

Photodetector Amplified InGaAs DC-800MHz

0.9-1.67 μm , fiber coupled



DATASHEET

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The AMDT amplified photodetector offers wide bandwidth operation from DC to 800 MHz and is available in two spectral ranges: 0.9–1.67 μm and 0.4–0.98 μm , with fiber-coupled optical input. It integrates a built-in amplifier with fixed gain, optimized for stable and reliable performance. The detector is compatible with standard SM1-threaded optical accessories and provides an RF output through an SMA connector, designed to drive 50 Ω load impedance. Power is supplied via a ± 5 V input through a J1 (2.54 mm, 3-pin) connector, with the power supply included.

Features

- DC- 800Mhz
- Low Noise
- Fiber Coupled
- Plug-Play Module

Specifications

Parameter	Min	Typical	Max	Unit
Detector Diameter		0.2		μm
Wavelength Response	900		1670	nm
Operation Bandwidth	DC		800	MHz
Peak Response (@1550)		1.3		A/W
Gain	0	25	50	dB
NEP (measured @uncooled)	1.3		8.3	$\text{pW}/\text{Hz}^{1/2}$
Output Offset		20	45	mV
Output Offset Drift (70dB)			3	$\text{mV}/^\circ\text{C}$
Optical Damage Threshold	50			mW
Operating Temperature	0		30	$^\circ\text{C}$
Power Supply \pm 5V		5		W
Weight		0.5		lbs
Signal Output		SMA		

Applications

- General Lab Use
- Instruments

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [\[click this link\]](#):

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Rev 04/23/26

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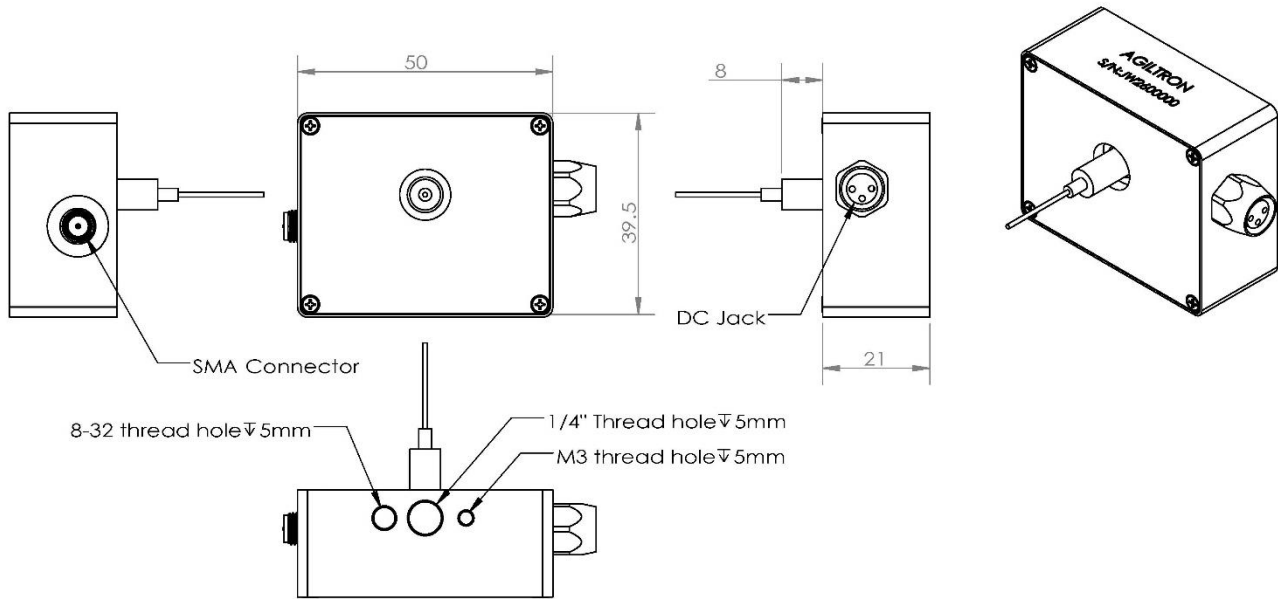
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Mechanical Dimensions (mm)



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Noise Level

Gain Bandwidth @1MHz (typical)

Spectral Response

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Ordering Information (Part Number) System

Prefix	Type	Wavelength	Configure	Fiber Type	Fiber Cover	Fiber Length	Connector ^[1]	Power Supply
AMPD-	InGaAs = 2	900-1670nm = 1 Special = 0	Regular = 1 Special = 0	SM28 = 1 Special = 0	0.9mm = 1 Special = 0	0.25m = 1 Special = 0	FC/PC = 1 Special = 0	Yes = 1 None = 2

[1]. The connector cannot be installed directly onto bare fiber, as it is prone to damage during shipping. However, the connector can be assembled on bare fiber if a 3 cm protective loose tube is added for reinforcement. The customer can remove this protective tube after testing. The optical power handling of a standard connector is less than 0.5 W for SM28 fiber and decreases further with smaller core fibers.

Accessories