2-12um InAsSb amplified photodetector, conventional



Description

LD-PD PTE.LTD's InAsSb amplified photodetector has a photosensitivity range of 2-11um, 8 levels of adjustable gain, can realize quantitative photoelectric conversion, has a wide dynamic range, is suitable for various infrared photoelectric development scenarios, has excellent performance, is cost-effective, provides all-round technical support, and is often used in medium and long-wave infrared measurements.

Features

- The photosensitive range covers 2-11um, which is often used in medium and long-wave infrared measurement.
- Amplified detector, 8-level adjustable gain, quantitative photoelectric conversion.
- Wide dynamic range, uncooled, suitable for various photoelectric development scenarios.
- Excellent performance, high cost performance, all-round technical support
- Provide non-standard customized services

Application

- Mid- and long-wave infrared measurements

Specifications

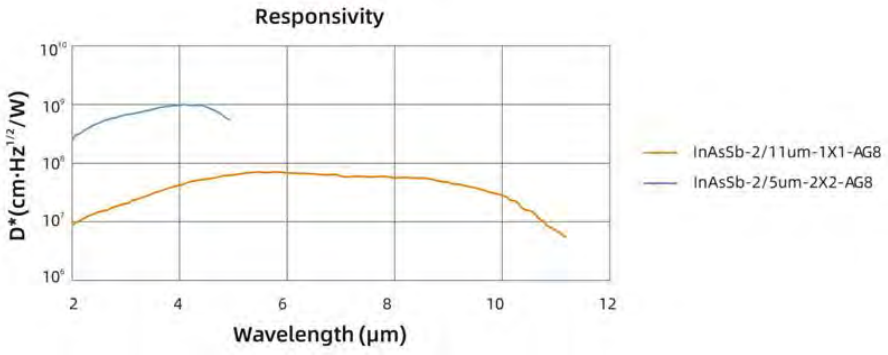
Performance Specifications

Product Number	InAsSb-2/11um-1X1-AG8			InAsSb-2/5um-2X2-AG8		
Wavelength range	2~11um			2~5.3um		
Peak wavelength	5.6um			4.1um		
Response time constant	3ns			100ns		
D*	7.0X10^{7}cm·Hz$^{1/2}$/W			1.0X10^{9}cm·Hz$^{1/2}$/W		
Signal amplitude	Hi-Z load: 0~10V 50Ω load: 0~5V					
Gain adjustment method	Rotary gear adjustment, 0~70dB, 10dB per gear, 8 gears in total. Bandwidth is inversely proportional to gain.					
NEP	1.4X10^{-9}W/√ Hz			2.0X10^{-10}W/√ Hz		
Photosensitive size	1mm X 1mm			2mm X 2mm		
Photosensitive surface depth	0.13" (3.3 mm)					
Detector net weight	0.10kg					
Operating temperature	10～40℃					
Storage temperature	-20～70℃					
Appearance size	2.79" X 2.07" X 0.89" (70.9 mm X 52.5 mm X 22.5 mm)					
Power supply interface	Power switch	Signal interface	Gain Adjustment	Support rod interface	Optical interface	
LUMBERG RSMV3 FEMALE	Slide switch with LED indicator	BNC female connector	8-position knob	M4 X 2	SM1 X 1 SM0.5 X 1	

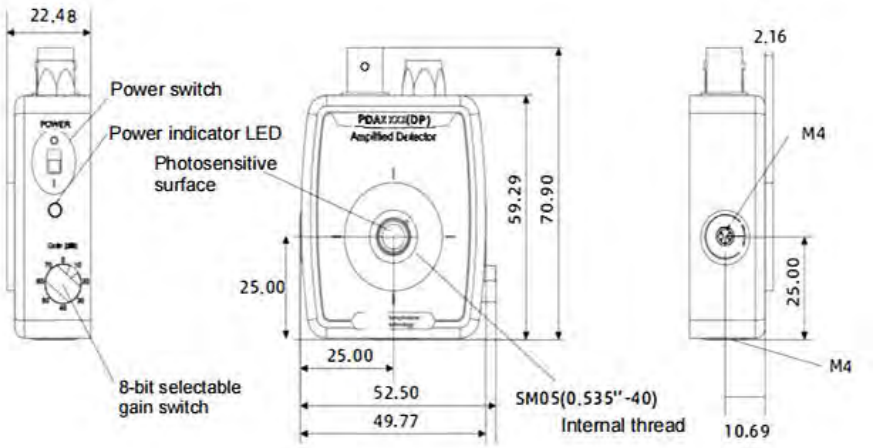
Eight-level quantitatively adjustable gain parameters

0dB		10dB		20dB		30dB	
Gain (Hi-Z)	1.51×10^{3} V/A	Gain (Hi-Z)	4.75×10^{3} V/A	Gain (Hi-Z)	1.5 ×10^{4}V/A	Gain (Hi-Z)	4.75×10^{4} V/A
Gain (50Ω)	0.75×10^{3} V/A	Gain (50Ω)	2.38×10^{3}V/A	Gain (50Ω)	0.75×10^{4}V/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^{5} V/A	Gain (Hi-Z)	4.75×10^{5} V/A	Gain (Hi-Z)	1.5×10^{6} V/A	Gain (Hi-Z)	4.75×10^{6} V/A
Gain (50Ω)	0.75× 10^{5} V/A	Gain (50Ω)	2.38×10^{5} V/A	Gain (50Ω)	0.75×10^{6} V/A	Gain (50Ω)	2.38×10^{6} 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)						

MCT Response Curve



Dimension



Ordering Info

Part Number	Sensitivity range	Photosensitive size	Gain range	Peak wavelength	characteristic
InAsSb-2/11um-1X1-AG8	2~11um	1mm X1mm	0~70dB, Eight levels of quantitatively adjustable gain	5.6um	Ultra-wideband infrared measurements
InAsSb-2/5um-2X2-AG8	2~5um	2mm X2mm		4.1um	Large target surface