LUXNET CORPORATION

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1310 nm 622 Mbps ROSA

DI7M-906x-x Series

TYPE NAME: DI7M-9060-1, DI7M-9060-6F

Product Description:

The LuxNet DI7M-906x-x ROSA (Receiver Optical Sub-Assembly) is designed for high-speed, high–performance data communication and telecommunication applications. This device integrates our high-speed 1310 nm PIN detector with a STM4/OC12 trans-impedence amplifier (TIA) and capacitors with a TO-46 header with cap window and optical port. The product is designed for OC-12 long distance optical communication systems. The optical port has a fiber connector that transmits light through a receptacle into the PIN detector with high coupling efficiency.

Product Specifications:

Absolute Maximum Ratings (T = 25°C):

Parameter	Symbol	Unit	Min.	Max.	Note
Operating Temperature	T_{op}	°C	-40	85	
Storage Temperature	T_{stg}	°C	-40	100	
Solder Reflow Temperature	T_{stg}	°C		260	10 seconds max.
Power Supply Voltage	V_P	V	-0.5	6.5	
Optical Power	P_{in}	dBm		5	

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

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Supply Voltage	V_{cc}	Volts	3.0	3.3	5.5	
Supply Current	I_{cc}	mA		21	30	P_{in} = 0 μW R_L = 50Ω, V_{cc}=3.3V
Output Voltage (differential)	V_{out}	mV		200		P_{in} = 100 μW, R_L = 50Ω
Responsivity	R	V/W		7200		λ=1310nm P_{in} = 5 μW, AC Coupled to R_L = 50Ω
Upper -3dB Bandwidth	BW	MHz	404	470		R_L = 50Ω
Sensitivity	S	dBm		-32	-30	λ=1310nm 2^{23} - 1 PRBS, BER= 10^{-10}
Peak Wavelength	λ_p	nm	1100	1310	1650	
Rise/Fall Time	τ_r/τ_f	ps		500/500	550	V_{cc}=3.3V (20%-80%)

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

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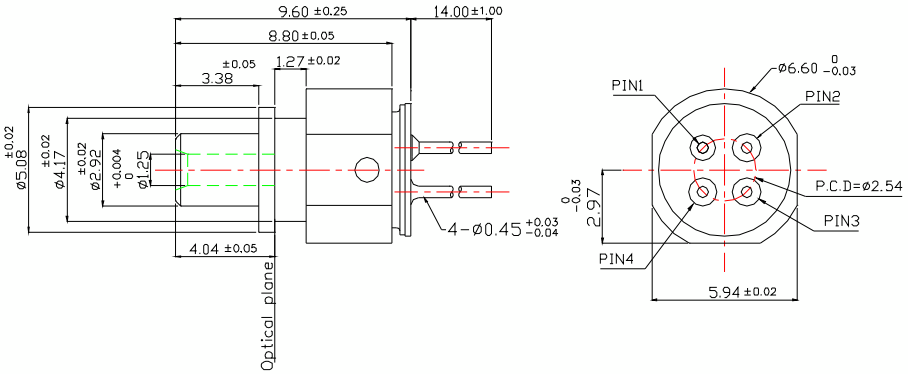
DI7M-9060-1 (LC-ROSA)

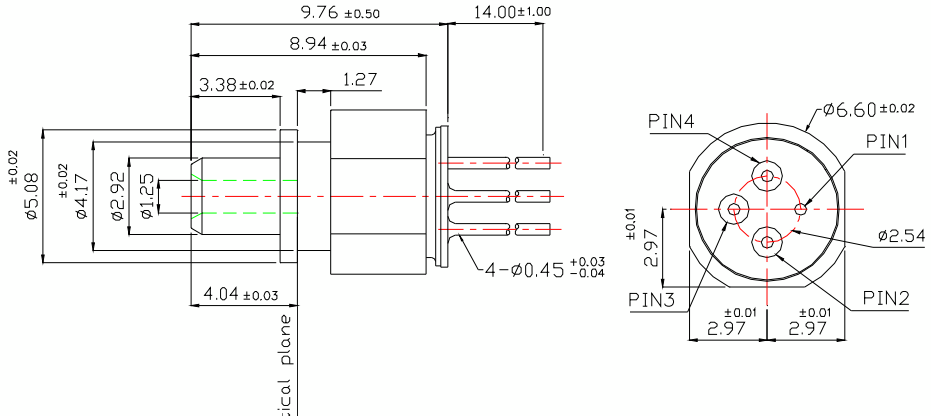
Dimensions: (mm)
All dimensions are nominal



PINOUT

DI7M-9060-1	
Number	Function
1	Gnd
2	Inverted Output
3	Vcc
4	Non-Inverted Output

DI7M-9060-6F (LC-ROSA)



PINOUT

DI7M-9060-6F	
Number	Function
1	Gnd
2	Vcc
3	Non-Inverted Output
4	Inverted Output

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* Screening per customer-specified reject limits is available.

Version 1.2