



10.3Gbps SFP+ Bi-Directional Transceiver

P/N 5ER0P00-3327 (40km, 1330nm Tx)
P/N 5ER0P00-2733 (40km, 1270nm Tx)



Description

Menara Networks' bi-directional SFP+ transceivers are designed for use in links of 40km over a single fiber. The SFP+ module supports 10G Ethernet and OC-192/STM-64 applications and interoperates with all major router and switch vendors.

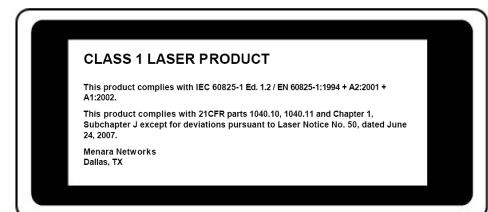
Digital Optical Monitoring interfaces are provided via the SFP SFF-8472 standards compliant I2C interface. The receiver features differential ac-coupled data outputs and LVTTTL for LOS (Loss of Signal) output. Circuit ground is internally isolated from frame ground.

Applications

- 40km 10GE or OC-192/STM-64 bi-directional single fiber links
- Fiber conservation to customer locations or co-location areas

Features

- Hot-pluggable SFP+ footprint
- RoHS compliant
- Bi-directional optical data links over single fiber
- Compliant with SFP+ MSA
- Digital diagnostic SFF-8472 compliant
- 1330nm and 1270nm wavelength use
- Metal package for lower EMI
- Single power supply voltage : +3.3V
- Low power dissipation, <1.5W
- LC diplexer connector
- Laser Class 1 IEC/CDRH compliant
- Distances of 40km



Transmitter E-O Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Support data rate	-	9.953	-	10.3125	Gb/s	-
Center Wavelength	λ	1320	1330	1340	nm	1
		1260	1270	1280		2
Spectral Width (RMS)	$\Delta\lambda$			1	nm	-
Side Mode Suppression Ratio	SMSR	30			dB	
Average Optical Output Power	P _o	+1	-	+5	dBm	
Extinction Ratio	E _r	3.5			dB	
Output Eye Diagram	Compliant with Eye Mask Defined in IEEE802.3 standard					
Transmitter and Dispersion Penalty	TDP			3.2	dB	
Relative Intensity Noise	RIN			-128	dB/Hz	

Notes:

1. 40km reach, 1330nm Tx and 1270nm Rx

2. 40km reach, 1270nm Tx and 1330nm Rx

Receiver O-E Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Support data rate	-	9.953	-	10.3125	Gb/s	-
Operating Wavelength	λ	1260		1280	nm	1
		1320		1340		2
Receiver sensitivity (40km)	S _{en}	-15			dBm	3
Saturation	P _{sat}			+0.5	dBm	
Receiver Optical Return Loss	-			-27	dB	-
LOS Asserted	LOS _A	-30			dBm	
LOD De-assert	LOS _D			-15	dBm	
LOS Hysteresis		0.5	2	5	dB	

Notes:

1. 40km reach, 1330nm Tx and 1270nm Rx

2. 40km reach, 1270nm Tx and 1330nm Rx

3. Measured with a PRBS of 2³¹-1 at 1 x 10⁻¹² BER

Ordering Information

Part Number	Description	ROHS Compliant	Operating Case Temperature
5ER0P00-3327 5ER0P00-2733	Bi-directional SFP+ 40KM 1330Tx/1270Rx 1270Tx/1330Rx	ROHS-6	0 ~ +70°C

x = J for Juniper, x = C for Cisco, x = A for Alcatel, x = O for Cisco ONS

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