

850 nm 10 G ROSA



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

The 10G ROSA 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.

Key Features

- Data rates up to 10 Gbps
- 3.3 V operation
- -40°C to 85°C operation
- Differential output
- Isolated case
- Received signal strength indicator (RSSI)
- LC or SC connectorized PIN plus preamplifier

Benefits

- Optional controlled impedance flex from OSA to PCBA for excellent 10 Gbps product performance
- Industrial operational temperature
- Industry standard form factor and size
- Modulation performance verification

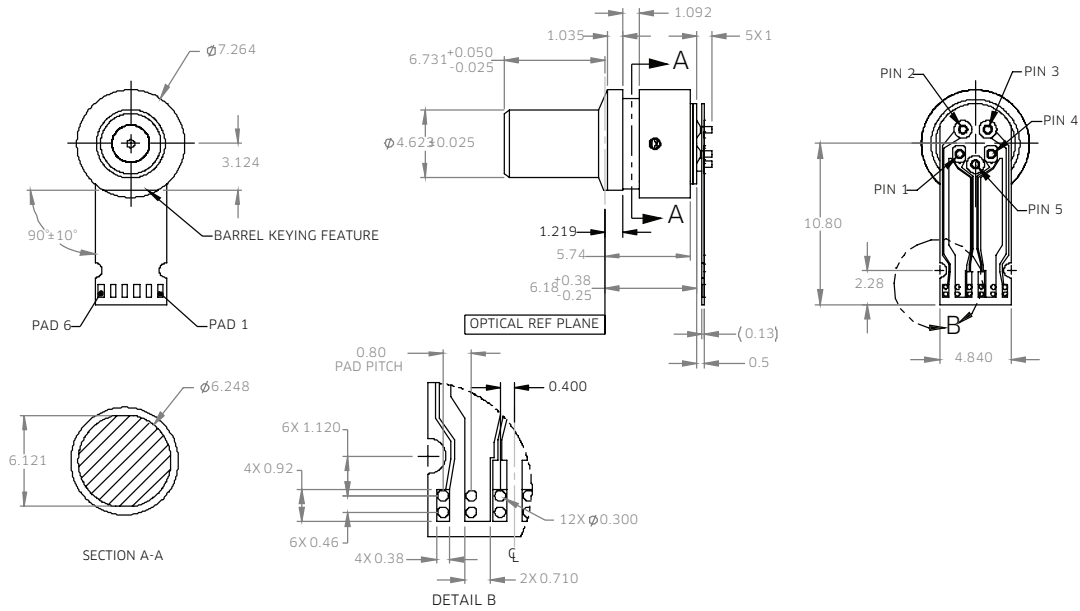
ROSA with Flex Dimensions (SC)

UNITS: MM

.X = ±0.2

.XX = ±0.10

.XXX = ±0.050



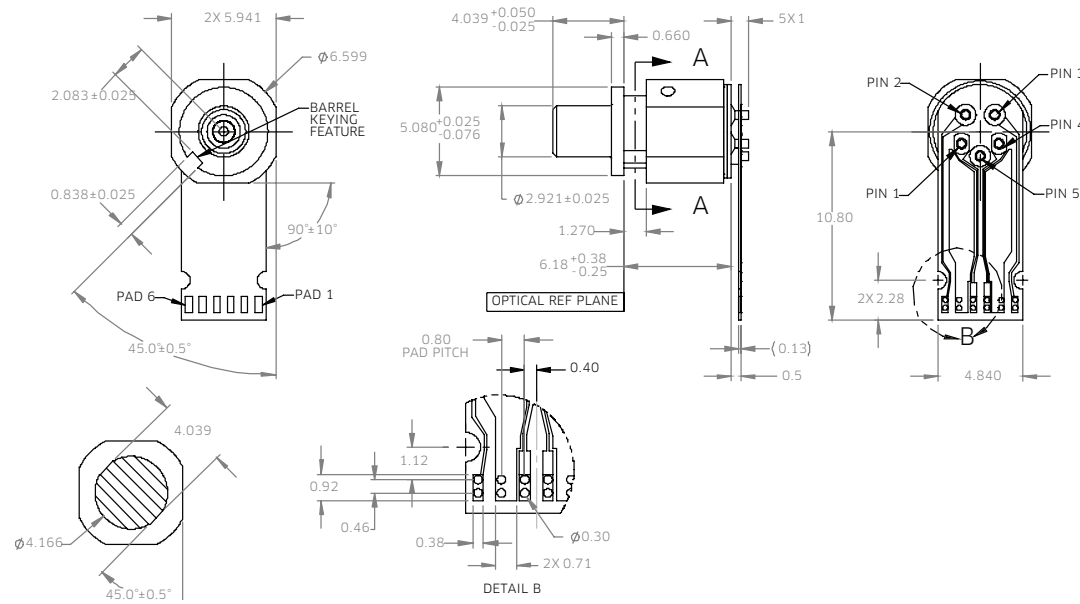
ROSA with Flex Dimensions (LC)

UNITS: MM

.X = ±0.2

.XX = ±0.10

.XXX = ±0.050



Shipping Information

Shipped in anti-static stackable trays.

Absolute Maximum Ratings(T_{case} = 30°C , Continuous Wave (CW) operation unless otherwise stated)

Parameter	Symbol	Ratings	Unit
Storage temperature	T _{st}	-40 to +100	°C
Incident optical power	P _{in}	+5	dBm
Lead solder temperature	T _s	260°C for 10 sec. 2 mm from case	
Flex attach temperature	T _F	370°C for 10 sec.	
Power supply voltage	V _P	4.0	V

Note:

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_{case} = 30°C , V_{cc} = 3.3 V unless otherwise stated)

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Wavelength responsivity	λ	840	850	860	nm
Case operating temperature	T _{op}	-40		85	°C
Supply voltage	V _{cc}	2.97	3.3	3.63	V
Supply current	I _{cc}	34	45	61	mA
Bandwidth	BW	7.5	12		GHz
Low frequency cutoff				70	kHz
Responsivity (@50 MHz)	R		5000		V/W
Sensitivity (OMA)	S		-13	-12	dBm
Output resistance	R _o		100		Ω
Optical overload		1.5			dBm
Differential output voltage	V _{out}			285	mV
Duty cycle distortion			1	10	%
Rise/Fall time	T _R /T _F	20		45	ps
Slope of RSSI vs P _{in}	RSSI slope	0.9	1	1.1	A/W
RSSI current with zero input ¹	RSSI offset			1	uA
RSSI linearity range	RSSI range	5		1100	uA

1. Connect RSSI to ground with a resistor <2500 ohms.

Ordering Information

For more information on this or other products and their availability, please contact your local Lumentum account manager or Lumentum directly at customer.service@lumentum.com.

Part Number	Description
58001261-001	10G LC 5L ROSA w flex
58001262-001	10G SC 5L ROSA wo flex



North America
Toll Free: 844 810 LITE (5483)

Outside North America
Toll Free: 800 000 LITE (5483)

China
Toll Free: 400 120 LITE (5483)

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