

1310 nm 2.5 Gbps 5-Pin LC-ROSA

DI2M-906X-X 5-Pin series

TYPE NAME: DI2M-9060-3, DI2M-9060-3B, DI2M-9060-3D, DI2M-9060-3F, DI2M-9060-5, DI2M-9060-5A, DI2M-9065-3

Product Description:

The LuxNet DI2M-9060-x 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 STM16/OC48 trans-impedance amplifier (TIA) and capacitors into a TO-46 5-pin header with cap window and LC port. The product is designed for OC-48 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	
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	V	3.0	3.3	5.5	
Supply Current	I _{cc}	mA		34		P _{in} = 0 μW, R _L = 50Ω
Output Voltage (differential)	V _{op}	mV		200		P _{in} = 100 μW, R _L = 50Ω
Responsivity	R	V/W		2550		λ = 1310nm P _{in} = 40 μW, AC Coupled to R _L = 50Ω
Upper -3dB Bandwidth	BW	GHz		2.0		R _L = 50Ω
Sensitivity	S	dBm		-22	-20	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		150/150		V _{cc} = 3.3V (20%-80%)
Dark Current	I _d	nA			20	V _r = -3.3V
Saturation Power	P _{sat}	dBm			-1	
Optical Return Loss	ORL	dB			-14	

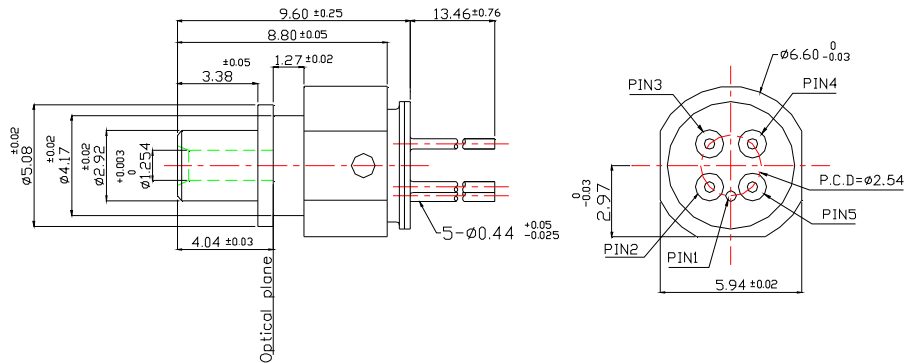
* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Version 3.0

DI2M-9060-x (LC-ROSA)

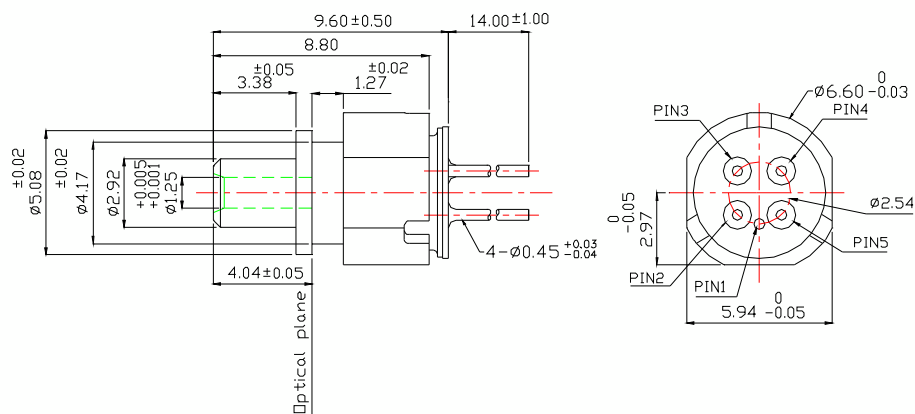
Dimensions: (mm)
All dimensions are nominal



PINOUT

Pin Number	DI2M-9060-3	DI2M-9060-5
1	Gnd	Gnd
2	Non-Inverted Output(D)	Non-Inverted Output(D)
3	Vcc	PD Monitor(Vpd)
4	PD Monitor(Vpd)	Vcc
5	Inverted Output(D*)	Inverted Output(D*)

DI2M-9060-3B (LC-ROSA)



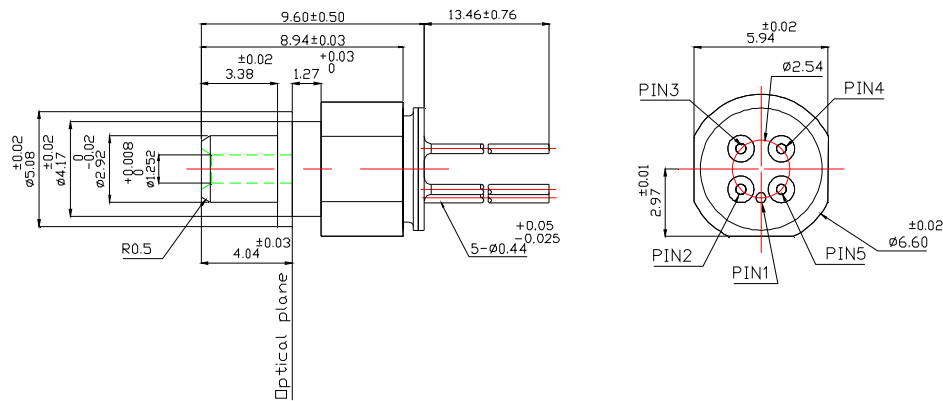
PINOUT

Pin Number	DI2M-9060-3B
1	Gnd
2	Non-Inverted Output(D)
3	Vcc
4	PD Monitor(Vpd)
5	Inverted Output(D*)

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

DI2M-9060-3D/3F (LC-ROSA)

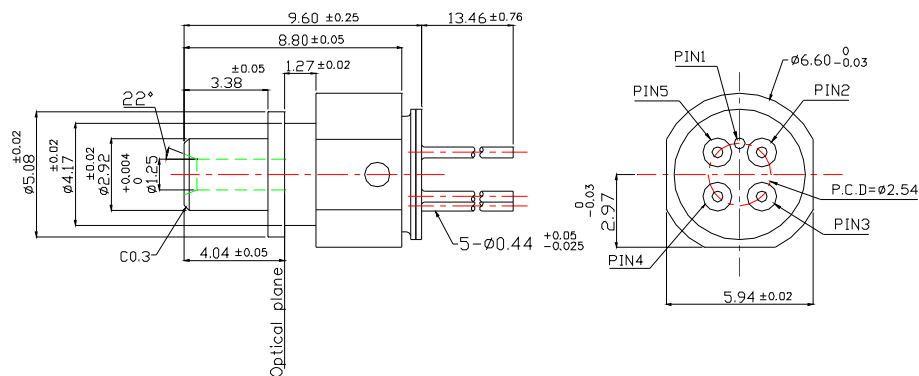
Dimensions: (mm)
All dimensions are nominal



PINOUT

DI2M-9060-3D/3F	
Pin Number	Function
1	Gnd
2	Non-Inverted Output(D)
3	Vcc
4	PD Monitor(Vpd)
5	Inverted Output(D*)

DI2M-9060-5A (LC-ROSA)



PINOUT

DI2M-9060-5A	
Pin Number	Function
1	Gnd
2	Non-Inverted Output(D)
3	PD Monitor(Vpd)
4	Vcc
5	Inverted Output(D*)

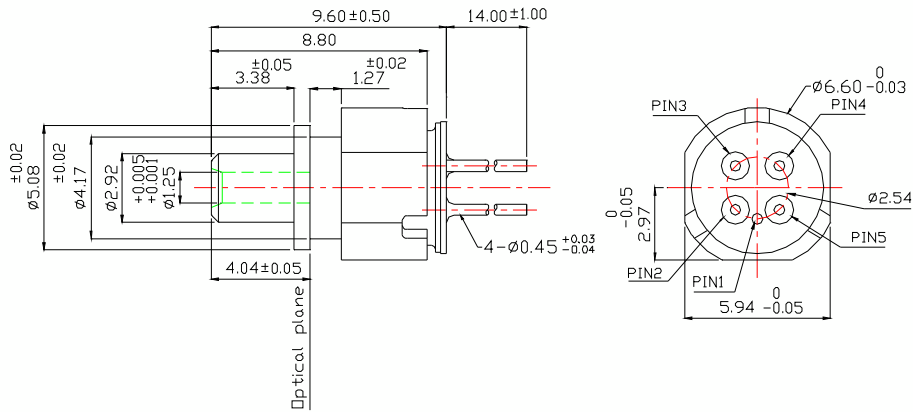
* Specifications are subject to change without notice.
* Screening per customer-specified reject limits is available.



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

MI2M-9065-3(LC-ROSA)

Dimensions: (mm)
All dimensions are nominal



PINOUT

DI2M-9065-3	
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.