

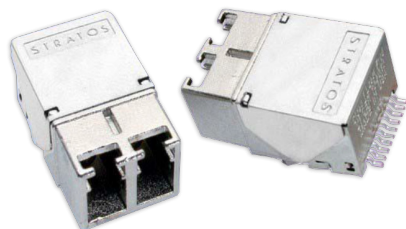
# LxKx-ST11xx Low Profile Optical Transmitter

Gigabit Ethernet / 1x Fiber Channel Applications 3.3V, 850nm,  
VCSEL, Multimode, Up to 550 Meters

## Applications

The LxKx-ST11xx multimode optical fiber transceivers provide low profile, cost effective solutions for Gigabit Ethernet and 1x Fiber Channel multimode optical fiber data links with a duplex LC connector interface.

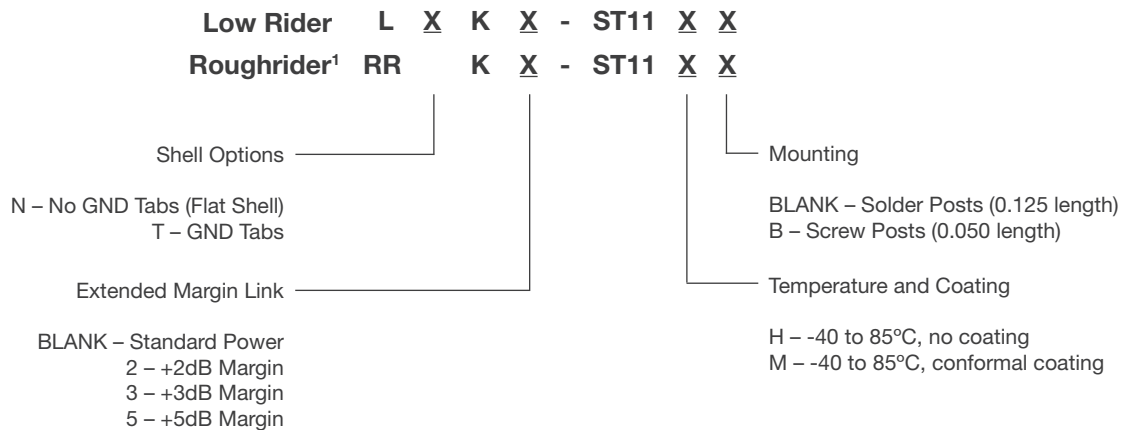
These transceivers are fully compliant with the IEEE Gigabit Ethernet and 1x Fiber Channel standards but can be used for any other data communications purpose within their operating parameters.



## 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
- Full compliance to IEEE and ANSI requirements
- EN-60825 / IEC-825 / CDRH Class 1 Compliant
- Optional Parylene C Conformal Coating
- High Power options available
- Optional addition of fiber pigtail

## Ordering Information



**Transmitters:** VCCTX = 3.135V to 3.465V, T<sub>A</sub> = Operating Temperature Range

| Parameter  | Symbol         | MIN                          | Typical | MAX                        | Unit |
|--|----------------|------------------------------|---------|----------------------------|------|
| Optical Output Power <sup>1</sup><br>LxK-ST11xx<br>LxK2-ST11xx (+2dB Margin)<br>LxK3-ST11xx (+3dB Margin)<br>LxK5-ST11xx (+5dB Margin) | P <sub>O</sub> | -9.5<br>-8.0<br>-7.0<br>-5.0 |         | -4<br>-1.5<br>-1.5<br>-1.5 | dBm  |
| Extinction Ratio   | ER             |                              | 10      |                            | dB   |
| Coupled Power Ratio  | CPR            | 9                            |         |                            | dB   |
| Total Jitter <sup>1</sup>  |                |                              | 80      | 153                        | pS   |

**Receivers:** VCCR<sub>X</sub> = 3.135V to 3.465V, T<sub>A</sub> = Operating Temperature Range

| Parameter   | Symbol         | MIN        | Typical | MAX    | Unit |
|---|----------------|------------|---------|--------|------|
| Optical Sensitivity <sup>1</sup><br>Date Code 0105 and later (Jan 2005)<br>Date Code 5204 and before (Dec 2004) | P <sub>I</sub> | -21<br>-17 |         | 0<br>0 | dBm  |
| Optical Return Loss   | ORL            | 12         |         |        | dB   |

1. BER=10<sup>-12</sup> @ 1.25Gbps, PRBS 2<sup>7</sup>-1, NRZ, Compliant with ANSI X3.297 / FC-PH-2

## Link Distances

| Application                    | Fiber Specification  | Distance |
|--------------------------------|----------------------|----------|
| Gigabit Ethernet – IEEE 802.3z | 62.5/125 – 160MHz*Km | 220M     |
|                                | 62.5/125 – 200MHz*Km | 275M     |
|                                | 50/125 – 400MHz*Km   | 500M     |
|                                | 50/125 – 500MHz*Km   | 550M     |
| Fiber Channel – ANSI X3.297    | 62.5/125 – 160MHz*Km | 300M     |
|                                | 50/125 – 500MHz*Km   | 500M     |

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