-														
C/ 0 S Berger, Cather	SC 0 rine	Р	L	# <u>r</u> 04-1	C/ 120D Hidaka, Ya	SC 12	0D.3.2.1		P 359 Fujitsu Labor	L 53 atories of	# <u>r</u> 04-3			
Comment Type	e G	Comment Status X			Comment 1	vne T	-	Comment	Status X					
This draft	meets all edit	torial requirements.			It savs	"higher a	mplitude	values". but	t 93C.2 step 8	does not define	higher amplitude			
SuggestedRer	nedy				values. We sho	The term ould be m	amplitu ore spec	ude" is misle ific which va	eading, becaus ariable is refer	se it often implicated here.	ates signal amplitude.			
					Suggested	Remedy								
Proposed Response Response Status O						Change "If higher amplitude values are used" to "If a higher value of the channel noise voltage sigma bnm is used".								
C/ 122 S	SC 122.6	P 248	L	# r04-2	Proposed F	Response		Response S	Status O	_				
Burrell, Gary		Elenion Te	chnologies											
Comment Type	e T	Comment Status X			. <u> </u>									
IEEE 803.	3.bs in Table	122-5 follows the CWDM	wavelength grid	defined in ITU-T G.694.2	C/ 120E	SC 12	0E.3.1.7		P 374	L 14	# r04-4			
and allows	s 13 nm wave	length variation within each	ch channel. Nothi	ng is said in the 802.3.bs	Hidaka, Ya	SUO			Fujitsu Labor	atories of				
random va	characteristic	is of this variation, leading	the reader to ass	sume that all of 13 nm is	Comment 7	<i>уре</i> Т	-	Comment	Status X					
As mention	ned in ITU-T 1.Laser varia 2.Uncooled la	G.694.2 wavelength varia tions around a nominal wa	tions have two ma avelength due to a a result of tempera	ain components: manufacture tolerances ature changes	In the r signific the nur other ro	ow of 4dE ant digit le nerical va ows.	3 peaking ess than llues are	g, the colum the other ro same, it sho	in of Z1/2pi has ows. The origin ould have the s	s the value of "7 al proposal was same number of	5.58765", that is one "7.587650". Although f sigificiant digit as the			
		J		<u>j</u>	Suggested	Remedy								
G.694.2 fu	G.694.2 further states OSpecific values and allocations of this variation will be defined in					e "7.5876	5" to "7.5	87650".						
	applications.c		not currently dem		Proposed P	Response		Resnonse S	Status O					
Therefore, random va to be simil	, it would be u ariation of the lar for all of th	useful to specify what port laser wavelength and whi le four channel lasers.	ion of the 13 nm i ich portion the va	s due to manufacturing riation can be expected										
Not specify expensive	ying this coul than otherwis	d result in requiring a Rec se required.	eiever design that	is more complex and										
See prese	ntation													
SuggestedRen	nedy													
Propose the and the wa	he random wa avelength var	avelength channel to chan iation due to temperature	nnel variation shal shifts shall be les	l be less than +/- 3nm is than +/- 3.5 nm										
This result No change ITU alread	ts in the same e in the Wave dy specifies th	e (total) Wavelength range elength grid or (overall) tole nat this allocation will be d	e as show in Table erance from ITU (efined in individua	e 122-5 G.694.2 al applications										
Proposed Res	ponse	Response Status O												
TYPE: TR/tech	nnical require	d ER/editorial required G	GR/general require	ed T/technical E/editorial G	G/general				Comm	ent ID r04-4	Page 1 of 4			

C/ 120ESC 120E.3.1.7P 374L 5# r04-5Hidaka, YasuoFujitsu Laboratories of	C/ 122 SC 122.7.1 P 251 L 48 # [r04-7] Hidaka, Yasuo Fujitsu Laboratories of							
Comment Type E Comment Status X In 2014 IEEE-SA Standards Style Manual, 13.3.2 Numerical values, it is written as "Digits should be separated into groups of three, counting from the decimal point towards the left and right. The groups should be separated by a space, and not a comma, period, or dash." and "In numbers of four digits, the space is not necessary, unless four-digit numbers are grouped in a column with number of five digits or more." The columns of G and Z1/2pi are not following this style. The column of P1/2pi is OK.	Comment Type T Comment Status X In the footnote a of Table 122-10, it says "the total average launch power limit has to be met". IEEE-SA Standards Style Manual says that the use of the word "must" is deprecated and shall not be used when stating mandatory requirements. Although IEEE-SA Standards Style Manual does not state the use of the words "have to", we should deprecate it as well. SuggestedRemedy Change "As the total average launch power limit has to be met" to "As the total average launch power limit should be met". Proposed Response Response Status O							
SuggestedRemedy In columns of G and Z1/2pi, separate digits into groups of three by a space, counting from the decimal point toward the right. For example, change "0.891251" to "0.891 251" in the cell of column G and row 1 dB peaking.								
Proposed Response Response Status O	Hidaka, Yasuo Fujitsu Laboratories of							
C/ 120ESC 120E.3.4.1.1P 382L 15# [r04-6]Hidaka, YasuoFujitsu Laboratories of	Comment Type T Comment Status X An item is missing in PICS in 120E.5.4.3 corresponding to "shall" in 120E.3.3.2 Host stressed input test, P378, L7.							
Comment Type T Comment Status X It says "has to be greater than or equal to 7dB". IEEE-SA Standards Style Manual says that the use of the word "must" is deprecated and shall not be used when stating mandatory requirements. Although IEEE-SA Standards Style Manual does specifically state the use of the words "have to", we should deprecate it as well. SuggestedRemedy	SuggestedRemedy Add a row to PICS table in 120E.5.4.3 Host input as follows: Item: RH2 Feature: Host stressed input test Subclause: 120E.3.3.2							
Change "has to be" to "should be" in line 15 and line 19. Proposed Response Response Status O	Support: Yes []							
	Proposed Response Response Status O							

Comment ID r04-8

Cl 120E SC 120E.5.4.4 P 390 L 14 # r04-9	C/ 120D SC 120D.3.1.1 P 352 L 13 # r04-10							
Hidaka, Yasuo Fujitsu Laboratories of	Hidaka, Yasuo Fujitsu Laboratories of							
Comment Type T Comment Status X An item is missing in PICS in 120E.5.4.4 corresponding to "shall" in 120E.3.4.1 Module stressed input test, P380, L37.	Comment Type T Comment Status X The value of AC common-mode output voltage is inconsistent between Table 120D-1 (30mV) and PICS item TC5 (12mV). They must be consistent.							
SuggestedRemedy Add a row to PICS table in 120E.5.4.4 Module input as follows: Item: RM2 Feature: Module stressed input test Subclause: 120E.3.4.1 Value/Comment: Table 120E-8 Status: M Support: Yos II	In the other clauses, 30mV was used for cable PHYs and 100GBASE-KP4, and 12mV was used for C2C and backplane PHYs except 100GBASE-KP4. Cable PHYs were specified as 30mV at TP2 to take account of the effects of the host board trace. 100GBASE-KP4 was specified as 30mV at TP0a, but 100GBASE-KP4 was not used in practice. In C2M spec, 17.5mV at TP1a or TP4 is used. It is also odd to have a higher value at TP0a in C2C than the value at TP1a in C2M spec. Since this C2C spec is at TP0a, I recommend to use 12mV as the consistent value, because PAM4 is more stringent than NRZ, and 30mV is the value at TP2 including the effect of host board trace.							
Proposed Response Response Status O	I ne value in the other clauses: 100GBASE-CR4, Clause 92, Table 92-6: 30mV (TP2) 100GBASE-KR4, Clause 93, Table 93-4: 12mV (TP0a) 100GBASE-KP4, Clause 94, Table 94-13: 30mV (TP0a) CAUI-4 (C2C), Annex 83D, Table 83D-1: 12mV (TP0a) CAUI-4 (C2M), Annex 83E, Table 83E-1, 83E-3: 17.5mV (TP1a, TP4) 25GBASE-CR, Clause 110, Table 92-6: 30mV (TP2) 25GBASE-KR, Clause 111, Table 93-4: 12mV (TP0a) 200GAUI-4,400GAUI-8 (C2M), Annex 120E, Table 120E-1, 120E-3: 17.5mV (TP1a, TP4)							
	SuggestedRemedy Change AC common-mode output voltage in Table 120D-1 from 30mV to 12mV.							
	Proposed Response Response Status O							

Comment ID r04-10

C/ 120D SC 120D.5.4.2 Hidaka Yasuo	P 366 Euiitsu Labora	L 26 tories of	# r <u>04-11</u>	C/ 120E Dawe Pier	SC S.J.G	120E.3.1	Μ	P 371 Iellanox Techr	L 20	# r04-12		
Comment Type T An item is missing in PICS	Comment Status X	ding to "shall"	n 120D 3.2.3	Comment	Type	TR on previou	Comment Sta	ntus X	ved to output	a signal with 900 mV		
Transmitter equalization feedback (optional), P360, L39.					peak-to-peak amplitude but only 32 mV eye height - a very bad signal. If the module is							
SuggestedRemedy				receive	er the e	eye will coll	lapse with not er	hough margin	for e.g. temp	erature changes causing		
Add an optional item to PICS table in 120D.5.3 Major capabilities/options as follows:				mistun peak o D3.0 c	mistuning. The module can't inconvenience the host in the same way because its peak-to- peak output voltage is measured before most of the loss. D3.0 comment 119, D3.2 r02-46, D3.3 r03-40.							
Subclause: 120D.3.2.3	Feature: Transmitter equalization feedback capability Subclause: 120D.3.2.3					SuggestedRemedy						
Value/Comment: Transmitter equalization feedback is an optional capability for a 200GAUI- 4 or a 400GAUI-8 chip-to-chip receiver. Status: O Support: Yes [] No []					Add a vertical eye closure spec to protect the module from such unexpected signals. VEC defined as largest of three ratios for the three sub-eyes. A reference bad signal (the module stressed input signal) could have VEC ~8 dB, a very bad low loss host to the D3.4 spec could have 16 dB, so set a limit e.g. max 12 dB. See presentation.							
Add an item to PICS table	in 120D.5.4.2 Receiver a	s follows:		Proposed I	Respor	nse	Response Sta	tus O				
Item: RC5 Feature: Transmitter equa Subclause: 120D.3.2.3	lization feedback											

Subclause: 120D.3.2.3 Value/Comment: Operates as described in 120D.3.2.3. Status: TEFB:M Support: Yes [] N/A []

Proposed Response

Response Status 0

Comment ID r04-12