

RxF-LP11x-R6-RJ Format Optical Transceiver

Optical 1310nm LED Multimode RJ +3.3V

Applications

The Cinch Connectivity Solutions RxF-LP11x-R6 transceiver module is a high performance integrated duplex data link for bi-directional communication over multimode optical fiber. The RxF-LP11-R6 is specifically designed for high speed data links up to 200 MBaud.

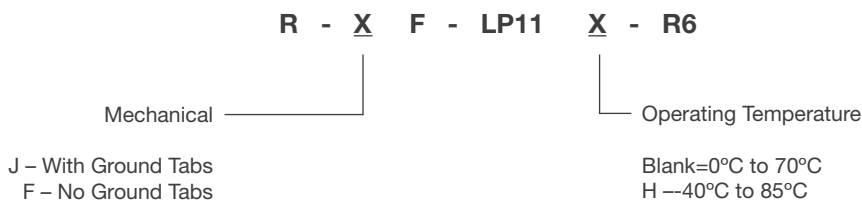
The Stratos Lightwave sugar cube sized transceiver offers the functionality of the common Small Form Factor transceiver albeit in a much smaller package. This optoelectronic transceiver module is a Class 1 Laser product compliant with FDA Radiation Performance Standards, 21 CFR Subchapter J. This component is also Class 1 Laser compliant according to International Safety Standard IEC-825-1/EN 60825. The RxF-LP11x-R6 is provided with the 1310nm LED which provides highly reliable communications in excess of 2Km.



Features

- Fast Ethernet compliant
- Enables reuse of existing RJ-45 UTP equipment cabinets
- Overall metal shield with enhanced grounding tabs
- Single +3.3V Power Supply
- DC Coupled Inputs/Outputs
- RoHS Compliant
- Wave Solderable/Aqueous Washable
- UL 1950 Approved
- Duplex Multimode LC Receptacle
- PECL Signal Detect Level

Ordering Information



Module Specifications - Electrical

Parameter	Symbol	MIN	Typical	MAX	Unit	Notes
Supply Current				200	mA	0°C<Tc<+70°C; +3.135V<Vcc<+3.465V
Transmitter						
Input Swing (Differential)	V _{in}	400		2400	mVpp	R _{in} > 100K Ω @ DC
Input Impedance (Differential)	R _{in}	85	100	115	Ω	
TX_DISABLE Input Voltage – High	V _{IH}	2		3.465	V	
TX_DISABLE Input Voltage – Low	V _{IL}	0		0.8	V	
TX_FAULT Output Voltage – High	V _{toH}	V _{cc} -0.5		V _{cc} +0.3	V	I _o = 400μA; Host Vcc
Receiver						
Output Swing (Differential)		600		1200	mVpp	DC Coupled Outputs
Output Impedance (Differential)	R _{out}	85	100	115	Ω	
Single Detect Output Voltage – Low		1.4		1.9	V	
Single Detect Output Voltage – High		2.3		2.9	V	

Module Specifications - Optical

Parameter	Symbol	MIN	Typical	MAX	Unit	Notes
Transmission Distance 62.5μm Core Diameter SMF		2				BER<1.0E-12 @ 125MBaud
Transmitter						
Optical Center Wavelength	λ	1280	1310	1360	nm	T _{case} = +25°C
Optical Transmit Power	P _{opt}	-20		-14	dBm	Average @ 1310nm
Extinction Ratio	ER	10			dBm	P1/P0
Total Jitter [Pk-Pk]	T _J			800	ps	Measured with 2 ⁷ -1 PRBS
Output Rise/Fall Time	t _R , t _F			3.2	ns	20%-80%; Measured unfiltered
				1.7	ns	20%-80%; Measured unfiltered
Receiver						
Optical Input Wavelength	λ	1270		1380	nm	
Optical Input Power	P _r	-31		-14	dBm	BER<1.0E-12 @ 125 MBaud PRBS 7
SD – Asserted	P _a			-29	dBm	Measured on transition – Low to High
SD – Deasserted	P _d	-45			dBm	Measured on transition – High to Low
SD – Hysteresis	P _a -P _d		1.5	5	dB	

For more information on this product consult the RxF-LP11x-R6 product data sheet.