

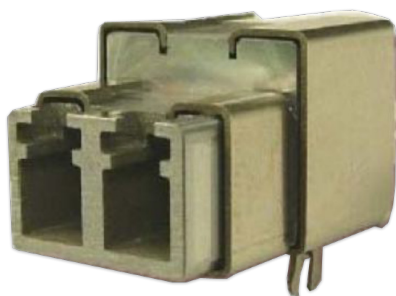
RJS-ST31

Optical Transceiver

4x / 2x / 1x Fiber Channel Applications,
850nm Micro Module 4.25 / 2.125 / 1.0625 GBaud

Applications

The Cinch Connectivity Solutions RJS-ST31 transceiver module is a high performance integrated full duplex data link for bi-directional communication over multimode optical fiber. It has been designed for use in space constrained applications, and offers the mandatory 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.



Features

- 4.25 GBaud Fiber Channel Compliant
- 2.125 GBaud Fiber Channel Compliant
- 1.0625 GBaud Fiber Channel Compliant
- 100 differential DC coupled inputs/outputs
- Industry Standard LC Connector Interface
- Metal housing
- Single +3.3V Power Supply
- RoHS Compliant

Ordering Information



Module Specifications – Electrical: 0°C<Tc<+70°C, +3.135V<Vcc<+3.465V

Parameter	Symbol	MIN	Typical	MAX	Unit	Notes
Supply Current			125	195	mA	0°C<Tc<+70°C; +3.135V<Vcc<+3.465V
Transmitter						
Input Swing (Differential)	V _{in}	500		2200	mVpp	Internally terminated
Input Impedance (Differential) ¹	R _{in}		100		Ω	
TX_DISABLE Input Voltage – High	V _{IH}	2		3.465	V	
TX_DISABLE Input Voltage – Low	V _{IL}	0		0.8	V	
Receiver						
Output Swing (Differential)		300		1200	mVpp	I _o = 400μA; Host Vcc I _o = -4.0mA
Output Impedance (Differential)	R _{out}		100		Ω	
Single Detect Output Voltage – High ²	V _{roH}	Vcc-0.5		Vcc+0.3	V	
Single Detect Output Voltage – Low ³	V _{roL}	0		0.8	V	

Module Specifications – Optical: 0°C<T_c<+70°C, +3.135<V_{cc}<+3.465V

Parameter	Symbol	MIN	Typical	MAX	Unit	Notes
Transmission Distance						
50µm Core Diameter MMF		150 300 550	250 500 1000		M	BER<1.0E-12 @ 4.25GBaud BER<1.0E-12 @ 2.125GBaud BER<1.0E-12 @ 1.25/1.0625GBaud
62.5µm Core Diameter SMF		70 150 300	150 300 500		M	BER<1.0E-12 @ 4.25GBaud BER<1.0E-12 @ 2.125GBaud BER<1.0E-12 @ 1.25/1.0625GBaud
Transmitter						
Optical Center Wavelength	λ	830	850	860	nm	
Spectral Width	Δλ			0.85	nm	RMS
Optical Transmit Power	P _{opt}	-9 247		-3	dBm µW	Average @ 850nm Pk-pk @ 4.25GBaud
Optical Modulation Amplitude	OMA	196 156			µW µW	Pk-pk @ 2.125GBaud Pk-pk @ 1.0625GBaud
Relative Intensity Noise	RIN			-118	dB/Hz	Measured with -12dB optical return loss
Output Eye	Complies with ANSI FC-PI Specification and Class 1 Laser Eye Safety					
Receiver						
Optical Input Wavelength	λ	830 -15		860 0	nm	BER<1.0E-12 @ 4.25GBaud
Optical Input Power	Pr	-18 -20		0 0	dBm	BER<1.0E-12 @ 2.125GBaud BER<1.0E-12 @ 1.25/1.0625GBaud
Optical Modulation Input	OMA	61 49 31			µW	Pk-pk @ 4.25GBaud Pk-pk @ 2.125GBaud Pk-pk @ 1.0625GBaud
Optical Return Loss	ORL	12			dB	
SD – Deasserted	Pd	-29			dBm	
SD – Asserted	Pa			-15 -18 -20	dBm	4.25GBaud 2.125GBaud 1.25/1.0625GBaud
SD – Hysteresis	Pa-Pd		2.25	3.5	dB	

For more information on this product consult the RJS-ST31 product data sheet.