

InGaAs APD Photodetector 500M



- **Product Description**

The avalanche photodetector module integrates a low-noise APD detector, low-noise broadband transimpedance amplifier, ultra-low noise isolated power supply, high-voltage power supply, and APD temperature compensation. The isolated power supply ensures that the output signal is not affected by external power supply interference. APD temperature compensation improves the stability of the detection module. The

avalanche photodetector features high gain, high sensitivity, high bandwidth, and low noise.

● Product features

Low noise 、 High gain 、 Built-in high-voltage power supply 、 APD temperature compensation 、 Compact structure 、 Built-in low-noise isolated power supply

● Part Number

MP-APD-M-I-500-F/S-D/A

● Application area

Fiber sensing 、 Fiber optic communication 、 Laser ranging 、 Spectral measurement 、 Nanosecond-level optical pulse detection

● Core parameters

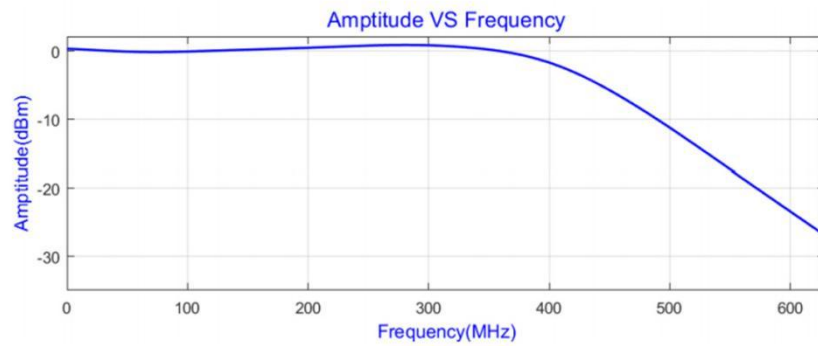
Wavelength	Bandwidth	Responsivity
800-1700nm	500MHz	9V/W

● General Parameters

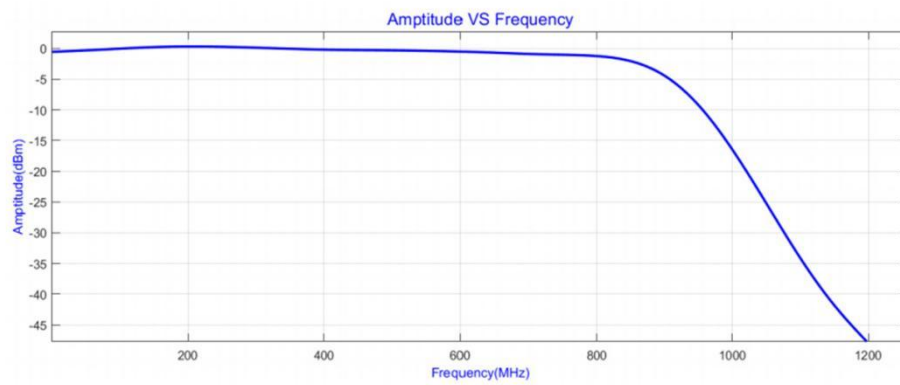
Detector type	InGaAs													
Wavelength	800~1700													nm
Bandwidth	10 0M	20 0M	30 0M	40 0M	50 0M	600 M	80 0M	1G	1.2 G	1.5 G	2G	2. 5G	5G	Hz
Responsivity	9	9	9	9	9	9	9	9	9	9	9	9	9	V/ W
Transimpedance gain	30 0K	30 0K	30 0K	10 0K	50 K	50 K	30 0K	30 0K	30 0K	20 0K	15 0K	15 0K	30 K	V/ W
Output impedance	50	50	50	50	50	50	50	50	50	50	50	50	50	Ω
Saturation power	13	13	13	39	78	78	13	13	13	20	26	26	78	uW
NEP	0.4 6	0.4 6	0.4 6	0.4 6	0.4 6	0.4 6	0.4 6	0. 46	0.4 6	0.4 6	0.4 6	0. 46	0. 46	pW / $\sqrt{\text{Hz}}$ (Hz)

Output coupling method	DC /A C	DC /A C	DC /A C	DC /A C	DC	DC	AC	AC	AC	AC	AC	AC	AC	
Supply voltage	5	5	5	5	5	5	12	12	12	12	12	12	12	V
Supply current	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	A
Optical input	FC/APC (Free space optical input optional)												FC /A PC	
RF output	SMA												SMA	
Dimensions	65*50*20						65*50*25						80*90*25	mm

Test result



400MHz Bandwidth curve



800MHz Bandwidth curve