InGaAs Gain adjustable balance detector

800-1700nm AC 800MHz

Product Description

The detector can adjust the gain conveniently and quickly through software, with a gain adjustment range of up to 31dB and a maximum gain of up to 60KV/A. During the gain adjustment process, the adjustment speed is fast, the noise is low, and the output signal-to-noise ratio and signal bandwidth are not affected, which is particularly suitable for scientific research and equipment integration.

Product features

Gain adjustable (software adjustment)、 Large gain adjustment range (0~31dB)、 No signal-to-noise ratio degradation、 High gain (60KV/A)、 Low noise, high bandwidth、 Easy to operate

Part Number

MP-GAD-I-800-F-A

Application area

Distributed fiber optic sensing、 Laser wind radar、 Optical coherence tomography、 Spectral measurement、 ns-level optical pulse detection

Core parameters

Wavelength	Bandwidth	Responsivity
800-1700nm	800MHz	0.95A/W@1550nm

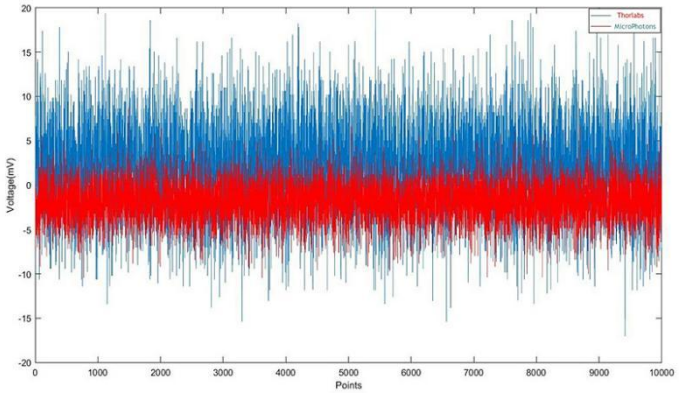
General Parameters

Parameter

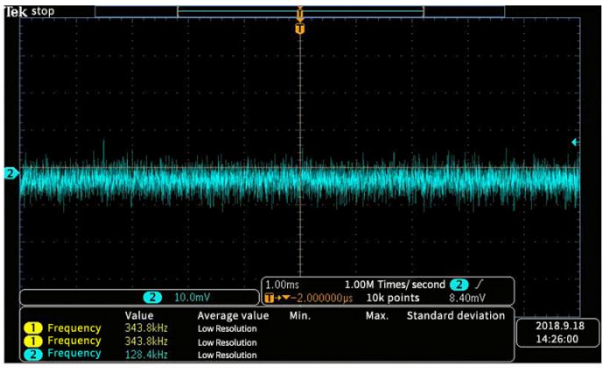
Wavelength	800~1700	800~1700	800~1700	800~1700	800~1700	nm
bandwidth	DC-100M	DC-200M	DC-350M	AC-800M	AC-1.6G	HZ
Detector responsivity	0.95@1550nm	0.95@1550nm	0.95@1550nm	0.95@1550nm	0.95@1550nm	A/W
Gain adjustment range	0~31	0~31	0~31	0~31	0~31	dB
Gain adjustment step	1	1	1	1	1	dB
Transimpedance gain	30k	30k	30k	30k	30k	V/A
Saturated input optical power	100	150	150	150	150	μW
NEP	5	5	5	9	9	pW/Sqrt(Hz)
Output impedance	50	50	50	50	50	Ω
Output coupling mode	AC	AC	AC	AC	AC	

Supply voltage	5	5	5	12	12	V
Supply current	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	A
Optical input	FC/APC	FC/APC	FC/APC	FC/APC	FC/APC	
RF output	SMA	SMA	SMA	SMA	SMA	
Dimensions	80*80*30	80*80*30	80*80*30	80*80*30	80*80*30	mm

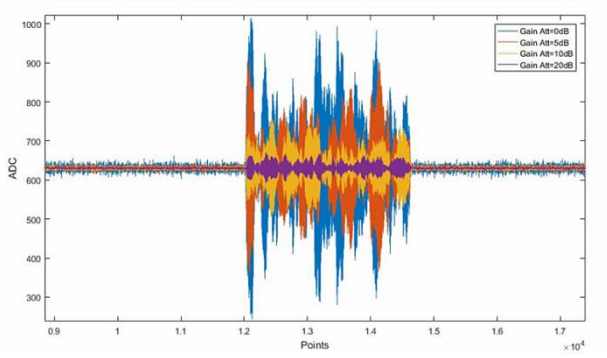
Related test data



Noise floor benchmarking test with foreign Thorlabs products

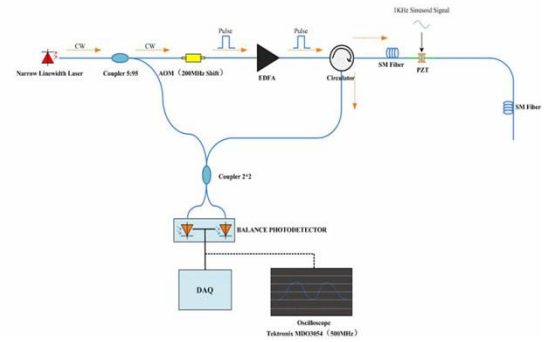


Noise floor 10mVpp

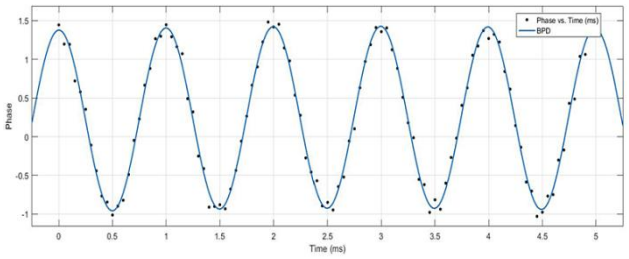


200MHz beat frequency signal (oscilloscope data)

Typical application areas:



Coherent Detection Distributed Fiber Optic Sensing



PZT vibration point demodulation phase on optical fiber (1KHz)