

TRR-1F59-109

10Gbps LC Connectorized InGaAs PIN plus Pre-amplifier

FEATURES:

- Pre-aligned LC-type receptacle for optical fiber communication.
- Design for Small Form Factor transceivers.
- Design for long wavelength 10.3Gbps application
- Photocurrent monitoring available.
- Single power supply +3.3V.



ELECTRO-OPTICAL CHARACTERISTICS: ($T_A = 25^\circ\text{C}$)

PARAMETERS		SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Power Supply		V_{CC}	3.0	3.3	3.6	V	
Supply Current		I_{CC}	29	32	37	mA	no loads
Differential Responsivity		R_d	1.2	2.0	3.2	mV/ μW	$R_{load} = 100\text{ohm}$, $P = -15\text{dBm}$, $\lambda = 1310\text{nm}$
Single Ended Responsivity		R_s	0.6	1.0	1.6	mV/ μW	$R_{load} = 50\text{ohm}$, $P = -15\text{dBm}$, $\lambda = 1310\text{nm}$
TIA RSSI	Slope		0.9	1.0	1.1	mA/mA	
	Offset			0.0	100	nA	
	Linearity Limit				2.0	mA	
Small-Signal Bandwidth		BW	6.0	7.0		GHz	$P = -15\text{dBm}^{(1)}$
Low-Frequency Cut off		LF		0.5	2.0	kHz	
Saturation Power		P_{Sat}	0.5			dBm	
Single Ended Output Impedance		R_O		50		ohm	
Wavelength		λ	1260		1620	nm	
Sensitivity					-14.5	dBm	$\lambda = 1310\text{nm}$, @10.3125Gbps ⁽¹⁾ PRBS31, ER=4.5dB, BER=1E-12

Notes:

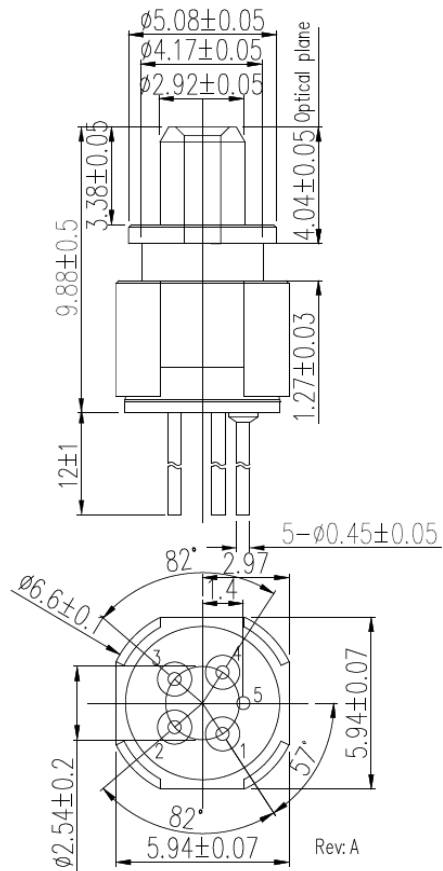
1. The spec and tested data are subject to ROSM level (flexible circuit attached) measurement.

ABSOLUTE MAXIMUM RATINGS:

PARAMETERS	MIN	MAX	UNIT	TEST CONDITIONS
Storage Temperature	-40	100	$^\circ\text{C}$	
Operating Temperature	-40	85	$^\circ\text{C}$	
Lead Solder Temperature		260	$^\circ\text{C}$	10 seconds

OUTLINE DIMENSIONS:

- Unit: mm



Pinout:

Pin no.	Function
1	Dout(+)
2	Vcc
3	Isource
4	Dout(-)
5	Gnd