



900-2600nm InGaAs Bias Photodetector, Active area $\Phi 1.0\text{mm}$, Rise Time 25ns



- **Product Description**

IdealPhotonics' InGaAs bias photodetector has a photosensitive range from 500nm to 2600nm, with extremely low noise, fast response, no gain, and low cost. It is suitable for conventional photodetector applications, offering excellent performance and high cost-performance ratio. Technical support is available across various domains, commonly used in visible and infrared light measurements



● Product features

Photosensitive range covers 500nm to 2600nm, commonly used in visible and infrared light measurements、 Bias-type detector, extremely low noise, fast response, no gain、 Low cost, suitable for conventional photodetector applications、 Excellent performance, high cost-performance ratio, and technical support across various domains、 Custom services available for non-standard applications

● Part Number

MP-CPD-M-I-B-C-9010

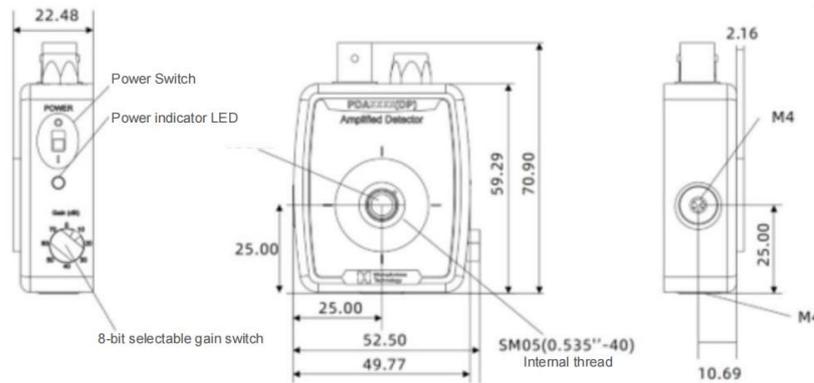
● Application area

Visible and infrared light measurements

● Core parameters

Wavelength Range	Active Area	Bandwidth
900-2600nm	Φ1.0mm	14MHz

● Dimension Drawing



● General Parameters

Main Parameters

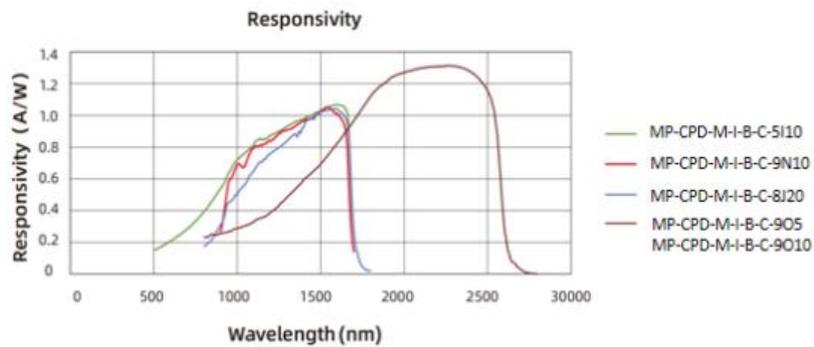
Parameter	Value				
Wavelength Range	500-1700nm m	900-1700nm m	800-1700nm	900-2600nm	
Active area	Φ1.0mm	Φ1.0mm	Φ2.0mm	Φ0.5mm	Φ1.0mm
Bandwidth Range	70MHz	35MHz	11.7MHz	20.6MHz	14MHz
Rise Time (@50Ω)	5ns	10ns	30ns	17ns	25ns
NEP	2.0×10^{-14} W/H z ^{1/2}	2.5×10^{-14} W/H z ^{1/2}	1.3×10^{-13} W /H z ^{1/2}	1.0×10^{-12} W/H z ^{1/2}	1.5×10^{-12} W/H z ^{1/2}

Dark Current	1.5nA(Typ.) /10 nA(Max)	1.0nA(Typ.) /25 nA(Max)	55nA(Typ.) /20 0nA(Ma x)	2uA(Typ.)/ 20u A(Max)	5uA(Typ.) /40uA(Ma x)
Junction Capacitance	50pF(Typ.)	80pF(Typ.)	100pF(Typ.)	140pF(Typ .)	500pF(Ty p.)
Bias Voltage	5V		1.8V		
Output Current	0~5mA				
Output Voltage	~9V(Hi-Z); ~170 mV(50Ω)				
Light-Sensitive Depth	0.09" (2.2 mm)				
Operating Temperature	10-50°C				
Storage Temperature	-20-70°C				
Detector Net Weight	0.10kg				
Undervoltage Indicator	Vout ≤9V(Hi-Z) Vout ≤170mV(50Ω)				
Dimensions	2.79" X 1.96" X 0.89" (70.9 mmX49.8 mm X 22.5mm)				



Power Supply Battery	Power Switch	Signal Interface	Battery Monitoring	Support Rod Interface	Optical Interface
A23 , 12VDC , 40mAh	Slide Switch	BNC Female Socket	Instantaneous Button	M4 X 2	SM1X 1 SM0.5X 1

Response Curve:



Product Configurations:



Accessory 1: A23, 12V battery



Accessory 2: BNC-BNC signal cable


Attachment 1: Optional Configuration Table

Optional Configuration					
Name	Material	Type	Features	Wavelength Range Light-Sensitive Size	Reserved Optional Configurations
CPD: "Photodetector"	I: InGaAs (Indium Gallium Arsenide)	Bias Type	Conventional Type	5110: 500-1700nm , Φ 1.0mm	
				9N10: 900-1700nm , Φ 1.0mm	
				8J20: 800-1700nm , Φ 2.0mm	
				905 : 900-2600nm , Φ 0.5mm	
				9010: 900-2600nm , Φ 1.0mm	

Attachment 2: Model and Product Number Correspondence Table

Model	Specs
MP-CPD-M-I-B-C-5I10	500-1700nm InGaAs biased photodetector, Active area Φ 1.0mm, rise time 5ns, bandwidth 70MHz
MP-CPD-M-I-B-C-9N10	900-1700nm InGaAs biased photodetector, Active area Φ 1.0mm, rise time 10ns, bandwidth 35MHz
MP-CPD-M-I-B-C-8J20	800-1700nm InGaAs biased photodetector, Active area Φ 2.0mm, rise time 30ns, bandwidth 11.7MHz
MP-CPD-M-I-B-C-9O5	900-2600nm InGaAs biased photodetector, Active area Φ 0.5mm, rise time 17ns, bandwidth 20.6MHz
MP-CPD-M-I-B-C-9O10	900-2600nm InGaAs biased photodetector, Active area Φ 1.0mm, rise time 25ns, bandwidth 14MHz