



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

1310nm 155Mbps 5pin LC ROSA

DI6F-905x-x Series

TYPE NAME: DI6F-9055-3, DI6F-9055-5, DI6F-9055-3N3, DI6F-905C-3N

Product Description:

The LuxNet DI6F-905x-x ROSA (Receiver Optical Sub-Assembly) is designed for a high-speed, high-performance data communication and telecommunication applications. This device integrates our high-speed 1310 nm PIN detector with a STM1/OC3 trans-impedance amplifier (TIA) and capacitors with a TO-46 header with cap window and optical port. The product is designed for OC-3 long distance optical communication systems. The LC or SC type optical port has a fiber connector that transmits light through an LC or SC 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		4.5	
Optical Power	P _{in}	dBm		5	

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

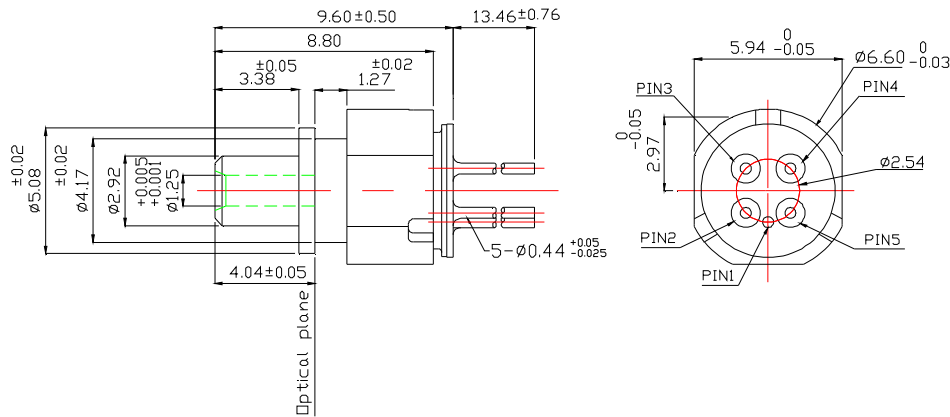
Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Supply Voltage	V _{cc}	Volts	3.0	3.3	5.5	
Supply Current	I _{cc(3.3V)}	mA	14	23	32	P _{in} = 0 μW, R _L = 50Ω
Output Voltage (differential)	V _{out}	V			0.375	P _{in} = 10 μW, R _L = 50Ω
Responsivity	R	KV/W		33.1		λ=1310nm P _{in} = 7.5 μW, AC Coupled to R _L = 50Ω
Upper -3dB Bandwidth	BW	MHz	93	110		R _L = 50Ω
Sensitivity	S	dBm		-37.5	-36	λ=1310nm 2 ²³ - 1 PRBS, BER= 10 ⁻¹⁰ ER=9~10dB, SM fiber
Saturation Power	P _{sat}	dBm	-3	0		λ=1310nm
Wavelength	λ _p	nm	1100	1310	1650	
Rise/Fall Time	τ _r /τ _f	ns		1.6/1.6	2.0/2.0	V _{cc} =3.3V; (20%-80%)
Dark Current	I _d	nA			20	V _r =-3.3V

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

Version 1.5

DI6F-9055-x (LC-ROSA)

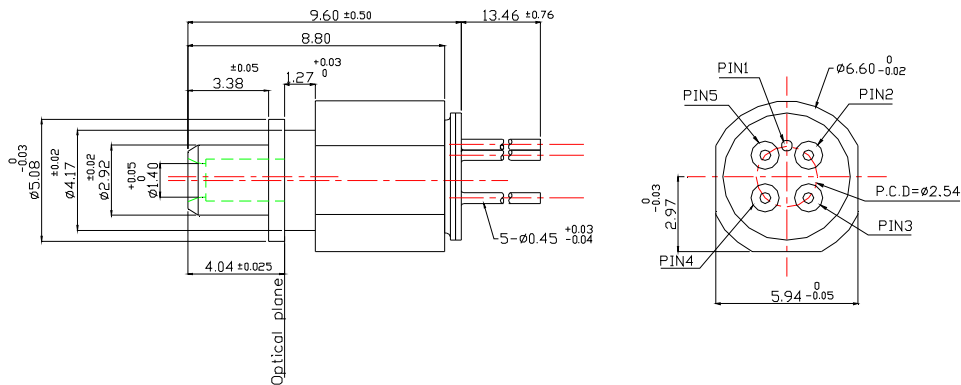
Dimensions: (mm)
All dimensions are nominal



PINOUT

DI6F-9055-3		DI6F-9055-5
Number	Function	Function
1	Gnd	Gnd
2	Non-Inverted Output (D+)	Inverted Output (D*)
3	Vcc	Vcc
4	Power monitor(Vpd)	Power monitor(Vpd)
5	Inverted Output (D*)	Non-Inverted Output (D+)

DI6F-9055-3N3 (LC-ROSA)



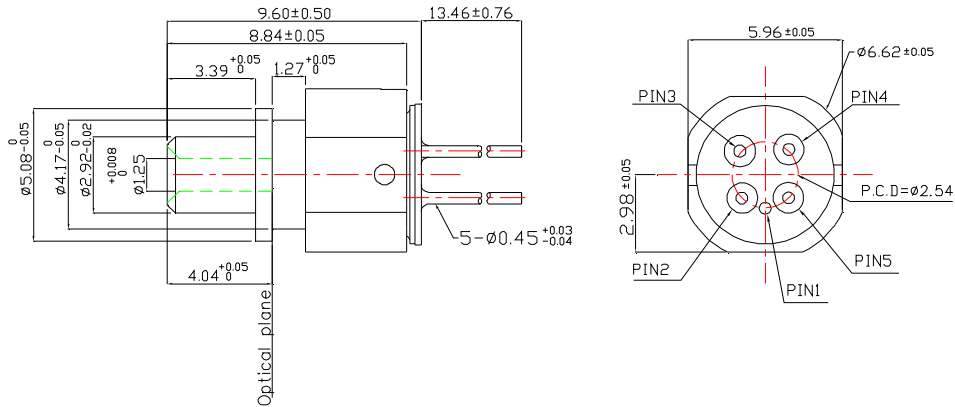
PINOUT

DI6F-9055-3N3	
Number	Function
1	Gnd
2	Non-Inverted Output (D+)
3	Vcc
4	Power monitor(Vpd)
5	Inverted Output (D*)

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

DI6F-905C-3N(LC-ROSA)

Dimensions: (mm)
All dimensions are nominal



PINOUT

DI6F-905C-3N	
Pin Number	Function
1	Gnd
2	Non-Inverted Output (D+)
3	Vcc
4	Power Monitor(Vpd)
5	Inverted Output(D*)

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