400-1700nm Visible extended InGaAs Amplified Photodetector Active Area:2mm×2mm

Product Description

IdealPhotonics' visible light extended InGaAs amplified photodetector has a wavelength range of 400nm~1700nm, with 8 adjustable gain levels, enabling quantitative photoconversion. It offers a wide dynamic range, making it suitable for various optoelectronic development scenarios. It provides excellent performance, high cost-effectiveness, and comprehensive technical support. It is commonly used in visible light and

near-infrared light measurements.

Product features

Light-sensitive range 400nm-1700nm, commonly used in visible and near-infrared light measurements、 Amplified detector with 8 adjustable gain levels for quantitative optoelectronic conversion、Wide dynamic range, suitable for various optoelectronic development scenarios 、 Excellent performance, high cost-performance ratio, with complete technical support.、 Customization services available

Part Number

MP-PDJAA4H20

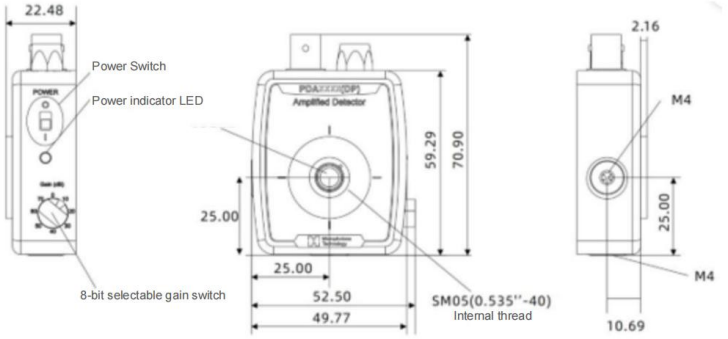
Application area

Visible and infrared light measurement

Core parameters

Wavelength Range	Active area	Response Time Constant
400-1700nm	2mm×2mm	35ns

Dimension Drawing



General Parameters

Main Parameters

Parameter	Value	
Wavelength Range	400-1700nm	
Response Time Constant	5ns	35ns
Gain Range	Hi-Z load: 1.51kV/A to 4.75MV/A; 50Ω load: 0.75kV/A to 2.38MV/A	
Signal Amplitude	Hi-Z load: 0 to 10V; 50Ω load: 0 to 5V	
Gain Adjustment Method	Rotary switch adjustment: 0 to 70dB, with 8 levels, each with a 10dB increment. Bandwidth is inversely proportional to gain.	

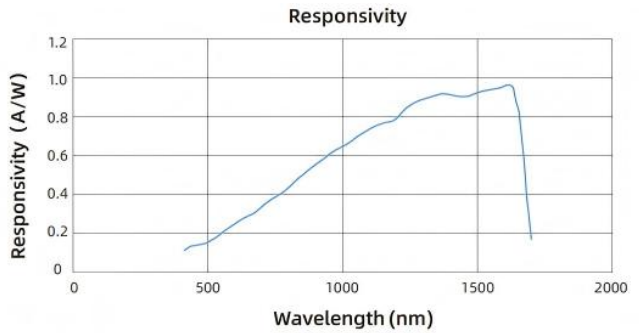
NEP	$1.4\times10^{-12}W/Hz^{1/2}$		$5.2\times10^{-13}W/Hz^{1/2}$		
Active area	1mm×1mm		2mm×2mm		
Active area Depth	0.13" (3.3 mm)				
Detector Net Weight	0.10kg				
Operating Temperature	10-40℃				
Storage Temperature	-20-70℃				
Dimensions	2.79" X 2.07" X 0.89" (70.9 mm X 52.5 mm X 22.5 mm)				
Power Interface	Power Switch	Signal Interface	Gain Adjustment	Mounting Rod Interface	Optical Interface
LUMBERG R SMV3 FEMA LE	Slide switch with LED indicator	BNC Female Socket	8-step rotary knob	M4×2	SM1× 1 SM0.5 × 1

8-step Quantitative Adjustable Gain Parameters

0dB		10dB		20dB		30dB	
Gain (Hi-Z)	1.51 × 10^3V/ A	Gain (Hi-Z)	4.75 × 10^3V /A	Gain (Hi-Z)	1.5 × 10^4V/ A	Gain (Hi-Z)	4.75 × 10^4 V/ A
Gain (50Ω)	0.75 × 10^3V/ A	Gain (50Ω)	2.38 × 10^3V /A	Gain (50Ω)	0.75 × 10^4V /A	Gain (50Ω)	2.38 × 10^4 V/ A
Bandwidth (BW)	13MHz	Bandwidth (BW)	1.7MHz	Bandwidth(BW)	1.1MHz	Bandwidth (BW)	300kHz
Noise (RMS)	⩽ 250uV	Noise (RMS)	⩽ 250uV	Noise (RMS)	⩽ 250uV	Noise (RMS)	⩽250uV
40dB		50dB		60dB		70dB	
Gain (Hi-Z)	1.51 × 10^5V/ A	Gain (Hi-Z)	4.75 × 10^5V /A	Gain (Hi-Z)	1.5 × 10^6V/ A	Gain (Hi-Z)	4.75 × 10^6 V/ A
Gain (50Ω)	0.75 × 10^5V/ A	Gain (50Ω)	2.38 × 10^5V	Gain (50Ω)	0.75 × 10^6V/ A	Gain (50Ω)	2.38 × 10^6V/ A

	A		/A		/A		V/A
Bandwidth (BW)	90kHz	Bandwidth (BW)	28kHz	Bandwidth (BW)	9kHz	Bandwidth (BW)	3kHz
Noise (RMS)	≤ 250uV	Noise (RMS)	≤ 250uV	Noise (RMS)	≤ 300uV	Noise (RMS)	≤400uV
Signal Bias	±8mV(Typ.)， ±12mV(Max)						

Response Curve:



Product Configurations:

Accessory 1: A23, 12V battery

Accessory 2: BNC-BNC signal cable

Attachment 1: Optional Configuration Table

Visible Light Extended InGaAs Amplified Photodetector	Optional Configurations				
Product Name	Material	Type	Features	Wavelength Range Sensitive Area	Reserved Optional Configurations
Photodetector	InGaAs	Amplified Type	Adjustable Gain	400-1700nm，1mm× 1mm	
				400-1700nm，2mm× 2mm	

Attachment 2: Model Correspondence Table

Model	Specs
MP-PDJAA4H10	400-1700nm Visible light extended InGaAs amplified photodetector, Active area 1mm×1mm, 0 to 70dB eight-level quantitatively adjustable gain, response time constant 5ns

MP-PDJAA4H20	400-1700nm Visible light extended InGaAs amplified photodetector, Active area 2mm×2mm, 0 to 70dB eight-level quantitatively adjustable gain, response time constant 35ns