

T-11-10G-D-SXX



Features

- InGaAs/InP PIN Photodiode with transimpedance amplifier
- Differential output
- Single +5V operation
- 0 to 85°C operating temperature
- Integrated 4-pin TO-46 ROSA package for SC and LC connectors
- Designed for 10 Gbps Xenpak application

Absolute Maximum Rating (Tc=25°C)

| Parameter | Symbol | Value | Unit |
|-----------------------|------------------|------------|------|
| Supply Voltage | V _{cc} | 6 | V |
| Operating Temperature | T _{opr} | 0 to +85 | °C |
| Storage Temperature | T _{stg} | -40 to +85 | °C |

DC Electrical Characteristics(Tc=25°C)

| Parameter | Symbol | Min | Typical | Max | Unit |
|-----------------------------|-----------------|-----|---------|-----|------|
| Power Supply | V _{cc} | 4.5 | 5.0 | 5.5 | V |
| Differential Output Voltage | V _d | - | 0.5 | - | V |
| Supply Current (no load) | I _{cc} | - | 45 | - | mA |

(Operating at V_{cc}=5V, Tc=25°C, λ=1310nm, 9/125μm SM fiber)

AC/Optical and Electrical Characteristics(Tc=25°C)

| Parameter | Symbol | Min | Typical | Max | Unit | Test Condition |
|--|------------------|------|---------|------|------|--|
| Detection Range | | 1100 | 1310 | 1650 | nm | - |
| Gain @ 10 Mbps Differential ¹ | G | - | 2 | - | V/mW | Measure differentially, AC coupled, R _L =50Ω |
| Bandwidth(to -3dB point) | BW | 7.5 | - | - | GHz | - |
| Saturation Power | P _{sat} | - | 0 | - | dBm | BER<10 ⁻¹² @ 10Gbps, NRZ; PRBS 2 ³¹ -1; Er=10 dB |
| Sensitivity | Sens | - | -15.5 | - | dBm | BER<10 ⁻¹² @ 10Gbps, NRZ; PRBS 2 ³¹ -1; Er=10 dB |
| Output Resistance | R _{out} | - | 50 | - | ohm | - |

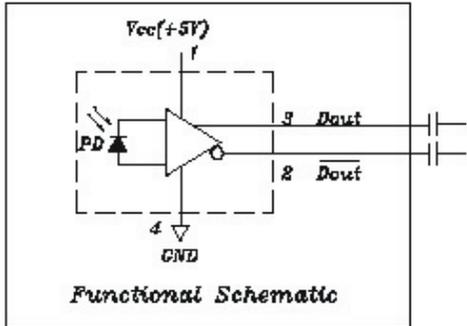
Note: 1 measured with average optical input power vs. output voltage

Connector Options

| Model | Package | Fiber | Connector |
|----------------|---------|-------|-----------|
| T-11-10G-D-SSC | ROSA | - | SC |
| T-11-10G-D-SLC | ROSA | - | LC |

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Pin Assignment

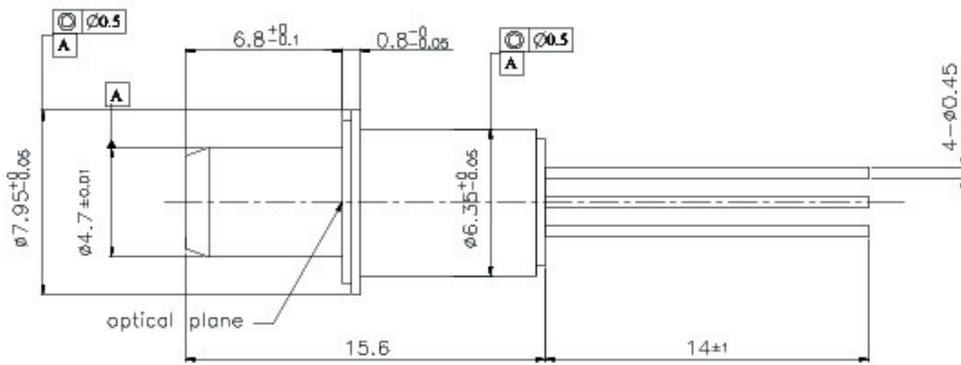


Pin assignment
 1~V_{cc}
 2~Dout
 3~Dout
 4~GND (CASE)

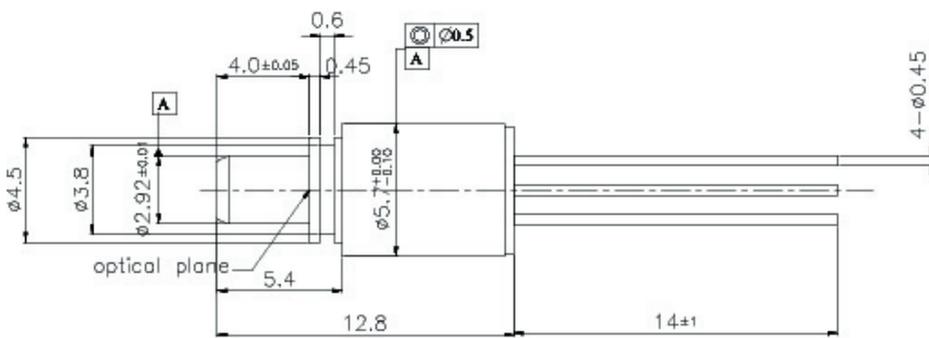
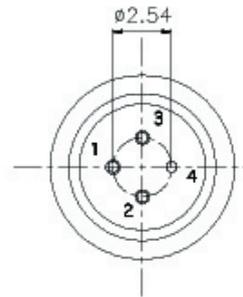
Outline Drawing

10Gbps PIN-TIA Receiver Modules-ROSA

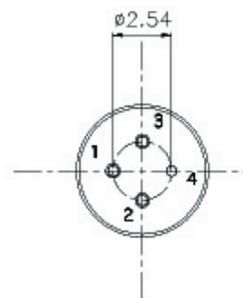
Units in mm



T-11-10G-D-SSC



T-11-10G-D-SLC



Warnings

Handling Precautions: This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

Laser Safety: Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

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