

Key Features

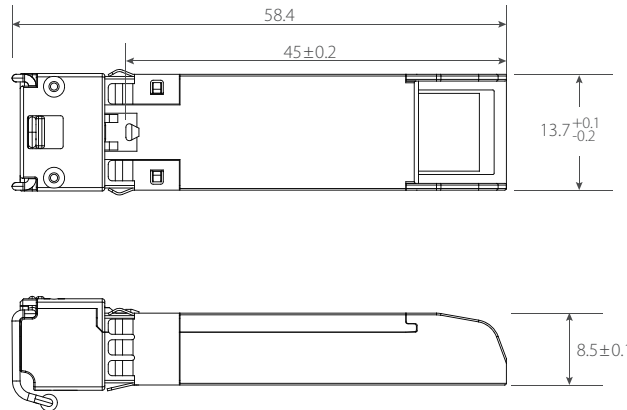
- Up to 11.1Gbps data links
- Up to 10km transmission on SMF
- Power dissipation < 1.5 W
- 1270nm DFB laser and PIN receiver for uplink
- 1330nm DFB laser and PIN receiver for downlink
- 2-wire interface with integrated digital diagnostic monitoring
- Internal calibration for DDM
- EEPROM with serial ID functionality
- Hot-pluggable SFP+ footprint
- Compliant with SFP+ MSA with LC connector
- Single + 3.3V power supply
- Case operating temperature range: 0°C to 70°C
- Compliant with RoHS and SFF-8472 & SFF-8431
- RoHS 6 compliant (lead free)

Applications

- 10GBASE-BX



Dimensions



Unit: mm

Absolute Maximum Ratings

	Symbol	Min.	Typ.	Max.
Supply Voltage	Vcc	-0.5V		3.6V
Data Input Voltage -Single Ended		-0.5V		Vcc+0.5V
Storage Temperature	Tst	-40°C		85°C
Case Operating Temperature	Top	0°C		70°C
Humidity (Non-condensing)	RH	5%		95%
Signal Input Voltage		VCC – 0.3V		VCC +0.3V
Supply Voltage	VCCT, R	+3.135V		+3.465V
Supply Current	ICC			450mA
Power Dissipation	PD			1.5W

Notes: Unless specified else, the specifications below are defined at TC=25±3°C.

Optical/Electric Specifications – Transmitter	Symbol	Min.	Typ.	Max.
Bit Rate			10.3125Gbps	
Central Wavelength 1270 nm TX	λ_c 1270 TX	1260nm	1270nm	1280nm
Central Wavelength 1330 nm TX	λ_c 1330 TX	1320nm	1330nm	1340nm
Output Optical Power	OP	- 6dBm		- 1dBm
Average Launched Power (Laser Off) *Note 1	Poff			-40dBm
Extinction Ratio *Note 2	ER	3.5dB		
Side Mode Suppression Ratio	SMSR	30dB		
Spectral Width	$\Delta\lambda$			1nm
Optical Eye Mask *Note 2		Compliant with IEEE802.3ae		
Differential Input Voltage	VPP-DIF	180mV		700mV
Differential line Input Impedance	RIN	85Ohm	100Ohm	115Ohm
Transmitter Fault Output-High	VFaultH	2.4V		Vcc
Transmitter Fault Output-Low	VFaultL	- 0.3V		0.8V
Transmitter Disable Voltage-High	VDisH	2V		Vcc + 0.3V

Optical/Electric Specifications – Receiver	Symbol	Min.	Typ.	Max.
Optical Wavelength 1330 nm RX	λ_c 1330 RX	1320nm	1330nm	1340nm
Central Wavelength 1270 nm RX	λ_c 1270 RX	1260nm	1270nm	1280nm
Sensitivity	SEN			-15dBm
Saturation Power	SAT	0.5dBm		
LOS De-Assert	LOSD			-17dBm
LOS Assert	LOSA	-30dBm		
LOS Hysteresis	LOSH	0.5dB		5dB
Differential Data Output Voltage	VPP-DIF	300mV		850mV
Receiver LOS Pull Up Resistor	RLOS	4.7KOhm		10KOhm
Data Output Rise/Fall time	tr/tf			38ps
LOS Output Voltage-Low	VOL	2V		Vcc
LOS Output Voltage-High	VOHt	-0.3V		0.4V

Notes:

1. The optical power is launched into SMF
2. Measured with RPBS 2^31-1 test pattern @10.3125Gbs
3. Measured with RPBS 2^31-1 test pattern @10.3125Gbs BER=<10^-12
4. Unless specified else, the specifications below are defined at TC=25±3°C

