

LxLx-ST11xx Low Profile Optical Transceiver



1x/2x Fiber Channel Applications 3.3V, 850nm VCSEL, Multimode, Up to 500Meters

Applications

The LxLx-ST11xx multimode optical fiber transceivers provide low profile, cost effective solutions for rate agile 1x/2x Fiber Channel multimode optical fiber data links with a duplex LC connector interface.

These transceivers are fully compliant with the ANSI Fiber Channel standards but can be used for any other data communications purpose within their operating parameters.

Ordering Information

Low Rider	L	X	L	X	-	ST11	X	X
Roughrider ¹	RR		L	X	-	ST11	X	X

Shell Options

N= No GND

Tabs (Flat Shell)

T= GND Tabs

Extended Margin Link

BLANK=

Standard Power

2= +2dB Margin

3= +3dB Margin

5= +5dB Margin

Temperature and coating

H= -40 to 85 C,

No Coating

M= -40 to 85 C,

Conformal

Coating

Mounting

BLANK= Solder Posts

(0.125 length)

B= Screw Posts

(0.050 length)

1. See product data sheet for information on Roughrider products.

Key Features & Benefits

- Low Profile Design - 0.386 inches max. height
- Surface mount I/O pins for high speed signal integrity
- All metal body, solder or screw mount options
- Industrial Temp Range, Vibration tolerant design
- RX data squelch on Signal Detect deassert
- Individual (separate) +3.3 V power supply per port
- Industry standard duplex multimode LC receptacle
- Compliant with ANSI Fiber Channel FC-PI / PH2
- EN-60825 / IEC-825 / CDRH Class 1 Compliant
- Optional Parylene C Conformal Coating
- High Power Options available
- Optional addition of fiber pigtail

Transmitters: VCCTX = 3.135V to 3.465V, T_A = Operating Temperature Range

Parameter	Symbol	MIN	Typical	MAX	Unit
Optical Output Power ^{1,2}					
LxL-ST11xx	P _O	-10.0		-1.5	dBm
LxL2-ST11xx (+2dB Margin)		-8.0		-1.5	
LxL3-ST11xx (+3dB Margin)		-7.0		-1.5	
LxL5-ST11xx (+5dB Margin)		-5.0		-1.5	
Extinction Ratio	ER		9		dB
Optical Modulation Amplitude (p-p)					
2.125 GigaBaud	OMA	196			μW
1.0625 GigaBaud		156			μW
Total Jitter ¹	T _j			85	ps

1. Assuming an Extinction Ratio of 9 dB

2. BER=10⁻¹² @ 2.125 GigaBaud, PRBS = 2⁷-1, NRZ, Compliant with FC-PI-2.

Stratos

LxLx-ST11xx Low Profile Optical Transceiver

Connectivity for
Business-Critical Continuity™

Receivers: VCCR_X = 3.135V to 3.465V, T_A = Operating Temperature Range

Parameter	Symbol	MIN	Typical	MAX	Unit
Optical Sensitivity ¹ 2.125 GigaBaud ² 1.0625 GigaBaud ³	P _i	-15.0 -17.0		0 0	dBm dBm
Optical Modulation Amplitude 2.125 GigaBaud 1.0625 GigaBaud	OMA	49 31			μW μW
Stressed Receiver Sensitivity (OMA) 2.125 GigaBaud 50/125 μm MMF 62.5/125 μm MMF 1.0625 GigaBaud 50/125 μm MMF 62.5/125 μm MMF		96 109 55 67			μW μW μW μW

1. Assuming an Extinction Ratio of 9 dB
2. BER=10⁻¹² @ 2.125 GigaBaud, PRBS = 2⁷-1, NRZ, Compliant with FC-PI-2.
3. BER=10⁻¹² @ 1.0625 GigaBaud, PRBS = 2⁷-1, NRZ, Compliant with FC-PH.

Link Distances

Fiber Specification	Application	Distance
62.5/125 (200MHz*Km)	2x Fiber Channel – ANSI X3.297 FC-PI	150M
	1x Fiber Channel – ANSI X3.297 FC-PH-2	300M
50/125 (500MHz*Km)	2x Fiber Channel – ANSI X3.297 FC-PI	300M
	1x Fiber Channel – ANSI X3.297 FC-PH-2	500M

For more information on this product consult the LxLx-ST11xx product data sheet.

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