

1310/1550nm 2.5Gbps 5-Pin LC-ROSA

DI2H-9055-x series

TYPE NAME: DI2H-9055-3DN

Product Description:

The LuxNet DI2H-9055-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 Ambient Temperature	T _{op}	°C	-40	85	
Storage Temperature	T _{stg}	°C	-40	100	
Solder Reflow Temperature	T _s	°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}	V	3.0	3.3	3.6	
Supply Current	I _{cc}	mA	40	48	60	V _{cc} =3.3V
Output Voltage (differential)	V _{op}	mV	320	400	480	R _L = 100Ω
Responsivity	R	KV/W		64		λ=1310nm P = 2.5μW, AC Coupled to R _L = 50Ω
Sensitivity	S	dBm		-27	-25	λ=1310nm, 2 ²³ - 1 PRBS, BER= 10 ⁻¹⁰ , ER=9~10dB
High Frequency Bandwidth (3dB)	BW	MHz		1866		R _L = 50Ω
Low Frequency Bandwidth	BW _L	kHz		80		R _L = 50Ω
Wavelength	λ	nm	1100	1310	1650	
Rise/Fall Time	τ _r /τ _f	ps		150/150		(20%-80%)
Overload Power	P _{load}	dBm	0			2 ²³ - 1 PRBS, BER= 10 ⁻¹⁰ , ER=9~10dB

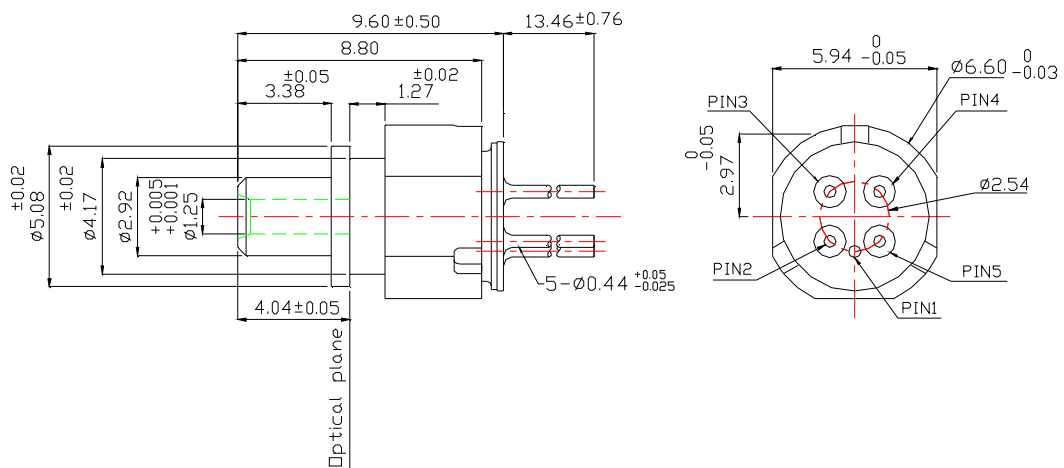
* Specifications are subject to change without notice.

* Screening per customer-specified reject limits is available.

Version 1.1

DI2H-9055-3DN (LC-ROSA)

Dimensions: (mm)
All dimensions are nominal



PINOUT

DI2H-9055-3DN	
Pin Number	Function
1	Gnd
2	Non-Inverted Output (D+)
3	Vcc
4	Current Source (RSSI)
5	Inverted Output(D*)

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* Screening per customer-specified reject limits is available.