

# 10 Gb/s PIN-TIA Photodetector Module

This module features a PIN photodetector, a low noise preamplifier and a connectorized single-mode fibre pigtail. It is optimized for use in 10 Gb/s long haul applications, either as a discrete device or within a transponder, using NRZ modulation.



## Overview

### High-Performance Optical Receiver

This 10 Gb/s PIN-TIA Photodetector Module is engineered for high-performance optical networking, featuring a low-noise preamplifier and a PIN photodetector integrated into a hermetic metal package. It is specifically optimized for long-haul applications and NRZ modulation, ensuring reliable data transmission in both discrete device configurations and transponder assemblies. With its coplanar output and single-mode fiber pigtail, this module provides a robust solution for demanding telecommunications and datacom environments.

## Key Features

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- High sensitivity
- Low capacitance high-speed InGaAs PIN detector
- Single-mode fiber tail
- Low power consumption
- Hermetic metal package with coplanar output

## Optical Performance

### Optical Performance Metrics

**10 GHz**

Data Rate

**0.75 A/W**

Typical Responsivity

**35 dB**

Optical Return Loss

## Technical Specifications

### Technical Parameters

Parameter	Min	Max	Unit
Center Wavelength	1100	1650	nm
Sensitivity	-20	-	dBm
Responsivity @1550nm	0.7	0.8	A/W
Output Impedance	50	50	Ω

## Physical & Operational

### Operating Environment

0-40°C Operating Temp, DC 12V 2A Power, 100x80x30 mm Dimensions

## Applications

### Suitable Applications

- Long and short reach SONET/SDH systems
- Optically preamplified receivers
- Datacom systems up to 12.5Gb/s