

Key Features

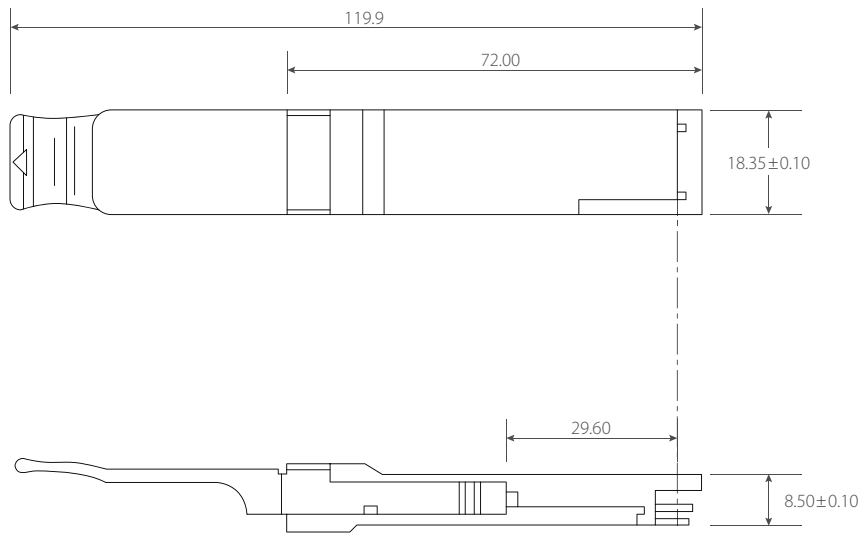
- Compliant with 100G Ethernet IEEE 802.3bmand SFF-8636 QSFP28 MSA
- Hot pluggable electrical interface
- QSFP footprint (Quad small form factor,pluggable)
- Low power dissipation <3.5W
- 0°C to 70°C operating case temperature
- Single 3.3V power supply
- 4 independent full-duplex channels
- MTP/MPO optical connector
- Up to 28Gb/s data rate per channel
- Up to 100m OM4 MMF transmission
- Class 1 laser product complies with IEC/EN60825-1:2007 and IEC/EN60825-1:2014
- Diagnostic performance monitoring of module temperature, supply voltages, laser bias current, transmit optical power, receive optical power
- RoHS6 compliant

Applications

- 100GBASE-SR4 Ethernet links
- Infiniband EDR, FDR and QDR interconnects
- Rack to rack



Dimensions



Unit: mm

Absolute Maximum Ratings

	Symbol	Min.	Max.
Power Supply Voltage	Vcc	-0.5V	3.6V
Storage Temperature	Tst	-20°C	85°C
Relative Humidity	Rh	5%	85%
Data Input Voltage — Single Ended		-0.5V	Vcc+0.5V

Operating Conditions

	Symbol	Min.	Typ.	Max.
Power Supply Voltage	Vcc	3.13V	3.3V	3.46V
Power Supply Current	Icc	-		1060mA
Operating Case Temperature	Tca	0°C	-	70°C
Module Power Dissipation	P	-		3.5W
Signal Rate per Channel	B		25.78125GB/s	28.05GB/s
Control Input Voltage High	Vih	2V		Vcc+0.3V
Control Input Voltage Low	Vil	-0.3V		0.8V
Two Wire Serial (TWS) Interface Clock Rate	P	-		400KHz
Receiver Differential Data Output Load	Zd		100Ohms	

Optical/Electro Specifications – Transmitter	Symbol	Min.	Typ.	Max.
Center Wavelength	λ_c	840nm		860nm
Spectral Width – RMS	$\Delta\lambda$	-	-	0.6nm
Average Output Power/Lane	Po	-8.4dBm	-	+2.4dBm
Optical Power in OMA	OMA	-6.4dBm		+3dBm
Launch Power in OMA Minus TDEC/Lane		-7.3dBm	-	-
Transmitter and Dispersion Eye Closure(TDEC)/Lane	TDEC	-	-	4.3dBm
Extinction Ratio	ER	2dB	-	-
Disabled Output Optical Power	PO_OFF	-	-	-30dBm
Eye Mask Coordinates: X1, X2, X3; Y1, Y2, Y3		0.3,0.38,0.45,0.35,0.41,0.5UI		
Differential Data Input Voltage	VDIFF	180mV	-	1000mV
Optical Return Loss Tolerance	ORL	-	-	12dB

Optical/Electro Specifications – Receiver	Symbol	Min.	Typ.	Max.
Center Wavelength	λ	840nm	-	860nm
Damage Threshold	DTH	3.4dBm	-	-
Average Receiver Power/Lane	PIN_AVG	-10.3dBm	-	+2.4dBm
Stressed Sensitivity (OMA)	PIN_s-oma	-	-	-5.2dBm
LOS Assert	PA	-30dBm	-	-
LOS De-Assert	PD	-	-	-11dBm
LOS Hysteresis		0.5dB	-	-
Rise & Fall Time (20%-80%)	Tr/Tf	-	-	35dB/ps
Differential Data Output Voltage	Vout,pp	300mV	-	1000mV

Eye Safety Mark

The LM2 series multimode transceiver is a class 1 laser product. It complies with EN 60825-1 and FDA 21 CFR 1040.10 and 1040.11. In order to meet laser safety requirements the transceiver shall be operated within the Absolute Maximum Ratings. Caution All adjustments have been done at the factory before the shipment of the devices. No maintenance and user serviceable part is required. Tampering with and modifying the performance of the device will result in voided product warranty. Use of controls or adjustment or performance of procedures other than those specified herein may result in hazardous radiation exposure. Complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50. dated (Insert date of this guidance.)

Required Mark

Class 1 Laser Product

Complies with 21 CFR 1040.10 and 1040.11

Note : All information contained in this document is subject to change without notice.

