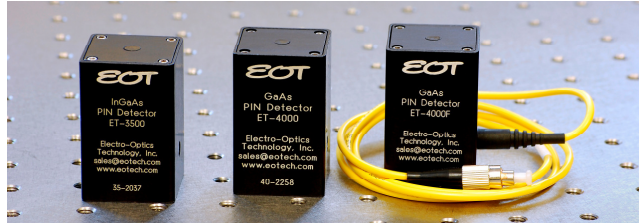


>12.5GHz Photodetectors

EOT's >12.5GHz Photodetectors contain PIN photodiodes that utilize the photovoltaic effect to convert optical power into an electrical current. When terminated into 50Ω into an oscilloscope, the pulsewidth of a laser can be measured. When terminated into 50Ω into a spectrum analyzer, the frequency response of a laser can be measured. EOT's >12.5GHz Photodetectors come with their own internal bias supply consisting of long-life lithium cells. Plugging a coaxial cable into the photodetector's SMA output connector and terminating into 50Ω at the oscilloscope or spectrum analyzer is all that is required for operation.



Applications:

- Monitoring the output of Q-switched lasers
- Monitoring the output of mode-locked lasers
- Monitoring the output of externally modulated CW lasers
- Time domain and frequency response measurements

Features:

- >12.5GHz GaAs and InGaAs Photodetectors can be ordered with optional wall plug-in power supply

Specifications^{a,b}:

Part No. (Model)	120-10058-0001 ^c (ET-3500)	120-10068-0001 ^c (ET-3500F)	120-10071-0001 ^c (ET-4000)	120-10081-0001 ^c (ET-4000F)
Detector Material	InGaAs	InGaAs	GaAs	GaAs
Rise Time/Fall Time (ps)	<25/<25	<25/<25	<30/<30	<30/<30
Responsivity (A/W) ^d	>0.90 at 1300nm	>0.65 at 1300nm	0.53 at 830nm	0.38 at 830nm
Power Supply (VDC)	6	6	3	3
Bandwidth	>15GHz	>15GHz	>12.5GHz	>12.5GHz
Active Area Diameter (μm)	32	32	60	60
Dark Current (nA)	<3	<3	<0.5	<0.5
Acceptance Angle (1/2 angle)	15°	N/A	15°	N/A
Noise Equivalent Power (pW/√Hz) ^e	<0.03 at 1300nm	<0.05 at 1300nm	<0.02 at 830nm	<0.03 at 830nm
Maximum Linear CW Power (mW)	10	10	10	10
Mounting (Tapped Holes)	8-32 or M4	8-32 or M4	8-32 or M4	8-32 or M4
Output Connector	SMA	SMA	SMA	SMA
Fiber Optic Connection ^f	N/A	FC/UPC, SMF28e	N/A	FC/UPC, SMF28e

^a Product specifications and pricing subject to change without notice.

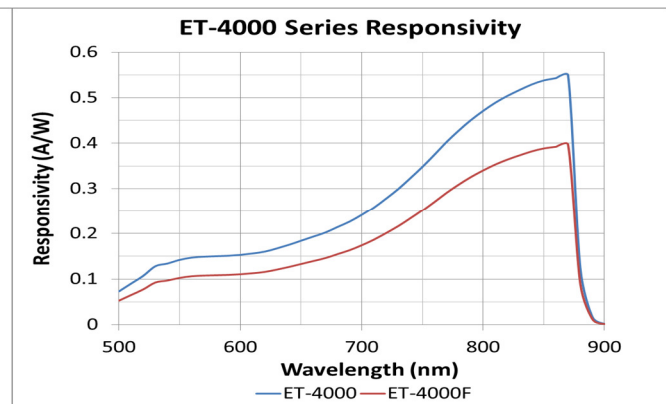
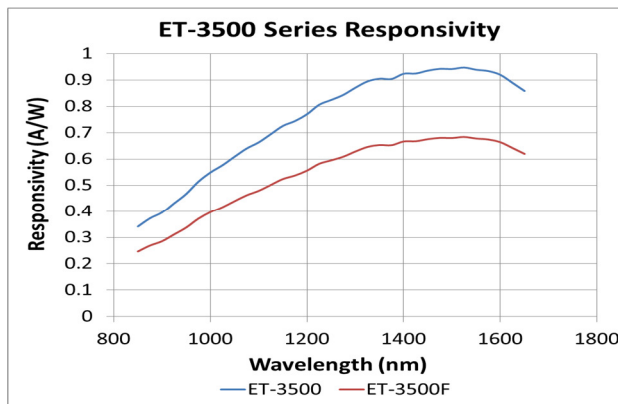
^b All specifications apply for a 50Ω termination unless otherwise noted.

^c RoHS compliant.

^d Photodetectors have an internal 50Ω termination. Responsivity data applicable to diode only. Detector output should be determined based on 1/2 the responsivity of that shown on graph.

^e Noise Equivalent Power (NEP) determined via short circuit output.

^f Multi-mode fiber available. May limit bandwidth.



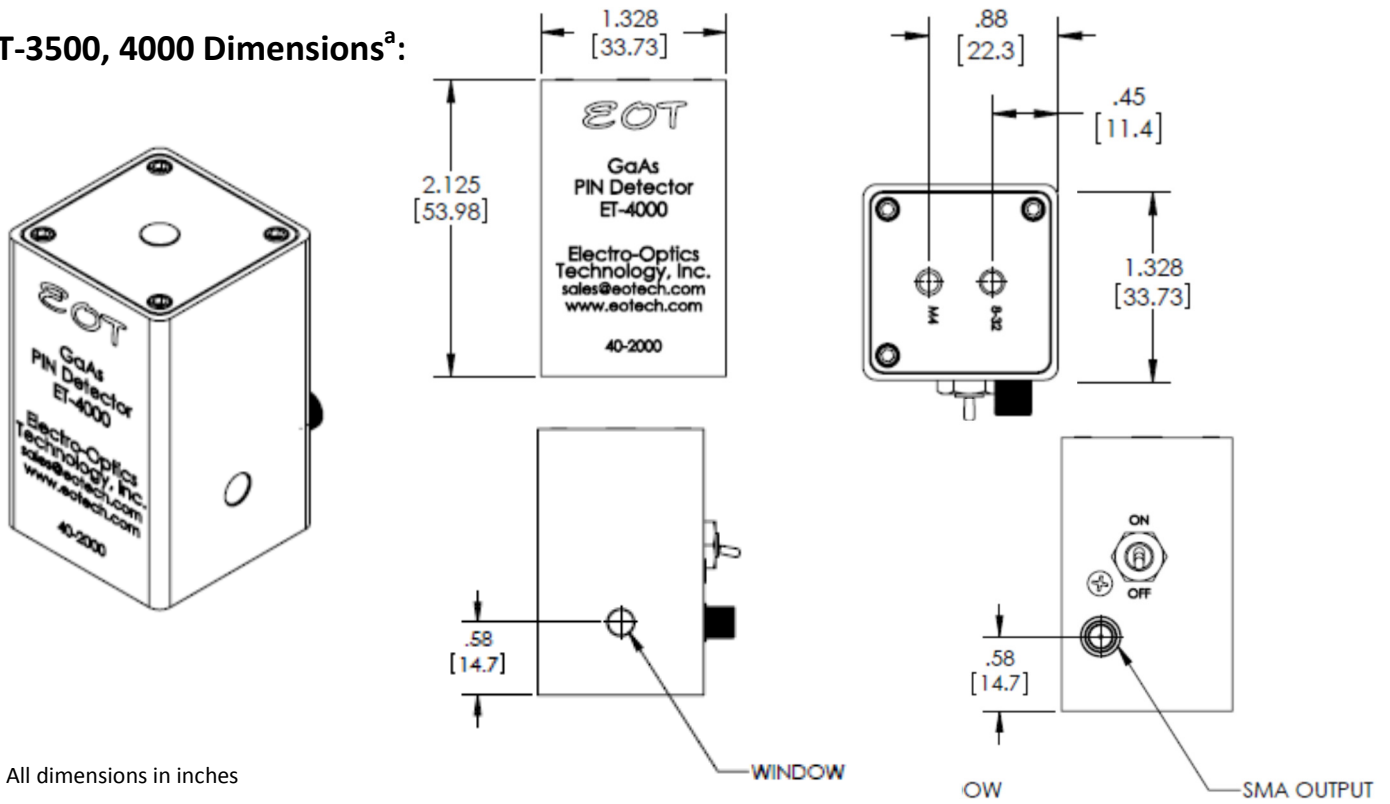
Electro-Optics Technology, Inc.

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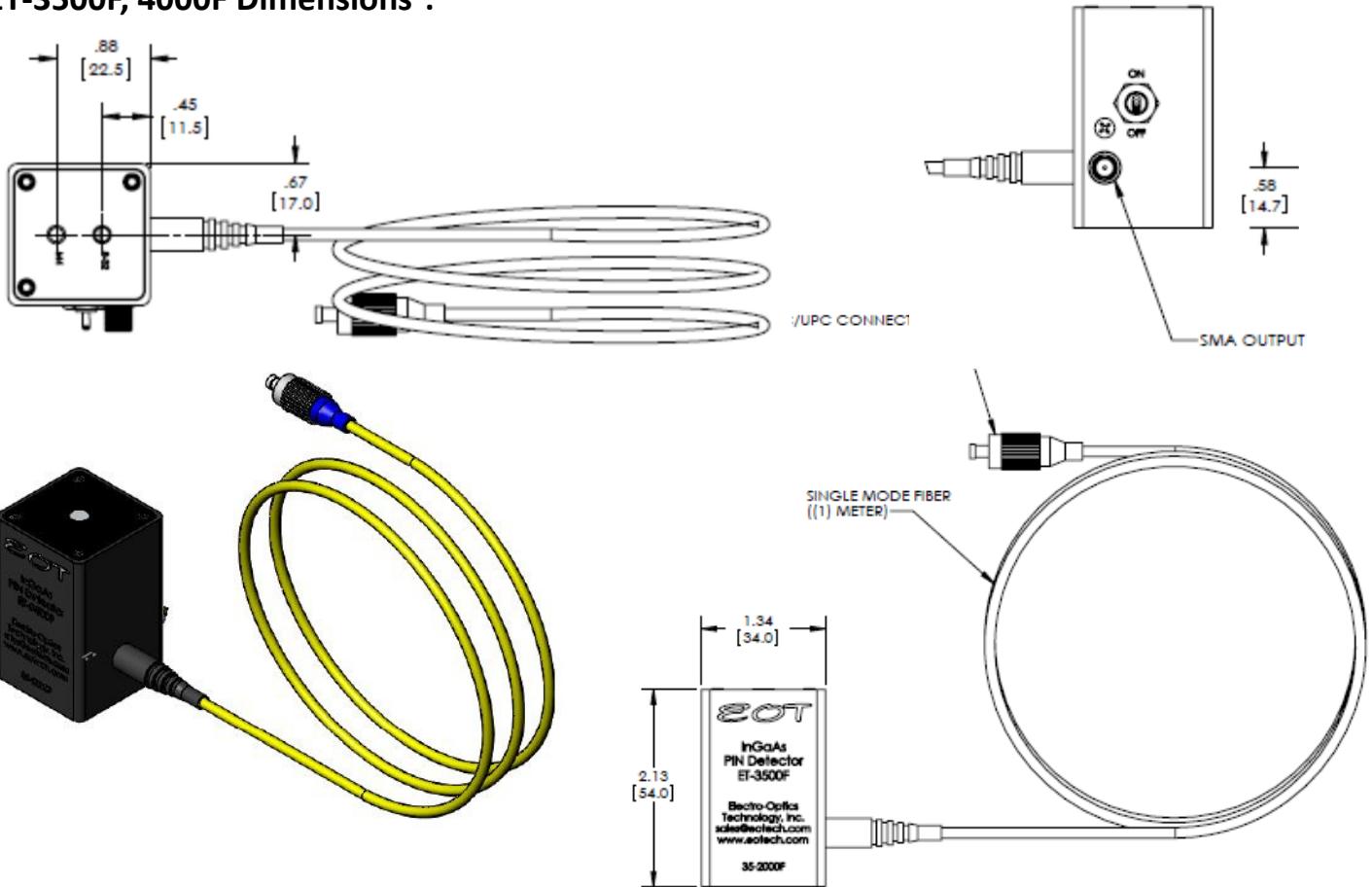
Document 002-00044-0001 (03/17/2014)

ET-3500, 4000 Dimensions^a:



^a All dimensions in inches

ET-3500F, 4000F Dimensions^a:



^a All dimensions in inches

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