

25G 1310/1550nm APD-TIA LC ROSA (Preliminary)

L-AR-IA99-xx Series

TYPE NAME: L-AR-IA99-02

Product Description:

The LuxNet L-AR-IA99-x is designed for high-speed, high-performance 25G Ethernet applications. This device integrates our high-speed 1310nm APD detector with a 25G trans-impedance amplifier (TIA) and capacitors into a TO-46 header with cap window. The APD-TIA assembly can be integrated with a fiber receptacle housing to receive light from fiber 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	Top	°C	-40	85	Case Temp.
Storage Temperature	Tstg	°C	-40	85	
TIA supply voltage	Vcc	V	-0.5	4.0	Tc = 25°C
APD Reverse Current	Ir	mA	-	1.0	
Optical Power	Pin	dBm	-	-6	
APD supply Voltage	Vpd	V	-	Vbr	
Solder Reflow Temp.	Tsrt	°C	-	270	10sec Max.

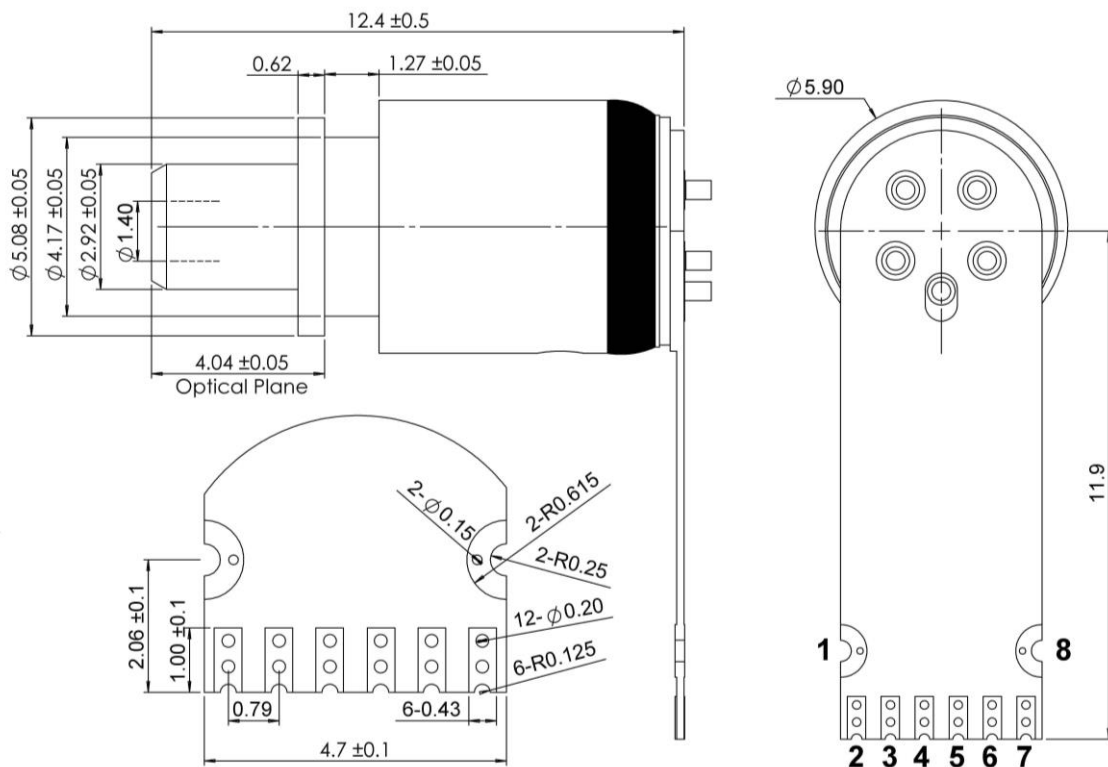
Electro-Optical Characteristics (Tc = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Power Supply Voltage	Vcc	V	-	3.3	-	
Supply Current	Icc	mA	-	29	-	Vcc=3.3V, no light
Breakdown Voltage	Vbr	V	-	27	-	I=10uA
Operation Voltage	Vop	V	-	Vbr-4	-	
Dark Current	Idark	nA	-	-	150	Vbr-4
Wavelength	λ	nm	1260	1310/ 1550	1620	
Low Bandwidth (-3dB)	L _{BW}	kHz	-	-	100	
Sensitivity	Sen	dBm	-	-	-21	ER=4.5dB, 25.78Gbps PRBS 2 ³¹ -1, BER=5E-5
Overload	Pmax	dBm	-2	-	-	ER=4.5dB, 25.78Gbps PRBS 2 ³¹ -1, BER= Error free

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Optical Return Loss	ORL	dB	-	-	-26	$\lambda = 1310\text{nm}$

L-AR-IA99-02

Dimensions: (mm)
 All dimensions are nominal



Flex board PINOUT (Bottom View)

NUMBER	
1	GND
2	VCC
3	GND
4	D+
5	D-
6	GND
7	VAPD
8	GND