## 850nm 25Gbps PIN-TIA (Preliminary)

L-TR-IM00-xx Series

## TYPE NAME: L-TR-IM00-03

## Product Description:

The LuxNet L-TR-IM00-x is designed for high-speed, high-performance 25G Ethernet applications. This device integrates our high-speed 850 nm PIN detector with a 25 G trans-impedance amplifier (TIA) and capacitors into a TO-46 5pin header with cap window. The PIN-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 ( $\mathrm{T}=25^{\circ} \mathrm{C}$ ):

| Parameter | Symbol | Unit | Min. | Max. | Note |
| :--- | :---: | :---: | :---: | :---: | :--- |
| Operating Temperature | Top | ${ }^{\circ} \mathrm{C}$ | -40 | 85 | Case Temp. |
| Storage Temperature | Tstg | ${ }^{\circ} \mathrm{C}$ | -40 | 85 |  |
| TIA supply voltage | Vcc | V |  | 4 | $\mathrm{Tc}=25^{\circ} \mathrm{C}$ |
| Solder Reflow Temp. | Tsrt | ${ }^{\circ} \mathrm{C}$ |  | 270 | $10 \sec$ Max. |

Electro-Optical Characteristics ( $\mathrm{Tc}=25^{\circ} \mathrm{C}$, unless noted otherwise):

| Parameter | Symbol | Unit | Min. | Typ. | Max. | Test Condition |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
| Power Supply Voltage | Vcc | V | 2.97 | 3.3 | 3.63 |  |
| Supply Current | Icc | mA |  | 16 | 30 | Vcc=3.3V, no light |
| Wavelength | $\lambda$ | nm |  | 850 |  |  |
| Data Rate | DR | $\mathrm{Gb} / \mathrm{s}$ |  | 25.78 |  |  |
| Responsivity | Res | $\mathrm{A} / \mathrm{W}$ | 0.45 |  |  |  |
| Sensitivity | Sen | dBm |  |  | -12.0 | ER=4.0dB, <br> PRBS 2^31-1,, <br> BER=5E-5 |
| Overload | Pmax | dBm | 3.0 |  | ER=4.0dB, <br> PRBS 2^31-1,, <br> BER=5E-5, |  |
| Output impedance | Rout | $\Omega$ |  | 50 |  | Singe Ended |

[^0]Version 1.0

## L-TR-IM00-03



Flex board PINOUT (Bottom View)

| PIN NUMBER | FUNCTION |
| :---: | :---: |
| 1 | GND |
| 2 | D+ |
| 3 | Vcc |
| 4 | RSSI |
| 5 | D- |


[^0]:    * Specifications are subject to change without notice.
    * Screening per customer-specified reject limits is available.

