CI 30 SC 30.5.	1.1.2 P21	L	# 2	C/ 56	SC 56.1.1.1	P 34	L 20	# 4
BOURGART, Fabrice	Orange			BOURGA	RT, Fabrice	Orange		
Comment Type E	Comment Status X			Comment	Type E	Comment Status X		
No explanation is g Bidi to the -BR exte	iven on the change of naming	convention moving	g from BX for 1Gb/s	Poss	ble typo in the se	ntence "The 1000BASE-X P0 0 Mb/s as defined in 66.2"	CS and PMA sub	players are used to
SuggestedRemedy				Suggeste	dRemedy			
Add for newcomers	s to the IEEE world a note expl	aining the reason	since remains stable			d be made 1000Mb/s		
Proposed Response	Response Status O			Proposed	Response	Response Status O		
				CI 56	SC 56.1.1.2	P34	L 28	# 5
CI 30 SC 30.5.	1.1.2 P21	L15	# 3	BOURGA	RT, Fabrice	Orange		
BOURGART, Fabrice	Orange			Comment	Type E	Comment Status X		
Comment Type E From the definition	Comment Status X s no clue is given on the purpo	se of BR40+ vs B	R40 before table 158-10	Adde this w		oper references is unsure, he	ere unless for a b	bug fixing not related to
SuggestedRemedy				Suggeste	dRemedy			
Purpose should pre	eferably be explained sooner th	nan it is now not to	onfuse the reader	Remo	ove from this text	?		
Proposed Response	Response Status O			Proposed	Response	Response Status O		
Cl 30 SC 30.5.	1.1.2 P21	L15	# 1	CI 56	SC Table 56	-1 P37	L 6	# 6
BOURGART, Fabrice	Orange			BOURGA	RT, Fabrice	Orange		
Comment Type E	Comment Status X			Comment	Туре Т	Comment Status X		
are related to operate	wording is "supporting a dsita ator engineering rules, unless h refer to actual optical budget e	hard limitations to	distance are introduced,	this w	ill probably result	een defined to cover distance in splitting the market and w ink engineering is required.		
SuggestedRemedy				Suggeste	dRemedy			
Refer to optical but	dget values later described in ta	ables 158-16, 159	-15 and 160-15			ce and best practices that op		
Proposed Response	Response Status O				· · · · · · · · · · · · · · · · · · ·	is believed that thanks to a 1 d be covered with only two m	,	0

Furthermore this could solve some issues documented in the next comments

Proposed Response Response Status **0**

C/ 56 SC Table 56-1

Cl 56 SC Table 5	56-1 P37	L 6	# 7	CI 158 SC 1	P 49	L32	# 50
BOURGART, Fabrice	Orange			Frank, Effenberger	Futurewei Te	echnologies	-
	Comment Status X made uncertain because of ver fer to refer to optical budgets	ry diverse passiv	e plant engineering	0	Comment Status X EC is optional for BR40 and B	R40+. This is diff	erent than table 157-2
SuggestedRemedy				SuggestedRemedy	. have as males it antianal has	l. i.e. 157	
,	with distances by optical budge	et classes enable	ed by the modules	Proposed Response	y here, or make it optional bac Response Status O	K IN 157	
Proposed Response	Response Status O						
				CI 158 SC 6.1	P 54	L 21	# 39
C/ 157 SC 1.3	P 39	L 47	# 48	Frank, Effenberger	Futurewei Te	echnologies	
Frank, Effenberger	Futurewei Te	chnologies		Comment Type T	Comment Status X		
Comment Type T	Comment Status X			In table 158-6, we sh	ould adjust the Tx values to ac	dapt to the agreed	d link loss values
In the definition of "x"	", the option of "40+" is missing)		SuggestedRemedy			
SuggestedRemedy					3R40+ min power to 0.6 dB. 3R40+ max power to 5.6 dB. (1	THis gives a 5dB	range)
Add "40+" as one of	the options.						range)
Add "40+" as one of Proposed Response	the options. Response Status O			Increase BR40 min p	ower to -4.4 dB, and the max p values as appropriate (e.g., if	power to 0.6 dB.	- /
	1	L 33	# 49	Increase BR40 min p Shift all other optical the min OMA will also	ower to -4.4 dB, and the max p values as appropriate (e.g., if	power to 0.6 dB.	- /
Proposed Response	Response Status O		# 49	Increase BR40 min p Shift all other optical the min OMA will also	oower to -4.4 dB, and the max p values as appropriate (e.g., if o increase by 2dB)	power to 0.6 dB.	- /
Proposed Response Cl 157 SC 1.4	Response Status O		# 49	Increase BR40 min p Shift all other optical the min OMA will also And table 158-7 shou	oower to -4.4 dB, and the max values as appropriate (e.g., if o increase by 2dB) uld be made to match.	power to 0.6 dB.	- /
Proposed Response Cl 157 SC 1.4 Frank, Effenberger Comment Type T The RS clause for 25	Response Status O P 42 Futurewei Te Comment Status X 5G is listed as C74. This is wro	chnologies		Increase BR40 min p Shift all other optical the min OMA will also And table 158-7 shou	ower to -4.4 dB, and the max values as appropriate (e.g., if o increase by 2dB) uld be made to match. <i>Response Status</i> O	power to 0.6 dB.	creases by 2dB, then
Proposed Response Cl 157 SC 1.4 Frank, Effenberger Comment Type T The RS clause for 25 the 25G two fiber PM	Response Status O P 42 Futurewei Te Comment Status X 5G is listed as C74. This is wro	chnologies		Increase BR40 min p Shift all other optical the min OMA will also And table 158-7 shou Proposed Response	oower to -4.4 dB, and the max p values as appropriate (e.g., if o increase by 2dB) uld be made to match. <i>Response Status</i> O <i>P</i> 56	power to 0.6 dB. min ave power in <i>L</i> 14	- /
Proposed Response Cl 157 SC 1.4 Frank, Effenberger Comment Type T The RS clause for 25 the 25G two fiber PM SuggestedRemedy	Response Status O P 42 Futurewei Te <i>Comment Status</i> X 5G is listed as C74. This is wro IDs	echnologies	use the clause give by	Increase BR40 min p Shift all other optical the min OMA will also And table 158-7 shou <i>Proposed Response</i> <i>Cl</i> 158 <i>SC</i> 6.2 Frank, Effenberger	ower to -4.4 dB, and the max values as appropriate (e.g., if o increase by 2dB) uld be made to match. <i>Response Status</i> O	power to 0.6 dB. min ave power in <i>L</i> 14	creases by 2dB, then
Proposed Response Cl 157 SC 1.4 Frank, Effenberger Comment Type T The RS clause for 25 the 25G two fiber PM SuggestedRemedy Change clause numb	<i>Response Status</i> O <i>P</i> 42 Futurewei Te <i>Comment Status</i> X 5G is listed as C74. This is wro MDs ber to 108. Also, I do beleive th	echnologies	use the clause give by	Increase BR40 min p Shift all other optical the min OMA will also And table 158-7 shou Proposed Response CI 158 SC 6.2 Frank, Effenberger Comment Type T	oower to -4.4 dB, and the max p values as appropriate (e.g., if i o increase by 2dB) uld be made to match. <i>Response Status</i> O <i>P</i> 56 Futurewei Te	power to 0.6 dB. min ave power in <i>L</i> 14 echnologies	creases by 2dB, then # 40
Proposed Response Cl 157 SC 1.4 Frank, Effenberger Comment Type T The RS clause for 25 the 25G two fiber PM SuggestedRemedy	Response Status O P 42 Futurewei Te <i>Comment Status</i> X 5G is listed as C74. This is wro IDs	echnologies	use the clause give by	Increase BR40 min p Shift all other optical the min OMA will also And table 158-7 shou Proposed Response Cl 158 SC 6.2 Frank, Effenberger Comment Type T Adjust receiver to ma	oower to -4.4 dB, and the max p values as appropriate (e.g., if i o increase by 2dB) uld be made to match. <i>Response Status</i> O <i>P</i> 56 Futurewei Te <i>Comment Status</i> X	power to 0.6 dB. min ave power in <i>L</i> 14 echnologies	creases by 2dB, then # 40
Proposed Response Cl 157 SC 1.4 Frank, Effenberger Comment Type T The RS clause for 25 the 25G two fiber PM SuggestedRemedy Change clause numb	<i>Response Status</i> O <i>P</i> 42 Futurewei Te <i>Comment Status</i> X 5G is listed as C74. This is wro MDs ber to 108. Also, I do beleive th	echnologies	use the clause give by	Increase BR40 min p Shift all other optical the min OMA will also And table 158-7 shou Proposed Response Cl 158 SC 6.2 Frank, Effenberger Comment Type T Adjust receiver to ma SuggestedRemedy BR20 max power is 5 BR40 and 40+ min p BR40 max power is 5	ower to -4.4 dB, and the max p values as appropriate (e.g., if i o increase by 2dB) uld be made to match. <i>Response Status</i> O <i>P</i> 56 Futurewei Te <i>Comment Status</i> X atch the modifed Tx and Fiber of 5.6 dB. (a 20 dB range) ower is -22.4 dB.	power to 0.6 dB. min ave power in <i>L</i> 14 echnologies	creases by 2dB, then # 40
Proposed Response Cl 157 SC 1.4 Frank, Effenberger Comment Type T The RS clause for 25 the 25G two fiber PM SuggestedRemedy Change clause numb	<i>Response Status</i> O <i>P</i> 42 Futurewei Te <i>Comment Status</i> X 5G is listed as C74. This is wro MDs ber to 108. Also, I do beleive th	echnologies	use the clause give by	Increase BR40 min p Shift all other optical the min OMA will also And table 158-7 shou Proposed Response CI 158 SC 6.2 Frank, Effenberger Comment Type T Adjust receiver to ma SuggestedRemedy BR20 max power is 5 BR40 and 40+ min p BR40 max power is 5	oower to -4.4 dB, and the max p values as appropriate (e.g., if i o increase by 2dB) uld be made to match. <i>Response Status</i> O <i>P</i> 56 Futurewei Te <i>Comment Status</i> X atch the modifed Tx and Fiber of 5.6 dB. (a 20 dB range) ower is -22.4 dB. 9.4 dB.	power to 0.6 dB. min ave power in <i>L</i> 14 echnologies channel changes	creases by 2dB, then # 40

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Cl 158 SC 6.2

C/ 158 SC 7	P 58	L15	# 45	C/ 158	SC 11.3	P 66	L 24	# 47
rank, Effenberger	Futurewei Teo	hnologies		Frank, Effe	enberger	Futurewei Te	chnologies	
<i>Comment Type</i> T Footnotes c, d, ar	Comment Status X nd e don't make sense for our case			<i>Comment</i> THis s dumb.	• •	Comment Status X a page and a graph to show	you how an atter	nuator works. That is
SuggestedRemedy Remove those for	otnotes.			Suggested		on. It's not needed.		
Proposed Response	Response Status O			Proposed		Response Status O		
C/ 158 SC 11	P65	L 4	# 51	01 450	60 450 5 0		/ 50	# 40
Frank, Effenberger	Futurewei Teo	hnologies		C/ 158	SC 158.5.6	P41	L 53	# 16
Comment Type T	Comment Status X			Wey, Jun		ZTE TX Inc.		
already marketed BR20 max loss is	6.2 dB. It would be more widely awe would propose to define a new13 dB. It would be more widely ap	v BR10+. oplicable if it wa	s 15 dB. Additionally, it		in this sentence global_transmit_	Comment Status X : "PMDs compliant with this c disable function which allows		
should be possibl minimum link loss	e to make the receiver tolerate suff s of 0 dB.	icient dynamic	range to allow a	Suggested Remo		"the". Delete the "." between o	disabled and is.	
	is 23 dB, and we can try to get a si nimum loss should be 8 dB	milar dynamic r	ange as BR20.	Proposed	Response	Response Status O		
SuggestedRemedy								
Change table ent	ries as indicated.			C/ 158	SC 158.6	P 53	L	# 17
This table should	then be largely replicated in clause	s 159 and 160	The fiber does not	Wey, Jun	Shan	ZTE TX Inc.		
care about the bit				Comment	21	Comment Status X		
Proposed Response	Response Status O					oss budget for BR40+ is. It wo transmission class	ould be helpful to	show a table of max
C/ 158 SC 11.1	P65	L 54	# 46	<i>Suggested</i> Descri	<i>IRemedy</i> be the loss budg	get for BR40+		
- rank, Effenberger	Futurewei Teo	hnologies		Proposed	Response	Response Status 0		
Comment Type T None of our pmds		-		·	·			
SuggestedRemedy	mp, and delate features a							
	mn, and delete footnote c							
Proposed Response	Response Status O							

C/ 158 SC 158.6

Cl 158 SC 158.6.1	P 54	L 21	# 18	C/ 158 SC 158	11.2.1	P66	L13	# 14
Wey, Jun Shan	ZTE TX Inc.			BOURGART, Fabrice		Orange		-
Comment Type TR	Comment Status X			Comment Type T	Comme	ent Status X		
Table 158-6. PMD valu	ues for BR20 and BR40+ are th	ne same			for connectors a	and splices indepe	endanlty of distar	ice seems extremely
SuggestedRemedy				short.				
Correct the values for	BR20			SuggestedRemedy				
Proposed Response	Response Status O			Is it safe to specu express across th		0	erings that even o	perators struggle to
				Proposed Response	Respons	se Status O		
C/ 158 SC 158.6.1	P55	L12	# 19					
Wey, Jun Shan	ZTE TX Inc.			C/ 158 SC Tab	le 158-16	P 65	L 5	# 12
Comment Type TR	Comment Status X			BOURGART, Fabrice		Orange		
Table 158-7. PMD valu	ues for BR20 and BR40+ are th	ne same		Comment Type T	Comme	ent Status X		
SuggestedRemedy				Note a) gives figu			at 1270nm	
Correct the values for	BR20			SuggestedRemedy				
Proposed Response	Response Status 0			use attenuation c	overing the 1270	nm window		
				Proposed Response	Respons	se Status O		
C/ 158 SC 158.10	P65	L 1	# 20		·			
Wey, Jun Shan	ZTE TX Inc.			CI 158 SC Tab	le 158-17	P65	L 49	# 13
Comment Type TR	Comment Status X			BOURGART, Fabrice		Orange		
Table 158-16	9806 specifications, consider a	1EdD dynami	vange for the less	Comment Type T	Comme	ent Status X		
budget classes.		,	range for the loss	Why not give the instead of 0.4 or 0				velength windows used
This comment also ap	uss S (0-15dB), Class (10-25dE plies to Table 159-15	5)			which are sig		ι	
SuggestedRemedy				SuggestedRemedy figures must be m	ado consistent a	parace the tables	159 5 159 10 00	d 159 17
Discussion needed				0			100-0, 100-10 af	iu 100-17
				Proposed Response	Respons	se Status O		
Proposed Response	Response Status O							

C/ 158 SC Table 158-17

	9 # 29	C/ 158 SC Table	158-10	P 58	L 9	# 25
Dawes, Peter Vodafone		Rafel, Albert	I	BT		
Comment Type TR Comment Status X Channel insertion loss specs should be updated by providin Current values of 6.3 dB, 13 dB, 18 dB, and 23 dB should be Same comment applies to 25G loss in Clause 159 (Table 15 160 (Table 160-10) SuggestedRemedy	e updated.	Comment Type TR Table 158-10 on Pa Channel Insertion L temperature range a allows back to back short links. The spe compliance	oss specification us assumption for spe- testing and avoidir	on, channel in sing BOTH m cification. A (ng the use of	ninimum and max 0.0 dB value for an optical attenu	imum. Industrial ninimum insertion los ator in practice on
Propose to specify channel insertion loss as two rows in the	table: one row for minimum	SuggestedRemedy				
value and the other for maximum value. Propose to specify 3 classes as channel insertion loss: 0(mi 23 dB. Apply the above changes to Clauses 159 and 160. Proposed Response Response Status O	n)-9 dB(max), 0-15 dB, and 10-	Propose adding a ro proposed of 0.0 dB. maximum Channel achieved by narrow Change 13 dB into For 23 dB max char Remove 18 dB clas	Change the value Insertion Loss. The ing the transmit pow 15 dB for max char nnel insertion loss,	of 6.3 dB in l maximum C wer range us nnel insertion	Draft to a new val Channel insertion ed for 6.3 dB. I loss, its min is 0	ue of 9.0 dB for loss of 9 dB can
		Proposed Response	Response St	atus O		
Cl 158 SC Table 158-10 P58 LS BOURGART, Fabrice Orange Comment Type T Comment Status X Channel insertion loss with footnote d & e do not match what at the relevant wavelengths. X SuggestedRemedy Considering the table 158-17 lineic loss 10*.5 + 2 = 7dB > 6.2 dB Proposed Response Response Status O		Cl 158 SC Table Khotimsky, Denis Comment Type TR Presently specified assumptions listed i fiber distance increa contribute to the ins Same comment app 158/159/160-8, 158 SuggestedRemedy Propose to specify B 0(min)-9 dB(max), 0(min)-15 dB(max), 10(min)-23 dB(max) Apply the above cha 158/159/160-8, 158	Comment Si budget classes bar in the correspondin ase comes at least ertion loss. I would blies to Tables 158/ 3/159/160-9, 159/1 budget loss as the f and). anges to Tables 15	rely hold ever ig tables (Tat with the prop I suggest red /159/160-5, 60-10 follwing three 8/159/160-5,	o 158-10, 159-10, oortional number efining the power 158/159/160-6, 1 e classes:	160-10). Normally, of splices, which classes. 58/159/160-7,

Cl 158 SC Table 158-10

158 SC Table	158-5	P 53	L 45	# 9	C/ 158	SC Table 15	i8-8	P 56	L17	# 10
OURGART, Fabrice		Orange			BOURGA	RT, Fabrice	(Drange		-
omment Type T	Comment S	Status X			Comment	Type E	Comment St	atus X		
Considering the up				ld seems lower than	No uni	t is given for the	"Maximum rece	ve power (fo	or damage)"	
the Tx max with mo	dulation of the cor	responding de	vice.		Suggested	lRemedv				
uggestedRemedy						d it be "dBm" ?				
Back to back testing are required given the for BR40 & 40+)				dicate that attenators 2m patchcord (e.g.	Proposed	Response	Response Sta	atus O		
roposed Response	Response S	tatus O			C/ 159	SC 6.1		P 76	L12	# 41
					Frank, Effe	enberger	F	- uturewei Te	chnologies	
158 SC Table	158-5	P 53	L 45	# 8	Comment	Type T	Comment St		0	
OURGART, Fabrice		Orange							he agreed link lo	
omment Type T	Comment S	Status X			Adjust	the max powers	s to maintain a m	ore reasona	ble Tx control rar	nge
"Minimum range" va	alues don't seem p	practical given	the figures and as	ssumptions given later	Suggested	lRemedy				
in the section.						min power shou				
uggestedRemedy					BR20	max power shoι	uld be -1 dBm.			
					BR40	max power shou	uld be +2 dBm.			
Either assuptions no					BR40-	 max power sho 	ould be left at +6	(a special ca	ase, because tha	t's getting rather high)
				ered wavelengths, the	Proposed	Response	Response Sta			
dynamic of fibre los specific external cor			s 16dB can it be	achieved winout	ropood	looponee	nesponse ole			
roposed Response	Response S									
roposed nesponse	Response S				C/ 159	SC 6.1		P 78	L 8	# 34
					Frank, Effe	enberger	F	uturewei Te	echnologies	
158 SC Table	158-6	P 54	L 20	# 37	Comment	Туре Т	Comment St	atus X		
uo, Yuanqiu		Futurewei							we should use a	
omment Type TR	Comment S	Status X				•	ersion impacts ca	an be found	in Liu_3cp_1_190	09.
In Table 158-6, row			min)", both 10GE	BASEBR20-D and	Suggested	•				
10GBASEBR40+-D	values are empty									s a chirped transmitte
uggestedRemedy					DUT SU FMI S	so this seems t	or tree from DMI	LS. DIVIL'S a	re cneaper and h hifting to a shorte	igher power than r wavelength, the
Propose to set thes	e two values as 30) dB.							which is much m	
roposed Response	Response S	tatus O			If acce	nted this would	affect tables 150	1-6 7 8 and	d 9; and tables 16	0-6 7 8 and 9
										, , , , , and .
					Proposed	nesponse	Response Sta	aus U		

TYPE: TR/technical required ER/editorial required GR/generation	al 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/ 159	Page 6 of 9
SC 6.1	11/13/2019 5:07:29 PM

159 SC 6.1	P 78	L 8	# 31	C/ 159 SC	6.3	P115	L15	# 42
rank, Effenberger	Futurewei Teo	chnologies		Frank, Effenberge	er	Futurewei Tech	nologies	-
omment Type T	Comment Status X			Comment Type	Т	Comment Status X		
To optimize the wavelength				Change the m	nax reciev	e powers to match the Tx and	link loss value	S.
wavelength. The dispersic uggestedRemedy THe upstream wavelength but such chirp comes for fr EMLs, so this seems to be guard band between up an	should be 1260 to 1280 n ree from DMLs. DML's are a no brainer. And, by shi	im. This requires e cheaper and hi ifting to a shorter	s a chirped transmitter, igher power than r wavelength, the	SuggestedRemed BR20 Max po BR40 Max po BR40+ max p Proposed Respon	wer shoul wer shoul ower shou			
If accepted, this would affe	ect tables 159-6, 7, 8, and	9; and tables 16	0-6, 7, 8, and 9.					
roposed Response F	Response Status O				159.6	P113	L12	# 22
				Wey, Jun Shan		ZTE TX Inc.		
159 SC 6.1	P113	L8	# 33	Comment Type	TR	Comment Status X		
ank, Effenberger	Futurewei Teo	-	<i>"</i> 00	Table 159-6 BR20 transmi	tter has a	dynamic range of 14dB, while	the other class	ses are at 9dB. 4dB.
	Comment Status X	intelegies				nic range for this class?		, -
<i>,</i> ,				SuggestedRemea	lv			
To optimize the wavelengt The dispersion impacts ca			andard wavelengths.	Discussion ne				
			andard wavelengths.		eded	Response Status O		
The dispersion impacts ca uggestedRemedy THe downstream waveleng dispersion, this band would	n be found in Liu_3cp_1_ gth should be specified 13 d require a chirp-free Tx, v	1909. 00-1320 nm. Gi	ven the distance and	Discussion ne Proposed Respon	eded	-	/ 12	# 23
The dispersion impacts ca <i>liggestedRemedy</i> THe downstream waveleng dispersion, this band would enables uncooled operatio	n be found in Liu_3cp_1_ gth should be specified 13 d require a chirp-free Tx, v n (potentially).	1909. 00-1320 nm. Gi	ven the distance and	Discussion ne Proposed Respon Cl 159 SC	eded	P114	L12	# 23
The dispersion impacts ca <i>ggestedRemedy</i> THe downstream waveleng dispersion, this band would enables uncooled operatio	n be found in Liu_3cp_1_ gth should be specified 13 d require a chirp-free Tx, v	1909. 00-1320 nm. Gi	ven the distance and	Discussion ne Proposed Respon Cl 159 SC Wey, Jun Shan	159.6	P 114 ZTE TX Inc.	L12	# 23
The dispersion impacts can aggestedRemedy THe downstream wavelend dispersion, this band would enables uncooled operatio oposed Response	n be found in Liu_3cp_1_ gth should be specified 13 d require a chirp-free Tx, v n (potentially).	1909. 00-1320 nm. Gi	ven the distance and	Discussion ne Proposed Respon Cl 159 SC Wey, Jun Shan Comment Type Table 159-7 BR20 transmi	tter has a	P114 ZTE TX Inc. <i>Comment Status</i> X dynamic range of 14dB, while		
The dispersion impacts canuggestedRemedyTHe downstream waveleng dispersion, this band would enables uncooled operation oposed Response159SC 6.1	n be found in Liu_3cp_1_ gth should be specified 13 d require a chirp-free Tx, v n (potentially). Response Status O	1909. 00-1320 nm. Gi vhich is not too b	ven the distance and bad. The width also	Discussion ne Proposed Respon Cl 159 SC Wey, Jun Shan Comment Type Table 159-7 BR20 transmi Why such a h	tter has a aigh dynar	P114 ZTE TX Inc. Comment Status X		
The dispersion impacts can aggestedRemedy THe downstream waveleng dispersion, this band would enables uncooled operatio oposed Response 159 SC 6.1 ank, Effenberger omment Type T	n be found in Liu_3cp_1_ gth should be specified 13 d require a chirp-free Tx, v n (potentially). Response Status O P113 Futurewei Tec Comment Status X	1909. 00-1320 nm. Gi vhich is not too b <i>L</i> 8 chnologies	wen the distance and bad. The width also	Discussion ne Proposed Respon Cl 159 SC Wey, Jun Shan Comment Type Table 159-7 BR20 transmi Why such a h SuggestedRemed	tter has a ligh dynar	P114 ZTE TX Inc. <i>Comment Status</i> X dynamic range of 14dB, while		
The dispersion impacts can ggestedRemedy THe downstream wavelend dispersion, this band would enables uncooled operation oposed Response F 159 SC 6.1 ank, Effenberger mment Type T To optimize the wavelengt	n be found in Liu_3cp_1_ gth should be specified 13 d require a chirp-free Tx, v n (potentially). Response Status O P113 Futurewei Tec Comment Status X hs for BR20 and higher, w	1909. 00-1320 nm. Gi vhich is not too b <i>L</i> 8 chnologies re should use sta	wen the distance and bad. The width also	Discussion ne Proposed Respon Cl 159 SC Wey, Jun Shan Comment Type Table 159-7 BR20 transmi Why such a h SuggestedRemed Discussion ne	tter has a high dynar dy beded	P114 ZTE TX Inc. <i>Comment Status</i> X dynamic range of 14dB, while		
The dispersion impacts can aggestedRemedy THe downstream wavelend dispersion, this band would enables uncooled operatio oposed Response 159 SC 6.1 ank, Effenberger omment Type T To optimize the wavelength The dispersion impacts can	n be found in Liu_3cp_1_ gth should be specified 13 d require a chirp-free Tx, v n (potentially). Response Status O P113 Futurewei Tec Comment Status X hs for BR20 and higher, w	1909. 00-1320 nm. Gi vhich is not too b <i>L</i> 8 chnologies re should use sta	wen the distance and bad. The width also	Discussion ne Proposed Respon Cl 159 SC Wey, Jun Shan Comment Type Table 159-7 BR20 transmi Why such a h SuggestedRemed	tter has a high dynar dy beded	P114 ZTE TX Inc. <i>Comment Status</i> X dynamic range of 14dB, while		
The dispersion impacts can aggestedRemedy THe downstream wavelend dispersion, this band would enables uncooled operatio roposed Response 159 SC 6.1 rank, Effenberger comment Type T To optimize the wavelengt	n be found in Liu_3cp_1_ gth should be specified 13 d require a chirp-free Tx, v in (potentially). Response Status O P113 Futurewei Tec Comment Status X hs for BR20 and higher, w n be found in Liu_3cp_1_ ⁻¹ gth should be specified 13 d require a chirp-free Tx, v	1909. 00-1320 nm. Gi vhich is not too b <i>L</i> 8 chnologies re should use sta 1909. 00-1320 nm. Gi	wen the distance and bad. The width also # 30 and ard wavelengths.	Discussion ne Proposed Respon Cl 159 SC Wey, Jun Shan Comment Type Table 159-7 BR20 transmi Why such a h SuggestedRemed Discussion ne	tter has a high dynar dy beded	P114 ZTE TX Inc. Comment Status X dynamic range of 14dB, while nic range for this class?		

TYPE: TR/technical required ER/editorial required GR/general required T/technical E/editorial G/general	C/ 159
COMMENT STATUS: D/dispatched A/accepted R/rejected RESPONSE STATUS: O/open W/written C/closed Z/withdrawn	SC 159.6
SORT ORDER: Clause, Subclause, page, line	

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C/ 159 SC 159.6.3	P113	L1	# 21	C/ 159	SC Table 1	59-10	P 81	L 4	# 28
ley, Jun Shan	ZTE TX Inc.			McCammo	on, Kent		AT&T		
omment Type TR	Comment Status X			Comment	Type TR	Comme	ent Status X		
	BR20/40/40+ only allows a 4nm I be challenging to meet with lo		tween upstream and	Loss assum back t	specification us option for speci esting and avoit	sing BOTH m fication. A 0.0 iding the use	inimum and maxi) dB value for mi	mum. Industrial t nimum insertion l nuator in practice	Channel Insertion temperature range loss allows back to on short links. The or compliance.
				Suggested	lRemedy				
roposed Response	Response Status O		# 04	propos maxim	sed of 0.0 dB. (ium Channel Ir	Change the v		Draft to a new va Channel insertion	
		L 4	# 24			•	it power range us	ed for 6.3 dB.	
afel, Albert	BT			Proposed	Response	Respons	se Status O		
omment Type TR	Comment Status X								
	e 81 Clean version, row 4. Pro sing BOTH minimum and maxin			C/ 159	SC Table 1	59-5	P 76	L 27	# 15
assumption for speci	fication. A 0.0 dB value for min	nimum insertion	loss allows back to	BOURGA	RT, Fabrice		Orange		_
	iding the use of an optical atten num Channel Insertion Loss add			Comment	Туре Т	Comme	ent Status X		
uggestedRemedy		us a lest case n	or compliance.		rks done for tal		out the dynamic "2	2m - max length"	are also valid for
	v in Table with a minimum Chai			Suggested	Remedy				
	Change the value of 6.3 dB in D sertion Loss. The maximum Ch			00		d on possible	e damage and act	tual dynamic sho	uld be aiven
	g the transmit power range use		1033 01 3 0D Call				0		
For 23 dB max chan	5 dB for max channel insertion l nel insertion loss, its min value i		dB.	Proposed	Response	Respons	se Status O		
Remove 18 dB class				C/ 160	SC 1.6		P 77	L 48	# 43
roposed Response	Response Status O			Frank, Eff	enberger		Futurewei Te	chnologies	
				Comment	0	Comme	ent Status X	0	
					21			d make Tx contro	ol range reasonable.
				Chang			2.1.20 by 200, an		or range reasonable.

SuggestedRemedy

BR20 min power should be -2.5. Max power should be 2.5 dBm. BR40+ max power should be 8.4 dBm (making range 3 dB, which is all we can afford)

Proposed Response Response Status **0**

C/ 160 SC 6.2	P80	L 12	# 44	C/ 160	SC 160.6.3	P 101	L 35	# 38
Frank, Effenberger	Futurewei Te	chnologies		Lewis, David	l	Lumentum		
	Comment Status X to fit the Tx and min loss.				160-10, Power	Comment Status X budget (for maximum TDEC ation for penalties (for maxim		d add up to Channel
SuggestedRemedy BR20 max power sho	ould be -2.5 dBm.			SuggestedR	emedy			
BR40+ max power sh						er budget (for maximum TDE		.8, 21.8, and 26.8 for
Proposed Response	Response Status O			50GBAS Proposed Re		0, -BR40 and -BR40+ respective Response Status 0	ctively.	
	P111	<i>L</i> 1	# 32		-			
Frank, Effenberger	Futurewei Te	-	<i>"</i> 32	C/ 160	SC Table 160)-10 <i>P</i> 101	L 42	# 26
Comment Type T	Comment Status X	onnologico		Rafel, Albert		BT		
• •	be made to follow the format o	of table 159-14, e	specially the	Comment Ty		Comment Status X		
wavelengths.						101 Clean version, channel i specification using BOTH m		
SuggestedRemedy				temperat	ture range assu	umption for specification. A C	0.0 dB value for	minimum insertion lo
	ust copy the 159 table to here.	Or just do it by re	eference.			ting and avoiding the use of ation of minimum Channel I		
Proposed Response	Response Status O			compliar			ISENION LOSS au	
				SuggestedR	emedy			
CI 160 SC 9	P111	L1	# 35			n Table with a minimum Cha ange the value of 6.3 dB in [
	Futurowai Ta	chnologies				ertion Loss. The maximum C		
Frank, Effenberger	i uturewer re			achieved		the transmit power range use		
Comment Type T	Comment Status X							٩D
Comment Type T		of table 159-14, e	specially the	Change For 23 d	B max channel	IB for max channel insertion insertion loss, its min value		dB.
Comment Type T Table 160-14 should wavelengths. SuggestedRemedy	Comment Status X			Change For 23 d	B max channel 18 dB class.			dB.
Comment Type T Table 160-14 should wavelengths. SuggestedRemedy Simplest thing is to ju	Comment Status X I be made to follow the format o			Change For 23 d Remove Proposed Re	B max channel 18 dB class. esponse	insertion loss, its min value Response Status O	is 10 dB.	
Comment Type T Table 160-14 should wavelengths. SuggestedRemedy Simplest thing is to ju	Comment Status X I be made to follow the format o ust copy the 159 table to here.			Change For 23 d Remove Proposed Re Cl 160	B max channel 18 dB class. esponse SC Table 160	insertion loss, its min value <i>Response Status</i> O D-7 <i>P</i> 98		dB. # <u>36</u>
Comment Type T Table 160-14 should wavelengths. SuggestedRemedy Simplest thing is to ju	Comment Status X I be made to follow the format o ust copy the 159 table to here.			Change For 23 d Remove Proposed Re Cl 160 Luo, Yuanqiu	B max channel 18 dB class. esponse SC Table 160	insertion loss, its min value <i>Response Status</i> O D-7 <i>P</i> 98 Futurewei	is 10 dB.	
Comment Type T Table 160-14 should wavelengths. SuggestedRemedy Simplest thing is to ju	Comment Status X I be made to follow the format o ust copy the 159 table to here.			Change For 23 d Remove Proposed Re Cl 160 Luo, Yuanqiu Comment Ty In Table	B max channel 18 dB class. esponse SC Table 160 J pe TR 160-7, row "Ou	insertion loss, its min value <i>Response Status</i> O D-7 <i>P</i> 98	is 10 dB.	# <u>36</u>)(min)", the 50GBAS
Comment Type T Table 160-14 should wavelengths. SuggestedRemedy Simplest thing is to ju	Comment Status X I be made to follow the format o ust copy the 159 table to here.			Change For 23 d Remove Proposed Re Cl 160 Luo, Yuanqiu Comment Ty In Table	B max channel 18 dB class. esponse SC Table 160 g pe TR 160-7, row "Ou value should b	insertion loss, its min value Response Status O 0-7 P98 Futurewei Comment Status X uter Optical Modulation Ample	is 10 dB.	# <u>36</u>)(min)", the 50GBAS
Table 160-14 should wavelengths. SuggestedRemedy	Comment Status X I be made to follow the format o ust copy the 159 table to here.			Change For 23 d Remove Proposed Re Cl 160 Luo, Yuanqiu Comment Ty In Table BR20-U SuggestedRe	B max channel 18 dB class. esponse SC Table 160 J pe TR 160-7, row "Ou value should be emedy	insertion loss, its min value Response Status O 0-7 P98 Futurewei Comment Status X uter Optical Modulation Ample	is 10 dB. <i>L</i> 53 litude (OMAouter of the 50GBASE	# 36 r)(min)", the 50GBAS -BR40-U value.

CI	160	
SC	Table 160-7	