LUXNET CORPORATION

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1310 nm 622 Mbps 5-Pin LC-ROSA
(Preliminary)

DI7S-9060-3x Series

TYPE NAME: DI7S-9060-3F

Product Description:

The LuxNet DI7S-9060-3x 5-pin LC-ROSA (Receiver Optical Sub-Assembly) is designed for high-speed, high–performance data communication and telecommunication applications. This ROSA provides special digital diagnostic capability for transceivers with a wide dynamic range of input optical power. This device integrates our high-speed 1310 nm PIN detector with an STM4/OC12 trans-impedance amplifier (TIA) and capacitors into a TO-46 5-pin header with cap window and LC port. The product is designed for OC12 long distance optical communication systems. The LC-type optical port has a fiber connector that transmits light through an LC 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	3.6	
Supply Current	I_{cc}	mA	23	30	38	P_{in} = 0 μW, R_L = 50Ω, V_{cc}= 3.3V
Output Voltage (differential)	V_{out}	mV		350	500	P_{in} = 32 μW, R_L = 50Ω
Responsivity	R	KV/W		170		λ=1310nm P_{in} = 1.0μW, AC Coupled to R_L = 50Ω
Upper -3dB Bandwidth	BW	MHz	350	430		R_L = 50Ω
Sensitivity	S	dBm		-33.8	-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		550/550		V_{cc}=3.3V (20%-80%)
Dark Current	I_d	nA			10	Vr=-3.3V
Overload		dBm	-3			λ=1310nm,2^{23} - 1 PRBS,BER= 10^{-10}

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

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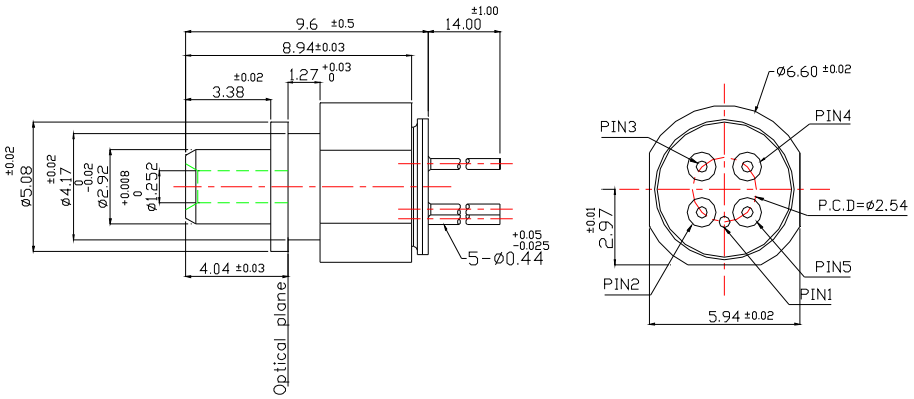
DI7S-9060-3F (LC-ROSA)

Dimensions: (mm)
All dimensions are nominal



PINOUT

	DI7S-9060-3F
Pin Number	Function
1	Gnd
2	Non-Inverted Output (D)
3	Vcc
4	PD Monitor(Vpd)
5	Inverted Output(D*)

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