InGaAs avalanche photodiode balanced photodetector 1.5G

Product Description

The avalanche photodiode (APD) balanced detection 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 sources. The APD temperature compensation improves the stability of the detection module.

The avalanche photodetector features high gain, high sensitivity, high bandwidth, and low noise, making it suitable for applications that require precise and stable optical signal detection.

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-ABD-M-I-1500-F/S-A

Application area

Optical fiber sensing、 Optical fiber communication、 Laser ranging、 Spectral measurement

Core parameters

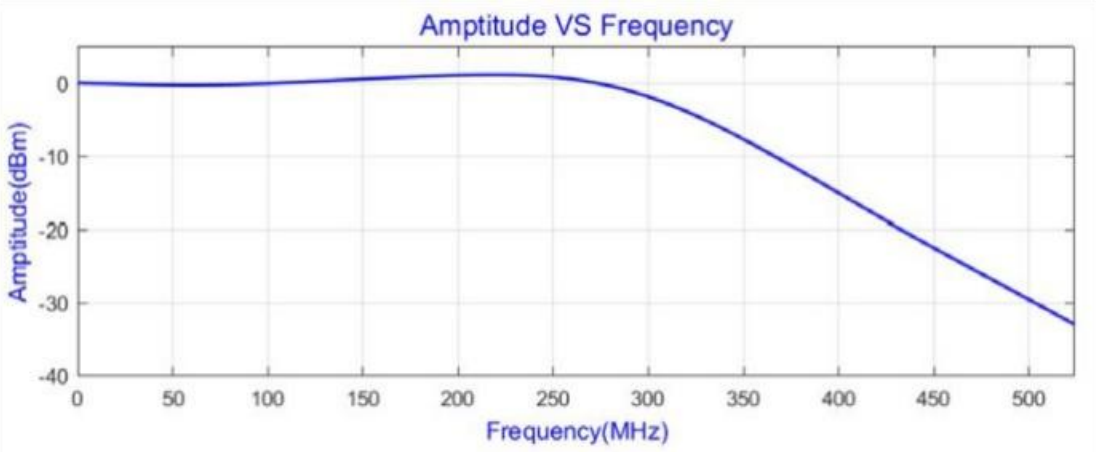
Wavelength	Bandwidth	Responsivity
800~1700nm	1.5GHz	9A/W@1550nm

General Parameters

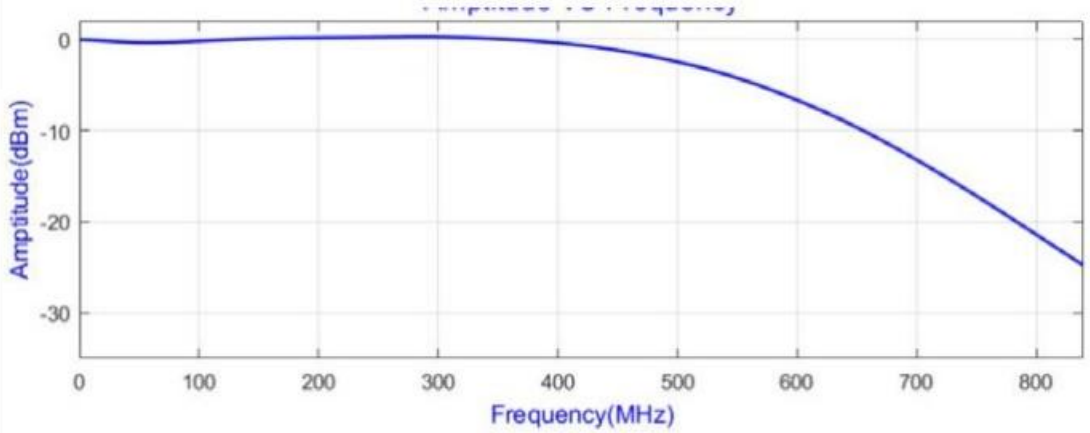
Technical Parameters

Detector Type	InGaAs												
Wavelength	800~1700												nm
Bandwidth	100M	200M	300M	400M	500M	600M	800M	1G	1.2G	1.5G	1.5G	2.5G	Hz
Detector Responsivity	9	9	9	9	9	9	9	9	9	9	9	9	A/W@1550nm
Transimpedance Gain	300K	300K	300K	100K	50K	50K	300K	300K	300K	200K	150K	150K	V/W
Saturation Optical Power	13	13	13	39	78	78	13	13	13	20	20	20	uW
Output Impedance	50	50	50	50	50	50	50	50	50	50	50	50	Ω
NEP	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	pW/√(Hz)
Output	DC/	DC/	DC/	DC/	DC	AC	AC	AC	AC	AC	AC	AC	

Coupling Method	AC	AC	AC	AC									
Supply Voltage	5	5	5	5	5	5	12	12	12	12	12	12	V
Supply Current	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	0.5(max)	A
Optical Input	FC/APC(Free space optical input optional)												
RF Output	SMA												
Dimensions	80*90*25												mm



300MHz bandwidth curve



500MHz bandwidth curve