

Maipu 25G SFP28 100M Transceiver

SFP28-M1-L480C8D

Overview

Maipu SFP28-M1-L480C8D short wavelength transceiver is a single-Channel, Pluggable, Fiber-Optic SFP28 for 25 Gigabit Ethernet and InfiniBand EDR Applications. It is with the SFP+ 20-pin connector, Digital diagnostic functions are available via an I²C. It has built-in clock and data recovery (CDR). They are compliant to IEEE802.3by, SFF-8472 Rev 12.2 and SFF-8402, and compatible with SFF-8432 and applicable portions of SFF-8431 Rev4.1. This module incorporates ATOP Technologies proven circuit and VCSEL technology to provide reliable long life, high performance, and consistent service.

Key Features

- Operating data rate up to 25.78Gbps
- Duplex LC optical connector
- 850nm VCSEL laser transmitter
- RoHS compliant and Lead Free
- Distance up to 100m over 50/125um MMF on multi-mode fiber
- Metal enclosure for lower EMI
- Power dissipation <1.0W
- Operating case temperature Standard: -20°C~+70°C

Absolute Maximum Ratings

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Maximum Supply Voltage	Vc	-0.5		+4.0	V	
Storage Temperature	TS	-40		+85	°C	
Operating Humidity	RH	0		85	%	

Recommended Operating Conditions

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Power Supply Voltage	Vcc	3.13	3.30	+3.47	V	
Power Supply Current	Icc			300	mA	
Case Operating Temperature	Tc	-20		+70	°C	
Data Rate			25.78		Gbps	
50/125 um OM4 MMF	Lmax			100	m	

Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Ref.
Transmitter						
Input Differential Impedance	Rin	80	100	120	Ω	1
Differential Data Input Swing	Vin, pp	150		980	mV	
TX Disable-High		Vcc-0.8		Vcc	V	
TX Disable-Low		Vee		Vee+0.8	V	
TX Fault-High		Vcc-0.8		Vcc	V	
TX Fault-Low		Vee		Vee+0.8	V	
Receiver						
Differential Data Output Swing	Vout, pp	300		850	mV	2
LOS-High		Vcc-0.8		Vcc	V	
LOS-Low		Vee		Vee+0.8	V	

Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Transmitter						
Output Opt. Power	PO	-8.4		+2.4	dBm	
Optical Wavelength	λ	840	850	860	nm	
Spectral Width (RMS)@25Gb/s	$\Delta\lambda$			0.6	nm	
Optical Extinction Ratio	ER	2			dB	
Receiver						
Receiver Sensitivity	SENS1			-10.3	dBm	1
Stressed Receiver Sensitivity (OMA)	Pmin			-5.2	dBm	
Receiver Overload		3			dBm	
Optical Center Wavelength	λ_C	840		860	nm	
LOS De-Assert	LOSD			-13	dBm	
LOS Assert	LOSA	-30			dBm	
LOS Hysteresis		0.5		5	dB	

Order Information

Model	Description
SFP28-M1-L480C8D	25G SFP28, 850nm, 100m, LC, DDM, Multi-mode

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Maipu Communication Technology Co., Ltd
Maipu Mansion, No.16, Jiuxing Avenue
Hi-Tech Zone
Chengdu, Sichuan Province
P. R. China
610041
Tel: (86) 28-65544850,
Fax: (86) 28-65544948,
URL: [http:// www.maipu.com](http://www.maipu.com)
Email: overseas@maipu.com

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