

SRFK-ST32

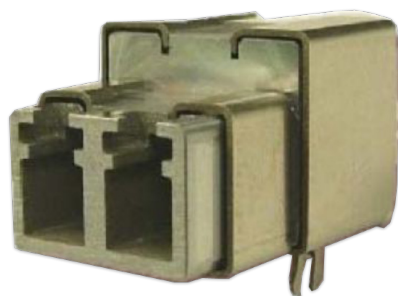
Optical Transceiver

1310nm Micro Module 1.25 / 1.0625 GBaud

Applications

The Cinch Connectivity Solutions SRFK-ST32 transceiver module is a high performance integrated full duplex data link for bi-directional communication over single mode optical fiber. It has been designed for use in space constrained applications, and offers the mandatory GbE and FC compliance commonly provided by SFF and SFP transceivers. This optoelectronic transceiver module is a Class 1 Laser product compliant with FDA Radiation Performance Standards, 21 CFR Subchapter J. This component is also Class 1 Laser compliant according to International Safety Standard IEC-825-1/EN 60825.

The SRFK-ST32 consists of transmitter and receiver functions housed in a compact form factor. The optical transmitter is a 1310nm FP laser. The transmitter inputs are driven with differential LVPECL signals applied to the TX+ and TX- pins. These signals are converted to suitable modulation current to drive the laser. The receiver consists of a PIN detector and limiting amplifier. Outputs from the receiver are differential CML and drive the RX+ and RX- pins. RX data is squelched (JAM) upon SD deassert to prevent noise when no optical signal is present.



Applications

- NIC card
- Host Bus Adapters
- GbE / FC Switch
- High Speed Proprietary Links
- Long wave option to the Stratos RJS-ST31

Features

- Compact Design
- 1.25 GBaud Gigabit Ethernet Compliant
- 1.0625 GBaud Fiber Channel Compliant
- 100 differential DC coupled inputs/outputs
- Industry Standard LC Connector Interface
- Single +3.3V Power Supply
- RoHS Compliant
- Metal Housing

Ordering Information

SRFK - ST32

Module Specifications - Electrical

Parameter	Symbol	MIN	Typical	MAX	Unit
Total Supply Current	Icct		190	280	mA
Transmitter					
Differential Input Voltage ¹	Vdt	0.5		2.4	V
Disable Input - High	Vdish	2		Vcc+0.3	V
Disable Input - Low	Vdisl	0		0.8	V
Fault Output - High	Vtxfh	2		Vcc+0.3	V
Fault Output - Low	Vtxfl	0		0.8	V
Receiver					
Differential Output Voltage	Vdr	0.35		2	V
LOS Load	LOSI	4.7K		10K	Ω
SD Output - High	LOSoh	2		Vcc+0.3	V
SD Output - Low	LOSol	0		0.8	V
Output Data Rise/Fall Time (20-80%)	Tr/Tf		220		pS

1. Internally AC coupled and terminated to 100Ω load

Module Specifications - Optical

Parameter	Symbol	MIN	Typical	MAX	Unit
Transmitter					
Optical Output Power	Po	-9.5		-3	dBm
Extinction Ratio		9			dB
Center Wavelength		1274	1310	1355	nm
Spectral Width (RMS)				3	nm
Rise/Fall Time (20-80%)	Tr/Tf	0		260	pS
Receiver					
Sensitivity (Avg) ¹	Pin			-19	dBm
Input Wavelength		1270		1355	nm
SD - Deasserted	Pd	-30			dBm
SD - Asserted	Pa			-19	dBm
DS - Hysteresis	Pa-Pd	0.5			dB
Overload	Pol	-3	0		dBm

1. BER of 10⁻¹²

For more information on this product consult the SRFK-ST32 product data sheet.