



No. 6, Hejiang Road, Jhongli City,  
Taoyuan County, TAIWAN  
Tel: +886-3-452-5188  
Fax: +886-3-462-9588  
www.luxnetcorp.com.tw

## 1310/1550nm 4.25Gbps 5-Pin Low Optical Return Loss LC-ROSA

### DI4T-9040-x Series

**TYPE NAME: DI4T-9040-4A**

#### **Product Description:**

The LuxNet DI4T-9040-x 5-pin low optical return loss LC ROSA (Receiver Optical Sub-Assembly) is designed for high-speed, high-performance data communication applications. This ROSA provides special digital diagnostic capability for transceivers with a wide dynamic range of input optical power. This device integrates LuxNet high-speed 1310/1550nm PIN detector, an 4.25G trans-impedance amplifier (TIA) and capacitors into a TO-46 header with cap window and stubbed LC metal port. The product is designed for 4.25Gbps Fiber Channel, transceiver modules and systems. The LC-type receptacle with fiber stub transmits light into the pin detector and to provide good coupling efficiency.

#### **Product Specifications:**

##### **Absolute Maximum Ratings (T = 25°C):**

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature	T <sub>op</sub>	°C	-40	85	
Storage Temperature	T <sub>stg</sub>	°C	-40	85	
Solder Reflow Temperature	T <sub>s</sub>	°C		260	10 seconds max.
Power Supply Voltage	V <sub>p</sub>	V	-0.4	4.0	
Optical Power	P <sub>in</sub>	dBm		5	

##### **Electro-Optical Characteristics (T = 25°C, unless noted otherwise):**

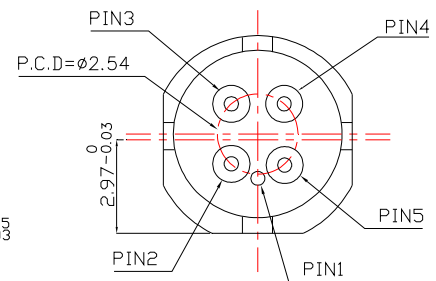
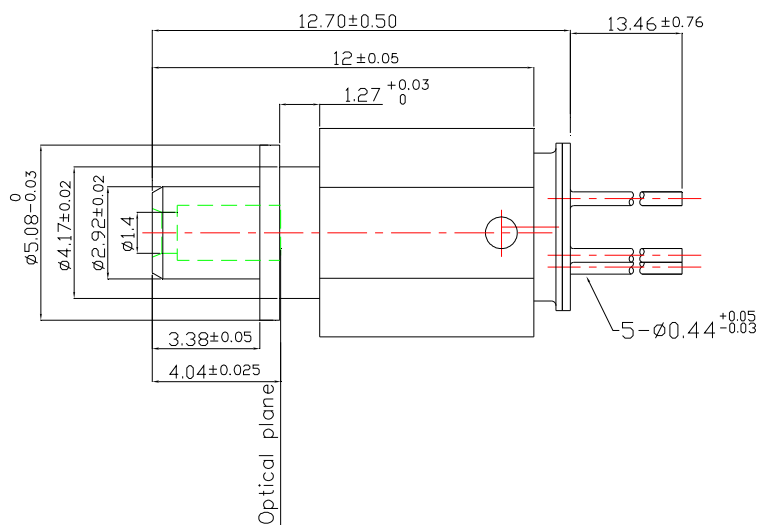
Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Supply Voltage	V <sub>cc</sub>	Volts	3.0	3.3	3.6	
Supply Current	I <sub>cc</sub>	mA		44	50	V <sub>cc</sub> =3.3V
Sensitivity	S	dBm			-20	λ=1310nm, Speed=4.25Gbps PRBS=2 <sup>7</sup> -1, BER=10 <sup>-10</sup> , ER=8.2dB
Wavelength	λ	nm	1100	1310	1650	
Rise/Fall Time	τ <sub>r</sub> /τ <sub>f</sub>	ps		80/80		(20%-80%)
Optical Return Loss	ORL	dB			-27	λ=1310&1550nm
Dark Current	I <sub>d</sub>	nA			20	V <sub>f</sub> =3.3V
Overload	P <sub>load</sub>	dBm	0			PRBS=2 <sup>7</sup> -1, BER=10 <sup>-10</sup> , ER=8.2dB

\*\* Specifications are subject to change without notice.  
\* Screening per customer-specified reject limits is available.

Version 1.1

### DI4T-9040-4A (LC-ROSA)

**Dimensions:** (mm)  
*All dimensions are nominal*



#### PINOUT

DI4T-9040-4A	
Number	Function
1	GND
2	Non Inverted Output(D+)
3	Vcc
4	Power Monitor (Vpd)
5	Inverted-Output(D*)

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