100-32MM-ED - 1G SFP Optical module MM LC 1310nm, 2km, DDM

The 100-32MM-ED is the high performance and cost-effective module for optical data communication applications specified for multi modes of 1Gb/s. It operates with +3.3V power supply. The module is intended for multi-mode fiber, operates at a nominal wavelength of 1310nm and complies with Multi-Source Agreement (MSA) Small Form Factor Pluggable (SFP). Each module consists of a transmitter optical subassembly, a receiver optical subassembly and an electrical subassembly. All of them are housed in a metal package and the combination produces a reliable component.
The module is a duplex LC connector transceiver designed for use in Gigabit Ethernet applications.

Product Features

- Up to 1. 25Gb/s Data Links
- Hot-pluggable SFP footprint
- 1310nm Fabry-Perot laser transmitter
- Duplex LC connector
- Low power dissipation
- Metal enclosure, for lower EMI
- Up to 2km on 50/125µm MMF
- Single 3.3V power supply
- Operating temperature range: 0°C to 70°C
- Digital Diagnostic Monitoring Optional

Applications

- 1.25Gb/s Gigabit Ethernet
- 1.0625Gb/s Fiber Channel

Absolute Maximum Ratings

Parameter	Symbol	Min	Typ	Max	Unit	Ref.
Maximum Supply Voltage	Vcc	-0.5		4.7	V	
Storage Temperature	TS	-40		85	°C	
Case Operating Temperature	TOP	0		70	°C	

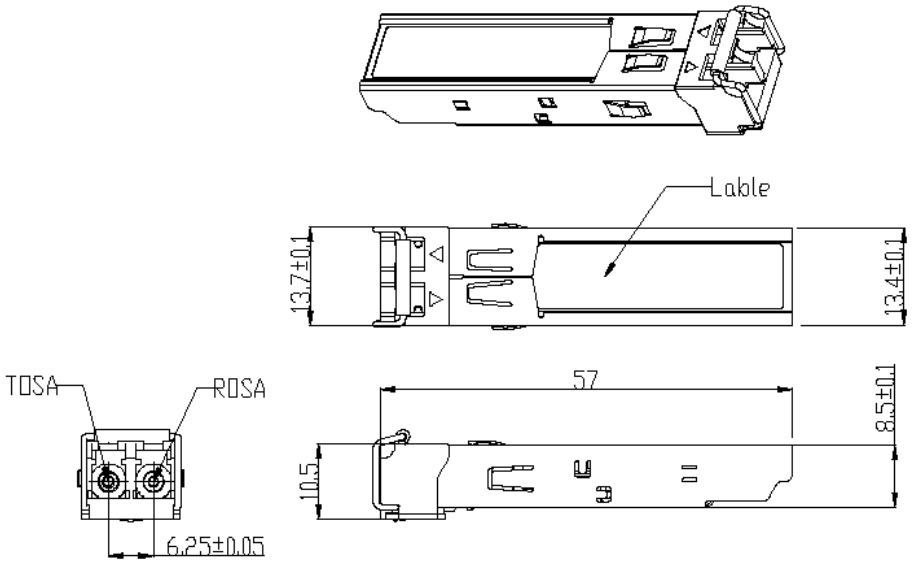
Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Ref.
Supply Voltage	Vcc	3.15	3.3	3.6	V	
Supply Current	Icc		185	250	mA	
Transmitter						
Input differential impedance	Rin		100		Ω	1
Single ended data input swing	Vin,pp	250		1200	mV	
Transmit Disable Voltage	VD	Vcc–1.3		Vcc	V	
Transmit Enable Voltage	VEN	Vee		Vee+ 0.8	V	2
Transmit Disable Assert Time				10	us	
Receiver						
Single ended data output swing	Vout,pp	250		800	mV	3
Data output rise time	tr		100	175	ps	4
Data output fall time	tf		100	175	ps	4
LOS Fault	VLOS fault	Vcc–0.5		VccHOST	V	5
LOS Normal	VLOS norm	Vee		Vee+0.5	V	5
Power Supply Rejection	PSR	100			mVpp	6

Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Ref.
Transmitter						
Output Opt. Pwr (End of Life)	POUT	-10.0		-3.0	dBm	1
Optical Wavelength	λ	1270	1310	1360	nm	
Wavelength Temperature Dependance			0.08	0.125	nm/°C	
Spectral Width (-20dB)	σ			3.0	nm	
Optical Extinction Ratio	ER	10			dB	
Sidemode Supression ratio	SSRmin	30			dB	
Optical Rise/Fall Time	tr/ tf		100	160	ps	
RIN	RIN			-120	dB/Hz	
Transmitter Jitter (peak to peak)				100	ps	
Receiver						
Average Rx Sensitivity @ Gigabit Ethernet	RSENS3			-24.0	dBm	2
Maximum Input Power	PMAX	-3.0			dBm	
Optical Center Wavelength	λC	1260	1310	1620	nm	
LOS De - Assert	LOSD			-26	dBm	
LOS Assert	LOSA	-38			dBm	
LOS Hysteresis			1.0		dB	
Receiver Jitter Generation @1.25Gbps				160	ps	3

Mechanical Specification



Regulatory Compliance

Feature	Reference	Performance
Electrostatic discharge（ESD）	IEC/EN 61000-4-2	Compatible with standards
Electromagnetic Interference (EMI)	FCC Part 15 Class B EN 55022 Class B (CISPR 22A)	Compatible with standards
Laser Eye Safety	FDA 21CFR 1040.10, 1040.11 IEC/EN 60825-1, 2	Class 1 laser product
Component Recognition	IEC/EN 60950, UL	Compatible with standards
ROHS	2002/95/EC	Compatible with standards
EMC	EN61000-3	Compatible with standards