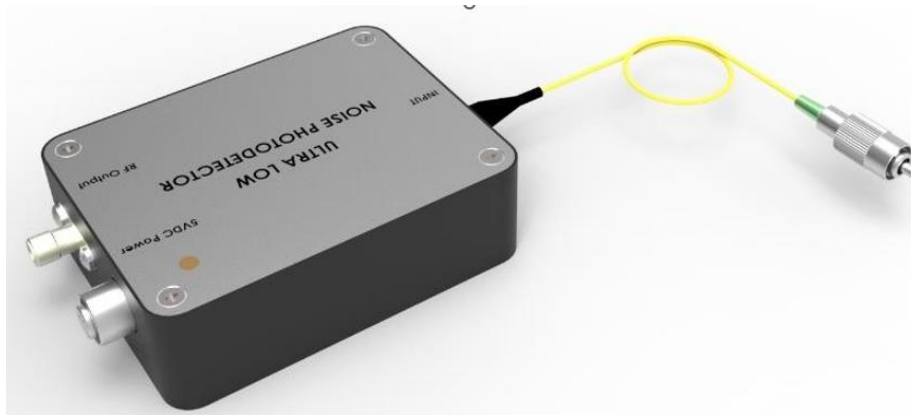


InGaAs ultra-low noise unit detector 300M



● Product Description

The ultra-low noise photodetector module integrates an ultra-low noise analog PIN photodetector, a low-noise broadband transimpedance amplifier, and an ultra-low noise isolated single power supply. The output signal is unaffected by external power supply sources. This module is particularly outstanding in terms of background noise control, with its background noise being approximately one-third of that of conventional modules under the same parameters, effectively meeting customers' needs for smaller signal detection and higher signal-to-noise ratio.

● Product features

Ultra-low noise、High gain、High bandwidth、Compact structure、Built-in
low-noise isolated power supply

● Part Number

MP-UPD-M-I-300-F/S-A

● Application area

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

● Core parameters

Wavelength	Bandwidth
800-1700nm	300MHz

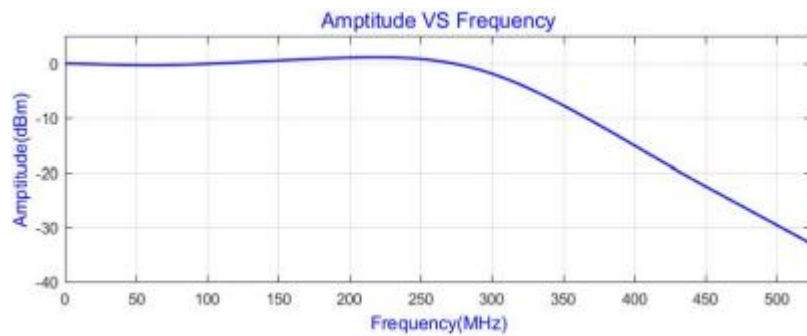
● General Parameters

Parameters

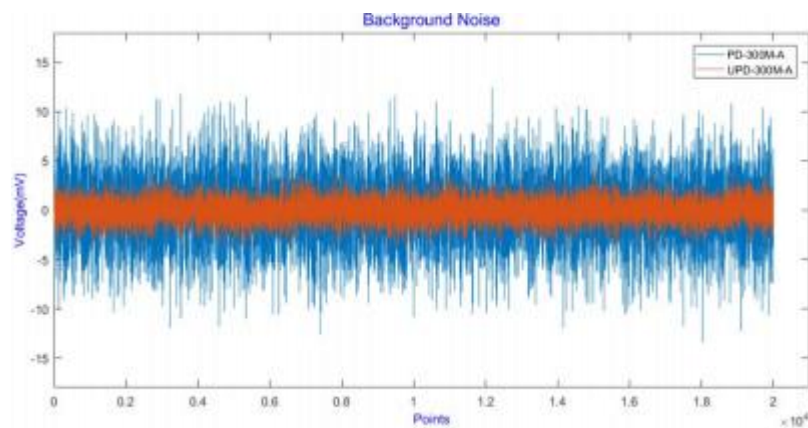
Detect or Type	InGaAs														
Wavele ngth	800~1700														nm
Bandwi dth	10 0M	20 0M	30 0M	40 0M	50 0M	60 0M	80 0M	1G	1.2 G	1. 5G	2G	2.5 G	5 G	Hz	
Detect or Respon sivity	0.9 5	0.9 5	0.9 5	0.9 5	0.9 5	0.9 5	0. 95	0. 95	0.9 5	0. 95	0. 95	0.9 5	0. 95	A/ W @1 55 0n m	
Transi mpeda nce Gain	30 K	30 K	30 K	20 K	15 K	15 K	30 K	30 K	30 K	30 K	30 K	30 K	6K	V/ W	
Saturat ion Optical Power	14 0	14 0	14 0	42 0	28 0	28 0	14 0	14 0	140	42 0	14 0	14 0	70 0	μW	
NEP	2.2	2.2	2.2	2.7	3.1	3.1	3. 3	3. 3	3.3	3. 3	3. 3	3.3	3. 3	pW /Sq rt(Hz)	

Output Impedance	50	50	50	50	50	50	50	50	50	50	50	50	50	Ω
Output Coupling	DC /A C	DC /A C	DC /AC	DC /A C	DC	DC	AC	AC	AC	AC	AC	AC	A C	
Power Supply Voltage	5	5	5	5	5	12	12	12	12	12	12	12	12	V
Power 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 option available)												FC /A P C	
RF Output	SMA												S M A	
Dimensions	65*50*20						65*50*25						80 *9 0* 25	m m

Test Result



300MHz ultra-low noise unit detector



Comparison of the Ultra-Low Noise Unit Detector with Conventional Unit

Detector in Terms of Background Noise