Electro–Optics Technology, Inc.

Innovative High Quality Laser Solutions

AMPLIFIED

Photodetectors

EOT's Amplified Photodetectors contain PIN photodiodes that utilize the photovoltaic effect to convert optical power into an electrical current and a fixed gain transimpedance amplifier allowing measurement of <1 mW input powers.

When terminated into 50 Ω into an oscilloscope, the pulsewidth of a laser can be measured. When terminated into 50 Ω into a spectrum analyzer, the frequency response of a laser can be measured.

EOT's Amplified Photodetectors come with their own wall plug-in power supply. Plugging a coaxial cable into the photodetector's SMA or BNC output connector and terminating into 50 Ω at the oscilloscope or spectrum analyzer is all that is required for operation.

FEATURES

- Built–in transimpedance amplifier
- Small footprint
- Bandwidth up to 10 GHz
- External wall plug–in power supply

OPTIONS

- Detector Material
- Active Area
- Fiber–coupled or free space options available

APPLICATIONS

- Monitoring high repetition rate, externally modulated CW lasers
- Viewing <1 mW laser powers

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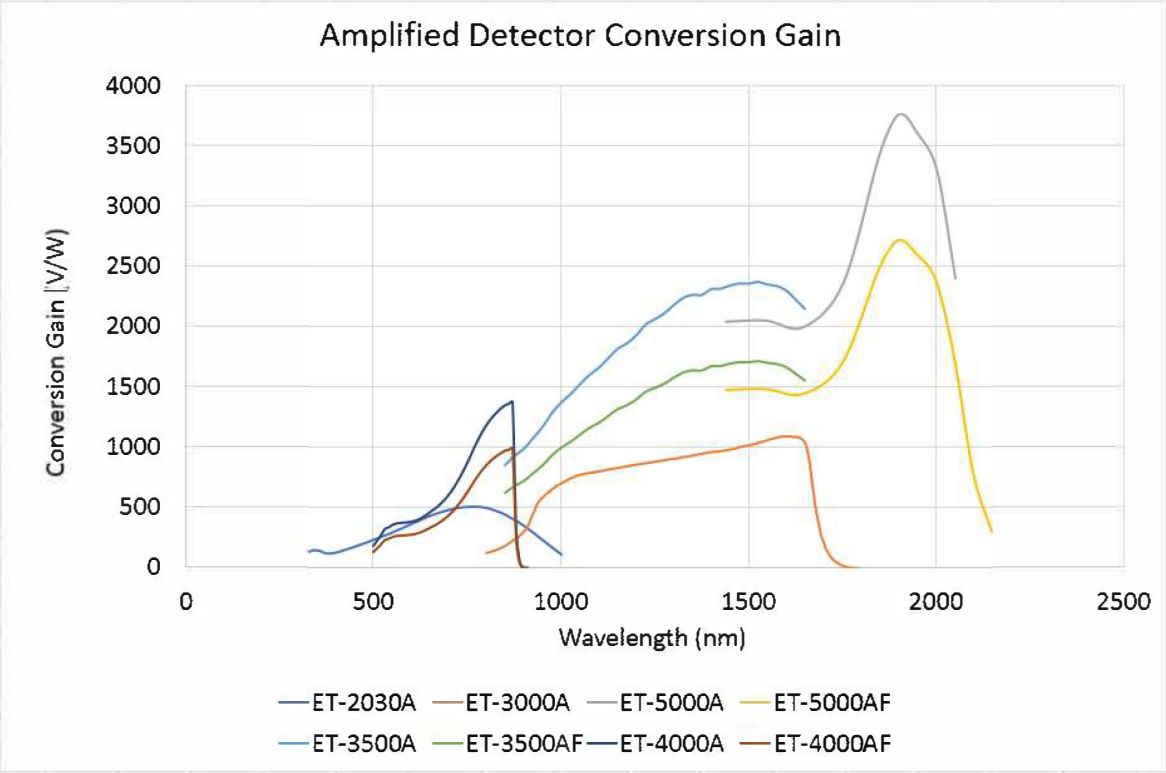
SPECIFICATIONS

Part No. (Model)	120-10013-0001 (ET-2030A)[a]	120-10036-0001 (ET-3000A)[a]	120-10060-0001 (ET-3500A)[a]	120-10064-0001 (ET-3500AF)[a]	120-10073-0001 (ET-4000A)[a]	120-10077-0001 (ET-4000AF)[a]	120-10115-0001 (ET-5000A)	120-10116-0001 (ET-5000AF)
Detector Material	Silicon	InGaAs	InGaAs	InGaAs	GaAs	GaAs	InGaAs	InGaAs
Rise Time/Fall Time	<500 ps/<500 ps	<400 ps/<400 ps	35 ps/35 ps	35 ps/35 ps	35 ps/35 ps	35 ps/35 ps	35 ps/35 ps	35 ps/35 ps
Conversion Gain	450 V/W at 830 nm	900 V/W at 1300 nm	2250 V/W at 1310 nm	1620 V/W at 1310 nm	1340 V/W at 850 nm	970 V/W at 850 nm	3250 V/W at 2000 nm	2350 V/W at 2000 nm
Power Supply	24 VDC	24 VDC	5 VDC	5 VDC	5 VDC	5 VDC	5 VDC	5 VDC
Bandwidth	30 kHz to 1.2 GHz	30 kHz to 1.5 GHz	20 kHz to 10 GHz	20 kHz to 10 GHz	20 kHz to 10 GHz	20 kHz to 10 GHz	20 kHz to 10 GHz	20 kHz to 10 GHz
Active Area Diameter	400 µm	100 µm	32 µm	32 µm	60 µm	60 µm	40 µm	40 µm
Acceptance Angle (1/2 angle)	10°	20°	15°	N/A	15°	N/A	20°	N/A
Noise Equivalent Power[b]	<60 pW/√Hz at 830 nm	<30 pW/√Hz at 1300 nm	25 pW/√Hz at 1310 nm	30 pW/√Hz at 1310 nm	35 pW/√Hz at 850 nm	50 pW/√Hz at 850 nm	20 pW/√Hz at 2000nm	25 pW/√Hz at 2000 nm
DC Monitor Output			1 mV/µA	1 mV/µA	1 mV/µA	1 mV/µA	1 mV/µA	1 mV/µA
Maximum Linear Rating	1.3 V peak	1.3 V peak	450 mVp-p	450 mVp-p	450 mVp-p	450 mVp-p	450 mVp-p	450 mVp-p
Mounting (Tapped Holes)	8-32 or M4	8-32 or M4	8-32 or M4	8-32 or M4	8-32 or M4	8-32 or M4	8-32 or M4	8-32 or M4
Output Connector	BNC	BNC	SMA	SMA	SMA	SMA	SMA	SMA
Fiber Optic Connection[c]	N/A	N/A	N/A	FC/UPC	N/A	FC/UPC	N/A	FC/UPC

Product specifications are subject to change. All products are RoHS compliant.
[a] Not suitable for CW applications
[b] Noise Equivalent Power (NEP) is determined via short circuit output.
[c] Multi-mode fiber available. May limit bandwidth.
NOTE: All specifications apply for a 50 Ω termination unless otherwise noted.



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