InGaAs Gain Adjustable Balanced photo Detector 800-1700nm DC 100MHz

Product Description

Idealphotonics independently developed the best programmable gain photoelectric balanced detector on the market. The detector can adjust the gain quickly and conveniently through software. The gain adjustment range is up to 31dB, and the Max. gain is 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. It is

especially 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-100-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	100MHz	0.95A/W@1550nm

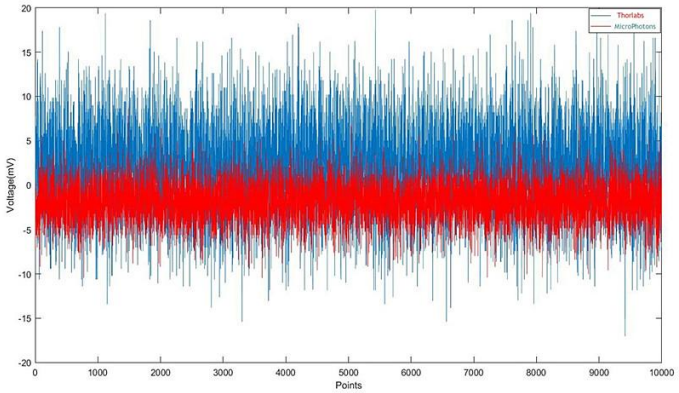
General Parameters

Parameter

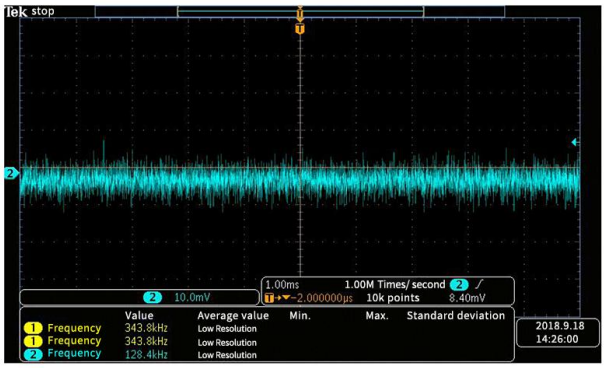
Wavelength	800~1700	800~1700	800~1700	800~1700	800~1700	nm
bandwidth	DC-100M	DC-200M	DC-350M	AC-800M	AC-1.6G	HZ
Detector responsivity	0.95@1550nm	0.95@1550nm	0.95@1550nm	0.95@1550nm	0.95@1550nm	A/W
Gain adjustment range	0~31	0~31	0~31	0~31	0~31	dB
Gain adjustment step	1	1	1	1	1	dB
Transimpedance gain	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

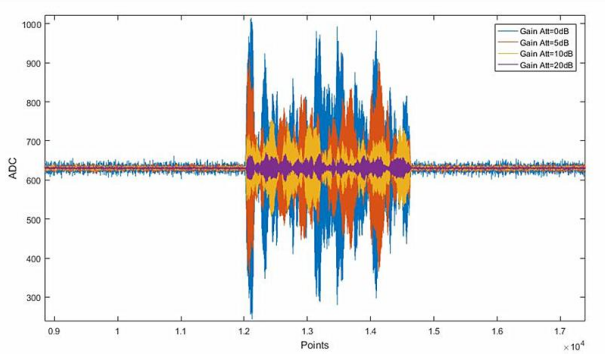
Related test data



Noise floor benchmarking test with foreign Thorlabs products

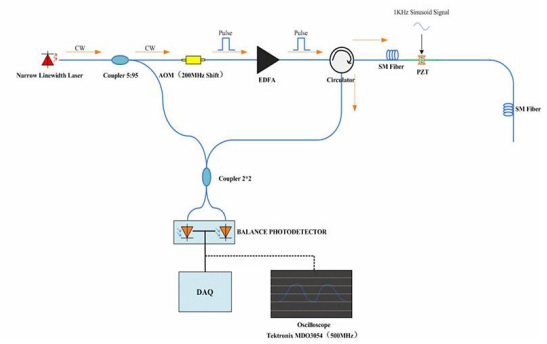


Noise floor 10mVpp

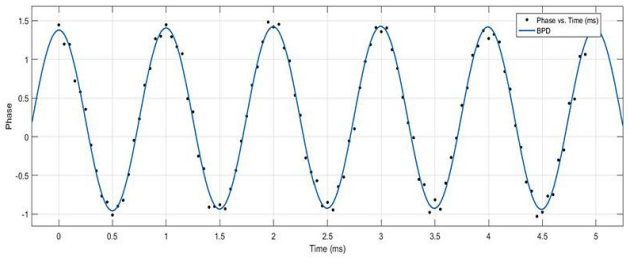


200MHz beat frequency signal (oscilloscope data)

Typical application



Coherent Detection Distributed Fiber Optic Sensing



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