

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



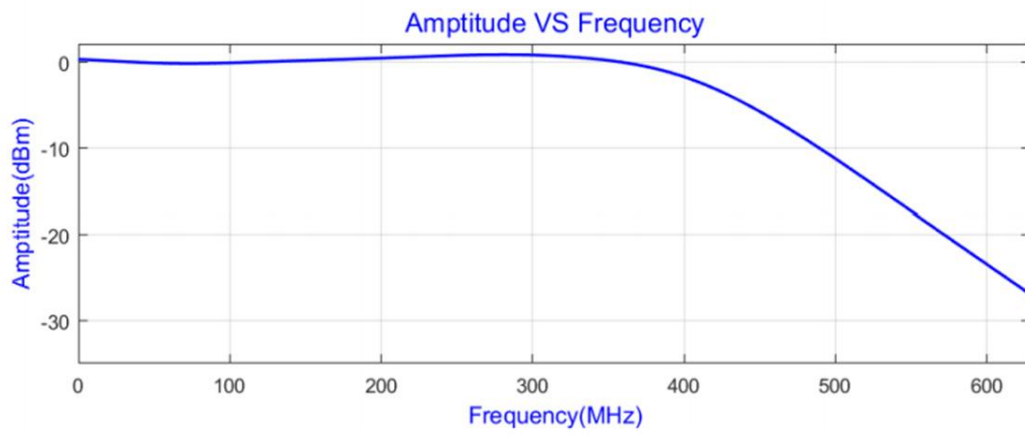
ength														
Band width	10 0M	20 0M	30 0M	40 0M	50 0M	600 M	80 0M	1G	1.2 G	1.5 G	2G	2. 5G	5G	Hz
Respo nsivity	9	9	9	9	9	9	9	9	9	9	9	9	9	V/ W
Transi mped ance gain	30 0K	30 0K	30 0K	10 0K	50 K	50 K	30 0K	30 0K	30 0K	20 0K	15 0K	15 0K	30 K	V/ W
Outpu t impe dance	50	50	50	50	50	50	50	50	50	50	50	50	50	Ω
Satur ation powe r	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)
Outpu t coupli ng meth od	DC /A C	DC /A C	DC /A C	DC /A C	DC	DC	AC	AC	AC	AC	AC	AC	AC	
Suppl y	5	5	5	5	5	5	12	12	12	12	12	12	12	V



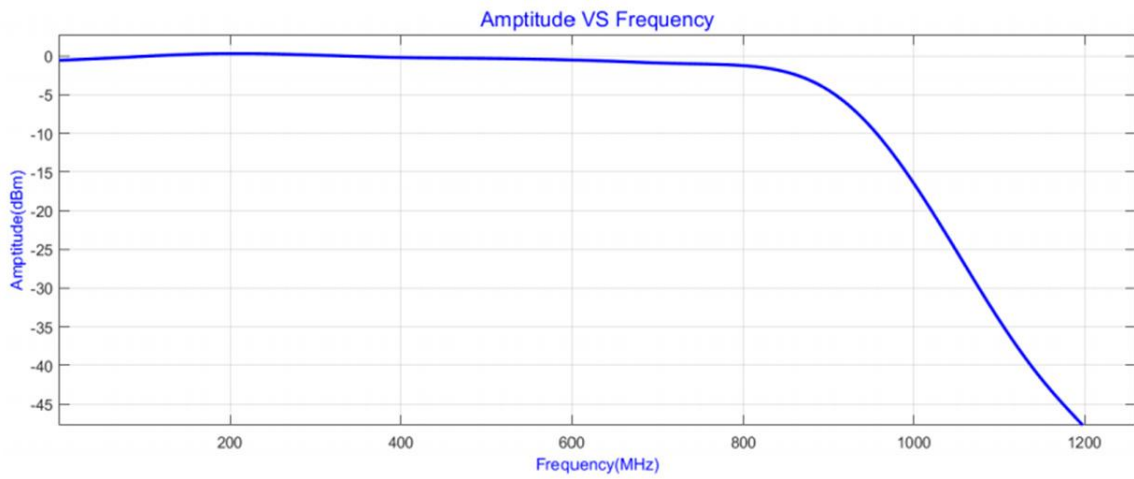
voltag e															
Suppl y curre nt	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	0.5 (m ax)	A
Optic al input	FC/APC (Free space optical input optional)												FC /A PC		
RF outpu t	SMA												S M A		
Dime nsion s	65*50*20						65*50*25						80 *9 0* 25	m m	



Test result



400MHz Bandwidth curve



800MHz Bandwidth curve