

Maipu 1G SFP 550M Transceiver

SFP-M1-L24P8

Overview

Maipu SFP-M1-L24P8 Small Form Factor Pluggable (SFP) transceivers are compatible with the Small Form Factor Pluggable Multi-Sourcing Agreement (MSA). The SFP transceivers are high-performance, cost-effective modules supporting dual data-rate of 1.25Gbps/1.063Gbps and 550m transmission distance with MMF. They are RoHS compliant and lead-free.



Key Features

- Up to 1.25Gb/s data links
- Duplex LC optical connector
- 850nm VCSEL laser transmitter
- RoHS compliant and Lead Free
- Distance up to 550m on multi-mode fiber
- Metal enclosure for lower EMI
- Low power dissipation <800mW
- Operating case temperature: -20°C~+70°C

Absolute Maximum Ratings

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Maximum Supply Voltage	Vcc	-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			250	mA	
Case Operating Temperature	T	-20		+70	°C	1
Data Rate(Gigabit Ethernet)			1.25		Gbps	
Data Rate(Fibre Channel)			1.063		Gbps	
50/125um OM3 SMF	Lmax			550	m	

Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Ref.
Transmitter						
Input differential impedance	Rin	80			Ω	1
Differential data input swing	Vin, pp	250		1200	mV	
TX Disable-High		Vcc-1.3		Vcc	V	
TX Disable-Low		Vee		Vee+0.8	V	
TX Fault-High		Vcc-0.5		Vcc	V	
TX Fault-Low		Vee		Vee+0.5	V	
Receiver						
Differential data output swing	Vout, pp	300	400	800	mV	2
Data output rise time	Tr			175	ps	3
Data output fall time	Tf			175	ps	3
LOS-High		Vcc-0.5		Vcc	V	
LOS-Low		Vee		Vee+0.5	V	

Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Transmitter						
Output Opt. Power	PO	-9		-4	dBm	1
Optical Wavelength	λ	830	850	860	nm	
RMS Spectral Width	σ			0.85	nm	
Optical Rise/Fall Time	tr/tf			260	Ps	2
Total Jitter	TJ			0.35	UI	
Optical Extinction Ratio	ER	9		3.9	dB	
Receiver						
Receiver Sensitivity@1.25Gb/s	SENS			-18	dBm	3, 4
Receiver Overload		0			dBm	
Optical Center Wavelength	λ_C	770		860	nm	
LOS De-Assert	LOSD			-19	dBm	
LOS Assert	LOSA	-40			dBm	
LOS Hysteresis		0.5		5	dB	

Order Information

Model	Description
SFP-M1-L192P8	1G SFP, 850nm, 550m, LC, DDM, Multi-mode

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