

850 nm 10 G ROSA

PL-xxR-00-S43-C6

**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

The JDSU 850 nm PL-xxR-00-S43-C6 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 PL-xxR-00-S43-C6 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.

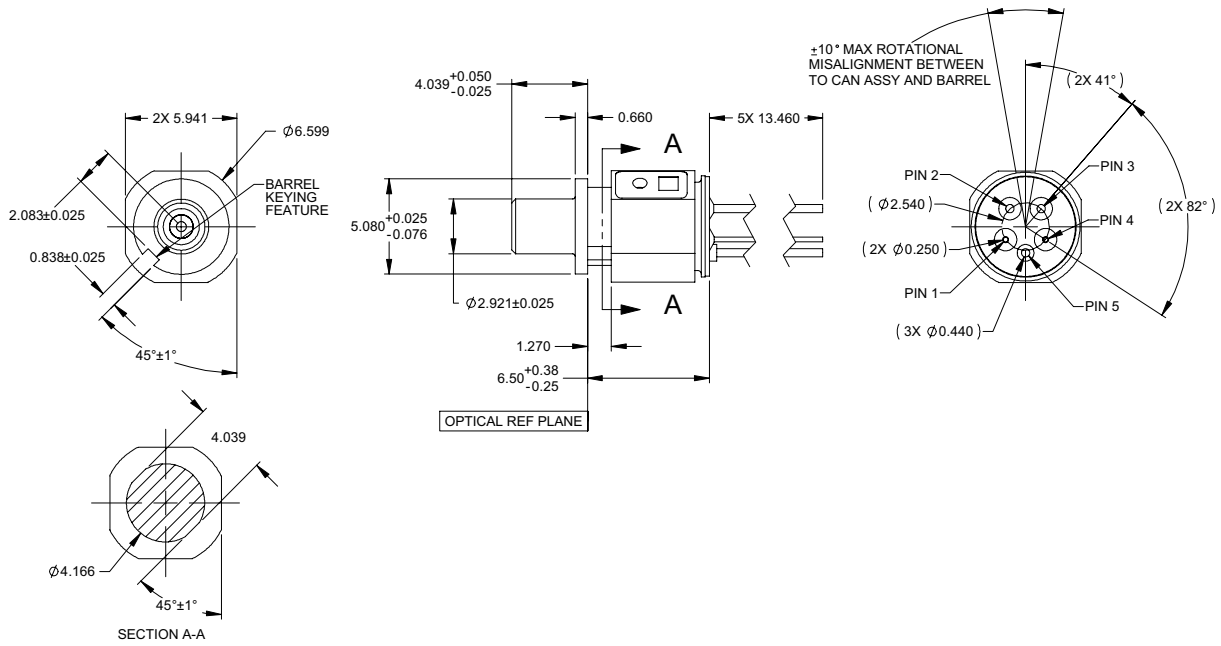
Each part is electro-optically tested to insure optimum performance and sensitivity.

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ROSA without Flex Dimensions (LC)

UNITS: MM

.X = ± 0.2
 .XX = ± 0.10
 .XXX = ± 0.050



PL-SxR-00-S43-C6 (no flex)

Pin	Symbol	Function
1	Vout P	TIA Output Voltage (Non-Inverted)
2	Vdd	Positive Supply Voltage
3	RSSI	Receive Signal Power, Avg. Current
4	Vout N	TIA Output Voltage (Inverted)
5	GND	Ground

PL-FxR-00-S43-C6 (with flex)

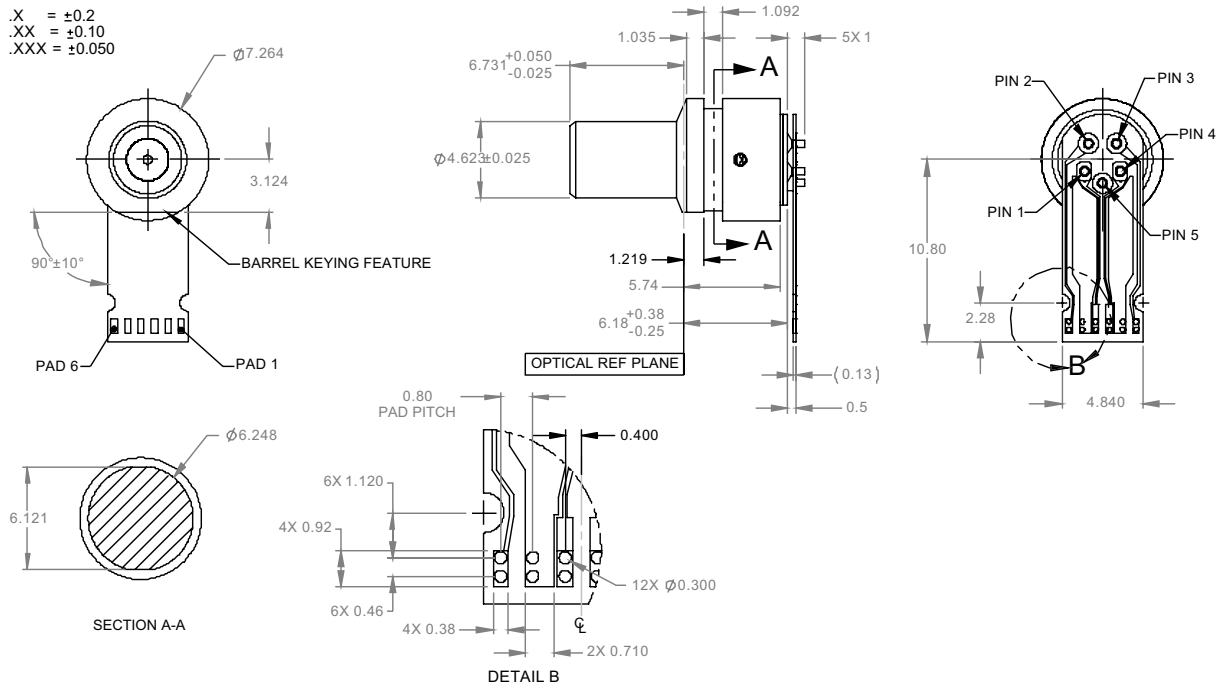
Pad	Symbol	Function
1	Vcc	Vcc
2	GND	Ground
3	Vout P	TIA Output Voltage (Non-Inverted)
4	Vout N	TIA Output Voltage (Inverted)
5	GND	Ground
6	RSSI	Receive Signal Power, Avg. Current

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ROSA with Flex Dimensions (SC)

UNITS: MM

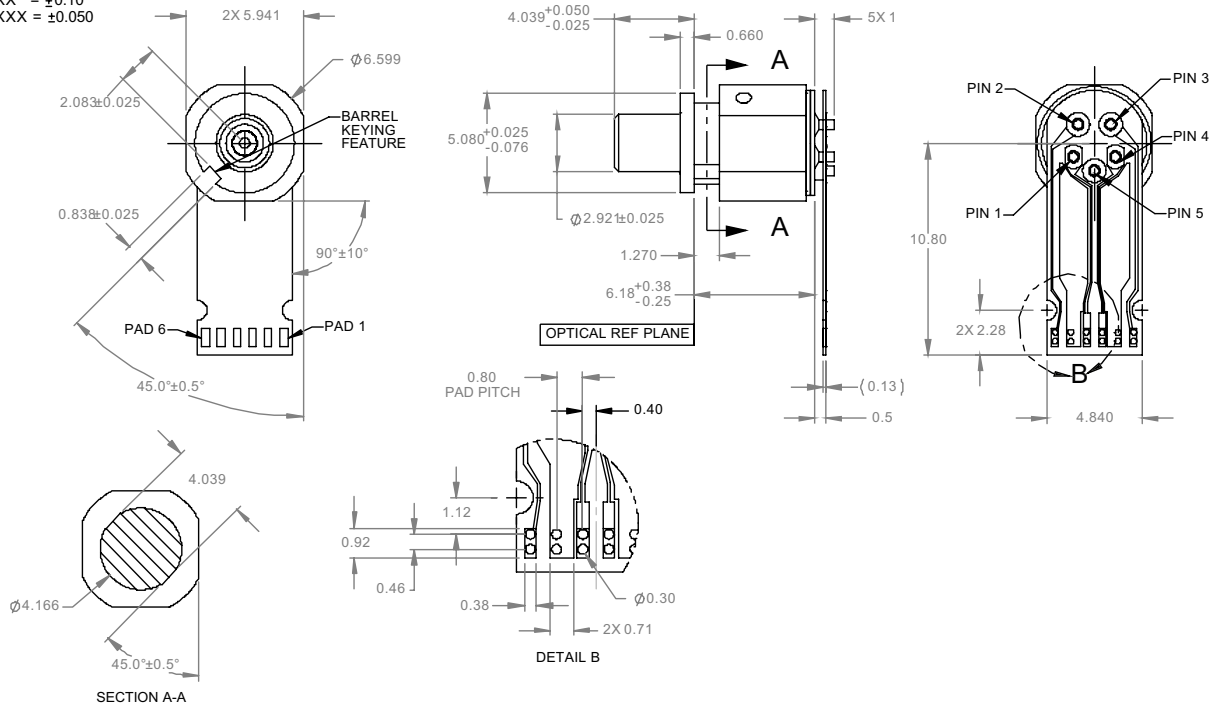
.X = ±0.2
.XX = ±0.10
.XXX = ±0.050



ROSA with Flex Dimensions (LC)

UNITS: MM

.X = ±0.2
.XX = ±0.10
.XXX = ±0.050



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Shipping Information

Shipped in anti-static stackable trays.

Absolute Maximum Ratings

($T_{\text{case}} = 30\text{ }^{\circ}\text{C}$, Continuous Wave (CW) operation unless otherwise stated)

Parameter	Symbol	Ratings	Unit
Storage temperature	T_{st}	-40 to +100	$^{\circ}\text{C}$
Incident optical power	P_{in}	+5	dBm
Lead solder temperature	T_{S}	260 $^{\circ}\text{C}$ for 10 sec. 2 mm from case	
Flex attach temperature	T_{F}	370 $^{\circ}\text{C}$ 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

($T_{\text{case}} = 30\text{ }^{\circ}\text{C}$, $V_{\text{cc}} = 3.3\text{ V}$ unless otherwise stated)

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Wavelength responsivity	λ	840	850	860	nm
Case operating temperature	T_{op}	-40		85	$^{\circ}\text{C}$
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	$T_{\text{R}}/T_{\text{F}}$	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	μA
RSSI linearity range	RSSI range	5		1100	μA

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

Order Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at customer.service@jdsu.com.

Sample: PL-FSR-00-S43-C6

Part Number	Description
PL-FSR-00-S43-C6	850 nm 10 G ROSA with SC housing, with flex
PL-FLR-00-S43-C6	850 nm 10 G ROSA with LC housing, with flex
PL-SSR-00-S43-C6	850 nm 10 G ROSA with SC housing, without flex
PL-SLR-00-S43-C6	850 nm 10 G ROSA with LC Housing, without flex