

# InGaAs APD Balance Photodetector



## Description:

High-speed and low-noise avalanche photoelectric balance detection module integrates low-noise APD detector, low-noise broadband transconductance amplifier, ultra-low noise isolation power supply, high-voltage power supply, temperature compensation; isolation power supply ensures that the output signal is not affected by external power supply; APD temperature compensation improves the stability of detection module. Avalanche photodetector has the characteristics of high gain, high sensitivity, high bandwidth and low noise.

## Features:

- Low Noise and High Gain
- Built-in high voltage power supply
- Temperature compensation
- Compact structure
- Built-in low noise isolation power supply

## Application:

- Optical Fiber Sensing
- Optical Fiber Communication
- Laser Ranging
- Spectrometry

## Specifications:

Product Model	BAPD-100M-A	BAPD-200M-A	BAPD-300M-A	BAPD-400M-A	BAPD-500M-A	BAPD-800M-A	BAPD-1G-A	BAPD-1.2G-A	BAPD-1.5G-A	BAPD-2G-A	BAPD-2.5G-A	Unit
Detector	InGaAs											
Wavelength	800~1700											nm
Bandwidth	100M	200M	300M	400M	500M	800M	1G	1.2G	1.5G	2G	2.5G	Hz
Detector Responsivity	9	9	9	9	9	9	9	9	9	9	9	A/W@1550nm
Transimpedance Gain	300K	300K	300K	100K	50K	300K	300K	200K	150K	150K	150K	V/W
Saturated Input Optical Power	13	13	13	39	78	13	13	13	20	20	20	uW
CMRR	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	dB
NEP	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	pW/ $\sqrt{\text{Hz}}$
Output Impedance	50	50	50	50	50	50	50	50	50	50	50	$\Omega$
Output Coupling Mode	DC/AC	DC/AC	DC/AC	DC/AC	DC	AC	AC	AC	AC	AC	AC	
Supply Voltage	5	5	5	5	5	12	12	12	12	12	12	V
Supply Current	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	A
Optical Input	FC/APC(or Free Space )											
Radio Frequency Output	SMA											
Shape Size	80*90*25											mm

## Test Result:

