STRATOS
optical technologies

SLC-25-C-1-x-R6
Optical Transceiver

InfiniBand Applications – 2.5 GBaud

850nm SFF 2x5, +3.3V



Applications

The Cinch Connectivity Solutions SLC-25-C-1-x-R6 Small Form Factor (SFF) optical transceivers are high performance integrated duplex data links for bi-directional communication over multimode fiber. The SLC-25-C-1-x-R6 module is specifically designed to be used in multimode InfiniBand applications with data rates up to 2.5GBaud. The SLC-25-C-1-x-R6 transceivers are provided with the LC receptacle which is compatible with the industry standard LC connector.

The Stratos Lightwave SFF transceivers measure 0.532 inches in width. These transceivers provide double port densities by fitting twice the number of transceivers into the same board space as a 1x9 transceiver. The 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.

Features

- 2.5Gbps InfiniBand Compliant
- Die Cast Metal Package
- TTL Signal Detect Output
- Transmitter Disable Input
- Low Profile Fits Mezzanine Card Applications
- 100Ω Differential AC Coupled CML Level Outputs
- Single +3.3V Power Supply
- Wave Solderable / Aqueous Washable
- Class 1 Laser Safety Compliant
- RoHS Compliant
- UL 1950 Approved

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Please read our datasheet & drawing disclaimer here.

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Ordering Information

SLC - 25 - C - 1 - X - R6

Grounding Clip

N – No Clip
E – Individual Clip (.6" Center)
K – Extended Clip (.6" Center)
G – Gang Clip (.55" Center)

Module Specifications – Electrical: -5ºC<Tc<+80ºC;+3.0V<Vcc<+3.6V

Parameter	Symbol	MIN	Typical	MAX	Unit	Notes
Supply Current	I_{CC}		150	200	mA	
Transmitter						
CML/PECL Inputs (Differential)		400		2500	mVpp	AC Coupled Inputs
Input Impedance	Zin	85	100	115	Ω	
TX_DISABLE Input Voltage – High	V_{IH}	2.0		V_{CC}+0.3	V	
TX_DISABLE Input Voltage – Low	V_{IL}	0		0.8	V	
Receiver						
CML Outputs (Differential)		400	600	1000	mVpp	AC Coupled Outputs
Output Impedance (Differential)	Zin	90	100	110	Ω	
Total Contributed Jitter	Tj			68	pS	Measured with 2^7-1 PRBS
TTL Signal Detect Output – Low				0.8	V	I_{OL} = -1.6mA, 1TTL unit load
TTL Signal Detect Output – High		2.4	3		V	I_{OH} = 40µA, 1TTL unit load

Module Specifications – Optical: -5ºC<Tc<+80ºC;+3.0V<Vcc<+3.6V

Parameter	Symbol	MIN	Typical	MAX	Unit	Notes
Transmission Distance						
50µm Core Diameter MMF		250	500		m	BER<1.0E-12 @ 1.25/2.5 GBaud
62.5µm Core Diameter MMF		150	300		m	BER<1.0E-12 @ 1.25/2.5 GBaud
Transmitter						
Optical Center Wavelength	λ	830	850	860	nm	
Spectral Width	Δλ			0.85	nm	RMS
Optical Transmit Power	Popt	-10.0		-3	dBm	Average @ 850nm
Optical Modulation Amplitude	OMA	200			µW	pk-pk
Relative Intensity Noise	RIN			-117	dB/Hz	
Total Jitter	Tj			84	pS	Measured with 2^7-1 PRBS
Output Rise/Fall Time	t_R, t_F			150	pS	20-80%; measured unfiltered
Receiver						
Optical Input Wavelength	λ	770		860	nm	
Optical Input Power	Pr	-15		-1.5	dBm	BER<1.0E-12
Optical Modulation Amplitude	OMA	50			µW	pk-pk
Optical Return Loss	ORL	12			dBm	
Signal Detect – Asserted	Pa			-15	dBm	Measured on transition – Low to High
Signal Detect – Deasserted	Pd	-29			dBm	Measured on transition – High to Low
Signal Detect – Hysteresis	Pa-Pd		1.5	5.0	dB	

For more information on this product consult the SLC-25-C-1-x-R6 product data sheet.

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