

SMF power budget proposals

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Introduction

[cole_01a_0616_smf](#) proposed to make some changes to the power budget of 200GBASE-FR4/LR4 and 400GBASE-FR8/LR8 in P802.3bs draft 1.4.

The following slides capture the proposals and fill in the additional changes needed to make the power budget consistent (cells shaded yellow).

Power budget proposals 200GBASE-FR4/LR4

Parameter	D1.4		Proposal		Unit
	FR4	LR4	FR4	LR4	
Table 122-9					
Total average launch power (max)	11.2	11.7	10.7	11.3	dBm
Average launch power, each lane (max)	5.2	5.7	4.7	5.3	dBm
Outer Optical Modulation Amplitude (OMA _{outer}), each lane (max)	5	5.5	4.5	5.1	dBm
Difference in launch power between any two lanes (OMA _{outer}) (max)	4.4	4.4	4	4	dB
Table 122-11					
Damage threshold, each lane	6.2	6.7	5.7	6.3	dBm
Average receive power, each lane (max)	5.2	5.7	4.7	5.3	dBm
Receive power, each lane (OMA _{outer}) (max)	5	5.5	4.5	5.1	dBm
Difference in receive power between any two lanes (OMA _{outer}) (max)	4.5	4.6	4.1	4.2	dB
OMA _{outer} of each aggressor lane	0.9	-0.6	0.5	-1	dBm

Power budget proposals 400GBASE-FR8/LR8

Parameter	D1.4		Proposal		Unit
	FR8	LR8	FR8	LR8	
Table 122-10					
Difference in launch power between any two lanes (OMA_{outer}) (max)	4.4	4.4	4	4	dB
Table 122-12					
Difference in receive power between any two lanes (OMA_{outer}) (max)	4.5	4.9	4.1	4.5	dB
OMA_{outer} of each aggressor lane	1.4	0.2	1	-0.2	dBm

Thanks!