C/ FM	SC FM	P 15	L <b>2</b>	# 69	C/ 000
Hidaka, Y	asuo	Fujitsu Lab of	f America		Anslow, Pete
Comment	Туре Е	Comment Status A		bucket	Comment Typ
		ents, there is no space between 45.2.1.14b1.6.	clause number	and clause title for	The BER See anslo
Suggeste	dRemedy				SuggestedRe
Increa	ase the space	e after clause number in the form	at of table of co	ontents.	
Response	)	Response Status C			http://www with the fo
ACCE	PT.				Slide 9: d
C/ 000	SC 0	Р	L	# 163	Slide 10:
Anslow, P		Ciena	L	# 105	Response
				nropoding	ACCEPT
Comment		Comment Status A BASE-CR, 50GBASE-KR, 100GB		precoding	Implemer
		and 200GBASE-KR4 PHYs is en			http://www
Howe	ver, 50G and	100G optical PHYs using a PAM	14 C2C AUI als	o require precoding to	[Editor's r
	abled on the ements will n	AUI part of the link when long bu	irsts are presen	it or the FLR	correct U
•		or be mer.			http://www
Suggeste	-	to enable precoding and its remo	wal in the PMA	s on oither side of 50G	C/ 000
		Is when they use PAM4 encoding			Ran, Adee
Response	)	Response Status <b>C</b>		·	Comment Typ
ACCE	PT IN PRIN	, CIPLE.			Many con
Add a	n MDIO cont	rol bit for each PMA transmitter a	and receiver to	enable and disable	After com
		t describing how these bits may	be used for bot	h AUI and PMD	D1.1 too.
interfa	aces.				SuggestedRe
For ea	ach PMA rece	eiver add a precoder request MD	IO bit. Use the	transmitter preemphasis	Pending
reque	st as a basis.				Proposed Res
					REJECT.
					This com

CI 000	SC (	J	Р	L	# 164
Anslow, Pe	ete		Ciena		
Comment	Туре	т	Comment Status A		<cc> BEI</cc>
			s for all of the PMD clauses 3cd_01_adhoc for discussion		
Suggested	Remed	У			
http://v with th Slide 9	www.iee e follow ): chang	ing exce ge "2000	g/3/cd/public/adhoc/archive/a	CR4" in the sec	ond paragraph
Response		0	Response Status <b>C</b>		
	PT IN P	RINCIP			
http://v	www.iee 's note	e802.org	ted remedy except referring g/3/cd/public/adhoc/archive/g after comment resolution): Th	gustlin_102616_	3cd_adhoc_v2.pdf
http://v [Editor correc http://v	vww.iee 's note t URL is vww.iee	e802.org (added a as follo e802.org	g/3/cd/public/adhoc/archive/g after comment resolution): Tl ws: g/3/cd/public/adhoc/archive/a	gustlin_102616_ he URL in this re anslow_102616_	3cd_adhoć_v2.pdf esponse is incorrect. The _3cd_adhoc.pdf]
http://v [Editor correc	vww.iee 's note t URL is vww.iee SC (	e802.org (added a as follo e802.org	g/3/cd/public/adhoc/archive/ after comment resolution): TI ws:	gustlin_102616_ he URL in this re	3cd_adhoc_v2.pdf esponse is incorrect. The
http://v [Editor correc http://v C/ 000 Ran, Adee Comment	vww.iee 's note i t URL is vww.iee SC ( Type	e802.org (added a as follo e802.org ) T	g/3/cd/public/adhoc/archive/g after comment resolution): Tl ws: g/3/cd/public/adhoc/archive/a P <b>0</b>	gustlin_102616_ he URL in this re anslow_102616_ <i>L</i> <b>0</b>	3cd_adhoc_v2.pdf esponse is incorrect. The _3cd_adhoc.pdf] # [ <u>17</u> < <i>CC</i> > 802.3b
http://v [Editor correc http://v C/ 000 Ran, Adee Comment Many v	vww.iee 's note i t URL is vww.iee SC ( Type commen	e802.org (added a as follo e802.org <b>D</b> T nts agair	g/3/cd/public/adhoc/archive/g after comment resolution): Th ws: g/3/cd/public/adhoc/archive/g P 0 Intel Comment Status D	gustlin_102616 he URL in this re anslow_102616_ <i>L</i> <b>0</b> evant for 802.3c	3cd_adhoc_v2.pdf esponse is incorrect. The _3cd_adhoc.pdf] # [ <u>17</u> < <i>CC</i> > <i>802.3b</i> d too (if accepted).
http://v [Editor correc http://v C/ 000 Ran, Adee Comment Many o After c D1.1 to Suggested	vww.iee 's note ( t URL is vww.iee SC ( Type commen po. Remed	e802.org (added a a as follo e802.org ) T nts agair t resolut	g/3/cd/public/adhoc/archive/g after comment resolution): TI ws: g/3/cd/public/adhoc/archive/g P 0 Intel Comment Status D nst 802.3bs D2.1 may be rele	gustlin_102616 he URL in this re anslow_102616_ <i>L</i> <b>0</b> evant for 802.3c	3cd_adhoc_v2.pdf esponse is incorrect. The _3cd_adhoc.pdf] # <u>17</u> < <i>CC&gt; 802.3b</i> d too (if accepted). ome of the changes in

This comment was WITHDRAWN by the commenter.

CI 000 SC 0

gestedRemen Add text to sa ponse ACCEPT IN I Using the tex "Two widths of Annex 135E, <b>D01</b> SC asi, Ali <i>mment Type</i> There is no m gestedRemen Add text to sa ponse REJECT.	dy ay where n= PRINCIPLE tt for CAUI-n of 50GAUI-r and a one-I <b>1.1.3.2</b> <b>TR</b> nention of va dy ay where n=	Response Status C h/100GAUI-n as a guid n are defined: a two-la lane version (50GAUI- P 34 Ghiasi C Comment Status R alue of n for 100GAUI	n de, add the following ne version (50GAU -1) in Annex 135F a <i>L</i> <b>27</b> Quantum LLC	g penultimate sentence: II-2) in Annex 135D and and Annex 135G." # <u>125</u>	
Add text to sa ponse ACCEPT IN I Using the tex "Two widths of Annex 135E, <b>001</b> SC asi, Ali <i>nment Type</i> There is no n gestedRemed Add text to sa ponse REJECT.	PRINCIPLE tt for CAUI-n of 50GAUI-r and a one-I <b>1.1.3.2</b> <b>TR</b> nention of va <i>dy</i> ay where n=	Response Status C h/100GAUI-n as a guid n are defined: a two-la lane version (50GAUI- P 34 Ghiasi C Comment Status R alue of n for 100GAUI =2 or 4.	de, add the following ne version (50GAU -1) in Annex 135F a <i>L</i> <b>27</b> Quantum LLC	I-2) in Annex 135D and and Annex 135G."	
ACCEPT IN I Using the tex "Two widths of Annex 135E, <b>001</b> SC asi, Ali <i>mment Type</i> There is no m <i>gestedRemee</i> Add text to sa <i>sponse</i> REJECT.	PRINCIPLE tt for CAUI-n of 50GAUI-r and a one-I <b>1.1.3.2</b> <b>TR</b> nention of va <i>dy</i> ay where n=	n/100GAUI-n as a guid n are defined: a two-la lane version (50GAUI- P <b>34</b> Ghiasi C <i>Comment Status</i> <b>R</b> alue of n for 100GAUI	de, add the following ne version (50GAU -1) in Annex 135F a <i>L</i> <b>27</b> Quantum LLC	I-2) in Annex 135D and and Annex 135G."	
"Two widths of Annex 135E, <b>001</b> SC asi, Ali <i>nment Type</i> There is no m <i>gestedRemee</i> Add text to sa <i>sponse</i> REJECT.	of 50GAUI-r and a one-l 1.1.3.2 TR nention of va dy ay where n=	n are defined: a two-la lane version (50GAUI- P 34 Ghiasi C <i>Comment Status</i> R alue of n for 100GAUI =2 or 4.	Le version (50GAUI -1) in Annex 135F a <i>L</i> <b>27</b> Quantum LLC	I-2) in Annex 135D and and Annex 135G."	
001 SC asi, Ali nment Type There is no n gestedRemed Add text to sa sponse REJECT.	1.1.3.2 TR nention of va dy ay where n=	P 34 Ghiasi C Comment Status R alue of n for 100GAUI ⊧2 or 4.	L 27 Quantum LLC		
nment Type There is no n gestedRemed Add text to sa ponse REJECT.	nention of va <i>dy</i> ay where n=	Comment Status R alue of n for 100GAUI =2 or 4.	-n		
There is no n gestedRemed Add text to sa ponse REJECT.	nention of va <i>dy</i> ay where n=	alue of n for 100GAUI ⊧2 or 4.	-n		
Add text to sa ponse REJECT.	ay where n=		;		
ponse REJECT.			;		
This definition	n is unchang	ged in this respect from	m the definition for (	CAUI-n in 802.3-2015.	
It is clear from the penultimate sentence that for 100GAUI-n, n is 2 or 4.					
001 SC ted, Kent	1.4.54a	P 35 Intel	L 10	# 8	
nment Type	TR	Comment Status A		buck	
		ASE-DR does not quite	e align with 200GBA	ASE-DR2 and 400GBASE	
gestedReme	dy				
Change to: "IEEE 802.3 Physical Layer specification for 100 Gb/s serial transmission using 100GBASE-R encoding and 4-level pulse amplitude modulation over one wavelength on single-mode fiber, with reach up to at least 500 m. (See IEEE Std 802.3, Clause 140.)"					
ponse		Response Status C		,	
ACCEPT.					
g	DR4 in P802 ggestedReme Change to: " 100GBASE-I single-mode sponse	The definition of 100GB/ DR4 in P802.3bs. ggestedRemedy Change to: "IEEE 802.3 100GBASE-R encoding single-mode fiber, with response	The definition of 100GBASE-DR does not quit DR4 in P802.3bs. ggestedRemedy Change to: "IEEE 802.3 Physical Layer specifi 100GBASE-R encoding and 4-level pulse amp single-mode fiber, with reach up to at least 500 sponse Response Status C	The definition of 100GBASE-DR does not quite align with 200GB/ DR4 in P802.3bs. ggestedRemedy Change to: "IEEE 802.3 Physical Layer specification for 100 Gb/s 100GBASE-R encoding and 4-level pulse amplitude modulation of single-mode fiber, with reach up to at least 500 m. (See IEEE Std sponse Response Status C	

C/ 001 SC 1.4.54a

2/ 001 SC ·	1.4.58a2	P <b>35</b> Intel	L <b>29</b>	# 10	C/ <b>030</b> Slavick, Jef	SC <b>30</b> f		P <b>38</b> Broadcom Lir	<i>L</i> <b>2</b> nited	# 137
<i>Comment Type</i> The definition FR8 in P802.3		Comment Status A SE-FR does not quite align	with 200GBASE	<i>bucket</i> E-FR4 and 400GBASE-		bring in	aBIPEr	Comment Status <b>A</b> rorCount, aFECAbilty, aLan and add 50G to their defnitio		Bucke ECBIPErrorCount, and
50GBASE-R	EEE 802.3 encoding a	Physical Layer specificatio and 4-level pulse amplitude reach up to at least 2 km. (S	modulation over	one wavelength on	Suggested Per cor Response ACCEF	nment		Response Status C		
ACCEPT.		Response Status C			C/ 030	SC 30.	3.2.1.2	P 38	L 16	# 18
usted, Kent Comment Type The definition LR8 in P802.3 Change to: "II 50GBASE-R	3bs. dy IEEE 802.3 encoding a	P 35 Intel Comment Status A SE-LR does not quite align Physical Layer specificatio and 4-level pulse amplitude reach up to at least 10 km. ( Response Status C	n for 50 Gb/s se modulation over	rial transmission using one wavelength on	from 50 Similar Suggestedi Insert " Response ACCEF	vase docu IGBASE-I y in 30.5. Remedy multi-lane PT.	ment 10 R. 1.1.2. PCS" a	Intel Comment Status A DOGBASE-R appears as "m after "Clause 133" in both pl Response Status C	aces.	Bucke ut here it is missing
7 001 SC	1.4.58a6	P 35	L 44	# 64	C/ 030 Marris, Arth	SC <b>30.</b> ur	J. 1. 1.Z	Cadence Des	L <b>50</b> ign Syste	π
uggestedRemed Replace, "usin encoding ove Response ACCEPT IN F For 50GBASE	dy ing 50GBA er one lane PRINCIPLI E-SR there	is no need to mention the r	mode fiber" with	, "using 50GBASE-R . The wording should be	Suggestedi Say ex Also 50	blicitly wh Remedy blicitly wh IGBASE-I	ere the ere the FR is de	Comment Status A new entries should be inser new entries should be inser efined im lause 139 (not 138 the entires should be inser Response Status C	ted in 30.5.1.1.2	Bucke
For 50GBASE based on the the definition	E-SR there definition should not				•	ΡΤ.		Response Status C		

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

Cl	030
SC	30.5.1.1.2

Page 3 of 41 2016-11-15 2:02:10 PM C/ 030 SC 30.5.1.1.2 P 38 L 50 # 19 C/ 030 SC 30.5.1.1.17 P 40 L7 # 23 Ran, Adee Intel Ran, Adee Intel Comment Type Ε Comment Status A Bucket Comment Type т Comment Status A Bucket The placement of new entries is not specifed in the instruction. The exact location is The last occurrence of "and" in this line (preceding "2 500 000") should be deleted as it is difficult to describe now, but may be easier when other projects are finished and possibly not the last item. after a revision project. SuggestedRemedy per comment. Also applies in 30.6.1.1.5. Response Response Status C SuggestedRemedy ACCEPT. Add editor's notes (to be removed prior to publication) stating that the exact locations for insertion should be indicated. C/ 030 SC 30.5.1.1.17 P 40 L7 # 22 Apply in all relevant subclauses. Ran. Adee Intel Response Response Status C Comment Type T Comment Status A ACCEPT. It is unclear why 25G, has the same maximum rate as 10G/40G. This does not align with the scaled bit time (assuming all operate in BASE-R FEC which has the smallest FEC C/ 030 SC 30.5.1.1.2 P 39 L 3 # 20 block size). Ran. Adee Intel Anyway, 50G does not have BASE-R FEC so it should not have the same corrected block Comment Type Ε Comment Status A Bucket rate as these PHYs. Base docuemnt uses "copper balanced" instead of "balanced copper". The maximum increment rate occurs when every FEC codeword is corrected (which is Appears 3 times close to the expectation with an uncorrelated BER close to 2e-4). Since for 50G the codeword size is 5440 bits and the duration is 2720 UI = 105 ns, the maximum rate is SuggestedRemedy approximately 10 million increments per second. Change "balanced copper" to "copper balanced" 3 times Calculations for the 200G/400G should also be corrected - due to the codeword interleave Response Response Status C the rates are 2x and 4x, not 4x and 8x. This will be commented for 802.3bs. ACCEPT. Also applies to 30.5.1.1.18 for similar reasoning. C/ 030 SC 30.5.1.1.2 P 39 L13 # 21

Bucket

IEEE P802.3cd 50 Gb/s, 100 Gb/s, 200 Gb/s Ethernet 1st Task Force review comments

SuggestedRemedy Change text to indicate that for 50 Gb/s the maximum rate is 10 000 000, in both

subclauses.

Response Response Status C

ACCEPT.

Insert "2 lane" and "4 lane" as necessary. *Response Response Status* **C** 

E

Intel

Base document includes number of lanes for all multi-lane copper cable and optical PHYs.

Comment Status A

ACCEPT.

Ran. Adee

Comment Type

SuggestedRemedy

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

C/ 030 SC 30.5.1.1.17 Page 4 of 41 2016-11-15 2:02:10 PM

Slavick, Jeff	P <b>42</b> Broadcom Lim	L 0 ited	# 152	C/ 045 Marris, Arthu	SC <b>45.2.1.4.6</b> r		<i>L</i> Ince Design Sys	<b>47</b> ste	# 3	
Comment Type <b>T</b>	Comment Status A		bucket	Comment Ty		Comment Status				Bucket
BS has changed text in 4 400G.	45.2.1.124 that specifies the	behavior of PR		Change:		45.2.1.6 as follows:				Ducher
SuggestedRemedy	nto the new text since the "all	l others" text is	wrong for 802 3cd	Insert 45	.2.1.4.6a after	45.2.1.4.6 as follows:	:			
	e sub-section for D1.1 with ar			SuggestedRe	emedy					
802.3bs into D1.2 since	I believe it maybe changing f	for 802.3bs D2	.2.	Change:	2 1 / 62 after	45.2.1.6 as follows:				
lesponse	Response Status C			To:	.2.1.4.0a allei	45.2.1.0 as 1010ws.				
ACCEPT IN PRINCIPLE				Insert 45	.2.1.4.6a after	45.2.1.4.6 as follows:	:			
Implement suggested re	emedy using editorial licence			Also add	space in 45.2	1.14b150G on line 12	2 of page 50			
1 045 SC 45	P <b>42</b>	L <b>0</b>	# 151	Change 4	45.2.1.14da.2	to 45.2.1.14b1.2 on li	ne 48 page 50			
lavick, Jeff	Broadcom Lim	ited		Response		Response Status				
Comment Type <b>T</b> MDIO RS-FEC registers	Comment Status <b>A</b> need to include 134		bucket	ACCEPT			-			
uggestedRemedy				C/ <b>045</b>	SC 45.2.1.10	P 49	<b>)</b> L	30	# 7	
	escription of 45.2.1.102.5, 45	5.2.1.102.6, 45.	2.1.102.2,	Marris, Arthu	r	Caden	nce Design Sys	te		
45.2.1.102.1, 45.2.1.108		,	,	Comment Ty	pe <b>T</b>	Comment Status	Α			Bucket
lesponse	Response Status C			Bit 1.11.1	14 is unavailab	le for 50G extended a	abilities			
ACCEPT IN PRINCIPLE				SuggestedRe	emedy					
	E. emedy using editorial licence			With edit Create n	orial licence de ew register "Pl	o the following: MA/PMD extended ab		on 1.25		
Implement suggested re		L <b>0</b>	# [153	With edit Create n Define bi	orial licence de ew register "Pl t 0 of this regis	MA/PMD extended ab ster to be "50G extend	ded abilities"		nd also include	in
Implement suggested re	emedy using editorial licence	L <b>0</b>	# 153	With edit Create n Define bi	orial licence de ew register "PI t 0 of this regis subclause 45.	MA/PMD extended ab	ded abilities"		nd also include	in
Implement suggested re	emedy using editorial licence P <b>42</b>	L <b>0</b>	# 153 bucket	With edit Create n Define bi Add new	orial licence de ew register "PI t 0 of this regis subclause 45.	MA/PMD extended ab ster to be "50G extend	ded abilities" 5-17f1 to descr		nd also include	in
Implement suggested re / 045 SC 45 avick, Jeff omment Type T MDIO for C2C and C2M	emedy using editorial licence P <b>42</b> Broadcom Lim	L <b>0</b> ited g the 200/400G	bucket	With edit Create no Define bi Add new Table 45	orial licence de ew register "Pl t 0 of this regis subclause 45 -3.	MA/PMD extended ab ster to be "50G extend 2.1.14f1 and Table 4	ded abilities" 5-17f1 to descr			in
Implement suggested re d 045 SC 45 lavick, Jeff comment Type T MDIO for C2C and C2M 802.3bs lists the register	emedy using editorial licence P 42 Broadcom Lim Comment Status A AUI controls I think are using	L <b>0</b> ited g the 200/400G	bucket	With edit Create n Define bi Add new Table 45 <i>Response</i> ACCEPT <i>CI</i> 045	orial licence de ew register "Pl t 0 of this regis subclause 45 -3.	MA/PMD extended ab ster to be "50G extend 2.1.14f1 and Table 4 <i>Response Status</i> b P 50	ded abilities" 5-17f1 to descr C		nd also include # 2 <u>4</u>	in
Implement suggested re 1 045 SC 45 lavick, Jeff omment Type T MDIO for C2C and C2M 802.3bs lists the register uggestedRemedy Add 50G and 100GAUI-2	P 42 P 42 Broadcom Lim <i>Comment Status</i> A AUI controls I think are using r names and 200GAUI-n and 2 to 802.3bs 45.2.1.116d, 45	L <b>0</b> ited g the 200/400G 400GAUI-n. 5.2.1.116e, 45.2	<i>bucket</i> 6 versions. Current 2.1.116f. May want to	With edit Create n Define bi Add new Table 45 <i>Response</i> ACCEPT	orial licence de ew register "Pl t 0 of this regis subclause 45. -3.	MA/PMD extended ab ster to be "50G extend 2.1.14f1 and Table 4 <i>Response Status</i>	ded abilities" 5-17f1 to descr C	ibe this ar		in
Implement suggested re / 045 SC 45 lavick, Jeff omment Type T MDIO for C2C and C2M 802.3bs lists the register uggestedRemedy Add 50G and 100GAUI-2 pull the sections in and a	P <b>42</b> Broadcom Lim <i>Comment Status</i> <b>A</b> AUI controls I think are using r names and 200GAUI-n and	L <b>0</b> ited g the 200/400G 400GAUI-n. 5.2.1.116e, 45.2	<i>bucket</i> 6 versions. Current 2.1.116f. May want to	With edit Create no Define bi Add new Table 45 Response ACCEPT C/ 045 Ran, Adee Comment Ty	orial licence d ew register "Pl t 0 of this regis subclause 45. -3. -3. -3. -3. -3. -3. -3. -3. -3. -3	MA/PMD extended ab ster to be "50G extend 2.1.14f1 and Table 4 <i>Response Status</i> b <i>P</i> 50 Intel <i>Comment Status</i>	ded abilities" 5-17f1 to descr C	ibe this ar		in Bucket
Implement suggested re / 045 SC 45 lavick, Jeff omment Type T MDIO for C2C and C2M 802.3bs lists the register uggestedRemedy Add 50G and 100GAUI-2 pull the sections in and a the text.	P 42 P 42 Broadcom Lim <i>Comment Status</i> A AUI controls I think are using r names and 200GAUI-n and 2 to 802.3bs 45.2.1.116d, 45 add editors note to bring in in	L <b>0</b> ited g the 200/400G 400GAUI-n. 5.2.1.116e, 45.2	<i>bucket</i> 6 versions. Current 2.1.116f. May want to	With edit Create no Define bi Add new Table 45 Response ACCEPT C/ 045 Ran, Adee Comment Ty	orial licence d ew register "Pl t 0 of this regis subclause 45. -3. -3. -3. -3. -3. -3. -3. -3. -3. -3	MA/PMD extended ab ster to be "50G extend 2.1.14f1 and Table 4 <i>Response Status</i> b <i>P</i> 50 Intel	ded abilities" 5-17f1 to descr C	ibe this ar		ĭ
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Implement suggested re 2/ 045 SC 45 Idavick, Jeff Comment Type T MDIO for C2C and C2M 802.3bs lists the register SuggestedRemedy Add 50G and 100GAUI-2 pull the sections in and a the text. Response ACCEPT IN PRINCIPLE	P 42 P 42 Broadcom Lim <i>Comment Status</i> A AUI controls I think are using r names and 200GAUI-n and 2 to 802.3bs 45.2.1.116d, 45 add editors note to bring in in <i>Response Status</i> C	L <b>0</b> ited g the 200/400G i 400GAUI-n. 5.2.1.116e, 45.2 i future draft in	<i>bucket</i> 6 versions. Current 2.1.116f. May want to	With edit Create no Define bi Add new Table 45 <i>Response</i> ACCEPT <i>CI</i> 045 Ran, Adee <i>Comment Ty</i> , No white <i>SuggestedRe</i>	orial licence de ew register "Pl t 0 of this regis subclause 45. -3. SC 45.2.1.14 pe E space betwee emedy e spacing	MA/PMD extended ab ster to be "50G extend 2.1.14f1 and Table 4 <i>Response Status</i> b <i>P</i> 50 Intel <i>Comment Status</i>	ded abilities" 5-17f1 to descr C D L	ibe this ar		ĭ

<i>Cl</i> <b>045</b> Ran, Adee	SC <b>45.2.1.14</b> b	P 5	0	L <b>27</b>	# 25		C/ <b>045</b> . Ran, Adee
Comment 7 The dea		Comment Status		, in 5 cases		Bucket	Comment Typ "10GBAS
Suggested		laat E rowo					Also appli
Response ACCEF	е 400G to 50G in РТ	Response Status	С				SuggestedRe Change "
C/ 045	SC 45.2.1.101	P 5	1	L 39	# 150		- titles of 4 - body of 4
Slavick, Jef		-	Icom Lim				Response
Comment T	Гуре Т	Comment Status	R				ACCEPT.
	DIO register for 4 egative true logic	lane pmd is inverse c.	e sense o	f what's defined	in clause 91.	It's also	<i>Cl</i> <b>069</b> Ran, Adee
Suggested	,						Comment Typ
lane PN	ND .	in Table 45-79 for 1 ed with a four lane F		be "1 = FEC is I	being used wit	h a four	The insert would be preceding
•		be "This bit control tute the fixed bytes					Alternativ
lanes 1	7, 18, and 19 wit	h the fixed bytes for	the align	ment marker co	rresponding to	PCS	SuggestedRe
	value of this bit is	r to pass PCS lanes s one."	5 17, 10, ë	and 19 through t	inmodilled. Tr	le	Change th
Response		Response Status	С				69.2.3 (as
REJEC	ιT.						Response REJECT.
This ze	ro value needs to	o reflect legacy oper	ation so i	it needs to be de	fined this way		The locati
	nade "1 = FEC is ie wrong value fo	being used with a f r this bit.	our lane l	PMD" legacy im	plementions w	ould	
C/ 045 Pete Anslov	SC <b>45.2.3.4.5</b>	a P 5	3	L <b>39</b>	# 181		
Comment 7 Bit add	<i>Type</i> <b>T</b> ress is incorrect.	Comment Status	Α			bucket	
Suggestedl Change	R <i>emedy</i> e 3.4.10 to 3.4.5,	twice.					
Response ACCEF	РТ.	Response Status	С				
	echnical required	h ER/editorial requi	od CR/c	eneral required	T/technical F	Aditorial C/	neneral

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

C/ 045	SC 45.2.3.13	P 55	5 L 4	0 #	<sup>±</sup> 26
Ran, Adee		Intel			
Comment T "10GBA	51	Comment Status			Bucket
Also ap	plies in subsequ	ient clauses.			
Suggested	Remedy				
Change	e "10GBASE-T"	to "MultiGBASE-T" in	the following		
	,	2.3.13.1, 45.2.3.13.4, nd 45.2.3.14.2 (two tir			2.3.14.4
Response		Response Status	с		
ACCEF	ΥТ.				
C/ 069	SC 69.2.3	P 62	2 L <b>3</b>	9 #	± 27
Ran, Adee		Intel			
Comment T	уре Е	Comment Status	R		bucket
would b	e "change 69.2.	the editorial instruct 3 as follows (some un clarify the location.	0		
Alternat	tively place it at	the end of the list si	nce order is not	siginficant	

vely, place it at the end of the list, since order is not siginficant.

## emedy

the instruction to "Insert the following new paragraph after the last paragraph in as modified by IEEE Std 802.3cb-201x):"

Response Status C

ation is important and the instruction is sufficiently clear.

Cl	069		
SC	69.2.3		

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Cl 069 SC 69 Ran, Adee	.2.3 P 62	L <b>42</b>	# 28	Cl 069 SC 69.2.3 Ran, Adee	P <b>62</b> Intel	L <b>45</b>	# 29
use PAM4 modu	ument, KR4 and KP4 include the m ulation.			Comment Type <b>T</b> 100GBASE-KR is no SuggestedRemedy Change to 100GBAS	Comment Status A ot defined in this project.		bucket
<i>,</i>	preferable and in this clause the mo	dulation type is r	iot odvious if not stated.	0			
	/s operation" to "50 Gb/s operation the new 100GBASE-KR2 and 200		M" for 50GBASE-KR,	Response ACCEPT.	Response Status C		
Response ACCEPT.	Response Status C			C/ 073 SC 73.3 Slavick, Jeff	P <b>65</b> Broadcom Li	<i>L</i> <b>49</b> mited	# 139
C/ 069 SC 69 Marris, Arthur	.2.3 P 62 Cadence Des	L <b>45</b> sign Syste	# 4	Comment Type <b>T</b> We're just creating th SuggestedRemedy	Comment Status <b>A</b> he laundry list of PHY types su	pported by AN.	
Change 100GB	E Comment Status A ASE-KR to 100GBASE-KR-2 ASE-KR to 200GBASE-KR-4		bucket	Change "Technology	y-Dependent PHYs include 100 endedent PHYs are those sup		
0	ASE-KR to 100GBASE-KR-2 ASE-KR to 200GBASE-KR-4			Response ACCEPT.	Response Status C		
Ū	nake Clause 119 a link			C/ 073 SC 73.5 Marris, Arthur	P 66 Cadence Des	L 11 sign Syste	# 5
Change 802.3by	/-201x to 802.3by-2016 on next pag	ge		Comment Type E	Comment Status A		Bucket
Response ACCEPT IN PR	Response Status C			Change 136.8.6 to 1 Change 137.8.5 to 1			
On: page/line 62 Change: "100GB To: "100GBASE	BASE-KR"			<i>SuggestedRemedy</i> Change 136.8.6 to 1 Change 137.8.5 to 1			
On page/line 62 Change: "200GI To: "200GBASE	/47 and 208/1 BASE-KR"			Response ACCEPT.	Response Status C		

C/ 073 SC 73.5

C/ <b>073</b> SC <b>73.6.4</b> Ran, Adee	P <b>67</b> Intel	L 1	# 30	C/ 073 SC 73.7. <sup>-</sup> Ran, Adee	I P 67 Intel	L <b>26</b>	# 32
Comment Type E	Comment Status A e third and fifth paragraphs, n	ot third and fourt	<i>Bucket</i> h (the fourth was added	Comment Type E	Comment Status A ould also include 25G PHYs, ac	lded in 802.3by. \$	Bucke See 802.3cb.
SuggestedRemedy	ne fourth paragraph. Change	the instruction as	required (possibly	SuggestedRemedy Insert "25GBASE-F KR", in strikeout fo Response	KR, 25GBASE-KR-S, 25GBASE ht. <i>Response Status</i> <b>C</b>	-CR, 25GBASE-C	CR-S" after "10GBASE-
Response ACCEPT IN PRINCIP	Response Status <b>C</b> LE.			ACCEPT.			
Implement suggested	remedy with editorial licence			C/ 073 SC 73.7.0 Slavick, Jeff	6 P 67 Broadcom Li	L <b>41</b> mited	# 138
C/ 073 SC 73.6.4 Lusted, Kent	P 67 Intel	L 9	# 9	Comment Type T Remove Priority co	Comment Status R lumn from Table 73-5. We alre	ady state what is	highest and lowest,
Comment Type TR Typo	Comment Status A		Bucket	SuggestedRemedy	ovide editorial busy work.	·	-
SuggestedRemedy In the last sentence of "1000BASE-KX"	f the revised third paragraph of	of 73.6.4, change	"1000BASE-X" to	Per comment <i>Response</i> REJECT.	Response Status C		
Response ACCEPT.	Response Status <b>C</b>			No consensus to m	ake the change.		
C/ 073 SC 73.6.4	P 67 Intel	L 10	# 31	C/ 073 SC 73.10 Slavick, Jeff	.2 P 69 Broadcom Li	L <b>26</b> mited	# 141
Comment Type E	Comment Status A		Bucket-Pulled	Comment Type T	Comment Status A		Buck
The phrase "as the MI removal should have to There is no need to re	DI and physical medium are o been maintained in 802.3cb a		noved in 802.3by. The	SuggestedRemedy	Ys for the new link_fail_inhibit_t , 100GBASE-CR2 and 200GBA of 1.6s		k_fail_inhibit_timer
SuggestedRemedy Delete the quoted phra	250			Response	Response Status C		
Response ACCEPT IN PRINCIP	Response Status C			ACCEPT.	,		
OBF. The referenced	paragraph is being deleted a	ccording to Maint	enance item #1283.				
Implement the instruct	tions in maintenance item 120 g/3/maint/requests/maint_128	83.					

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

C/ 073 SC 73.10.2 Page 8 of 41 2016-11-15 2:02:10 PM

C/ <b>073</b> SC <b>7</b> : Slavick. Jeff	3.10.2	P 69 Broadcom Li	L <b>30</b>	# 142	C/ <b>078</b> Ran. Adee	SC 78.5.2	P72	L <b>40</b>	# 34	
,	T Comment S		mileo	Bucket	Comment 7	ype E	Comment Status	۱.		
Missing 10GBA SuggestedRemedy	ASE-KR from the 500m	ns link_fail_inl	nibit_timer list		not nee	d any modifi	itle removes the essential cation since the new AUIs			
,	-KR to the list of PHYs	s that use 500	ms link fail inhib	it timer		r comment).				
Response	Response S	Status C		_	Suggested	-	tions in this subclause (and	d prostically romayo i	t from the emendment)	
ACCEPT.						the mounica			t nom the amendment).	
		0-1		" [22	Response ACCEF	т	Response Status	;		
C/ 078 SC 78 Ran, Adee	8.1	P <b>71</b> Intel	L <b>7</b>	# 33	ACCEP	1.				
	-				C/ <b>080</b>	SC 80.1.4	P <b>74</b>	L 16	# 35	
<b>)</b>	T Comment S		are According to a	note a) of table 78-1	Ran, Adee		Intel			
the AUI shutdo	It is not clear why the new AUIs should be listed here. According to note a) of table 78-1, the AUI shutdown is supported only with deep sleep, but unlike previous projects, we don't have that mode, and the AUIs don't care or know about fast wake.						Comment Status A		buck GHz is used in many	
have that mode			bout last wake.				no need for higher resolution			
802.3bs should	In't have added AUIs e	either.			Suggested	Remedy				
Listing the long	list of AUIs in the ove	rview of the E	EE clause is misl	eading the reader who	Change	e "13.28125"	to "13.28" across the draft	t.		
	Listing the long list of AUIs in the overview of the EEE clause is misleading the reader who might wonder how exactly EEE supports these electrical interfaces (or vice versa) and there is nothing anywhere in the standard to answer that.					РТ.	Response Status C	;		
over these inter state that fast v	wake LPI signaling wor	e is no "suppo rks in loopbac	rt <sup>®</sup> for EEE in thes k or across OTN,	e interfaces. We don't even though it is	C/ 080 Matt Brown	SC 80.1.5	P 76	L 17	# 182	
possible beca works transpare	ause there is no specia	al support of E	EE in these case	es; LPI signaling just	Comment 7	<i>уре</i> <b>Т</b>	Comment Status A	۱.		
SuggestedRemedy	• ·				The column for Clause 83 is incomplete and incorrect.					
		se (and praction	cally remove it fro	m the amendment).	Suggested	Remedy				
Response ACCEPT.	Response S	this subclause (and practically remove it from the amendme Response Status C			Change		olumn ame to "100GBASE-R PM/ 2 and 100GBASE-DR rows			
					Response		Response Status	;		
					ACCEF	РТ.	·			

C/ 080 SC 80.1.5

C/ 080 SC 80.2.1	P 76	L 34	# 36	C/ 091 SC 91	5.4.3	P <b>85</b>	L <b>1</b>	# 75
Ran, Adee	Intel			Gustlin, Mark		Xilinx		
Comment Type E	Comment Status A		bucket	Comment Type	- Сс	omment Status A		FEC AM lock
Missing comma after "C	Clause 83"					subclause that is not or rker lock SM does not		
SuggestedRemedy Insert a comma				reaching the loc	ked state, in	stead lock is restarted ves the SM vulnerable	only when 3 FEC	C codewords in a row
Response ACCEPT.	Response Status C			transported by a	n OTN netw location mig	ork, and under some failt the some failt the source of the	ault conditions or	
C/ 080 SC 80.4	P 78	L13	# 77	SuggestedRemedy				
Brown, Matt	Applied Micro					3 are included in gustli		
Comment Type <b>T</b>	Comment Status A		delay			ctations (pre FEC corre		lanes after lock, and if 5 n lane, then lock is
In Table 80-5, the subla magenta (TBD).	ayer delay constraints for the	new 100G PMA	and PMDs are in	make equivalent	changes to	hanges to figure 91-8 l Clause 134 for the 50 nd some other descripti	GE PCS. The cha	tion state diagram. Also anges include the
SuggestedRemedy						ance change has also		d against 802.3-2015.
Update with acceptable	values and change to black	text.		Response	Re	sponse Status C		
Response	Response Status C			ACCEPT IN PR	NCIPLE.			
ACCEPT IN PRINCIPL	Ε.			The comment is	addressed I	by maintenance item #	1299.	
Resolve according the	response for comments 88, 9	0, 92, 95.				-		
CI 082 SC 82.7.4	P 82	L <b>24</b>	# 37			n maintenance item 12 aint/requests/maint_12		
Ran, Adee	Intel			See also comme	ent #174.			
Comment Type E	Comment Status A		bucket	C/ 091 SC 91	6	P 85	L 50	# 143
please add an editor's i	CS heading numbers result front the second sec	be done with the	lower level	Slavick, Jeff	.0	Broadcom Li		# 143
subclauses Otherwise maintenance)	e it is out of scope and should	d not be done in	this project (leave for	Comment Type		omment Status <b>A</b> ng MDIO register bit fo	r the new Four la	Bucket
SuggestedRemedy				SuggestedRemedy		5 5		
per comment.				Change 1.200.2	to 1.200.3			
Response	Response Status <b>C</b> E.			Response ACCEPT.		sponse Status C		
ACCEPT IN PRINCIPL				AUGEL I.				
The subclause heading	levels were in error in 802.3- ne new AN PICS would be su							

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

C/ 091	
SC 91.6	

C/ 091 SC 91.6.2a Slavick, Jeff	P <b>85</b> Broadcom Lii	L <b>9</b> mited	# 146	<i>Cl</i> <b>091</b> Marris, Arth	SC 91.6.2a	P <b>86</b> Cadence Des	L 11 sign Syste	# 1
<i>Comment Type</i> <b>E</b> "This variable shall" a	Comment Status A	t then the rest of	Bucket the paragraph.	Comment T It shou	51	Comment Status A 3 rather than 1.200.2		Bucket
SuggestedRemedy Fix the font used in 91.	6.2a			<i>Suggested</i> Chang	<i>Remedy</i> e to 1.200.3			
Response ACCEPT.	Response Status C			Response ACCE	PT.	Response Status C		
C/ 091 SC 91.6.2a Slavick, Jeff	P <b>85</b> Broadcom Lii	L 9 mited	# 145	<i>Cl</i> <b>116</b> Ran, Adee	SC 116.1.4	P <b>87</b> Intel	L <b>44</b>	# 38
Comment Type <b>T</b> There is a shall for the I'm not sure we need a	Comment Status A setting four_lane_pmd wher shall statement.	n a PAM4 link, bu	<i>Bucket</i> ut not for legacy links.			Comment Status A 02.3bs D2.1 changes, chang	ing "nomenclatu	bucket are" to "PHY type" twice
100GBASE-SR2, and 1 45.2.1.101 (1.200.2)." To "This variable is set	shall be set to zero for the 1 100GBASE-DR PMDs. This to zero for the 100GBASE-0	variable is mapp CR2, 100GBASE	ed to the bit defined in -KR2, 100GBASE-	Suggested Chang Response ACCEI	e per 802.3bs D	2.1. Response Status <b>C</b>		
(1.200.2)." If shall is necessary "TI KR2, 100GBASE-SR2,	DR PMDs. This variable is m his variable shall be set to ze , and 100GBASE-DR PMDs. 1.200.2) and shall be set app	ero for the 100Gl This variable is	BASE-CR2, 100GBASE- mapped to the bit	C/ <b>116</b> Brown, Mat Comment		P <b>89</b> Applied Micro Comment Status <b>A</b>	L <b>25</b>	# 78 delay
Response ACCEPT IN PRINCIPL Remove the shall as pr	Response Status C E.	medy.		(TBD). Suggested	Remedy	blayer delay constraints for th e values and change to black		IDs are in magenta
C/ 091 SC 91.6.2a Slavick, Jeff	P <b>85</b> Broadcom Lii	L 11 mited	# 144	Response ACCEI	PT IN PRINCIP	Response Status <b>C</b>		
SuggestedRemedy Change 1.200.2 to 1.20		our lane PMD.	Bucket	Resolv	e according to t	he response for comments 88	8, 90, 92.	
Response ACCEPT.	Response Status C							

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

C/ 116 SC 116.4 Page 11 of 41 2016-11-15 2:02:11 PM

C/ <b>131</b> SC <b>1</b> 3 Ghiasi, Ali	31.1.2	Р <b>91</b> Ghiasi Quantu	<i>L</i> <b>16</b> um LLC	# 128	C/ <b>131</b> S Hidaka, Yasuo	C 131.1.3	Р <b>92</b> Fujitsu Lak	L <b>39</b> o of America	# 70	
Comment Type Missing "The"	ER Com	ment Status R		bucket	Comment Type	e E	<i>Comment Status</i> <b>A</b> SE-SR is written as 50GE	BASES-SR.		bucket
SuggestedRemedy Add "The" 50 G					SuggestedRem Change 50		to 50GBASE-SR.			
esponse REJECT.	Respo	onse Status C			Response ACCEPT.		Response Status C			
		nmar as written. This 802.3-2015 80.1.3.	wording is consis	stent with 802.3bs	Cl 131 S Nicholl, Gary	C 131.1.4	P <b>93</b> Cisco Syst	L 1	# 97	
an, Adee	31.1.2 T Com	P <b>92</b> Intel ment Status A	L3	# 39		2. The title fo	Comment Status A r Clause 134 is "50GBAS FEC at 100G. Same con			bucket
Item is a) not re stated explicitly	equired, as 50GN ( in 131.2.1) and	MII is not expected to thus any width can b .1.2 which does not l	be chosen "for im			would be bet	ter to use "RS-FEC" rath did for 100G and with th			
uggestedRemedy Delete item a).					Response ACCEPT II	N PRINCIPLI	Response Status <b>C</b>			
esponse ACCEPT IN PR		onse Status C			To align wi	th the title of	Clause 134			
Add the follow s	sentence at the	end of item a: nterface may use oth	ner data-path wid	ths."	Change "50	31-2, Table 13 0GBASE-R F ASE-R RS-FE		able 69-2b:		
/ <b>131</b> SC 13 hiasi, Ali	31.1.2	P <b>92</b> Ghiasi Quantu	<i>L</i> <b>18</b> um LLC	# 129	Cl <b>131</b> S Ghiasi, Ali	C 131.2	P <b>93</b> Ghiasi Qua	L <b>42</b> antum LLC	# 130	
	TR Com	ment Status R		bucket	Comment Type Missing co		Comment Status R			bucket
	nce to CL 135 A	optional AUI								
Missing referen	/	optional AUI			SuggestedRem					
Missing referen uggestedRemedy Add reference t	/ to CL 135A	optional AUI			SuggestedRem Response REJECT.		Response Status C			
Missing referen SuggestedRemedy Add reference t Response REJECT. Consistent with	to CL 135A Respo nother BASE-R I and MMD mapp	onse Status C		A provide examples of ed and referenced	Response REJECT.		·			

C/ 131 SC 131.2.1 P 94 L 1	# 72	C/ 131 SC 131.5	P 100	L <b>8</b>	# 81
Hidaka, Yasuo Fujitsu Lab of America		Brown, Matt	Applied Micro		
Comment Type E Comment Status A A grammer error.	bucket	Comment Type <b>T</b> In Table 131-6, the SI	Comment Status R kew Variation constraints for the	50G sublayers	s <i>kew</i> s are "TBD" in magenta.
SuggestedRemedy Change "it are used" to "it is used".		SuggestedRemedy Update with acceptab	le values and change to black te	ext.	
Response Response Status C ACCEPT.		Response REJECT.	Response Status C		
C/ 131 SC 131.4 P 97 L 18	# 79	See brown_3cd_01_1	116.		
Brown, Matt Applied Micro		There is no consensu	s to make the proposed change	s at this time.	
Comment Type <b>T</b> Comment Status <b>A</b> In Table 131-4, the sublayer delay constraints for the 50G sublayers are	<i>delay</i> "TBD" in magenta.	Further contributions	are invited address the the skew	and skew var	iation values.
SuggestedRemedy Update with acceptable values and change to black text.		C/ 132 SC 132.1.4 Ran, Adee	P <b>103</b> Intel	L <b>39</b>	# 40
Response Response Status C ACCEPT IN PRINCIPLE.		<i>Comment Type</i> <b>E</b> We have specific defi	Comment Status <b>A</b> nitions for this project, in 131.4		Bucke
Resolve according to the response for comments 88, 90, 92.		SuggestedRemedy Change "80.4" to "13'	1.4", active cross reference.		
Also, for 50GBASE-FR/LR include delay numbers from 139.3.1.		Response	Response Status C		
C/ 131 SC 131.5 P 99 L 22	# 80	ACCEPT.			
Brown, Matt Applied Micro Comment Type T Comment Status R	skew	C/ <b>132</b> SC <b>132.1.7</b> Ran, Adee	P <b>104</b> Intel	L <b>31</b>	# 41
In Table 131-5, the Skew constraints for the 50G sublayers are "TBD" in SuggestedRemedy	magenta.	Comment Type E Annex 4a is included	Comment Status <b>A</b>		Bucke
Update with acceptable values and change to black text.		SuggestedRemedy			
Response Response Status C		Make it an active cros	s reference.		
REJECT.		Response	Response Status C		
See brown_3cd_01_1116.		ACCEPT.			
There is no consensus to make the proposed changes at this time.					
Further contributions are invited address the the skew and skew variation	n values.				

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/generalC/132Page 13 of 41COMMENT STATUS: D/dispatched A/accepted R/rejectedRESPONSE STATUS: O/open W/written C/closed Z/withdrawnSC132.1.72016-11-15 2:02:11 PMSORT ORDER: Clause, Subclause, page, line

C/ 132 SC 132.2	P 96	L 34	# 131	CI 133 SC 133.1.4 P 107 L 42 # 132
Shiasi, Ali	Ghiasi Quantu	m LLC		Ghiasi, Ali Ghiasi Quantum LLC
Comment Type ER Missing more "the" befo	Comment Status R re 50xx		bucket	Comment Type TR Comment Status R 2nd Paragraph describes Fig 133-1 but is not referenced
SuggestedRemedy Add "the"				SuggestedRemedy Add reference to Fig 133-1
Response REJECT.	Response Status C			Response Response Status C REJECT.
There is no need for an	extra "the" at the location inc	licated by the co	mmenter.	The commenter is correct that 133.1.4 does not reference Figure 133-1.
C/ <b>132</b> SC <b>132.4</b> Ran, Adee	P <b>104</b> Intel	L <b>45</b>	# 42	The intent of Figure 133-1 is simply to show the relationship of the PCS to the other sublayers. It is referenced in 133.1.2 and 133.1.3.
Comment Type E Align with 802.3bs D2.1	Comment Status A		bucket	This is consistent with every BASE-R PCS clause in 802.3.
SuggestedRemedy	.4" and add "described in 8' Response Status C	.4.4" after "stop	signaling".	C/       133       SC 133.1.4       P 107       L 43       # 133         Ghiasi, Ali       Ghiasi Quantum LLC       Ghiasi Quantum LLC         Comment Type       TR       Comment Status       R         Need to also reference partioning example of CL 135A
ACCEPT.				SuggestedRemedy
2/ <b>133</b> SC <b>133.1.2</b> an, Adee	P <b>107</b> Intel	L <b>26</b>	# 43	.FEC sublayer. If the optional LAUI-2 interface instantiated see the PMA sublayer partitioning examples in 135A with physical instantation in CL135B.1 and CL135C.1, then
<i>comment Type</i> <b>T</b> There is another excepti	Comment Status A on.		bucket	Response Response Status C REJECT.
(also in the similar list in uggestedRemedy (add a period at the end	,			Consistent with other BASE-R PHY families, Annex 135A provides examples of PMA locations and MMD mapping. As such, Annex 135A is introduced and referenced from Clause 135.
Add item 4: The nomina	I rate at the FEC or PMA se 0.3125 Gb/s per PCS lane.	vice interface is	12.890625 Gb/s per	See also comment #129.
Response ACCEPT IN PRINCIPLE	Response Status C			
Implement suggested re	medy except put at the top	of the list.		

C/ 133 SC 133.1.4

C/ 133 SC 133.2.3 Brown, Matt	P 111 Applied Micro	L <b>9</b>	# 82		<i>Cl</i> <b>133</b> <i>SC</i> <b>133.5</b> Nicholl, Gary	P 112 Cisco System	L 1 Is	# 99
Comment Type <b>T</b> The maximum Skew ar	Comment Status R ad Skew Variation are "TBD" in	magenta.		skew	Comment Type <b>T</b> Update PICS as requi	Comment Status A red with editorial licence		bucket
SuggestedRemedy Update with acceptable	values and change to black te	ĸt.			SuggestedRemedy			
Response REJECT.	Response Status C				Response ACCEPT.	Response Status C		
See brown_3cd_01_11		at this time			Cl 134 SC 134.1.1 Ran, Adee	P 117 Intel	L 12	# 44
	to make the proposed changes e invited address the the skew		iation values.		Comment Type <b>T</b> There is another exce	Comment Status A otion. a major one		bucke
Cl <b>133</b> SC <b>133.2.4</b> Nicholl, Gary Comment Type <b>E</b> Unnecessary comma a SuggestedRemedy	P 111 Cisco Systems Comment Status A after "defined in 82.2.19"	L 16	# 98	bucket	SuggestedRemedy Add an item at the beg instead of 20 lanes". Response ACCEPT.	jinning (or after the first item): Response Status <b>C</b>	"The service in	terface has 4 lanes
Remove the comma at Response ACCEPT.	ter "defined in 82.2.19" Response Status <b>C</b>				Cl 134 SC 134.1.1 Ran, Adee Comment Type E	P 117 Intel Comment Status A	L 14	# 45
C/ <b>133</b> SC <b>133.3</b> Brown, Matt	P 111 Applied Micro	L <b>36</b>	# 83		·	ne numbers "2" and "4" appea general text, isolated numbers		nould be spelled out".
Comment Type <b>T</b> The delay contraints an SuggestedRemedy Update with acceptable Response ACCEPT IN PRINCIPL	values and change to black tex Response Status <b>C</b>	ĸt.		delay	SuggestedRemedy Change instances of "	d also be easier to read) 2" and "4" (isolated) in the tex ent to higher numbers or in ec <i>Response Status</i> <b>C</b>		

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

C/ 134 SC 134.1.1 Page 15 of 41 2016-11-15 2:02:11 PM

<i>Cl</i> <b>134</b> <i>SC</i> <b>134.1.1</b> Ran, Adee	P <b>117</b> Intel	L 17	# 46		C/         134         SC         134.4         P         118         L         50         #         84           Brown, Matt         Applied Micro         Applie
Comment Type E Improve style	Comment Status A			bucket	Comment TypeTComment StatusAdelThe delay contraints are "TBD" in magenta.
SuggestedRemedy Change "that" to "for t	the fact that", twice in this para	agraph			SuggestedRemedy Update with acceptable values and change to black text.
Response ACCEPT.	Response Status C				Response Response Status C ACCEPT IN PRINCIPLE.
C/ 134 SC 134.1.2	P 117	L <b>27</b>	# 47		Update the FEC delay values according to brown_3cd_03_1116 slide 7.
Ran, Adee <i>Comment Type</i> E	Intel Comment Status A			bucket	C/         134         SC         134.5.1         P 119         L 5         # 135           Ghiasi, Ali         Ghiasi Quantum LLC         Ghiasi Quantum LLC
Missing space after "F SuggestedRemedy Add space	Figure 134-1"				Comment Type         TR         Comment Status         A         sublaye           Fig 134-1 shows a diagram having integrated PCS with FEC without a PMA, but instatiation of Fig 134-2 assumes PMA services interface not consistent with Fig 134-1         Sublaye
Response ACCEPT.	Response Status C				SuggestedRemedy Suggest adding to the digram 134-1 the case with PMA service interface which will reflect current Fig 134-2, then Fig 134-2 should be modfied with doted block covering alignment
C/ <b>134</b> SC <b>134.3</b> Ghiasi, Ali	P <b>118</b> Ghiasi Quant	L <b>40</b>	# 134		removal-transcode-Alignment insert as optional. See ghiasi_cd_01_1116.pdf
Comment Type TR Clause is not clear ad	Comment Status R				Response Response Status C ACCEPT IN PRINCIPLE.
SuggestedRemedy .is set to 2. Examples	s of 50 Gb/s PMA sublayer are	e illustrated in C	ause 135A.		The intent of Figure 134-1 is to show the relationship of the FEC sublayer to the other sublayers. This is consistent with previous PCS and FEC clauses in 802.3, e.g. Clause 82 91, 107, 108, etc. PMA sublayer partitioning examples are provided in Annex 135A.
Response REJECT.	Response Status C				The functional block diagram of the RS-FEC sublayer shown in Figure 134-2 is independent of whether a separated PMA is connected to the FEC service interface or not as the observable behavior must be identical in both cases.
	BASE-R PHY families, Annex apping. As such, Annex 135A	•			The text in 134.6 recognizes that if a separated PMA is connected to the FEC service interface additional MDIO status bits are required as defined in Table 134-4 (and therefore if a separated PMA is not connected that these MDIO status bits are not required):
					"if a separated PMA (see 45.2.1) is connected to the FEC service interface it shall map additional MDIO status bits to additional RS-FEC status variables as shown in Table 134-3
					However, it is not clear what is meant by a "separated PMA". Clarify the meaning of "separated PMA" with editorial license.

COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn SC 134.5.1 2016-11-15 2:02:11 PM SORT ORDER: Clause, Subclause, page, line

C/ 134 SC 134.5.2.1	P 120 L 7	# 171	C/ 134 SC 134.5.2.2	P 120	L 19 # 85
Nicholl, Gary	Cisco Systems		Brown, Matt	Applied Micro	
Comment Type E Col	mment Status A		Comment Type T Con	nment Status R	
	lock is obtained" is technically co		The maximum Skew and Skew	w Variation are "TBD" in m	nagenta.
little clumsy and specifically to state diagrams defined in 133	he bit "when viewed in the context of 3.2.4".	of the 50GBASE-R PCS	SuggestedRemedy		
SuggestedRemedy			Update with acceptable values	s and change to black text	•
Improve wording.			Response Resp	oonse Status C	
Response Res	ponse Status C		REJECT.		
ACCEPT IN PRINCIPLE.			See brown_3cd_01_1116.		
Change: "Block lock is obtained as spe	ecified in the block lock state diagra	m shown in Figure 82-12	There is no consensus to mak	te the proposed changes a	at this time.
	the 50GBASE-R PCS state diagra		Further contributions are invite	ed address the the skew a	nd skew variation values.
	ecified in the block lock state diagra efinitions from 133.2.4."	m shown in Figure 82-12,	C/ <b>134</b> SC <b>134.5.2.6</b> Ghiasi, Ali	P <b>121</b> Ghiasi Quantum L	L 15 # 114
C/ 134 SC 134.5.2.2 Nicholl, Gary	P 120 L 13 Cisco Systems	# 172	Comment Type <b>TR</b> Con item 3 is BIP3 field, is there a	nment Status <b>R</b> reason we are changing it	b t?
Comment Type E Col	mment Status A		SuggestedRemedy		
	the RS-FEC" is technically correct		this should be amp_tx_x<33:2	6>=am_tx_x<33:26>	
clumsy and specifically the bi diagrams defined in 133.2.4."	t "when viewed in the context of the	50GBASE-R PCS state	Response Resp	oonse Status <b>C</b>	
SuggestedRemedy			REJECT.		
Improve wording.			Item 3 copies the BIP3 field ur	nchanged from am_tx_x<6	35:0> to amp_tx_x<63:0>
Response Res	ponse Status <b>C</b>		consistent with Clause 91.	<b>0</b>	
ACCEPT IN PRINCIPLE.	-		Note that the bit position index sync header bits.	c for BIP3 field has change	ed by 2, due to the removal of the
obtaining alignment marker lo shown in Figure 82-13 when defined in 133.2.4" To: "Once the RS-FEC transmit fo obtaining alignment marker lo	unction achieves block lock on a PC ock as specified by the alignment m viewed in the context of the 50GBA unction achieves block lock on a PC ock as specified by the alignment m sing the state variable definitions fro	arker lock state diagram SE-R PCS state diagrams CS lane, it then begins arker lock state diagram			

C/ 134 SC 134.5.2.6

C/ 134 SC 13 Ghiasi, Ali	4.5.2.6	P <b>121</b> Ghiasi Quant	<i>L</i> 16 um LLC	# 115	C/ 134 SC 134.5.2.0 Ran, Adee	6 P 121 Intel	L <b>45</b>	# 50	
· · · //·		ent Status <b>R</b> for M4, M5, and M	/16 from CL82	bucket	<i>Comment Type</i> <b>T</b> The pad bit is am_txm	Comment Status A apped<256>			bucket
SuggestedRemedy Shouldn't be am	1p_tx_x<57,34>?				SuggestedRemedy Delete ":255"				
Response REJECT.	Respon	se Status C			Response ACCEPT.	Response Status C			
		oped from am_tx_		_tx_x<63:0>. , due to the removal of	C/ <b>134</b> SC <b>134.5.2.</b> Ran, Adee	6 P 121 Intel	L <b>45</b>	# 51	
the sync header					Comment Type E	Comment Status A			bucket
Ran, Adee	4.5.2.6	P <b>121</b> Intel	L 28	# 48	Two values, 0 and 1 <i>SuggestedRemedy</i> change "value" to "val	ues"			
		ent Status <b>A</b> the same subclau	ise need separate	<i>bucket</i> e labels. See 91.5.2.5	Response ACCEPT IN PRINCIP	Response Status C			
SuggestedRemedy per comment.						ary value 0 and 1 in an altern	ating pattern"		
Response ACCEPT.	Respon	se Status C			To "shall be set to 0 or 1 i	in an alternating pattern"			
C/ 134 SC 13 Ran, Adee	4.5.2.6	P <b>121</b> Intel	L <b>4</b> 1	# 49					
· · · )]		ent Status <b>A</b> in italic font. This i	is usually done, b	<i>bucket</i> out is inconsistent.					
SuggestedRemedy Change "y", "i",	"k" here to style "	Equation Variable	s".						
	134 and apply to 91 figures as refe		, apply in Figure <sup>.</sup>	134-4 and Figure 134-					
Response ACCEPT.	Respon	se Status C							

Cl 134 SC 134.5.3 Nicholl, Gary	A.1 P 122 Cisco System	L <b>45</b>	# 173	Cl <b>134</b> SC <b>134.5.3</b> . Nicholl, Gary	8 P 125 Cisco Syster	L <b>21</b>	# 100
Comment Type E The sentence starting clumsy and specifica state diagrams define	Comment Status A g "It obtains lock" is technica lly the bit "when viewed in the	ally correct but th		Comment Type E	Comment Status A	115	bucke
SuggestedRemedy Improve wording. Response	Response Status <b>C</b>			Response ACCEPT.	Response Status C		
, ACCEPT IN PRINCII Change:				<i>Cl</i> <b>134</b> <i>SC</i> <b>134.5.4</b> Nicholl, Gary	P <b>125</b> Cisco Syster	L <b>26</b> ms	# 174
diagram shown in Fig state diagrams define To: "It obtains lock to the	a alignment markers as specifie gure 91-8 when viewed in the c ed in 134.5.4" a alignment markers as specifie gure 91-8, but using the state v	ontext of the 500	GBASE-R RS-FEC	monitor the AMs after codewords in a row a conditions where the	Comment Status A ent marker lock SM reference reaching the locked state, in re not correctable. This leave AM location might change ar y corrupted data being receive	stead lock is resi s the SM vulnera nd not be detecte	tarted only when 3 FEC ble to some fault d by the reciver. This
						cu. A similar coi	
C/ 134 SC 134.5.3		L <b>30</b>	# 52	submitted against Cla			
Ran, Adee <i>Comment Type</i> <b>T</b> The number of lanes	Intel Comment Status A is known, so it can be stated.	L <b>30</b>	# <u>52</u> bucket	submitted against Cla SuggestedRemedy This issues was disuc recommended chang included in gustlin_10 conference call. We r if 5 are found to not m restarted. Note a prop		3cd task force ao n state diagram sented during th AM spacing, on correction) on a g	I-hoc call. The (Figure 91-8) are he Oct 26 ad-hoc all lanes after lock, and given lane, then lock is
Ran, Adee <i>Comment Type</i> <b>T</b> The number of lanes <i>SuggestedRemedy</i> Change "multiple" to <i>Response</i>	Intel Comment Status A is known, so it can be stated.	L <b>30</b>		submitted against Cla SuggestedRemedy This issues was disud recommended chang included in gustlin_10 conference call. We r if 5 are found to not m restarted. Note a prop 2015.	use 91. csed during the Oct 26, 802. es to the FEC synchronization 2616_3cd_adhoc_v2, as pre ow look for correct AMs, and latch expectations (pre FEC of osed maintenance change h	3cd task force ao n state diagram sented during th AM spacing, on correction) on a g	I-hoc call. The (Figure 91-8) are he Oct 26 ad-hoc all lanes after lock, and given lane, then lock is
Ran, Adee Comment Type <b>T</b> The number of lanes SuggestedRemedy Change "multiple" to	Intel Comment Status A is known, so it can be stated. "four".	L <b>30</b>		submitted against Cla SuggestedRemedy This issues was disuc recommended chang included in gustlin_10 conference call. We r if 5 are found to not m restarted. Note a prop	use 91. ccsed during the Oct 26, 802. es to the FEC synchronization 2616_3cd_adhoc_v2, as pre ow look for correct AMs, and latch expectations (pre FEC o osed maintenance change h <i>Response Status</i> <b>C</b>	3cd task force ao n state diagram sented during th AM spacing, on correction) on a g	I-hoc call. The (Figure 91-8) are he Oct 26 ad-hoc all lanes after lock, and given lane, then lock is
Ran, Adee <i>Comment Type</i> <b>T</b> The number of lanes <i>SuggestedRemedy</i> Change "multiple" to <i>Response</i> <u>ACCEPT.</u> <i>CI</i> <b>134</b> <i>SC</i> <b>134.5.3</b> Ran, Adee	Intel Comment Status A is known, so it can be stated. "four". Response Status C	L 30 L 45		submitted against Cla SuggestedRemedy This issues was disud recommended chang included in gustlin_10 conference call. We r if 5 are found to not m restarted. Note a prop 2015. Response ACCEPT IN PRINCIF Implement with editor gustlin_102616_3cd_	use 91. csed during the Oct 26, 802. es to the FEC synchronization 2616_3cd_adhoc_v2, as pre- ow look for correct AMs, and latch expectations (pre FEC or losed maintenance change hor <i>Response Status</i> <b>C</b> LE. ial license the AM out of lock adhoc_v2	3cd task force ac n state diagram isented during th AM spacing, on correction) on a g as also been sub	d-hoc call. The (Figure 91-8) are he Oct 26 ad-hoc all lanes after lock, and given lane, then lock is mmitted against 802.3-
Ran, Adee <i>Comment Type</i> <b>T</b> The number of lanes <i>SuggestedRemedy</i> Change "multiple" to <i>Response</i> ACCEPT. <i>Cl</i> <b>134</b> <i>SC</i> <b>134.5.3</b> Ran, Adee	Intel <i>Comment Status</i> <b>A</b> is known, so it can be stated. "four". <i>Response Status</i> <b>C</b> <b>.7</b> <i>P</i> 124 Intel <i>Comment Status</i> <b>A</b>		bucket # 53	submitted against Cla SuggestedRemedy This issues was disuc recommended chang included in gustlin_10 conference call. We r if 5 are found to not m restarted. Note a prop 2015. Response ACCEPT IN PRINCIF Implement with editor gustlin_102616_3cd_ and page 3 of http://w	use 91. ccsed during the Oct 26, 802. es to the FEC synchronization 2616_3cd_adhoc_v2, as pre- ow look for correct AMs, and latch expectations (pre FEC or osed maintenance change h <i>Response Status</i> <b>C</b> LE. al license the AM out of lock	3cd task force ac n state diagram isented during th AM spacing, on correction) on a g as also been sub	d-hoc call. The (Figure 91-8) are he Oct 26 ad-hoc all lanes after lock, and given lane, then lock is mmitted against 802.3-
Ran, Adee <i>Comment Type</i> <b>T</b> The number of lanes <i>SuggestedRemedy</i> Change "multiple" to <i>Response</i> ACCEPT. <i>CI</i> <b>134</b> <i>SC</i> <b>134.5.3</b> Ran, Adee <i>Comment Type</i> <b>E</b>	Intel <i>Comment Status</i> <b>A</b> is known, so it can be stated. "four". <i>Response Status</i> <b>C</b> <b>.7</b> <i>P</i> 124 Intel <i>Comment Status</i> <b>A</b>		bucket # 53	submitted against Cla SuggestedRemedy This issues was disuc recommended chang included in gustlin_10 conference call. We r if 5 are found to not m restarted. Note a prop 2015. Response ACCEPT IN PRINCIF Implement with editor gustlin_102616_3cd_ and page 3 of http://w	use 91. csed during the Oct 26, 802. es to the FEC synchronization 2616_3cd_adhoc_v2, as pre- ow look for correct AMs, and iatch expectations (pre FEC of osed maintenance change h <i>Response Status</i> <b>C</b> LE. ial license the AM out of lock adhoc_v2 ww.ieee802.org/3/maint/requerement for 50GBASE-R.	3cd task force ac n state diagram isented during th AM spacing, on correction) on a g as also been sub	d-hoc call. The (Figure 91-8) are he Oct 26 ad-hoc all lanes after lock, and given lane, then lock is mmitted against 802.3-

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

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C/ 134 SC 134.5.4.2.1 P 127 L 13 # 165	C/ 134 SC 134.5.4.2.1 P 127 L 33 # 55 Ran, Adee Intel
Comment TypeTRComment StatusAbucketReference to Clause 134.1 seems incorrect, 134.1 is Overview.	Comment Type <b>T</b> Comment Status <b>A</b> fec_lpi_fw should also be redefined.
SuggestedRemedy Reference sub-clause 134.5.3.7 rather than 134.1	SuggestedRemedy Add the definition: "fec_lpi_fw: always set to true"
Response Response Status C ACCEPT IN PRINCIPLE.	Response Response Status C ACCEPT.
The correct subclause reference is 134.5.2.6. Change reference to 134.5.2.6.	Cl         134         SC         134.6.1         P         129         L         3         #         167           Shrikhande, Kapil         Innovium         <
V     134     SC     134.5.4.2.1     P 127     L 21     # 166       hrikhande, Kapil     Innovium	Comment Type T Comment Status A fec_bypass Are we including FEC_bypass_correction for 50GE when all PHYs being defined require correction to achieve the target BER? We removed the option in CL119.
Comment Type       TR       Comment Status       A       bucket         I believe variable amps_lock should be amps_lock       bucket       bucket         SuggestedRemedy       Change amps_lock to amps_lock       bucket         Response       Response Status       C         ACCEPT.       C       C	SuggestedRemedy         Suggest removing 134.6.1 entirely if this feature has been unintentionally copied over from Clause 91. If editors agree to this, there will be other changes related to FEC_bypass_correction feature that will have to removed throughout this Clause.         Response       Response Status         C       ACCEPT IN PRINCIPLE.         With editorial license, add an exception that the fec_bypass_correction feature is not an
C/     134     SC     134.5.4.2.1     P 127     L 22     # 54       can, Adee     Intel	optional (or manadatory) requirement for the Clause 134 FEC. See also comment #168.
Comment Type       T       Comment Status       A       bucket         amps_lock is per lane. In clause 91 it has <x>, and without it the description is confusing.         SuggestedRemedy</x>	Cl         134         SC         134.6.3         P         129         L         17         #         168           Shrikhande, Kapil         Innovium
Change to "amps_lock <x>" Response Response Status C</x>	Comment Type         T         Comment Status         A         fec_bypass           Are we including FEC_bypass_correction for 50GE? We removed the option in CL119.
ACCEPT. See also comment 166.	SuggestedRemedy Suggest removing 134.6.3 entirely if this feature has been unintentionally copied over from Clause 91.
	Response Response Status C ACCEPT IN PRINCIPLE.
	Resolve using the response to comment #167.

C/ 134 SC 134.6.3

Cl <b>134</b> SC <b>134.6.5</b> Ghiasi, Ali	P <b>129</b> Ghiasi Quantu	<i>L</i> <b>32</b> Im LLC	# 116	C/ <b>134</b> SC <b>134.7.4.</b> Ghiasi, Ali		<i>L</i> <b>54</b> Quantum LLC	# 118
Comment Type <b>TR</b> hi_ser not defined	Comment Status R		bucket	Comment Type TR In an integrated PCS/	Comment Status F FEC one may do direct		
SuggestedRemedy Defin the variable, "Th	e hi_ser variable is define"			SuggestedRemedy The funtion should be	optional		
Response REJECT.	Response Status C			Response REJECT.	Response Status (	;	
_	4.6.5 on page 129 and starting		riable is set to one.		lementation the observar ranscoder as specified.	ble behavior must be	consistent with that of
When FEC_bypass_ir	ndication_enable is set to one,	this bit is set to	one if the number of	See also comment #1	17		
	s in a window of 8192 codewor zero otherwise. This variable i			C/ 135 SC 135.1.1 Nicholl, Gary	P 135 Cisco S		# 102
C/ <b>134</b> SC <b>134.7</b> Nicholl, Gary	P 131 Cisco Systems	L <b>1</b> s	# 101	Comment Type <b>T</b> Incorrect reference to	Comment Status <b>/</b> Clause 135.	λ.	bucket
Comment Type <b>T</b> Update PICS as requi	Comment Status <b>A</b> red with editorial licence		bucket	SuggestedRemedy I believe the reference	should be to Clause 13	3, i.e. the 50GBASE-	R PCS clause.
SuggestedRemedy				Response ACCEPT.	Response Status (	;	
Response ACCEPT.	Response Status C			See comment #169.			
C/ 134 SC 134.7.4.	1 P 132 Ghiasi Quantu	L 38	# 117	C/ 135 SC 135.1.1 Shrikhande, Kapil	P <b>135</b> Innoviu		# 169
Ghiasi, Ali Comment Type TR	Comment Status R			Comment Type ER Incorrect reference to	Comment Status <b>J</b> Clause 135 from within		bucket
In an integrated PCS/I SuggestedRemedy The funtion should be	FEC one may do direct 256/25	7B encoding		SuggestedRemedy Change reference fror PCS Clause	n Clause 135 to Clause	133 if the intent was	to reference the 50GE
Response REJECT.	Response Status C			Response ACCEPT.	Response Status (	;	
Regardless of the imp	lementation the observable be ranscoder as specified.	havior must be	consistent with that of	See comment #102.			
See also comment #1	18						
	ed ER/editorial required GR/g ispatched A/accepted R/rejec ubclause, page, line					C/ 135 SC 135.1.1	Page 21 of 41 2016-11-15 2:02:11

C/ 135 SC 135.1.1	P 135	L 13	# 170	C/ 135 SC 135.1.3	P 135	L 34	# 103
Shrikhande, Kapil	Innovium	-		Nicholl, Gary	Cisco System	S	
	Comment Status A int to say ". 100 Gb/s PAM4 F 00G-KP4 which is also a 100			Comment Type <b>E</b> Where is the term "FE FEC Clause (i.e. Claus	Comment Status A CL" defined ? I do not see it d se 134).	efined or used ir	n the 50GBASE-R RS-
SuggestedRemedy				SuggestedRemedy			
Maybe list all the 100Gb pointing to Table 80-1.	o/s PMDs that are supported b	by 100GBASE-	P PMA, in addition to	Response	Response Status <b>C</b>		
Response ACCEPT IN PRINCIPLI	Response Status <b>C</b>			ACCEPT IN PRINCIP	,		
	Table 80-1, refer to Table 80-3	3 which explicit	indicates the mapping	The acronym FECL is there is no formal defined the terminal definition of terminal definition	defined in 802.3cd Draft 1.0 C iition for FECL.	Clause 1.5 "Abbr	eviations". However,
To:	n support any of the 100 Gb/s n support the 100 Gb/s PAM4			data to multiple logical lanes can be multiplex	CL): In 50GBASE-R and 100G lanes, these logical lanes are ed and carried on a physical la td 802.3, Clause 135.)"	called FEC lane	es. One or more FEC
<i>Cl</i> <b>135</b> <i>SC</i> <b>135.1.2</b> Nicholl, Gary	P <b>136</b> Cisco Systems	L <b>27</b>	# 105	follows: "1.4.325 PCS lane (PC	tion for PCSL as amended by CSL): In 40GBASE-R, 50GBAS	SE-R, 100GBAS	E-R, 200GBASE-R,
Comment Type E The AN ssublayer is m	Comment Status A		bucket	lanes are called PCS I physical lane together	PCS distributes encoded dat anes. One or more PCS lanes at the PMA service interface.	s can be multiple	exed and carried on a
SuggestedRemedy	ure 135-1.			Clause 120, and Claus	e 135.)"		
Add AN sublayer to Fig							

C/ 135 SC 135.1.3

Cl 135       SC 135.1.4       P 137       L 9       # 6         Marris, Arthur       Cadence Design Syste       bucket         Comment Type       TR       Comment Status       A         There are 2 FEC lanes not 4 for 50G and 4-lanes for 100G       bucket       Figure 135-2. The PMA (4-2) below the 50G FEC should be PMA (2-2), and the 4) below the 100G FEC should be PMA (4-4).         SuggestedRemedy       Change       PMA (4:2)       Change (4:2)         PMA (2:2)       PMA (2:2)       Change       Response Status       C         PMA (2:4)       Comment (4:4)       Suggested Remedy       See also comment #6.	183	L 16	L 1	P 137		135.1.4	SC ·	C/ 135		# 104	L <b>45</b>	35	P 13	335.1.3	1 <b>35</b> SC
An additional entry should be made in the summary list to include the optional pre-coding function as captured in slide 17 nicholl_3cd_01a_0716. SuggestedRemedy Add an entry into the summary list to include the optional pre-coding function. Response Response Status C ACCEPT IN PRINCIPLE. For this list if is sufficient to list "I) Perform PAM4 encoding and decoding for when required". Otherwise Gray coding would have to be added to this list. 135.5.8 provides explicit requirements for precoding. However, it would be helpful to put 135.5.7 (Gray Coding) and 135.5.8 (precoding) under a PAM4 encoding "with 135.5.7 and 135.5.8 (precoding) under a PAM4 encoding with 135.5.7 and 135.5.8 (precoding) under a PAM4 encoding with 135.5.7 and 135.5.8 (precoding) under a PAM4 encoding with 135.5.7 and 135.5.8 (precoding) under a PAM4 encoding with 135.5.7 and 135.5.8 (precoding) under a PAM4 encoding with 135.5.7 and 135.5.8 (precoding) under a PAM4 encoding with 135.5.7 and 135.5.8 (precoding) under a PAM4 encoding status A Create a new subclause "PAM4 encoding with 135.5.7 and 135.5.8 (precoding) under a PAM4 encoding status A Cornent Type TR Comment Status A bucket There is no partitioning example in 83C showing a stack with the 100GAUI-n. Inter PMD. Cl 135 SC 135.1.4 P 137 L 9 # [6] Marris, Arthur Cadence Design Syste Comment Type TR Comment Status A Figure 135-2. The PMA (4-2) below the 50G FEC should be PMA (2-2), and the PMA (2-2) below the 50G FEC to PMA (4-4). SuggestedRemedy Change PMA (2-2) Change PMA (2-2) Change PMA (2-2) Change PMA (2-2) Change PMA (2-3) to; PMA (4-4).		2	ntum LLC	Ghiasi Quan				Ghiasi, Ali				Systems	Cisco S		choll, Gary
function as captured in slide 17 nicholl_3cd_01a_0716.         Suggested/Remedy         Add an entry into the summary list to include the optional pre-coding function.         Response       Response Status C         ACCEPT IN PRINCIPLE.         For this list it is sufficient to list ") Perform PAM4 encoding and decoding for when required". Otherwise Gray coding would have to be added to this list.         135.5.8 provides explicit requirements for precoding.         However, it would be helpful to put 135.5.7 (Gray Coding) and 135.5.8 (precoding) under a PAM4 encoding with 135.5.7 and 135.5.8 as subsidiary subclauses.         Create a new subclause "PAM4 encoding" with 135.5.7 and 135.5.8 as subsidiary subclauses.         CI 135 SC 135.1.4       P 137       L 9       # @         Marris, Arthur       Cadence Design Syste       Cisco Systems         Comment Type       T       Comment Status A       bucket         Figure 135.2. The PMA (4:2)       Cisco Systems       Comment Status A         Comment Type       T       Comment Status A       bucket         Figure 136.2. The PMA (4:2)       bucket       Figure 135.2. The PMA (4:2) below the 50G FEC to PMA (2:2), and the PMA (2:2).         Change       PMA (2:2).       Change       Response Status C         PMA (2:2)       Change       Response Status C         PMA (4:2)       Change       Response	<late< td=""><td></td><td></td><td>t Status A</td><td>Comment</td><td>TR</td><td>Туре</td><td>Comment</td><td></td><td></td><td></td><td>Α</td><td>Comment Status</td><td>т</td><td>omment Type</td></late<>			t Status A	Comment	TR	Туре	Comment				Α	Comment Status	т	omment Type
SuggestedRemedy         Add an entry into the summary list to include the optional pre-coding function.         Response       Response Status C         ACCEPT IN PRINCIPLE.         For this list it is sufficient to list ') Perform PAM4 encoding and decoding for when required'. Otherwise Gray coding would have to be added to this list.         135.5.8 provides explicit requirements for precoding.         However, it would be helpful to put 135.5.7 (Gray Coding) and 135.5.8 (precoding) under a PAM4 encoding subclause.         Create a new subclause "PAM4 encoding" with 135.5.7 and 135.5.8 as subsidiary subclauses.         Ci 135       SC 135.1.4       P 137       L 9       #         Marris, Arthur       Cadence Design Syste       Ciadence Design Syste       Ciadence Design Syste       Ciange TC       Comment Status A         Figure 135-2.7 The PMA (4:2)       Figure 135-2.7 The PMA (4:2) below the 50G FEC should be PMA (2:2), and the PMA (2:2).       Add (2:4)         Change       PMA (2:2)       Change       Response Status C         PMA (2:2) <t< td=""><td></td><td>e PČS/FEC, plea</td><td>l seperate F</td><td>ntegrated and s</td><td>nple of both in</td><td>uded exam</td><td>al inlcu</td><td>propos</td><td>-coding</td><td>e optional pre-</td><td></td><td></td><td></td><td>captured in sli</td><td>function as</td></t<>		e PČS/FEC, plea	l seperate F	ntegrated and s	nple of both in	uded exam	al inlcu	propos	-coding	e optional pre-				captured in sli	function as
Response       Response Status       C         ACCEPT IN PRINCIPLE.       Add diagram with PCS seperated from FEC similar to nicholl_3cd_01a_0716 pa righthand side diagram         135.5.8 provides explicit requirements for precoding.       Accept IN PRINCIPLE.         However, it would be helpful to put 135.5.7 (Gray Coding) and 135.5.8 (precoding) under a PAM4 encoding* with 135.5.7 and 135.5.8 (precoding) under a PAM4 encoding* with 135.5.7 and 135.5.8 as subsidiary subclause.       Response       Response is a comment. This comment was submitted after the Task Force review closed.         Ci 135       S C 135.1.4       P 137       L 9       # 6         Marris, Arthur       Cadence Design Syste       Comment Type       T       Comment Status A         There are 2 FEC lanes not 4 for 50G and 4-lanes for 100G       SuggestedRemedy       Change       PMA (4:2)       Change       Response Status       C         PMA (2:2)       Change       PMA (2:2)       Change       Response Status       C         Change       PMA (2:2)       Change       Response Status       C         PMA (2:2)       Change       Response Status       C         Change       PMA (4:4)       See also comment #6.			_000_010_0	buly to/monon_c	0/00/public/00	•								,	00
Response       Response Status       C         ACCEPT IN PRINCIPLE.       righhand side diagram         For this list it is sufficient to list "j) Perform PAM4 encoding and decoding for when required". Otherwise Gray coding would have to be added to this list.       Response       Response Status       C         135.5.8 provides explicit requirements for precoding.       However, it would be helpful to put 135.5.7 (Gray Coding) and 135.5.8 (precoding) under a PAM4 encoding subclause.       Response Status       C       ACCEPT IN PRINCIPLE.         Create a new subclause       "PAM4 encoding" with 135.5.7 and 135.5.8 (precoding) under a puschauses.       Response Status       C/       135       SC 135.1.4       P 137       L 9       #       C/       135       SC 135.1.4       P 137       L 9       #       Micholl, Gary       Cisco Systems         C/I 135       SC 135.1.4       P 137       L 9       #       Micholl, Gary       Cisco Systems       Comment Type       T       Comment Status       A         Suggested/Remedy       Change       PMA (4:2)       Change       Response Status       C       ACCEPT.       See also comment #6.         PMA (2:2)       Change       Response Status       C       ACCEPT.         Change       PMA (4:4)       See also comment #6.       See also comment #6.	: page 7	oll 3cd 012 07	ar to nicholi	om EEC cimilar	concrated fro	•				J function.	nal pre-codir	le the optio	nmary list to include	/ into the sur	Add an entr
For this list it is sufficient to list "j) Perform PAM4 encoding and decoding for when required". Otherwise Gray coding would have to be added to this list.       ACCEPT IN PRINCIPLE.         135.5.8 provides explicit requirements for precoding.       However, it would be helpful to put 135.5.7 (Gray Coding) and 135.5.8 (precoding) under a PAM4 encoding subclause.       ACCEPT IN PRINCIPLE.         Create a new subclause.       Create a new subclause.       Pam4 encoding subclause.       Create a new subclause.         CI 135 SC 135.1.4       P 137       L 9       #         Marris, Arthur       Cadence Design Syste       E         Comment Type       TR       Comment Status       A         Suggested/Remedy       Change       PMA (4:2)       Change       PMA (4:2)         Change       PMA (2:2)       Change       Response       Response Status       C         PMA (2:2)       Change       Response       Response       Response Status       C         Change       PMA (2:2)       Change       Response       Response Status       C         PMA (2:2)       Change       Response       Response Status       C         Change       PMA (4:4)       See also comment #6.       See also comment #6.	page /				seperated no							С	Response Status		•
For this list it is sufficient to list "j) Perform PAM4 encoding and decoding for when required". Otherwise Gray coding would have to be added to this list.         135.5.8 provides explicit requirements for precoding.         However, it would be helpful to put 135.5.7 (Gray Coding) and 135.5.8 (precoding) under a PAM4 encoding subclause.         Create a new subclause "PAM4 encoding" with 135.5.7 and 135.5.8 as subsidiary subclauses.         C1 135 SC 135.1.4       P 137 L 9 # [6]         Comment Type TR       Comment Status A         Change       PMA (4:2)         PMA (2:2)       Change         Change       PMA (2:2)         Change       PMA (2:2)         Change       PMA (4:4)				Status C	Response S			Response						PRINCIPLE.	ACCEPT IN
135.5.8 provides explicit requirements for precoding.         However, it would be helpful to put 135.5.7 (Gray Coding) and 135.5.8 (precoding) under a PAM4 encoding" with 135.5.7 and 135.5.8 as subsidiary subclauses.         Create a new subclause "PAM4 encoding" with 135.5.7 and 135.5.8 as subsidiary subclauses.         C/ 135       SC 135.1.4       P 137       L 9       # 6         C/ memory       Cadence Design Syste       Cisco Systems       Cisco Systems         Comment Type       TR       Comment Status A       bucket         There are 2 FEC lanes not 4 for 50G and 4-lanes for 100G       SuggestedRemedy       Change       Change         Change       PMA (2:2)       Change       Response Status       C         Change						PRINCIPL	PT IN F	ACCE							
However, it would be helpful to put 135.5.7 (Gray Coding) and 135.5.8 (precoding) under a PAM4 encoding subclause.       There is no partitioning example in 83C showing a stack with the 100GAUI-n.         Create a new subclause "PAM4 encoding" with 135.5.7 and 135.5.8 as subsidiary subclauses.       CI 135 SC 135.1.4 P 137 L 9 # 6         CI 135 SC 135.1.4 P 137 L 9 # 6       Ciace Design Syste         Comment Type TR Comment Status A There are 2 FEC lanes not 4 for 50G and 4-lanes for 100G       bucket         SuggestedRemedy       Change PMA (4:2) to:         PMA (2:2)       Change PMA (2:2)         Change PMA (2:2)       Change PMA (2:2)         Change PMA (2:2)       Change PMA (4:2)         Change PMA (2:2)       Change RPMA (4:2)         Change PMA (2:2)       Change RPMA (2:2)         Change PMA (2:2)       Change RPMA (4:4)         Change PMA (4:4)       SuggestedRemedy         Change PMA (4:2)       Change RPMA (4:4)         PMA (2:2)       Change RPMA (4:4)         Change PMA (4:4)       SuggestedRemedy         Change PMA (4:4:4)       Comment Type TR Comment Type TR Comment B (2:4)         Change PMA (4:4)       SuggestedRemedy         Change PMA (4:2)       SuggestedRemedy         Change PMA (4:4)       SuggestedRemedy         Change PMA (2:2)       SuggestedRemedy         Change PM	sed.	sk Force review of	r the Task	submitted after	mment was su	nt: This cor	ommen	Late c					0		·
However, it would be helpful to put 135.5.7 (Gray Coding) and 135.5.8 (precoding) under a PAM4 encoding subclause.       Create a new subclause "PAM4 encoding" with 135.5.7 and 135.5.8 as subsidiary subclauses.         Create a new subclause "PAM4 encoding" with 135.5.7 and 135.5.8 as subsidiary subclauses.       Create a new figure in 83C similar to Figure 83C-4 but adding a 100GAUI-n inte PMA above the PMD.         Create a new subclause "PAM4 encoding" with 135.5.7 and 135.5.8 as subsidiary subclauses.       Create a new figure in 83C similar to Figure 83C-4 but adding a 100GAUI-n inte PMA above the PMD.         Create a new subclause "PAM4 encoding" with 135.5.7 and 135.5.8 as subsidiary subclauses.       Create a new figure in 83C similar to Figure 83C-4 but adding a 100GAUI-n inte PMA above the PMD.         Create a new subclause "PAM4 encoding" with 135.5.7 and 135.5.8 (precoding) under a participation of the precision		ith the 100GAUI	a stack with	83C showing a	example in 8	artitioning	is no pa	There				ecoding.	equirements for pre	vides explicit i	135.5.8 prov
Create a new subclause "PAM4 encoding" with 135.5.7 and 135.5.8 as subsidiary subclauses.         C/ 135       SC 135.1.4       P137       L9       # 6         Marris, Arthur       Cadence Design Syste       Comment Type       T       Comment Status       A         Change       PMA (4:2)       below the 100G FEC to PMA (4-2) below the 50G FEC to PMA (2-2), and the PMA (20-4) below the 100G FEC to PMA (4-4).         SuggestedRemedy       Change       Response Status       C         PMA (2:2)       Change       Response Status       C         PMA (4:4)       See also comment #6.       See also comment #6.	•			ooo onomig u		Januaring		more	under a	.8 (precoding)	ng) and 135.	Gray Codi	ful to put 135.5.7 (0	would be help	However, it
subclauses.       Cl 135 SC 135.1.4       P137 L 28 # 11         Cl 135 SC 135.1.4       P137 L 28 # 11         Marris, Arthur       Cadence Design Syste         Comment Type TR Comment Status A       bucket         There are 2 FEC lanes not 4 for 50G and 4-lanes for 100G         SuggestedRemedy       Change         PMA (4:2)       Change         PMA (2:2)       Change         Change       Response Status C         PMA (2:2)       Change         Change       Response Status C         PMA (2:2)       Change         Change       Response Status C         PMA (2:2)       See also comment #6.	interface and	ding a 100GAUI-	4 but addin	o Figure 83C–4	83C similar to									0	
C/ 135       SC 135.1.4       P 137       L 9       # 6         Marris, Arthur       Cadence Design Syste         Comment Type       TR       Comment Status       A         There are 2 FEC lanes not 4 for 50G and 4-lanes for 100G       bucket       Figure 135-2. The PMA (4-2) below the 50G FEC should be PMA (2-2), and the 4) below the 100G FEC should be PMA (4-4).         SuggestedRemedy       Change       Change (4:4)       Change       Response         PMA (2:2)       Change       Response Status       C         PMA (2:2)       Change (4:4)       Suggested (4:4)       Suggested (4:4)         PMA (4:2)       Suggested (4:4)       Suggested (4:4)       C         Change       PMA (4:4)       Suggested (4:4)       Suggested (4:4)         PMA (4:4)       Comment Type       Response Status       C         Change       PMA (4:4)       Suggested (4:4)       Suggested (4:4)         Change       Response Status       C         PMA (20:4)       Suggested (4:4)       Suggested (4:4)	106	_ 28	L <b>2</b>	P 137		135.1.4	SC ·	C/ 135		as subsidiary	' and 135.5.8	vith 135.5.	PAM4 encoding" wi	w subclause '	
Marris, Arthur       Cadence Design Syste         Comment Type       TR       Comment Status       A         There are 2 FEC lanes not 4 for 50G and 4-lanes for 100G       bucket         SuggestedRemedy       Change       Change       Response       Response       Response       Cadence Design Syste         PMA (4:2)       Comment Status       A       bucket       SuggestedRemedy       Change       Change       Response       Response       Response       Cadence Design Syste         Change       PMA (2:2)       Change       Response       Response       Response       Response       ACCEPT.         Change       PMA (20:4)       Comment (4:4)       Suggested comment #6.       See also comment #6.			ems	Cisco Syster			ry	Nicholl, Ga			10	~-	D 40	405 4 4	
Comment Type       TR       Comment Status       A       bucket       Figure 135-2. The PMA (4-2) below the 50G FEC should be PMA (2-2), and the 4) below the 100G FEC should be PMA (4-4).         There are 2 FEC lanes not 4 for 50G and 4-lanes for 100G       SuggestedRemedy       Change the PMA (4-2) below the 50G FEC to PMA (2-2), and the PMA (20-4) below the 100G FEC to PMA (4-4).         SuggestedRemedy       Change the PMA (4:2) below the 50G FEC to PMA (2-2), and the PMA (20-4) below the 50G FEC to PMA (2-2), and the PMA (20-4) below the 50G FEC to PMA (2-2), and the PMA (20-4) below the 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2), and the PMA (20-4) below to 50G FEC to PMA (2-2).         MA (2:2)       Response       Response       Response Status       C         MA (20:4)       SuggestedRemedy       See also comment #6.       See also comment	buck			t Status A	Comment	т	Туре	Comment		# 6				135.1.4	
There are 2 FEC lanes not 4 for 50G and 4-lanes for 100G SuggestedRemedy Change PMA (4:2) to: PMA (2:2) Change PMA (2:2) Change PMA (2:4) Change PMA (2:4) Change PMA (4:4) Chan	the PMA (20-	e PMA (2-2), an	should be								Syste	0			
SuggestedRemedy       Change the PMA (4-2) below the 50G FEC to PMA (2-2), and the PMA (20-4) be 100G FEC to PMA (4-4).         PMA (4:2)       Response       Response Status       C         to:       PMA (2:2)       ACCEPT.       See also comment #6.         PMA (4:4)       PMA (4:4)       See also comment #6.				РМА (4-4).	should be PN	100G FEC	w the 1	4) belo	bucket						51
Change     100G FEC to PMA (4-4).       PMA (4:2)     Response       to:     Response       PMA (2:2)     ACCEPT.       Change     See also comment #6.       PMA (20:4)     Fee also comment #6.       to:     PMA (4:4)						dy	Remed	Suggested			JOG	lanes for 1	t 4 for 50G and 4-la		
to: PMA (2:2) Change PMA (2:4) to: PMA (4:4) ACCEPT. See also comment #6.	) below the	and the PMA (20	A (2-2), and	G FEC to PMA										edy	
PMA (2:2)ACCEPT.ChangeSee also comment #6.PMA (20:4)to:PMA (4:4)PMA (4:4)				Status C	Response S			Response							· · ·
Change PMA (20:4) to: PMA (4:4)							PT.	ACCE							
to: PMA (4:4)						nment #6.	so com	See al							
															to:
Response Response Status C												с	Response Status		esponse
ACCEPT.															ACCEPT.
See also comment #106.															

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

C/ 135 SC 135.1.4

C/ 135 SC 1	35.5.2	P 144	L 18	# 73	C/ 136	SC	136.2	P <b>162</b>	L <b>42</b>	# 154
lidaka, Yasuo		Fujitsu Lab of A	merica		Healey, Ac	lam		Broadcom Ltd.		
Comment Type	т	Comment Status A		bucket	Comment	Туре	Е	Comment Status A		Editoria
	clause 83	e sequence is reversed betwe and clause 120 were the san			signal	levels	used in th	t label for this parameter since the COM calculation. It also app tput lanes "n" (see 136.3).		
SuggestedRemedy	V				Suggested	Reme	dy			
Revert the orde		output sequence so that the o he output.	rder of the sec	quence becomes same	Consic <i>Response</i>	der usir	ng "n" as a	a the variable for the number o <i>Response Status</i> <b>C</b>	f lanes through	nout.
Response ACCEPT.		Response Status C			•	PT IN I	PRINCIPI			
					Impler	nent th	e sugges	ted remedy for Clause 136 and	Clause 137.	
Cl 135 SC 1 Brown, Matt	35.5.3	P 144 Applied Micro	L <b>5</b>	# 86	<i>Cl</i> <b>136</b> Brown, Ma		136.5	P <b>164</b> Applied Micro	L <b>22</b>	# 88
<b>,</b>	<b>T</b> Skew Va	<i>Comment Status</i> <b>R</b> ariation are "TBD" in magenta.		skew	Comment	Туре	т	Comment Status A		dela
SuggestedRemedy	V				In Tab	le 136-	4, the del	ay contraints for 50G, 100G, a	nd 200G are ir	n magenta (TBD).
,		values and change to black to	ext.		Suggested					
Response		Response Status C			•	e with a	acceptable	e values and change to black to	ext.	
REJECT.					Response			Response Status C		
See brown_3co	d 01 11	16			ACCE	PT IN I	PRINCIPL	_E.		
_								delay of the PMD, AN, and me		gle value of 4 PQ for
There is no cor	nsensus	to make the proposed change	s at this time.		50G, 8	PQ to	or 100G, a	nd 16 PQ for 200G (40.96 ns t	for all rates).	
Further contrib	outions ar	e invited address the the skew	v and skew va	riation values.	,			"It is assumed that the one-way	v delay through	n the medium is no
C/ 135 SC 1	35.5.4	P 118	L 33	# 87	more t	nan 20	ns.			
Brown, Matt		Applied Micro								
<b>,</b>	T , the dela	Comment Status <b>A</b> y contraints are "TBD" in mag	jenta.	delay						
SuggestedRemedy		values and change to black to	avt							
Response		Response Status <b>C</b>								
ACCEPT IN PF	RINCIPL	,								

C/ 136 SC 136.5

C/ 136 SC 136.6 P 164 L 52 # 89	C/ 136 SC 136.8.12.1.1 P 171 L 33 # 12
Brown, Matt Applied Micro	Lusted, Kent Intel
Comment Type T Comment Status R skew,	C Comment Type TR Comment Status R sha
The Skew and Skew Variation contraints for 50G, 100G, and 200G are "TBD" in magenta	The text describing the construction of the Frame Marker does not explicitly give the transmission order of the frame marker symbols.
SuggestedRemedy	Suggested Remedy
Update with acceptable values and change to black text.	Consider changing "The training frame marker is a run
Response Response Status C REJECT.	of 16 consecutive "3" symbols followed by a run of 16 consecutive "0" symbols."
See brown_3cd_01_1116.	to be: "The training frame marker shall be a run of 16 consecutive "3" symbols followed by a run of 16 consecutive "0" symbols."
There is no consensus to make the proposed changes at this time.	Response Response Status C
Further contributions are invited to address the skew and skew variation values.	REJECT.
C/ 136 SC 136.8.12 P 170 L 42 # 155	The existing text is explicit about the transmission order:
Healey, Adam Broadcom Ltd.	"The training frame marker is a run of 16 consecutive "3" symbols followed by a run of 16 consecutive "0" symbols".
Comment Type T Comment Status A PMD con	
It is stated that "there shall be an independent instance of the PMD control function for each lane of a multi-lane PMD." This appears to require that there be an independent instances of the function but it puts no constraints on the behavior of these instances.	The proposed text is similar to the existing text with "shall be" instead of "is". The requirement is normative as it stands, and there seems to be no reason to add a PICS item for the training frame marker.
SuggestedRemedy	
Replace the requirement with the following. "The PMD shall implement one instance of the PMD control function described in this subclause for each lane. The PMD control function operate independently on each lane."	
Response Response Status C	
ACCEPT IN PRINCIPLE.	
The suggested text is an improvement to the existing text.	
Note that this independence means that the precoding setting requested/applied as part of the PMD control function is not required to be the same in all lanes. It would require controlling the precoding separately on each lane of the adjacent PMA.	
Implement suggested remedy, and add appropriate text in 135.5.8 to clarify that precodin is controlled independently on each lane.	

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

C/ 136 SC 136.8.12.1.1 Page 25 of 41 2016-11-15 2:02:11 PM

C/ <b>136</b> SC	C 136.8.12.1	.2 P 171	L <b>39</b>	# 13	C/ 136	SC 136.8.1	2.3	P 175	L 37	# 147
usted, Kent		Intel			Slavick, Je	ff		Broadcom Li	nited	
Comment Type	TR	Comment Status A		bu	ucket Comment	Туре Т	Comme	ent Status A		PMD contr
another sec rules but the	ction (i.e. 136 e cell details	nfusing to have the control .8.12.2 and 136.8.12.3). T are elsewhere.			ng in the availa	esponse of "C	Coeff at limit"	nt of Eq that can l is due to actual lir applied so much	nitation of that c	ere is no differentiation pefficient, or lack of pw the minimum
Option 1: n	nove Clauses	ely obvious solutions: 136.8.12.2 and 136.8.12.3 agraph that has references			Suggested		ent status fiel	d to be 3b (shifting	the select echo	a to be bits 5:3)
		agraph that has references	S IO CIAUSES 130	.0.12.2 and 150.0.12	Encoc	e the status as	6			
SuggestedRem		dding a new paragraph:				efficient not s served	upported			
implement		ading a new paragraph.			101 R	eserved				
"Control and	d status field	structure is defined in Clau	se 136.8.12.2 ar	nd Clause 136.8.12.		Minimum Tra efficient at lin		old		
Response		Response Status C			010 C 001 U		IIL			
ACCEPT IN	N PRINCIPLE				000 N	ot updated				
Change the status fields		.12.1.2 from "Control and s	status field encoc	ling" to "Control and	if total	8.12.5 change _eq = max_alle _sts = at_min_	pwed_eq			
Insert the fo	ollowing parag	graph before the first parag	raph of 136.8.12	.1.2:		_sts = at_mm_ ck_ask > ck_r		esholu		
status field	comprises 16	ses 16 bits with the structu 6 bits with the structure def .12.2 from "Control field" to	ned in Clause 13	36.8.12.3."	total_e max_a	llowed_eq - V	at contains the ariable that contains the second seco	ne sum of the tota	f the total Transr	nit Eq that would cause
Change the	title of 136.8	.12.3 from "Status field" to	"Status field stru	cture".	Response		Respons	se Status C		
C/ 136 S(	C 136.8.12.1	.3 <i>P</i> 172	L 32	# 14	ACCE	PT IN PRINCI	PLE.			
Lusted, Kent		Intel	L <b>JZ</b>	$\pi$ 14	Resol	e using respo	nse to comm	ent #76.		
Comment Type	TR	Comment Status A		bı	ucket					
It is a bit co	nfusing to ha	ve identifier_i = 1 listed her nce references identifier 0.	e when the first	ane is 0. Especially	/					
SuggestedRem Consider ch	-	e 136-5 to represent identi	fier i = 0.							
Response		Response Status <b>C</b>								
•		•								
		represent identifier_i = 0, i.	e., the first row in	ntable 136-8 (1 + x +	÷					
x^2 + x^12 ·	+ x^13), and	abel it accodingly.								

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

C/ 136 SC 136.8.12.3

				# 136
own, Matt Applied Micro	Slavick, Jeff	Broadcom I	_imited	
omment Type T Comment Status A PMD Control	Comment Type T	Comment Status R		PMD contro
The coefficient status field has been updated to include new information compared to Clause 72, but is still deficient in reporting some cases. There also exists a case where a tap is not updated due voltage being at the maximum or minimum value, rather than the tap being at its maximum. It is help to differentiate the two cases.	be defined by the indicies into the l	left as a generic indices and inste e PMD. Future proof this section PMD definitions		
In a second s	SuggestedRemedy	ear 136-12 that lists the valid Equ	alizar indiana ta ba	2 1 0 1
Expand the coefficient status field to 3 bits and redefine as follows:				9-2, -1, 01
111 = reserved	Response	Response Status C		
110 = reserved	REJECT.			
101 = min./max. voltage and coeff. at Limit 100 = min./max. voltage 011 = coefficient not supported 010 = coefficient at limit 001 = updated 000 = not updated	(Table 136-9 and multiple changes require a referen	coefficients is also specified in the d Table 136-10). Any extension of s anyway. In addition, specifying v ice to that table. nange would not make the control	the number of coo valid indices in a so	efficient would require eparate table would
esponse Response Status C	The proposed ch	Tunction Tuture-pro	501.	
ACCEPT IN PRINCIPLE.	C/ 136 SC 136	6.8.12.7.3 <i>P</i> 181	L <b>7</b>	# 148
The additional information is readily available at the transmitter and may help some	Slavick, Jeff	Broadcom I	_imited	
receiver implementations.	Comment Type T	Comment Status A		PMD contro
With editorial license expand the coefficient status field to 3 bits and update the text in 136.8.12.5 correspondingly as follows:	PCS frame is < 1 PCS_STATUS, t	mit of 1.6s (min), swap to link train 1ms. So if you allocate 40ms to t then another 20ms to allow for so 1540ms for max LinkTrain timer.	he swap to Link Tr	rain and PCS assert
111 = reserved 110 = both max. voltage and coeff. at Limit	SuggestedRemedy			
10 = both max. voltage and coeff. at Linnt 101 = reserved		o for max_wait_timer to be 2%		
100 = max. voltage	Response	– – Response Status <b>C</b>		
011 = coefficient not supported 010 = coefficient at limit	ACCEPT.	Response Status C		
010 = coefficient at limit 001 = updated	AUGEFT.			
· · · · · · · · · · · · · · · · · · ·	Note that 2% of	1.5 seconds allows a period of 1.4	17 to 1 53 socond	

C/ 136 SC 136.8.12.7.3 Page 27 of 41 2016-11-15 2:02:11 PM

The wait_timer has a TBD duration. 10GE wall clock the 100->300 frames spans 42-         >127us, while at 25GE it 17 -> 51us. For the new frame length the 100 to 300 frames would be 62 -> 188us. Designs may use wall clock timers to control the duration of frames sent, so providing a range that spans the previous generations would be useful         SuggestedRemedy         Set duration to be 40 and 200 training frames. Or set duration to be 40us and 125us         Response       Response Status         Change       The terminal count of wait_timer is a period equivalent to between 100 and 300 training frames."         To       "The terminal count of wait_timer is between 40 us and 125 us, equivalent to approximately 40 to 200 training frames."	/ 136 SC 136.8.12.7.3	P 181 L 13	# 149	C/ 136 SC 136.9.	3 <i>P</i> 186	L 13	# 62
The wain_timer has a TED duration. 10CE wall clock thes 100->300 frames spans 42->>127us, while at 25GE it 17->51us. For the new frame length the 100 to 300 frames spans 42->>127us, while at 25GE it 17->51us. For the new frame length the 100 to 300 frames would be 2>-188us. Designs may use wall clock timers to control the duration of frames sent. so providing a range that spans the previous generations would be useful Suggested/Remedy       State duration to be 40 and 200 training frames.       Change       Response Status C         ACCEPT IN PRINCIPLE.       Change       Response of wait_timer is a period equivalent to between 100 and 300 training frames."       Change       Response to comment #93 against 802.3bs D2.1.         To       To       To Comment Type T       P182       L 8       # [100]         Slavick, Jeff       Broadcon Limited       Santec       Comment Type T       Comment Type T <t< td=""><td>lavick, Jeff B</td><td>Broadcom Limited</td><td></td><td>Mellitz, Richard</td><td>Samtec</td><td></td><td></td></t<>	lavick, Jeff B	Broadcom Limited		Mellitz, Richard	Samtec		
>127us, while at 25CE it 17 ~5 fus. For the new frame length the 100 to 300 frames would be 2> 188us. Designs may use well clock times to control the duration of frames sent, so providing a range that spans the previous generations would be useful       manufacturing choices and variations, return loss magnitude is not sufficient.         SuggestedRemedy       Staduration to be 40 and 200 training frames.       manufacturing choices and variations, return loss magnitude is not sufficient.         SuggestedRemedy       Response       Response Status C         ACCEPT IN PRINCIPLE.       Change       Response Status C         To       To       Response is between 40 us and 125 us, equivalent to approximately         40 to 200 training frames.*       Delete editor's note.       P182       L 8       # 140         Slavick, Jeff       Broadcom Limited       SorgestedRemedy       Status R       To samtec         Ci 136       SC 136.8.12.7.5       P 182       L 8       # 140         Slavick, Jeff       Broadcom Limited       SorgestedRemedy       Status R       To samtec         SuggestedRemedy       SuggestedRemedy       Status R       To samtec       C         Slavick, Jeff       Broadcom Limited       Sorgester       Sorgester       Response Status R       To samtec         SuggestedRemedy       See presentation slavick_3cd_01_1116.pdf       Response Status C       Response Statu	comment Type T Comment Sta	atus A	PMD control	Comment Type TR	Comment Status A		Tx spe
frames sent, so providing a range that spans the previous generations would be useful         Suggested/Remedy         Suggested/Remedy         Set duration to be 40 and 200 training frames. Or set duration to be 40 and 200 training frames.         Change         "The terminal count of wait_timer is a period equivalent to between 100 and 300 training frames."         To         "The terminal count of wait_timer is between 40 us and 125 us, equivalent to approximately 40 to 200 training frames."         Delete editor's note.         Cl 136       SC 136.8.12.7.5         P 182       L8         Swick, Jeff       Broadcom Limited         Comment Type       T         Comment Type       Response Status         C       C         Suggested/Remedy       See presentation slavick_3cd_01_1116.pdf         Response       Response Status       C         Response       Response Status       C         Suggested/Remedy       See pre	>127us, while at 25GE it 17 -> 51us. F	or the new frame length the	e 100 to 300 frames	manufacturing choic	puted with Np=200. Host maxines and variations, return loss r	mum ISI is not lim nagnitude is not s	nited, Considering sufficient.
SuggestedRemedy         Set duration to be 40 and 200 training frames.         Or set duration to be 40 and 200 training frames.         Or set duration to be 40 and 200 training frames.         Change         The terminal count of wait_timer is a period equivalent to between 100 and 300 training frames."         To         To         The terminal count of wait_timer is between 40 us and 125 us, equivalent to approximately 40 to 200 training frames."         Delete editor's note.         Cl 136       SC 136.8.12.7.5         P182       L 8         Vith a slight tweak to the Link Train FSM we could enable the ability to run LinkTrain in a non-AN operating mode.         SuggestedRemedy         See presentation slavick_3cd_01_1116.pdf         Response       Response Status C         ACCEPT IN PRINCIPLE.         Implement the proposal in the referenced presentation.					he no greater than for the refe	ronco pockago th	o reference board and
Or set duration to be 40us and 125us       Response TResponse Status C         Response Response Status C       Response Status C         ACCEPT IN PRINCIPLE.       Change The terminal count of wait_timer is a period equivalent to between 100 and 300 training frames."       Resolve using the response to comment #93 against 802.3bs D2.1.         To       To       To       Resolve using the response to comment #93 against 802.3bs D2.1.         To       To       To       Resolve using the response to comment #93 against 802.3bs D2.1.         Delete editor's note.       C1 136 SC 136.9.3.1.1 P187 L 15 # [1]         C1 136 SC 136.8.12.7.5 P182 L 8 # [140       Samtec         Slavick, Jeff       Broadcom Limited         Vith a slight tweak to the Link Train FSM we could enable the ability to run LinkTrain in a non-AN operating mode.       PMD control         Suggested/Remedy       See presentation slavick_3cd_01_1116.pdf       Response Response Status C         See presentation slavick_3cd_01_1116.pdf       Response Response Status C       RESUECT.         Response Response Status C       Response Response Status C       Response Response Status C         ACCEPT IN PRINCIPLE.       Implement the proposal in the referenced presentation.       PMD control         Implement the proposal in the referenced presentation.       C       Response Response Status C         Melitz, Richard       Samtec       Su	uggestedRemedy						
Response       Response Status       C         ACCEPT IN PRINCIPLE.       ACCEPT IN PRINCIPLE.       ACCEPT IN PRINCIPLE.         Change       The terminal count of wait_timer is a period equivalent to between 100 and 300 training frames."       ACCEPT IN PRINCIPLE.         To       The terminal count of wait_timer is between 40 us and 125 us, equivalent to approximately 40 to 200 training frames."       See also comment #63.         Delete editor's note.       CI 136 SC 136.8.12.7.5 P 182 L 8 # 140         Stavick, Jeff       Broadcom Limited         Stavick, Jeff       Broadcom Limited         Stavick, Jeff       Broadcom Limited         Stavick, Jeff       Broadcom Limited         SuggestedRemedy       See presentation slavick_3cd_01_1116.pdf         Response       Response Status       C         ACCEPT IN PRINCIPLE.       C         Implement the proposal in the referenced presentation.       C       ACCEPT IN PRINCIPLE.         Implement the proposal in the referenced presentation.       C       ACCEPT IN PRINCIPLE.         Implement the proposal in the referenced presentation.       C       ACCEPT IN PRINCIPLE.         Implement the proposal in the referenced presentation.       C       ACCEPT IN PRINCIPLE.         Implement the proposal in the referenced presentation.       C       ACCEPT IN PRINCIPLE.		rames.		which are derived from	om p(k), ISI_SNR and DFE4_F	RSS	
ACCEPT IN PRINCIPLE.         Change         "The terminal count of wait_timer is a period equivalent to between 100 and 300 training frames."         To         "The terminal count of wait_timer is between 40 us and 125 us, equivalent to approximately 40 to 200 training frames."         Delete editor's note.         Cl 136 SC 136.8.12.7.5 P182 L 8 # [40]         Slavick, Jeff       Broadcom Limited         Comment Type T Comment Status A PMD control         With a slight tweak to the Link Train FSM we could enable the ability to run LinkTrain in a non-AN operating mode.         SuggestedRemedy         See presentation slavick_3cd_01_1116.pdf         Response Response Status C         ACCEPT IN PRINCIPLE.         Implement the proposal in the referenced presentation.				Response	Response Status C		
Change       The terminal count of wait_timer is a period equivalent to between 100 and 300 training frames."       Resolve using the response to comment #93 against 802.3bs D2.1.         To       "The terminal count of wait_timer is between 40 us and 125 us, equivalent to approximately 40 to 200 training frames."       See also comment #63.         Delete editor's note.       C/I 136       SC 136.8.12.7.5       P 182       L 8       # 140         Slavick, Jeff       Broadcom Limited       Samtec       Comment Type       T       Comment Status A       PMD control         With a slight tweak to the Link Train FSM we could enable the ability to run LinkTrain in a non-AN operating mode.       SuggestedRemedy       SuggestedRemedy         SuggestedRemedy       See presentation slavick_3cd_01_1116.pdf       C       Response Status C       Response Status C         ACCEPT IN PRINCIPLE.       Implement the proposal in the referenced presentation.       C       However, these are test equipment implementation details which are not within the scope of the standard.	,	atus <b>C</b>		ACCEPT IN PRINC	IPLE.		
Change       "The terminal count of wait_timer is a period equivalent to between 100 and 300 training frames."         To       "The terminal count of wait_timer is between 40 us and 125 us, equivalent to approximately 40 to 200 training frames."         Delete editor's note.       C/ 136 SC 136.8.12.7.5 P 182 L 8 # 140         C/ 136 SC 136.8.12.7.5 P 182 L 8 # 140       Samtec         Slavick, Jeff       Broadcom Limited         Comment Type T       Comment Status A       PMD control         With a slight tweak to the Link Train FSM we could enable the ability to run LinkTrain in a non-AN operating mode.       SuggestedRemedy         See presentation slavick_3cd_01_1116.pdf       Response Kesponse Status C       Response Status C         ACCEPT IN PRINCIPLE.       Implement the proposal in the referenced presentation.       C       Response to the standard.         Implement the proposal in the referenced presentation.       The technique can also be used with the original procedure in 92.8.3.5.1, so it is not an	ACCEPT IN PRINCIPLE.			Resolve using the re	esponse to comment #93 agair	nst 802.3bs D2.1.	
To       "To terminal count of wait_timer is between 40 us and 125 us, equivalent to approximately 40 to 200 training frames."       See also comment #63.         Delete editor's note.       C/ 136       SC 136.9.3.1.1       P 187       L 15       # [d]         Delete editor's note.       Samtec       Samtec       Samtec       Samtec         C/ 136       SC 136.8.12.7.5       P 182       L 8       # [d]       Mellitz, Richard       Samtec         Slavick, Jeff       Broadcom Limited       Broadcom Limited       Samtec       To get the transmitter on thee PRBS31Q transmitter waveform.         Slavick, Jeff       Broadcom Limited       PMD control       Add exception line suggesting that the scope may precondition with linear equalization to pattern lock trigger.         SuggestedRemedy       See presentation slavick_3cd_01_1116.pdf       Response       Response Status C         ACCEPT IN PRINCIPLE.       Implement the proposal in the referenced presentation.       C       Accept in the suggested remedy may be used to facilitate signal acquisition with some scopes.         However, these are test equipment implementation details which are not within the scope of the standard.       This technique can also be used with the original procedure in 92.8.3.5.1, so it is not an	"The terminal count of wait_timer is a p	eriod equivalent to betweer	100 and 300 training	Implement with edite	prial license.		
"The terminal count of wait_timer is between 40 us and 125 us, equivalent to approximately 40 to 200 training frames."       CI 136 SC 136.9.3.1.1       P 187 L 15       # 61         Delete editor's note.       CI 136 SC 136.8.12.7.5       P 182 L 8       # 140       Samtec       Samtec       To samtec         Cl 136 SC 136.8.12.7.5       P 182 L 8       # 140       Samtec       Comment Type       T       Comment Status A       PMD control         Slavick, Jeff       Broadcom Limited       PMD control       With a slight tweak to the Link Train FSM we could enable the ability to run LinkTrain in a non-AN operating mode.       PMD control       See presentation slavick_3cd_01_1116.pdf       See presentation slavick_3cd_01_1116.pdf       Response Status C       Response Status C       Response Status C       Response Status C       Response       Response Status C       Response Status C       Response       Response Status C       Needed to which are not within the scope of the standard.         Implement the proposal in the referenced presentation.       Implement time proposal in the referenced presentation.       However, these are test equipment implement ation details which are not within the scope of the standard.	inamoo.			See also comment a	<b>#63</b> .		
40 to 200 training frames."       Delete editor's note.       Mellitz, Richard       Samtec         C/1 136       SC 136.8.12.7.5       P 182       L 8       # 140         Slavick, Jeff       Broadcom Limited       PMD control         With a slight tweak to the Link Train FSM we could enable the ability to run LinkTrain in a non-AN operating mode.       SuggestedRemedy         SuggestedRemedy       See presentation slavick_3cd_01_1116.pdf         Response       Response Status       C         ACCEPT IN PRINCIPLE.       Implement the proposal in the referenced presentation.       C         Implement the proposal in the referenced presentation.       C		ween 40 us and 125 us, eq	uivalent to approximately	C/ 136 SC 136.9.	3.1.1 <i>P</i> 187	L 15	# 61
During output       During output         During output							
Cl 136       SC 136.8.12.7.5       P 182       L 8       # 140         Slavick, Jeff       Broadcom Limited       PMD control         With a slight tweak to the Link Train FSM we could enable the ability to run LinkTrain in a non-AN operating mode.       PMD control         SuggestedRemedy       See presentation slavick_3cd_01_1116.pdf         Response       Response Status       C         ACCEPT IN PRINCIPLE.       Implement the proposal in the referenced presentation.       C         Implement the proposal in the referenced presentation.       C	Delete editor's note.						Tx spe
Comment Type       T       Comment Status       A       PMD control         With a slight tweak to the Link Train FSM we could enable the ability to run LinkTrain in a non-AN operating mode.       Add exception line suggested/Remedy         Suggested/Remedy       See presentation slavick_3cd_01_1116.pdf       Response       Response Status       C         ACCEPT IN PRINCIPLE.       Implement the proposal in the referenced presentation.       C       The technique described in the suggested remedy may be used to facilitate signal acquisition with some scopes.         However, these are test equipment implementation details which are not within the scope of the standard.       This technique can also be used with the original procedure in 92.8.3.5.1, so it is not an			# 140			ern lock trigger the	e transmitter on thee
With a slight tweak to the Link Train FSM we could enable the ability to run LinkTrain in a non-AN operating mode.       pattern lock trigger.         SuggestedRemedy       Response       Response Status       C         Response       Response Status       C         ACCEPT IN PRINCIPLE.       Implement the proposal in the referenced presentation.       However, these are test equipment implementation details which are not within the scope of the standard.         This technique can also be used with the original procedure in 92.8.3.5.1, so it is not an       This technique can also be used with the original procedure in 92.8.3.5.1, so it is not an							
SuggestedRemedy       REJECT.         See presentation slavick_3cd_01_1116.pdf       The technique described in the suggested remedy may be used to facilitate signal acquisition with some scopes.         ACCEPT IN PRINCIPLE.       However, these are test equipment implementation details which are not within the scope of the standard.         Implement the proposal in the referenced presentation.       This technique can also be used with the original procedure in 92.8.3.5.1, so it is not an	With a slight tweak to the Link Train FS			•	uggesting that the scope may	precondition with	linear equalization to
See presentation slavick_3cd_01_1116.pdf       The technique described in the suggested remedy may be used to facilitate signal acquisition with some scopes.         Response       Response Status       C         ACCEPT IN PRINCIPLE.       However, these are test equipment implementation details which are not within the scope of the standard.         Implement the proposal in the referenced presentation.       This technique can also be used with the original procedure in 92.8.3.5.1, so it is not an	non-AN operating mode.			Response	Response Status C		
Response       Response Status       C         ACCEPT IN PRINCIPLE.       However, these are test equipment implementation details which are not within the scope of the standard.         Implement the proposal in the referenced presentation.       The technique described in the suggested remedy may be used to facilitate signal acquisition with some scopes.         However, these are test equipment implementation details which are not within the scope of the standard.       This technique can also be used with the original procedure in 92.8.3.5.1, so it is not an				REJECT.			
Response       Response Status       C       acquisition with some scopes.         ACCEPT IN PRINCIPLE.       However, these are test equipment implementation details which are not within the scope of the standard.         Implement the proposal in the referenced presentation.       This technique can also be used with the original procedure in 92.8.3.5.1, so it is not an	See presentation slavick_3cd_01_1116	5.pdf		The technique desc	ribed in the suggested remedy	may be used to fa	acilitate signal
Implement the proposal in the referenced presentation.       However, these are test equipment implementation details which are not within the scope of the standard.         This technique can also be used with the original procedure in 92.8.3.5.1, so it is not an	,	atus C					5
Implement the proposal in the referenced presentation.       of the standard.         This technique can also be used with the original procedure in 92.8.3.5.1, so it is not an	ACCEPT IN PRINCIPLE.			However these are	test equipment implementation	details which are	e not within the scope
	Implement the proposal in the reference	ed presentation.		-			
					also be used with the original p	procedure in 92.8.3	3.5.1, so it is not an

C/ 136 SC 136.9.3.1.1

C/ 136 SC 136.9.3	9.1.3 P 188	L	# 156	Imple	ment with editoria	l license.		
Healey, Adam	Broadco	om Ltd.			00 400 0 0 4	<b>F</b> D4	00 / 40	" [05
Comment Type T	Comment Status A	L Contraction of the second seco	Tx spec	<i>Cl</i> <b>136</b> Mike Li	SC 136.9.3.1.	5 P1	88 L 42	# 65
	ed in 136.9.3.1.2 provides s not clear what value the			Comment	Type <b>T</b>	Comment Status	٨	Tx spec
			and the parameters of the		•••			ax, step size) defined in
	more, these ratios are dif need to another definitio		os specified in 120D.3.1.5.	Table	136-15 be conver	rted to Rpre2, Rpre1	, and Rpost values des	cribed in this section.
SuggestedRemedy		IT IOF WHAT IS ESSERT	tially the same thing.	Suggeste	dRemedy			
	icients, consider specifyi	on the normalized o	coefficient values with	A pre	sentation referenc	eable explaining the	details would be helpfu	ıl.
appropriate tolerance	e range(s) on each coeffic	ient. For the coeffic	cient ranges, consider	Response	)	Response Status	С	
specifying the smalle	est maximum value and t table alternative would be	he largest minimum	n value for each	ACCE	PT IN PRINCIPL	E.		
120D.3.1.5.				The r	esponse to comm	ent #156 clarifies the	e specification of the co	efficients.
Response	Response Status	;		C/ 136	SC 136.9.4.3.	<b>2</b> P1	92 L 2	# 66
ACCEPT IN PRINCI	PLE.			Mike Li		Intel		<i>"</i> 00
The intent of the com	nmenter is met by aligning	g the PMD transmit	ter specifications with the	Comment	Type E	Comment Status	Α	Rx spec
calculated coefficient	ts in the linear fit.				not right, it should	l be RX		,
Apply the following c	hanges:			Suggeste	dRemedy			
In 136.9.3.1.3, chang	10.			Chan	ge TX to RX			
"the coefficients of th	e transmit equalizer shal			Response	9	Response Status	С	
are within the ranges	efined in Equation (136-4) specified in Table 136-1		, and Equation (136-6))	ACCE	PT IN PRINCIPL	E.		
To "the coefficients of th	e transmit equalizer shal	be configured to v	alues within the ranges				n. Tx test reference is a ed by 136.9.4.2.1). Con	a reference point in the
specified in Table 13	6-12".	0	Ŭ		jitter is calibrated		ed by 150.9.4.2.1). Con	ipare to 1200.3.2.2
Delete equations 136	6-4, 136-5, and 136-6.			Howe	ver a suitable ref	erence seems to be	missing and the phras	ing needs improvement.
In 136.9.3.1.5:							inicening, and the prince	
III 130.9.3.1.5.				Chan	ge			
Change the second p	paragraph from both set to zero and both	c(0) and $c(1)$ having	a reactived sufficient			peak-to-peak jitter fo	or that frequency at the	Tx test reference listed
"decrement" request	s so that they are at their	respective minimur	m values (a setting	in Tal	ble 120D-6."			
	st-cursor), Rpost shall be	greater than or eq	ual to 2."	То				
To "With c(-2) and c(-1)	both set to zero and both	c(0) and c(1) havir	ng received sufficient		tain the peak-to-p nce (see Figure 1		or that frequency in Tab	le 120D-6 at the Tx test
	s so that they are at their			Terere	ille (see l'igure i	10-54).		
Apply similar change	s to the third and fourth p	aragraphs.						
Apply changes to oth	er subclauses as necess	ary to account for t	hese changes.					
			red T/technical E/editorial ( ONSE STATUS: O/open W.		d Z/withdrawn		C/ 136 SC 136.9.4.3.2	Page 29 of 41 2016-11-15 2:02:11
SORT ORDER: Clause,	• •	,						

ΡM

C/ 136         SC 136.11.7         P 194         L 33         # 59           Mellitz, Richard         Samtec	C/         136         SC         136.11.7         P         195         L         18         #         60           Mellitz, Richard         Samtec         Samtec
Comment Type TR Comment Status R COM	Comment Type TR Comment Status A bucke
Although it was show that a 90 ohm package give the optimum performance, it does not represent the realistic package design considerations.	The does not appear to be and equation reference for FzHP or FpHP. It is closely related to eq. 93A-22. One could deduce the meaning. However we should be more explicit.
SuggestedRemedy	SuggestedRemedy
Base the package impedance on a target package impedance of 96 ohm +/- 15%. Given for the cable assemblies boards are 109 ohms in COM make this impedance, Zc 80.75	Add equation proposed for COM in mellitz_3bs_01_0815_elect.pdf or explicitly specified in Healey_02_0115.pdf
ohms,	Response Response Status C
Response Response Status C	ACCEPT IN PRINCIPLE.
REJECT. There is no consensus at this time to make the propose changes.	Resolve with comment 58.
	There is no need to define new parameters, since appropriate parameters are defined in
C/ 136 SC 136.11.7 P 194 L 44 # 56	93A.1 (as amended by 802.3bs) albeit with other names.
Ran, Adee Intel	The COM parameter tables should be aligned with 93A.1.
Comment Type T Comment Status A COM	· ·
COM parameter values include c(-2), based on the transmitter specifications and training protocol. But the procedure in Annex 93A does not use this parameter.	Modify Table 136-15 as follows:
Suggested Remedy	1. In row "Continuous time filter, zero frequencies", change symbol "fzHP" to "fz2".
With editorial license, make the necessary changes in Annex 93A to accommodate scanning 4-tap FFE settings as specified for the transmitter.	<ol><li>In row "Continuous time filter, pole frequencies", remove symbol "fzHP" and corresponding value.</li></ol>
Response Response Status C	C/ 136 SC 136.12 P 198 L 38 # 119
ACCEPT IN PRINCIPLE.	Ghiasi, Ali Ghiasi Quantum LLC
Amend Table 93A-1, 93A.1.4.2 and 93A.1.6 to include c(-2).	Comment Type TR Comment Status R AC coupling
Add limits for c(-2) matching the transmitter specification to Table 136-15 and Table 137-5.	In 802.3bs we increased low Freq cut off to 100 kHz
Implement with editorial license.	SuggestedRemedy
	repalce 50 kHz with 100 kHz
	Response Response Status C REJECT.
	The argument provided by the commenter is not sufficient to make the change. The 802.3bs reference is WRT the AUI not a backplane or cable medium.

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We should not specify the AC coupling cap value       The wave insertion loss from TP0-TP2 (or TP3-TP5) is printed as 10.07 dB. Per Equation (g2-3), this will be evaluated to be 10.11 dB.         SuggestedRemedy       Response Status C         REJECT.       A recommended value is a useful informative statement, as in similar previous clauses.         Unless it is wrong, there is no harm in keeping it.       If 22 # 162         (136A SC 136A.2       P 334       L 22 # 162         (137)       To comment Status A       bucket         Why is the value of inary if pulse peak (min,) is 0.75 x vf listed as an exception.       The equation (g2A-1))+1.38 (Equation (g2A-3))+connector assumptions stated in 92 (107-062) = 10.07         Comment Type C       Comment Status A       bucket         SuggestedRemedy       Remove the exception.       Response       Response Status C         Response       Response Status C       ACCEPT.       Comment Status A       sate connector, which is a fixed value, changing the other terms implies char the coefficients of the equation for the minilavalue i.e., 10.07       10.11 db would also impact channel budget. 28.9=16.06+(2*10.07)-2*3.65 to 28.98=16.06+(2*10.11)-2*3.65.         Comment Type E       Comment Status A       state-         Include the equation for the min loss too in the first sentence.       SuggestedRemedy         Modify the sentence to "The recommened maximum and minimum printed circuit board tarce in sercin losseses are specified in Equa	<i>Cl</i> <b>136</b> SC <b>13</b> Ghiasi, Ali	6.12	P <b>198</b> Ghiasi Quantur	<i>L</i> <b>39</b> n LLC	# 120	Cl <b>136A</b> S Krishnasamy, K	C <b>136A.4</b> Jumaran	P <b>334</b> Broadcom	L <b>42</b>	# 186
Suggested/Rendy         Having low frequency cut off is sufficent, remove Cap value of 100 nF.         Response       Response Status C         REJECT.       A recommended value is a useful informative statement, as in similar previous clauses.         Unless it is wrong, there is no harm in keeping it.       L 22 # 162         C1 136A SC 136A2       P 334       L 22 # 162         The value of linear if pulse peak (min.) is 0.75 x vf listed as an exception.       bucket         Why is 'the value of linear if pulse peak (min.) is 0.75 x vf listed as an exception.       bucket         Remove the exception.       Response Status C         AccePT.       Response Status C         Comment Type E       Comment Status A       value of linear if is undication.         Suggested/Remody       Response Status C       AccePT.         Response       Response Status A       value (L33)         Comment Type E       Comment Status A       value (L33)         Comment Type E       Comment Status A       value (L33)         Response Status C       AccePT.       value (L33)         Response Response Status A       value (L33)       value (L33)         Response Response Status C       AccePT.       value the equation for the min loss too in the first sentence.         Suggested/Remedy       Modify the sentence to					AC coupling	The max in	sertion loss	from TP0-TP2 (or TP3-TP5)	is printed as 10	< <i>late</i> .07 dB. Per Equation
Response       Response Status C         REJECT.       A recommended value is a useful informative statement, as in similar previous clauses.         Unless it is wrong, there is no harm in keeping it.       P334       L22       # [162]         Comment Type T       Comment Status A       bucket         Why is 'the value of linear fit pulse peak (min) is 0.75 x vf' listed as an exception. This the value proposed in 137.9.2 and it is unclear what the motiviation would be to make the requirement different for copper cable applications.       bucket         SuggestedRemedy       Response       Response Status C         ACCEPT.       Ci 136A       S C 136A.4       P 334       L 33       # [184]         Comment Type E       Comment Status A       clats       clats       clats         Comment Type E       Comment Status A       clats       clats         Krishnasamy, Kumaran       Broadcom       clats       clats         Comment Type E       Comment Status A       clats       clats         Include the equation for the min loss too in the first sentence.       slagester       clats       clats         SuggestedRemedy       Modify the sentence to "The recommended maximum and minimum printed circuit board trace insertion losses are specified in Equation (92A-2), respectively."       clats       clats         Response       Response Status C	,	iency cut off is s	sufficent, remove Cap	value of 100 nF		SuggestedRem	edy			
REJECT.         A recommended value is a useful informative statement, as in similar previous clauses.         Unless it is wrong, there is no harm in keeping it.         C1 136A SC 136A.2       P 334       L 22       # [f2]         Healey, Adam       Broadcom Ltd.         Comment Type       T       Comment Status       A       bucket         Why is 'the value of linear fit pulse peak (min.) is 0.75 × t1" listed as an exception. This the requirement different for copper cable applications.       bucket       The value 10.07 is derived as follows:       7 (Equation (92A-1))+1.38 (Equation (92-34))+connector assumptions stated in 92 (10.70-62=10.07)         Suggested/Remedy       Remove the exception.       Response Kasponse Status C       ACCEPT.         C1 136A SC 136A.4       P 334       L 33       # [184]         Krishnasamy, Kumaran       Broadcom       clate>         Include the equation for the min loss too in the first sentence.       state>         Suggested/Remedy       Response       Response Status C         ACCEPT.       Comment Type E       Comment Status A       clate>         Include the equation for the min loss too in the first sentence.       state>       clate>         Suggested/Remedy       Response Status C       ACCEPT IN PRINCIPLE.       ACCEPT IN PRINCIPLE.	Response	Respor	nse Status C				sentence wi			
A recommended value is a useful informative statement, as in similar previous clauses. Unless it is wrong, there is no harm in keeping it. C/ 136A SC 136A.2 P 334 L 22 # 162 Comment Type T Comment Status A bucket Why is "the value of linear fit pulse peak (min.) is 0.75 x vf" listed as an exception. This the value proposed in 137.92 and it is unclear what the motiviation would be to make the requirement different for copper cable applications. Suggested/Remedy Remove the exception. Response Response Status C ACCEPT. C/ 136A SC 136A.4 P 334 L 33 # 184 Krishnasamy, Kumaran Broadcom Comment Type E Comment Status A clas- Include the equation for the min loss too in the first sentence. Suggested/Remedy Modify the sentence to "The recommended maximum and minimum printed circuit board trace insertion losses are specified in Equation (92A-1) and Equation (92A-2), respectively. Response Response Status C ACCEPT IN PRINCIPLE.	REJECT.					•		Response Status C		
Healey, Adam       Broadcom Ltd.         Comment Type       T       Comment Status       A       bucket         Why is "the value of linear fit pulse peak (min.) is 0.75 x vf" listed as an exception. This the value proposed in 137.92 and it is unclear what the motivitation would be to make the requirement different for copper cable applications.       f(Equation (92A-1))+1.38 (Equation (92A-4))+connector assumptions stated in 92 (1.07+0.62) = 10.07         SuggestedRemedy       Remove the exception.       Response Status C       ACCEPT.         C/       136A       SC 136A4       P 334       L 33       # 184         Kishnasamy, Kumaran       Broadcom       clate>       Include the equation for the min loss too in the first sentence.       SuggestedRemedy         SuggestedRemedy       Modify the sentence to "The recommended maximum and minimum printed circuit board trace insertion losses are specified in Equation (92A-1) and Equation (92A-2), respectively."       Comment Status C       CacePT IN PRINCIPLE.				ent, as in similar	previous clauses.		ent: This co	mment was submitted after th	ne Task Force r	eview closed.
Comment Type       T       Comment Status       A       bucket         Why is "the value of linear fit pulse peak (min.) is 0.75 x vf" listed as an exception. This the value proposed in 137.92. and it is unclear what the motiviation would be to make the requirement different for copper cable applications.       Or more simply:       741.38+1.07+0.62=10.07         SuggestedRemedy       Remove the exception.       Response       Response Status       C         ACCEPT.       C/       136A       Y 334       L 33       # 184         Comment Type       E       Comment Status       A       clate>         Include the equation for the min loss too in the first sentence.       SuggestedRemedy       clate>         SuggestedRemedy       Modify the sentence to "The recommended maximum and minimum printed circuit board trace insertion losses are specified in Equation (92A-1) and Equation (92A-2), respectively."       Clate>         Response       Response Status       C         ACCEPT IN PRINCIPLE.       C		6A.2		L <b>22</b>	# 162	7 (Equation	(92A–1))+1		ector assumption	ons stated in 92
Wile proposed in 137.9.2 and it is unclear what the motivation would be to make the requirement different for copper cable applications.       One of these terms has to change to yield 10.11.         SuggestedRemedy Remove the exception.       Response Status C       C         ACCEPT.       ACCEPT.       11d to would also impact channel budget. 28.9=16.06+(2*10.07)-2*3.65 to 28.98=16.06+(2*10.11)-2*3.65.         Comment Type E Comment Status A clate>       Include the equation for the min loss too in the first sentence.         SuggestedRemedy       Modify the sentence to "The recommended maximum and minimum printed circuit board trace insertion losses are specified in Equation (92A–1) and Equation (92A–2), respectively."         Response Response Status C       ACCEPT IN PRINCIPLE.	Comment Type	- Comm	nent Status A		bucket					
Remove the exception.         Response       Response Status C         ACCEPT.         Cl 136A       SC 136A.4         P 334       L 33         # 184         Krishnasamy, Kumaran       Broadcom         Comment Type       E         Comment Type       E         Comment Status       A         Include the equation for the min loss too in the first sentence.         SuggestedRemedy         Modify the sentence to "The recommended maximum and minimum printed circuit board trace insertion losses are specified in Equation (92A-1) and Equation (92A-2), respectively."         Response       Response Status C         ACCEPT IN PRINCIPLE.	value proposed	n 137.9.2 and it	is unclear what the n							
Remove the exception.         Response       Response Status       C         ACCEPT.       Image: Comment Type       E       Comment Status       A          Comment Type       E       Comment Status       A           SuggestedRemedy       Modify the sentence to "The recommended maximum and minimum printed circuit board trace insertion losses are specified in Equation (92A–1) and Equation (92A–2), respectively."       C       ACCEPT IN PRINCIPLE.       C	SuggestedRemedy					Except for t	he connect	or, which is a fixed value, cha	nging the other	terms implies changing
ACCEPT.       28.98=16.06+(2*10.11)-2*3.65.         CI 136A SC 136A.4 P 334 L 33 # 184         Krishnasamy, Kumaran Broadcom         Comment Type E Comment Status A <ale>         Include the equation for the min loss too in the first sentence.         SuggestedRemedy         Modify the sentence to "The recommended maximum and minimum printed circuit board trace insertion losses are specified in Equation (92A-1) and Equation (92A-2), respectively."         Response       Response Status C         ACCEPT IN PRINCIPLE.</ale>	Remove the exc	eption.				the coeffici	ents of the e	equations used to generate th	e initial value i.e	e., 10.07
CI 136A       SC 136A.4       P 334       L 33       # 184         Krishnasamy, Kumaran       Broadcom         Comment Type       E       Comment Status       A         Include the equation for the min loss too in the first sentence.       SuggestedRemedy         Modify the sentence to "The recommended maximum and minimum printed circuit board trace insertion losses are specified in Equation (92A–1) and Equation (92A–2), respectively."         Response       Response Status       C         ACCEPT IN PRINCIPLE.       C	•	Respoi	nse Status C			28.98=16.0	6+(2*10.11)	-2*3.65.	6.06+(2*10.07)-	2*3.65 to
Include the equation for the min loss too in the first sentence.  SuggestedRemedy Modify the sentence to "The recommended maximum and minimum printed circuit board trace insertion losses are specified in Equation (92A–1) and Equation (92A–2), respectively."  Response Response Status C ACCEPT IN PRINCIPLE.				L <b>33</b>	# 184	The discrep	bancy is an	acceptable difference.		
trace insertion losses are specified in Equation (92A–1) and Equation (92A–2), respectively." Response Response Status C ACCEPT IN PRINCIPLE.	51			entence.	<late></late>					
trace insertion losses are specified in Equation (92A–1) and Equation (92A–2), respectively." Response Response Status C ACCEPT IN PRINCIPLE.	SuggestedRemedy									
ACCEPT IN PRINCIPLE.	trace insertion lo									
	Response	Respor	nse Status <b>C</b>							
Late comment: This comment was submitted after the Task Force review closed.	ACCEPT IN PR	NCIPLE.								
	Late comment.	This comment w	as submitted after the	- Task Force rev	view closed					
	Late comment.									

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

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CI 136A SC 136A.5 P 335 L 12 # 15	C/ 136A SC 136A.5 P 336 L 18 # 185
MATOGLU, ERDEM AMPHENOL	Krishnasamy, Kumaran Broadcom
Comment Type       T       Comment Status       A         Clause 136A.5 Line 12 states that the mated test fixtures insertion loss shall be calculated by Equation 92A-4. This results in 4.3dB at 13.28GHz. However, Table 136A-1 has 3.65dB for this field. Figure 136A-1 also has 3.65dB for the mated insertion loss.         Clasue 136B, Section 136B.1.1.1 states that the differential insertion loss of the mated test fixtures shall meet the requirements of 92.11.3.1. The Equation 92.36 for mated test fixtures insertion loss computes 4.79dB at 13.28GHz.	Comment Type       ER       Comment Status       A <late>         In Figure 136A–1, the equation "16.06 + (2 × 10.7) – (2 × 3.65) = 28.9 dB" doens't add up to 28.9 dB. The value 10.7 should be changed to 10.07.       In the upper left side of the figure, TP1-Host connector, where it is labeled as 1.38 dB, should be corrected to either 1.2 dB (or 1.17 dB).         In the upper right side of the figure, TP4-Host connector it is labeled as 1.17 dB but the same section in the bottom diagram is labeled as 1.2dB. So it seems the top right 1.17</late>
Figure 92.19 also illustrates this. SuggestedRemedy It is recommended that the mated insertion loss of the test fixture refers to Clause 92, Equation 92.36. Thereby, modify Clause 136A, Table 136A-1 and Figure 136A-1 Mated Test Fixture insertion loss fields from 3.65dB to 4.79dB. In order to make the HCB loss consistent in Figure 136A-1, it is recommended to change the HCB reference loss number from 1.38dB to 2.52dB.	label needs to be changed to 1.2 dB , SuggestedRemedy Response Response Status C ACCEPT IN PRINCIPLE.
Response       Response Status       C         ACCEPT IN PRINCIPLE.       The nominal insertion loss of the mated test fixture is determined using Equation (136A–2) shown here for convenience:         ILMatedTF = =0.091*SQRT(f)+0.25*f (dB) for 0.01 GHz≤ f≤ 25 GHz.       where f is the frequency in GHz         On P:335 L:12 and L:30       Image: Convenience in the frequency in the first in the f	Late comment: This comment was submitted after the Task Force review closed. This was due to an editorial error from the adopted baseline. In Figure 136A–1, change the equation "16.06 + $(2 \times 10.7) - (2 \times 3.65) = 28.9$ dB" to be "16.06 + $(2 \times 10.07) - (2 \times 3.65) = 28.9$ dB" In the upper left side of the figure, TP1-Host connector, where it is labeled as 1.38 dB, change to 1.2 dB. In the upper right side of the figure, TP4-Host connector it is labeled as 1.17 dB change to
Change: "Equation (92A–4)" To: "Equation (136A–2)" in two places On P:335 L:13 Add: "Equation (136A-2)" and reorder equations	1.2 dB.

C/ 136A SC 136A.5

<b>136A</b> SC <b>136A.5</b> P <b>336</b> L <b>336</b> # <u>126</u>	CI 136C SC 136C P 341 L 1 # 127
niasi, Ali Ghiasi Quantum LLC	Ghiasi, Ali Ghiasi Quantum LLC
omment Type TR Comment Status R	Comment Type TR Comment Status R
Fig 136A-1 loss breakdown is not consistent with definition of Fig 135G-3, given QSFP	SFP28 and QSFP28 are the wrong designation
optical module or QSFP Cu cables plugs into the same host	SuggestedRemedy
<i>iggestedRemedy</i> To make the CRx clause consistent with C2M please make the following changes	Please change SFP28 with SFP56 and QSFP28 with QSFP56
Increase host PCB loss from 7 dB to 7.5 dB	Response Response Status C
Increase connector loss from 1.07 to 1.2 dB Increase TP3 to TP5 loss from 10.07 to 10.2 dB	REJECT.
Increase mated cable assembly test fixtrue from 3.65 dB to 3.78 dB Adjust TP0 to TP5 loss from 28.9 dB to 29.9 dB or just rounded to 30 dB to be consistent	The 136.12 MDI specifications point to clause 110 and clause 92.
with the backplane Also increase the ILchannel in table 136A-1 to 29.9 dB.	For 50GBASE-CR, the mechanical interface between the PMD and the cable assembly may be either a mated pair of connectors meeting the requirements of 110.11.1 (single-
esponse Response Status C	lane MDI) or a mated pair of connectors meeting the requirements of 92.12.1.1 (multi-lane
REJECT.	MDI). The plug connector is used on the cable assembly and the receptacle is used on the PMD.
Contributions to build consensus are welcome. It was observed that the noted differences already exist in prior clauses, e.g., Clause 92 vs. Annex 83D. Figure 136A-1 values taken from slide 13 adopted baseline in http://www.ieee802.org/3/cd/public/July16/diminico_3cd_01a_0716.pdf. The values are	For 100GBASE-CR2 or 200GBASE-CR4, the mechanical interface between the PMD and the cable assembly is a mated pair of connectors meeting the requirements of 92.12.1.1 (multi-lane MDI). The plug connector is used on the cable assembly and the receptacle is used on the PMD.           Cl         137         SC         137.1         P 215         L 14         # 57           Mellitz, Richard         Samtec         Comment Type         TR         Comment Status         R         COI
consistent with referenced equations in clause 92 and clause 110.	The original package impedance was set to 78.20hms base on simple worst case analysis.
	PAM-4 appears to more sensitive to reflection the similar signaling rates in NRZ PHYs. Also more analysis in the ad-hoc meetings suggest this also may not be the worst case or the impedance is too stringent causing a "Hole in the standard"
	SuggestedRemedy
	Choose package impedance based on the channel TDR driving point impedance. Base the package impedance on a target package impedance of 95 ohm +/- 15%. See presentation on details on how to this.
	Response Response Status C
	REJECT.
	[Editor's note: Changed subclause from 137.1 to 137.10.]
	There is no consensus at this time to make the propose changes.

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C/ 137         SC 137.1         P 215         L 41         # 58           Mellitz, Richard         Samtec	C/         137         SC         137.5         P 209         L 46         #         121           Ghiasi, Ali         Ghiasi Quantum LLC         Ghiasi
Comment Type       TR       Comment Status       A       bucket         The does not appear to be and equation reference for FzHP or FpHP. It is closely related to eq. 93A-22. One could deduce the meaning. However we should be more explicit.       SuggestedRemedy	Comment TypeTRComment StatusAdelayWith the delay through 40" of FR4 ~6.5 ns the 8 ns is sufficent, but what if someone wants to build a cermaic backpalne which has DF of 10.0 or what about if someone is building a cable backplane that might be 3 m long?Adelay
Add equation proposed for COM in mellitz_3bs_01_0815_elect.pdf or explicitly specified in Healey_02_0115.pdf	SuggestedRemedy A reasonable value will be 1/4 of delay constraints in Table 137-4 or 20.48 ns.
Response Response Status C ACCEPT IN PRINCIPLE.	Response Response Status C ACCEPT IN PRINCIPLE.
Resolve with comment 60.	Resolve using the response to comment #90.
Modify Table 137-5 as follows: 1. In row "Continuous time filter, zero frequencies", change symbol "fzHP" to "fz2".	C/         137         SC         137.6         P 210         L 33         # 91           Brown, Matt         Applied Micro
<ol> <li>In row "Continuous time filter, pole frequencies", remove symbol "fpHP" and corresponding value.</li> <li>In row "Continuous time filter, DC gain 2", change symbol "gDC" to "gDC2".</li> </ol>	Comment Type       T       Comment Status       R       skew, CC         The Skew and Skew Variation contraints for 50G, 100G, and 200G are "TBD" in magenta.         SuggestedRemedy         Update with acceptable values and change to black text.
See also comment 60.	Response Response Status C REJECT.
	See brown_3cd_01_1116.
Brown, Matt Applied Micro	See brown_3cd_01_1116. There is no consensus to make the proposed changes at this time.
Brown, Matt     Applied Micro       Comment Type     T     Comment Status     A     delay       In first paragraph and in Table 137-4, the delay contraints for 50G, 100G, and 200G medium and PMD are in magenta (TBD).     Image: Comment Status     Comment Status	See brown_3cd_01_1116.
Brown, Matt     Applied Micro       Comment Type     T     Comment Status     A     delay       In first paragraph and in Table 137-4, the delay contraints for 50G, 100G, and 200G	See brown_3cd_01_1116. There is no consensus to make the proposed changes at this time.
Brown, Matt     Applied Micro       Comment Type     T     Comment Status     A     delay       In first paragraph and in Table 137-4, the delay contraints for 50G, 100G, and 200G medium and PMD are in magenta (TBD).     SuggestedRemedy     SuggestedRemedy	See brown_3cd_01_1116.         There is no consensus to make the proposed changes at this time.         Further contributions are invited address the the skew and skew variation values.         C/ 137       SC 137.8.12       P 212       L 44       # 157
Brown, Matt     Applied Micro       Comment Type     T     Comment Status     A     delay       In first paragraph and in Table 137-4, the delay contraints for 50G, 100G, and 200G medium and PMD are in magenta (TBD).     SuggestedRemedy     Update with acceptable values and change to black text.       Response     Response Status     C	See brown_3cd_01_1116.         There is no consensus to make the proposed changes at this time.         Further contributions are invited address the the skew and skew variation values.         Cl 137       SC 137.8.12       P 212       L 44       # 157         Healey, Adam       Broadcom Ltd.         Comment Type       E       Comment Status       A       bucket

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

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C/ 137 SC 137.	9.2 P 213	L <b>9</b>	# 63	C/ 137	SC 137.9.2	P 213	L 19	# 159
Mellitz, Richard	Samtec			Healey, Adan	า	Broadcom Ltd.		
Comment Type TF	Comment Status A		Tx spec	Comment Typ	be T	Comment Status A		buck
	mputed with Np=200. package r bices and variations, return loss			Exception and not J		ncorrectly. In IEEE P802.3bs/D2	2.1, Annex 12	0D specifies J4 (max)
SuggestedRemedy				SuggestedRe	medy			
for compensable	hould be no greater than for the and uncompensable ISI. Add 2 n					to state "the parameter J4 (max d to J3, remove the exception.	) is replaced	by J3 (max) with value
p(k), ISI_SNR and				Response		Response Status C		
Response	Response Status C			ACCEPT	IN PRINCIPL	LE.		
ACCEPT IN PRIN	CIPLE.			900 2ha	hongod 100	D to uppe 14 instead of 15 in D2 1	Constitution	n mathad in Clause 126
Resolve using the	response to comment #93 again	nst 802.3bs D2.1.				D to use J4 instead of J5 in D2.1 ons and uses J4. Clause 137 sho		
Implement with ea	litorial license.			Remove	the exception			
C/ 137 SC 137.	9.2 P 213	L 12	# 161	C/ 137	SC 137.9.2	P 213	L <b>22</b>	# 160
Healey, Adam	Broadcom L	td		Healey, Adan	า	Broadcom Ltd.		
nearcy, Adam	Dibadcom			·····,, · ····		Broadoonn Etai		
Comment Type E	Comment Status A		Tx spec	Comment Ty		Comment Status A		Tx spec
Comment Type E The editor's note a Annex 120D. The		onsider referring t	o 136.9.3 instead" of clause are more	Comment Typ It seems given tha	be <b>T</b> likely that sig t Annex 120D			, being an exception
Comment Type E The editor's note a Annex 120D. The	Comment Status A suggests that the Task Force "c compliance points and application	onsider referring t	o 136.9.3 instead" of clause are more	Comment Typ It seems given tha	be <b>T</b> likely that sig t Annex 120D proposes SN	Comment Status A nal-to-noise and distortion ratio of uses SNR_TX = 31 dB in the C		, being an exception
Comment Type E The editor's note Annex 120D. The consistent with Ar	Comment Status A suggests that the Task Force "c compliance points and application nex 120D and therefore the curr	onsider referring t	o 136.9.3 instead" of clause are more	Comment Typ It seems given tha currently SuggestedRee Since the	be <b>T</b> likely that sig t Annex 120D proposes SN <i>medy</i> COM param	Comment Status A nal-to-noise and distortion ratio i 0 uses SNR_TX = 31 dB in the C R_TX = 32.5 dB eter in question is still under cor	COM calculati	eing an exception on but this clause n editor's note
Comment Type E The editor's note Annex 120D. The consistent with Ar SuggestedRemedy Delete the editor's	Comment Status A suggests that the Task Force "c compliance points and application nex 120D and therefore the curr	onsider referring t	o 136.9.3 instead" of clause are more	Comment Typ It seems given tha currently SuggestedRe Since the highlightin	be <b>T</b> likely that sig t Annex 120D proposes SN <i>medy</i> COM param	Comment Status A nal-to-noise and distortion ratio of 0 uses SNR_TX = 31 dB in the C R_TX = 32.5 dB eter in question is still under cor ility that this might be an exception	COM calculati	eing an exception on but this clause n editor's note
Comment Type E The editor's note Annex 120D. The consistent with Ar SuggestedRemedy	Comment Status A suggests that the Task Force "c compliance points and application inex 120D and therefore the curr	onsider referring t	o 136.9.3 instead" of clause are more	Comment Typ It seems given tha currently SuggestedRe Since the highlightin Response	be <b>T</b> likely that sig t Annex 120D proposes SN <i>medy</i> COM paraming the possib	Comment Status A nal-to-noise and distortion ratio i 0 uses SNR_TX = 31 dB in the C R_TX = 32.5 dB eter in question is still under cor	COM calculati	on but this clause n editor's note
Comment Type E The editor's note Annex 120D. The consistent with Ar SuggestedRemedy Delete the editor's Response ACCEPT.	Comment Status A suggests that the Task Force "c compliance points and application inex 120D and therefore the curr inote. Response Status C	onsider referring t on space for this o rent references se	o 136.9.3 instead" of clause are more em appropriate.	Comment Typ It seems given tha currently SuggestedRe Since the highlightin	be <b>T</b> likely that sig t Annex 120D proposes SN <i>medy</i> COM paraming the possib	Comment Status A nal-to-noise and distortion ratio of 0 uses SNR_TX = 31 dB in the C R_TX = 32.5 dB eter in question is still under cor ility that this might be an exception	COM calculati	eing an exception on but this clause n editor's note
Comment Type E The editor's note Annex 120D. The consistent with Ar SuggestedRemedy Delete the editor's Response	Comment Status A suggests that the Task Force "c compliance points and application inex 120D and therefore the curr inote. Response Status C	onsider referring to on space for this of ent references se	o 136.9.3 instead" of clause are more	Comment Typ It seems given tha currently SuggestedRe Since the highlightin Response	be <b>T</b> likely that sig t Annex 120D proposes SN <i>medy</i> COM paraming the possib	Comment Status A nal-to-noise and distortion ratio of 0 uses SNR_TX = 31 dB in the C R_TX = 32.5 dB eter in question is still under cor ility that this might be an exception	COM calculati	eing an exception on but this clause n editor's note
Comment Type E The editor's note : Annex 120D. The consistent with Ar SuggestedRemedy Delete the editor's Response ACCEPT. C/ 137 SC 137. Healey, Adam	Comment Status A suggests that the Task Force "c compliance points and application inex 120D and therefore the curr note. Response Status C 9.2 P 213	onsider referring to on space for this of ent references se	o 136.9.3 instead" of clause are more em appropriate.	Comment Typ It seems given tha currently SuggestedRe Since the highlightin Response	be <b>T</b> likely that sig t Annex 120D proposes SN <i>medy</i> COM paraming the possib	Comment Status A nal-to-noise and distortion ratio of 0 uses SNR_TX = 31 dB in the C R_TX = 32.5 dB eter in question is still under cor ility that this might be an exception	COM calculati	eing an exception on but this clause n editor's note
Comment Type E The editor's note : Annex 120D. The consistent with Ar SuggestedRemedy Delete the editor's Response ACCEPT. Cl 137 SC 137. Healey, Adam Comment Type T	Comment Status A suggests that the Task Force "c compliance points and application inex 120D and therefore the curr mote. Response Status C 9.2 P 213 Broadcom L	onsider referring t on space for this o rent references se <i>L</i> 14 td.	o 136.9.3 instead" of clause are more sem appropriate. # 158 bucket	Comment Typ It seems given tha currently SuggestedRe Since the highlightin Response	be <b>T</b> likely that sig t Annex 120D proposes SN <i>medy</i> COM paraming the possib	Comment Status A nal-to-noise and distortion ratio of 0 uses SNR_TX = 31 dB in the C R_TX = 32.5 dB eter in question is still under cor ility that this might be an exception	COM calculati	eing an exception on but this clause n editor's note
Comment Type E The editor's note Annex 120D. The consistent with Ar SuggestedRemedy Delete the editor's Response ACCEPT. Cl 137 SC 137. Healey, Adam Comment Type T Items 1) and 2) ar Table 120D-1.	Comment Status A suggests that the Task Force "c compliance points and application inex 120D and therefore the curr a note. Response Status C 9.2 P 213 Broadcom L Comment Status A	onsider referring t on space for this o rent references se <i>L</i> 14 td.	o 136.9.3 instead" of clause are more sem appropriate. # 158 bucket	Comment Typ It seems given tha currently SuggestedRe Since the highlightin Response	be <b>T</b> likely that sig t Annex 120D proposes SN <i>medy</i> COM paraming the possib	Comment Status A nal-to-noise and distortion ratio of 0 uses SNR_TX = 31 dB in the C R_TX = 32.5 dB eter in question is still under cor ility that this might be an exception	COM calculati	eing an exception on but this clause n editor's note
Comment Type E The editor's note : Annex 120D. The consistent with Ar SuggestedRemedy Delete the editor's Response ACCEPT. Cl 137 SC 137. Healey, Adam Comment Type T Items 1) and 2) ar Table 120D-1. SuggestedRemedy	Comment Status A suggests that the Task Force "c compliance points and application inex 120D and therefore the curr a note. Response Status C 9.2 P 213 Broadcom L Comment Status A	onsider referring t on space for this o rent references se <i>L</i> 14 td.	o 136.9.3 instead" of clause are more sem appropriate. # 158 bucket	Comment Typ It seems given tha currently SuggestedRe Since the highlightin Response	be <b>T</b> likely that sig t Annex 120D proposes SN <i>medy</i> COM paraming the possib	Comment Status A nal-to-noise and distortion ratio of 0 uses SNR_TX = 31 dB in the C R_TX = 32.5 dB eter in question is still under cor ility that this might be an exception	COM calculati	being an exception on but this clause n editor's note
Comment Type E The editor's note : Annex 120D. The consistent with Ar SuggestedRemedy Delete the editor's Response ACCEPT. Cl 137 SC 137. Healey, Adam Comment Type T Items 1) and 2) ar Table 120D-1. SuggestedRemedy	Comment Status A suggests that the Task Force "c compliance points and application inex 120D and therefore the curr in note. Response Status C 9.2 P 213 Broadcom L Comment Status A e not exceptions. The vf (max.) a	onsider referring t on space for this o rent references se <i>L</i> 14 td.	o 136.9.3 instead" of clause are more sem appropriate. # 158 bucket	Comment Typ It seems given tha currently SuggestedRe Since the highlightin Response	be <b>T</b> likely that sig t Annex 120D proposes SN <i>medy</i> COM paraming the possib	Comment Status A nal-to-noise and distortion ratio of 0 uses SNR_TX = 31 dB in the C R_TX = 32.5 dB eter in question is still under cor ility that this might be an exception	COM calculati	eing an exception on but this clause n editor's note

C/ 137 SC 137.9.2

C/ 137         SC 137.9.3         P 213         L 31         # 67           Mike Li         Intel	C/         137         SC         137.10         P 215         L 14         #         74           Hidaka, Yasuo         Fujitsu Lab of America
Comment Type         T         Comment Status         A         Rx specs           Receiver jitter tolerance test requirement should not be part of insertion loss requirements	Comment Type TR Comment Status R COM As shown in hidaka_100516_3cd_adhoc.pdf, the combination of COM parameters of low
SuggestedRemedy Make a new 4) be Receiver jitter tolerance (see 120D.3.2.2) is tested using a test channel with 2) and 3) insertion loss requirements., and change the current 4) to 5) Response Response Status C	Zc (90ohms) and high Rd (55ohms) is not always the worst case. In particular, when the channel has large spike-like capacitive discontinuities, high Zc (110ohms) with low Rd (45ohms) or high Rd (55ohms) is worse than low Zc (90ohms) with high Rd(55ohms) by up to 1dB of COM value. Since compliant channels should work with various devices with various Zc and Rd values, we need to revise COM parameters to cover corner cases sufficiently.
ACCEPT IN PRINCIPLE.	SuggestedRemedy
The text in item 3 refers to the specification in item 3 (test 2) only. Jitter tolerance is intended to be tested with the high-loss channel only.	Add a new table of COM parameter values for corner cases, and define 6 or 3 test cases as option A or B in hidaka_100516_3cd_adhoc.pdf slide 13.
However, phrasing can be improved.	Replace the specific values of zp, Rd, and Zc in Table 137-5 with references to the new table.
Delete the sentence from item 3: "Receiver jitter tolerance (see 120D.3.2.2) is tested using a test channel with these insertion loss requirements".	Response Response Status C REJECT.
Add item 5: "Receiver jitter tolerance (see 120D.3.2.2) is tested using the test channel in item 3)."	There is no consensus for the suggested remedy at this time.
	A consensus proposal is invited.
	C/ 137 SC 137.10 P 215 L 25 # 68 Mike Li Intel
	Comment Type         E         Comment Status         A         bucket           Pre-cursor 2 should be C(-2), not C(-1)         6 <td< td=""></td<>
	SuggestedRemedy Change it to C(-2)
	Response Response Status C

ACCEPT.

C/ 137 SC 137.10

C/ 137 SC 137.10.1 P 216 L 24 # 122	Cl 138 SC 138.3.2 P 229 L 49 # 93
Ghiasi, Ali Ghiasi Quantum LLC	Brown, Matt Applied Micro
Comment Type TR Comment Status A Channel specs	Comment Type T Comment Status R ske
Equation 137.10.1 has loss of 30.52 dB exceeding the agreed 30 dB loss, equation has	The Skew and Skew Variation contraints for 50G, 100G, and 200G are in magenta (TBD).
disconnect, and loss from 0.05 to Fb/2 has very strong SQRT(f) which is not typical of backplane material	SuggestedRemedy
SuggestedRemedy	Update with acceptable values and change to black text.
Adjust equation loss to be 30 dB, correct 2nd half of equation so there is no disconnect, and reduce SQRT loss Here is propse equation:	Response Response Status C REJECT.
IL=0.4842+1.744*sqrt(f) + 1.744*f , 0.01 <f<fb 2<br="">IL=-12.44 + 3.2* f, fb/2<f<fb< td=""><td>See brown_3cd_01_1116.</td></f<fb<></f<fb>	See brown_3cd_01_1116.
see ghiasi_cd_02_1116.pdf	There is no consensus to make the proposed changes at this time.
Response Response Status C ACCEPT IN PRINCIPLE.	Further contributions are invited address the the skew and skew variation values.
ACCEPT IN PRINCIPLE.	CI 138 SC 138.7 P 234 L 31 # 175
Implement the equation in the suggested remedy, not the presentation.	Kolesar, Paul CommScope
Leave coefficients in magenta.	Comment Type T Comment Status A
C/ 138         SC 138.3.1         P 229         L 11         # 92           Brown, Matt         Applied Micro	TIA has published TIA-492AAAE, the detailed fiber specification for what is referred to in ANSI/TIA-568.3-D as wideband multimode fiber. This fiber is compliant and superior to type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least
Comment Type T Comment Status A delay	as well as OM4. Therefore it should be included as a recognized media type.
In first paragraph and in Table 138-4, the delay contraints for 50G, 100G, and 200G	Note: TIA-492AAAE is referenced in clause 123 for 400GBASE-SR16.
medium and PMD are in magenta (TBD).	SuggestedRemedy
SuggestedRemedy	Add the fiber by replacing the second sentence of the clause as follows: A compliant PMD operates on 50/125 um multimode fibers, type A1a.2 (OM3), type A1a.3
Update with acceptable values and change to black text.	(OM4), or fiber compliant to TIA-492AAAE, according to the specifications defined in Table
Response Response Status C ACCEPT IN PRINCIPLE.	138-15. Note: IEC and ISO are in the midst of standardizing wideband fiber and cabling. It is anticipated that IEC type designation and ISO OMx designation will be known well before
Specify the delay for all rates to be 20.48 ns and corresponding bit times and pause quanta.	the P802.3cd amendment is published.
	Response Response Status C
Align the subclause text with P802.3bs subclause 123.3.1.	ACCEPT IN PRINCIPLE.
	Implement the suggested remedy following the style of P802.3bs Draft 2.2.

C/ 138 SC 138.7

C/ 138 SC 138.7 P 234 L 42 # 176	C/ 138 SC 138.10.1 P 241 L 18 # 178
Colesar, Paul CommScope	Kolesar, Paul CommScope
Comment Type T Comment Status A	Comment Type T Comment Status A
TIA has published TIA-492AAAE, the detailed fiber specification for what is referred to in ANSI/TIA-568.3-D as wideband multimode fiber. This fiber is compliant and superior to type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. Note: TIA-492AAAE is already referenced in clause 123 for 400GBASE-SR16.	TIA has published TIA-492AAAE, the detailed fiber specification for what is referred to in ANSI/TIA-568.3-D as wideband multimode fiber. This fiber is compliant and superior to type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type.
uggestedRemedy	SuggestedRemedy Replace the third sentence with the following: As OM4 and wideband MMF (TIA-492AAAE
Add wideband fiber in a new row at the bottom of the right column of Table 138-8 as follows: 0.5 m to 100 m for wideband MMF (TIA-492AAAE)	optical fiber meet the requirements for OM3, a channel compliant to the "OM3" column may use OM4 or wideband MMF (TIA-492AAAE) optical fiber, or a combination of OM3, OM4 and wideband MMF (TIA-492AAAE).
Response Response Status C	Note: Idential language already exists in draft clause 123 for 400GBASE-SR16.
ACCEPT IN PRINCIPLE.	Response Response Status C
	ACCEPT IN PRINCIPLE.
Implement the suggested remedy following the style of P802.3bs Draft 2.2.	Implement the suggested remody following the style of D000 the Droft 0.0
See straw poll #1 and related notes in the meeting minutes.	Implement the suggested remedy following the style of P802.3bs Draft 2.2.
	See straw poll #1 and related notes in the meeting minutes.
C/ 138         SC 138.7.3         P 236         L 16         # 177           olesar, Paul         CommScope	C/ 138 SC 138.10.1 P 241 L 25 # 179
Comment Type T Comment Status A	Kolesar, Paul CommScope
TIA has published TIA-492AAAE, the detailed fiber specification for what is referred to in	Comment Type T Comment Status A
ANSI/TIA-568.3-D as wideband multimode fiber. This fiber is compliant and superior to	TIA has published TIA-492AAAE, the detailed fiber specification for what is referred to in
type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type.	ANSI/TIA-568.3-D as wideband multimode fiber. This fiber is compliant and superior to type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least
type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type.	
type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. SuggestedRemedy Add a new column just to the right of the OM4 column in Table 138-11 with the heading	type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least
type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. <i>SuggestedRemedy</i>	type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. SuggestedRemedy Add a new column to Table 138-15 just to the right of the OM4 column with the heading "Wideband MMF (TIA-492AAAE)". All values in the underlying rows should be identical to
type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. <i>uggestedRemedy</i> Add a new column just to the right of the OM4 column in Table 138-11 with the heading "Wideband MMF (TIA-492AAAE)". All values in the underlying rows should be identical to those under the OM4 heading.	<ul> <li>type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type.</li> <li>SuggestedRemedy</li> <li>Add a new column to Table 138-15 just to the right of the OM4 column with the heading "Wideband MMF (TIA-492AAAE)". All values in the underlying rows should be identical to those under the OM4 heading.</li> </ul>
type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. <i>uggestedRemedy</i> Add a new column just to the right of the OM4 column in Table 138-11 with the heading "Wideband MMF (TIA-492AAAE)". All values in the underlying rows should be identical to those under the OM4 heading.	type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. <i>SuggestedRemedy</i> Add a new column to Table 138-15 just to the right of the OM4 column with the heading "Wideband MMF (TIA-492AAAE)". All values in the underlying rows should be identical to those under the OM4 heading. <i>Response</i> <i>Response</i> <i>Response</i> <i>SuggestedRemedy</i> <i>C</i>
type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. <i>uggestedRemedy</i> Add a new column just to the right of the OM4 column in Table 138-11 with the heading "Wideband MMF (TIA-492AAAE)". All values in the underlying rows should be identical to those under the OM4 heading. <i>esponse</i> <i>Response Status</i> <b>C</b> ACCEPT IN PRINCIPLE.	<ul> <li>type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type.</li> <li>SuggestedRemedy</li> <li>Add a new column to Table 138-15 just to the right of the OM4 column with the heading "Wideband MMF (TIA-492AAAE)". All values in the underlying rows should be identical to those under the OM4 heading.</li> </ul>
type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. <i>SuggestedRemedy</i> Add a new column just to the right of the OM4 column in Table 138-11 with the heading "Wideband MMF (TIA-492AAAE)". All values in the underlying rows should be identical to those under the OM4 heading. <i>Response</i> <i>Response C</i>	type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. <i>SuggestedRemedy</i> Add a new column to Table 138-15 just to the right of the OM4 column with the heading "Wideband MMF (TIA-492AAAE)". All values in the underlying rows should be identical to those under the OM4 heading. <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Response</i> <i>Respon</i>
type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type.         SuggestedRemedy         Add a new column just to the right of the OM4 column in Table 138-11 with the heading "Wideband MMF (TIA-492AAAE)". All values in the underlying rows should be identical to those under the OM4 heading.         Response       Response Status       C         ACCEPT IN PRINCIPLE.       C	type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. <i>SuggestedRemedy</i> Add a new column to Table 138-15 just to the right of the OM4 column with the heading "Wideband MMF (TIA-492AAAE)". All values in the underlying rows should be identical to those under the OM4 heading. <i>Response</i> <i>Response</i> <i>Response</i> <i>SuggestedRemedy</i> <i>C</i>

C/ 138 SC 138.10.1

ACCEPT IN PRINCIPLE.       Implement the suggested remedy following the style of P802.3bs Draft 2.2.       ACCEPT IN PRINCIPLE.         See straw poll #1 and related notes in the meeting minutes.       Add a footnote to the value 6.3 consistent with footnote b in Table 88-9.         C/ 139       SC 139.3.2       P 250       L 44       94         Brown, Matt       Applied Micro       Applied Micro       Comment Type       T	<late></late>
TIA has published TIA-492AAAE, the detailed fiber specification for what is referred to in ANSUTIA-568.3-D as wideband multimode fiber. This fiber is compliant and superior to type Ata. 3 (OM4) and will support the SGG-SR, 100G-SR2 and 200G-SR2 APMDs at least as well as OM4. Therefore it should be included as a recognized media type.       Need values for TBD/magenta in Table 139-6 and Table 139-7.         SuggestedRemedy       Wideband fiber shares core diameter, nominal wavelength, and effective modal bandwidth characteristics with OM4. It delivers no more than 3.5 dB/km attenuation (and in fact is set to 3.0 dB/km in TIA-568.3-D). However the zero dispersion wavelength and chromatic dispersion slope are both superior to the specifications for OM3 and OM4. To handle these similarities and differences, a new column is proposed to be added to the right of the "OM4" column. In Table 138-16 with the heading "Wideband MMF". Superscript the heading for footnote to "d". Share the cells in this column for the first four rows with those of the "OM4" column. In the ZDW cell insert the following:       Need values for TBD/magenta in Table 139-6 and Table 139-7.         View of a second secon	<late:< td=""></late:<>
ANSI/TIÅ-568.3-D as wideband multimode fiber. This fiber is compliant and superior to type A1a.3 (OM4) and will support the 50G-SR, 100G-SR2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type. SuggestedRemedy Wideband fiber shares core diameter, nominal wavelength, and effective modal bandwidth characteristics with OM4. It delivers no more than 3.5 dB/km attenuation (and in fact is set to 3.0 dB/km in TIA-568.3-D). However the zero dispersion wavelength and chromatic dispersion slope are both superior to the specifications for OM3 and OM4. To handle these similarities and differences, a new column is proposed to be added to the right of the "OM4" column in Table 138-16 with the heading "Wideband MMF". Superscript the heading for footnote "c", the footnote to read: TIA-492AAAE. Increment the current "c" footnote to "d". Share the cells in this column for the first four rows with those of the "OM4" column. In the ZDW cell insert the following: 1297 <= lambda0 <= 1328. In the dispersion slope cell insert the following: 1297 <= lambda0 <= 1328. In the dispersion slope cell insert the following: 1297 <= lambda0 <= 1328. In the dispersion slope cell insert the suggested remedy following the style of P802.3bs Draft 2.2. See straw poll #1 and related notes in the meeting minutes. CI 139 SC 139.3.2 P250 L44 # [4] Brown, Matt Applied Micro	
type A1a.3 (OM4) and will support the 50G-SR 100G-SR 2 and 200G-SR4 PMDs at least as well as OM4. Therefore it should be included as a recognized media type.       SuggestedRemedy       Provide appropriate values.         SuggestedRemedy       Wideband fiber shares core diameter, nominal wavelength, and effective modal bandwidth characteristics with OM4. It delivers no more than 3.5 dB/km attenuation (and in fact is set to 3.0 dB/km in TIA-568.3-D). However the zero dispersion wavelength and chromatic dispersion slope are both superior to the specifications for OM3 and OM4. To handle these similarities and differences, a new column is proposed to be added to the right of the 'OM4' column. In the 138-16 with the heading for footnote ''c', the footnote to read: TIA-492AAAE. Increment the current ''c' footnote to read: TIA-492AAAE. Increment the current ''c' do totote to ''d'. Share the cells in this column for the first four rows with those of the 'OM4' column. In the ZDW cell insert the following: 1297 <= lambda0 <= 1328. In the dispersion slope cale to 4.3 dB/km fiber per definition of Table 88-15	
as well as OM4. Therefore it should be included as a recognized media type.       Provide appropriate values.         SuggestedRemedy       Wideband fiber shares core diameter, nominal wavelength, and effective modal bandwidth characteristics with OM4. It delivers no more than 3.5 dB/km attenuation (and in fact is set to 3.0 dB/km in TIA-568.3-D). However the zero dispersion wavelength and chromatic dispersion slope are both superior to the specifications for OM3 and OM4. To handle these similarities and differences, a new column is proposed to be added to the right of the "OM4" column. In the 2DW cell insert the following: 1297 <= lambda0 <= 1328. In the dispersion slope cell insert the following:	
Wideband fiber shares core diameter, nominal wavelength, and effective modal bandwidth characteristics with OM4. It delivers no more than 3.5 dB/km attenuation (and in fact is set to 3.0 dB/km in TIA-568.3-D). However the zero dispersion wavelength and chromatic dispersion slope are both superior to the specifications for OM3 and OM4. To handle these similarities and differences, a new column is proposed to be added to the right of the "OM4" column. In the 2DW cell insert the following:       REJECT.         "OM4" column in Table 138-16 with the heading "Wideband MMF". Superscript the heading for footnote "c", the footnote to read: TIA-492AAAE. Increment the current "c" footnote to "d". Share the collowing: 1297 <= lambda0 <= 1328. In the dispersion slope cell insert the following:	
characteristics with OM4. It delivers no more than 3.5 dB/km attenuation (and in fact is set to 3.0 dB/km in TIA-568.3-D). However the zero dispersion wavelength and chromatic dispersion slope are both superior to the specifications for OM3 and OM4. To handle these similarities and differences, a new column is proposed to be added to the right of the "OM4" column in Table 138-16 with the heading "Wideband MMF". Superscript the heading for footnote "c", the footnote to read: TIA-492AAAE. Increment the current "c" footnote to "d". Share the cells in this column for the first four rows with those of the "OM4" column. In the ZDW cell insert the following:       This comment was WITHDRAWN by the commenter.         C/ 139       SC 139.6.3       P 256       L 22         Ghiasi, Ali       Ghiasi Quantum LLC         Comment "c", the following: 1297 <= lambda0 <= 1328. In the dispersion slope cell insert the following:	
to 3.0 dB/km in TIA-568.3-D). However the zero dispersion wavelength and chromatic dispersion slope are both superior to the specifications for OM3 and OM4. To handle these similarities and differences, a new column is proposed to be added to the right of the "OM4" column in Table 138-16 with the heading "Wideband MMF". Superscript the heading for footnote "c", the footnote to read: TIA-492AAAE. Increment the current "c" footnote to "d". Share the cells in this column for the first four rows with those of the "OM4" column. In the ZDW cell insert the following:       CI 139 SC 139.6.3 P 256 L 22         "d". Share the cells in this column for the first four rows with those of the "OM4" column. In the ZDW cell insert the following:       SC 139.6.3 P 256 L 22         "d". Share the cells in this column for the first four rows with those of the "OM4" column. In the ZDW cell insert the following:       SC 139.6.3 P 256 L 22         "definition of Table 138-16 with the heading "Wideband MMF". Superscript the heading for footnote "c", the footnote to read: TIA-492AAAE. Increment the Courter to "d" othore to "d". Share the cells in this column for the first four rows with those of the "OM4" column. In the ZDW cell insert the following:       CI 139 SC 139.6.3 P 256 L 22         "definition of Table 123-7 for an example table implementing these changes.       CR ACCEPT IN PRINCIPLE.       Missing lower fiber loss 0.43 dB/km fiber per definition of Table 88-15         Response       Response Status C       ACCEPT IN PRINCIPLE.       Add a footnote to the value 6.3 consistent with footnote b in Table 88-9.         CI 139       SC 139.3.2       P 250 L 44 # 94       Batter add the 0.43 dB/km       P 273 L 31	
C/ 139SC 139.6.3P 256L 22C/ 139SC 139.6.3P 256L 22Gliasi, AliC/ 139SC 139.6.3P 256L 22Gliasi, AliC/ 139SC 139.6.3P 256L 22Gliasi, AliC/ 139SC 139.6.3P 256L 22Gliasi, AliComment TypeTRComment Status AMissing lower fiber loss 0.43 dB/kmissent the following: (1(ambda0/840)^4)). Note: See Table 123-7 for an example table implementing these changes.Response ACCEPT IN PRINCIPLE.Implement the suggested remedy following the style of P802.3bs Draft 2.2.See straw poll #1 and related notes in the meeting minutes.C/ 139SC 139.3.2P 250L 44Applied MicroC/ 139SC 139.3.2P 250L 44P 250L 44 <td< td=""><td></td></td<>	
"OM4" column in Table 138-16 with the heading "Wideband MMF". Superscript the heading for footnote "c", the footnote to read: TIA-492AAAE. Increment the current "c" footnote to "d". Share the cells in this column for the first four rows with those of the "OM4" column. In the ZDW cell insert the following: 	# 123
for footnote "c", the footnote to read: TIA-492AAAE. Increment the current "c" footnote to         "d". Share the cells in this column for the first four rows with those of the "OM4" column. In         the ZDW cell insert the following:         <= -412/(840(1-(lambda0/840)^4)).	# 125
In the column for the following: 1297 <= lambda0 <= 1328. In the dispersion slope cell insert the following: <= -412/(840(1-(lambda0/840)^4)). Note: See Table 123-7 for an example table implementing these changes.Missing lower fiber loss 0.43 dB/kmResponseResponse StatusCACCEPT IN PRINCIPLE. 	
<= -412/(840(1-(lambda0/840)^4)).	
Note: See Table 123-7 for an example table implementing these changes.         Response       Response Status         ACCEPT IN PRINCIPLE.         Implement the suggested remedy following the style of P802.3bs Draft 2.2.         See straw poll #1 and related notes in the meeting minutes.         C/ 139       SC 139.3.2         P 250       L 44         94         Brown, Matt       Applied Micro	
ACCEPT IN PRINCIPLE.       Implement the suggested remedy following the style of P802.3bs Draft 2.2.       ACCEPT IN PRINCIPLE.         See straw poll #1 and related notes in the meeting minutes.       Add a footnote to the value 6.3 consistent with footnote b in Table 88-9.         C/ 139       SC 139.3.2       P 250       L 44       94         Brown, Matt       Applied Micro       Applied Micro       Comment Type       T	
Implement the suggested remedy following the style of P802.3bs Draft 2.2.       Add a footnote to the value 6.3 consistent with footnote b in Table 88-9.         C/ 139       SC 139.3.2       P 250       L 44       94         Brown, Matt       Applied Micro       C/ mment Type       T         Comment Type       T       Comment Status       A	
See straw poll #1 and related notes in the meeting minutes.       C/ 139       SC 139.3.2       P 250       L 44       # 94         Brown, Matt       Applied Micro       Applied Micro       C/ mment Type       T       Comment Status       A	
C/ 139     SC 139.3.2     P 250     L 44     # 94       Brown, Matt     Applied Micro     Brown, Matt     Applied Micro	
C/ 139     SC 139.3.2     P 250     L 44     # 94       Brown, Matt     Applied Micro     Comment Type     T     Comment Status	# 95
	delay
Comment Type T Comment Status R skew The delay contraints are in magenta (TBD).	
The Skew and Skew Variation contraints are in magenta (TBD). SuggestedRemedy Update with acceptable values and change to black text.	
Suggesteakemeay	
Update with acceptable values and change to black text.  Response Response Response Status C	
Response Response Status C	
REJECT. For 140.3.1 Convert magenta text to black.	
See brown_3cd_01_1116.	
There is no consensus to make the proposed changes at this time.	

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

C/ 140 SC 140.3.1 Page 39 of 41 2016-11-15 2:02:11 PM

C/         140         SC         140.3.2         P 273         L 43         # 96           Brown, Matt         Applied Micro	C/         140         SC         140.6.2         P 278         L 34-3         # 109           Liu, Hai-Feng         Intel
Comment Type     T     Comment Status     R     skew       The Skew and Skew Variation contraints are in magenta (TBD).	Comment Type <b>T</b> Comment Status <b>A</b> Need agreemnt on Rx Sensitivity.
SuggestedRemedy Update with acceptable values and change to black text.	SuggestedRemedy Propose to use total of link loss and MPI penalty in the link budget consideration, and keep
Response Response Status C	the optical specs unchanged from 400GBASE-DR4 specs. No change in Rx sensitivity, ans stressed sensitivity. Will submit a presentation to provide details.
REJECT. See brown_3cd_01_1116.	Response Response Status C ACCEPT IN PRINCIPLE.
There is no consensus to make the proposed changes at this time.	Resolve using the response to comment #108.
Further contributions are invited address the the skew and skew variation values.	C/         140         SC         140.6.3         P 279         L 1         # 107           Nicholl, Gary         Cisco Systems         Cisco Systems
Cl     140     SC     140.6.1     P 277     L 43-4     # 108       Liu, Hai-Feng     Intel       Comment Type     T     Comment Status     A       Need agreement on Tx OMAmin.	Comment Type <b>T</b> Comment Status <b>A</b> Table 140-8. While I agree with the editor's note the values in magenta text in Table 140-8 should be 5.8dB and 2.8dB respectively, to agree with the adopted baseline (see slide 6 of traverso_3cd_03a_0916).
SuggestedRemedy Propose to use total of link loss and MPI penalty in the link budget consideration, and keep the optical specs unchanged from 400GBASE-DR4 specs. No changes in Tx OMA and Tx	SuggestedRemedy Update text in magenta to agree with the values in the baseline presentation (slide 6 of traverso_3cd_03a_0916)
OMA - TDECQ. Will submit a presentation to provide details.  Response Response Status C	Response Response Status C ACCEPT IN PRINCIPLE.
ACCEPT IN PRINCIPLE.	Resolve using the response to comment #108.
There is consensus on the concept to allow a tradeoff between the channel insertion loss and MPI penalty. Refer traverso_3cd_01a_1116.	C/         140         SC         140.6.3         P 279         L 5         # 110           Liu, Hai-Feng         Intel
How to account of this in the draft is for further consideration.	Comment Type T Comment Status A
No changes to the draft at that this time.	5.8 dB Power budget (for max TDECQ) was the agreed upon place holder (not 5.6 dB in the table). And need agreement on this #.
	SuggestedRemedy Propose to use total of link loss and MPI penalty in the link budget consideration, and keep the the power budget at 5.6 dB. Will submit a presentation to provide details.
	Response Response Status C ACCEPT IN PRINCIPLE.
	Resolve using the response to comment #108.
TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G	general C/ 140 Page 40 of 41

Er indiceriniea requirea Erdeanena requirea erdgene	a required friteenined. Erediteridi ergeneral		i age ie ei ii
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed Z/withdrawn	SC 140.6.3	2016-11-15 2:02:11 PM
SORT ORDER: Clause, Subclause, page, line			

	SC 140.6.3	P <b>2</b>	79	L 11	# 111
Liu, Hai-Fe	eng	Intel			
Comment	Туре Т	Comment Status	Α		
	Allocation for p nent on this #.	enalties was the agre	ed upo	on place holder(not	2.6 dB). Need
Suggested	lRemedy				
		f link loss and MPI pe at 2.6 dB. Will submit			onsideration, and keep details.
Response		Response Status	С		
ACCE	PT IN PRINCIP	LE.			
Resolv	ve using the resp	oonse to comment #1	08.		
C/ 140	SC 140.6.3	P <b>2</b>	79	L 15	# 112
Liu, Hai-Fe	eng	Intel			
Comment	Туре Т	Comment Status	Α		
Make	total loss + MPI	penalty as a constant			
Add a	note that 3dB is	the maximum link los	ss, and		trade off with high MPI
penalt <u>y</u> Response	note that 3dB is	the maximum link los total of link loss and Response Status	ss, and MPI pe		
Add a penalt <u>y</u> <i>Response</i> ACCE	note that 3dB is y. However, the PT IN PRINCIP	the maximum link los total of link loss and Response Status	ss, and MPI pe <b>C</b>		
Add a penalt <u>y</u> <i>Response</i> ACCE	note that 3dB is y. However, the PT IN PRINCIP	the maximum link los total of link loss and <i>Response Status</i> _E.	ss, and MPI po <b>C</b> 08.		
Add a penalty Response ACCE Resolv	note that 3dB is y. However, the PT IN PRINCIP ve using the resp SC 140.9	the maximum link los total of link loss and <i>Response Status</i> _E. ponse to comment #1	ss, and MPI po <b>C</b> 08.	enalty should not e	xceed 3.1 dB.
Add a penalty Response ACCE Resolv Cl 140	note that 3dB is y. However, the PT IN PRINCIP re using the resp SC 140.9	the maximum link los total of link loss and <i>Response Status</i> LE. ponse to comment #1 P <b>2</b>	ss, and MPI po <b>C</b> 08. <b>83</b>	enalty should not e	xceed 3.1 dB.
Add a penalty Response ACCE Resolv Cl 140 Liu, Hai-Fe Comment	note that 3dB is y. However, the PT IN PRINCIP re using the resp SC 140.9	the maximum link los total of link loss and <i>Response Status</i> LE. Donse to comment #1 <i>P</i> 2 Intel <i>Comment Status</i>	ss, and MPI po <b>C</b> 08. <b>83</b>	enalty should not e	xceed 3.1 dB.
Add a penalty Response ACCE Resolv Cl 140 Liu, Hai-Fe Comment	note that 3dB is y. However, the PT IN PRINCIPI re using the resp SC 140.9 eng Type T note for the 3 di	the maximum link los total of link loss and <i>Response Status</i> LE. Donse to comment #1 <i>P</i> 2 Intel <i>Comment Status</i>	ss, and MPI po <b>C</b> 08. <b>83</b>	enalty should not e	xceed 3.1 dB.
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Add a penalty Response ACCE Resolv C/ 140 Liu, Hai-Fe Comment Add a Suggested Add a	note that 3dB is y. However, the PT IN PRINCIP re using the resp SC 140.9 eng Type T note for the 3 dl <i>IRemedy</i> note that 3dB is	the maximum link los total of link loss and <i>Response Status</i> LE. bonse to comment #1 <i>P</i> 2 Intel <i>Comment Status</i> 3 link loss max. the maximum link los	ss, and MPI pr C 08. 83 A ss, and MPI pr	enalty should not e <i>L</i> 38 I it can be lower to	xceed 3.1 dB. # 113
Add a penalty Response ACCE Resolv Cl 140 Liu, Hai-Fe Comment Add a Suggested Add a penalty Response	note that 3dB is y. However, the PT IN PRINCIP re using the resp SC 140.9 eng Type T note for the 3 dl <i>IRemedy</i> note that 3dB is	the maximum link loss total of link loss and <i>Response Status</i> LE. Donse to comment #1 <i>P</i> 2 Intel <i>Comment Status</i> 3 link loss max. the maximum link loss total of link loss and <i>Response Status</i>	ss, and MPI pr C 08. 83 A ss, and MPI pr	enalty should not e <i>L</i> 38 I it can be lower to	xceed 3.1 dB. # 113
Add a penalty Response ACCE Resolv Cl 140 Liu, Hai-Fe Comment Add a Suggested Add a penalty Response ACCE	note that 3dB is y. However, the PT IN PRINCIP re using the resp SC 140.9 eng Type T note for the 3 dl <i>Remedy</i> note that 3dB is y. However, the PT IN PRINCIP	the maximum link loss total of link loss and <i>Response Status</i> LE. Donse to comment #1 <i>P</i> 2 Intel <i>Comment Status</i> 3 link loss max. the maximum link loss total of link loss and <i>Response Status</i>	ss, and MPI pr C 08. 83 A ss, and MPI pr C	enalty should not e <i>L</i> 38 I it can be lower to	xceed 3.1 dB. # 113

C/ 140 SC 140.9