C/ 1	SC	1.3	P 31	L 14	# 233	C/ 120G	SC 1	20G.3.2	P <b>224</b>	L <b>30</b>	# 211
Dawe, P	liers		Nvidia			Ghiasi, Ali			Ghiasi Qu	uantum/Inphi	
Commer	nt Type	Е	Comment Status D		bucket7 CR MDI	Comment Ty	/pe	TR	Comment Status D		bucket7 C
Ther	re is no n	nention of	f QSFP-DD800 in the documer	nt		The refe	rence	4T equal	izer given that TP4 near	end and far end are	e measured with near
SuggestedRemedy					ideal MC	CB vs I	host chan	nels with via, need to co	onsider impairment o	due to long barrel vias.	
Use	it (explai	ining the r	relationship between QSFP-DD	and QSFP-D	D800) or remove it.	SuggestedR	emedy	У			
Alter will b	rnatively, pe update	say in the	e editor's note that the reference se documents evolve.	es for QSFP-I	DD and QSFP-DD800	ghiasi_0 method	2_062 may re	20 investig esult varia	pates use of C0/C1 as in ation in the measuremen	the CR methodologit due to interference	y as one option, this e but perhaps a better
Propose	d Respo	nse	Response Status W			method	is to ir r end	is increase e	ta_0 from 4.1E-8 to account sho	ount for the board in	ipairments. Eta_0 at
PRC	POSED	ACCEPT	IN PRINCIPLE.			far end i	ncreas	sed by 2x	from 4.1E-8. The contri	ibution show that in	creasing eta_0 is a
Dee		a tha raa	a = a = a = a = a = a = a = a = a = a =			viable of	otion.	The 3rd o	option is just keep eta_0	at 4.1 E-8 without (	C0/C1 but instead
Reso	oive usin	g the resp	ponse to comment #232.			on VEQ	/EC al /VFC \	nd increa: with eta (	se VEO. 1st option - inc )=4.1F-8. 3rd option - ad	rease eta_0, 2nd o Id C0/C1.	otion - tighten the limit
C/ 1	SC	1.3	P 31	L 16	# 234	Proposed R	espons	se	Response Status W		
Dawe, P	liers		Nvidia								
Commer	nt Type	ER	Comment Status D		bucket7 CR MDI		OLD /				
In th	e standa	rds world	, there is no such thing as SFP	112, and I am	not aware that there	Resolve	using	the respo	onse to comment #212.		
will t Com	pe a spec nmittee (r	cification (	of that name. SFP specification of SNIA), and are mostly independent of the second s	ns are publish endent of oper	ed by the SFF rating speed.	C/ 120g	SC 1	20g.3.3.2	2 P <b>227</b>	L <b>49</b>	# 196
Suggest	edReme	dv				Ghiasi, Ali			Ghiasi Qu	uantum/Inphi	
Dele 8432	Delete "SFP112", add the relevant SFF specification(s): some of SFF-8432 SFF-8071 SFF- 8432 SFF-8433 SFF-8431 SFF-8419 SFF-8472 REF-TA-1011 SFF-8402 (take advice from			Comment Ty Host stre	/pe ess fai	TR r end eye	Comment Status D height is TBD		bucket7 C		
the S	SFF com	mittee for	r which).			SuggestedR	emedy	y			
Propose	d Respo	nse	Response Status W			Far end	EH=2	0 mV, see	e ghiasi_3ck_02_0620		
PRC	POSED	ACCEPT	IN PRINCIPLE.			Proposed Re PROPO	espons SED A	se ACCEPT I	Response Status W		
Res	olve usin	g the resp	ponse to comment #232.			1.1.01.0					

Resolve using the response to comment #115.

C/ 120g SC 120g.3.3.2 bucket7 C2M

bucket7 C2M

CI 1200       SC 120G.3.2       P227       L 50       # 16         Hidaka, Yasuu       Credo Semiconductor       Intel         Comment Type       T       Comment Status D       bucket7 C2M         VEC of host stressed input test is not specified.       SuggestedRemedy       T       Comment Status D       bucket7 C2M         To table 1206-5, add a row of "Far-end vertical eye closure (max)" with a value of 7.0dB.       Proposed Response Status W       PROPOSED ACCEPT IN PRINCIPLE.       The method in 120G.5.2 describes a "reference receiver" using COM method (references to 33A) and parameters in a table. It is perhaps suitable for analyzing a directly measured signal (near-end), but does not method anytoing about far-end.         PROPOSED ACCEPT IN PRINCIPLE.       In comparison, the reference receiver for 50G C2M is defined in 120E.3.2.1.1, and for the far-end eyes height that represents the work case channel io anyting about far-end.         Proposed Response Status W       Proposed Response Status W       Proposed Response Status W         PROPOSED ACCEPT IN PRINCIPLE.       In comparison, the reference receiver for 50G C2M is defined in 120E.3.2.1.1, and for the far-end eyes latent the sound with a loss channel is the host trace defined in 22.10.7.1.1 with 2p = 151         Proposed Response Status W       Proposed Response Status W       Proposed Response Status W         Proposed Response Status W       Proposed Response Status W       Proposed Response Status W         Proposed Response Status SU       <	-					-					
Hidaka, Yasuo       Credo Semiconductor       Ran, Adee       Intel         Comment Tyrge       T       Comment Status       D       bucket7 C2M         VEC of host stressed input test is not specified.       Suggested/Remady       To table 120G-5, add a row of "Far-end vertical eye closure (max)" with a value of 7.5dB and a row of "Far-end vertical eye closure (mix)" with a value of 7.5dB and a row of "Far-end vertical eye closure (mix)" with a value of 7.5dB and a row of tar-end vertical eye closure (mix)" with a value of 7.5dB and a row of tar-end vertical eye closure (mix)" with a value of 7.5dB and row of tar-end eye height and vertical eye closure of rouge (response)       The method in 120G.5.2 describes a "reference receiver" using COM method (references is 03A) and parameters in a table. It is perhaps suitable for analyzing a directly measured signal (rear-end), but does not method anything about far-end.         PROPOSED ACCEPT IN PRINCIPLE.       Resolve using the response to comment #197.       The signal measured at TP4 is first convolved with a loss channel (s6A dB loss at far-end) measurement it includes a loss channel loss. The loss channel is the host trace defined in 32 (10.1.1.1.1.Wh Z) = 151 m.         In order to define far-end measurements, some loss channel is the host trace defined in 32 (sugdated from the one in clause 32 (referenced tyc) and result exerces. The loss data result is the one size of creterices. The loss data result is the one size of creterices are in 68 dloss at 26.56 GHz. Calculation yields 407 mm.         Suggested/Remady       In order to define far-end measurements, some loss channel in the processes by the reference receiver. The loss channel is the loss channel in the proceses. The loss data	C/ 120G	SC 120G.3.3.	2 P 227	L <b>50</b>	# 116	C/ 120G	SC 120G.	3.3.2.1	P 229	L 15	# 228
Comment Type       T	Hidaka, Y	'asuo	Credo Sem	iconductor		Ran, Adee			Intel		
VEC of host stressed input test is not specified.         SuggestedRemedy         To table 120-65, add a row of "Far-end vertical eye closure (max)" with a value of 7.5dB and a row of "Far-end vertical eye closure (min)" with a value of 7.5dB and a row of "Far-end vertical eye closure (min)" with a value of 7.5dB and a row of "Far-end vertical eye closure (max)" with a value of 7.5dB and a row of "Far-end vertical eye closure (min)" with a value of 7.5dB and a row of "Far-end vertical eye closure (max)" with a value of 7.5dB and a row of "Far-end vertical eye closure (max)" with a value of 7.5dB and a row of "Far-end vertical eye closure (min)" with a value of 7.5dB and a row of "Far-end vertical eye closure (max)" with a value of 7.5dB and a row of "Far-end vertical eye closure (max)" with a value of 7.5dB and a row of "Far-end vertical eye closure are measured at TP4 is first convolved with a loss channel is the value of 7.5dB and response to comment #197.         PROPOSED ACCEPT IN PRINCIPLE.       In comparison, the reference receiver for 50G C2M is defined in 120E.3.2.1.1, and for the far-end measurement it includes a loss channel.         "The signal measured at TP4 is first convolved with a loss channel is the host trace defined in 92.10.7.1.1 with Zp = 151 mm."       In order to define far-end measurements, some loss channel is the host trace defined in 92.10.7.1.1 with Zp = 151 mm."         In order to define far-end measurements, some loss channel is the host trace defined in 92.10.7.1.1 with Zp = 161 mm."       In order to define far-end measurements, so the suggested remedy is to continue using a computational channel.         The host channel model in clause 162 is updated from the one in clause 92 (referenced by 102E) to include more capacitances and different tos parameters. The length	Comment	Туре Т	Comment Status D		bucket7 C2M	Comment 7	<i>уре</i> <b>т</b>	Comm	nent Status D		bucket7 C2M
SuggestedRemedy       1206-5, add a row of "Far-end vertical eye closure (max)" with a value of 7.0dB.         Proposed Response       Response Status W         PROPOSED ACCEPT IN PRINCIPLE.       The method in 1206.5.2 describes a "reference receiver" using COM method (references signal (near-end), but does not mention anything about far-end.         In comparison, the reference receiver for 50G C2M is defined in 120E.3.2.1.1, and for the far-end measurement in tinckudes a loss channel (-6.4 dB loss at Nyquist) that represents the worst case channel loss. The loss channel is the host trace defined in 92.10.7.1.1 with Zp = 151 mm."         In order to define far-end measurements, some loss channel in the measurement (as done e.g. in the CR receiver test). However, changing the method in 120E.5.2 with the following text:         Proposed Response Case and different loss parameters. The length should be set to create a 16 dB loss at 26.56 GHz. Calculation yields 407 mm.         SuggestedRemedy         "The state a red measurements, the signal measurements. The length should be set to create a 16 dB loss at 26.56 GHz. Calculation yields 407 mm.         SuggestedRemedy         Add a paragraph after the existing one in 120E.5.2 with the following text:         For the far-end measurements, the signal measured at TP4 is first convolved with a loss channel is the should be set to create a 16 dB loss at 26.56 GHz. Calculation yields 407 mm.         SuggestedRemedy       In order to define far-end measurements, the signal measured at TP4 is first convolved with a loss channel is the stot or continue using a computational channel.         The method	VEC o	of host stressed ir	put test is not specified.			"The fa	r-end eye he	ight and vert	ical eye closure ar	e measured acco	ording to the method in
To table 120C-5; add a row of "Far-end vertical eye closure (max)" with a value of 7.0dB. Proposed Response Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Resolve using the response to comment #197. The method in 120C.5.2 describes a "reference receiver" using COM method (references is 0.8) And parameters in a table. it is perhaps suitable for analyzing a directly measured signal (near-end), but does not mention anything about far-end. In comparison, the reference receiver for 50G C2M is defined in 120E.3.2.1.1, and for the far-end measurement it includes a loss channel (-6.4 dB loss at Nyquist) that represents the worst case channel loss. The loss channel is the host trace defined in 92.10.7.1.1 with Zp = 151 mm.' In order to define far-end measurements, some loss channel is the host trace defined in 92.10.7.1.1 with Zp = 151 mm.' In order to define far-end measurements, so the consensus, so the suggested remedy is to continue using a computational channel. The signal model in clause 32.66 CFL. Calculation yields 407 mm. Suggested Remedy Add a paragraph after the existing one in 120G.5.2 with the following text: Proposed Response Table 32.06 CFL. Calculation yields 407 mm. Proposed Response Response to comment #130.	Suggeste	dRemedy				120G.5	.2"				
Proposed Response       Response Status W         PROPOSED ACCEPT IN PRINCIPLE.       In comparison, the reference receiver for 50G C2M is defined in 120E.3.2.1.1, and for the far-end measurement it includes a loss channel.         Resolve using the response to comment #197.       "The signal measured at TP4 is first convolved with a loss channel (-6.4 dB loss at Nyquist) that represents the worst case channel loss. The loss channel is the host trace defined in 92.10.7.1.1 with Zp = 151 mm."         In order to define far-end measurements, some loss channel has to be included.       Using a convolution may not capture possible effects of reflections from that channel towards the HCBMCB. It would be preferable to include a physical loss channel in the measurement (as done e.g. in the CR receiver test, see 110.8.4.2.2.). However, changing the methodology from 120E may require more consensus, so the suggested remedy is to continue using a computational channel.         SuggestedRemedy       Add a paragraph after the existing one in 120G.5.2 with the following text:         For the far-end measurements, the signal measured at TP4 is first convolved with a loss channel in the reference receiver. The loss channel is the host trace defined in 162.11.7.1 with Zp = 407 mm.         SuggestedRemedy       Add a paragraph after the existing one in 120G.5.2 with the following text:         For the far-end measurements, the signal measured at TP4 is first convolved with a loss channel is the host trace defined in 162.11.7.1 with Zp = 407 mm.         SuggestedRemedy       Add a paragraph after the existing one in 120G.5.2 with the following text:         For the far-end measurements, the signal measured a	To tat and a	ble 120G-5, add a row of "Far-end v	row of "Far-end vertical ey vertical eye closure (min)" v	ve closure (max)" vith a value of 7.0	with a value of 7.5dB dB.	The method in 120G.5.2 describes a "reference receiver" using COM method (references to 93A) and parameters in a table. it is perhaps suitable for analyzing a directly measured					
PROPOSED ACCEPT IN PRINCIPLE.       In comparison, the reference receiver for 50G C2M is defined in 120E.3.2.1.1, and for the far-end measurement it includes a loss channel:         Resolve using the response to comment #197.       "The signal measurement it includes a loss channel ioss. The loss channel is the host trace defined in 92.10.7.1.1 with Zp = 151 mm."         In order to define far-end measurements, some loss channel has to be included.       Using a convolution may not capture possible effects of reflections from that channel in the measurement (as done e.g. in the CR receiver test, see 110.8.4.2.2). However, changing the methodology from 120E may require more consensus, so the suggested remedy is to centinue using a computational channel.         SuggestedRemedy       Add a paragraph after the existing one in 120G.5.2 with the following text:         For the far-end measurement, the signal measurements, the signal measurement is the host trace defined in 120.1.7.1 with Zp = 407 mm.         Proposed Response       Response Status         W       PROPOSED ACCEPT IN PRINCIPLE.         Resolve using the response to comment #130.	Proposed Response Response Status W					signal (	near-end), b	ut does not n	nention anything a	bout far-end.	
Resolve using the response to comment #197.       far-end measurement it includes a loss channel:         The signal measured at TP4 is first convolved with a loss channel (-6.4 dB loss at Nyquist) that represents the worst case channel loss. The loss channel is the host trace defined in 20.7.1.1 with 2p = 151 mm."         In order to define far-end measurements, some loss channel has to be included.         Using a convolution may not capture possible effects of reflections from that channel towards the HCB/MCB. It would be preferable to include a physical loss channel in the measurement (as done e.g. in the CR receiver test, see 110.8.4.2.2). However, changing the methodology from 120E may require more consensus, so the suggested remedy is to continue using a computational channel.         Suggested/Remedy         Add a paragraph after the existing one in 120G.5.2 with the following text:         For the far-end measurements, the signal measured at TP4 is first convolved with a loss channel in 162.11.7.1 with 2p = 407 mm.         Proposed Response       Response Status W         PROPOSED ACCEPT IN PRINCIPLE.         Resolve using the response to comment #130.	PROF	POSED ACCEPT	IN PRINCIPLE.			In com	parison, the i	eference rec	eiver for 50G C2N	1 is defined in 12	0E.3.2.1.1, and for the
<ul> <li>"The signal measured at TP4 is first convolved with a loss channel (-6.4 dB loss at Nyquist) that represents the worst case channel loss. The loss channel is the host trace defined in 92.10.7.1.1 with Zp = 151 mm."</li> <li>In order to define far-end measurements, some loss channel has to be included.</li> <li>Using a convolution may not capture possible effects of reflections from that channel towards the HCB/MCB. It would be preferable to include a physical loss channel in the measurement (as done e.g. in the CR receiver test, see 110.8.4.2.2). However, changing the methodology from 120E may require more consensus, so the suggested remedy is to continue using a computational channel.</li> <li>The host channel model in clause 162 is updated from the one in clause 92 (referenced by 120E) to include more capacitances and different loss parameters. The length should be set to create a 16 dB loss at 26.56 GHz. Calculation yields 407 mm.</li> <li>Suggested/Remedy</li> <li>Add a paragraph after the existing one in 120G.5.2 with the following text:</li> <li>For the far-end measurements, the signal measured at TP4 is first convolved with a loss channel it trapersents the maximum host board loss, and then processed by the reference receiver. The loss channel is the host trace defined in 162.11.7.1 with Zp = 407 mm.</li> <li>Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.</li> <li>Resolve using the response to comment #130.</li> </ul>	Resol	lve using the resp	onse to comment #197			far-end	measureme	nt it includes	a loss channel:		
In order to define far-end measurements, some loss channel has to be included. Using a convolution may not capture possible effects of reflections from that channel towards the HCB/MCB. It would be preferable to include a physical loss channel in the measurement (as done e.g. in the CR receiver test, see 110.8.4.2.2). However, changing the methodology from 120E may require more consensus, so the suggested remedy is to continue using a computational channel. The host channel model in clause 162 is updated from the one in clause 92 (referenced by 120E) to include more capacitances and different loss parameters. The length should be set to create a 16 dB loss at 26.56 GHz. Calculation yields 407 mm. SuggestedRemedy Add a paragraph after the existing one in 120G.5.2 with the following text: For the far-end measurements, the signal measured at TP4 is first convolved with a loss channel that represents the maximum host board loss, and then processed by the reference reciver. The loss channel in 162.11.7.1 with Zp = 407 mm. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Resolve using the response to comment #130.						"The si Nyquis defined	gnal measur ) that repres in 92.10.7.1	ed at TP4 is ents the wors .1 with Zp =	first convolved with st case channel los 151 mm."	n a loss channel ss. The loss char	(~6.4 dB loss at nnel is the host trace
Using a convolution may not capture possible effects of reflections from that channel towards the HCB/MCB. It would be preferable to include a physical loss channel in the measurement (as done e.g. in the CR receiver test, see 110.8.4.2.2). However, changing the methodology from 120E may require more consensus, so the suggested remedy is to continue using a computational channel. The host channel model in clause 162 is updated from the one in clause 92 (referenced by 120E) to include more capacitances and different loss parameters. The length should be set to create a 16 dB loss at 26.56 GHz. Calculation yields 407 mm. SuggestedRemedy Add a paragraph after the existing one in 120G.5.2 with the following text: For the far-end measurements, the signal measured at TP4 is first convolved with a loss channel that represents the maximum host board loss, and then processed by the reference receiver. The loss channel is the host trace defined in 162.11.7.1 with Zp = 407 mm. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Resolve using the response to comment #130.						In orde	r to define fa	r-end measu	rements, some los	s channel has to	be included.
The host channel model in clause 162 is updated from the one in clause 92 (referenced by 120E) to include more capacitances and different loss parameters. The length should be set to create a 16 dB loss at 26.56 GHz. Calculation yields 407 mm.         SuggestedRemedy         Add a paragraph after the existing one in 120G.5.2 with the following text:         For the far-end measurements, the signal measured at TP4 is first convolved with a loss channel that represents the maximum host board loss, and then processed by the reference receiver. The loss channel is the host trace defined in 162.11.7.1 with Zp = 407 mm.         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Resolve using the response to comment #130.						Using a towards measu the me continu	t convolution the HCB/M rement (as d hodology fro e using a co	may not cap CB. It would one e.g. in th m 120E may mputational o	oture possible effect be preferable to in ne CR receiver test / require more con channel.	cts of reflections clude a physical t, see 110.8.4.2.2 sensus, so the s	from that channel loss channel in the 2). However, changing uggested remedy is to
SuggestedRemedy         Add a paragraph after the existing one in 120G.5.2 with the following text:         For the far-end measurements, the signal measured at TP4 is first convolved with a loss channel that represents the maximum host board loss, and then processed by the reference receiver. The loss channel is the host trace defined in 162.11.7.1 with Zp = 407 mm.         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Resolve using the response to comment #130.						The ho 120E) t set to c	st channel m o include mo reate a 16 d	odel in claus pre capacitan 3 loss at 26.9	e 162 is updated f ices and different l 56 GHz. Calculatio	rom the one in cl oss parameters. on yields 407 mm	ause 92 (referenced by The length should be
Add a paragraph after the existing one in 120G.5.2 with the following text:         For the far-end measurements, the signal measured at TP4 is first convolved with a loss channel that represents the maximum host board loss, and then processed by the reference receiver. The loss channel is the host trace defined in 162.11.7.1 with Zp = 407 mm.         Proposed Response       Response Status       W         PROPOSED ACCEPT IN PRINCIPLE.       Resolve using the response to comment #130.						Suggestedl	Remedy				
For the far-end measurements, the signal measured at TP4 is first convolved with a loss channel that represents the maximum host board loss, and then processed by the reference receiver. The loss channel is the host trace defined in 162.11.7.1 with Zp = 407 mm. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Resolve using the response to comment #130.						Add a p	oaragraph aft	er the existin	ng one in 120G.5.2	with the followin	g text:
Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE. Resolve using the response to comment #130.						For the channe referen mm.	far-end mea I that represe ce receiver.	surements, t ents the max The loss cha	the signal measure imum host board le nnel is the host tra	ed at TP4 is first o oss, and then pro ace defined in 162	convolved with a loss ocessed by the 2.11.7.1 with Zp = 407
PROPOSED ACCEPT IN PRINCIPLE. Resolve using the response to comment #130.						Proposed F	Response	Respor	nse Status 🛛 🛛 🛛 🛛 🛛 🖤		
Resolve using the response to comment #130.						PROPO	DSED ACCE	PT IN PRINC	CIPLE.		
						Resolv	e using the r	esponse to c	omment #130.		

C/ 120G SC 120G.3.3.2.1 C/ 120G SC 120G.4.2 P 235 L17 # 240 C/ 120G SC 120G.5.2 P 235 L 21 # 120 Dawe, Piers Nvidia Hidaka, Yasuo Credo Semiconductor TR Comment Status D Comment Type bucket7 C2M Comment Type TR Comment Status D bucket7 C2M Here are the combinations of gDC and gDC2 which I thought we had agreed on a Range of gDC2 for TP4 near-end is TBD. conference call after a good discussion - but it turns out we adopted the TP1a limits only. See hidaka 3ck 01 0720, slide 8. SuggestedRemedy SuggestedRemedy TP4 near end: Specify gDC2 range for TP4 near-end as min -2.0, max 0.0, step 0.5. qDC2 | qDC Proposed Response Response Status W 0: | -2 to -4 -1: | -2 to -5 PROPOSED ACCEPT IN PRINCIPLE. -2: | -4 to -5 -3: | (none) Resolve using the response to comment #201. TP4 far end: C/ 120G SC 120G.5.2 P 235 L 25 # 121 gDC2 | gDC 0: | -2 to -4 Hidaka, Yasuo Credo Semiconductor -1: | -2 to -7 Comment Type TR Comment Status D bucket7 C2M -2: | -4 to -10 -3: 1-8 to -10 Range of gDC for TP4 far-end is TBD. See hidaka 3ck 01 0720, slide 8. Proposed Response Response Status W SuggestedRemedv PROPOSED ACCEPT IN PRINCIPLE. Specify gDC range for TP4 far-end as min -9.0, max -3.0, step 1.0. Resolve using the responses to comments #201 and #202. Proposed Response Response Status W C/ 120G SC 120G.5.2 P 235 L17 # 119 PROPOSED ACCEPT IN PRINCIPLE. Hidaka, Yasuo Credo Semiconductor Resolve using the response to comment #202. Comment Status D bucket7 C2M Comment Type TR C/ 120G SC 120G.5.2 P 235 L 29 # 122 Range of gDC for TP4 near-end is TBD. See hidaka\_3ck\_01\_0720, slide 8. Credo Semiconductor Hidaka, Yasuo SuggestedRemedy Comment Type TR Comment Status D bucket7 C2M Specify gDC range for TP4 near-end as min -5.0, max -3.0, step 1.0. Range of gDC2 for TP4 far-end is TBD. See hidaka\_3ck\_01\_0720, slide 8. Proposed Response Response Status W SuggestedRemedy PROPOSED ACCEPT IN PRINCIPLE. Specify gDC2 range for TP4 far-end as min -3.0, max -1.5, step 0.5. Resolve using the response to comment #201. Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.

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Resolve using the response to comment #202.

C/ 120G SC 120G.5.2

C/ 162 SC 162.9.3		P 148 L 28		L 28	# 137
Ran, Adee		Intel			
Comment Typ	be T	Comment Status	D		bucket7 CR

(cross-clause comment)

Tx common mode to differential mode return loss is currently TBD.

The current reference is to 92.8.3.3 equation 92-2, where the equation for the minimum loss creates a piecewise linear function, with 22 dB at DC, 12 dB at the Nyquist frequency (12.89 GHz), and ~10.5 dB at 19 GHz. This limits the conversion to/from common mode quite well.

There is another C-D RL specification in this draft, in 120F.3.2.2 (Rx specifications), which is based on frequency scaling of the similar specification in clause 93 (equation 93-5 - per the adopted baseline). Equation 93-5 creates a tighter spec than equation 92-2 (except in a small band around 7 GHz) even though mode conversion should be easier to control in KR/C2C channels.

Clause 163 Rx specification refers to 93.8.1.4 - which is a Tx specification and does not include C-D RL at all (obvious error).

It is not clear why C2C, CR, and KR should have different specifications for C-D RL. If there is, it should be explained (informative NOTE would probably help).

The suggested remedy based on frequency scaling of equation 92-2 (which is equivalent to equation 120G-1, but uses f\_N as a parameter to simplify the text).

Alternatively, 120F.3.2.2 can be used for all three Rx specifications.

This specification should be in a new subclause that other specifications can refer to. It should also provide some justification to the specification.

## SuggestedRemedy

Add a subclause 162.9.3.1.5 with content:

162.9.3.5 PMD Common-mode to differential return loss

Common-mode signal can be generated in the channel by conversion of a differential signal. Common-mode signal propagating from the channel into the transmitter or the receiver can be converted back to a differential signal and result in differential noise propagating toward the receiver. To limit this effect, a minimum common-mode to common-mode return loss is required.

The common-mode to differential mode output return loss of the transmitter shall meet Equation (162–new).

$$\label{eq:cdr} \begin{split} & \text{CDRL}(f) \geq \\ & 22\text{-}10^* \text{f}/f\_N, \ 0.01 \leq f \leq f\_N \\ & 15\text{-}3^* \text{f}/f\_N, \ f\_N < f < 40 \\ & \text{Where} \\ & f\_N=26.5625 \text{ is the Nyquist frequency in GHz} \end{split}$$

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

f is the frequency in GHz

CDRL(f) is the common-mode to differential return loss in dB at frequency f

Refer to the new subclause in Rx specifications: Table 162–12, Table 163–7 , and Table 120F-3.

Proposed Response Response Status W PROPOSED REJECT.

There is no consensus to change the RLCD specification at this time.

See the response to comment #138.

C/ 162	SC 162.11.7.2	P 163	L <b>32</b>	#	251
Dawe, Piers		Nvidia			
Comment Ty	pe ER	Comment Status D		bu	ıcket7 CR MDI

In the standards world, there is no such thing as SFP112, and I am not aware that there will be a specification of that name. SFP specifications are published by the SFF Committee (now part of SNIA), and are mostly independent of operating speed.

## SuggestedRemedy

Change to "SFP28" which is what 802.3cd uses but the indication of a slower signalling rate in the name may cause confusion, or "SFP+" which is more generic.

Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #232.

C/ 162	SC 162.11.7.2	P 1	63	L 32	# 252
Dawe, Piers	6	Nvidia	а		
Comment T	ype ER	Comment Status	D		bucket7 CR MDI
SFP112	2-DD is not its cor	rect name			

SuggestedRemedy

Change to SFP-DD (as in subclause 1.3) throughout the document.

Proposed Response Response Status W PROPOSED ACCEPT IN PRINCIPLE.

Resolve using the response to comment #232.

Cl	162
SC	162.11.7.2

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C/ 162	SC 162.11.7	7.2 <i>P</i> 163	L <b>32</b>	# 253	C/ 162B	SC 162B.1	P 24	47 L1	<b>1</b> # <u>180</u>
Dawe, Pie	rs	Nvidia			DiMinico, (	Christopher	MC C	ommunications	
Comment	Type ER	Comment Status D		bucket7 CR MDI	Comment	Type <b>TR</b>	Comment Status	D	bucket7
In the	standards world	, there is no such thing a	as QSFP112, and no	expectation that there	Propos	als for 162B.1	Mated Test Fixtures sp	pecification TBDs	3
will be Comm	a specification of hittee (now part of	of that name. QSFP spe of SNIA), and are mostly	cifications are publis	hed by the SFF ating speed.	Suggested	Remedy			
Suggested Chang rate in the lat Proposed PROP	Remedy je to "QSFP28" the name may est SFF-8679. <i>Response</i> OSED ACCEPT	which is what 802.3cd us cause confusion, or "QS <i>Response Status</i> <b>W</b> IN PRINCIPLE.	ses but the indication FP+" which is more g	of a slower signalling generic and in line with	Specifi - 162B loss FC - 162B - 162B conver - 162B noise	cations for TBD 1.3.1 Mated tes DMILD 1.3.2 Mated tes 1.3.3 Mated tes sion insertion lo 1.3.6 Mated tes	s; st fixtures differential ir st fixtures differential re st fixtures common-mo ss st fixtures integrated ci	nsertion eturn loss ode rosstalk	
Resol	ve using the resp	ponse to comment #232			See di	minico_3ck_01_	_0720.pdf		
C/ 162	SC 162.11.7	.2 P 163	L <b>32</b>	# 254	Proposed I	Response	Response Status	w	
Dawe, Pie	rs	Nvidia			PROP	OSED ACCEPT	IN PRINCIPLE.		
Comment QSFP	<i>Type</i> <b>ER</b> 112-DD is not its	Comment Status D s correct name		bucket7 CR MDI	The fol http://w	lowing presenta ww.ieee802.org	tion was reviewed at a g/3/ck/public/adhoc/jur	a previous ad ho 10_20/haser_3d	c meeting: ck_adhoc_01c_062420.pdf
Suggested Chang Twice Proposed	IRemedy je to QSFP-DD a in Table 162-18 Response	and/or QSFP-DD800 (as , three times in 162.12, s Response Status	s in subclause 1.3) thi several times in 162C I	roughout the document. c and 162D.	There For M1 #92, #8	was no consens F RLDD, CM co 36, #88.	sus to address the valu	ue for MTF FOM	_ILD at this time. the responses to comments
PROP	, OSED ACCEPT	IN PRINCIPLE.			C/ 162B	SC 162B.1.3	.1 P 24	19 L 4	1 # 82
Resol	e using the resu	oonse to comment #232			Haser, Ale	x	Molex	[	
1,0001					Comment <sup>*</sup> Freque	<i>Type</i> <b>TR</b> ncy range is no	Comment Status t practical for measure	<b>D</b> ed data	buc
					Suggested Chang 162B-3	Remedy e to 0.05 GHz ≤	f ≤ 40 GHz (see hase	er_3ck_adhoc_01	1b_061020) & update Figure
					Proposed I	Response	Response Status	w	
					PROP	DSED REJECT			
					The fol http://w	lowing presenta ww.ieee802.org	tion was reviewed at a ŋ/3/ck/public/adhoc/jur	a previous ad ho 10_20/haser_3d	c meeting: x_adhoc_01c_062420.pdf
					Resolv	e using the resp	oonse to comment #91	1.	

C/ 162B SC 162B.1.3.1 bucket7

bucket7 CR

Cl 162B SC 162B.1.3.6 P 254 L 13 # 93	Cl 162B SC 162B.1.3.6 P 254 L 21 # 95
Haser, Alex Molex	Haser, Alex Molex
Comment Type T Comment Status D bucket7 CR ICN	Comment Type T Comment Status D bucket7 CR ICN
Fill in TBD for T_ft	Fill in TBD for MDNEXT ICN limit
SuggestedRemedy	SuggestedRemedy
Set T_ft to 6.16 ps (see haser_3ck_adhoc_01b_061020)	Use same limit as 802.3cd; 1.5 mV (see haser_3ck_adhoc_01b_061020)
Proposed Response Response Status W	Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.	PROPOSED ACCEPT IN PRINCIPLE.
The following presentation was reviewed at a previous ad hoc meeting: http://www.ieee802.org/3/ck/public/adhoc/jun10_20/haser_3ck_adhoc_01c_062420.pdf	The following presentation was reviewed at a previous ad hoc meeting: http://www.ieee802.org/3/ck/public/adhoc/jun10_20/haser_3ck_adhoc_01c_062420.pdf
Resolve using the response to comment #92.	Resolve using the response to comment #92.
C/ 162B SC 162B.1.3.6 P 254 L 20 # 94	C/ 162B SC 162B.1.3.6 P 254 L 23 # 96
Haser, Alex Molex	Haser, Alex Molex
Comment Type         T         Comment Status         D         bucket7 CR ICN           Fill in TBD for MDFEXT ICN limit	Comment Type T Comment Status D bucket7 CR ICN Fill in TBD for Total ICN limit
SuggestedRemedy	SuggestedRemedy
Use same limit as 802.3cd; 4.2 mV (see haser_3ck_adhoc_01b_061020)	Use same limit as 802.3cd; 4.4 mV (see haser_3ck_adhoc_01b_061020)
Proposed Response Response Status W	Proposed Response Response Status W
PROPOSED ACCEPT IN PRINCIPLE.	PROPOSED ACCEPT IN PRINCIPLE.
The following presentation was reviewed at a previous ad hoc meeting: http://www.ieee802.org/3/ck/public/adhoc/jun10_20/haser_3ck_adhoc_01c_062420.pdf	The following presentation was reviewed at a previous ad hoc meeting: http://www.ieee802.org/3/ck/public/adhoc/jun10_20/haser_3ck_adhoc_01c_062420.pdf
Resolve using the response to comment #92.	Resolve using the response to comment #92.

C/ 162B SC 162B.1.3.6