800～ 1700nm InGaAs Amplified Adjustable GAIN APD



Description

APD improves the photoelectric conversion gain through the avalanche effect, has higher sensitivity, and is suitable for weak light signal detection,InGaAs detector, with a sensitivity range of 800nm~1700nm, is commonly used for visible light and near-infrared light measurement,Amplified detector, 8-level adjustable gain, quantitative photoelectric conversion.

Features

- Wide dynamic range
- suitable for various optoelectronic development scenarios
- widely used
- Excellent performance
- high cost performance and all-round technical support
- Provide non-standard customized services

Specifications

Product number	APDI-0.8/1.7um-1mm-AG8
Wavelength range	800～ 1700nm
Photosensitive size	Φ1mm
APD bias voltage adjustment range	0 ~ 55 V
APD gain M	0 ~ 30
Response time constant	5 ns
Bandwidth range	DC~12MHZ
Gain range	Hi-Z load: 1.51kV/A~4.75MV/A; 50Ω load: 0.75kV/A~2.38 MV/A
Signal amplitude	Hi-Z load: 0~10V; 50Ω load: 0~5V
Gain adjustment method	1: Rotary gear adjustment: 0~70dB, 10dB per gear, 8 gears in total; 2: Single-turn potentiometer adjusts the APD's own gain; the bandwidth is inversely proportional to the gain.
Photosensitive surface depth	0.05" (1.2 mm)
Detector net weight	0.11kg
Operating temperature	10～40℃
Storage temperature	-20～ 70℃
Appearance size	2.78" X 2.21" X 1.20" (70.6 mm X 56.2 mm X 30.5 mm)
NEP	3.25~75.7 pW/Hz1/2

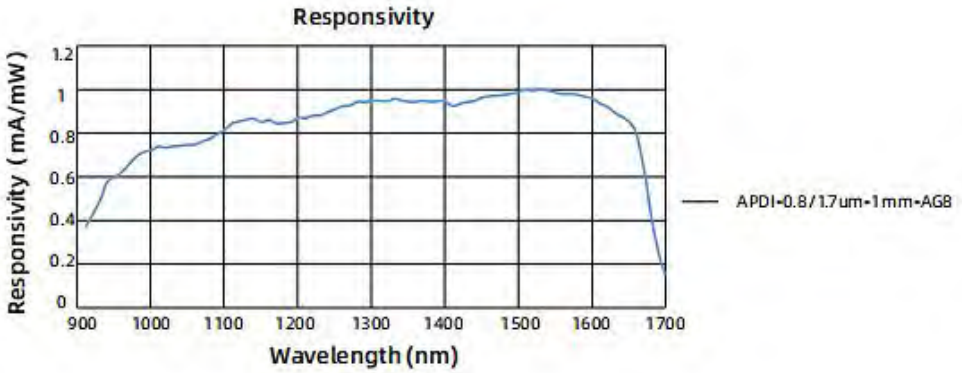
Power supply interface	Power switch	Signal interface	Gain adjustment	Support rod interface	Optical interface
LUMBERG RSMV3 FEMALE	Slide switch With LED indicator	BNC female socket	Single-turn potentiometer 8-position knob	M4 X 2	SM1X1 SM0.5 X 1

Eight-level quantitatively adjustable gain parameters

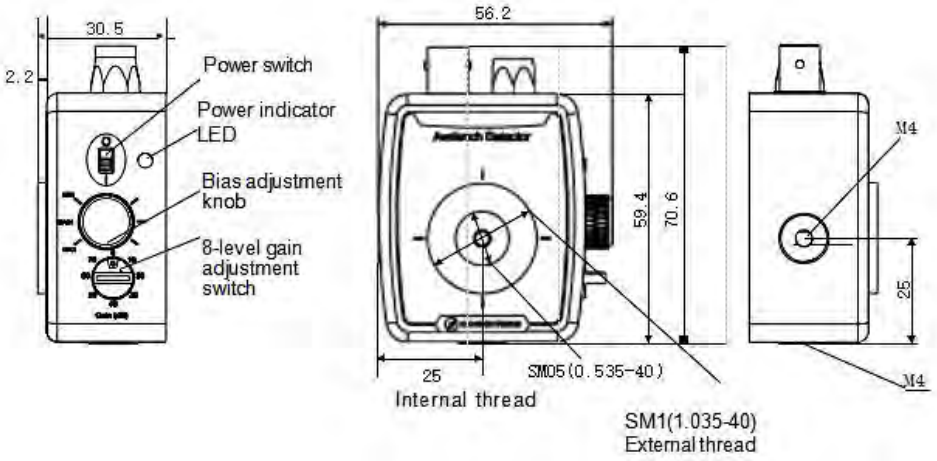
0dB		10dB		20dB		30dB	
Gain (Hi-Z)	1.51X103V/A	Gain (Hi-Z)	4.75X103V/A	Gain (Hi-Z)	1.5X104V/A	Gain (Hi-Z)	4.75X104V/A
Gain (50Ω)	0.75X103V/A	Gain (50Ω)	2.38X103V/A	Gain (50Ω)	0.75X104V/A	Gain (50Ω)	2.38X104V/A
Bandwidth (BW)	12MHz	Bandwidth (BW)	1.6MHz	Bandwidth (BW)	1MHz	Bandwidth (BW)	260kHz
Noise (RMS)	258μV	Noise (RMS)	192μV	Noise (RMS)	207μV	Noise (RMS)	211μV
40dB		50dB		60dB		70dB	
Gain (Hi-Z)	1.51X105V/A	Gain (Hi-Z)	4.75X105V/A	Gain (Hi-Z)	1.5X106V/A	Gain (Hi-Z)	4.75X106V/A
Gain (50Ω)	0.75X105V/A	Gain (50Ω)	2.38X105V/A	Gain (50Ω)	0.75X106V/A	Gain (50Ω)	2.38X106V/A

Bandwidth (BW)	90KHz	Bandwidth (BW)	28KHz	Bandwidth (BW)	9kHz	Bandwidth (BW)	3kHz
Noise (RMS)	214μV	Noise (RMS)	234μV	Noise (RMS)	277μV	Noise (RMS)	388μV
Signal bias	±8mV(Typ.)， ±12mV(Max)						

Response Curve



Dimensions



Product Configuration





(Accessory 1: High-precision linear power supply)



(Accessory 2: BNC-BNC signal cable)