

1.25G SFP Duplex LC Transceiver - LS125M85005

SFP Duplex LC Transceiver 1.25G Multimode SX 850nm VCSEL, 0.5km

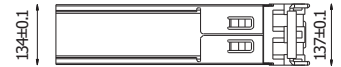
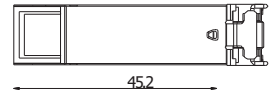
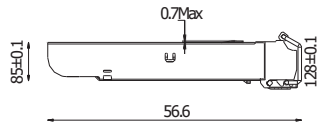
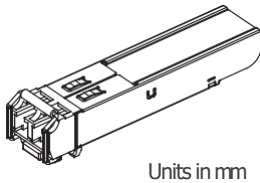
Applications

- Metro/Access Networks
- Gigabit Ethernet
- Fiber Channel
- Other Optical Link
- Compatible with HP, Extreme, Cisco, Nortel, Alcatel applications.



Features

- Hot-pluggable SFP package
- Metal Enclosure, Excellent EMI&EMC.
- Duplex LC, Multimode SX Transceiver
- Up to 500m on 50/125um fiber (300m on 62.5/125um fiber)
- Single +3.3V Power Supply
- Standard Operating Range: 0°C to 70°C Operating temperature
- Optional Industrial grade: -40°C to 85°C Operating temperature
- 850nm VCSEL laser transmitter for SX applications
- Class 1/CDRHClass I Laser Eye Safe



Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Storage Temperature	TC	-40	-	+85	°C	
Supply Voltage	VCCT, R	-0.5	-	4	v	
Relative Humidity	RH	5	-	+85	%	

Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Case operating Temperature	TC			70	°C	commercial grade
	TI	-40		85	°C	Industrial grade
Supply Voltage	VCCT, R	3.13	+3.3	3.47	V	
Power Supply Current	Icc		-	250	mA	commercial grade
	Icc			300	mA	Industrial grade
Data Rate (Gigabit Ethernet)			1.25		mVp-p	
Data Rate (Fiber Channel)			1.063		Gbps	
Distance on 50/125um fiber	Lmax			500	m	

Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Note
<i>Transmitter</i>						
Input differential impedance	RIN		100		Ω	1
Single ended data input swing	Vin, pp	250		1200	mV	
TX Disable High		Vcc-1.3		Vcc	V	
TX Disable Low		Vcc		Vcc+0.8	V	
TX Fault High		Vcc-0.5		Vcc	V	
TX Fault Low		Vee		Vcc+0.5	V	
<i>Receiver</i>						
Single ended data out 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 Fault		Vcc-0.5		Vcc	V	
LOS Low		Vcc		Vcc+0.5	V	

Notes:

1. AC coupled 2. Into 100 ohm differential termination 3. 20-80%

Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Ref
<i>Transmitter</i>						
Output Opt. Power	PO	-9	-	-4	dBm	1
Optical Wavelength	λ	830	850	860	nm	
RMS Spectral Width	α	-	-	0.85	nm	
Optical Rise/Fall Time	tr/tf	-	-	260	ps	2
Total Jitter	TJ	-	-	0.35	UI	
Optical Extinction Ratio	ER	9	-	-	dB	
<i>Receiver</i>						
RX 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	

Notes:

1. Class 1 Laser Safety 2. Unfiltered, 20-80%. Complies with GE and 1xFC eye masks when filtered. 3. Measured with conformance signals defined in FC-P1-2Rev. 10.0 specifications 4. Measured with PRBS 2 7-1 AT 10-12 BER