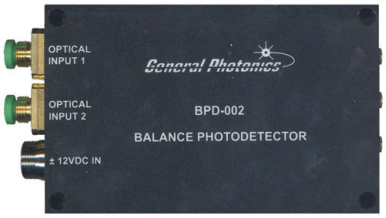
Balanced Photodetector

BPD-002

OCT and sensor systems require high performance balanced photodetectors to increase system signal to noise ratio. The BPD-002 is specially designed for use in research and development, with ease of use and high performance as the primary design goals. The device is fully enclosed in a compact, sturdy aluminum box with two optical input ports, a balanced RF output port, two 1-MHz monitor ports, and a power supply port. With a bandwidth up to 200 MHz, a transimpedance gain larger than 30K and a saturation power larger than 130 µW, the BPD-002 is ideal for integration into laboratory or commercial OCT, fiber sensor, and high performance optical measurement systems.



Making Light Work Lighter
General Photonics Corporation

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Preliminary Specifications

Photodetector Type	InGaAs
Wavelength Range	1060 nm or 1260nm~1650nm
Responsivity	0.9 A/W @ 1310 nm
Transimpedance Gain (Total, including TIA and OP-AMP)	3 x 10^4 V/A
RF Bandwidth (3dB)	DC-200. 100, 50, 10, or 5 MHz
CW Saturation Power	>130 µW @ 1310 nm
PD Input Power (linear region)	<1 mW @ 1310 nm
NEP (DC - 100MHz)	<10 pW / $\sqrt{Hz}$
Common Mode Rejection Ratio	>25 dB
RF Output Impedance	50 Ω
Electrical Connector	SMA
RF Output Voltage Range (at 50Ω)	± 1.8 V
DC offset RF output	<±3 mV
Monitor Output Impedance	200 Ω
Monitor Gain	10 V/mW (high impedance)
Monitor Bandwidth (3dB)	>1000 Hz
Monitor Voltage	4 V max.
PD Damage Threshold Power	20 mW
Power Supply	±12V
Operating Temperature	10 to 50 °C
Storage Temperature	−40 to 85 °C
Dimensions	3.82" (L) × 2.40" (W) × 0.75" (H)

Applications:

- Optical Coherence Tomography
- Fiber sensing interrogator
- Instrumentation
- R&D

Unique Features:

- Ultra low noise
- Excellent CMRR
- High conversion gain
- Wide bandwidth
- Compact

Ordering Information:

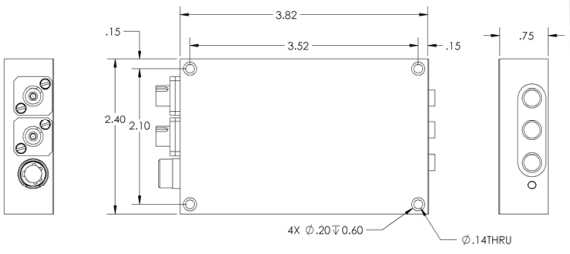
BPD – 002 – XX – XX – XXX

Bandwidth:
200 – 200 MHz
100 – 100 MHz
50 – 50 MHz
10 – 10 MHz
05 – 5 MHz

Wavelength:
10 – 1060nm
13 – 1310nm
15 – 1550nm

Connector type:
FC/PC, FC/APC

Dimensions:



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