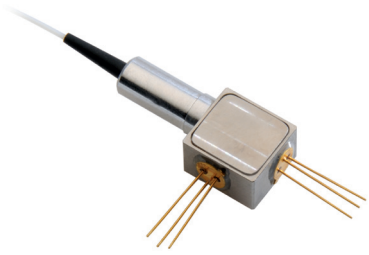
Optical Coherence Tomography Products

Polarization Diversity Detector



Simultaneously detecting the powers of two orthogonal polarization components is important for many sensor and measurement applications. A pigtailed polarization beam splitter coupled with two photodetectors can be used for such applications; however, this arrangement is bulky, troublesome to handle, and costly. By integrating polarization-splitting components with photodetectors, General Photonics created this compact device, which can be easily mounted onto a circuit board for customer applications. This Polarization Diversity Detector (PDD) features high detection sensitivity, high extinction ratio, high reliability, small size, and low cost. Once again, General Photonics leads the pack in providing solutions to customers' needs.

Specifications:

Detection Sensitivity	0.95 A/W at 1550 nm 0.90 A/W at 1310 nm } for both channels
Operation Wavelengths	1310 nm, 1550 nm. Other: specify
Wavelength Range	center wavelength ±75 nm
Extinction Ratio	> 40 dB
Return Loss	55 dB min
Fiber Type	SM or PM (specify)
Maximum Optical Power	20 mW
Detector Rise / Fall Time	< 10 ns with 50 Ω load at 5 - volt bias
Detector Capacitance	18 pf typical
Detector Dark Current	< 0.20 nA at - 5 Volt bias at 23 °C < 20 nA at - 5 Volt bias at 70 °C
Bias Voltage	15 volts max.
Max. Reverse Current	5 mA
Max. Forward Current	45 mA
NEP	8.42E - 15 W /$\sqrt{Hz}$
Detector Package	TO - 46
Fiber Type	SM standard, PM specify, 900 μm jacket
Operating Temperature	-20 to 70 °C
Storage Temperature	-40 to 80 °C
Dimensions	13 × 12 × 8 mm

Note: Customized detectors available. Contact General Photonics for details

Features:

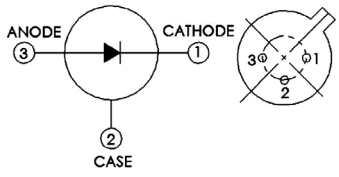
- Low Cost
- High Extinction Ratio
- High Detection Sensitivity
- Easy to Use
- Compact

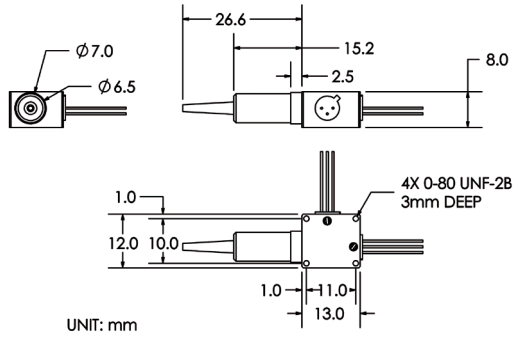
Applications:

- Sensor
- Performance Monitoring
- Polarization Analysis
- Instruments

Tech Info: p. 223

Dimensions (in mm), Mounting, and PIN Information:





Ordering Information:

PDD — 001 — □□ — □□ — □

- Wavelength: 13 = 1310 nm, 15 = 1550nm
- Fiber Type: SM, PM
- Connector Type: FC/PC, FC/APC, LC/PC, LC/APC, SC/PC, SC/APC or NC = No Connector