

12G-SDI 1310/1550nm PIN-TIA LC-ROSA (Preliminary)

L-AR-EM99-03 Series

TYPE NAME: L-AR-EM99-03

Product Description:

The LuxNet L-AR-EM99-03 5-pin low optical return loss LC-ROSA (Receiver Optical Sub-Assembly) is designed for high-speed, high-performance video application. This device integrates our high-speed 1310/1550 nm PIN detector with an 12Gbps video trans-impedance amplifier (TIA) and a capacitor into a TO-46 5-pin header with cap window and LC port. The product is designed for 12G-SDI data rates, where low optical return loss is required. The LC-type optical port with fiber stub transmits light into the PIN detector with high coupling efficiency and low optical return loss.

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	85	
Solder Reflow Temperature	T _s	°C	-	260	10 seconds max.
Power Supply Voltage	V _P	V	-0.4	4.0	
Optical Power	P _{in}	dBm	-	5	

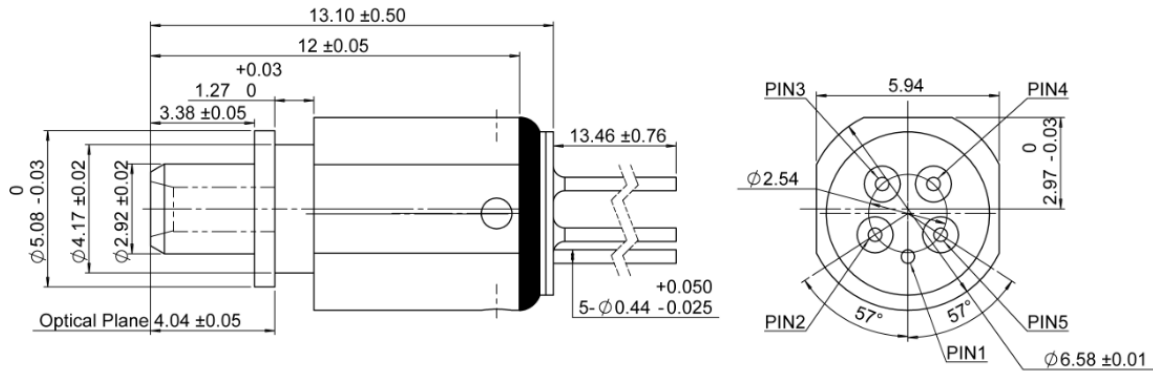
Electro-Optical Characteristics (T = 25°C, unless noted otherwise):

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Supply Voltage	V _{cc}	V	2.97	3.30	3.63	
Supply Current	I _{cc}	mA	-	21	-	V _{cc} = 3.3V
RSSI Gain	RSSI	A/A	0.45	0.50	-	
Low frequency cut-off at sensitivity	LFC	Hz	-	200	-	
Sensitivity	S _{AVG}	dBm	-	-	-12.5	λ = 1310nm, Speed = 11.88Gbps PRBS = 2 ³¹ -1, BER = 10 ⁻¹² , ER = 7.0dB
Wavelength	λ	nm	1100	1310	1550	
Overload	P _{load}	dBm	0	-	-	λ = 1310nm, Speed = 11.88Gbps PRBS = 2 ³¹ -1, BER = 10 ⁻¹² , ER = 7.0dB
Optical Return Loss	ORL	dB	-	-	-26	λ = 1310/1550nm

L-AR-EM99-03

Dimensions: (mm)

All dimensions are nominal



PINOUT

L-AR-EM99-03	
Pin Number	Function
1	GND
2	Non-inverted Output(D+)
3	Vcc
4	RSSI
5	Inverted Output(D*)