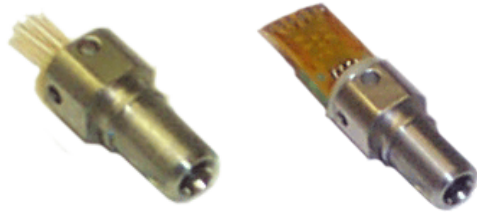


## PL-SxR-00-S45-Cx

## 850nm 10G ROSA



The Picolight 850nm PL-SxR-00-S45-Cx connectorized ROSA product (Receiver Optical Sub-Assembly) is designed for high-speed data communication applications in 10G Fibre Channel transceiver modules. The product utilizes a GaAs PIN/TIA integrated in a custom hermetic TO package. Each device is actively aligned to a precision receptacle using a proprietary alignment algorithm and tested to precise requirements. A controlled impedance flex circuit provides the user with optimum performance.

### Features

- Data Rates up to 10 Gbps
- 5.0V Operation
- -10°C to 85°C Operation
- Differential Output
- Isolated Case
- Photocurrent Monitor Function
- LC or SC Connectorized PIN Plus Pre-amplifier

The PL-SxR-00-S45-Cx converts optical power into an electrical signal at data rates up to 10 Gbps and is engineered for performance over extended operating temperature and power conditions with high reliability.

Each part is electro-optically tested to insure optimum performance and sensitivity.

### Benefits

- Optional Controlled Impedance Flex from OSA to PCBA for Excellent 10 Gbps Product Performance
- Extended Operational Temperature
- Industry Standard Form Factor and Size
- Modulation Performance Verification

## Ordering information

Part Number:	Description:	Contact Information:
PL-SLR-00-S45-C0	850nm 10G ROSA w/LC Metal Port	Picolight Incorporated 4665 Nautilus Court South Boulder, CO 80301  Tel: 303.530.3189 E-mail: <a href="mailto:components@picolight.com">components@picolight.com</a> Web site: <a href="http://www.picolight.com">www.picolight.com</a>
PL-SLR-00-S45-C1	850nm 10G ROSA w/LC Metal Port and Flex Circuit	
PL-SSR-00-S45-C0	850nm 10G ROSA w/SC Metal Port	
PL-SSR-00-S45-C1	850nm 10G ROSA w/SC Metal Port and Flex Circuit	

## Absolute maximum ratings

(T<sub>case</sub> = 30°C, Continuous Wave (CW) operation unless otherwise stated)

Parameter	Symbol	Ratings	Unit	Notes
Storage Temperature	T <sub>st</sub>	-40 to +85	°C	
Incident Optical Power	P <sub>in</sub>	+5	dBm	
Lead Solder Temperature	T <sub>s</sub>	260°C for 10 sec. 2mm from case		
Power Supply Voltage	V <sub>p</sub>	5.5	V	

### Notice

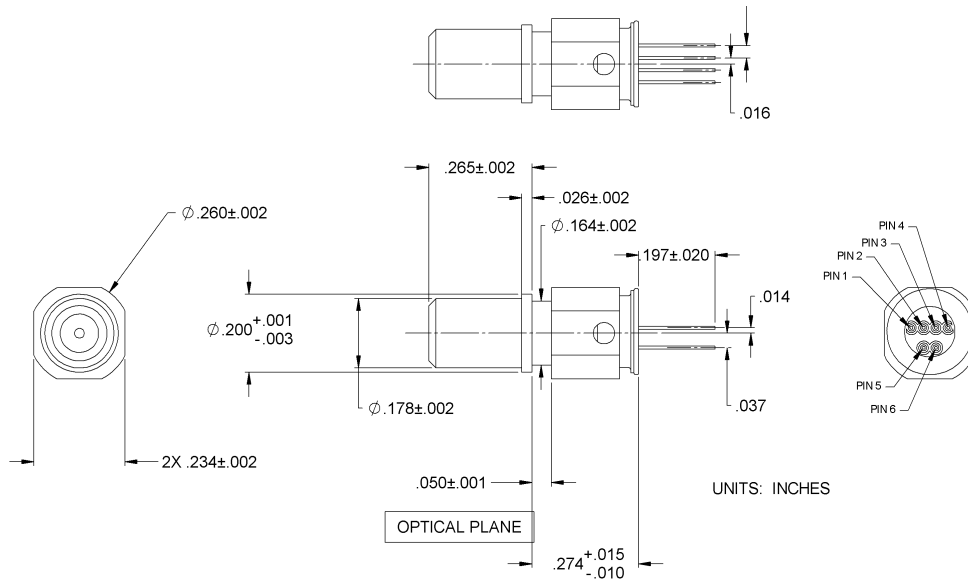
Conditions exceeding those listed may cause permanent damage to the device. Devices subjected to conditions beyond the limits specified for extended periods of time may adversely affect reliability.

## Electro-optical characteristics

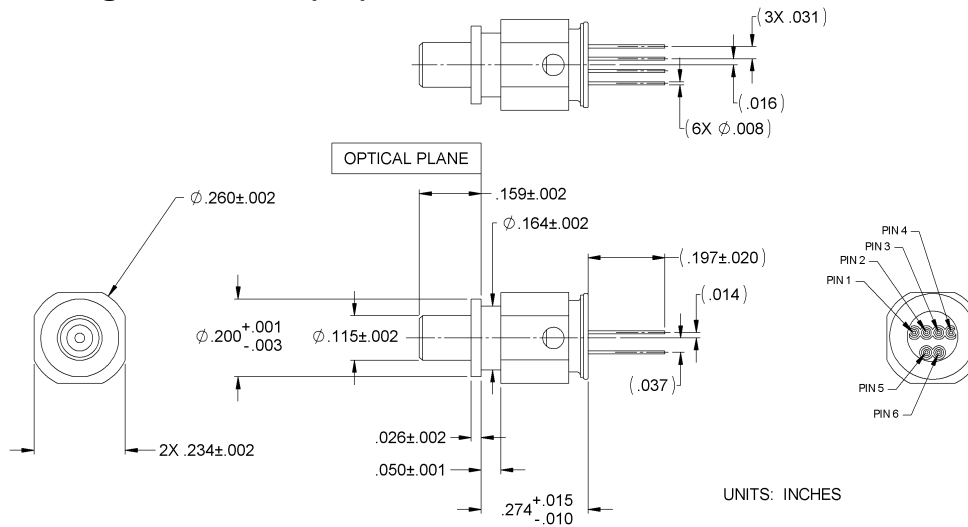
(T<sub>case</sub> = 30°C, CW operation unless otherwise stated)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Wavelength Responsivity	λ	840	850	860	nm	
Case Operating Temperature	T <sub>op</sub>	-10		85	°C	
Supply Voltage	V <sub>cc</sub>		5.0		V	
Supply Current	I <sub>cc</sub>			48	mA	
Bandwidth	BW	7.5		12.3	GHz	
Low Freq Cutoff			30		KHz	
Responsivity (@50 MHz)	R	3000			V/W	
Sensitivity	S			-13	dBm	
Output Resistance	R <sub>o</sub>		100		Ω	
Optical Overload		1.5			dBm	
Differential Output Voltage	V <sub>out</sub>	300			mV	
Duty Cycle Distortion				5	%	
Total Jitter (pk-pk)	T <sub>J</sub>		18		ps	
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>		35		ps	
Slope of I <sub>mon</sub> vs P <sub>in</sub>	I <sub>mon</sub> slope		1			
I <sub>mon</sub> Current with Zero Input	I <sub>mon</sub> offset			1.4	uA	
I <sub>mon</sub> Linearity Range	I <sub>mon</sub> range	5		1100	uA	

### Mounting dimensions(SC)



### Mounting dimensions(LC)



PL-SxR-00-S45-Cx		
Pin	Symbol	Function
1	GND	Ground
2	Vout P	TIA Output Voltage (Non-Inverted)
3	Vout N	TIA Output Voltage (Inverted)
4	GND	Ground
5	Vdd	Positive Supply Voltage
6	Imon	Receive Signal Power, Avg. Current

### Shipping information

Shipped in anti-static stackable trays. 50 pieces per tray.