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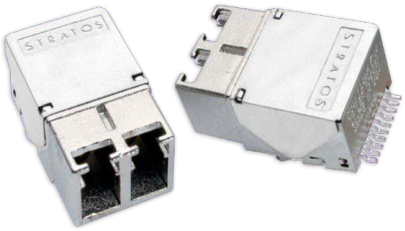
LxLx-ST11xx Low Profile Optical Transceiver

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



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.

Features

- 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

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Please read our datasheet & drawing disclaimer here.

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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)

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

Parameter	Symbol	MIN	Typical	MAX	Unit
Optical Output Power[1,2]	P_O				dBm
LxL-ST11xx		-10.0		-1.5	
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)	OMA				
2.125 GigaBaud		196			µW
1.0625 GigaBaud		156			µW
Total Jitter[1]	Tj			85	ps

1. Assuming an Extinction Ratio of 9 dB
2. BER=10^{-12} @ 2.125 GigaBaud, PRBS = 2^7-1, NRZ, Compliant with FC-PI-2.

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

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

1. Assuming an Extincton Ratio of 9 dB
2. BER=10^{-12} @ 2.125 GigaBaud, PRBS = 2^7-1, NRZ, Compliant with FC-PI-2.
3. BER=10^{-12} @ 1.0625 GigaBaud, PRBS = 2^7-1, 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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