

# Detectors

By MAGNITUDE INSTRUMENTS™

Ultra-Low Noise Detectors with Superior Signal Integrity

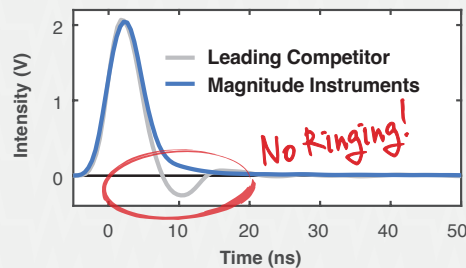
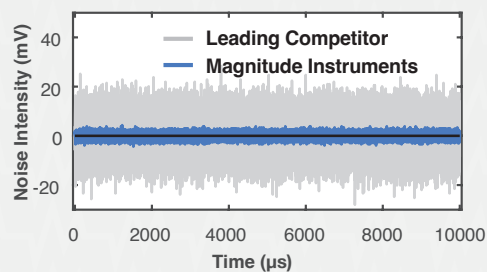
## AMPLIFY YOUR SIGNAL WITHOUT DISTORTION

Magnitude Instruments offers a line of **high-performance amplified photodetectors engineered for ultra-low noise operation**, ensuring **superior signal integrity** across a wide range of measurement conditions.

Leveraging our expertise in high-sensitivity electronics and signal collection, these detectors **outperform conventional models by minimizing background noise and susceptibility to environmental EMI**. The result is superior performance for applications that demand precise, time-resolved signal acquisition. The optimized design ensures consistent data quality across a wide range of experimental applications.

Our detectors incorporate optimized electronics and impedance-matched inputs to suppress transient-induced ringing artifacts. By minimizing internal reflections and utilizing fast-settling circuitry, they maintain clean signal profiles even during large impulse events. This design **enables the accurate collection of kinetic traces without distortion from electronic overshoot or oscillations**.

Standalone and OEM packaging is available. Standalone models utilize a 3-position M8 connector and come with a purpose-built low noise linear power supply. OEM versions have solder connections with EMI feedthroughs to minimize noise pickup in even the toughest settings. Both models require +/- 12-16 VDC supply voltage with a minimum current of 50 mA.



Unmatched Data Clarity.  
Superior Accuracy.  
Enhanced Sensitivity.



Measurably Different.  
AMPLIFIED PHOTODETECTORS

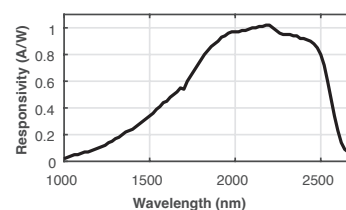
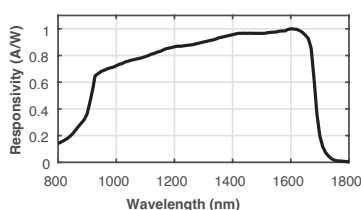
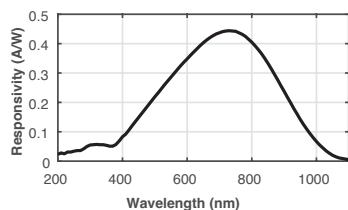
# Detectors

By MAGNITUDE INSTRUMENTS™

High speed, ultra-low noise amplified photodetectors for enhanced signal accuracy and clarity in time-resolved experiments.



\* Post not included



## SPECIFICATIONS

### AMP200-SIPD

### AMP200-IGAPD-1.7

### AMP100-IGAPD-2.6

Diode Material	Si	InGaAs	InGaAs
Spectral Range	250 – 1100 nm	800 – 1700 nm	900 – 2600 nm
Electronic Bandwidth	DC-200 MHz		DC-100 MHz
Rise Time	1.8 ns		3.5 ns
Active Area	0.8 mm <sup>2</sup> (1 mm dia.)	0.2 mm <sup>2</sup> (0.5 mm dia.)	0.8 mm <sup>2</sup> (1 mm dia.)
NEP	10 pW/Hz <sup>1/2</sup>		TBD
Transimpedance Gain	10 kV/A @ 1 MΩ 5 kV/A @ 50 Ω		
Output Range	±10 V		
Supply Voltage	±12-16 VDC		
Dark Current	4 x 10 <sup>-7</sup> A		TBD
Voltage Offset	5 mV		TBD
External Dimensions	1.7" x 2.7" x 0.755" (43.2 x 68.6 x 19.2 mm)		
Operating Temperature Range	10 – 40 °C		

**Looking for a clean boost for your research?** Our ultra-low noise detectors with superior signal integrity deliver the same industry-leading performance found in Magnitude Instruments' revolutionary transient absorption spectrometers.

Order your detectors online at [magnitudeinstruments.com](http://magnitudeinstruments.com) today.



200 Innovation Boulevard, Suite 205  
State College, PA 16803

Phone: (717) 301-4300 Lets Talk!  
[www.magnitudeinstruments.com](http://www.magnitudeinstruments.com)

Copyright ©2025 Magnitude Instruments. All Rights Reserved.