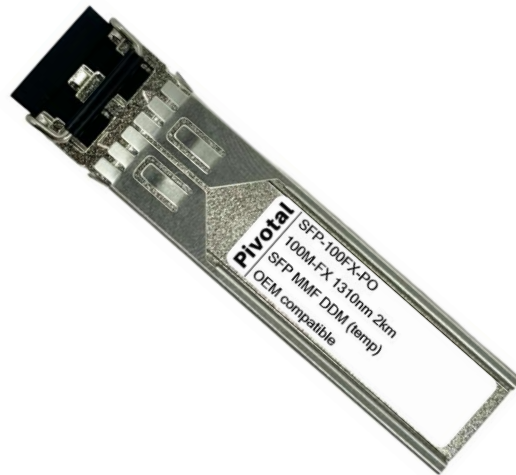


SFP-100FX

100M, SFP, FX, MMF TRANSCEIVER 1310nm, 2km REACH, DUPLEX LC CONNECTOR

Product Features

- Up to 155Mbps data-rate
- 1310nm SFP (LED) laser and PIN photodetector for 2km transmission with MMF
- Compliant with SFP MSA and SFF-8472 with duplex LC receptacle
- Digital Diagnostic Monitoring: Internal Calibration or External Calibration
- Compatible with RoHS
- +3.3V single power supply
- Available operating temperature ranges:
 - Commercial: 0°C to 70°C
 - Industrial: -40°C to 85°C



Product Applications

- 100Base-FX Fast Ethernet
- Sonet OC-3, SR1
- SDH STM-1. I-1

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
Supply Voltage	Vcc	-0.5		4.5	V
Operating Humidity		5		85	%

II. Operating / Environment Specifications

Parameter		Symbol	Min.	Typ.	Max.	Units
Case Operating Temperature	Commercial	TC	0		+70	°C
	Industrial		-40		+85	°C
Power Supply Voltage		VCC	3.13	3.3	3.47	V
Power Supply Current		Icc			300	mA
Data Rate				155		Mbps

III. Optical and Electrical Characteristics

Parameter		Symbol	Min.	Typ.	Max.	Unit	Notes
Transmitter							
Centre Wavelength		λ_c	1260	1310	1360	nm	
Spectral Width (RMS)		$\Delta\lambda$			4	nm	
Average Output Power		P _{out}	-20		-14	dBm	1
Extinction Ratio		ER	9		16	dB	
Data Input Swing Differential		V _{in}	300		1860	mV	2
Input Differential Impedance		Z _{in}	90	100	110	Ω	
TX Disable	Disable		2.0		V _{cc}	V	
	Enable		0		0.8	V	
TX Fault	Fault		2.0		V _{cc}	V	
	Normal		0		0.8	V	
Receiver							
Centre Wavelength		λ_c	1260		1580	nm	
Receiver Sensitivity					-31	dBm	3
Receiver Overload			0			dBm	3
LOS De-Assert		LOS _D			-32	dBm	
LOS Assert		LOS _A	-45			dBm	
LOS Hysteresis		LOS _H	1		4	dB	
Data Output Swing Differential		V _{out}	400		1800	mV	4
LOS	High		2.0		V _{cc}	V	
	Low		0		0.8	V	

Notes:

1. The optical power is launched into SMF.
2. PECL input, internally AC-coupled and terminated.
3. Measured with a PRBS 223-1 test pattern @155Mbps, BER $\leq 1 \times 10^{-10}$.
4. Internally AC-coupled.

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IV. Timing and Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit
Tx Disable Negate Time	t_on			1	ms
Tx Disable Assert Time	t_off			10	μs
Time To Initialize, including Reset of Tx Fault	t_init			300	ms
Tx Fault Assert Time	t_fault			100	μs
Tx Disable To Reset	t_reset	10			μs
LOS Assert Time	t_loss_on			100	μs
LOS De-assert Time	t_loss_off			100	μs
Serial ID Clock Rate	f_serial_clock			400	KHz
MOD_DEF (0:2)-High	V _H	2		V _{cc}	V
MOD_DEF (0:2)-Low	V _L			0.8	V

V. Ordering Information

Pivotal Part Number	Description
SFP-100FX	SFP, 1310nm, FX MMF 2km, 100M, C-Temp
SFP-100FX-I	SFP, 1310nm, FX MMF 2km, 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.