

## >12.5GHz 2μm InGaAs Photodetectors

EOT's >12.5GHz 2μm InGaAs 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 2μm InGaAs 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 2μm InGaAs Photodetectors can be ordered with optional wall plug-in power supply

### Specifications<sup>a,b</sup>:

Part No. (Model)	120-10105-0001 (ET-5000) <sup>c</sup>	120-10104-0001 (ET-5000F) <sup>c</sup>
Rise Time/Fall Time (ps)	28/28	28/28
Responsivity (A/W) <sup>d</sup>	1.3 at 2000nm	0.95 at 2000nm
Power Supply (V)	3	3
Bandwidth	>12.5GHz	>12.5GHz
Active Area Diameter (μm)	40	40
Dark Current (μA)	<1	<1
Acceptance Angle (1/2 angle)	20°	N/A
Noise Equivalent Power (pW/√Hz) <sup>e</sup>	<0.44 at 2000nm	<0.6 at 2000nm
Maximum Linear Rating CW (mA)	3	3
Mounting (Tapped Holes)	8-32 or M4	8-32 or M4
Output Connector	SMA	SMA
Fiber Optic Connection <sup>f</sup>	N/A	FC/UPC

<sup>a</sup> Product specifications and pricing subject to change without notice.

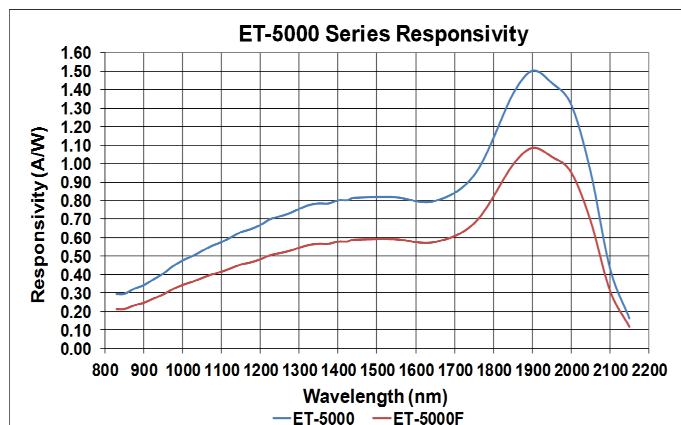
<sup>b</sup> All specifications apply for a 50Ω termination unless otherwise noted.

<sup>c</sup> RoHS compliant.

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

<sup>e</sup> Noise Equivalent Power (NEP) determined via short circuit output.

<sup>f</sup> Multi-mode fiber available. May limit bandwidth.



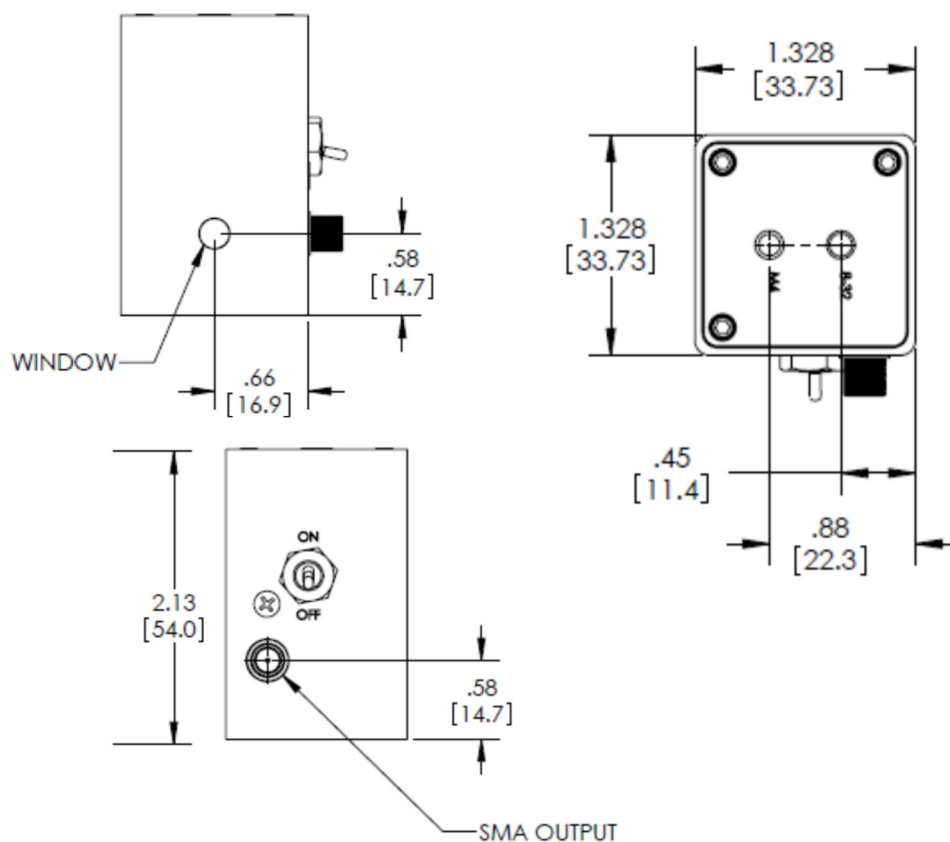
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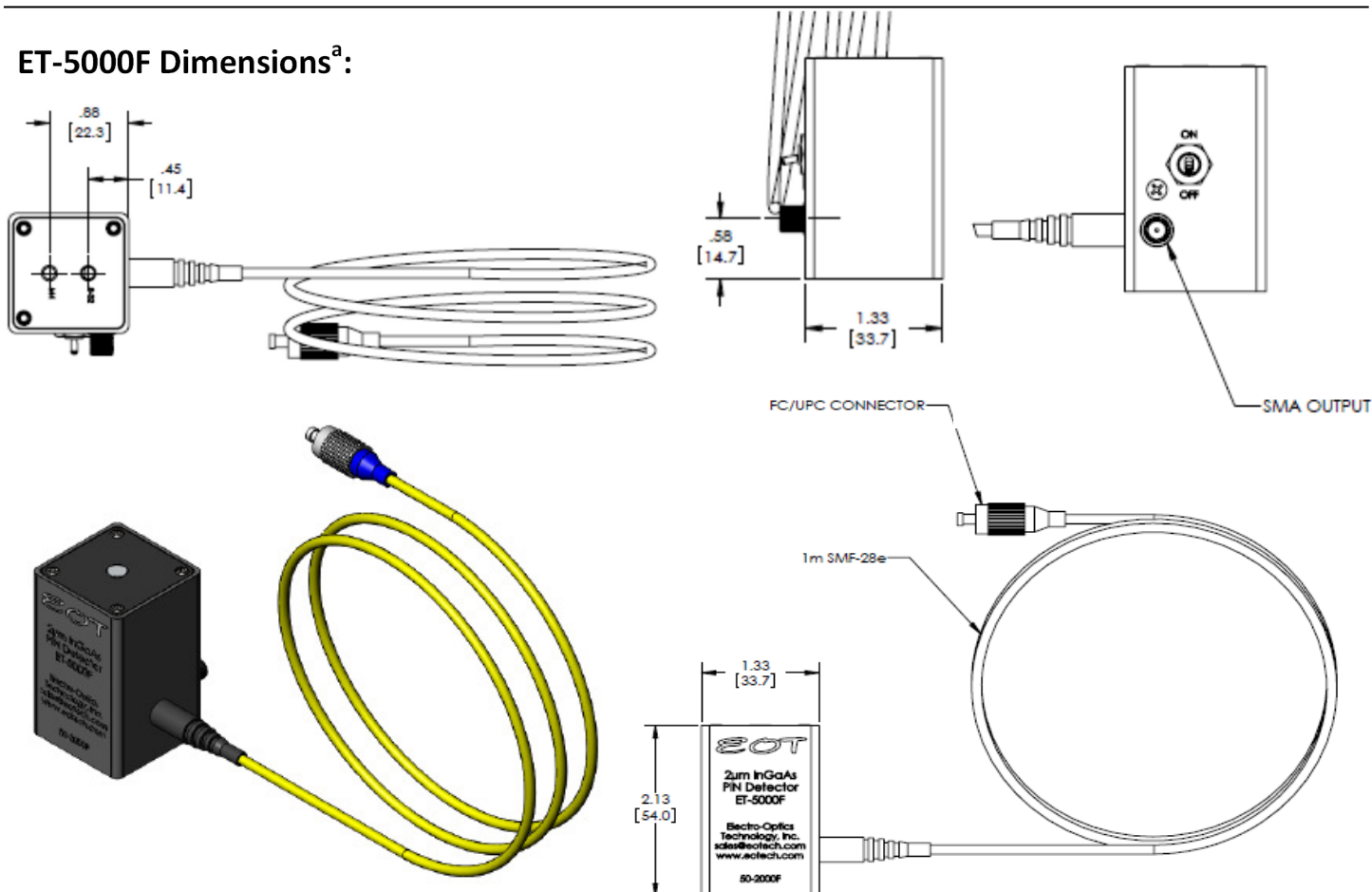
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## ET-5000 Dimensions<sup>a</sup>:



<sup>a</sup> All dimensions in inches

## ET-5000F Dimensions<sup>a</sup>:



<sup>a</sup> All dimensions in inches

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