

SFP-100EX

100M, SFP, EX, SMF TRANSCEIVER 1310nm, 40km
REACH, DUPLEX LC CONNECTOR

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Product Features

- INF-8074 and SFF-8472 Compliance
- Duplex LC Connector
- Single-mode Fiber
- Hot Pluggable
- Excellent ESD Protection
- Metal with Lower EMI
- RoHS Compliant and Lead Free
- Available operating temperature ranges:
 - Commercial: 0°C to 70°C
 - Industrial: -40°C to 85°C



Product Applications

- 100Base Ethernet
- Access and Enterprise

I. Maximum Ratings

Exceeding the limits below may damage the transceiver module permanently.

Parameter	Symbol	Min.	Typ.	Max.	Units
Storage Temperature	TS	-40		+85	°C
Max Supply Voltage	Vcc	-0.5		4.0	V
Operating Humidity	RH	5		85	%

II. Operating / Environment Specifications

Parameter		Symbol	Min.	Typ.	Max.	Units
Case Operating Temperature	Commercial	TC	0		+70	°C
	Industrial		-40		+85	°C
Data Rate				100/155		Mbps
Link Distance		D		40		km

III. Optical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Transmitter						
Optical Wavelength	$T\lambda$	1275	1310	1350	nm	
Average Output Power	P_{out}	-5		0	dBm	1
Extinction Ratio	ER	10			dB	3
Spectral Width (RMS)	$\Delta\lambda$			3	nm	
Output Optical Eye		IUT-T G.957 Compliant				
Rise/Fall Time	tr/tf			2	ns	2
Receiver						
Centre Wavelength	λ_c	1270		1600	nm	
Receiver Sensitivity	P_{min}			-34.5	dBm	4
Receiver Overload	P_{max}	-10			dBm	
LOS De-Assert	LOS_D			-35	dBm	
LOS Assert	LOS_A	-45			dBm	
LOS Hysteresis	LOS_H	1			dB	

Notes:

1. Internally AC coupled.
2. 20%-80%
3. Filtered, measured with a PRBS $2^{23}-1$ test pattern @155Mbps.
4. Minimum average optical power is measured at BER less than $1E-12$, with $2^{23}-1$ PRBS and ER=9 dB

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IV. Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Power Supply Voltage	Vcc	3.15	3.3	3.45	V	
Power Supply Current	Icc			300	mA	
Transmitter						
LVPECL Inputs (Differential)	Vin	400		2000	mVpp	1
Input differential impedance	Zin	85	100	120	Ω	2
Receiver						
LVPECL Outputs (Differential)	Vout	400		2000	mVpp	1
Output differential impedance	Zout	85	100	120	Ω	

Notes:

1. AC coupled.
2. Rin > 100 kohms @ DC

V. Ordering Information

Pivotal Part Number	Description
SFP-100EX	SFP, 1310nm, EX SMF 40km, 100M, C-Temp
SFP-100EX-I	SFP, 1310nm, EX SMF 40km, 100M, I-Temp

Notes:

1. Please contact sales for specific OEM Platform part numbers to fit your network.

Warranty

<https://pivotaloptics.com/warranty/>

Disclaimer

External physical characteristics are subject to variation. This may include, but is not limited to, external case designs, pull tab colors and/or shapes, removal latch styles or colors, and label sizes and placement. These variations do not affect the function or characteristics of the transceivers.