SFP-1G13S-LX Release Note:

Single-mode 1310 nm, 10 km SFP module

Optical Specifications:

Transmitter Electro-Optical Interface

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Transmitter Differential Input Voltage	TD +/-	400		2400	mV	
Tx_Fault - High	V_{Fault_H}	2		Vcc	V	
Tx_Fault - Low	V_{Fault_L}	Vee		Vee+0.8	V	
Tx_Disable - High	$V_{Disable\_H}$	2		Vcc	V	
Tx_Disable - Low	$V_{Disable\_L}$	Vee		Vee+0.8	V	
Optical Output Power	P_o	-9.5		-3	dBm	1
Optical Extinction Ratio	E_R	9			dB	
Center Wavelength	λ_C	1285	1310	1343	nm	
Spectral Width (RMS)	$\Delta\lambda$			2.8	nm	
Optical Rise / Fall Time	t_r / t_f			260	ps	2
Relative Intensity Noise	RIN			-120	dB/Hz	
Total Contributed Jitter	TJ			227	ps	

Notes:

1. Coupling into a 9/125μm single-mode fiber.
2. 20% to 80% value

Receiver Electro-Optical Interface

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Receiver Differential Output Voltage	RD +/-	400		2000	mV	
Receiver Overload	$P_{IN}MAX$	-3				1
Receiver Sensitivity	$P_{IN}MIN$			-20	dBm	1
Operating Center Wavelength	λ_C	1270		1355	nm	
Return Loss	RL	12			dB	
Receiver Loss of Signal - TTL Low	P_{RX_LOSD}			-20	dBm	
Receiver Loss of Signal - TTL High	P_{RX_LOSA}	-35			dBm	
Receiver Loss of Signal - Hysteresis	P_{RX_LOSH}	0.5			dB	

Notes:

1. With BER better than or equal to 1×10^{-12}, measured in the center of the eye opening with 2^7 -1 PRBS

NOTE:

Distances are indicative only. Attenuation of 0.40 dB/km is used for the link length calculations. To calculate a more precise link budget based on specific conditions in your application, please refer to the Optical Specifications.