

- Support 10Gbps
- Duplex LC connector
- Hot pluggable SFP+ footprint
- 850nm VCSEL transmitter, PIN photo-detector
- Up to 300M on 50/125um MMF(2000MHz.KM)
- Low power consumption, <1W
- Digital Diagnostic Monitor Interface
- Optical interface compliant IEEE 802.3ae
- Electrical interface compliant to SFF-8431
- Operating case temperature : 0 to 70°C

- 10GBase-LR/LW at 10.3125G
- 10G Fiber Channel
- Switch to Switch interface
- Router / Server interface
- Other optical links

The diagram illustrates the digital diagnostic monitor interface. It features a central 'Digital diagnostic monitor interface' block. To its left is an 'EEPROM Memory' block, connected via SDA and SCL lines. Above the central block is a 'Post Amp' and 'LD Driver' block, which receives RX+, LOS, TX+, TX Dis, and TX Fault signals. The 'Post Amp' is connected to a 'PIN TIA' block, and the 'LD Driver' is connected to an 'LD' (Laser Diode) block. The 'Digital diagnostic monitor interface' block receives VDD, Bias, RX Power, TX Power, and Temperature (Tem) signals from the other blocks. It also has two output lines on the right.

General Operating Characteristics

Parameter	Symbol	Min.	Typ	Max.	Unit
Data Rate	DR	9.953	10.3125	10.518	Gb/s
Supply Voltage	V _{CC}	3.13	3.3	3.47	V
Supply Current	I _{CCS}			280	mA
Operating Case Temp.	T _C	0		70	°C

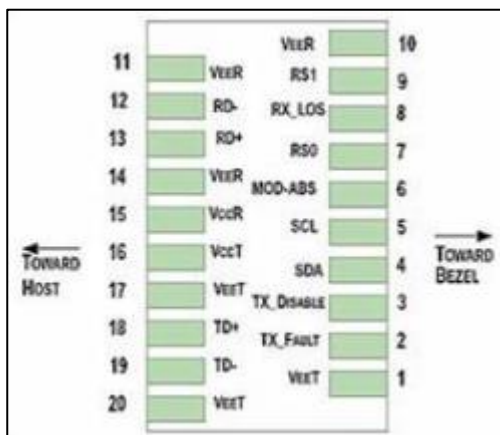
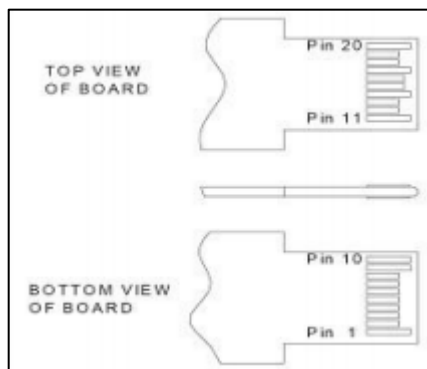
Optical Characteristics(Transmitter)

Parameter	Symbol	Min.	Typ	Max.	Unit
Operating Wavelength	λ	840	850	860	nm
Ave. output Power (Enabled)	P _{AVE}	-6		-1	dBm
Extinction Ratio	ER	4	4.5		dB
Output Optical Eye	Compliant with IEEE 802.3ae				

Optical Characteristics(Receiver)

Parameter	Symbol	Min.	Typ	Max.	Unit
Operating Wavelength	λ	840	850	860	nm
Receiver Sensitivity	P _{SENI}			-11.1	dBm
Overload	P _{AVE}	0.5			dBm

Pin Definition And Functions



Pin	Symbol	Name / Description
1	VeeT	Tx ground
2	Tx Fault	Tx fault indication
3	Tx Disable	Transmitter Disable. Laser output disabled on high or open
4	SDA	2-wire Serial Interface Data Line
5	SCL	2 wire serial interface clock input
6	MOD-ABS	Module Absent. Grounded within the module
7	RS0	Rate Select 0
8	RX_LOS	Loss of signal indication. Logic 0 indicates normal operation
9	RS1	Rate Select 1
10/11	VeeR	Rx ground
12	RD-	Receiver Inverted DATA out. AC Coupled
13	RD+	Received data out. AC Coupled
14	VeeR	Rx ground
15	VccR	Rx power supply
16	VccT	Tx power supply
17	VeeT	Tx ground
18	TD+	Transmit data in. AC Coupled
19	TD-	Transmitter Inverted DATA in. AC Coupled
20	VeeT	Tx ground

Digital Diagnostic Specifications

Parameter	Symbol	Unit	Min.	Max.	Accuracy
Transceiver temperature	DTemp-E	°C	-45	90	±5°C
Transceiver supply voltage	Dvoltage	V	2.8	4.0	±3%
Transmitter bias current	DBias	mA	0	80	±10%
Transmitter output power	DTx-Power	dBm	-8	1	±2dB
Receiver average input power	DRx-Power	dBm	-13	0	±2dB

Package Dimensions

