

APD-10



DEVICE

Avalanche Photodiode, 10 Gb/s with TIA

OVERVIEW

The Optilab APD-10 is a high sensitivity APD-TIA receiver in a fiber pigtail coupled package. It includes a high speed InGaAs avalanche photodiode with a high gain TIA in a hermetically sealed coaxial package. It incorporates an LC/UPC pigtail and a flexible printed circuit (FPC). The signal GND and a receptacle are electrically isolated in this APD receiver.

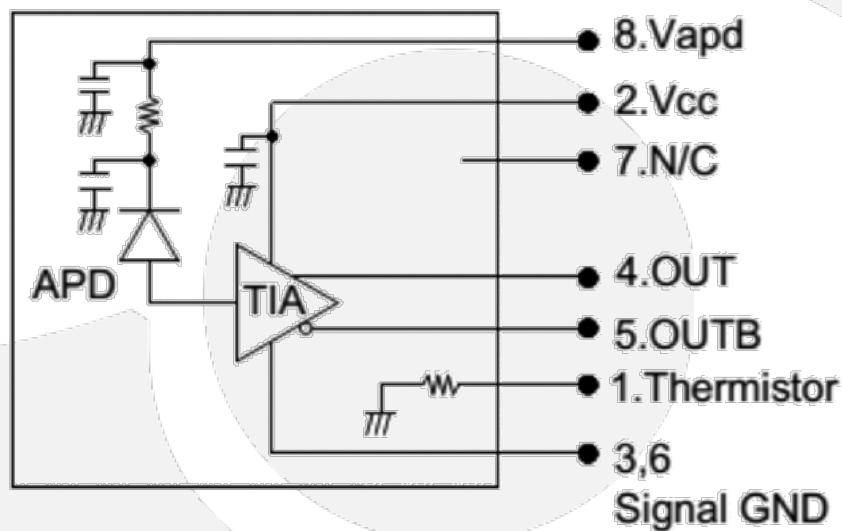
FEATURES

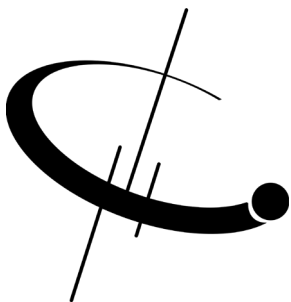
- High sensitivity: -26 dBm typ.
- Low power consumption: 0.1 W typ.
- TIA Amplifier
- > 10 Gb/s Gain Bandwidth

USE IN

- 10GBASE-L Ethernet
- SONET OC-192
- SDH STM-64
- 10 G Fiber Channel
- Fiber Optic Sensors

FUNCTIONAL DIAGRAM





APD-10

SPECIFICATIONS

Operating Wavelength Range	1250 nm to 1600 nm
APD Breakdown Voltage	25 V min.; 34 V typ.; 40 V max.
V_{BR} Temperature Coefficient	0.07 V/°C typ.; 0.11 V/°C max.
Total Dark Current	20 nA typ.; 100 nA max.
Responsivity	0.65 A/W min.; 0.75 A/W typ.
Sensitivity	-27.5 dBm min.; -26.5 dBm max.
Transimpedance	10 k Ω min.; 12 k Ω typ.
Capacitance	0.18 pF typ.; 0.22 pF max.
Optical Return Loss	-27 dB
3 dB S21 Bandwidth	6 GHz min.; 8.0 GHz typ.
Digital Bandwidth	10 Gb/s

GENERAL

MECHANICAL

Optical Input Power	-26 dBm min.; -3 dBm max.
Reverse Current	2 mA
Forward Current	32 mA typ.
Operating Temperature	0 °C to +85 °C
Storage Temperature	40 °C to +85 °C
Optical Connectors	LC/UPC
Optical Fiber	SMF-28

APD PINOUT DIAGRAM

