments 24, 2	25 and 29		

C/ 031B SC 31B.3.7

C/ 031B SC 31B.3. Haiduczenia, Marek	7 P 199 Bright Hou	L 14 se Network	# 29	C/ 045 Remein, Du	SC 45.2.1	P; Huay	34 L	- 10 # <u>80</u>	
Comment Type FR	Comment Status D		legacy text	Comment 7	vne TR	Comment Status		0	
change to "Insert th operating speeds of Add new editorial ins the line "40 Gb/s - m	truction. e following new paragraph be 40 Gb/s":" truction "Insert the following ax_overrun = 7552 + frame_	efore the paragraph calculation for 25 G length.:""	starting with "At b/s operation, before	The ins in 83.1. P802.3 Suggestedl	ructed change 4 however in F by does not inc Remedy	e indicates that 25 Gb 2802.3bx Cl 83.1.4 I s clude changes too 83	b/s interfaces and see no reference 1.4. I am there	e specified over multiple to 25 Gb/s, only 40 & 10 fore confused.	PMAs)0.
SuggestedRemedy				It seem	s like a referer	nce to 109.1.4 is more	e appropriate fo	r 25 Gbps interfaces	
Remove all unmodifi	ed text to avoid comment ba	it		Proposed F	esponse	Response Status	w		
Proposed Response	Response Status W			PROPO	SED ACCEP	T IN PRINCIPLE.			
PROPOSED ACCE				Change	text to include	<u>-</u> 109 1 4 [.]			
See comment 57				"(see 8 sublaye	3.1.4 and 109. rs)."	1.4 for how MMD add	resses are allo	cated to multiple PMA	
C/ 031B SC 31B.4. Hajduczenia, Marek	3 <i>P</i> 201 Bright Hou	L 27 se Network	# 24	C/ 045 Marris, Arth	SC 45.2.1.1 ur	0.a P: Cade	39 L ence Design Sys	- 23 # 54 ste	
Comment Type ER Modify editorial instr and MIIg accordingly SuggestedRemedy Per comment Proposed Response PROPOSED ACCER See comment 57	Comment Status D uction to read: "Insert a new " + remove all unmodified P Response Status W PT IN PRINCIPLE.	PICS item MIIf and ICS items to avoid c	<i>legacy text</i> renumber current MIIf omment bait	Comment 7 Renum Suggested Change Proposed F PROPO The tex	ype E ber 45.2.1.10.a Remedy 45.2.1.10.a to esponse DSED ACCEP ⁻ t needs to be i	Comment Status a to 45.2.1.10.b as 45 o 45.2.1.10.b <i>Response Status</i> T IN PRINCIPLE. Inserted before so ma	s D 5.2.1.10.a is bein W ake it subclause	ng used by 802.3bw 45.2.1.10.aa	Bucket
C/ 031B SC 31B.4. Hajduczenia, Marek	6 P 202 Bright Hou	L 1 se Network	# 25	"Insert	editing instruction	e 45.2.1.10.aa before	45.2.1.10.1a as	; follows:"	
Comment Type ER Modify editorial instr TIM7 and TIM8 acco Remove TIM1	Comment Status D uction to read: "Insert a new rdingly" + remove all unmod	PICS item TIM7 and ified PICS items to a	<i>legacy text</i> d renumber current avoid comment bait.						
SuggestedRemedy Per comment									
Proposed Response PROPOSED ACCE	Response Status W								
See comment 57									

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line C/ 045 SC 45.2.1.10.a Page 9 of 63 2015-09-09 3:48:35 PM

C/ 045 SC 45.2.1.101.a P 43 L 23 # 30 Hajduczenia, Marek Bright House Network Bright House Network Bright House Network Bright House Network	C/ 045 SC 45.2.1.102.1 P 43 L 47 # 75 Remein, Duane Huawei Technologies Huawei Technologies Technologies
Comment Type T Comment Status D "This bit enables the 25GBASE-R Reed-Solomon FEC described in Clause 108" - it is much clearer, when bit number is referenced explicitly rather than implicitly.	Comment TypeERComment StatusDWhich bit is "this bit"? Typical wording is to specifically mention the bit number in the description in the first reference as was the case in the removed text. Same issue in 45.2.1.102.2
Change to "Bit 1.200.2 enables the 25GBASE-R Reed-Solomon FEC described in Clause 108". Similarly, change "When set to a zero, this bit disables the" to "When set to a zero, bit 1.200.2 disables the" Similar changes to be applied to 45.2.1.101.1, 45.2.1.101.2, and other locations in Clause 45 where reference to "this bit", "this register", etc. is made implicitly. Explicit references are much clearer to reader and leave no need for context based interpretation. Proposed Response Response Status W PROPOSED ACCEPT.	SuggestedRemedy Change initial: "This bit indicates" to "Bit 1.201.1 indicates" Apply a similar fix in 45.2.1.102.2 Proposed Response Response Status W PROPOSED ACCEPT. See also comments 30, 74 and 81
See also comments 74, 75 and 81	C/ 045 SC 45.2.1.102.1 P 43 L 51 # 101
CI 045 SC 45.2.1.102.1 P 43 L 45 # 21 Hajduczenia, Marek Bright House Network E Comment Type ER Comment Status D Since you're replacing the whole content of 45.2.1.102.1 with a new text, the proper editorial instruction is "Replace" and not "Change" SuggestedRemedy	Comment Type E Comment Status D Bucket missing an "a" Same error occurs in 45.2.1.102.2 on page 44, line 12. SuggestedRemedy Change to read: Change to read:
Align editrial instructions per comment, for 45.2.1.102.1, 45.2.1.102.2	"When read as a one, this bit"
Proposed Response Response Status W PROPOSED ACCEPT.	Proposed Response Response Status W PROPOSED ACCEPT.

C/ 045 SC 45.2.1.102.1 Page 10 of 63 2015-09-09 3:48:35 PM

C/ 045 SC 45.2.1.102.7	P 44	L 20	# 81	C/ 045	SC 45.2.1.14.4	4a	P 40	L 5	# 78
Remein, Duane	Huawei Techr	nologies		Remein, D	luane	F	luawei Tech	nologies	
Comment Type TR C	omment Status D			Comment	Туре Т	Comment Sta	atus D		
Now really Which bit is "this In this case the error is som FEC_bypass_indication_en	bit"? :-) ewhat more confusing a able which is not the "thi	s the only bit ref s" bit you're talki	erenced in teh text is ng about.	You m PICS Given	ight want to recon entry for each new there are not prop	nsider the use o v shall in the sta posed additions	f the term "s indard. to CI 45 PIC	shall be" here as	I would expect to see a sue.
SuggestedRemedy				Note t	his is differerent fr	rom the shall in	45.2.7.13.a/	b which already	have a PICS statement
Change:	ion anabla is act to ana	this hit is "to		(AM58	3).			,	
"When FEC_bypass_indica	tion_enable is set to one	e, bit 1.201.2 is		Suggested	Remedy				
Proposed Response Re	sponse Status W			Chang	je ball ta				
PROPOSED ACCEPT.				"is"	De to				
See also comments 30, 74	and 75			Proposed	Response	Response Sta	tus W		
C/ 045 SC 45.2.1.14.4	P 40	L 5	# 74	1 KOI					
Remein, Duane	Huawei Techr	nologies		It need	ds to be a shall to	be consistant w	/ith 45.2.1.1	4 in the base do	cument
Comment Type ER C	omment Status D			C/ 045	SC 45.2.1.4		P 36	L 12	# 35
Which bit is "this bit"? Typic	al wording is to specifica	ally mention the l	pit number in the	Hajduczen	ia, Marek	E	right House	Network	
Same issue in 45.2.1.14.4a	, 4b, 4c, adn 4d.			Comment	Type TR	Comment Sta	atus D		
SuggestedRemedy				Please	e align your draft v	with the latest ve	ersion of P8	02.3bx-D3.2. Th	ere have been changes
Change:				to Cla D3p0-	use 45 (at least) p Comments_Final_	er comment I-5 _byCls.pdf) that	have been	not reflected in t	bx/comments/P8023-
"25GBASE-CR this bit shall	" to			Suaaested	lRemedv	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Apply a similar fix in 45.2.1.	14.4b-4d			Per co	mment. In this pa	articular case, ne	ew 1.4.15:12	2 bit range need	s to have name
Proposed Response Re	sponse Status W			chang	ed to "Reserved"	per P802.3bx-D	3.2		
PROPOSED ACCEPT.				Simila	r change needed i	in Table 45-122	bits 3.4.15:	5, Table 45-125	bits 3.20.11:10
See also comments 30, 75	and 81			Proposed	Response	Response Sta	tus W		
				PROP	OSED ACCEPT I	IN PRINCIPLE.			
				In Tab	le 45-125 remove	e crossed out te	kt "for future	speeds"	
				The di the tex	raft is consistent w kt "Reserved for fu	vith P802.3bx D uture speeds"	3.2 for Table	es 45-6 and 45-	122, which both contain

C/ **045** SC **45.2.1.4** Page 11 of 63 2015-09-09 3:48:35 PM

CL 045	SC 45 34 6	D 27	1.2	# 405		50	45 0 4 90	DO	1.0	# 404	
Booth, Brad	30 43.2.1.0	Microsoft	23	# 105	Slavick, Je	eff	45.2.1.00	Avago Techn	ologies	# 124	
Comment Ty	vpe ER	Comment Status D		bucket	Comment	Туре	TR	Comment Status D			
Conside be good to preve	ering there is a h I to provide an e ent sponsor ballo	nuge bank of register bits (1 1 ditor's note (to be removed p ot reviewers from suggesting	l 0 x x x) shown prior to publicati changes to opt	as reserved, it might on) to explain the gap imize.	PMD 1 111 ac	Fraining dded the	control an list of clai	d status registers sections uses.	need to be brou	ght in and have 110 and	
SuggestedR	Remedy				Add cl	ause 1 ⁻	יי 10 and 111	to the list of clauses suppo	orted in subsecti	ons	
Add an B "1 1 0 x bits but y	Editor's note sta x x is reserved will be publishe	ating something along the line for other IEEE 802.3 amendr d after this amendment."	es of: nents that are p	planning to use these	45.2.1.80 45.2.1.81 45.2.1.82						
Proposed Re PROPO	esponse SED ACCEPT.	Response Status W			45.2.1 45.2.1 45.2.1	.83 .84 .85					
C/ 045	SC 45.2.1.7.4	P 38	L 11	# 52	Proposed	Respor	ise	Response Status W			
Marris, Arthu	ur	Cadence Desi	gn Syste		PROP	OSED	ACCEPT.				
Comment Ty In table	ype E 45-9 put "25GB	Comment Status D ASE-KR, 25GBASE-KR-S" of	on a single line	<i>bucket</i> to match the base	<i>Cl</i> 045 Anslow, Pe	SC ete	45.2.1.94	P 41 Ciena	L 31	# 184	
Suggested	u Romodu				Comment	Туре	Е	Comment Status D			
Make for in the Pl	rmatting of Tab MA/PMD colum	les 45-9 and 45-10 match the n.	e base standard	l by removing line feeds	Only the first sentence of 45.2.1.94 is being changed, so the editing instruction should say "in the first sentence of 45.2.1.94". Only the title of Table 45-74 is being changed, so the editing instruction should say "and the title of Table 45-74". Same issues for 45.2.1.95.						
Proposed Re	esponse	Response Status W									
	GLD ACCLI I.				Suggested	Remec	ly				
C/ 045 Marris, Arthu	SC 45.2.1.8 Jr	P 38 Cadence Desi	<i>L</i> 48 gn Syste	# 53	Chang the title	je "in 48 e of Tal	5.2.1.94 an ble 45-74 a	d Table 45-74 as follows:" t s follows:"	o "in the first se	ntence of 45.2.1.94 and	
Comment Ty Make for	ype E rmatting of table	Comment Status D e 45-12 match the base stan	dard	bucket	For the to "in t	e editing he first	g instructio sentence d	n for 45.2.1.95 change "in 4 of 45.2.1.95 and the title of ⁻	15.2.1.95 and Ta Table 45-75 as f	able 45-75 as follows:" follows:"	
SuaaestedR	Remedv				Proposed	Respor	ise	Response Status W			
Change	25GBASE-KR	,25GBASE-KR-S" to "25GBA	SE-KR and 25	GBASE-KR-S"	PROP	OSED	ACCEPT II	N PRINCIPLE.			
Change	GBASE-CR-S"	See o	ommen	1213							
Proposed Re PROPO	esponse SED ACCEPT.	Response Status W									

C/ 045 SC 45.2.1.94 Page 12 of 63 2015-09-09 3:48:35 PM

C/ 045	SC 45.2.1.94	P 41	L 34	# 213	C/ 045	SC	45.2.1.94	P 41	L 36	# 185
Law, David		HP			Anslow, Pe	ete		Ciena		
Comment T	ype ER	Comment Status	D		Comment	Туре	Е	Comment Status D		bucket
The edi	ting instructions	for this subclause be	updated to be more	similar to normal	There	is no n	eed for a c	apital S in "bits in the Singl	e-lane PHY"	
shown	ions, making it c	lear for example that moty table should be	only the first senten	ce of the first paragraph is	Suggested	Reme	dy			
Suggested	Remedy		actorea, and only a	ie enangea ille enerni	Chang	ge "bits	in the Sing	le-lane PHY" to "bits in the	single-lane PH	Y"
Suggesteur	t that				Proposed	Respor	nse	Response Status W		
Cuggoo					PROP	OSED	ACCEPT.			
[1] The sentend [2] Rem	editing instruction ces of 45.2.1.94, hove the blank ta	ons be changed to rea and the title of Table ble.	ad 'Change the subc 45-74, as follows:'.	lause title, and the first	See al	lso corr	nment 40			
[3] Mak	e similar change	s to subclauses 45.2	.1.95 and 45.2.1.96.		C/ 045	SC	45.2.1.94	P 41	L 37	# 186
Proposed R	Response	Response Status	w		Anslow, Pe	ete		Ciena		
PROPC	OSED ACCEPT.				Comment	Туре	Е	Comment Status D		bucket
See als	o comments 184	1 and 20			The fir that it	st sent	ence of 45 y ends with	2.1.94 is shown as ending	with an italic co	lon rather than the "."
C/ 045	SC 45.2.1.94	P 41	L 36	# 40	Suggester	Domo	11 40.2.1.9c			
Hajduczenia	a, Marek	Bright	House Network		Suggester	irtemet oo tho i	Jy talia aalan	with " " at the and of the fir	at contance of 4	5 2 1 0 4 and 45 2 1 05
Comment T	ype E	Comment Status	D	bucket						5.2. 1.94 and 45.2. 1.95
"The as lower ca	signment of bits aps	in the Single-lane Ph	HY" - "Single-lane" s	hould likely start with	Proposed PROP	Respoi OSED	nse ACCEPT.	Response Status W		
Suggested	Remedy				C/ 045	SC	45 2 1 94	P 41	/ 40	# 20
Change the sing	e "The assignme gle-lane PHY"	nt of bits in the Single	e-lane PHY" to read	"The assignment of bits in	Hajduczen	iia, Mar	ek	Bright House	e Network	" 20
Proposed R	Response	Response Status	w		Comment	Туре	ER	Comment Status D		
PROPC	DSED ACCEPT.				In cas show o	es like change	this, it is su s, without o	ufficient to indicate to chang dragging in the table struct	ge caption for Ta ure itself.	able 45-74 and then
See als	o comment 185				Suggested	Reme	dy			
					Chang senter Remo Chang	ge edito nce in 4 ve emp ge ":" to	orial instruc 5.2.1.94, a oty table 45 o "." at the e	tions to read as follows: "C ind caption for Table 45-74 -74 and leave just the text and of line 37 (seems like s	hange the text o as follows:" of caption with p omething got co	f heading 45.2.1.94, first roper markup. pied incorrectly).
					The sa	ame ch	anges to b	e applied to 45.2.1.95, 45.2	2.1.96	
					Proposed	Respor	nse	Response Status W		
					PROP	OSED	ACCEPT I	N PRINCIPLE.		
					See co	ommen	its 213 and	186		

C/ 045 SC 45.2.1.94 Page 13 of 63 2015-09-09 3:48:35 PM

C/ 045	SC 45.2.1.94	P 41	L 40	# 187	C/ 045	SC	45.2.3.1	P 45	L 16	# 41		
Anslow, Pe	te	Ciena			Hajduczen	nia, Mar	ek	Bright House	Network			
Comment T	Туре Е	Comment Status D		bucket	Comment	Туре	Е	Comment Status D			bucket	
The titl counte Same i	e of Table 45-74 r register bit defin issue in Table 45	in the base standard is: "100 nitions". However, the word -75.	GBASE-R FEC "register" is not	corrected blocks there in the draft.	Extra "." at the end of the sentence "Change the indicated row of Table 45-120 for 25 Gb/s speed selection as follows (unchanged rows not shown)" SuggestedRemedv							
Suggested	Remedy				Remo	ve extra	a "."					
insert t	he word "register	" in normal font in the titles o	of Table 45-74 a	nd Table 45-75.	Proposed	Resnor	ise	Response Status W				
Proposed F	Response	Response Status W			PROP	POSED	ACCEPT.					
C/ 045	SC 45.2.1.94	P 41	L 41	# 55	<i>CI</i> 045 Remein, D	SC Duane	45.2.3.1	P 45 Huawei Techn	L 32 ologies	# 79		
Marris, Arth	nur	Cadence Des	ign Syste		Comment	Tvpe	т	Comment Status D				
Comment T	Туре Е	Comment Status D			lt strik	es me a	as very od	d that in 45.2.1 you modify th	e entry for regi	ster 1.0.5:2 while h	nere	
Remov	e blank table bel	ow Table 45-74 so just the ta	able title remain	8	you do	on't.	,	, , ,	, ,			
Suggested	Remedy				Suggested	dRemec	ły					
Remov 45-75 a	ve the empty tabl and 45-76.	e below the table title so just	the table title re	mains for tables 45-74,	Add Editing Instruction and text as follows 45.2.3.1.5 Speed selection (3.0.13, 3.0.6, 3.0.5:2) "Add as the last para in 45.2.3.1.5 as follows: When bits 5 through 3 are get to 0010 the use of a 40C PCS is selected; when set to 0011							
Proposed F	Response	Response Status W										
PROP	OSED ACCEPT	IN PRINCIPLE.			the us	e of a 1	00G PCS	is selected; when set to 0100	0 the use of a 2	25G PCS is selecte	∋d."	
See co	mment 213				Proposed PROP	Respor POSED	nse ACCEPT I	Response Status W IN PRINCIPLE.				
C/ 045	SC 45.2.1.96.	1 P 42	L 44	# 189								
Anslow, Pe	te	Ciena			Chang	ge the la	ast paragra	aph to read as follows:				
Comment T The mo Annex	<i>Type</i> T odified text reads 83E (see 83E.3.	Comment Status D : "the optional CAUI-4 C2M a 1.6).", but the 25GAUI C2M i	and 25GAUI C2 interface is not c	<i>bucket</i> M interface defined in lefined in Annex 83E.	The sp when 0010,	peed se set to 0 select t	lection bits 001, select he use of	s 3.0.5:2, when set to 0000, s t the use of the 10PASS-TS the 10/1 Gb/s PCS; when se	select the use o and 2BASE-TL t to 0011, selec	of the 10 Gb/s PCS PCS; when set to t the use of the 40	; Gb/s	
Suaaested	Remedv			PCS; when set to 0100, select the use of the 100 Gb/s PCS; when set to							the	
Change 83E.3. and An	e: "the optional C 1.6)." to "the optioner 1098, respe	CAUI-4 C2M and 25GAUI C2 onal CAUI-4 C2M and 25GA ctively (see 83E.3.1.6)."	M interface defin UI C2M interfac	ned in Annex 83E (see e defined in Annex 83E		uic 20	00/31 00					

Proposed Response Response Status W PROPOSED ACCEPT.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line C/ 045 SC 45.2.3.1 Page 14 of 63 2015-09-09 3:48:35 PM

C/ 045 SC 45.2.3.13	.1 <i>P</i> 0	L 0	# 126	C/ 045	SC 4	45.2.3.13.4	4	P 0	L 0	# 127
Slavick, Jeff	Avago Techi	nologies		Slavick, Je	ett			Avago Tech	inologies	
Comment Type TR 25G missing from list of	Comment Status D	es	bucket	<i>Comment</i> clause	<i>Type</i> 107 mi	TR issing from	Comment Si n several PCS	tatus D status regis	ters	
SuggestedRemedy				Suggested	Remed	ly				
Change 10/40/100 BAS 45.2.3.2.7 45.2.3.14.1 45.2.3.14.2 45.2.3.14.3	SE-R to 10/25/40/100 BASE	-R in sections		Add ", 45.2.3 45.2.3 45.2.3 Proposed	and in .13.1 .13.4 .13.5 <i>Respon</i>	107.2 for 2 ose	25GBASE-R" ir Response St	nto the lists v atus W	valid clauses in se	ections
Proposed Response		PROP	OSED	ACCEPT.						
PROPOSED ACCEPT				C/ 045	SC 4	45.2.3.14.1	1	P 47	L 33	# 218
See also comment 219)			Law, David	ł		l	HP		
C/ 045 SC 45.2.3.13	.1 <i>P</i> 41	L 34	# 219	Comment	Туре	T	Comment S	tatus D		bucket
Comment Type T Subclause 45.2.3.13.1 'This bit is a reflection Subclause 45.2.3.13.4 bit is a direct reflection is defined in 49.2.13.2. T PCS block lock (3.32 block_lock variable in t 10GBASE-R'. Subcl blocks counter is an eig 49.2.14.2 for 10GBASE Since the 25GBASE-R seem that these bits sh bits updated to reflect the	Comment Status D 'BASE-R and 10GBASE-T i of the PCS_status variable of 'BASE-R and 10GBASE-T i of the state of the hi_ber va 2 for 10GBASE-R'. Subclau 2.0)' states 'This bit is a dire he 64B/66B state diagram a ause 45.2.3.14.4 'Errored bi ght bit count defined by the E-R'. PCS uses the 10GBASE-R hould also support 25GBASE this.	receive link statu defined in 49.2.14 PCS high BER (3 triable in the 64B ise 45.2.3.13.5 'E ct reflection of th and is defined in 4 locks (3.33.7:0)'s errored_block_cd CPCS (see subcl E-R, and hence t	bucket s (3.32.12)' states that 4.1 for 10GBASE-R'. 3.32.1)' states that 'This /66B state diagram and ASE-R and 10GBASE- e state of the 49.2.13.2.2 for states 'The errored point counter specified in ause 107.1.2) it would he description of these	Suggested Suggested Suggested Suggested Proposed PROP	Subclau it 3.33.1 ed a hig er is a si 40/1000 the 25G that the odated to <i>IRemed</i> st insta '40/1000 <i>Respon</i> OSED	use 45.2.3. 14 indicates 16 BER.'. S ix bit count GBASE-R F ise bits sho o reflect thi fy inces of the GBASE-R' ise ACCEPT II	14.2 'Latched 14.2 'Latched s that the 10/4 Subclause 45.2 t as defined by '. PCS uses the build also suppoint to simply 'BA' Response St N PRINCIPLE	high BER (; 0/100GBAS :3.14.3 'BEI the ber_cou 10GBASE-F ort 25GBAS 00GBASE-R'. SE-R'. atus W.	R (3.33.14)' states th E-R or the 10GB, R(3.33.13:8)' state unt variable in 49. R PCS (see subcla E-R, and hence th C be changed to re	at 'When read as a ASE-T PCS has es that 'The BER 2.14.2 and 82.2.19.2.4 ause 107.1.2) it would he description of these ead
Suggesteakerneay Suggest ' for 10GBA	SE-R' be change to read	' for 10GBASE	-R and 25GBASE-R'.	Chano	ie to '10)/25/40/100)GBASE-R'			
Proposed Response PROPOSED ACCEPT See also comment 126	Response Status W			See co	omment	t 126				

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line C/ 045 SC 45.2.3.14.1 Page 15 of 63 2015-09-09 3:48:35 PM

C/ 045 SC 45.2.3.17 Hajduczenia, Marek	7 P 47 Bright House M	L 38 Network	# 8	C/ 045 SC 45.2. Booth, Brad	.3.6	P 46 Microsoft	L 18	# 108				
Comment Type E Unclear editorial instru	Comment Status D	ntence of first	<i>bucket</i> baragraph as follows:"	Comment Type T Bit range in first co	Comment Salumn of Table 45-12	<i>tatus</i> D 23 is wrong.		bucket				
SuggestedRemedy Mmodify "second last"	' to "second sentence from the	end"		SuggestedRemedy Change to read "3.7.2:0".								
Proposed Response PROPOSED ACCEP1	Response Status W			Proposed Response PROPOSED ACC	Response St EPT.	atus W						
C/ 045 SC 45.2.3.17 Slavick, Jeff	7.2 P 0 Avago Techno	L 0 logies	# 125	C/ 045 SC 45.2. Slavick, Jeff	.7.12	P 48 Avago Techn	L 4 nologies	# 128				
Comment Type TR Clause 107 is Clause	Comment Status D 49, so test patterns are defined	d for 25G as w	ell	Comment Type TR RS-FEC negotiate	<i>Comment</i> S d bit was added but	tatus D no definition	for the bit					
SuggestedRemedy Retitle sections 45.2.3 instead of 10GBASE-I	8.17.2, 45.2.3.17.3, 45.2.3.17.4 R	to be Single L	ane PHY BASE-R	SuggestedRemedy Create new subse	ction to define 7.48.	7						
Proposed Response PROPOSED ACCEP1	Response Status W			When the Auto-Ne (7.1.5), bit 7.48.7 i if RS-FEC operation FEC operation.	egotiation process hand indicates that RS-FE on has been negotia	as completed C operation h ted for a BAS	as indicated by has been negotia SE-R PHY suppo	the AN complete bit ated. This bit is set only orting negotiation of RS-				
C/ 045 SC 45.2.3.6 Booth, Brad	P 46 Microsoft	L 10	# 106	Proposed Response	Response St	atus W						
Comment Type ER The editing instruction	Comment Status D doesn't read correctly as it ref	erences .3bq.										
Same applies to editin SuggestedRemedy Strike "(as modified b)	g instructions for 45.2.3.7.											
Proposed Response PROPOSED REJECT	Response Status W											
This text is being mod projects are currently helps the reader to dra	ified by 802.3bq so it is correct drafting amendments to the 80 aw attention to the changes be	to reference 8 2.3 base stand ing made by ot	02.3bq. Multiple ard. In certain places it her projects, particularly									

when the other project is running to a similar time-line. The editors will revisit this particular editing instruction in sponsor ballot to make sure it still holds.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line C/ 045 SC 45.2.7.12 Page 16 of 63 2015-09-09 3:48:35 PM

Cl 045 SC 45.2.7.13 P 49 L 13 # 109	C/ 045 SC 45.2.7.13 P 49 L 7 # 171							
Booth, Brad Microsoft	Jones, Peter Cisco Systems							
Comment Type T Comment Status D	Comment Type TR Comment Status D							
Advertising deep sleep ability for KR/CR and KR-S/CR-S in two separate bits is overkill.	In "Table 45-210-EEE advertisement register (Register 7.60) bit definitions", two bits are being used to signal EEE for KR/CR and KR-S/CR-S.							
Same applies to the link partner ability.	SuggestedRemedy							
SuggestedRemedy Change Table 45-210 and 45-211 to leave bit 15 as reserved and bit 14 to be 25G EEE	Combine the two bits(7.60:15 and 7.60:14), only use one bit to advertise deep sleep for both KR/CR and KR-S/CR-S							
support. Update register descriptions.	Proposed Response Response Status W							
If set to a one, it indicates that the technologies advertised in bits A9 and A10 of Table 73-	PROPOSED ACCEPT IN PRINCIPLE.							
4 are capable of supporting EEE deep sleep operation. If set to a zero, EEE deep sleep operation is not supported for 25G.	See response to comment 109							
Proposed Response Response Status W	C/ 045 SC 45.2.7.13 P 49 L 9 # 221							
PROPOSED ACCEPT IN PRINCIPLE.	Law, David HP							
The commenter is correct to say these two bits should be combined.	Comment Type T Comment Status D							
	IEEE P802.3 (IEEE 802.3bx) draft D3.2 Table 45-210 'EEE advertisement register							
Bit 14 should be renamed to "25GBASE-R EEE" rather than "25G EEE" as Table 73-4 would not be relevant to a future 25GBASE-T PHY.	(Register 7.60) bit definitions' includes an additional column titled 'Clause reference; Next Page bit number' which is not shown in this draft.							
Also "Table 45-17 EEE capability register bit definitions" needs to be updated to have a	SuggestedRemedy							
single capability bit in addition to updating Tables 45-210 and 45-211.	Add the column titled 'Clause reference; Next Page bit number' to table 45-210. For bit							
Also comment 221 needs to be taken into consideration and Table 45-210 modified to	7.60.14 suggest the entry reads 73.7.7.1; U14', for bit 7.60.15 suggest the entry reads '73.7.7.1: U15'.							
include the column titled 'Clause reference; Next Page bit number' with bit U14 for	Proposed Response Response Status W							
25GBASE-R EEE advertisement.	PROPOSED ACCEPT IN PRINCIPLE.							
With editorial license update Tables 45-17, 45-210, 45-211 and associated text to have a single bit for 25GBASE-R EEE ability. Text for Table 45-211 is currently missing and needs	See response to comment 109							
to be added.	C/ 045 SC 45.2.7.14 P 50 L 1 # 36							
C/ 045 SC 45.2.7.13 P 49 L 13 # 210	Hajduczenia, Marek Bright House Network							
Law, David HP	Comment Type TR Comment Status D							
Comment Type E Comment Status D bucket	MIssing description of newly defined bits 7.61:15 and 7.61:14							
Туро.	SuggestedRemedy							
SuggestedRemedy	Insert subclauses 45.2.7.14a and 45.2.7.14b with definition of bits 7.61:15 and 7.61:14							
Suggest that '7.60:15' and '7.60:14' should read '7.60.15' and '7.60.14'.	Proposed Response Response Status W							
Proposed Response Response Status W	PROPOSED ACCEPT IN PRINCIPLE.							
PROPOSED ACCEPT.	See response to comment 109							

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line C/ **045** SC **45.2.7.14** Page 17 of 63 2015-09-09 3:48:35 PM

C/ 045 SC 45.2.7.14	P 50	L 30	# 86	C/ 069	SC 69.2.3	P 54	L 19	# 2
Laubach, Mark	Broadcom Corp	oration		Lewis, Jon		Dell		
Comment Type E	Comment Status D			Comment 7	ype E	Comment Status D		backplane table
Any PICS impact?				In Table	e 69-1a on the	line for 25GBASE-KR: 1 c	don't understand I	M(a) It seems that this
SuggestedRemedy				to be re	versed in the	atory/Optional which doesh table and table footer.	t make sense. A	liso, O(a) and (a)O seem
Provide PICS update if	needed.			Suggested	Pomody			
Proposed Response	Response Status W			L think f	or the column	labeled RS it should only l	he "M" and the "(a	a)" should be removed
PROPOSED REJECT.				T UIIIIK I				
The only new "shalls" o	ccur in 45.2.1.14, 45.2.3.9 and	45.2.7.13.		Make th content	ne O(a) consis	tent by changing the table	footer/note to be	the same as the table
Thoro is no ovisting on	ny for 45.2.1.14 in the base sta	undard so thoro	is nothing to undate	Proposed F	Response	Response Status W		
for 45.2.1.14	i y 101 45.2.1.14 in the base sta	indalu so inele	is nothing to update	PROPO	OSED REJEC	Т.		
There are already gene which do not need mod	ric PICS entries for 45.2.3.9 a	nd 45.2.7.13 in	the base standard	The foc	tnote is defini	ng what "M" means and wh	nat "O" means.	
	D 50	17	# 170	Note al	so that this for	m is consistent with Table	s 69-1 and 69-2 ir	n IEEE 802.3-2012 and
Jones, Peter	Cisco Systems		# 172		\sim comment #	148		
Comment Type TR	Comment Status D			7,100, 00		140.		
In "Table 45-211-EEE I used to signal EEE for	ink partner ability (Register 7.6 KR/CR and KR-S/CR-S.	1) bit definition	s", two bits are being	C/ 069 Laubach, M	SC 69.2.3 ark	P 54 Broadcon	L 7 n Corporation	# 87
SuggestedRemedy				Comment T	ype E	Comment Status D		bucket
Combine the two bits(7 both KR/CR and KR-S/	.60:15 and 7.60:14), only use o CR-S.	one bit to adver	tise deep sleep for	Table 6 probabl	9.1 and 69.2 o y match by be	clause numbers are horizo ing horizontal. It doesn't lo	ntal. The Clause ok like there is a	numbers on line 9 should space issue for requiring
Proposed Response	Response Status W			vertical	Also conside	er making them active cros	s references.	
PROPOSED ACCEPT	IN PRINCIPLE.			Suggested	Remedy			
0				As per	comment.			
See response to comm	ent 109			Proposed F	Response	Response Status W		
C/ 069 SC 69.2	P 54	L 20	# 148	PROPO	SED ACCEP	T IN PRINCIPLE.		
Dudek, Mike	QLogic			Change	orientation of	clause numbers in Table	69-1A to be boriz	ontal
Comment Type E	Comment Status D		bucket	Change				ontai.
The superscript note "a items in the middle of the table 69-1 and 69-2.	" applies to all the items in the he row rather than on the first t	table. Why is wo items (top l	it placed just on the eft) as is done for					
SuggestedRemedy								
Move the superscript to	the first M and first O in the to	p left of the tab	le.					
Proposed Response	Response Status W							
PROPOSED ACCEPT.								

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line C/ 069 SC 69.2.3

C/ 069 SC 69.3 Hajduczenia, Marek	P 54 Bright House	L 30 Network	# 9	C/ 073 SC 73.3 Ran, Adee	P 55 Intel	L 50	# 192		
Comment Type E Missing "," after "111.4" SuggestedRemedy	Comment Status D		bucket	Comment Type T The base document in functionality with brea	Comment Status D ncludes the following requirem k-out cables or when multiple	nent, which may c single-lanes are	eause incorrect AN desired by the partner:		
Insert missing "," Proposed Response PROPOSED ACCEPT.	Response Status W			"When the MDI support Negotiation and for co KR)."	onts multiple lanes, then lane (onnection of any single-lane P) of the MDI shall HYs (e.g., 1000B	be used for Auto- ASE-KX or 10GBASE-		
C/ 073 SC 73.10.1 Hajduczenia, Marek	P 59 Bright House	L 35 Network	# 23	With a break-out cable, and in some cases with QSFP-QSFP too, four separa should be created. If AN is not programmed specifically to create this configure would only be used (transmitted and received) in lane 0, and other lanes wou forced to the desired mode, which defeats the purpose of AN. Requiring AN t					
Comment Type ER List format does not ma	Comment Status D tch list format in 802.3bx-D3	.2	bucket	et programmed according to the detected cable type also defeats the purpose of All furthermore, this won't help for the case of creating four single-lane links over a cable.					
SuggestedRemedy Please align - there are Proposed Response PROPOSED ACCEPT.	missing "." at the end of eac Response Status W	h entry		A simple solution would ane that can create a this could create a sir this could create a sir that multiple single-la	IId be to allow AN to look for in single-lane link. when AN is Igle-lane link using that lane. I ne links are created, without a	ncoming AN comind detected on a lan behavior following need to re-progra	munication on every the other than lane 0, I this event can ensure am the AN registers.		
C/ 073 SC 73.3 Marris, Arthur	P 55 Cadence Desi	L 45 an Syste	# 56	SuggestedRemedy The sentence quoted	should be changed. A detaile	d presentation wi	ll be supplied.		
Comment Type E Incorrect cross reference	Comment Status D	5 - 5 - 5 - 5	bucket	Proposed Response PROPOSED REJEC	Response Status W				
SuggestedRemedy Change 73.6 to 73.9				This is a new feature	request which will need discus	ssion in the 802.3	by task force.		
Proposed Response PROPOSED ACCEPT.	Response Status W								

CI 073 SC 73.3

C/ 073	SC 73.5.3	P 55	L 54	# 143	C/ 073	SC 73.6.4	P 56	L 44	# 226	
Hidaka, Y	'asuo	Fujitsu L	ab. of Americ		Law, David		HP			
Comment	t Type T	Comment Status D)		Comment 7	ype TR	Comment Status D			
In Tal 3.2ns It is n The te +/-3.1	ble 73-2, DME pag is 82.5 UI at 25.78 iot an integer multipolerance of +/-0.01 125% and T3 that is	e timing summary, T1 3125 Gbaud. ble of bit time, and it is % is unnecessarily tig s +/-6.25%.	is specified as 3.2ns not easy to satisfy th ht in comparison to th	+/- 0.01%. e tolerance of +/-0.01%. e tolerance of T2 that is	The thi interop charact PHY si Table 7	rd paragraph o erates with a 2 eristics' implie nce it discuss '3-4 'Technolo	of subclause 110.1 'Over 25GBASE-CR PHY'. Furth as that a 25GBASE-KR P es links that comprise of o gy Ability Field encoding'	view' states that 'A 2 her, subclause 111.9 HY can interoperate one 25GBASE-KR-S however defines se	5GBASE-CR-S PHY 9 'Channel 9 with a 25GBASE-KR-S 8 PHY. The changes to parate bits for 25GBASE- 0 CR (416)	
Suggeste	edRemedy				KR-5 0	r 25GBASE-C	R-S (bit A9) and 25GBA	SE-KR OF 25GBASE	-CR (A10).	
Relax accep	the tolerance of T otable.	1 to +/-0.7% so that in	plementing T1 by 82	UI or 83UI becomes	IEEE P states 1	802.3 (IEEE 8 hat 'The singl	802.3bx) draft D3.2 subcla e PHY enabled to connect	ause 73.7.6 'Priority at to the MDI by Auto	Resolution function' -Negotiation shall be the	
Proposed	l Response	Response Status V	V		technol	ogy correspoi	nding to the bit in the Tec	hnology Ability Field	common to the local	
PROF	POSED REJECT.				device	and link partn	er that has the highest privest priority) ' and that 'In :	ority as defined in 1	able 73-5 (listed from	
The DME parameters are common to all PHYs that use Clause 73 AN, which includes many that are part of 802.3-2015 (currently 802.3bx Draft 3.2) including 1000BASE-KX,			AN, which includes ding 1000BASE-KX,	technology, HCD shall have a value of "NULL", indicating that no PHY receives link_control=ENABLE and link_status[HCD]=FAIL.'						
10GB the T imple	BASE-KR/KX4, 400 1 parameter in P80 mentations.	BASE-KR4/CR4, and 2.3by may adversely a	100GBASE-KR4/KP4	4/CR4/CR10. Changing deployed	Based 25GBA device come u	on above, if th SE-CR PHY, and link partn Ip.	e local device is a 25GB/ there will be no bit in the er, and as there is no con	ASE-CR-S PHY, and Technology Ability F nmon technology I d	d its link partner is a Field common to the local on't believe the link will	
					Suggested	Remedy				
					Either a 25GBA Alterna 25GBA 'State o	add text to sub SE-KR/25GB tively, define a SE-CR since diagram variab	clause 73.7.6 'Priority Re ASE-KR-S and 25GBASE a single bit for 25GBASE- there is only one variable iles' changes (page 59, lii	esolution function' to E-CR/25GBASE-CR KR-S, 25GBASE-CI defined for all four in the 39).	cover the cases of -S interoperability. R-S, 25GBASE-KR and n the subclause 73.10.1	
					Proposed F	Response	Response Status V	v		
					PROPO	DSED ACCEF	T IN PRINCIPLE.			
					See res	sponse to con	iment 144			

C/ 073 SC 73.6.4

CI 073	SC 73.6.4	P 56	L 51	# 144	C/ 073	SC 73.6.4	P 56	L 52	# 194				
Hidaka, Y	asuo	Fujitsu Lab. c	f Americ		Ran, Adee		Intel						
Comment It is n Since should	t <i>Type</i> T ot clear if 25GBA they have all the d always advertis	Comment Status D SE-KR or 25GBASE-CR adv capabilities of 25GBASE-KF e A9 and A10.	ertise both of A R-S or 25GBASI	9 and A10 or only A10. E-CR-S, I suppose they	Comment Type T Comment Status D We should allow advertisement of 10GBASE-KR along with copper cable assemblies such as 40GBASE-CR4 and 100GBASE-CR4.								
shoul Suggeste State A dev A10, 1 25GB Proposed PROF Add tl 25GB abilitie KR-S PHY 1 A10 a	d always advertis <i>dRemedy</i> clearly like this: vice that supports because all the al BASE-KR and 250 <i>I Response</i> POSED ACCEPT he following text: ASE-KR-S abilities are a subset of and 25GBASE-K types, a device thability bits during a	e A9 and A10. 25GBASE-KR or 25GBASE- bilities of 25GBASE-KR-S or 3BASE-CR as well. <i>Response Status</i> W 'IN PRINCIPLE. es are a subset of 25GBASE f 25GBASE-CR abilities. To a the comparison of the second the second of the second the second of the second the second of the second of the second the second of the second of the second of the second the second of the second	CR always adv 25GBASE-CR- KR abilities, lik allow inter-oper 25GBASE-CR-S 25GBASE-CR	ertises both of A9 and S are covered by ewise 25GBASE-CR-S ation between 25GBASE- and 25GBASE-CR advertises both A9 and	Althoug practice This pro- assem could p (A10) a types, e and 100 Howeve 10GBA specifie There s enable rectify t A minin for back below, ' The two Suggested/ Change To "with Delete Delete Alterna Proposed F PROPO	gh 802.3 has no e, 10GBASE-K opject has remo- biblies in AN. As ractically adver- ractically adver- enabling wider G on each lane er the current to SE-KR is spec- ed for copper ca seems to be no using 10GBAS he unfortunate nal change tha kplane and CC which have no o lists of PHYs Remedy e "with a PHY for op "e.g., 1000BAS "e.g., " from the tively, complete Response DSED REJECT	o specification of a 10 Gb/s PHR can be advertised and can of wed the distinction between 25 is a result, a 4-lane device that trise 100GBASE-CR4 (A8), 40 KR (A2) so that it could link wi interoperability and applicability and applicability ext in 73.6.4 specfically prohib ified for backplanes while 100 able assemblies. Treason for this limitation. Ren EF-KR over copper cable assmilation and the same data rate copper cable assembly counter are comprehensive and shoul or operation over a copper cable as SE-KX, 10GBASE-KX4, 10GB/ e list of copper cable assembly ely delete the third paragraph. <i>Response Status</i> W	IY for copper c operate over thi G for backplan Supports 25G i GBASE-CR4 (, th various partr y (e.g. 4 to 1 b) its this kind of a GBASE-CR4 al noving it as sug iblies with full A 10G Ethernet c t is to limit the i . If that is done erparts, should d not be preced ble assembly" sembly of the s ASE-KR" from it y PHYs.	able assembly, in s medium as well. e and for copper cable and 10G on each lane A4), 25GBASE-CR/KR hers over various cable reakout at either 25G adertisement, since nd 40GBASE-CR4 are ggested below would AN support, and partly over this medium. restriction to apply only , then 10G PHYs and not be listed. ded by "e.g.". same data rate". the first parentheses.				

This is a new feature request which will need discussion in the 802.3by task force

C/ 073 SC 73.6.4 Page 21 of 63 2015-09-09 3:48:35 PM

C/ 073 SC 73.6.4 P 57 L 4 # 39 Hajduczenia, Marek Bright House Network Bright House Network	C/ 073 SC 73.6.5.1 P 57 L 23 # 31 Hajduczenia, Marek Bright House Network Bright House Network Bright House Network Bright House Network							
Comment Type E Comment Status D bucket Font size / type issue in line 4 for ":11]" - it seems to be a point smaller than the test of the text	Comment Type T Comment Status D New subclause 73.6.5.1 covers 25 Gb/s operation only - no need to list anything for 10Gb/							
SuggestedRemedy Please apply the proper font type / size	SuggestedRemedy Remove "while bits F0 and F1 are used for 10 Gb/s per lane operation. Bits F0 and F1 are not used for 25G PHYs"							
Proposed Response Response Status W PROPOSED ACCEPT.	Renumber existing "73.6.5.1" to "73.6.5.2 FEC capability for 25G PHYs" Add 73.6.5.1 "FEC capability for 10G PHYs" with the following text: "Bits F0 and F1 are							
C/ 073 SC 73.6.5.1 P 57 L 23 # 120 Slavick, Jeff Avago Technologies # 120<	FEC operation in bits F0 or F1 then FEC is not enabled." - it is not clear whether additional text is needed.							
Comment Type E Comment Status D The First sentence of 73.6.5.1 is overview and belongs as part of the introduction section	Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.							
<i>SuggestedRemedy</i> Move "Bits F2 and F3 are used for resolving FEC operation for 25G PHYs while bits F0 and F1 are used for 10 Gb/s per lane operation. Bits F0 and F1 are not used for 25G PHYs." to be the last paragraph of 73.6.5	Move text "Bits F2 and F3 are used for resolving FEC operation for 25G PHYs while bits F0 and F1 are used for 10 Gb/s per lane operation. Bits F0 and F1 are not used for 25G PHYs." from 73.6.5.1 to be the last paragraph of 73.6.5 Rename 73.6.5.1 and 73.6.5.2 sub-clause titles to be "FEC resolution for 25G PHYs" and							
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.	"FEC resolution for 10 Gb/s per lane PHYs" Do not add 73.6.5.1 "FEC capability for 10G PHYs" because this new sub-clause would be redundant and might confuse the reader.							

See response to comment 31

C/ 073 SC 73.6.5.1

C/ 073 S	C 73.6.5.1	P 57	L 26	# 193	C/ 073	SC 73.6.5.2	2	P 57	L 35	# 22
Ran, Adee		Intel			Hajducze	nia, Marek	E	Bright House	Network	-
Comment Type	⇒ T C	omment Status D			Comment	Type ER	Comment Sta	atus D		
The 25G F forces the	EC operation as link to have FEC	specified here and in c in both directions wher	auses 110, 111 i one PHY reque	s symmetric. This sts FEC even if the	Incor subcl	ect editorial instause "73.6.5.2 F	tructions: "Make s For 10 Gb/s per la	econd and t ne PHYs" a	hird paragraphs ond change as follo	of 73.6.5 a new ows:"
other PHY	does not.				Suggeste	dRemedy				
There are - Some ap direction.	cases where this plications may pro	symmetry is a burden: efer low BER in one dir	ection and low la	tency in another	Chan as fol consi	ge to "Remove : lows:" - and the dered new text,	second and third p n new text in 73.6. even though it is b	oaragraphs i 5.2 does no oased on ex	n 73.6.5. Insert n t require any mai isting text from 73	ew subclause 73.6.5.2 kup since it is 3.6.5.
- It is possi	ible that one of th	e PHYs has a better re	ceiver or a better	r channel quality for its	Simila	ar change for 73	.6.5.3 and associa	ated editoria	l instructions.	
which has	a minimally comp	plant receiver or worse	channel quality.		Proposed	Response	Response Sta	atus W		
In these ca	ases the symmetr	y requirement doubles	the round-trip lat	ency and possibly	PRO	POSED REJEC	Т.			
imposes a needed. Technically mode, and	y there is no prob	ce impact than using ⊢ lem in having a link wit on operating in another.	EC only in the di h one direction of since the TX an	rection where it's perating with one FEC d TX data paths are	The c all of instru instru	ommenter has i the existing text ction "change" r ction.	not described how of 73.6.5 stays ur ather than "insert"	the existing modified so Also "remo	g editing instruction t is appropriate ove" is not a reco	n is incorrect. Almost to use the editing gnized editing
independe bits, and th modes to t	nt. Asymmrtrical ne existing FEC m ransmit and recei	FEC can be accomplish node definitions in claus ve directions.	ned with the existses 110 and 111,	ting AN FEC request by separating the FEC	<i>Cl</i> 074 Law, Dav	SC 74.1 d	F	<i>Р</i> 61 IP	L 21	# 224
SuggestedRen	nedy				Comment	Туре Т	Comment Sta	atus D		
Detailed pr	resentation to be	supplied.			Subc	ause 74.1 'Over	view' states that '	This clause	specifies an optic	onal Forward Error
Proposed Resp PROPOSE	bonse Re ED REJECT.	esponse Status W			Corre subcl 25GE	ction (FEC) sub ause then states ASE-KR-S PH	layer for 10GBAS s ' The 25GBASE- 's described in Cla	E-R and oth CR, 25GBA ause 110 ar	er BASE-R PHY SE-CR-S, 25GB d Clause 111 are	s.' however the same ASE-KR, and required to implement
This is a ne	ew feature reques	st which will need discu	ssion in the 802.	3by task force	Suggeste	dRemedy				
Cl 073 S Trowbridge, St Comment Type Clause title	C 73.6.5.1 eve e E C	P 57 Alcatel-Luce omment Status D reposition seems odd	L 33 nt	# [<u>134</u>	Sugg Forwa subcl 'FEC OPTI	est that ' an op ard Error Correc ause is optional (OPTIONAL)' bo ONAL OR CON	otional Forward Er tion (FEC)' as t or not. Suggest a e changed to read DITIONAL BASEI	ror Correctine he following Iso that in F 'FEC' with O ON PHY 1	on (FEC)' be cl paragraphs desc igure 74-1 (page a footnote attache 'YPE'.	hanged to read ' a tribe where the this 62, line 17) the text ed that reads 'NOTE 1-
SuggestedPon	nodu			10.0.0.2.	Proposed	Response	Response Sta	atus W		
Either just 25G PHYs	use "25G PHYs" " or "FEC capabil	and "10 Gb/s per lane ity for 10 Gb/s per lane	PHYs", or spell it PHYs".	out "FEC capability for	PRO	POSED ACCEP	т.			
Proposed Resp PROPOSE	bonse Re ED ACCEPT IN P	sponse Status W RINCIPLE.								
See respo	nse to comment 3	31								

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

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C/ 074 Hajduczen	SC 74.1 ia, Marek	Р 61 Bright House	L 6 Network	# 42	<i>Cl</i> 074 Hajducze	SC 74.4.1a nia, Marek	P 63 Bright Hou	L 43 se Network	# 43
Comment	<i>Type</i> E al instruction sho	Comment Status D	ubclause and not	be within the modified	Comment Wron	<i>Type</i> E g format of Figur	Comment Status D re 74-2a caption		bucket
subcla Suggested Move I	use <i>IRemedy</i> lines 6-7 to line 4	.5 :)			Suggeste Pleas 74-1	dRemedy e apply the corre for example of pr	ect caption format (missing oper format)	"-" between numb	er and text, see Figure
Also, e Insert	editorial instructio a new paragraph	ons could be simplified: "Cha between existing second a	ange first paragrand third paragrap	aph in 74.1 as follows. h as follows."	Proposea PROI	Response	Response Status W		
Similar and for	r change to edito urth para which a	rial instructions in 74.4 (pag are not modified.	e 62, line 36) - a	lso remove the third	<i>Cl</i> 074 Hajducze	SC 74.5 nia, Marek	P 64 Bright Hou	L 13 se Network	# 44
Proposed I PROP	Response OSED REJECT.	Response Status W			Comment Missi	<i>Type</i> E ng serial comma	Comment Status D before "and 100GBASE-R	"	
subcla 74.1 is paragr See al	use. a single paragra aphs. so comment 71	aph in the base document so	o there are no ex	isitng second and third	Chan The s CAUI The s "40GI The s	ge " and 100GB/ ame issue pn pa -n for 100GBASI ame issue on pa BASE-R, and 10 ame issue on pa	ASE-R" to ", and 100GBAS age 64, line 18: change " ar E-R" age 65, line 45: change "40 0GBASE-R" age 67, line 5 and line 24 (in	E-R" nd CAUI-n for 1000 GBASE-R and 100 n Figure 74-6): cha	GBASE-R" to ", and DGBASE-R" to ange "40GBASE-R and
Cl 074 Laubach, M Comment Sugge	SC 74.11.3 Mark <i>Type</i> E st "100GBASE-F	P 72 Broadcom C <i>Comment Status</i> D R" should be non-breaking.	L 16 orporation (or widen column	# 88 bucket	100G The s 100G The s "40G Use p	BASE-R" to "400 ame issue on pa BASE-R" to "400 ame issue on pa BASE-R, and 100 proper markup in	JBASE-R, and 100GBASE lige 68, line 5 and line 27 (ii JBASE-R, and 100GBASE lige 72, line 31: change "40 0GBASE-R" (in FE4 PICS) all referenced cases	-R ^{**} n Figure 74-8): cha -R GBASE-R and 100	ange "40GBASE-R and DGBASE-R" to
Suggested As per	<i>Remedy</i> comment.				Proposed PROI	Response	Response Status W		
Proposed I PROP	Response OSED ACCEPT.	Response Status W			The s 13 ch "The 40GE	ervice primitives ange to: service primitive ASE-R and 1000	are actually the same for 4 s are defined differently for GBASE-R."	40GBASE-R and 1 10GBASE-R, for 2	00GBASE-R so on line 25GBASE-R, and for
					on pa 100G	ge 72, line 31: cl BASE-R" (in FE₄	hange "40GBASE-R and 10 4 PICS)	00GBASE-R" to "4	OGBASE-R, and
					The c docur base	ther cases refern nent and it is no document.	red to in the suggested rem appropriate to make editor	nedy refer to legac ial changes such a	y text in the base as these to text in the

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

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Cl 074 SC 74.7.4.5.1 P 68 L 3 # 70 Remein, Duane Huawei Technologies House House <td< th=""><th>C/ 074 SC 74.7.4.8 P 70 L 12 # 76 Remein, Duane Huawei Technologies Huawei Technologies Huawei Technologies Huawei Technologies</th></td<>	C/ 074 SC 74.7.4.8 P 70 L 12 # 76 Remein, Duane Huawei Technologies Huawei Technologies Huawei Technologies Huawei Technologies
Comment Type E Comment Status D bucket	Comment Type ER Comment Status D
Incorrect formatting of Editing Instruction "Change Figure 74-8 and item b) as follows:" SuggestedRemedy use paragraph style Editing Instruction rather than T, Text	It appears that there are two options if "the optional EEE deep sleep capability is supported". On VERY careful reading it appears that The first option (detailed in the new 3rd para is for CI 107 PCS and the second option is for CI 82 PCS. Paragraph order can have a more logical order and wording could be clarified.
Proposed Response Response Status W	SuggestedRemedy
PROPOSED ACCEPT.	Swap the order of the 3rd & 4th para. and change the first sentence of each so they read
C/ 074 SC 74.7.4.5.1 P 68 L 3 # 10 Hajduczenia, Marek Bright House Network Image: Comparison of the second seco	"A Clause 82 PCS sublayer that supports the optional EEE deep sleep capability also encodes /I/ during" "A Clause 107 PCS sublayer that supports the optional EEE deep sleep capability also
Comment Type E Comment Status D bucket	encodes /l/ during"
Wrong format of editorial instructions "Change Figure 74-8 and item b) as follows:"	Proposed Response Response Status W
SuggestedRemedy	PROPOSED ACCEPT IN PRINCIPLE.
Apply the proper style to editorial instructions	There is no need to swap the paragraph order.
Proposed Response Response Status W PROPOSED ACCEPT.	Change the first sentence of the third and fourth paragraphs so they read as follows: "A Clause 107 PCS sublayer that supports the optional EEE deep sleep capability also encodes /l/ during ." "A Clause 82 PCS sublayer that supports the optional EEE deep sleep capability also encodes /l/ during ."
Comment Type E Comment Status D	C/074 SC 74.8 P71 / 23 # 72
It appears that in most places teh editing instruction is after the header block not before it	Remein, Duane Huawei Technologies
This is also an issue at	Comment Type F Comment Status D bucket
SCL pg In 74.8.1 71 37 74.11 3 72 5	It is common practice in 802.3 to avoid allowing variable names to cross line brakes. While I understand this is a royal pain, please follow the convention.
74.11.5 72 23	SuggestedRemedy
SuggestedRemedy Move the Editing Instruction "Change the first paragraph of 74.7.4.8 (and split it into multiple paragraphs) as follows:" so it is below the H4 para 74.7.4.8. Make a similar fix at other location noted (and any other you might run across) Proposed Response Response Status W PROPOSED ACCEPT.	In Table 74-1 adjust the column wsizes so FEC varibales are not broken. For normal text remove the underscore (may want to consider slash also) from the characters that can precede a line break by: Choose Format > Document > Text Options, enter the characters in the Allow Line Breaks After text box, and click Set. For example, you might want to remove the slash character from the list if you use terms such as and/or. Specific word can be made non-breaking (Hyphenation control) by placing the curser in teh
See also comment 12	work and typeing <esc> n s (see FM help on "Changing hyphenation and line breaks")</esc>
See also comment 42	PROPOSED ACCEPT.

 TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
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 SC 74.8
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 SORT ORDER: Clause, Subclause, page, line
 SC 74.8
 SC 74.8
 2015-09-09 3:48:35 PM

Cl 074 Slavick le	SC 74.9	P 0 Avago Techr	L O	# 129	C/ 078 Haiduczer	SC 78.1.1	P 73 Bright House	L 23	# 12
Comment	Type TR	Comment Status D	lologies		Comment	Type E	Comment Status D	Network	bucket
Text o 25G.	f 74.9 talks about	10GBASE-R test pattern a	bilities, 107 also	has these abilities for	Missir	ng serial comma	in "25GAUI, XLAUI and CAU	JI-n" (two instand	es)
Suggested The 10	IRemedy)GBASE-R and 2	5GBASE-R PCS provides t	est-pattern functi	ionality and the PCS	Suggested Chang Use p	<i>dRemedy</i> ge "25GAUI, XLA roper markup	UI and CAUI-n" to ""25GAU	I, XLAUI, and CA	\UI-n"
transm mode pattern	hit channel and re (see 49.2.2). When mode, the FEC	ceive channel can each op en the 10GBASE-R or 25GI function may be disabled b	erate in normal m BASE-R PHY is o y setting the FEC	node or test-pattern configured for test- Enable variable to	Proposed PROF	Response POSED ACCEPT	Response Status W		
zero, s the FE	C Encode and De	i from the PCS can be sent ecode functions.	to the PMA serv	rice interface, bypassing	C/ 078	SC 78.1.3.3.	1 P 73	L 37	# 178
The C	ause 82 and 107	PCS can also operate in te	st nattern mode	(see 82.2.11 and	Zimmerma	an, George	CME Consul	ting, Inc.	
107.2.	3); however, the s	scrambled idle test pattern of	does not require	bypassing FEC encode	Comment	Type E	Comment Status D		
and de Proposed PROP	ecode. Response OSED ACCEPT.	Response Status W			"For F capab 802.3I PHYs	PHYs with an ope ility, two modes bq is also modify , for PHYs".	erating speed of 25 Gb/s or g of LPI operation may be sup ing this text, exempting BAS	reater that imple ported: deep sle E-T PHYs, to re	ment the optional EEE ep and fast wake." ad "Except for BASE-T
CI 078	SC 78.1.1	P 73	L 20	# 11	[Same	e issue on line 46	6]		
Hajduczen	ia, Marek	Bright House	Network		Suaaested	dRemedv			
Comment	Type E	Comment Status D		bucket	Align	text with 802.3bc	draft 2.2, adding editor's no	te.	
"these PCS t	PCSs generate" /pes generate"	- I think it should be "these	PCSes generate	e" or even better "these	Proposed PROF	Response	Response Status W		
Suggested	IRemedy								
Per cc Proposed	mment Response	Response Status W			Make "Chan follow	editing instructio ge the last parages:"	n: graph of 78.1.3.3.1 as modifi	ed by IEEE Std 8	302.3bq-201x as
PROP	OSED ACCEPT	IN PRINCIPLE.			l" bbA	Except for BASE	-T." at the start of the paragr	aph.	
Chang						SC 70 4 4		مp	# 40
To	PCSS generate				Haiduczer	oia. Marek	F 14 Bright House	L 4 Network	# 13
"these	PCS types gener	rate"			Comment Stray	<i>Type</i> E line with "."	Comment Status D		bucket
					Suggested Remo The s	<i>dRemedy</i> ve ame issue on pa	ge 76, line 11		
					Proposed PROF	Response	Response Status W		

 TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
 C/ 078
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 COMMENT STATUS: D/dispatched A/accepted R/rejected
 RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
 SC 78.1.4
 2015-09-09 3:48:35 PM

 SORT ORDER: Clause, Subclause, page, line
 SC
 78.1.4
 SC
 78.1.4

CI 078 SC 78.2 P75 L16 # 28	C/ 078 SC 78.2 P75 L 3741 # 245
Hajduczenia, Marek Bright House Network	Butter, Adrian IBM
Comment Type ER Comment Status D	Comment Type T Comment Status D
Editorial instruction could be more detailed, and no need to show all of Table 78-2 a attract stray comments	and For EEE mode, in Table 78-2, while the Tq and Tr timing parameters match the values for 10GBASE-KR (listed on lines 34 to 35), the Ts timing parameter does not currently match
SuggestedRemedy Change "Change Table 78-2 as follows:" to "Insert two rows into Table 78-2, betwee	the values for 10GBASE-KR. Instead, Is matches the 40BASE and 100GBASE values. Furthermore, the Table 78-2 Ts value does not match that contained in Section 107.3, p. 100, Table 107-1 for the Tsl (Tx side Local Sleep Time parameter).
10GBASE-T and 40GBASE-KR4, as follows (unmodified rows not shown):" Remove all existing rows from Table 78-2 apart from two newly added rows for 25G	G PHYs. SuggestedRemedy
Similar change for 78.1.4, editorial instruction in line 3, page 74 and Table 78-1, edi	To resolve both discrepancies, the Table 78-2 Ts value must be changed from 0.9-1.1 us to 4.9-5.1 us (to match the 10GBASE-KR values).
instruction in line 9, page 76, and Table 78-4.	Proposed Response Response Status W
Proposed Response Response Status W	PROPOSED ACCEPT.
PROPOSED ACCEPT IN PRINCIPLE.	C/ 078 SC 78.5.2 P77 L 23 # 135
Adopt suggested remedy but also include modification to last row in Table 78-4 for a of 25GAUI.	addition Trowbridge, Steve Alcatel-Lucent
	Comment Type ER Comment Status D list of speeds, CO
Marris. Arthur Cadence Design Syste	This won't be generically true for 25 Gb/s and greater PHYs since 400GBASE-R based on currently adopted baselines will implement "East Wake" only. So CDAU-8 and CDAU-16
Comment Type T Comment Status D	will not specify deep sleep capability, nor will there be a 400G PMA Egress AUI stop enable or 400G PMA Ingress AUI Stop Enable.
25GBASE-R sleep times (Is) are incorrect.	SuggestedRemedy
SuggestedRemedy Change Ts time for the rows on lines 37 and 40 to 4.9 and 5.1 to match the 10GBA	ASE-KR Spell out 25 Gb/s, 40 Gb/s and 100 Gb/s PHY extension using 25GAUI, XLAUI, or CAUI-n in the title of 78.5.2
values and the values specified in 107.3	Proposed Response Response Status W
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE	PROPOSED ACCEPT IN PRINCIPLE.
See response to comment 245	Change title to: "25Gb/s, 40 Gb/s, and 100 Gb/s PHY extension using 25GAUI, XLAUI, or CAUI-n"
	Change first sentence to: "25GAUI, XLAUI, CAUI-10, and CAUI-4 may be used as a physical instantiation of the inter- sublayer service interface to separate functions between devices."
	See comments 83 and 179.

C/ 078 SC 78.5.2

IEEE 802.3by D2.0	25 Gb/s Ethernet	Initial Working	Group ballot	comments
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C/ 093A SC 93A.1	P 203	L 23	# 162	C/ 105	SC 105.1.3	P 80	L 40	# 180
Dudek, Mike	QLogic			Zimmerman	, George	CME Consulti	ng, Inc.	
Comment Type T	Comment Status D		COM PMD table, CC	Comment T	ype ER	Comment Status D		PHY nomenclature
The Parameter values	used for 25GBASE-KR-S are	e modified by th	e clause.	Table 1	05-1 doesn't ca	II out PCS and PMA clauses	in PHY descrip	tions, only the PMD
SuggestedRemedy				R PHY	type, not just th	e PMD, for example:		Ciauses on each DASE-
Add a footnote to Table	e 93-8 on the KR-S row only.	Footnote to s	ay "As modified by 111.9	"25 Gb/	s PHY using 25	GBASE-R encoding over one	e lane of twinax	tial copper cable (see
Proposed Response	Response Status W			1.4.407 "25 Gb/	and Clause 11 s PHY using 25	0)." should read: 5GBASE-R (Clause 107 PCS)	and Clause 10	9 PMA) encoding over
PROPOSED ACCEPT	IN PRINCIPLE.			one lan	e of twinaxial co	opper cable (see 1.4.407 and	Clause 110)."	e i in ij eneeding eter
In 111.9. add a table lis	ting the modified COM para	meters as is do	ne in 110-10 and update	SuggestedF	Remedy			
the text appropriately.				See cor	nment, modify	all entries in Table as shown.		
In Table 93A-2 on the r	ows for 25GBASE-KR and 2	5GBASE-KR-S	replace "Table 93-8"	Proposed R	esponse	Response Status W		
with a reference to the	new table in 111.9.			PROPC	SED REJECT.			
Affects Annex 93A and	Clause 111.			The cor	tent is consiste	ent with Table 80-1 (40G/1000	G) in Clause 80	l.
C/ 093A SC 93A.1	P 203	L 24	# 3	Each Pl	MD clause prov	rides a subclause and table w	hich normative	ly lists all sublayers
Hajduczenia, Marek	Bright House	Network		(includir	ng the PCS), w	hich are mandatory or optiona	al for a complete	e PHY. It would be
Comment Type E	Comment Status D		bucket	Imcomp	lete and redun	dant to add this information h	ere as suggeste	ed by the commenter.
Please fix font size for	'Table 83D-6" - it seems larg	ger than other e	ntries					
SuggestedRemedy								
Per comment								
Proposed Response	Response Status W							
PROPOSED ACCEPT.								

C/ 105 SC 105.1.3

C/ 105	SC 105.2	P 81	L 10	# 37	C/ 105	SC 105.2		P 81	L 3	# 38
Hajduczenia	a, Marek	Bright Hous	se Network		Hajduczen	iia, Marek		Bright House	Network	
Comment T Perhap 25GBA	<i>ype</i> TR s I am reading SE-KR-S do n	Comment Status D Table 105-2 wrong, but it so tot support FEC (see PHY d	eems that 25GB/ lefinitions in Tabl	<i>backplane FEC options</i> ASE-CR-S and e 105-1), e.g., "25 Gb/s	<i>Comment</i> "This s the ma	<i>Type</i> E standard specif ain standard, th	Comment fies a family of F ne statement wil	<i>Status</i> D Physical Layer i I lose its meani	implementations	s. " - once merged into
PHY ec 2 lists C Sublaus The BA	uivalent to 25 Clause 74 BAS se 105.3.3 als SE-R FEC (se	GBASE-CR without support SE-R FEC as mandatory for o states: ee Clause 74) may be used I	for the RS-FEC these PHYs by some 25GBA	sublayer"; yet Table 105- SE-R PHYs.	Suggested Chang clause	<i>lRemedy</i> ge "This standa e specifies a far	nd specifies a fa mily of Physical	amily of Physica Layer impleme	al Layer implementations."	entations. " to "This
The RS	-FEC (see Cla	ause 108) may be used by s	ome 25GBASE-I	R PHYs.	Proposed	Response	Response	Status W		
SuggestedF	Remedy				PROP	OSED REJEC	T.			
Please and 250 Clause	confirm that s GBASE-KR-S 74 BASE-R F	upport for Clause 74 BASE- It is also not clear whether EC and Clause 108 RS-FEC	R FEC is intende PHYs using FEC Simultaneously	ed for 25GBASE-CR-S are supposed to use or not.	[The c	commenter did	not provide a c	omment type.	The editor set co	omment type to "E".]
Proposed R	Response	Response Status W			I his cl	lauses summai Many clauses i	rizes the family	of Physical Lay	/er implementati	ions; it does not specify
PROPC	SED REJEC	Т.			them.		in this standard		LLL 002.0/ 00.	
Suppor	t for Clause 74	4 "BASE-R" FEC is mandato	bry for both 25GE	ASE-CR-S and	This la 10G o	anguage is con peration (44.1.4	sistent with sub 4.4).	clauses summa	arizing 40G/100	G operation (80.1.5) and
ZUGDA	3E-NR-3. IIIE			lause 14 DASE-R FEG.	C/ 105	SC 105.2		P 81	L 34	# 102
This tab	ole lists which	features are mandatory to in	nplement in each	n of the PHY types. The	Booth, Bra	d		Microsoft		
selectio through	on of FEC type manual confi	(including no-FEC) to use v guration or through auto-neg	vhile operating is otiation.	determined either	Comment Table	<i>Type</i> E 105-2 is missir	Comment	Status D	O mean	bucket
The PM	ID clauses pro	ovide full specification of the	use sublayers fo	r a particular PHY type.	Suggested Add a	<i>Remedy</i> footnote to ind	licate the meani	ng of M and O.		
					Proposed PROP	Response OSED ACCEP	Response . PT.	Status W		

C/ 105 SC 105.2

Marrie Arthur Cado	nce Design Syste	# 03		D'Ambrosia	30 1 05 .	.3.3	P 82	L 2	# 203
Marris, Arthur Cade Comment Type T Comment Status Include the word logical in the 25GMII desc change "this" to "the". SuggestedRemedy Change: "The 25GMII (Clause 106) provides an inte (MAC) sublayer and Physical Layer entities operation through its 32-bit-wide transmit a To: "The 25GMII (Clause 106) provides a logic Control (MAC) sublayer and Physical Layer operation through its 32-bit-wide transmit a Proposed Response Response Status PROPOSED ACCEPT.	nce Design Syste D ription as was done for 2 rconnection between the (PHY). This 25GMII sup nd receive data paths." al interconnection betwe rentities (PHY). The 25C nd receive data paths." W	XLGMII in 80.2.4 Media Access pports 25 Gb/s en the Media Ac GMII supports 25	bucket I. Also Control ccess 5 Gb/s	D'Ambrosia Comment T Text no An FEC in betwy PCS ar The BA The RS This ca Plus tex Suggested Suggested Suggested Suggested The BA The BA The RS Proposed F PROPO The 250 incorrect The non necessis sugges Howeve be foun Add the "The re summa	, John <i>Type</i> TF tes Sublayer een the d PMA su SE-R FEC (see n be confu- kt does no <i>Remedy</i> sted reword Sublayer een the PC f FEC that ble 105-2. SE-R FEC (see <i>Response</i> DSED ACC GBASE-Cl ct to specif rmative rea ary and ma- ted. er, it would d. e following quirement rized in 10	R-S and types is available with the senter to imp types is available with the senter types is available with the senter is a senter is available with the senter is a senter is	Dell <i>Comment Status</i> D ilable for all 25GBASE-R PH s or between two PMA subla Clause 74) may be used by se 108) may be used by som et what is in Table 105-2. ilable for all 25GBASE-R PH d PMA sublayers or between be implemented, dependent Clause 74) SHALL be used se 108) SHALL be used by A <i>Response Status</i> W IN PRINCIPLE. ad 25GBASE-KR-S PHYs do it shall be used by all 25GB/ tents are in the PMD Clause inconsistent with future PHY: appful to make reference to we have to 105.3.3: blement FEC for each Physic	Ys. The FEC some 25GBA e 25GBASE Ys. The FEC two PMA su upon the PH by some 25G LL 25GBASE o not include a ASE-R PHYs that defines s to include b here the norr cal Layer imp	backplane FEC options C sublayer can be placed ASE-R PHYs. -R PHYs. C sublayer can be placed blayers. There are two Y being implemented. BASE-R PHYs. E-R PHYs. an RS-FEC. It is therefore c. each PHY. It is not blanket requirements as mative requirements may

C/ 105 SC 105.3.3

Cl 105 SC 105.3.7 Booth, Brad	P 82 Microsoft	L 40	# 103	Cl 105 SC 105.4.1 Hajduczenia, Marek	P 83 Bright Ho	L 20 use Network	# 14
Comment Type E Declaration of acronym	Comment Status D is are not required as they're	not used in this	acronym usage s clause.	Comment Type E Unnecessary referen	Comment Status D ce to Clause 78 in "(see Cl	ause 78, 78.1.3.3.1)"
SuggestedRemedy Remove "(MMD)" and '	'(STA)".			SuggestedRemedy Change to "(see 78.1	.3.3.1)"		
Proposed Response PROPOSED REJECT.	Response Status W			Proposed Response PROPOSED ACCEP	Response Status W		
The "2014 IEEE-SA St inclusion of acronyms i	andards Style Manual" provie n text.	des the followin	g guidance WRT to	<i>Cl</i> 105 SC 105.4.3 Marris, Arthur	.1.2 P 84 Cadence	L 35 Design Syste	# 64
"Within text, the acrony time in the introduction time in any annexes in the acronym appears). following the full term."	rm or abbreviation should fol , then the first time in the boo which The abbreviation or acronyn	low the first use dy of the docum n should be plac	of the full term (the first lent, and then the first ced in parentheses when	Comment Type T Isn't the signalling rat service interfaces? SuggestedRemedy	Comment Status D e always going to be 25.78	3125 GBd for the PN	bucket
The style guide does n clause. These acronyms are co acronyms here for refe	ot preclude the use of acrony ommonly used in other Claus rence.	yms if they are o ses and it is hel	used only once within a pful to include the	Change: The sublayer continu lower sublayer, at a r sublayer service inter To: The sublayer continu	ously sends a bit stream IS ominal signaling rate defin face. ously sends a bit stream IS	S_UNITDATA.reque ed by a specific ins	est(tx_bit) to the next tance of the inter- est(tx_bit) to the next
C/ 105 SC 105.4 Marris, Arthur	P 82 Cadence Des	L 52 sign Syste	# 66	Make similar change	in 105.4.3.2.2	.78125 GBu.	
Comment Type TR 25GBASE-R is single la	Comment Status D ane so delete the text referrin	ng to multiple st	multiple streams	Proposed Response PROPOSED ACCEP	Response Status W		
SuggestedRemedy Delete: "Note that the 25GBAS and INDICATION primi units, as explained in 1	E-R inter-sublayer service ir tives to indicate the transfer 05.4.1 through 105.4.3."	iterfaces use m of multiple inde	ultiple scalar REQUEST pendent streams of data				
Proposed Response PROPOSED ACCEPT	Response Status W						

C/ 105 SC 105.4.3.1.2

C/ 105	SC 105.5	P 89	L 31	# 140	C/ 10	5	SC 105.5	P 8	9	L 48	# 65
Hidaka, Ya	isuo	Fujitsu Lab. of A	meric		Marris	, Arthu	ır	Cade	nce Desig	n Syste	
Comment There	<i>Type</i> E is a pointer to c	Comment Status D lause 80.4, but cleause 80.4 doe	s not have the	description of the	Comr. N	nent Ty issing	<i>rpe</i> T subnanoseco	Comment Status and bits for 25GBASE-	D R PMA		
calcula Clause Clause	ation of bit term 80.4 has just a 44.3 has the d	per meter of fiber or electrical ca a pointer to clause 44.3. escription.	ble.		Sugge C	es <i>tedR</i> hange	<i>emedy</i> 164 to 163.84	4 in table 105-3 and m	ake simila	r change in ta	able 109-1.
Suggested	Romadu	yood.			Propo	sed Re	esponse	Response Status	w		
Chang	remeay the pointer to	clause 80.4 with a pointer to cla	use 44 3		Р	ROPO	SED ACCEP	Т.			
Proposed	Response	Bosponoo Statuo W	400 44.0.		A	ffects C	Clauses: 105,	109.			
PROP					C/ 10	6	SC 106 4	Pq	4	/ 13	# 107
					Booth	, Brad	00 100.4	Micro	soft	210	107
P802.3	3bx D3.2 44.3 p	rovides a calculation of cable de	ay in bit times (BT) specifically for	Comr	nent Tv	vne FR	Comment Status	D		
Replac					S	entenc Claus	e is ambiguo e 105 would b	us. All the 25G PHYs i be helpful.	nay suppo	ort EEE. Also	, reference to the table
"See 8	0.4 for the calc	ulation of bit time per meter of fib	er or electrical	cable."	Suaa	estedR	emedv				
Equation based propag	on (<tbd>) spe upon the param gation in the fibe</tbd>	ecifies the calculation of bit time neter n, which represents the rati er or electrical cable to the speed	per meter of fib o of the speed of of light in a vac	er or electrical cable of electromagnetic cuum. The value of n	C C "2 Propo	hange 5 Gb/s sed Re	sentence to r PHYs may s	ead: support Clause 78 Ene Response Status	rgy-Efficie w	nt Ethernet (s	see Table 105-2)."
should	be available fro	om the fiber or electrical cable m	anufacturer, bu	if no value is known	- P	ROPO	SED ACCEP	T.			
speed	of light in a vac	uum is c = 3×108 m/s. Table 44	1–3 can be use	to convert fiber				••			
or elec per me	trical cable dela eter."	ay values specified relative to the	speed of light	or in nanoseconds	C/ 10 Booth	7 , Brad	SC 107.1.1	P 9 Micro	7 soft	L 9	# 104
Add th cable of	e following equa	ation to 105.5: /(n*c) BT/m			Comr E	nent Ty xtra co	<i>rpe</i> E mma not requ	Comment Status uired.	D		bucket
C/ 105	SC 105.5	P 89	L 41	# 90	Sugg	estedR	emedy	Physical Laver imple	mentation	is known as 2	SGBASE-R "
Mellitz, Ric			1		Drong					13 KHOWH 43 2	
Comment table 1 This is	<i>Type</i> T 05-3. 25G RS, not 32.678 ns	Comment Status D MAC, and MAC Control is 8192	bits time of 40p	withdraw s (note a).	vn Prope P	ROPO	SED ACCEP	Response Status T.	vv		
Suggested Chang	IRemedy le 32.678 to 327	7.68 ns									
Proposed I PROP	Response OSED REJECT	Response Status Z									
This co	omment was W	ITHDRAWN by the commenter.									
TYPE: TR/ COMMENT SORT ORI	/technical requir T STATUS: D/d DER: Clause, S	ed ER/editorial required GR/ge ispatched A/accepted R/rejecte ubclause, page, line	neral required d RESPONS	T/technical E/editoria E STATUS: O/open	al G/general W/written C/c	osed	U/unsatisfied	Z/withdrawn	C/ 107 SC 107.	1.1	Page 32 of 63 2015-09-09 3:48:35 F

-								
Cl 107 SC 107.1.3 Hajduczenia, Marek	P 97 Bright House	L 29 Network	# 15	C/ 107 Booth, I	SC 107.2 Brad	P 98 Microsoft	L 49	# 110
Comment Type E Double "." at the end of	Comment Status D the sentence		b	ucket Comme The	nt Type TR conformance rec	Comment Status D quirements for this clause are	e very light and po	orly captured in the
SuggestedRemedy Change "" to "."				Sugges	s. edRemedy			
Proposed Response PROPOSED ACCEPT.	Response Status W			Cha "Th in C	nge the paragrap 25GBASE-R PC lause 49. In addit cified in 82.2.11 "	h to read: CS shall support all the functi tion, the PCS shall support th	onality of the 10Gi ne scrambled idle t	BASE-R PCS specified test pattern generator
C/ 107 SC 107.1.4.1 Hajduczenia, Marek	P 98 Bright House	L 37 Network	# 32	390	07.6.3, for the MI	D entry, add 49.2.14 to the su	ıbclause list.	
Comment Type T	Comment Status D		b	ucket Cha	nge 107.6.4 to be	e 25G PCS and delete table i	in 107.6.4.	
me wonder whether oth service interface qua 25GMII. Period. SuggestedRemedy	ter elements of 25G PHY are notifiers of this type are mean	e defined less pl ingless. PCS s	ecisely than PCS ervice interface is the	e Use PC	nge 107.6.4.1 to the following ent 1; Supports Clau 107.6.4.2 Test F	be Clause 49 Functionality ries into the table: use 49 functionality; 107.2; ; I Pattern Generator	И; Yes[] No[]	
Remove the word "prec	sisely" from the selected state	ement.		Use	the following ent	ries in the table:		
Proposed Response	Response Status W			TP2	; Scrambled idle	ability; 107.2.3; ; M; Yes[] No	, M, Yes[] No[] >[]	
				Cha Cha adc Inso LP ² No[Adc LP3	nge 107.6.4.2 LP nge LP1 in table N/A[] to Support rt LP1 with the fo ; EEE deep sleep N/A[] LP3 with the folli ; EEE fast wake;	PI to be 107.6.4.3 LPI to be LP2 and change LPI:M Illowing entries in the table: b; 107.3, 49; PHY configured owing entries: 107.3; Fast wake operation;	to be LPI:O (deep for deep sleep op LPI:M; Yes[] No[]	o sleep is optional) and eration; LPI:O; Yes[]
				Propose PR	<i>d Response</i>)POSED ACCEF	Response Status W T.		

C/ 107 SC 107.2 IEEE 802 2by D2 0 25 Ch/a Ethornot Initial Working Croup ballot commants

C/ 107 SC 107.2	P 98	L 53	# 73	C/ 107	SC 107.2	P 98	L 54	# 191
Remein, Duane	nuawei Teci	inologies		Ran, Auee		Inter		
Comment Type E	Comment Status D			Comment Ty	vpe T	Comment Status D		
In Figure 49-15 I don't see "125_timer"	e anything labled "125 mi	crosecond timer"	only something called	A PHY c desired l	perating in n BER. The BE	o-FEC mode can have unexpe R of an active no-FEC link is n	cted bad perform ot readily obser	nance and higher than vable, so this situation
SuggestedRemedy				may be o		lect and handle.		
Change: "The BER monitor state di timer instead of a 125 mic 16." To:	iagram shown in Figure 4 rosecond timer and ber_	49-15 still applies cnt is tested for a	but with a 2 millisecond value of 97 rather than	When a link can either din correcter	PHY operate be reliably m rectly using th d block/symb	s in either BASE-R FEC or RS onitored by periodically reading ne uncorrectable codeword cou ol error counters, and estimatir	-FEC mode, per j information avainters, or indirecing the underlying	formance of an active ailable within the PHY - tly reading the g PMD BER.
"The BER monitor state di "125_timer" in 49.2.13.2.5 and ber_cnt exit criteria fo	iagram shown in Figure 4 is replaced with 'Timer the llowing state BER_BAD_	49-15 still applies hat is triggered ev _SH a value of 97	but the definition of /ery 2 us +1%, -25%' rather than 16."	In contra errored b control b	ast, in no-FEC block counter blocks (corrup	C mode, the only error informati (49.2.14.2). This counter adva ted start or end of frame or IPC	ion available in t inces only for er G), and does no	he PHY is the PCS rors that occur on t advance when errors
Proposed Response	Response Status W			occur in	data blocks (these errors are expected to be	e detected in the	MAC by corrupted
PROPOSED ACCEPT IN	PRINCIPLE.			01(0).				
Change to: "The BER monitor state di timer instead of a 125 mic 16 in the exit conditions fro 49.2.13.2.5 is replaced wit	iagram shown in Figure 4 rosecond timer and ber_ om state BER_BAD_SH. th 'Timer that is triggered	19-15 still applies cnt is tested for a So the definition l every 2 ms +1%,	but with a 2 millisecond value of 97 rather than of "125us_timer" in 25%'"	Therefor knowing blocks). counters calculatio	e, in no-FEC the link utiliz Similarly, it os s, since these on. Also, the	mode, the BER cannot be calc ation level (relative portion of d cannot be precisely calculated counters count frames and the MAC error counting functionali	ulated from PH ata blocks out c by counting the frame lengths ty or even the M	Y information without f the total received MAC CRC error are missing from the IAC itself may not exist
				In order is require reading a	to enable mo ed. Given suo and dividing t	re accurate performance estim ch a counter, the PCS block err he values of the errored block	ation, a counter or ratio can be counter and the	of PCS control blocks calculated simply by control block counter.
				Such a c 25 Gb/s, significa significa	counter shoul a 48-bit cou nt 16-bit part nt 32 bits pro	d be wide enough to enable inf nter of PCS blocks can count fo would wrap around in less thar vides sufficient information.	requent monitor or more than 8 o 1 second, so r	ing without clipping. At lays; its least eading obly its most

Implemenation of this counter can be optional.

SuggestedRemedy

Add a counter definition (in a new subclause as necessary) with definition:

control_block_count - 48-bit counter. When the receiver is in normal mode, control_block_count counts once for each time either RX_C or RX_T states are entered. Implementation of this counter is optional.

Insert new subclause 45.2.3.51, and define two new MDIO registers 3.1809, 3.1810 (or other addresses) for accessing the most significant 32 bits of the counter (multi-word, selfclear).

Proposed Response Response Status W

PROPOSED REJECT.

TYPE: TR/technical required ER/editorial required GR/gener	al required T/technical E/editorial G/general	C/ 107	Page 34 of 63
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn	SC 107.2	2015-09-09 3:48:35 PM
SORT ORDER: Clause, Subclause, page, line			

This is	s a new feature re	equest which will need discus	ssion in the 802.	3by task force	C/ 107 Hajduczer	SC 1 nia, Marel	07.4 k	P 101 Bright House N	L 24 Network	# 34
Cl 107 Hajduczer	SC 107.2.1 nia, Marek	P 99 Bright House	L 35 Network	# 33	Comment "A de	<i>Type</i> scription	T of overa	Comment Status D	n be found in 1	<i>bucke</i> 06.1.4" - but the link
Comment	Туре Т	Comment Status D		bucket	points	s only to T	Table 10	6-1, which lists MAC, RS, and	MAC Control	RTT constraints.
"For v are sh	alues shown as b nown with the first	binary, the leftmost bit is the t t transmitted bit (the LSB) on	first transmitted the left." are rep	bit." and "Binary values petetive	Suggeste Chan	<i>dRemedy</i> ge referer	, nce to 10	05.5, where Table 105-3 lists :	all elements of	25G PHYs. For
Suggestee	dRemedy				refere	ence, note	e that 10	8.4 specifies this correctly, lin	king it to 105.5.	
Repla "For v staten	ce "Binary values alues shown as b nent: "Values rep	s are shown with the first tran binary, the leftmost bit is the t resented in binary are showr	ismitted bit (the first transmitted a with the first tra	LSB) on the left." and bit." with a single ansmitted bit (the LSB)	Proposed PROF	Respons POSED A	se ICCEPT	Response Status W		
on the		D			C/ 107	SC 1	07.5	P 101	L 30	# 58
Proposed	Response	Response Status W			Marris, Ar	thur		Cadence Desi	gn Syste	
PROF	OSED ACCEPT	•			Comment	Туре	Е	Comment Status D		bucke
CI 107	SC 107.2.3	P 99	L 49	# 243	Missir	ng "a"				
3utter, Ad	rian	IBM			Suggeste	dRemedy	/			
Comment Accor	<i>Type</i> E ding to Clause 10	Comment Status D 07.2, the scope of test pattern	n support include	es those specified in	Chan "as a	ge to: 10GBASI	E-KR PI	۸D"		
Claus 107.2. "The F	e 49 (for generati .3, the following s PCS shall have th	ion and checking), plus scrar sentence appears: ne ability to generate a scram	nbled idle (for ge	eneration only). In	Proposed PROF	Respons POSED A	e CCEPT	Response Status W IN PRINCIPLE.		
To rei to bro	nforce inclusion of aden the scope of a	of the generated test patterns of the current statement in Cla	s specified in Cla ause 107.2.3.	ause 49, it is suggested	Chan "as a	ge to: PCS use	d with a	10GBASE-KR PMD"		
Suggested	dRemedy									
The fo "In ad a scra	bllowing editorial dition to those pa Imbled idle test p	update is suggested: itterns specified in 49.2.8, the attern."	e PCS shall have	e the ability to generate						
Proposed	Response	Response Status W								
PROF	OSED ACCEPT									

C/ 107 SC 107.5

C/ 107	SC New	P 100	L 34	# 244	C/ 108	SC 108.5.2.2	2	P 106	L 33	# 122
Commont 7					Slavick, Je		Commont	Avago Technolo	gies	
Accordi Clause reinforc include	ing to Clause 107 49 (for generations inclusion of the a test patern che	7.2, the scope of test patter n and checking), plus scrar e checked test patterns spe ecking subclause.	n support include nbled idle (for ge cified in Clause 4	s those specified in neration only). To 9, it is suggested to	The /l/ b). Ho Suggested	means Idle con wever this is als Remedy	trol character so the first usage	o it's unnecessar o of /I/ and /LI/ in	ry to include to clause 108	the word character in so.
Suggested	Remedy	-			Delete	"characters," fr	om 108.5.3.6 ite	m b)		
Add the	e following subcla 4 Test-pattern ch	use and associated text: ecker			In 108. b) Dele create	5.2.2 change b) ate /I/, /LI/ and o room as necess	to read: rdered sets, acc sary for the peric	cording to the rul odically occurring	es in 49.2.4. g codeword r	7 and 49.2.4.10, to narkers
The PC	S shall provide t	est pattern checking abilitie	s in accordance v	with 49.2.12."	or					
Proposed F PROPC	Response DSED REJECT.	Response Status W	advatates that all		b) Dele sets, a periodi	ete Idle control of coording to the cally occurring to	characters (/I/), L rules in 49.2.4.7 codeword marke	ow Power Idle c and 49.2.4.10, rs	control chara to create roo	cters (/LI/) and ordered m as necessary for the
functior	nality is supported	dant as the document airea	ady states that all	Clause 49	Proposed I	Response	Response St	atus W		
CI 108	SC 108 5 2 2	P 106	/ 25	# 126	PROP	OSED ACCEPT	IN PRINCIPLE			
Trowbridge,	, Steve	Alcatel-Lucer	L 23	# 136	(Use th	ne second optio	n in the suggest	ed remedy)		
Comment 7 Doing r 25GbE	<i>ype</i> TR ate compensatio which is PCS co	Comment Status D n below the PCS precludes deword transparent.	developing an O	OTN TN mapping for	In 108. Idle co In 108.	5.2.2 item b, ch ntrol characters 5.3.6 item b), cl	ange "Delete /I/ (/I/), Low Power nange "Delete /I/	/ and /Ll/ charac r Idle control cha / and /Ll/ charac	ters and orde aracters (/Ll/) ters and orde	ered sets" to "Delete and ordered sets". ered sets" to "Delete /l/
Suggestear	Remeay	0015 pdf for proposed rom	ady. The problem	n can be colved if all of	and /Ll	/ and ordered s	ets".			
the PM to inser	bindge_sby_or Ds have CWMs, t CWMs (i.e., over S. Rate compense	none of the PMDs have CV erclock to insert CWM). Pro-	VMs, or if no rate pose to move the moved from Figu	compensation is done e rate compensation to re 108-2	C/ 108 Trowbridge	SC 108.5.2. 4 e, Steve	1	P 108 Alcatel-Lucent	L 1	# 137
Proposed R PROPC	Response DSED REJECT.	Response Status W			Comment Some mappir	<i>Type</i> TR PMDs having C ng for 25GbE in	Comment Si WMs and others to OTN which ca	tatus D s not prevents cr an interconnect a	eating a PC	OTN S codeword transparent 5GbE PMDs.
Pending	g presentation ar	d task force discussion.			Suggested	Remedy				
See co	mments 137, 138	8, 139 and 190.			Propos If CWN four 66	se to move CWM I insertion is mo B blocks to the	I insertion to the oved to the PCS 257B format.	e PCS. See trow , Figure 108-3 n	/bridge_3by_ eeds to trans	01_0915.pdf for details. scode the CWM from
					Proposed I	Response	Response St	atus W		
					PROP	OSED REJECT				
					Pendir	g presentation	and task force d	iscussion.		
					See co	omments 136, 1	38, 139, and 190	Э.		

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn C/ 108 SC 108.5.2.4 SORT ORDER: Clause, Subclause, page, line

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C/ 108 SC 108.5.2.4 P 108 L 11 # 130 Slavick, Jeff Avago Technologies 130	C/ 108 SC 108.5.2.4 P 108 L 3 # 145 Hidaka, Yasuo Fujitsu Lab. of Americ Fujitsu Lab. of Americ Fujitsu Lab. of Americ Fujitsu Lab. of Americ
Comment Type TR Comment Status D CWM	Comment Type T Comment Status D Bucket
Paragraph describing how tx_cwm is built is a little cryptic	A brief description of what is an RS-FEC codeword is helpful to read this paragraph. It is not clearly described until 108.5.4.4
SuggestedRemedy	Suggested Remody
Change the paragraph The transmitted codeword marker is a 257-bit block tx_cwm_constructed from the eight	Add the following sentence in the paragraph:
octets M0, M1, M2, BIP3, M4, M5, M6, and BIP7 (bits 65 to 2) of the alignment markers	
with the bit order shown in Figure 82 9, with BIP3 set to the constant value 0x33 and BIP7 set to the constant value 0xCC, as follows:	An RS-FEC codeword for 25GBASE-R is 528 10-bit symbols or 5280 bits.
	Proposed Response Response Status W
to read	PROPOSED ACCEPT IN PRINCIPLE.
The transmitted codeword marker is a 257-bit block, tx_cwm, constructed of four alignment	The RS-FEC encoder is fully specified (by reference to clause 91) in 108.5.2.5.
markers. Each alignment marker is built from eight octets M0, M1, M2, BIP3, M4, M5, M6, and BIP7 with the bit order shown in Figure 82 9. Since 25GBASE-R does not perform Bit	Insert "(See 108.5.2.5)" after "RS-FEC codeword".
Interleaved Parity (BIP) monitoring the BIP3 field is set to the constant value 0x33 and BIP7 set to the constant value 0xCC.	Cl 108 SC 108.5.2.4 P 108 L 3 # 121
	Slavick, Jeff Avago Technologies
tx_cwm is constructed as follows:	Comment Type E Comment Status D Bucket
Proposed Response Response Status W	Extra words "at predfined locations," make the sentence a little confusing.
PROPOSED REJECT.	SuggestedRemedy
The proposed text does not add clarity to the codeword marker construction text.	Remove the words "at predfined locations," so the sentence reads
Pending task force discussion.	In order to support codeword alignment in the receive direction, the 25GBASE-R RS-FEC
	shall periodically insert codeword markers into the stream of transcoded blocks as the first
Lo William Marvell Semiconductor	Proposed Response Response Status
Comment Type T Comment Status D withdrawn	PROPOSED ACCEPT.
Not sure whether the following is intentional or is a typo.	
Lane 0 alignment marker is referencing table 82-2 which is from 100GBASE-R	C/ 108 SC 108.5.2.7 P 109 L 1 # 16
Lane 1, 2, 3 alignment marker is relevencing 62-3 which is from 40GBASE-R	
Suggested Remedy	Comment Type E Comment Status D bucket
Else - I withdrawl this comment if the differnce is intentional.	
Proposed Response Response Status Z	SuggestedRemedy Wroatle with Erome and make sure that Figure 108.2 does not break text in the middle
PROPOSED REJECT.	
This comment was WITHDRAWN by the commenter.	Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.
	Apply formatting changes to prevent the figure from breaking the text.

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/generalC/108Page 37 of 63COMMENT STATUS: D/dispatched A/accepted R/rejectedRESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawnSC 108.5.2.72015-09-09 3:48:35 PMSORT ORDER: Clause, Subclause, page, lineSORT ORDER: Clause, Subclause, page, lineSC 108.5.2.7SORT ORDER: Clause, Subclause, page, line

<i>Cl</i> 108 Booth, Brad	SC 108.5.3.2	P 1 Micro	10 <i>L</i> 42 soft	# 114		Cl 108 So Dudek, Mike	C 108.5.3.2	<i>P</i> 110 QLogic	L 46	# 153
Booth, Brad Comment T The sha handled SuggestedF Change The 250 errors th Delete F Proposed R PROPC	ype TR Ill statement talke by other shalls. Remedy the second sent GBASE-R RS-FE hat were not corre RF6 from 108.7.4 esponse DSED REJECT.	Micro Comment Status s more about capab rence of the paragra C sublayer is also o ected. 1.2. Response Status	soft D bility than a requirement aph to read: capable of indicating wh	The requirement	PICS ts are	Dudek, Mike Comment Type With the op and base-R error indica acceptance encoding is (Negotiating standard. SuggestedRem Delete the p "contains en were not co	T tions to turn of FEC modes tion is not nece and latency w turned off (no g to RS-FEC a nedy paragraph sta prors (when the proceed (wher	QLogic Comment Status D off the RS-FEC encoding of operation) the addition cessary. My understandin with error correction bypa o FEC option) and there is and then not correcting). rting at line 46 and the Ne e bypass correction feature the bypass correction feature	that are included al option to turn o g is that the perfo ssed is worse tha s therefore no adv This mode shoul OTE below it. On the is enabled) or tature	BEC/BEI, BTI n this project (no FEC ff the error correction or rmance for false packet n when the RS-FEC vantage to this mode. d be removed from the page 111 line 2 replace contains errors that
I ne texi requirer	t is based on sim nent.	ilar text in 91.5.3.3.	I ne correction capabili	ty is a normative		is not support Delete the t 108-2 on lin Delete sect On page 11 that contain and enabled is not support contains ent Remove BE Also delete (see 108.5. bypassed," Proposed Resp PROPOSE These oper implement a There is no See also co	orted or not er paragraphs or two rows in Ta ions 17 and 18 ions 108.6.1, 19 line 42 repl as errors (whe d) or contains orted or not er rors" EC and BEI fro Sections 45.2 "and the RS- 3.2)" on page on page 140 <i>ionse</i> D REJECT. ation modes a and to use. The harm in keep pomment #111.	habled)" with "contains er a page 111 starting at line able 108-1 on page 118 line 108.6.2, 108.6.4 and 108 ace the paragraph "An ur n the bypass correction for errors that were not corre- box the PICS table in 108 2.1.101.1, 45.2.1.101.2, 4 FEC decoder does not by 139 line 49 and "or in the line 1. and similarily on p <i>Response Status</i> W are based on the ones do hey may be considered bo ing them in the standard.	rors that were not as 13 to the end of nes 6 and 7. and a.6.5 accorrected FEC co eature is supporte ected (when the b ected FEC codewo 7.3. and RF6, RF 5.2.1.102.8, 45.2 pass error correct e RS-FEC mode v bage 166 lines 42 efined in clause 9 eneficial in some	corrected " 108.5.3.2. the two rows in table odeword is a codeword d ypass orrection feature ord is a codeword that 8 and RF(in 108.7.4.2 1.102.9 tion vith error correction and 47. 1 and are optional to usage models.

C/ 108 SC 108.5.3.2 Page 38 of 63 2015-09-09 3:48:35 PM

Booth, Brad Microsoft PICS Comment Type TR Comment Status D PICS RF7 in the PICS table talks about the corruption of the header. The text in 108.5.3.2 actually has two shall statements associated with it which have different requirements. This could be grangent by reading the text to result in one shall statement to cover the operation. Some PMDs having CVMMs and others not prevents developing a PCS codeword transparent mapping into CTN which can interconnect any pair of 25GbE PMDs. Suggested/Remedy Change the first sentence of the paragraph to read: "The Reed-Solomon decoder status to be PICS sublayer by intentionally corrupting 66-bit block synchronization headers." Some PMDs having CVMMs and others to the PCS and readers." PROPOSED Response Response Status W PROPOSED REJECT. Proposed Response Response Status S W PROPOSED ACCEPT. Comment Status D PICS, EEE Contrast Type TR Comment Status D PICS, EEE Regonse Status W PICS, EEE Comment Status D OTN Add to new PICS entity for error monitor while entering and exiting deep sleep. Use the status BETEEEM for each entry. PICS Entities for error monitor while in deep sleep, with the status BETEEEM. Add ta new PICS entry for error monitor while in deep sleep, with the status BETEEEM. Add a new PICS entry for error monitor while in deep sleep, with the status BETEEEEM. <t< th=""><th>C/ 108</th><th>SC 108.5.3.2</th><th>P 111</th><th><i>L</i> 1</th><th># 113</th><th>C/ 108</th><th>SC 108.5.3</th><th>3.3 P 11⁻</th><th>1</th><th>L 47</th><th># 138</th></t<>	C/ 108	SC 108.5.3.2	P 111	<i>L</i> 1	# 113	C/ 108	SC 108.5.3	3.3 P 11 ⁻	1	L 47	# 138
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Proposed Response Response Status W PROPOSED ACCEPT. Cit 108 SC 108.5.3.2 P111 L 32 # [116] Bonh, Brad Microsoft See comments 136, 137, 139 and 190. Comment Type TR Comment Status D OTN Having rate two shalls associated with deep sleep that don't have PICS entries. D OTN SuggestedRemedy Add two new PICS entries for error monitor while entering and exiting deep sleep. Use the Status BCTEEEE: M for each entry. The second "shall" does not constitute any additional requirement. Change "shall begin" to "begins" (ine 34). Add a new PICS entry for error monitor while in deep sleep, with the status BEI*EEE:M. Comment Status D Comment Status D Comment Status D Add a new PICS entry for error monitor while in deep sleep, with the status BEI*EEE:M. Cit 108 SC 108.5.4.1 P113 L 17 # [188] Add a new PICS entry for error monitor while in deep sleep, with the status BEI*EEE:M. SuggestedRemedy Comment Type E Comment Status D Bucket 'is comprised off to "is composed off" in the troitmatter. SuggestedRemedy Cites Act 1 P113 L 17 # [188]	Change "The Re corrupti Change	e the first sentenc eed-Solomon dec ing 66-bit block sy e the next two occ	e of the paragraph to read: oder shall indicate errors to nchronization headers." urrences of "it shall ensure'	the PCS sublaye	r by intentionally	Proposed F PROP	Response OSED REJEC	Response Status V	w		
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 TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general
 C/ 1

 COMMENT STATUS: D/dispatched A/accepted R/rejected
 RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn
 SC 1

 SORT ORDER: Clause, Subclause, page, line
 SC 1
 SC 1

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C/ 108	SC 108.	5.4.2	P 113	L 34	# 132		C/ 108	SC	108.5.4.5	P 11	6 L 1!	5 # 123
Slavick, J	eff		Avago Techno	logies			Slavick, Je	eff		Avago	Technologies	
Comment	Туре ТБ	con	nment Status D			CWM	Comment	Туре	TR	Comment Status	D	EEE, BTI
No de	finition for h	ow many bits	s are part of nibble exis	sts in the cwm_	valid definition.		With a		e 49 LPI sta	ate diagram you can	exit LPI state wi	thout ever going to sleep (path
Suggeste	dRemedy						1011 3		-> ACTIVE	exisis).		
After and w	"on a nibble /e do 12 com	wide basis" a nparisons ea	add "(12 comparisons) ch nibble is 4b in size.	". Since 2 sets	of 24b are com	pared	lpi_rap are se	oid_alig en. So	n is set to t o if the Tx s	rue whenever rx_lpi_ ends some /Ll/ but d	active is set to t loesn't actually ç	rue, which occurs when /Ll/ jo to sleep lpi_rapid_align
Proposed PROF	Response POSED ACC	Resp EPT IN PRI	oonse Status W NCIPLE.				could I with ra	be set. Ipid CW	The only v /Ms.	way to clear lpi_rapid	_align is to succ	essfully achieve alignment
After	"on a nibble	wide basis" a	add "(12 comparisons)	".			Addiiti rx_lpi_ then ye	onally v active l ou'd als	while in the being TRUE so end up s	2_GOOD state you v E, if it changes to FA stuck trying to frame t	vould reset the l LSE (transition f to rapid CWMs	pi_rapid_align setting baed on rom /I/ to /LI/ during WAKE)
							Suggested	Remec	dy			
							Add th	e assig	nment of Ip	oi_rapid_align <= rx_	pi_active in the	2_GOOD state of Figure 108-6
							Chang Boolea 108 6	je the d an varia	lefinition for able that is s	r lpi_rapid_align to be set according to the l): FEC synchroniz;	ation state diagram in Figure
							Add a 108.5. via a L	WAKE 3.7 exp JCT tra	_FAIL state pires and se nsition	e to Figure 108-6 whi ets lpi_rapid_align <=	ch is entered if t false and transi	he hold-off timer defined in tions to the LOCK_INIT state
							Create and 10	e a defir)8.5.3.7	nition for the	e Rx EEE hold_timer	in 108.5.4 to be	referenced by Figure 108-6
							Proposed PROP	Respor OSED	nse REJECT.	Response Status	W	
							[Editor	chang	ed subclau	se from the original "	180.5.4.5"]	
							If the T keeps should	FX send sendin I stay in	ds some /LI g valid code n state 2_G	l/ but doesn't actually ewords with CWMs, a OOD.	go to sleep, the and the FEC syr	n the RS-FEC on the TX nchronization state diagram
							In the FIND_ followi	RX, lpi_ 1ST is ng a Ql	_rapid_aligr entered. Er UIET perioc	n may be set, but tha ntering FIND_1ST re d.	t has no effect u quires LOCK_IN	intil the next time state IIT, and that happens only

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IEEE 802.3by	25 D2.0	Gb/s Ethernet	Initial Working	Group	o ballot	comments
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Cl 108 SC 108.5.4.5 P 116 L 30 # 131 Slavick, Jeff Avago Technologies 4 131 131	C/ 108 SC 108.7.4.2 P 123 L 17 # 112 Booth, Brad Microsoft Microsoft
Comment Type TR Comment Status D EEE States required only for EEE support are traditionally marked as such. EEE EEE	Comment Type TR Comment Status D PICS, BEC/BEI RF5 is confusing. Error correction bypass is optional, but it's mandatory that SR not
SuggestedRemedy Add a dotted box around the WAKE_NEXT_COUNT and WAKE_GOOD states in Figure 108-6 Add a Note indicating that these state are optional states only required to support EEE capability Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Add a dotted box around the states WAKE_NEXT_COUNT and WAKE_GOOD	support it. I'm concerned that this could be incorrectly interpreted. SuggestedRemedy Change RF5 to read: RF5; Error correction bypass; 108.5.3.2; Error correction bypass not supported by 25GBASE-SR; BEC*!SR:M; Yes[] No[] N/A[] Proposed Response Response Status W PROPOSED REJECT. See comment #111.
Add a NOTE: NOTE-Optional states (inside the dotted box) are only required to support EEE deep sleep capability.	Cl 108 SC 108.7.4.2 P 123 L 22 # 115 Booth, Brad Microsoft Microsoft PICS, BEC/BEI Comment Type TR Comment Status D PICS, BEC/BEI
C/ 108 SC 108.7.4.2 P 123 L 10 # 111 Booth, Brad Microsoft Microsoft <td>RF7and RF8 are really confusing and incorrect. Need to make this better match the entries to the capabilities to prevent misinterpretation.</td>	RF7and RF8 are really confusing and incorrect. Need to make this better match the entries to the capabilities to prevent misinterpretation.
Comment Type TR Comment Status D PICS, BEC/BEI The wording in the PICS entry for RF3 and RF4 does not match the text in 108.5.3.2. Bypass is an optional mode of operation, and does not impact the requirement of RS-FEC. SuggestedRemedy Comming RF3 and RF4 into and RF4 into and RF4 bas the following entries:	SuggestedRemedy Change RF7 to read: RF7; Error indication function; 108.5.3.2; ; BEC:M or !BEI:M; Yes[] No[] Change RF8 to read: RF8; Error indication bypass; 108.5.3.2; ; !BEC*BEI:M; Yes[] N/A[]
RF3; Reed-Solomon decoder; 108.5.3.2; Corrects any combination of up to 7 symbol erros in a codeword; M; Yes[]	Proposed Response Response Status W PROPOSED REJECT.
Proposed Response Response Status W PROPOSED REJECT.	RF7 describes the error indication function, which is mandatory. "!BEI" means bypass error indication capability is not supported, and this is an incorrect condition for RF7.
See also comment #153.	The RF8 status is correct since the feature assumes error correction is bypassed.
The PICS items are based on RF3 and RF5 from clause 91 (as of 802.3bx D3.0). The requirements defined in clause 108 are for the single-lane PHYs over the same media.	See also comment #153.

C/ 108 SC 108.7.4.2

C/ 108 SC 108.7.4.2 P 123 L 44 # 17 Hajduczenia, Marek Bright House Network Bright House Network 17	C/ 109 SC 109.1.3 P 126 L 6 # 154 Dudek, Mike QLogic QLogic 126 1
Comment Type E Comment Status D Bucket Wrong font format in RF12	Comment Type T Comment Status D This PMA is serial in to serial out there so clock generation is never required.
SuggestedRemedy Font for "Figure 49-7" seems larger than the remaining text in PICS entries	SuggestedRemedy Delete item b (Provide Clock Generation).
Proposed Response Response Status W PROPOSED ACCEPT.	Proposed Response Response Status W PROPOSED REJECT.
C/ 109 SC 109.1.1 P 125 L 14 # 59 Marris, Arthur Cadence Design Syste Eadence Design Syste	Clock generation does not necessarily imply a change in rate from input to output, but may also represent generation of a clock from a synchronous, lower rate clock, among other functions.
Comment TypeTComment StatusDbucketThere is only one PMA service interface for 25G.	C/ 109 SC 109.1.4 P 127 L 3 # 48 Marris, Arthur Cadence Design Syste
SuggestedRemedy Change: "PMA service interfaces are defined in an abstract manner and do not imply any particular implementation."	Comment Type E Comment Status D bucket Remove the comma after "physical"
to: "The PMA service interface is defined in an abstract manner and does not imply any particular implementation." Proposed Response Response Status W PROPOSED ACCEPT.	SuggestedRemedy Change: "An implementation may use one or more PMA sublayers to provide an interface with a physical, electrical interface, 25GAUI, between devices" To: "An implementation may use one or more PMA sublayers to provide an interface with a physical electrical interface, 25GAUI, between devices"
C/ 109 SC 109.1.3 P 126 L 14 # 47 Marris, Arthur Cadence Design Syste Cadence Design Syste Figure 100 Figure 100 </td <td>Proposed Response Response Status W PROPOSED ACCEPT.</td>	Proposed Response Response Status W PROPOSED ACCEPT.
Comment Type E Comment Status D bucket Change "The function diagram" to "The functional block diagram" SuggestedRemedy Change "The function diagram" to "The functional block diagram"	C/ 109 SC 109.2 P 128 L 31 # 209 Law, David HP HP HP bucket Comment Type E Comment Status D bucket Being pernickety, since '25GAUI' is defined as '25 Gigabit Attachment Unit Interface' (see

C/ 109 SC 1	109.4.4.2	P 131	L 20	# 49	C/ 109	SC 109.6	P	134	L 19	# 60
Marris, Arthur		Cadence Desig	gn Syste		Marris, Arth	ur	Cad	ience Desi	gn Syste	
Comment Type Change "varia	E bles" to "var	Comment Status D		bucket	Comment 7 Registe	<i>Type</i> T er name wrong f	Comment Statu for PIASE and PEA	s D SE.		
SuggestedRemedy Change "varia Proposed Respons	y bles" to "vai se f	riable" Response Status W			Also co 1.179)" directio equaliz	nsider adding " to table 109-3 n, lane 0 registe ation, transmit o	C2M and 25GAUI (and perhaps "CAUI er (Register 1.180)" direction, lane 0 reg	C2M recom -4 chip-to-o and "CAU ister (Regi	mended CTLE chip transmitter I-4 chip-to-chip ster 1.184)" to	register (Register requalization, receive transmitter table 109-4.
PROPOSED	ACCEPT.				Suggested	Remedy				
C/ 109 SC 1 Butter. Adrian	109.4.5	<i>Р</i> 133 ІВМ	L 14	# 242	Change Change	e "PMA ingress e "PMA egress	AUI stop enable" to AUI stop enable" to) "PMA/PM "PMA/PM	ID control 2" D control 2"	
Comment Type In 109.4.5 Energy service interfars subclause are It is noted that the current wo SuggestedRemedy Update the se "When the opt the PMA servi	E ergy Efficient E ce is physic required." since the "a rding lacks of y ntence to di ional Energi ce interface	Comment Status D t Ethernet for 25GAUI, the Ethernet (EEE) deep sleep ally instantiated as 25GAU additional functions" do not clarity. rectly reference these addi y Efficient Ethernet (EEE) o is physically instantiated a	first sentence s capability is su I, the additiona directly appea tional functions deep sleep cap s 25GAUI, the	bucket states: "When the pported and the PMA I functions listed in this r in subclause 109.4.5, s: ability is supported and additional functions	Proposed F PROPC Implem Also, as (for reg CAUI-4 See co	Response DSED ACCEPT eent suggested s suggested in ister 1.180) and mment #60.	Response Statu TIN PRINCIPLE. remedy. the Comment, in Cl 45.2.1.99 (for regi	s W ause 45 in ster 1.184)	clude editorial and add text fo	changes to 45.2.1.97 or 25GAUI in addition to
listed in 83.5.1 Proposed Responsed Responsed PROPOSED A	1 are requir se ACCEPT.	red." Response Status W								
Cl 109 SC 1 Dudek, Mike Comment Type The sentence	I09.4.5 E reads poorly	P 133 QLogic Comment Status D y.	L 18	# 149						
SuggestedRemedy Replace "PMA and except for "PMA EEE op Considerations Proposed Respons PROPOSED A	EEE operation for 2 s related to 1 se factor for 2 s related to 1 se factor for 2	tion for 25GAUI is specifie ons related to multiple lane 5GAUI is specified in 83.5 multiple lanes do not apply Response Status W	d in 83.5.11 wi s." with 11 with respec ."	th respect to lane 0 only t to lane 0 only.						

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed U/unsatisfied Z/withdrawn SORT ORDER: Clause, Subclause, page, line C/ 109 SC 109.6

C/ 109A	SC 109A.3.	.1	P 205	L 35	# 163		C/ 109B	SC	109B.1		P 211	L 4	# 183
Dudek, Mike	e		QLogic				Maki, Jeffer	Ъ			Juniper Netwo	orks	
Comment T	ype T	Comment S	Status D				Comment 7	Гуре	т	Commen	t Status D		adaptive RX, BTI
This is a reference	a single lane s ces to 4 sets c	specification and of MDIO register	parts of 83D s).	.3.1 refer to 4 lan	es (including		No mer 109A.1	nsion is does i	s made in include th	the text that e use of ada	t an adaptive rec aptive: "The adap	eiver can be us tive or adjustab	ed. Note that Clause le receiver performs the
SuggestedF	Remedy						remaine	der of 1	the equali	zation."			
Add "wi	th the exception	on that this is a	single lane ar	nd lanes 1 through	n 3 are not used".		Suggested	Remea	dy 				
Add this	s also to the e	nd of the senter	ce on line 40				Add tex	at: "The	e adaptive	or adjustab	le receiver perfoi	ms the equaliz	ation."
Proposed F		Posponso S		•			Proposed F	Respon	nse	Response	Status W		
PROPC							PROPO	DSED	ACCEPT	IN PRINCIP	LE.		
On pag Change "A 25G	e 205 line 34. :: AUI C2C trans	smitter shall mee	et all specifica	ations in 83D.3.1.			Add the "The re equaliz not use	e follow quired er whice the se	ving sente I channel o ch uses th etting prov	ence to the e equalization le setting pro vided by the	nd of the first part is provided by the pvided by the host host."	ragraph in 109E e module recei st or an adaptive	3.3.4: ver using either an e equalizer which does
"A 25G specifie	AUI C2C trans d in 83D.3.1."	smitter shall mee	et all specifica	ations of a single	CAUI-4 lane as		C/ 109B Omer Sella	SC	109B.3.2.	1.1	P 212 Mellanox	L 13	# 239
On pag Change "A 25G optiona To: "A 25G lane. If specific	"A 25GAUI C2C transmitter specified in 83D.3.1." On page 205, line 40 Change: "A 25GAUI C2C receiver sha optional transmitter equaliza To: "A 25GAUI C2C receiver sha lane. If the receiver supports specifications in 83D.3.3.2."	 iver shall meet a qualization feed iver shall meet a upports the optio .3.3.2."	shall meet all specifications in Table 83D–4 and, if it supports the ization feedback, it shall meet all requirements in 83D.3.3.2." shall meet all specifications in Table 83D-4 for a single CAUI-4 rts the optional transmitter equalization feedback, it shall meet al 2."				Comment 1 Both m Eye wic eye .", I While it that's q clumsy Suggested!	<i>Type</i> easure dth and but the t is true uite Remed	E ement type d ere is no re e that you	Comment es A and B i eference to t could find th	nt Status D rely on definition a that section. The origin of these	and explanatior if you travel th	ns listed on: "83E.4.2 rough pointers, but
Also, se equaliza	ee comment # ation control fo	60, which adds or 25GAUI C2C.	descriptions f	or the registers u	sed for transmitter		Prior to both methods, add a reference to 83.E.4.2 and preferably some words, for "Measurement methods A and B rely on definitions and explanations given in 83E. reader is advised to consult 83E 4.2 for more details."						
							Proposed F	Respon	nse	Response	Status W		
							PROPO	DSED	REJECT.				
							"109B.3 method	3.2.1.1 Iology	Eye oper described	ning using m I in 83E.4.2.	easurement met	hod A" refers e	xplicitly to "the
							"109B.3 describ modific indicati	3.2.1.2 ed in 1 ations ng the	Eye oper 109B.4.1." to that pro exceptior	ning using m . Although, ocedure. It v ns.	easurement met 109B.4.1 refers tr vould be mislead	hod B" refers e o 83E.4.2, it als ing to point to 8	xplicitly to "methodology to specifies 3E.4.2 without also

C/ 109B SC 109B.3.2.1.1 Page 44 of 63 2015-09-09 3:48:36 PM

C/ 109B SC 109B.3.2 Dawe, Piers	2.1.1 <i>P</i> 212 Mellanox	L 17	# 197	C/ 110 Vineet Salun	SC 10 ke	P 152 Cisco Systems	L 24 s, Inc.	# 119
Comment Type E This and the next sub	Comment Status D clause would be easier to follo	w if re-ordered.	buck	ket Comment Ty Same as	pe TR submitted by	Comment Status D	Bm with No FEC.	3 m no FEC
SuggestedRemedy Move the third paragra could be combined int Proposed Response PROPOSED ACCEP In 109B.2.3.1.1, swap	aphs before the second in eac to two or one. <i>Response Status</i> W T IN PRINCIPLE.	h case. Then, th 19) and third (lin	e three paragraphs e 22) paragraph.	SuggestedR Same as Proposed Re PROPO Pending	emedy submitted by sponse SED REJECT task force dis	v Joel Goergen on supporting 3 <i>Response Status</i> ₩	3m with No FEC.	
Similarly, in 109B.3.2. paragraph.	1.2, swap the order of the sec	ond (line 33) an	d third (line 29)					
C/ 109C SC 109C Dudek, Mike	<i>P</i> 220 QLogic	L 36	# 164					
Comment Type T An example is not sho system. ie With FEC o	Comment Status D own of what will probably be th co-located with the PCS.	e most commor	implementation of the	9				
SugaestedRemedv								
Take figures 109C-4 a Add a footnote to that	and 109C-3 and insert a box b box. NOTE- FEC is condition	etween PCS and onal based on Pl	d PMA labeled FEC. HY type.					
Proposed Response	Response Status W							
PROPOSED ACCEP	T IN PRINCIPLE.							
Create two new figure addition of an FEC su	s, one based on 109C-4 and a blayer between the PCS and I	and second base PMA sublayers.	ed on 109C-3, with the					
These diagrams are e about FEC inclusion. these are examples a	examples, not specifications, s See the first paragraph in Ann nd to refer to "the appropriate	o it is not neces ex 109C which a normative claus	sary to include notes advises the reader that e".					

C/ 110 SC 10

C/ 110 SC 10		P 152	L 24	# 118	C/ 110	SC 10	P 152	L 24	# 176
Joel Goergen		Cisco System	ns, Inc.		Gary Nicholl		Cisco System	ns, Inc.	
Comment Type T	R Comment	Status D		3 m no FEC	Comment Ty	be TR	Comment Status D		3 m no FEC
The current solu long enough for top o andrewartha. Th solution uses RS	tion does not suppor f rack applications a ne 3m solution only s S FEC with a penalty	t 3m with no fe s demonstrated upports single of almost 4000	c. The 2m no fe d in presentatior rack switching a ns.	ec solution set is not ns by goergen and applications. The 5m	The curr long enough andrewa solution	ent solution of or top of rack tha. The 3n uses RS FEC	does not support 3m with no fe k applications as demonstrate n solution only supports single C with a penalty of almost 400	ec. The 2m no f d in presentation rack switching ns.	ec solution set is not ns by goergen and applications. The 5m
SuggestedRemedy					SuggestedR	emedy			
Suggest two pos	sible remedies.				Suggest	two possible	e remedies.		
One: remove the 2m s Modify the follow Table 110-10 Av coming from the source on the ca Table 110-7 Co SNDR change to CTLE from 12dE	n solution KR I 7 / Ane- 0.63V rom 3dB to 2.7	FEC optional. [Afe cannot exo 70	ceed Av since they are	One: remove Modify th Table 11 coming to source of Table 11 SNDR c CTLE from	he 2m soluti e following: 0-10 Av- 0.4 fom the sam h the cable] 0-7 Com ch hange to 28.4 m 12dB to 1	on; make the 3m solution KR 43V / Afe- 0.43V / Ane- 0.63V e ange for nofec from 3dB to 2.7 4dB 6dB	FEC optional. [Afe cannot ex 70	ceed Av since they are	
Two Clause 110.10 lin Change the 3m l Change the 2m n Table 110-9 moo Modify the follow Table 110-10 Av coming from the source on the ca Table 110-7 Con SNDR change to CTLE from 12dE	ne 25 thru line 33 KR FEC solution to 4 no FEC solution to 3 dify the loss table to 3 ving: v- 0.43V / Afe- 0.43V same able] m change for nofec f o 28.4dB 3 to 16dB	Im KR FEC m no FEC 22.48 / 18.?? / / Ane- 0.63V rom 3dB to 2.7	15.48 - (RS / K [Afe cannot exe 70	R / noFEC) ceed Av since they are	Two Clause 1 Change Table 11 Modify th Table 11 coming f source of Table 11 SNDR c CTLE fro	10.10 line 25 he 3m KR F he 2m no Fl 0-9 modify th e following: 0-10 Av- 0.2 rom the sam n the cable] 0-7 Com ch hange to 28.4 m 12dB to 1	5 thru line 33 EC solution to 4m KR FEC EC solution to 3m no FEC ne loss table to 22.48 / 18.?? / 43V / Afe- 0.43V / Ane- 0.63V e ange for nofec from 3dB to 2.7 4dB 6dB	7 15.48 - (RS / K [Afe cannot ex	KR / noFEC) ceed Av since they are
Proposed Response	Response S	Status W			Proposed Re	sponse	Response Status W		
PROPOSED RE	JECT.				PROPO	SED REJEC	Т.		
Comment and re	emedy are the same	as comment #	<i>‡</i> 176.		Pending	task force di	scussion.		

C/ 110 SC 10

C/ 110	SC 10	P 15	2 Svetome Inc	L 24	# 175	C/ 110	SC 10	P 153	L 5	# 98
	D	CISCO	Systems, inc	.			Iomas	WOIEX		
Comment T The cur	<i>ype</i> TR rrent solution doe	Comment Status es not support 3m with	D h no fec. Th	ne 2m no fec s	<i>3 m no FEC</i> olution set is not	Comment Insertio	<i>Type</i> TR on loss of 12.98	Comment Status D 3 dB for CA-N is insufficient to a	chieve 3m	3 m no FEC
long enough andrew solution	for top of rack a artha. The 3m s uses RS FEC w	pplications as demon olution only supports vith a penalty of almos	nstrated in pr single rack s st 400ns.	resentations by switching appli	v goergen and cations. The 5m	Suggested Chang Proposed J	IRemedy je 12.98 dB to 1 Response	16.0 dB		
Suggested	Remedy					PROP	OSED REJEC	T.		
Sugges	t possible remed	lies.				Pendir	ng task force di	scussion.		
remove Modify Table 1	the 2m solution; the following: 10-10 Av- 0.43	make the 3m solutio / / Afe- 0.43V / Ane- (on KR FEC c D.63V [Afe	optional. cannot exceec	Av since they are	<i>Cl</i> 110 Palkert, Th	SC 10 nomas	<i>P</i> 154 Molex	L 13	# 95
source Table 1 SNDR o	on the cable] 10-7 Com chang change to 28.4dE	ge for nofec from 3dB 3	3 to 2.70			Comment Packa	<i>Type</i> T ge capacitance	Comment Status D is pessimistic for packages that	t will be used fo	3 m no FEC or 25G designs
CTLE fi	rom 12dB to 16d	B				Suggested Chang	<i>IRemedy</i> le 2.5x10-4 to 2	2.0x10-4		
Proposed R	OSED REJECT.	Response Status	vv			Proposed I	Response	Response Status W		
Comme	ent and remedy a	re similar to commer	nt #176.			Dooko				
C/ 110 Palkert, Tho	SC 10 omas	P 15 Molex	2	L 32	# 97	Packa	ng task force di	scussion.		
Comment T 2m no F	<i>ype</i> TR FEC is insufficier	Comment Status	D er applicatio	ons	3 m no FEC	<i>Cl</i> 110 Palkert, Th	SC 10 nomas	<i>P</i> 154 Molex	L 15	# 92
SuggestedF Change	Re <i>medy</i> e no FEC (CA-N)	distance from 2m to	3m			Comment [®] Die ca	<i>Type</i> T pacitance is too	Comment Status D pessimistic for 25G designs		3 m no FEC
Proposed R PROPC	Response DSED REJECT.	Response Status	w			Suggested Chang	IRemedy Je 1.8x10-4 to 1	.3x10-4		
Pending	g task force discu	ussion.				Proposed I PROP	Response OSED REJEC ⁻	Response Status W		
						Packa	ge model follov	vs clause 92.		
						Pendir	ng task force di	scussion.		

C/ 110 SC 10

IEEE 802.3b	y D2.0 25	Gb/s Ethernet	Initial Working	Group	ballot	comments
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C/ 110 SC 10 Palkert, Thomas	<i>P</i> 154 Molex	L 24	# 96	C/ 110 Dawe, Pier	SC 110	P 139 Mellanox	L 2	# 199
Comment Type TR Need to modify clause are required to meet T SuggestedRemedy Add lines for SNR_tx =	Comment Status D 92 COM parameters to corre P2 specifications in 100G CR = 28.4, Afe = .43, Av = .43, Ar	ect errors. The re 24. ne = .645	3 m no FEC ecommended changes	Comment 10GB/ 40GB/ 25GB/ Why th Suggested	<i>Type</i> E ASE-LRM ASE-CR4 ASE-CR-S he hyphen bef <i>IRemedy</i>	Comment Status D		nomenclature
Proposed Response PROPOSED REJECT.	Response Status W			Consid	der changing t	o 25GBASE-CRS.		
COM parameter values	s follow clause 92.			Proposed PROP	Response OSED REJE(Response Status W		
Pending task force dis	cussion.			There 60.	is precedence	e for having a second hyphen, s	uch as in the Pl	MDs defined in clause
C/ 110 SC 10 Palkert, Thomas	<i>P</i> 154 Molex	L 24	# 93	C/ 110	SC 110.1	P 139	L 42	# 195
Comment Type T Modifications of clause SuggestedRemedy Add the following lines CTLE gain: 16 dB Max Nb (DFE taps) = 16 ma Package Z_c = 85 ohn Proposed Response	Comment Status D 92 COM parameters needed in Table 110-7: ax ns Response Status W	d to achieve 3m	3 m no FEC no FEC operation	Dawe, Pier Comment Calling namec which Suggested Indicat Proposed	rs <i>Type</i> E g the cable type d cable types a CA type do I to <i>IRemedy</i> te in the name <i>Response</i>	Mellanox Comment Status D bes just CA-N, CA-S and CA-L v at another rate e.g. 50G, and wi use with a 40GBASE-CR4 port? that these are 25GE cable type Response Status W	vill cause troubl Il probably caus ?? es, e.g. 25GCA	nomenclature e when we want to have se confusion anyway: -N, 25GCA-S, 25GCA-L.
PROPOSED REJECT				PROP	OSED ACCE	PT IN PRINCIPLE.		
Receiver assumptions Pending task force dise	follow clause 92. cussion.			Renan and as	ne cable asse ssociated anne	mblies to CA-25G-N, CA-25G-S exes with editorial license.	S, and CA-25G-	L throughout clause 110

C/ 110 SC 110.1

Dawe, Piers	SC 110.1	P 139 Mellanox	L 42	# 198
Comment T It's hard be the इ	<i>Type</i> E I to remember shortest, becau	Comment Status D how CA-N compares with t se another one is called S,	he others. Is it nor right?	<i>nomenclature</i> mal? nominal? It can't
SuggestedF Conside	Remedy er changing N t	o XS (like OIF names).		
Proposed R PROPC	Response DSED REJECT	Response Status W		
N stand which w	ls for "no FEC" /as adopted by	. This nomenclature is part the task force - comment #	of the proposal in #54 against D0.1.	dudek_3by_02b_0315
C/ 110 Dawe, Piers	SC 110.1	P 139 Mellanox	L 43	# 200
Two PH singles/ assemb docume but the	IY types, three (quads/splitters oly combination ent, in an anne: clause include:	cable types, and three FEC - this needs clear expositions, does a good job for cable that's only informative. A s 4-lane (QSFP) specificati	C modes, as well a on. Table 110C-1, es, but it's right at lso, the overview so ons.	s Host and cable the back of the ays "with a single lane"
Two PH singles/ assemb docume but the SuggestedF	IY types, three (quads/splitters bly combination ent, in an anne) clause include Remedy	cable types, and three FEG - this needs clear exposition s, does a good job for cable k that's only informative. A s 4-lane (QSFP) specification	C modes, as well a on. Table 110C-1, es, but it's right at lso, the overview s ons.	s Host and cable the back of the ays "with a single lane"
Two PH singles/ assemb docume but the SuggestedF Add a ta but add 1/4/split single a (There t	IY types, three (quads/splitters) by combination ent, in an anne: clause include: Remedy able in the style ressing just co t options. At the and four-port ho may be a prefe	cable types, and three FEG - this needs clear expositions, s, does a good job for cable (that's only informative. A s 4-lane (QSFP) specification e of Table 105-2, Nomencla poper PHY types, cable type e end of the first paragraphy that and cable form factors, rred term for four-to-one cable	C modes, as well a on. Table 110C-1, es, but it's right at lso, the overview si ons. ature and clause co as, FEC modes and add e.g. "Specific including four-to-or ables.)	s Host and cable the back of the ays "with a single lane" orrelation, 25GBASE-R, d, if it fits in the table, cations are provided for ne cables."
Two PH singles/ assemb docume but the SuggestedF Add a ta but add 1/4/split single a (There I Proposed R PROPC	IY types, three (quads/splitters) ont, in an anne: clause include: Remedy able in the style ressing just co t options. At the and four-port how may be a prefect Response DSED REJECT	cable types, and three FEG - this needs clear expositions s, does a good job for cable (that's only informative. A s 4-lane (QSFP) specification e of Table 105-2, Nomencla pper PHY types, cable type e end of the first paragraphist and cable form factors, rred term for four-to-one can Response Status W	C modes, as well a on. Table 110C-1, es, but it's right at lso, the overview s ons. ature and clause co es, FEC modes and n, add e.g. "Specific including four-to-or ables.)	s Host and cable the back of the ays "with a single lane" prrelation, 25GBASE-R, d, if it fits in the table, cations are provided for he cables."
Two PH singles/ assemb docume but the SuggestedF Add a ta but add 1/4/split single a (There i Proposed R PROPC The sug indeed i	IY types, three (quads/splitters) only combination ant, in an annex clause includes Remedy able in the style ressing just co t options. At the and four-port how may be a prefect Response DSED REJECT oggested table a informative - the	cable types, and three FEG - this needs clear expositions, s, does a good job for cable (that's only informative. A s 4-lane (QSFP) specification e of Table 105-2, Nomencla poper PHY types, cable type e end of the first paragraphist and cable form factors, rred term for four-to-one can <i>Response Status</i> W nd text exist in annex 1100 e explantations do not carr	C modes, as well a on. Table 110C-1, es, but it's right at lso, the overview s ons. ature and clause co es, FEC modes and n, add e.g. "Specific including four-to-or ables.) C which is reference y any additional reference	s Host and cable the back of the ays "with a single lane" prrelation, 25GBASE-R, d, if it fits in the table, cations are provided for ne cables."

C/ 110	SC 110.1	1	P 1	39	L 49	# 196
Dawe, Piers			Mella	nox		
Comment Ty There is CA-N, C and thre no-FEC which is rememb	vpe E a mapping A-S and C e FEC mo mode, BA obscured per.	Co. g between CA-L des: SE-R FEC by the very	mment Status three cable typ mode, RS-FE different nam	D bes, giv C mode es. Ha	en in 110.10: e ırder to understar	nomenclature nd, more to learn and
SuggestedR Would it FEC mo Proposed R PROPO FEC mo compati	Remedy thelp to ca de 25G-N, esponse SED REJE des are no ble with RS	III the FEC , FEC mode <i>Res</i> ECT. ot mapped S-FEC.	modes: e 25G-S, FEC ponse Status 1 to 1 to CA ty	mode W pes. Fo	25G-L? or example, all ca	ble types are
The sug	gested ren	nedy might	add confusior	າ.		
Cl 110 Jones, Peter	SC 110. 1 r	10	P 1 Cisco	52 Syster	L 29 ms	# 173
Comment Ty As per g and and option fo SuggestedR	ype TR goergen_3k rewartha_3 or 3M no-F Remedy	Co. by_01_071 3by_adhoc EC to addr	mment Status 5.pdf, goergen _081215-v2.po ess a number	D _3by_(df, there of Top	02a_0715.pdf, tra e is significant co Of Rack applicat	3 m no FEC cy_3by_01_0715.pdf ncensus to support an ions
Evaluate	e proposals	s and selec	t one.			
Proposed Re PROPO There is	esponse SED REJE no propos	Res ECT. sal that den	ponse Status nonstrates the	W require	ed consensus for	making a change.
I UI LASK		,4331011.				

C/ 110 SC 110.10

·							
Cl 110 SC 110.10 P 15 Andrewartha, Mike Micros	2 L 31 oft	# 133	<i>C</i> / 110 Dudek, Mi	SC 110.10.7 ke	<i>P</i> 153 QLogic	L 39	# 157
Comment Type TR Comment Status The specification does not define a method of 3m.	D of achieving no-FEC op	3 m no FEC eration at lengths up to	Comment COM	<i>Type</i> T for a cable is not	Comment Status D really related to a receive la	ne it is the comp	lete path in the cable.
SuggestedRemedy Adopt one of the proposals for achieving 3m Goergen, et al.	no-FEC operation that	are being developed by	Suggested Delete each I Proposed	dRemedy "receive". ie C ane is derived fro Response	hange "(COM) for each rece om" <i>Response Status</i> W	vive lane is derive	ed from" to "(COM) for
OR	-FEC operation exists	create an informative	PROF	OSED ACCEPT	IN PRINCIPLE.	on".	
annex that provides guidance on relaxations achieve 3m no-FEC operation.	of other spec paramete	ers that can be made to	C/ 110 Zambell, A	SC 110.10.7	<i>P</i> 154 FCI	L 18	# 45
PROPOSED REJECT. There is no proposal that demonstrates the r	w equired consensus for	making a change.	Comment On sli output	<i>Type</i> T de 7 of goergen_ t voltage of the al	Comment Status D 3by_01_0715.pdf, the value lien far-end agressor is 0.4V	of the transmitte	COM parameters er differential peak original value. There
For task force discussion.			Was II Suggester	u suggestion to t Remedy	change it to 0.6v.		
C/ 110 SC 110.10.7 P15	1 <i>L</i> 6	# 238	Chang	ge the alien far-er	nd aggressor voltage to 0.4	/.	
Omer Sella Mellan	ох		Proposed	, Response	Response Status W		
Comment Type E Comment Status	D		, PROF	, POSED REJECT.			
This comment refers to table 110-10. While there is no conflict here, some of the p	arameters in table 110	-10 are the same as in	The v	alue 0.6 V predat	tes goergen_3by_01_0715.		
It may be confusing for a reader trying to find none. Only the "Alien far-end aggressor", "Near-end and "Target detector error ratio" are different.	l a change in these par d aggressor:, "Normali:	ameters when there is zed DFE coefficient ."	It is no aggre transr maxin	ot the same as th ssors in some for nitter (and are the num voltage.	he far-end aggressor voltage rm factors are not assumed erefore marked as "alien" FE	used in clause 9 to be on the sam EXT). The alien tr	02, since far-end le device as the "victim" ransmitter can use the
SuggestedRemedy Leave only the differences from table 93-8, d We may still want to leave in remark 'a' just b body of the text.	elete the rest. below the table, maybe	incorporate it into the					
Proposed Response Response Status PROPOSED ACCEPT IN PRINCIPLE.	w						
[Editor changed page/line from 154/9 to 151/	6]						
Remove the rows for Maximum start frequen	cy and Device package	e model.					

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

C/ 110 SC 110.10.7 Page 50 of 63 2015-09-09 3:48:36 PM

C/ 110	SC 110.10.7	P 154	L 2	# 241	C/ 110	SC 110.10.7	P 154	L 21	# 147	
Hidaka, N	(asuo	Fujitsu Lab. o	fAmeric		Hidaka, Ya	suo	Fujitsu Lab	. of Americ		
Commen The	<i>t Type</i> T criteria of COM val	Comment Status D ue to be 3dB reserves too hig	;O <i>l</i> gh margin.	Л parameters, 3 m no FEC	Comment Type TR Comment Status D COM parametric bmax(n) is specified as 0.5 for CA-N. This is to prevent error propagation caused by DFE. COM parametric COM parametric					
Simu Whe Whe Whe Whe	Ilation result indica n COM is 3dB with n COM is 3dB with n COM is 3dB with n COM is 3dB with	tes the following: DER0=1E-12, BER is < 1E- DER0=1E-6, BER is < 1E-1 DER0=1E-5, BER is < 1E-1 DER0=3E-4 BER is < 1E-8	66. 8. 3.		However, a burst error does not matter for CA-N, because FEC is not used. Once there an error, no matter whether a single-bit error or a burst error, the entire frame is dropped a check sum error.				not used. Once there is tire frame is dropped by	
Who			•		Suggested	Remedy				
Wes	should not reserve	so high margin for COM.			Change	e bmax(n) value	e for CA-N to 1.			
Suggeste Char	edRemedy nge the COM criter	ia for the channel as "greate	than or equa	to 1dB".	Proposed F PROP	Response DSED REJECT	Response Status W			
Proposed PRO	d Response POSED REJECT.	Response Status W			Channels which meet the COM requirements but require a strong DFE (as suggested) may create excessive error propagation. Past and recent presentations (such as http://www.ieee802.org/3/by/public/May15/sun_3by_01_0515.pdf) suggest that error propagation may decrease MTTFPA significantly when FEC is not used.					
This Ther resul	comment was rece e is no consensus ts.	eived after the close of ballot for changing the COM criteri	a based on the	e provided simulation						
C/ 110	SC 110.10.7	P 154	L 21	# [169	See als	so comment #1	69.			
Dudek, N	like	QLogic								
Comment It has and of than solve	t Type TR s been shown in su coding the mean ti the age of the univ e this issue and wil	Comment Status D un_061015_25GE_adhoc tha me to false packet acceptance rerse. It has also been show I not significantly alter the wo	t with the exis te in the no-fe in that changin rst case COM	COM parameters ting COM parameters c case can be shorter ng bmax to 0.35 will (test case 2)						
<i>Suggeste</i> Char Also	edRemedy nge bmax to 0.35 in change bmax to 0	n the CA-N column of table 1 .35 in table 110-7.	10-10							
Proposed PRO	d Response POSED ACCEPT.	Response Status W								
See	comment #147.									

C/ 110 SC 110.10.7 Page 51 of 63 2015-09-09 3:48:36 PM

Cl 110 Hidaka Xa	SC 110.10.7	P 154	L 5	# 174	C/ 110	SC 110.10.7	- F	² 154	L 5	# 146		
	15uu	Fujitsu Lab. 0	AMERIC				Fuj		Americ			
Comment This is COM	Type TR 6 a follow-up commer parameter. ed my suggested rer	Comment Status D nt to my prior comment re nedy.	garding to Low	COM parameters Frequency CTLE of	Comment 7 The cur state-of frequer reduces	<i>Type</i> TR rrent COM parai f-the-art analog ncy than the CTL s BER, and is al	Comment State meter does not inc equalizer. LF-CTL LE of the current C lready in some imp	us D Ilude Low-Fr E has a pair COM parame	requency CTI r of pole and : eter. The LF-0	COM parameters LE (LF-CTLE) which is a zero in much lower CTLE significantly set. The LF-CTLF is also		
Suaaester	lRemedy				known	as a long-tail eq	ualizer. The LF-C	TLE is partic	cularly effectiv	ve for skin effect, and		
Add th	e following changes	to COM parameter value	s in Table 110-	10:	hence for cable appliations. With LF-CTLE, we can easily support 3m cable without FEC with solid high confidence, still maintaining 3dB COM margin in the same way as before without any compromise.							
Contin Minir Maxi Step	uous time filter, DC num value -12 dB mum value 0 dB size 1 dB	gain gDC			Howeve cable a cable a	er, since the cur ssembly that pa ssembly, unless	rent COM parame isses 3dB COM te s we make some c	ter does not st, although compromise	t include LF-0 there are ma such as lowe	CTLE, there are no 3m any good-enough 3m ering 3dB COM criteria.		
Contin	uous time filter, zero	o frequency			Suggestedl	Remedy						
fz f	b / 15 GHz	inequency			Add the	e following chan	ges to COM paran	neter values	in Table 110) -1 0:		
Contin fp1 fp2	uous time filter, pole fb / 15 GHz fb	frequencies			Continu Minim Maxim	uous time filter, l um value -6 dE num value 0 d	DC gain gDC 3 B					
Proposed	Response R	Response Status W			Steps	512e 0.5 UB						
PROP	OSED REJECT.				Continu fz fb	uous time filter, : 0 / 60 GHz	zero frequency					
See co	omment #146.				Continu fp1 f fp2 f	uous time filter, j b / 60 GHz b	pole frequencies					
					I have a	a plan to submit	a supporting pres	entation.				
					Proposed F	Response	Response Statu	ıs W				
					PROPO	OSED REJECT.						
					COM p	arameters follov	v clause 92 based	on design r	euse assump	otions.		
					A low-f	requency CTLE	was not considere	ed as a part	of the referer	nce receiver in clause 92.		
					Pendin	g presentation a	and task force disc	ussion.				
					See co	mment #174.						

C/ 110 SC 110.10.7 Page 52 of 63 2015-09-09 3:48:36 PM

C/ 110 SC 110.11.1 P 154 L 9 # 158	C/ 110 SC 110.7.4 P 145 L 20 # 222
Comment Type T Comment Status D	Comment Type T Comment Status D (
Incorrect cross references. The signal quality and electrical requirements of the connector (which is mounted on the host board) need to be adequate to meet the host electrical energy energy and the cable characterize.	Suggest that for clarity it should be indicated in its first use that rx_mode discussed in this subclause is the rx_mode parameter of the PMD:IS_RX_MODE.request primitive.
	SuggestedRemedy
Change from "110.9 and 110.10" to "110.8 and 110.9"	Suggest that ' when rx_mode is first set to QUIET.' be changed to read ' when the rx_mode parameter of the PMD:IS_RX_MODE.request primitive is first set to QUIET.'.
Proposed Response Response Status W	Suggest that the same change be made to subclause 111.7.4 (page 171, line 12).
PROPOSED ACCEPT IN PRINCIPLE.	Proposed Response Response Status W
[Edifor changed page number from 157 to 154]	PROPOSED ACCEPT IN PRINCIPLE.
Subclause 110.10 contains requirements for copper cable assmblies. Insert "110.8, " before "110.9 and 110.10".	To align with the existing wording in previous subclauses, change "when rx_mode is first set to QUIET" to "when the PMD service interface message PMD:IS_RX_MODE.request(rx_mode) is initially received with rx_mode = QUIET".
C/ 110 SC 110.7.2 P 144 L 51 # 223	Apply the same change in 111.7.4.
Law, DavidHPComment TypeTComment StatusDCC	C/ 110 SC 110.7.5 P 145 L 36 # 155 Dudek, Mike QLogic
Suggest that for clarity it should be indicated in its first use that tx_mode discussed in this subclause is the rx_mode parameter of the PMD:IS_TX_MODE.request primitive. SuggestedRemedy	Comment Type T Comment Status D Buck There is a line in Table 92-6 labeled "differential peak-to-peak voltage" that does not apply here. We should be more precise
Suggest that 'When tx_mode is set to ALERT' be changed to read 'When the tx_mode parameter of the PMD:IS_TX_MODE.request primitive is set to ALERT'.	SuggestedRemedy Change "the maximum differential peak-to-peak output voltage in Table 92-6." to "the
Suggest that the same change be made to subclause 111.7.2 (page 170, line 43).	differential peak-to-peak output voltage (max) with 1x disabled in Table 92-6."
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE	PROPOSED ACCEPT.
To align with the existing wording in this subclause, change "When tx_mode is set to ALERT" to "When the PMD service interface message PMD:IS_TX_MODE.request(tx_mode) is received with tx_mode = ALERT".	
Apply the same change in 111.7.2.	

C/ 110 SC 110.7.5

C/ 110 Omer Sella	SC 110.8.4.2	P 147 Mellanox	L 37	# 240		C/ 110 Dudek, Mik	SC 110.8. e	4.2	<i>P</i> 147 QLogic	L 47	# 156		
Comment The re-	<i>Type</i> T ceiver test does no itely from	Comment Status D of seem to address the QS	FP form factor c	ase (or at least	RITT	Comment 7 The sta test.	<i>Type</i> T andard should	Co. be more	mment Status D precise about which c	able assembly	<i>RITT</i> COM is used for which		
SFP). Figure see in words	110-3 depicts the s either or figures a test se	setup for what seems to b tup for the QSFP-QSFP c	e only the SFP-S ase.	FP case, but I don	't	Suggested Add to being u Proposed F	Remedy the end of th ised for Base Response	e sentenc -R FEC n <i>R</i> es	e. "with CA-L COM be node and CA-N COM b	ing used for RS being used for n	S FEC mode, CA-S COM no-FEC mode"		
Suggested I think stated 100GB Proposed I PROP	<i>Remedy</i> it should at least si in BASE-CR-4 (clause <i>Response</i> OSED ACCEPT IN	ay in words that a host wit 92.8.4.4 and the test setu <i>Response Status</i> W I PRINCIPLE.	h a QSFP port s up at 92.8.4.4.1).	nould be tested as		At the estimates of the shall m add: "w	DSED ACCE end of the se eet the cable ith CA-L CO mode test, a	PT IN PR ntence "T assembl M being u nd CA-N	INCIPLE. he cable assembly use y Channel Operating N ised for RS-FEC mode COM being used for no	ed in the test ch /argin (COM) a test, CA-S CO o-FEC mode te	nannel (see 110.8.4.2.2) s specified in 110.10.7", M being used for BASE- st".		
Clause test se	92.8.4.4 is only ap tup parameters as	oplicable for RS-FEC mod described in the tables in	e. Other modes 110.8.4.2.	should use differen	t	C/ 110 Laubach, M	SC 110.8. Iark	4.2	P 148 Broadcom Co	L 10 prporation	# 89		
Howev that all 92 con	er, when testing a other transmitters ditions.	e se	Comment TypeEComment StatusDBucketSuggestion: what looks like an odd spurious check mark symbol in front of "GHz" should look a squareroot symbol. Might have to use the equation editor or perhaps use "dB/root- GHz", or do what was done in Table 111-4.DBucket										
In 110. "If the l use the fed by	8.4.2.1, insert a ne host under test has e same MDI are ac additional transmit	ew paragraph after the first s a QSFP28 MDI connecto tive during the test, and th ters to create far-end cros	t paragraph: or, all other trans le far-end cable s stalk on all lanes	mitters on the host assembly test fixtur . All transmitters ar	that e is re	Same for line 37. Same Page 149, Line 10. Clause 11.8.3.1, Page 173, Line 29, Table 111-4, Table 111-5, and Table 111-6, be consistent with how the squareroot is specified in the six tables.							
fed by additional transmitters to create far-end crosstalk on all lanes. All transmitters are set to transmit either valid 25GBASE-CR or 25GBASE-CR-S data or PRBS31, with equalization turned off (preset condition). The far-end crosstalk transmitters are set to the maximum differential peak-to-peak voltage in Table 92–6."						SuggestedRemedy As per comment.							
						Proposed F PROPO	Response DSED ACCE	<i>Res</i> PT IN PR	ponse Status WIINCIPLE.				
							Delete the radical symbol and add a superscript "1/2" after "GHz" in P148 L10, P148 L37, P149 L10.						

C/ 110 SC 110.8.4.2

C/ 110 SC	110.8.4.2.1	P 149	L 44	# 202	C/ 110B SC 110B	P 225	L 8	# 4			
Dawe, Piers		Mellanox			Hajduczenia, Marek	Bright House	Network				
Comment Type This shows a intended to b 100GBASE-O same purpos	TR an interference be equivalent CR4/25GBAS se, which is a	Comment Status D the tolerance test for a one- to the test in 92.8.4.4.1 - the SE-CR port would have to be waste of money.	ane scenario. I his means that a be tested in two	<i>RITT</i> understand that it is dual mode different tests for the	 Comment Type E Comment Status D bucket Missing serial "," in "25GBASE-CR, 25GBASE-CR-S and 25GAUI C2M" SuggestedRemedy Change to "25GBASE-CR, 25GBASE-CR-S, and 25GAUI C2M" Same fix on page 228 line 9 in 110B 2 1; and page 228 line 38 in 110B 2 2 2; page 229 						
SuggestedReme	dy				Same fix on page 228, line 14 in 110B 2 4 (ca	line 9, in 110B.2.1; and page	e 228, line 38, in	110B.2.2.2; page 229,			
Decide which other lanes/d this clause. I can't decide,	n is the prefe lirections or a If the latter, o allow both fo	rable method for testing 4- adding noise to the victim. change Clause 92 to make or both.	lane hosts: apply If the former, us it the preferred i	ving crosstalk to the e it for 4-lane hosts in nethod there. If we	Proposed Response PROPOSED ACCEPT.	Response Status W					
Proposed Respo	nse	Response Status W			C/ 110B SC 110B.1	P 225	L 17	# 26			
PROPOSED	REJECT.				Hajduczenia, Marek	Bright House	Network				
Clause 92.8.4 The suggeste See commen	4.4 is only ap ed remedy is nt #240.	oplicable for RS-FEC mode	alternative norm	ative compliance test.	Multiple dead links: Cable assembly measurements for the SFP28-SFP28 form factor (see >>110C.3.1<<) are made between TP1 and TP4 with cable assembly test fixtures as specified in 110B.1.2 on both ends. Cable assembly measurements for the QSFP28-QSFP28 form factor (see >>110C.3.2<<) are made between TP1 and TP4 with cable assembly test fixtures as						
C/ 110 SC	8	P 149	L 19	# 94	specified in 92.11.2 on 4xSFP28 form factor (s	both ends. Cable assembly i ee >>110C.3.3<<) are made	measurements f between TP1 a	or the QSFP28- and TP4 with a cable			
Palkert, Thomas		Molex			assembly test fixture as	specified in 110B.1.2 for ea	ich connector or	the SFP28 end, and			
Comment Type COM require	T ment is too s	Comment Status D stringent		RITT, 3 m no FEC	with a cable assembly test fixture as specified in 92.11.2 Links to 110B work fine, but to 110C not so much for the QSEP28 end						
SuggestedReme Change COM	<i>dy</i> ⁄I value from	3.0 to 2.8			SuggestedRemedy Please fix broken links						
Proposed Responer	nse REJECT.	Response Status W			Proposed Response PROPOSED ACCEPT.	Response Status W					
The suggeste	ed remedy ci	eates a more stringent rec	eiver tolerance t	est.							
There is no p	proposal that	demonstrates the required	consensus for r	naking this change.							

C/ 110B SC 110B.1

C/ 110B SC 110B.1.3.6 P 226 L 45 # 165	C/ 110B SC 110B.2.4 P 229 L 32 # 167							
Dudek, Mike QLogic	Dudek, Mike QLogic							
Comment Type T Comment Status D	Comment Type T Comment Status D							
The integrated crosstalk noise specified here for the mated test fixture is more stringent than is needed. All the budgets have been set up to enable QSFP to QSFP operation using the OSFP test fixture allowed NEXT of 1 8mV. Note also that the NEXT appressor	The TF6 PICS for crosstalk is incorrectly pointing to the QSFP test fixture specifications which include FEXT and currently a different value for NEXT.							
is physically closer to the victim in an SFP connector than in the QSFP connector.	SuggestedRemedy							
SuggestedRemedy	Change the PICS TF6 to refer to 11B.1.3.6 instead of 92.11.3.6							
Relax the value of the integrated NEXT from 1.2mV to 1.8mV in Table 110B-1 (matching the QSFP NEXT value).	Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.							
Proposed Response Response Status W	Change the PICS TE6 to refer to 110B 1 3.6 instead of 92 11 3.6							
PROPOSED REJECT.								
For task force discussion.	C/ 110C SC 1 P 230 L 52 # 228 Donahue, Curtis UNH-IOL							
C/ 110B SC 110B.1.3.6 P 226 L 48 # 166 Dudek, Mike QLogic	Comment Type E Comment Status D bucket "n" in "Auto-negotiation" should be capitalized.							
Comment Type T Comment Status D	SuggestedRemedy							
There aren't any FEXT agressors in the SFP test fixture, and therefore discussing ICN isn't	Change "Auto-negotiation" to "Auto-Negotiation"							
very helpful and in fact in this subclause how to calculate it is not defined and a specification for it isn't provided.	Proposed Response Response Status W							
SuggestedRemedy	FROFOSED ACCEFT.							
Delete "ICN is calculated from NEXT" On page 227 line 24 change "The total integrated crosstalk noise for the mated" to "The near end crosstalk noise for the mated"	C/ 110c SC 110c.1 P 230 L 13 # 204 D'Ambrosia, John Dell							
Consider changing the title of this section and the titles of tables 110B-1 and 110B-2, and the PICS TF6 feature by inserting "near end" between "integrated" and "crosstalk"	Comment Type TR Comment Status D 3 m no FE							
Proposed Response Response Status W	address 3m no FEC.							
PROPOSED ACCEPT IN PRINCIPLE.	SuggestedRemedy							
Change the title of this section and the titles of tables 110B-1 and 110B-2, and the PICS	Presentation to be submitted with relevant data.							
TF6 feature by inserting "near-end" between "integrated" and "crosstalk".	Proposed Response Response Status W							
Note: ICN is calculated from NEXT as specified in Equation (110B-1) and Equation (110B-	PROPOSED REJECT.							
۷).	Commentor has not provided sufficient information to implement changes in the draft.							
	For task force review of cited presentation.							

C/ 110c SC 110c.1

comment Type T Comment Status D Table 110C lists a "reach" for each cable type as if it were normative, but it isn't, so we need softer wording. In P802.3by, only this annex uses "reach": e.g. 110.10 says "cable length up to 5 m" uggestedRemedy In the table, change "Reach" to "Example length" or "Indicative length". Consider similar changes for "reach" in text above. roposed Response Response Status PROPOSED ACCEPT IN PRINCIPLE. Resolve with comment #246. 110C SC 110C.1 P 230 L 48 # 6 ajduczenia, Marek Bright House Network bucket The text "QSFP28 to Status D						
Table 110C lists a "reach" for each cable type as if it were normative, but it isn't, so we need softer wording. In P802.3by, only this annex uses "reach": e.g. 110.10 says "cable length up to 5 m" uggestedRemedy In the table, change "Reach" to "Example length" or "Indicative length". Consider similar changes for "reach" in text above. roposed Response Response Status PROPOSED ACCEPT IN PRINCIPLE. Resolve with comment #246. // 110C SC 110C.1 P 230 L 48 ajduczenia, Marek Bright House Network omment Type E Comment Status D bucket The text "QSFP28 to						
uggestedRemedy In the table, change "Reach" to "Example length" or "Indicative length". Consider similar changes for "reach" in text above. roposed Response Response Status PROPOSED ACCEPT IN PRINCIPLE. Resolve with comment #246. / 110C SC 110C.1 P 230 L 48 ajduczenia, Marek Bright House Network omment Type E Comment Status D The text "QSFP28 to bucket						
In the table, change "Reach" to "Example length" or "Indicative length". Consider similar changes for "reach" in text above. roposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Resolve with comment #246. / 110C SC 110C.1 P 230 L 48 # 6 ajduczenia, Marek Bright House Network comment Type E Comment Status D bucket The text "QSFP28 to						
roposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Resolve with comment #246. / 110C SC 110C.1 P 230 L 48 # 6 ajduczenia, Marek Bright House Network comment Type E Comment Status D bucket The text "QSFP28 to						
Resolve with comment #246. / 110C SC 110C.1 P 230 L 48 # 6 ajduczenia, Marek Bright House Network 6 omment Type E Comment Status D bucket The text "QSFP28 to The text 10 SC 10						
/ 110C SC 110C.1 P 230 L 48 # 6 ajduczenia, Marek Bright House Network 6 omment Type E Comment Status D bucket The text "QSFP28 to F Comment Status Comment Status Comment Status						
omment Type E Comment Status D bucket The text "QSFP28 to						
The text "QSFP28 to						
"QSFP28 to 4×SFP28 (110C.3.3)" should be left aligned. Now "to" seems to be right aligned for some reason						
uggestedRemedy Per comment						
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.						
Fix alignment.						
/ 110C SC 110C.2.1 P 231 L 10 # 7 ajduczenia, Marek Bright House Network						
omment TypeEComment StatusDbucketmissing "see" when referencing subclauses.						
uggestedRemedy						
Change "(110C.3.1)" to "(see 110C.3.1)". Multiple locations in 110C.2.1 and 110C.2.2, 110C.3.1, 110C.3.2, and 110C.3.3						
roposed Response Response Status W PROPOSED ACCEPT.						
u r a c L						

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

C/ 110C SC 110C.2.1 Page 57 of 63 2015-09-09 3:48:36 PM

C/ 110C SC 110C	.3.1 P 231	1 L 29	# 168	C/ 111	SC 111.1	P 166	L 39	# 225		
Dudek, Mike	QLogic			Law, David		HP				
Comment Type T	Comment Status	D		Comment Ty	be TR	Comment Status D				
The usage of the c the figure either.	able is not illustrated in Fig	gure 110C-1, and it's st	ructure isn't explicit in	Suggest third para	that the 25GE	ASE-KR and 25GBASE-KF 25GBASE-CR and 25GBAS	R-S overview prov E-CR-S overview	ide similar text to the (see 110.1), that is a		
SuggestedRemedy				summary	of which cha	nnels 25GBASE-KR and 25	GBASE-KR-S op	erate over, as well as a		
Change "The struc to "This cable asse	ture and usage of this cabl mbly is illustrated in Figure	le assembly are illustra e 110C-1"	ted in Figure 110C-1"	latter is implied, but not stated, in the second paragraph of subclause 111.9 'Channel characteristics' since it discusses links that comprise of one 25GBASE-KR-S PHY.						
Make the equivaler	nt changes in 110C.3.2 and	d 110C.3.3		SuggestedRe	emedy					
Proposed Response	Response Status	w		Suggest	that:					
PROPOSED ACCE	EPT.			[1] A new	subclause he	eading of 111.9.1 'Two 25G	BASE-KR PHY cł	nannel' be added above		
C/ 110C SC 110C	.3.1 P 231	1 L 32	# 151	the first p	aragraph of 1	11.9 (page 175, line 21).				
Dudek, Mike	QLogic			[2] A new	subclause he	eading of 111.9.2 '25GBASI	E-KR-S PHY char	nel' be added above		
Comment Type E	Comment Status	D	bucket	the secon	iu palayiapii	or 111.9 (page 175, line 25)				
Poor grammar.				[3] A new 39) that r	' third paragra eads 'A 25GE	ph be inserted in 111.1 'Ov ASE-KR PHY supports ope	erview' below the eration over a cha	table (page 166, line nnel meeting the		
SuggestedRemedy				requirem	ents of 111.9.	1 or 111.9.2. A 25GBASE-F	(R-S PHY only su	pports operation over a		
Change character	Istics a cable assembly to	o characteristics of a c	cable assembly	25GBASI	E-KR PHY.'.	equirements of 111.9.2. A 2	DGBASE-KR-S PI	TY interoperates with a		
Make the equivaler	nt changes in 110C.3.2 and	d 110C.3.3		[4] Chan	na tha taxt '	the requirements of 111 Q '	to read ' the rea	nuirements of 111.9.1 or		
Proposed Response PROPOSED ACCE	Response Status N EPT IN PRINCIPLE.	W		111.9.2.' in subclause 111.1 (page 166, line 51).						
Change:				[5] Change the subclause entry for PICS item CC1 (page 181, line 41) from 111.9 to 111.9.1.						
"The electrical char	acteristics a cable assemb	bly of this form factor"		[C] Ohana			(none 404 line)	(4) from (444 O to		
"The electrical cha	acteristics of a cable asse	embly for this form facto	or"	[6] Chang 111.9.2.	je the subciat	ise entry for PICS item CC2	(page 161, line 2	14) 11011 111.9 to		
Make the equivaler	nt changes in 110C.3.2 and	d 110C.3.3		Proposed Re	sponse	Response Status W				
C/ 110C SC 110C	3.3 P 233	3 / 1	# 142	PROPOS	SED ACCEPT					
Hidaka, Yasuo	Fujitsu	Lab. of Americ	" 112	Apply the	changes in t	ne suggested remedy.				
Comment Type E "an QSFP28 plug"	Comment Status I should be "a QSFP28 plug	D]".	bucket							
SuggestedRemedy Change "an QSFP:	28 plug" with "a QSFP28 p	olug".								
Proposed Response PROPOSED ACCE	Response Status N EPT.	w								

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

C/ 111 SC 111.1

C/ 111 SC 111.1	P 166	L 41	# 220	C/ 111	SC ·	111.8.3.2	P 17:	3 L4	46	# 150	
Law, David	HP			Dudek, Mike	9	_	QLogic				
Comment Type T Since this overview is the cross reference be to 1	Comment Status D for 25GBASE-KR and 25GBA 111.6 rather than 110.6.	SE-KR-S should	Bucket n't the FEC mode	Comment T	уре 111-5 Ротор	E and 111-6	are breaking up the f) low of sub-clau	use 111.8.3.2	page layout	
SuggestedRemedy Suggest that '(see 110	0.6)' should read '(see 111.6)'.			Suggestedr Force 1	temed 11.8.3	.2 to start	after table 111-6				
Proposed Response PROPOSED ACCEPT	Response Status W			PROPC	ISED I	REJECT.	Response Status	v			
Apply the change in the	e suggested remedy.			In order	to pre	event large	unused spaces, table	es are permitte	ed to float to su	bsequent pages.	-
C/ 111 SC 111.5 Law, David	<i>P</i> 169 HP	L 12	# 211	C/ 111 Zambell, An	SC · drew	111.9	P 17: FCI	5 L2	22	# 46	1
Comment Type E Register 1.1450 is calle IEEE P802.3 (IEEE 80	Comment Status D ed 'PMD training pattern lane 02.3bx) draft D3.2.	0' based on subo	<i>Bucket</i> clause 45.2.1.122 of	Comment T The first "Channe same as It should	ype t paragel chai s those d state	T graph in cla racteristics e of a sing e,"as def	Comment Status I ause 111.9 states, for the links that com le lane of 100GBASE fined in 93.9.1 through) prise two 25G -KR4, as defin p 93.9.4."	BASE-KR PH) ed in 93.9.1 th	Bucket 's shall be the rough 93.8.4."	
Suggest that 'PMD trai 'Polynomial identifier 0	ining pattern 0' should read 'P)' and 'Seed 0' entries of Table	MD training patte 111-2.	ern lane 0' for	SuggestedF Change	Remed 93.8.4	<i>ly</i> 4 to 93.9.4					
Proposed Response PROPOSED ACCEPT	Response Status W			Proposed R PROPC	espon SED /	se ACCEPT.	Response Status	N			
Apply the change in the	e suggested remedy.			See cor	nment	#141.					
Apply a similar change	e in Table 110-2.			C/ 111	SC ·	111.9	P 17:	5 L2	22	# 141	
C/ 111 SC 111.8.3.1	P 173	L 46	# 170	Hidaka, Yas	uo		Fujitsu	Lab. of Americ	;	-	-
Dudek, Mike	QLogic			Comment T	ype	Е	Comment Status)		Bucket	t
Comment Type TR	Comment Status D		COM parameters	It is writ	ten as	93.9.1 thr	ough 93.8.4.				
It has been shown in s	un_061015_25GE_adhoc tha	t with the existing	g COM parameters	Clause	93.8.4	is prior to	93.9.1.				
and coding the mean t than the age of the uni solve this issue and wi	ime to false packet acceptance iverse. It has also been show ill not significantly alter the wo	e in the no-fec c n that changing rst case COM (te	ase can be shorter bmax to 0.35 will est case 2).	SuggestedRemedy Change the pointer to "93.9.1 through 93.8.4" to "93.9.1 through 93.9.4".							
SuggestedRemedy				Proposed R	espon	se	Response Status	N	-		
change bmax to 0.35 in	n table 111-6.			PROPC	SED	ACCEPT.		•			
Proposed Response PROPOSED ACCEPT	Response Status W			See cor	nment	t #46 .					
See also comment #16	69.										
TYPE: TR/technical require COMMENT STATUS: D/dia SORT ORDER: Clause, St	ed ER/editorial required GR/g spatched A/accepted R/rejec ubclause, page, line	general required cted RESPON	T/technical E/editorial G/g SE STATUS: O/open W/wi	general ritten C/closed	U/uns	atisfied Z	/withdrawn	C/ 111 SC 111.9		Page 59 of 63 2015-09-09 3:48	8:36 PN

C/ 112 SC 10.2.1 Donahue, Curtis	<i>P</i> 192 UNH-IOL	L 52	# 229		<i>Cl</i> 112 Marris, Art	SC 1 hur	112.5.4	P 187 Cadence Des	L 11 sign Syste	# 61		
Comment Type E Should "3" be "three"? something like that.	Comment Status D Style guide states numbers le	ess than 11 sho	E uld be spelt or	Bucket	Comment Single word g	<i>Type</i> as it is lobal.	T just a sing	Comment Status D gle fibre in each direction is i	t really global?	Consider deleting the		
SuggestedRemedy See comment. Proposed Response PROPOSED ACCEPT Change "3 connection: C/ 112 SC 112.10.3	Response Status W IN PRINCIPLE. s" to "three connections". P 193	L 5	# 237		Suggested Chang "112.5 The PI PMDs To: "112.5 The PI	IRemed je: .4 PMD MD glob service in .4 PMD MD sign	y global sig al signal nterface.' signal de al detect	gnal detect function detect function shall report t r etect function function shall report the stat	he state of SIGI e of SIGNAL_D	NAL_DETECT via the ETECT via the PMD		
Geoff Thompson Comment Type TR This sub-clause purpo the MDI device or MDI not the interface conner SuggestedRemedy	C/ 112 SC 112.10.3 P 193 L 5 # 237 Geoff Thompson GraCaSI S.A. Comment Type TR Comment Status D This sub-clause purports to define the MDI but does not do that. It defines the MDI device or MDI connector but not the INTERFACE. It is the interface, not the interface connector which is the MDI. SuggestedRemedy						Proposed Response Response Status W PROPOSED REJECT. The 'PMD global signal detect' was chosen to be the same name as used in clause 52 (a single lane clause), and to match the MDIO PMD status variable name PMD_global_signal_detect as shown on Table 112-3					
and contents match.	Response Status	ents so that the	title		C/ 112 Dudek. Mil	SC 1 ke	112.6.1	<i>P</i> 188 QLogic	L 53	# 160		
PROPOSED REJECT The nomenclature and including 95, 88, 87, 86	S	Comment Type T Comment Status D The sentence as stated implies the use of the 100GBASE-SR4 test patterns as these are references in 95.7.1 SuggestedRemedy										
Changing a single clause as suggested might be confusing. The commenter is invited to submit a maintenance request which covers all clauses.						Add to the sentence. "with the exception that the test patterns are modified as stated in 112.7.1" Proposed Response Response Status W PROPOSED ACCEPT.						

C/ 112 SC 112.6.1

C/ 112	SC 112.6.2	P 189	L 4	# 161	C/ 112	SC 112.9	P	191	L 34	# 236	
Dudek, Mi	ke	QLogic			Geoff Tho	mpson	Gra	CaSI S.A			
Comment	Туре Т	Comment Status D			Comment	Type TR	Comment Statu	s D			
The se refere	entence as stated nces in 95.7.2	d implies the use of the 100G	BASE-SR4 tes	t patterns as these are	The term "channel" used to specify the media is an undefined term within the 802.3 standard.						
Suggested	dRemedy				Suggested	Remedy					
Chang patter	ge "exception" to ns are modified a	"exceptions" and add to the oas stated in 112.7.1"	end of the sente	nce "and the test	Please rewrite using the term "link segment" which is precisely defined within 802.3 for precisely this use. (also all other uses within the draft)						
Proposed PROP	Response POSED ACCEPT	Response Status W			Proposed PROP	Response OSED REJEC	Response Status CT.	s W			
C/ 112 Lewis, Dav	SC 112.7.1 vid	P 189 Lumentum	L 22	# 91	'Chanı 52).	nel' is the term	used in the equivaler	t sections	s for previous cla	auses (95, 88, 87, 86,	
Comment The re	<i>Type</i> E eference for patte	Comment Status D rn 5 should be to 82.2.10, no	ot 82.2.11.	Bucket	Chang	ging a previous	ly used term for a sin	gle clause	e might be confu	sing.	
Suggested	dRemedy				The co	ommenter is in	vited to submit a main	ntenance	request which c	overs all clauses.	
Repla	ce 82.2.11 with 8	2.2.10.			C/ 112	SC 5.1	P	186	L 6	# 230	
Proposed	Response	Response Status W			Donahue,	Curtis	UNI	1-IOL			
PROF	POSED ACCEPT	•			Comment	Type E	Comment Statu	s D			
C/ 112	SC 112.7.1	P 189	L 25	# 159	Clause this dif	es 110 and 11 fference intent	1 have a "Link block d ional?	iagram",	but 112 has "PN	ID block diagram". Is	
Dudek, Mi	ke	QLogic			Suggested	Remedy					
Comment	Type T	Comment Status D			Chang	ge "PMD block	diagram" to "Link blo	ck diagrar	m".		
Table	95-10 includes th	ne valid 100GBASE-SR4 pat	tern which isn't	applicable to 25GBASE-	Proposed	Response	Response Status	w			
SR. It	t also references	the pattern 5 with clause 91	RS-FEC.		PROP	OSED REJEC	T.				
Suggestee	dRemedy				The tit	la 'DND black	diagram' has been us	ad in the		and for providuo	
Create a table in this clause which is identical to table 95-10 except that "valid 100GBASE- SR4 signal" is replaced by valid 25GBASE-SR signal" Replace all references to table 95- 10 in this clause with references to this new table. Place the table immediately above 112.7.2						The title 'PMD block diagram' has been used in the equivalent sections for previous clauses (95, 88, 87, 86, 52).					
						Changing a previously used term for a single clause might be confusing.					
Proposed	Response	Response Status W			The co	ommenter is in	vited to submit a mair	ntenance	request which c	overs all clauses.	
PROP	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: Clause, Subclause, page, line

C/ 112 SC 5.1 Page 61 of 63 2015-09-09 3:48:36 PM

C/ 112 SC 5.2 Donahue, Curtis	<i>P</i> 186 UNH-IOL	L 49	# 232	C/ FM SC (Booth, Brad	0	P 11 Microsoft	<i>L</i> 1	# 100		
Comment Type E Clauses 110 and 111 function".	Comment Status D have a "PMD Transmit function	n", but 112 has '	bucket PMD transmit	Comment Type E Comment Status D bucket IEEE-SA style guide only requires a maximum of three levels need to be shown in the table of contents.						
SuggestedRemedy Make consistent throu	ughtout draft. Either capitalize	the "t" or make "	T" lowercase.	SuggestedRemedy Change to match IEEE-SA style guide to simplify readability.						
Proposed Response PROPOSED ACCEP	Response Status W T IN PRINCIPLE.			Proposed Respon PROPOSED /	se ACCEPT	Response Status W				
See comment #233.				[Editor change	ed Clause	e from 000 to FM.]				
Cl 112 SC 5.4 Donahue, Curtis Comment Type E Clauses 110 and 111 signal detect function	P 187 UNH-IOL Comment Status D have a "Global PMD signal de ". Is this difference intentional?	L 11	# 231	2014 IEEE-SA "A table of cor subclauses ur of subclauses IEEE-SA cont In Table of Co	A Standar ntents list nder each (identifie ent publis	rds Style Manual states: ting the main clauses (identifie n clause (identified by two digit ed by three digits) may be inclu shing staff and the working gro mit headings to 1, 2, and 3 leve	ed by one digit) (s) should be su uded when dee pup." el headings.	and the first series of upplied. The next series med appropriate by the		
Change "PMD global	signal detect function" to "Glol	oal PMD signal d	etect function".	C/ FM SC (0	P 24	L 46	# 181		
Proposed Response PROPOSED REJECT 'PMD global signal de which Clause 112 sub single lane clause), ar 112-3	Response Status W T. tect function' is the same name ostantially follows for content a nd matches the name of the P	e convention as nd format; it also MD status variab	used in Clause 95, matches Clause 52 (a le as shown in Table	Zimmerman, George CME Consulting, Inc. Comment Type ER Comment Status D buc 802.3bq already modifies some of the same text and precedes this document in WG ballot. needs to be added to the identified standards in progress to avoid confusion. SuggestedRemedy Add IEEE 802.3bq to IEEE 802.3bn and IEEE 802.3 in the note. Example 1000 minutes and the standards in the note.						
				Proposed Respon PROPOSED /	se ACCEPT	Response Status W				

[Editor changed Clause from 000 to FM.]

C/ FM SC 0

C/FM SC 0	P 7	L 18	# 99	CI FM	SC FM	P 7	L 17	# 212
Booth, Brad	Microsoft			Law, David		HP		
Comment Type E Add the working group SuggestedRemedy	Comment Status D o voters list.		bucket	Comment 7 Now the of office	<i>ype</i> E at the IEEE P8 ers and memb	Comment Status D 802.3by balloting group has b lers of the IEEE 802.3 working	een established, g group.	<i>bucket</i> please complete the list
Per comment.				Suggestedl	Remedy			
Proposed Response	Response Status W			Please	include the lis	t of officers and members of	the IEEE 802.3 w	orking group.
PROPOSED ACCEPT	Г.			Proposed F PROPO	Response DSED ACCEP	Response Status W T.		
[Editor changed Claus	se from 000 to FM.]			[[ditor	abangad Clau	as number from 00 to EMI		
C/ FM SC FM Booth, Brad	P1 Microsoft	L 5	# 117	[Editor	changed Clau	se number from 99 to Finj		
Comment Type E Redundant uses of tra	Comment Status D ademarks		bucket					
SuggestedRemedy Remove TM from: page 1, line 5: IEEE P page 2, line 10: IEEE Page 9, line 7: IEEE S	2802.3by P802.3by Std. 802.3							
Proposed Response PROPOSED ACCEPT	Response Status W							
[Editor changed Claus	se from 000 to FM.]							
C/FM SC FM	P 4	L1	# 27					
Hajduczenia, Marek	Bright House	Network						
Comment Type ER please re-apply the fro lines inserted between	Comment Status D ont matter text again into the on paragraphs without any reas	lraft - there are a	<i>bucket</i> apparently extra white					
SuggestedRemedy For example, page 4,	lines 6-8, 14-18, etc.							
Proposed Response	Response Status W							
PROPOSED ACCEPT	T IN PRINCIPLE.							
Fix vertical spacing be	etween lines to be consistent v	vith the templat	9.					

C/ FM SC FM