C/ 140 SC 140	P 35	L <b>3</b>	# 1	C/ 140	SC 140.6	P <b>40</b>	L 19	# 14
Cole, Chris	II-VI			Kimber, Ma	ark	Semtech		
Comment Type E	Comment Status D		SECQ naming	Comment 7	<i>уре</i> Е	Comment Status D		Interop
100GBASE-LR1 (Note in time as it is out of so SuggestedRemedy Replace SECQ with TE	ECQ throughout Sub-clause	change for 100 140 for 100GB	OGBASE-DR at this point	attenua interopo LR8 ha interopo	tion is require erability is cop ve the same	eroperability should be clarified ad between DR, FR1 and LR1 F bied from Clause 122.7 (802.3c Tx power and no attenuation is een PMDs is for Erx to FRx or L	PMDs. The state in project). In Cl required to inter	ement on lause 122, the FR8 and operate. The other
	Update any figures or tables a	as necessary,		Suggestedl	Remedy			
Proposed Response PROPOSED REJECT	Response Status W			0	e wording from ed that the ch	n: annel requirements for 100GB/	ASE-DR are met	t."
	tic of a stressed test signal us as "Stressed eye closure for standard.					perability requirements of the fil 00GBASE-DR are met."	ber optic cabling	(channel)
				This als	so applies to I	ines 19 and 22.		
TECQ is a characterist closure for PAM4 (TEC	ic of a transmitter, and is defi CQ)".	ined in 151.8.6	as "I ransmitter eye	Proposed F	Response DSED REJEC	Response Status Z		
It's not technically corre receiver testing.	ect to say that TECQ is the sa	ame thing as S	ECQ in the context of			VITHDRAWN by the commenter	er.	

C/ 140 SC 140.6

C/ 140 SC 140.6.1	P <b>41</b>	L <b>29</b>	# 15	C/ 140	SC 140.6.1	P <b>41</b>	L <b>35</b>	# 2
Dawe, Piers	Mellanox			Cole, Chris	5	II-VI		
Comment Type E Co	omment Status D			Comment	Туре Т	Comment Status D		TDECQ-10logCed
In Table 140-6, transmit chan combined (with three sub-row 140-8, illustrative link power	vs). Similarly for the "a			100GE	BASE-FR1 and	) is a problematic spec. Imple 100GBASE-LR1 only (Note, c point in time as it is out of so	cannot make sim	
SuggestedRemedy				Suggested	Remedy			
				Make	the following cha	anges to Table 140-6:		
Proposed Response Res PROPOSED ACCEPT IN PR There should be four sub-row for extinction ratio >= 5 dB for extinction ratio >= 4.5 dB for extinction ratio < 4.5 dB	vs:			100GE - Inser 100GE respec - Inser 100GE	BASE-LR1 t a new row belo BASE-DR and w tively. t another new ro	in the row "TDECQ -10log10 ow "TDECQ -10log10(Ceq)" of ith values of 3.0 and 2.5dB for ow below "TECQ" called "TDI vith values of 2.0dB and 2.5dB	called "TECQ" wi or 100GBASE-FI ECQ-TECQ"with	th no entry for R1 and 100GBASE-LR1 no entries for
luculauseut in the following la				Proposed	Response	Response Status W		
Implement in the following lo - Table 140-6 for "Launch po - Table 140-8 for "Power bud - Table 140-8 for "Allocation	wer in OMAouter minus lget (for max TDECQ)"	. ,		The pr -remov -addin	ring TDECQ-10 g TECQ to the t	includes three changes to Talog10(Ceq) for 100GBASE-Fl able with values for 100GBASE-Sl with values for 100GBASE-	R1 and -LR1; SE-FR1 and -LR	1;
						the Dec 11th ad hoc meeting g/3/cu/public/cu_adhoc/cu_ai		
				There	is no clear cons	ensus to remove TDECQ-10	log10(Ceq).	
				There	is no clear cons	ensus that adding TECQ as	separate parame	eter is necessary.
					is no clear cons atic dispersion p	eensus that adding TDECQ-T penalties.	ECQ is necessa	ry for PMDs with low
				Task f	orce consensus	is needed before making the	ese substantial c	hanges to the draft.

C/ 140 SC 140.6.1

Cl 140SC 140.6.1P41L40 $\#$ Cole, ChrisII-MConment TypeTComment TypeT<														
Comment Type T       Comment Status D       Overshot         There is no fast corner limit         SuggestedRemedy         Add Transmitter overlunder-shoot (max) spec with 12% value for both FR4 and LR4.6.       Add roontoe for both transition time and new spec wich states: "Using NRZ test pattern;         defined for transmitter overlunder-shoot (max) spec with 12% value for both FR4 and LR4.6.       Add roontoe for both transition time and new spec wich states: "Using NRZ test pattern;         defined for transition, over-shoot in 120.5.11.2.3, 120.5.11.2.4, respectively?       Proposed Response Status W         PROPOSED REJECT.       This was presented at the Dec 11th ad hoc meeting in presentation:         http://www.iu/public/u_adhoc/cu_archive/cole_actuade.ct_21119.pdf.       Issues with the suggested remedy are:         - There used consensus that 12% is the correct value.       There is no clear consensus that 12% is the correct value.         - The question of test pattern needs to be resolved, noting that the transition time test is currently done with either Square ware or SSPRQ and the OMAouter test is done either parameters with a comment test cuild potentially cover three parameters with a common test pattern.       The suggested remedy is a change from the current methodology used for PAM4 PMDs.         Cole, Chris       IvJ         Comment Type E       Comment Status D       Pat         Cole, Chris       IvJ         Context in thur Maintenance Project*       Proposed Response       Response Status W </th <th>C/ <b>140</b></th> <th>SC 14</th> <th>40.6.1</th> <th>P<b>41</b></th> <th>L <b>40</b></th> <th># 3</th> <th>C/ 140</th> <th>SC</th> <th>140.6.2</th> <th>P <b>42</b></th> <th>L <b>30</b></th> <th># 5</th>	C/ <b>140</b>	SC 14	40.6.1	P <b>41</b>	L <b>40</b>	# 3	C/ 140	SC	140.6.2	P <b>42</b>	L <b>30</b>	# 5		
<ul> <li>There is no fast corner limit</li> <li>Suggested/Remedy</li> <li>Add Transmitter over/under-shoot (max) spec with 12% value for both FR4 and LR4-6.</li> <li>Add Transmitter over/under-shoot (max) spec with 12% value for both FR4 and LR4-6.</li> <li>Add Transmitter over/under-shoot in 120.5.11.2.3, 120.5.11.2.4, respectively'</li> <li>Proposed Response Response Status W</li> <li>PROPOSED REJECT.</li> <li>This was presented at the Dec 11th ad hoc meeting in presentation: http://www.ieee802.org/3/cul/public/cu_adhoc/cu_archive/cole_3cu_adhoc_121119.pdf.</li> <li>Issues with the suggested remedy are:</li> <li>There is no clear consensus that 12% is the correct value.</li> <li>Thore is no clear consensus that 12% is the correct value.</li> <li>There is no clear consensus that 12% is the correct value.</li> <li>There is no clear consensus that 12% is the correct value.</li> <li>There is no clear consensus that 12% is the correct value.</li> <li>There is no clear consensus that 12% is the correct value.</li> <li>The question of test pattern needs to be resolved, noting that the transition time test is currently doe with either Status to be resolved, noting that the transition time test is currently doe with either Status on sensioned.</li> <li>Cole, Chris II-VI</li> <li>Cole, Chris II-VI</li> <li>Cole, Chris II-VI</li> <li>Consensition i Status D</li> <li>DR name constrasts with FR1 and LR1 names</li> <li>Suggested/Remedy</li> <li>Add forothot which states: "100BASE-DR1 name change will be considered in future Maintenance Project"</li> <li>Proposed Response Constrasts with FR1 and LR1 names</li> <li>Suggested/Remedy</li> <li>Add a foothote with states: "100BASE-DR1 name change will be considered in future Maintenance Project"</li> <li>Proposed Response Constrasts with FR1 and LR1 names</li> <li>Suggested/Remedy</li> <li>Add a foothote with states: "100BASE-DR1 name change will be considered in future Maintenace Project"</li> <li>Proposed Response Constrasts with R11 and LR1 names</li> <li>Suggested/Remedy<td>Cole, Chr</td><td>is</td><td></td><td>II-VI</td><td></td><td></td><td>Cole, Chi</td><td>s</td><td></td><td>II-VI</td><td></td><td></td></li></ul>	Cole, Chr	is		II-VI			Cole, Chi	s		II-VI				
SuggestedRemedy         Add Transmitter overlunder-shoot (max) spec with 12% value for both FR4 and LR4-6.         Add to controle for both transition time and new spec wich states: "Using NRZ test pattern: defined for transition, over transition, over threader transition time and its aud for FR1 and LR1, respectively."         Proposed Response       Response Status W         PROPOSED REJECT.       This was presented at the De 11th ad hoc meeting in presentation: http://www.ieed020.org/Slou/public/cu_archive/cole_3cu_adhoc_121119.pdf.         Issues with the suggested remedy are:       - There is no clear consensus that 12% is the correct value.         - Incomplete remedy proposal. A full description is needed for the overshoot test before it can be added to the draft.       - Response Status W         - The question of test pattern.       Proposed Response       Response Name or Sister Name of Signa and entermedy proposed.         - Incomplete remedy proposal. A full description is needed for the overshoot test before it can be added to the draft.       - Response Status W         - The question of test pattern.       - Response Status M       Proposed Response         - The suggested remedy as a change from the current methodology used for PAM4 PMDs.       - Response Status M       Proposed Response         - Far task force discussion.       I-VI       - Madd - Comment Situe D       - Note: The suggested remedy is a change from the current methodology used for PAM4 PMDs.         - Thake track force discussion.       I-VI       -	Comment	Туре	т	Comment Status D		Oversho	ot Comment	Туре	т	Comment Status D		RS equations		
SuggestedRemedy         Add Transmitter over/under-shoot (max) spec with 12% value for both FR4 and LR4-6.         Add Transmitter over/under-shoot (max) spec with 12% value for both FR4 and LR4-6.         Add Transmitter over/under-shoot (max) spec with 12% value for both FR4 and LR4-6.         Add Transmitter over/under-shoot (max) spec with 12% value for both FR4 and LR4-6.         Add Transmitter over/under-shoot (max) spec with 12% value for both transition time and new spec wich states: "Using NRZ test pattern:         Proposed Response       Response Status W         PROPOSED REJECT.       Replace forbiote c in Table 140-7 with the following text:         This was presented at the Dec 11th ad hoc meeting in presentation:       http://www.ieee802.org/3/cu/public/cu_archo/cle_3-cu_adhoc_121119.pdf.         Issues with the suggested remedy are:       - There is no clear consensus that 12% is the correct value.         - Incomplete remedy proposal. A full description is needed for the overshoot test before it can be added to the draft.       - The question of test pattern needs to be resolved, noting that the transition time test is currently done with alter Suggested Remedy is a change from the current methodology used for PAM4 PMDs.         For task force discussion.       II-VI         Call 40       SC 140.6.1       P41       L 54       # discussion         Consent Type       E       Comment Status       D         DR name constrasts with R1 and LR1 names       Suggested/Remedy	There	is no fast	t corner l	mit										
Add c footnote for both transition time and new spec wich states: "Using NRZ test pattern;       StagestedRemody         Add c footnote for both transition, over-shoot in 120.5.11.2.3, 120.5.11.2.4, respectively."       Proposed Response       Response Status       W         PROPOSED REJECT.       This was presented at the Dec 11th ad hoc meeting in presentation:       http://www.ieee802.org/3/cu/public/cu_achc/cu_archive/col_3cu_adhoc_121119.pdf.       Issues with the suggested remedy are:       - There is no clear consensus that 12% is the correct value.       - Response Status       W         - There is no clear consensus that 12% is the correct value.       - Incomplete remedy proposal. A full deeed for the overshoot test before it can be added to the draft.       - The question of test pattern needs to be resolved, noting that the transition time test is currently done with a thiter Square wave or SSPRQ and the OMAouter test is done either with PRS13Q or SSPRQ. A combined time domain test could potentially cover three parameters with a common test pattern.       Response Status W         C/ 140       SC 140.6.1       P41       L54       # definition         Cole, Chris       II-VI       Comment Status D       D         Considered in future Maintenance Project*       Proposed Response       Response Status W         Proposed Response       Response Status W       Patt       L54         We hondowe in the status D       D       The suggested remedy assumes that comment # 1 is accepted (making RS normative).		-										nake similar change for		
defined for transition, over-shoot in 120.5.11.2.3, 120.5.11.2.4, respectively*         Proposed Response       Response Status         PROPOSED REJECT.         This was presented at the Dec 11th ad hoc meeting in presentation:       http://www.ieee802.org/3/cu/public/cu_adhoc/cu_archive/cole_3cu_adhoc_121119.pdf.         Issues with the suggested remedy are:       - There is no clear consensus that 12% is the correct value.       - There is no clear consensus that 12% is the correct value.         - There is no clear consensus that 12% is the correct value.       - There is no clear consensus that 12% is the correct value.         - There used on the statem needs to be resolved, noting that the transition time test is currently done with either Square wave or SSPRQ and the OMAouter test is done either with a value of TECQ greater than 14 dB, see equation (140-2) for 100GBASE-LR1 is defined for a ference transmitter with a value of TECQ up to 14 dB. For values of TECQ greater than 14 dB, see equation (140-2) for 100GBASE-LR1 is defined to a reference transmitter with a value of TECQ up to 14 dB. For values of TECQ up to 14 dB. For values of TECQ up to 14 dB. Tor value of TECQ greater than 14 dB, see equation (140-2) for 100GBASE-LR1 is defined to a reference transmitter with a value of treCQ and the OMAouter (max) for 100GBASE-LR1 is defined to a reference transmitter with a value of treCQ and (140-3) with fixed values for SECQ up to 14 dB. Teo value of TECQ greater than 14 dB, see equations (140-2) and (140-3) with fixed values for SECQ up to 14 dB. Teo value of TECQ greater than 14 dB, see equation (140-3) for Teo value of the data.         Correct value       For task force discussion.       This comment typoposee	Add T	ransmitte	r over/un	der-shoot (max) spec with 12	% value for bo	oth FR4 and LR4-6.	Suggeste	dReme	edy					
PROPOSED REJECT.         This was presented at the Dec 11th ad hoc meeting in presentation:         http://www.ieee802.org/3/cu/public/cu_adhoc/cu_archive/cole_3cu_adhoc_121119.pdf.         Issues with the suggested remedy are:         - Thore is no clear consensus that 12% is the correct value.         - Incomplete remedy proposal. A full description is needed for the overshoot test before it can be added to the draft.         - The question of test pattern needs to be resolved, noting that the transition time test is currently done with either Square wave or SSPRQ and the OMAouter test is done either with a value of SECQ up to 14.40.50 for 100GBASE-IR1 is defined for a reference transmitter with a value of 140-30 for 100GBASE-IR1 is defined for a reference transmitter with a value of 140-30 for 100GBASE-IR1 is defined for a reference transmitter with a value of 1400-30 for 100GBASE-IR1 is defined for a reference transmitter with a value of 1400-30 for 100GBASE-IR1 is defined for a reference transmitter with a value of 1400-30 for 100GBASE-IR1 is defined for a reference transmitter with a value of 1400-30 for 100GBASE-IR1 is defined for a reference transmitter with a value of 1400-30 or 1400-30 for 100GBASE-IR1 is defined for a reference transmitter with a value of 1400-30 or 1400-30 or 1400-30 with fixed values for SECQ up to 14.40.50 or SECQ is 140.50.1         Proposed remedy is a change from the current methodology used for PAM4 PMDs.         For task force discussion.         Cole, Chris         Cole, Chris         Gole, Chris         Suggested Remedy         A dd e footnote which states: "100BASE-DR1 name change will be considered in future a												ble 140-7 with values of -		
This was presented at the Dec 11th ad hoc meeting in presentation:         http://www.ieee802.org/3/cu/public/cu_adhoc/cu_archive/cole_3cu_adhoc_121119.pdf.         Issues with the suggested remedy are:         • There is no clear consensus that 12% is the correct value.         • Incomplete remedy proposal. A full description is needed for the overshoot test before it can be added to the draft.         • The question of test pattern needs to be resolved, noting that the transition time test is currently done with either Square wave or SSPRQ and the OMAouter test is done either with a value of TecQ areater than 1.4 dB, see equation (140-2) for 100GBASE-FR1 and equation (140-3) for 100GBASE-LR1"         Proposed Response       Response Status W         Proposed Response       Response tatic control optimized for the overshoot test before it control optimized for the overshoot test is done either with a value of TECQ greater than 1.4 dB, see equation (140-2) for 100GBASE-FR1 and equation (140-3) for 100GBASE-LR1"         Proposed Response       Response Status W         Ror task force discussion.       II-VI         Cole, Chris       II-VI         Comment Type       Comment Status D         DR name constrasts with FR1 and LR1 names       D         Suggested Remedy       Md e footnote which states: "100BASE-DR1 name change will be considered in future Maintenance Project"         Proposed Response       Response Status W	•	•		Response Status W			Repla	ce foot	tnote c in <sup>·</sup>	Table 140-7 with the following	g text:			
<ul> <li>Incomplete remedy proposal. A full description is needed for the overshoot test before it can be added to the draft.</li> <li>The question of test pattern needs to be resolved, noting that the transition time test is currently done with either Square wave or SSPRQ and the OMAouter test is done either with PRBS13Q or SSPRQ. A combined time domain test could potentially cover three parameters with a common test pattern.</li> <li>The suggested remedy is a change from the current methodology used for PAM4 PMDs.</li> <li>For task force discussion.</li> <li>C/I 140 SC 140.6.1 P41 L54 # 4</li> <li>Cole, Chris III-VI</li> <li>Comment Type E Comment Status D DR name constrasts with FR1 and LR1 names</li> <li>Suggested Remedy</li> <li>Add e footnote which states: "100BASE-DR to 100GBASE-DR1 name change will be considered in future Maintenance Project"</li> <li>Proposed Response Response Response Response Status W</li> </ul>	This v http://	vas preser www.ieee s with the	nted at th 802.org/3 suggeste	8/cu/public/cu_adhoc/cu_arct	nive/cole_3cu_		a trar 100G TECC	a transmitter with a value of SECQ up to 3.4 dB. Receiver sensitivity (OMAouter) (max) for 100GBASE-FR1 and 100GBASE-LR1 is defined for a reference transmitter with a value of TECQ up to 1.4 dB. For values of TECQ greater than 1.4 dB, see equation (140-2) for						
<ul> <li>Incomplete refrectly proposal. A full description is needed for the overshoot test before it can be added to the draft.</li> <li>The question of test pattern needs to be resolved, noting that the transition time test is currently done with either Square wave or SSPRQ and the OMAouter test is done either with PRBS13Q or SSPRQ. A combined time domain test could potentially cover three parameters with a common test pattern.</li> <li>The suggested remedy is a change from the current methodology used for PAM4 PMDs. For task force discussion.</li> <li>C/ 140 SC 140.6.1 P41 L54 # 4</li> <li>Cole, Chris II-VI</li> <li>Comment Type E Comment Status D D R name constrasts with FR1 and LR1 names</li> <li>Suggested Remedy</li> <li>Add e footnote which states: "100BASE-DR to 100GBASE-DR1 name change will be considered in future Maintenance Project"</li> <li>Proposed Response Response Response Response Response Response Response</li> </ul>							Proposed	Proposed Response Response Status W						
<ul> <li>The question of test pattern needs to be resolved, noting that the transition time test is currently done with either Square wave or SSPRQ and the OMAouter test is done either with PRBS13Q or SSPRQ. A combined time domain test could potentially cover three parameters with a common test pattern.</li> <li>The suggested remedy is a change from the current methodology used for PAM4 PMDs.</li> <li>For task force discussion.</li> <li>Cl 140 SC 140.6.1 P41 L54 # 4</li> <li>Cole, Chris II-VI</li> <li>Comment Type E Comment Status D DR name constrasts with FR1 and LR1 names</li> <li>SuggestedRemedy</li> <li>Add e footnote which states: "100BASE-DR to 100GBASE-DR1 name change will be considered in future Maintenance Project"</li> <li>Proposed Response Response Response Response Status W</li> </ul>					eded for the o	vershoot test before it		•		1				
For task force discussion.         C/       140       SC 140.6.1       P 41       L 54       # 4         Cole, Chris       II-VI         Comment Type       E       Comment Status       D         DR name constrasts with FR1 and LR1 names       Suggested Remedy       Add e footnote which states: "100BASE-DR1 to 100GBASE-DR1 name change will be considered in future Maintenance Project"       W         Proposed Response       Response Status       W	currer with F paran	ntly done v PRBS13Q neters with	with eithe or SSPF n a comn	r Square wave or SSPRQ ar Q. A combined time domain non test pattern.	d the OMAout test could pot	er test is done either entially cover three	- in T 1.4dE	able 14 , and	0-7 replace	e Equations (140-2) and (140-				
C/ 140       SC 140.6.1       P 41       L 54       # 4         Cole, Chris       II-VI       II-VI       The proposed remedy does not change the "Receiver sensitivity (OMAouter) (max)" values, just the way the information is presented in the table and in the draft. It is not clear that the suggested remedy is an improvement to the readability of the draft and it would be different to what was done for other PMDs (including 100GBASE-DR in the same clause).         DR name constrasts with FR1 and LR1 names       SuggestedRemedy         Add e footnote which states: "100BASE-DR to 100GBASE-DR1 name change will be considered in future Maintenance Project"       W         Proposed Response       Response Status       W	The s	uggested	remedy	s a change from the current	methodology u	sed for PAM4 PMDs.	Note:	The su	uggested re	emedy assumes that commer	nt # 1 is accept	ed (change the name of		
Cole, Chris II-VI Comment Type E Comment Status D DR name constrasts with FR1 and LR1 names SuggestedRemedy Add e footnote which states: "100BASE-DR to 100GBASE-DR1 name change will be considered in future Maintenance Project" Proposed Response Response Status W	For ta	isk force d	liscussio	n.			SECO	to TE	CQ) and a	Iso that comment # 7 is acce	pted (making R	S normative).		
Colle, Clins       II-VI         Comment Type       E       Comment Status       D         DR name constrasts with FR1 and LR1 names       SuggestedRemedy       For task force discussion.         SuggestedRemedy       Add e footnote which states: "100BASE-DR to 100GBASE-DR1 name change will be considered in future Maintenance Project"       For task force discussion.         Proposed Response       Response Status       W	C/ <b>140</b>	SC 14	40.6.1	P <b>41</b>	L <b>54</b>	# 4								
Comment Type       E       Comment Status       D       to what was done for other PMDs (including 100GBASE-DR in the same clause).         DR name constrasts with FR1 and LR1 names       For task force discussion.         SuggestedRemedy       Add e footnote which states: "100BASE-DR to 100GBASE-DR1 name change will be considered in future Maintenance Project"       For task force discussion.         Proposed Response       Response Status       W	Cole, Chr	is		II-VI										
SuggestedRemedy       For task force discussion.         Add e footnote which states: "100BASE-DR to 100GBASE-DR1 name change will be considered in future Maintenance Project"       For task force discussion.         Proposed Response       Response Status       W	Comment	Туре	E	Comment Status D										
SuggestedRemedy         Add e footnote which states: "100BASE-DR to 100GBASE-DR1 name change will be considered in future Maintenance Project"         Proposed Response       Response Status         W	DR na	ame const	trasts wit	h FR1 and LR1 names			Forte	ok fora	o dioquoqi	on				
considered in future Maintenance Project" Proposed Response Response Status W	Suggeste	dRemedy					FUL	SK IUIC		011.				
					BASE-DR1 na	me change will be								
PROPOSED REJECT.	Proposed	Response	е	Response Status W										
	PROF	POSED RE	EJECT.											

The suggested remedy is out of scope for this project.

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 140.6.2 Page 3 of 7 12/20/2019 5:39:35 PM

/ 140 SC 140.6.2	P <b>42</b>	L <b>47</b>	# 6	C/ 140	SC 140.7.9	P <b>43</b>	L <b>46</b>	# 7			
e, Chris	II-VI			Cole, Chris		II-VI					
<i>mment Type</i> <b>E</b> ( DR name constrasts with F	Comment Status <b>D</b> R1 and LR1 names				Receiver Sensi	Comment Status <b>D</b> tivity (RS) a normative spec for ke similar change for 100GE		E-FR1 and 100G			
ggestedRemedy Add g footnote which state		GBASE-DR1 na	me change will be	of scop Suggested	e).				oout		
considered in future Mainte				•••	•	anges to this section.					
oposed Response R PROPOSED REJECT.	Response Status W			Change	the contonce	on page 43 and line 50 from:					
The suggested remedy is c	out of scope for this proje	ct.		"Receiv to: "Receiv	ver sensitivity i	s informative and is defined for or 100GBASE-DR is informat	or a transmitter wi				
				"Receiv in Figure to: "Receiv	ver sensitivity f 140–5." ver sensitivity f 4 dB. Receive	on page 44 and line 1 from: or 100GBASE-FR1 should mo or 100GBASE-FR1 is defined r sensitivity should meet Equa	for a transmitter	with a value of TE	ECQ		
					Change the sentence on page 44 and line 6 from: "Receiver sensitivity for 100GBASE-LR1 should meet Equation (140–3), which is illustra in Figure 140–5." to: "Receiver sensitivity for 100GBASE-LR1 is defined for a transmitter with a value of TEC up to 3.4 dB. Receiver sensitivity should meet Equation (140–3), which is illustrated in Figure 140-5"						
				"The no to: "The no sensitiv	ormative requir ormative requir vity. The norma	on page 44 and line 16 from ement for receivers is stresse ement for the 100GBASE-DR tive requirement for the 100G vier sensitivity and stressed re	ed receiver sensiti R receiver is stres BBASE-FR1 and	sed receiver 100GBASE-LR1			
				Proposed F	Response DSED REJEC <sup>1</sup>	Response Status W	-				
				This co		es making Receiver Sensitivi	ty (RS) a normati	ve specification fo	or		
				Note: T	he suggested	remedy assumes that comme	ent # 1 is accepte	d (change the na	me of		
PE: TR/technical required E	R/editorial required GR/	aeneral required	T/technical F/editorial (	G/general		C/ 1	40	Page 4 of	F7		

TTE. Tracennical required Enveational required Oragener		0/ 140	1 ago + 017
COMMENT STATUS: D/dispatched A/accepted R/rejected	RESPONSE STATUS: O/open W/written C/closed Z/withdrawn	SC 140.7.9	12/20/2019 5:39:35 PM
SORT ORDER: Clause, Subclause, page, line			

## SECQ to TECQ).

## For task force discussion.

SORT ORDER: Clause, Subclause, page, line

C/ 140	SC 140.1	0 P 49	L <b>34</b>	# 16
Dawe, Pier	ſS	Melland	x	
Comment 7	Туре Т	Comment Status	)	Interop
betwee		or interoperation between E-LR1 and 100GBASE-FR		
Suggested	Remedy			
Even if	there are no	o special requirements, ado	I the subclause and	I say what the situation is.
Proposed F PROP	Response OSED REJE	Response Status V	v	
100GB		y have intended to say "bu that is the case, then the nents.		
C/ 151	SC 151	P 53	L1	# 8
Cole, Chris	6	II-VI		
Comment T There i	51	Comment Status <b>E</b> scriptive name for SECQ	)	SECQ naming
Suggested Replac	-	n TECQ throughout Sub-c	ause 151	
Proposed I PROP	Response OSED REJE	Response Status V	v	
is defin	ned in 121.8.	eristic of a stressed test sig 9.1 as "Stressed eye closu he standard.		e SRS of a receiver. SECQ Q)". It is used in numerous
	is a characte for PAM4 ( <sup>-</sup>	eristic of a transmitter, and FECQ)".	is defined in 151.8.	6 as "Transmitter eye
	technically or testing.	correct to say that TECQ is	the same thing as	SECQ in the context of
TYPE: TR/	technical req	uired ER/editorial required	GR/general requi	red T/technical E/editorial G

SECQ to TECQ).				C/ 151	SC 151.7.	1 P6	1 L <b>30</b>	# 9		
This was presented at the				Cole, Chris		II-VI				
http://www.ieee802.org/3/c	u/public/cu_adhoc/cu_ar	chive/cole_3cu_	adhoc_121119.pdf.	Comment		Comment Status	D	TDECQ-10logCeg		
Task force consensus is n				TDEC	Q -10log10(Ce	eq) is a problematic spe	C.	5 1		
normative as this represen optical PMD specifications	ts a substantial change to	the current me	thodology used for all	Suggested	Remedy					
		lisitivity.				log10(Ceq), Replace w	ith TECQ, values 3.0 a	nd 2.5 dB for FR4 and		
For task force discussion.					respectively					
140 SC 140.10	P <b>49</b>	L <b>34</b>	# 16	Proposed I	Response OSED REJEC	Response Status	W			
awe, Piers	Mellanox		·	PROP	USED REJEC	<b>, , , , , , , , , ,</b>				
omment Type T	Comment Status D		Interop			at the Dec 11th ad hoc				
There is guidance for inter				nttp://v	ww.ieee802.0	org/3/cu/public/cu_adho	ic/cu_archive/cole_3cu_	_adnoc_121119.pdf.		
between 100GBASE-LR1 100GBASE-FR1.	and 100GBASE-FR1, but	t not between 10	UGBASE-FR1 and			dy includes two changes				
uggestedRemedy						0log10(Ceq) for 400GB table with values for 40		24-6		
Even if there are no specia	al requirements, add the	subclause and sa	ay what the situation is.		-					
•	Response Status W		,	There is no clear consensus to remove TDECQ-10log10(Ceq).						
PROPOSED REJECT.				There is no clear consensus that adding TECQ as separate parameter is necessary.						
The commenter may have	ASE-ER1 and	Task fo	orce consensi	us is needed before ma	king these substantial c	hanges.				
100GBASE-DR". If that is				For tools for any discounting						
covers the requirements.				For tas	k force discu	ssion.				
151 SC 151	P 53	L <b>1</b>	# 8	C/ 151	SC 151.7.	1 P6	1 <i>L</i> 30	# 18		
ole, Chris	II-VI			Dawe, Pier	ſS	Mella	nox			
omment Type E	Comment Status D		SECQ naming	Comment	Type <b>TR</b>	Comment Status	D	Overshoot		
There is a more descriptive	∋ name for SECQ					1119 proposes an overs		erlooks the spec in CQ-10log10(Ceg), which		
uggestedRemedy						ainst bad signals (with				
Replace SECQ with TECC	≀ throughout Sub-clause	151		oversh	oot.			,		
oposed Response F	Response Status W			Suggested						
PROPOSED REJECT.				Find or	ut what if anyt	hing apart from the typi f the current draft spec	cal overshoot is a probl	em for receivers. E.g.		
SECQ is a characteristic o	f a strassod tost signal u	sod to tost the S	PS of a receiver SECO			n for the largest magnitu				
is defined in 121.8.9.1 as "						DECQ-10log10(Ceq) s				
places throughout the stan		, , , , , , , , , , , , , , , , , , ,		Proposed I	Response	Response Status	w			
TECQ is a characteristic o	f a transmitter. and is def	fined in 151.8.6 a	as "Transmitter eve	PROP	OSED REJEC	CT.				
closure for PAM4 (TECQ)"			· - <b>,</b> -	The su	agested reme	edy does not propose a	clear change to the dra	ft or provide evidence		
It's not technically correct	to say that TECO is the s	ame thing as SF	CQ in the context of		change is nec		sical onango to the dia			
receiver testing.										
YPE: TR/technical required E	-R/editorial required GR	/general required	T/technical F/editorial G/d	peneral			C/ 151	Page 5 of 7		
COMMENT STATUS: D/dispat					Z/withdrawn		SC 151.7.1	12/20/2019 5:39:		
ORT ORDER: Clause, Subcl	ause, page, line									

C/ 151	SC 151.7	.1 P61	L <b>32</b>	# 17	C/ 151	SC 151.7	.1 P61	L <b>32</b>	# 10	
Dawe, Pi	ers	Mellanox			Cole, Chris	3	II-VI			
	e is an entry fo	Comment Status <b>D</b> or TDECQ – TECQ, or chromatic er whether the penalty came fron			Comment Type       T       Comment Status       D       TDECQ-         There is no value for TDECQ - TECQ for FR4					
dispe	rsion? The c	onsiderations in this spec are not			Suggested Enter 2	<i>Remedy</i> 2.0dB for FR4	4			
00	dRemedy	w analia haadad ar ramaya tha	151 9 6 o	ad appapilated text	Proposed I	Response	Response Status W			
		ew spec is needed or remove the	10w, 151.o.o, ai			OSED REJE	,			
PRO The i At the repla (com The f	e November 2 cement for TE ment #7).	I changed to the draft. 019 task force meeting it was ag DECQ-SECQ for 400GBASE-LR4 to comment #7 against D1.0 at t	4-6, and to use a	a value of 2.5 dB	http://w There i chroma If the ta 400GB	/ww.ieee802. is no clear co atic dispersio ask force det	at the Dec 11th ad hoc mee org/3/cu/public/cu_adhoc/cu onsensus that adding TDECC n penalties, such as 400GB/ ermines that it is helpful to sp en consensus is also needec	_archive/cole_3cu_ Q-TECQ is necessa ASE-FR4. pecify a limit for TD	_adhoc_121119.pdf. ry for PMDs with low	
	*****				C/ 151	SC 151.7	.1 P61	L 36	# 11	
A stra Strav	•	ken and there was consensus to	make the chang	je.	Cole, Chris	3	II-VI			
A) Re	emove the TD	4-6, I would prefer to: ECQ - SECQ parameter D with 2.5dB as the value for TDI	ECO-SECO		Comment T There i	<i>Type</i> <b>T</b> is no fast cor	Comment Status D ner limit		Overshoo	
A: 9 I	3: 16	name of "TDECQ - SECQ" to "T		in Table 151-7. and	Suggested Add Tr		er/under-shoot (max) spec w	ith 12% value for bo	oth FR4 and LR4-6.	
repla	ce TBD by 2.5			- ,		NRZ test par	both transition time and new s ttern; defined for transition, c		11.2.3, 120.5.11.2.4,	
	Transmitter e	ye closure for PAM4 (TECQ):			Proposed PROP	Response	Response Status W			
Title:										

C/ 151 SC 151.7.1

C/ 151 SC 151.	7.2	P 62	L <b>29</b>	# 12		C/ 151	SC 151.8.1	0 P6	68 <i>L</i> 34	# 13				
ole, Chris		II-VI				Cole, Chris		II-VI						
omment Type <b>T</b> Equation use in s spec.		<i>mment Status</i> <b>D</b> cumbersome. Make I	Receiver Sensitiv	RS equ ity (RS) a normati		Comment T Make R LR4-6.		<i>Comment Status</i> tivity (RS) a normative	<b>D</b> e spec for both 400GB		ormative BASE-			
uggestedRemedy						SuggestedF	Romody							
	s with -4.6 a	nd -6.8 dBm value for	FR4 and I R4-6	respecitvely			e the sentence	ý.						
		51-8 with the following					0GBASE-FR4		informative and is de	fined for a transmitte	er with			
				<b>.</b>			up to 3.4 dB."							
with a value of TE	CQ up to 1.	er), each lane (max) i 4 dB. For TECQ grea מ (151-2) for 400GBA	ter than 1.4 dB, s			with: "For 40 up to 3.		, receiver sensitivity is	s defined for a transmi	tter with a value of ⊺	TECQ			
roposed Response	Res	ponse Status W				Replace	e the sentence	7.						
PROPOSED REJ	ECT.					•	0GBASE-LR4		is informative and is d	efined for a transmi	itter			
This comment pro				( 0=00			up to 3.5 dB."							
		tions (151-1) and (15 g footnote to reference				with: "Eor 40		6 receiver sensitivity	is defined for a trans	nitter with a value o	f			
SECQ > 1.4dB		•		, , ,			up to 3.5 dB."				1			
		y assumes that comm hat comment # 13 is a			ime	Poplac	a the contoner	on page 69 and laine	28.					
	,			,					s stressed receiver sen	sitivity."				
just the way the in	formation is	ot change the "Receiv presented in the tabl pvement to the draft a	e and in the draft	. It is not clear that	at the	with: "The normative requirement for receivers is receiver sensitivity and stressed receiver sensitivity and								
for other PMDs.						Proposed R		Response Status	w					
For task force dise	cussion.					PROPOSED REJECT.								
See also commer	nt #5.						mment propos ASE-FR4 and		Sensitivity (RS) a norm	ative specification f	or			
						Note: The suggested remedy assumes that comment # 8 is accepted (change the name of SECQ to TECQ).								
						This was presented at the Dec 11th ad hoc meeting in presentation: http://www.ieee802.org/3/cu/public/cu_adhoc/cu_archive/cole_3cu_adhoc_121119.pdf.								
						Task force consensus is needed before changing receiver sensitivity from informative to normative as this represents a substantial change to the current methodology used for all optical PMD specifications that include stressed sensitivity.								
								For task force discussion.						
						See als	o comment #7	7.						
	•	editorial required GR ed A/accepted R/reje	<b>o</b> .				7/withdrawn		C/ 151 SC 151.8.10	Page 7 o 12/20/20				

SORT ORDER: Clause, Subclause, page, line