

SFP28-ER

25GBASE, SFP28, ER, SMF TRANSCEIVER

1310nm, 40km REACH, DUPLEX LC CONNECTOR

Product Features

- Up to 25.78Gbps Data Links
- Up to 40km transmission on SMF
- Compliant to 25GBASE-ER
- Power dissipation < 1.5W
- Single +3.3V±5% power supply
- High sensitivity APD photodiode and TIA Rate Adaptation
- LC Duplex Connector
- RoHS compliant
- Compliant with SFF-8472& IEEE 802.3cc
- Available operating temperature ranges:
 - Commercial: 0°C to 70°C
 - Industrial: -40°C to 85°C



Product Applications

- 25GBase-ER Ethernet
- FC / CPRI

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
Relative Humidity (non-condensing)	RH	0		85	%

II. Operating Specifications

Parameter	Symbol	Min.	Typ.	Max.	Units	Notes
Case Operating Temperature	TC	0		+70	°C	Commercial
		-40		+85	°C	Industrial
Power Supply Voltage	VCC	3.14	3.3	3.47	V	
Data Rate, each lane	BR		25.78125		Gbps	
Transmission Distance	TD			40	km	
Coupled fiber	Single mode fiber					9/125um SMF

III. Optical Characteristics

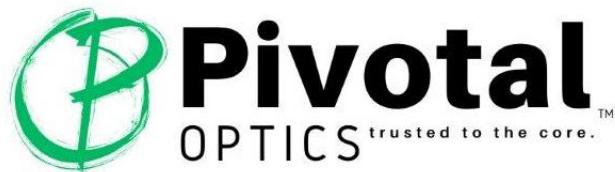
Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Transmitter						
Center Wavelength	λ	1290		1330	nm	
Side Mode Suppression Ratio	SMSR	30			dB	
Average Optical Power	PAVG	0		6	dBm	
Optical Power OMA	TxOMA	0			dBm	1
Transmitter Dispersion Penalty	TDP			2.7	dB	
Average Launch Power OFF Transmitter	Poff			-20	dBm	
Extinction Ratio	ER	4			dB	
Optical Return Loss Tolerance	OTL			20	dB	
Transmitter Reflectance	TR			-26	dB	
Receiver						
Center Wavelength	λ	1290		1330	nm	
Damage Threshold			-3		dBm	
Receive Power (Overload)				-5	dBm	
Receiver Sensitivity (OMA)	RxSEN			-19	dBm	1
Receiver Reflectance	RR			-26	dB	
LOS Assert	LOS A	-30			dBm	
LOS Deassert	LOS D			-21	dBm	
LOS Hysteresis	LOS H	0.5			dB	

Notes:

1. Measured at 25.78125Gb/s, ER>4dBm, PRBS 231-1 and BER better than or equal to 5E-5;

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IV. Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Transmitter						
Input Differential Impedance	RIN		100		Ω	
Single-ended Data Input Swing	VIN	90		450	mVp-p	
Transmit Disable Voltage	VDIC	2		VccHost	V	
Transmit Enable Voltage	VEN	Vee		Vee+0.8	V	
Transmit Fault Assert Voltage	VFA	2		VccHost	V	
Transmit Fault De-Assert Voltage	VFDA	Vee		Vee+0.4	V	
Receiver						
Single-ended Data Output Swing	VOD	200		450	mVp-p	
LOS Fault	VLOS-F	2		VccHost	V	
LOS Normal	VLOS-N	Vee		Vee+0.4	V	

V. Ordering Information

Pivotal Part Number	Description
SFP28-ER	SFP28, 1310nm, ER SMF 40km, 25G DDM, C-Temp
SFP28-ERI	SFP28, 1310nm, ER SMF 40km, 25G DDM, 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.