Small Form Pluggable (SFP – LX)
1.25Gbps 1310nm FP Single mode Transceiver
(Power Budget 11 dBm)

Features

- Compliant with SFP MultiSource Agreement.
- 1.0625Gbps Fiber Channel Compliant
- 1.25Gbps Gigabit Ethernet Compliant
- Single 3.3V Power Supply Voltage

Application

- Router / Server interface
- Distributed multi-processing
- Switch to switch interface
- High speed I/O for file server

Ordering Information

PART NUMBER	Model	Light Source	Power Budget	Distance	Supply Voltage	Operating Temp.
065-77SM	LX	1310 FP	11 dBm	10 km	3.3V/5V	0 ~ 70 °C

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNITS
Storage Temperature	T_S	–40	85	°C
Supply Voltage	Vcc	0	4.0	V
Input Voltage	V_{IN}	0	*Vcc*	V
Operating Humidity		5	95	%

Recommended Operating Conditions

PARAMETER	SYMBOL	MIN	MAX	UNITS	NOTE
Ambient Operating Temperature	T_{AMB}	0	70	°C	
Supply Voltage	*Vcc*	3.1	3.5	V	
Supply Current (3.3V)	$I_{TX} + I_{RX}$		85	mA	

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Absolute Maximum Ratings Transmitter Electro-optical Characteristics

***Vcc* = 3.1 V to 3.5V, T_A = 0 °C to 70 °C**

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNITS	NOTE
Output Optical Power 9/125 μm fiber	P_{out}	-9		-3	dBm	Average
Extinction Ratio	ER	9			dB	
Center Wavelength	λ_C	1280	1310	1355	nm	
Spectral Width - rms	$\Delta\lambda$			4	nm	
Rise/Fall Time, (20–80%)	$T_{r,\,f}$			260	ps	
Relative Intensity Noise	RIN			–120	dB/Hz	
Total Jitter	TJ			227	ps	
Output Eye	Compliant with IEEE802.3z					
Differential Data Input Swing	V_{IN}	200		1660	mV	
Transmit Fault Output-Low	TX_FAULT	0.0		0.5	V	
Transmit Fault Output-High	TX_FAULT	2.0		V_{CC}	V	

Receiver Electro-optical Characteristics

***Vcc* = 3.1 V to 3.5 V, T_A = 0 °C to 70 °C**

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNITS	NOTE
Optical Input Power-maximum	P_{IN}	-3			dBm	BER < 10^{-12}
Optical Input Power-minimum (Sensitivity)	P_{IN}		-24	-20	dBm	BER < 10^{-12}
Operating Center Wavelength	λ_C	1260		1610	nm	
Receiver Electrical 3dB Upper Cutoff Frequency				1500	MHz	
Loss of signal -Asserted	P_A	–35			dBm	
Loss of signal -Deasserted	P_D			–20	dBm	
Differential Data Output Swing	V_{out}	370		2000	mV	
Receiver Loss of Signal Output Voltage-Low	RX_LOS_L	0		0.5	V	
Receiver Loss of Signal Output Voltage-High	RX_LOS_H	2.0		V_{CC}	V	