



1000-2300nm Extended Large Photosensitive Surface InGaAs Detector



● Product Description

The photoelectric detection module integrates photodiodes, amplifier circuits and power conditioning circuits in a miniaturized module. It is not only suitable for the construction of various laboratory optical systems, but also suitable for integration in user products. The module is easy to install and can achieve sealing of the optical path. The module can operate with a wide range of positive and negative power supplies. The module contains a



linear rectifier circuit to reduce input noise and improve the signal-to-noise ratio. Different types, sizes and speeds of photodiodes are available in the series, such as Si or InGaAs. The typical output characteristics of the module using a 3mm diameter photodiode are $\pm 3V$, 0~25MHz (at positive and negative 5V power supplies)

- **Product features**

Compact size、 4 $\phi 6mm$ through holes for coaxial mounting、 Light-tight and air-tight、 Multiple sensor options、 Switchable 20dB gain、 Wide power input: ± 5 to $\pm 20V$

- **Part Number**

MP-CPD-M-I-B-C-9030-50M

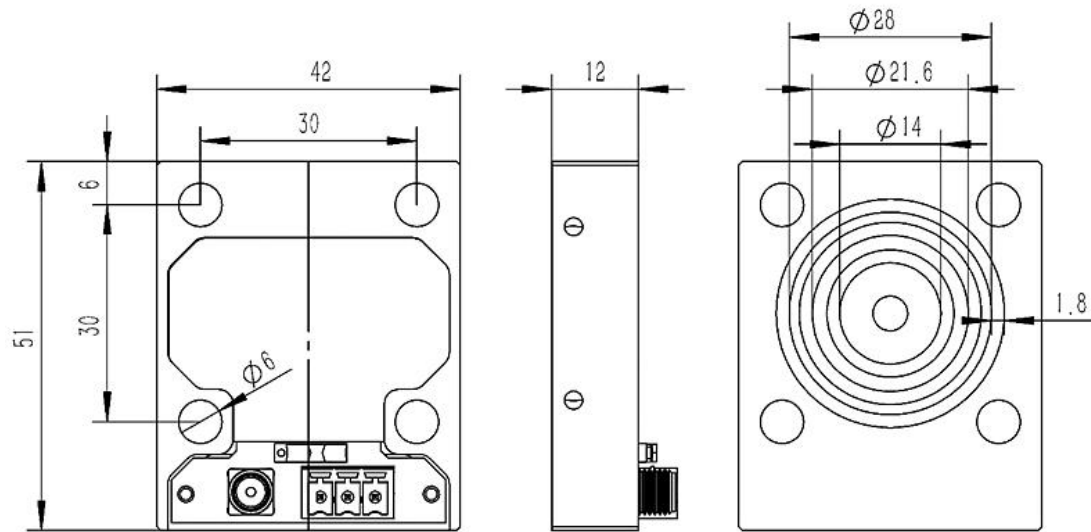
- **Application area**

Q-modulated laser monitoring、 Mode-locked laser output monitoring、 Weak visible light detector

- **Core parameters**

Spectral response range	Responsivity
1000-2300nm	0.85A/W @1310nm; 0.95A/W @1550nm

● Dimension Drawing



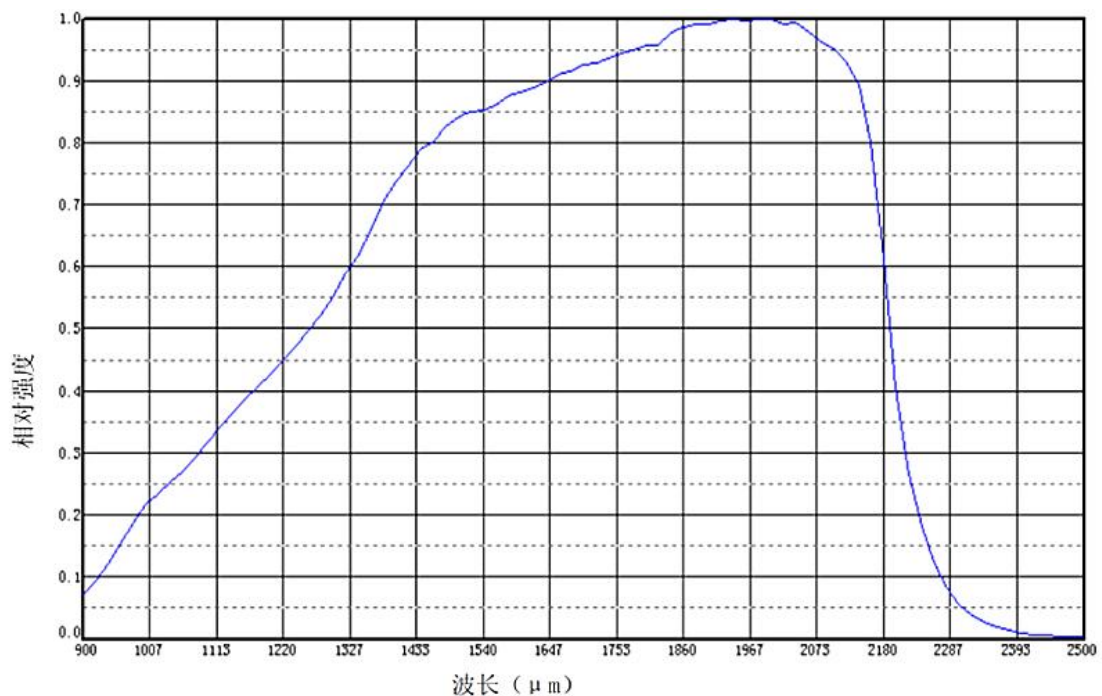
● General Parameters

Parameter	Value
Photodetector	InGaAS Extended Indium Gallium Arsenide Detector
Active area	$\phi 3$ mm
Optical window	Plane borosilicate glass
Response wavelength range	1000-2300nm
Peak wavelength	2000nm
Relative response intensity	75% @1550nm, 100@2000nm
Directivity	$\pm 60^\circ$
NEP	6×10^{-15} W/Hz ^{1/2}

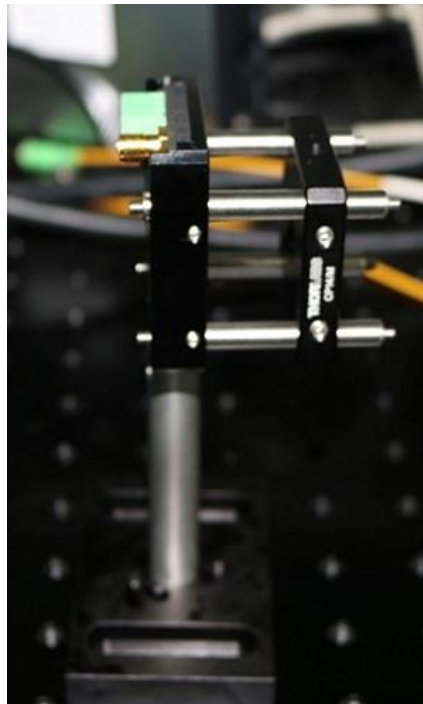


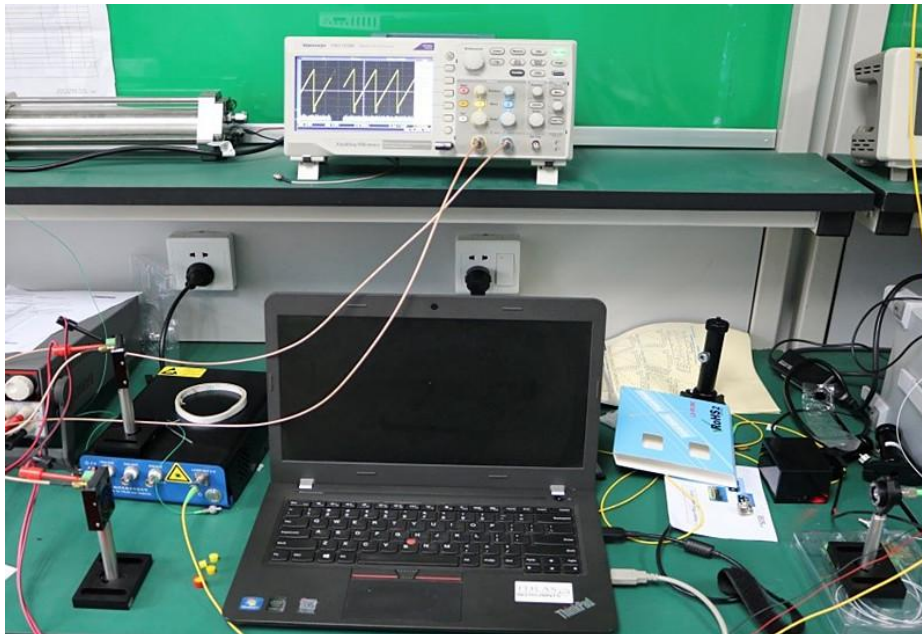
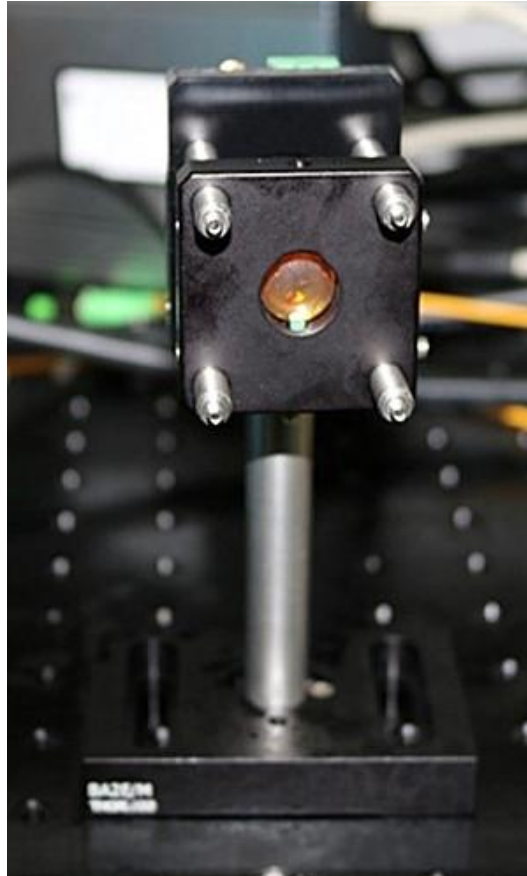
Operating bandwidth	50MHZ
Transimpedance gain	50kV/A @ 0dB Gain; 500kV/A @20dB Gain
Output voltage range	0~+3V (into Hi-Z); 0~+1.5V (into 50Ω)
Output impedance	50Ω
Input operating voltage	V+: +5 ~ +20V; V- : -5 ~ -20V
Operating temperature	10~50 °C
Maximum pressure difference	±50kPa

Response spectrum



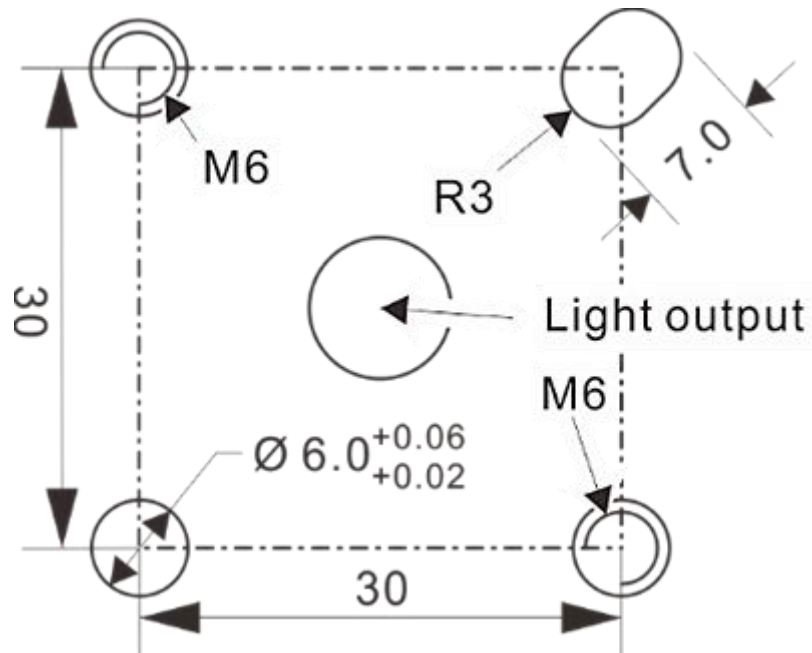
Installation Example





Recommended mounting hole diameter:

Use the two guide rails to precisely position the sensor. Secure the position with four M6 screws.



(All dimensions in mm)