

# Optical to Electrical Converter

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## **Features:**

- Wavelength Response 900nm - 1700nm
- Low Noise, High Gain
- Responsivity 450V/W
- Bandwidth- 10 GHz (SM)
- Type K SMA Output Electrical Connector
- FC/UPC Style Fiber Optic Input Connector



## **Applications:**

- General Laboratory Testing of Optical Components
- Front-End O/E Converter For Test Instruments
- Rapid Doppler-Shift LIDAR Measurements
- Analog RF Links Over Fiber

The TIA-3000 is a versatile Optical to Electrical converter for laboratory or field use. This low profile O/E converter will faithfully reproduce an optical signal on a wide range of oscilloscopes and digitizers.

The unit is equipped with an InGaAs/InP detector that is responsive in the wavelength range of 900 - 1700 nm. The TIA-3000 bandwidth ranges from 30KHz to 10GHz (-3dB).

Applications for this converter include the General purpose testing of fiber optic components, data links and transmitter testing, LIDAR and analog RF-over-fiber links.

The TIA-3000 like other Terahertz Technologies Inc. TIA O/E devices are shipped in a hard case with universal power supply that has interchangeable AC plugs.

**We welcome the challenge of custom applications.  
Call, Fax or e-mail us with your requirements.**



Made In the USA

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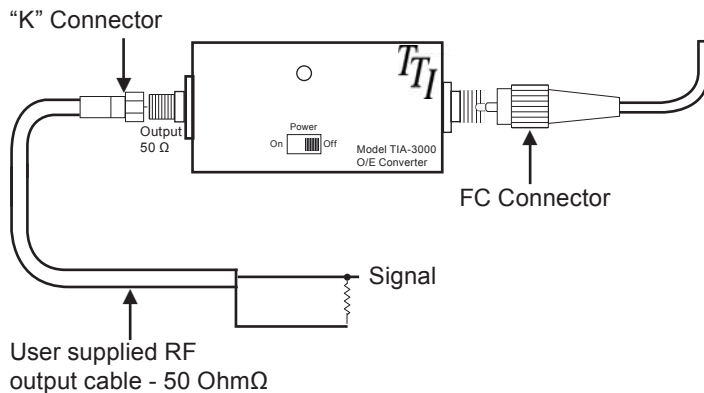
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# TIA-3000 Specifications

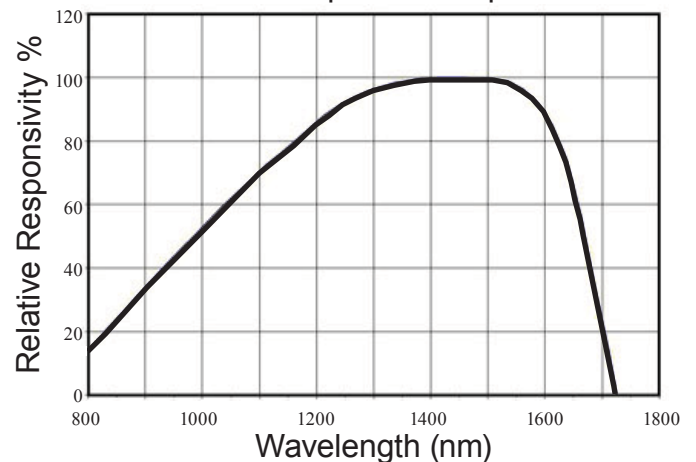
Detector Type	InGaAs/InP (900nm-1700nm)
Current Responsivity	0.8 A/W @ 1550nm Typical
Maximum Linear Input Power	2mw
Maximum Input Power w/o Damage	3mw
Bandwidth@1550nm Typ.	10 GHz typ. (8.5 GHz min.)
Output Impedance	50 Ohms
Output Connector	Type K SMA Female
Fiber Optic Input Connector	FC/UPC
Input Numerical Aperture	0.11
Sensitivity	-20dBm @ $10^{-10}$ BER
Detector ORL @1550nm Typ.	30dB
Power	Universal Power Supply
Dimensions	1.2"W x 2.5"L x 1.3"H ( 30.5mm x 63mm x 33mm)
Weight	5.6 oz (0.16 Kg)
LED Annunciators Provided	Power On
Operating Temperature Range	0 - 40 C
Standard Warranty	Two Years, Component and Workmanship, 30 Day Satisfaction Guarantee
Accessories Supplied	Transit/Storage Case, Operating Manual, Universal Power Supply

TTI reserves the right to change specifications without notice.

## Typical Setup of the TIA-3000



## TIA-3000 Spectral Response



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