



# LAM U3 - Analyzer

- High power beam measurements at the working tabletop level with built-in air-cooled sampler.
- USB 3.0, large area & resolution (2.35 MP).
- 12 bits digital output for pulsed/CW lasers.
- Built-in software feature for  $M^2$  or depth of focus calculation using the machine Z-Axis.
- Interchangeable filters.

Measures beam where it matters most – at the laser's working plane

## Specifications

<b>Laser Type</b>	CW & Pulsed
<b>Beam width resolution</b>	1 micron or better
<b>Beam Size</b>	ø75 µm - ø6 mm
<b>Spectral Response</b>	350 – 1310 nm
<b>Resolution (H x V pixels)</b>	1920 x 1200
<b>Sensor Active Area (mm)</b>	11.34 x 7.13
<b>Gain Control</b>	x24
<b>Dynamic Range</b>	60 dB , 12 bit
<b>Exposure Speed</b>	39 µsec to 20 sec
<b>Frame Rate</b>	40 fps (8 bit)
<b>Working Distance</b>	Optical distance from input surface to sensor is 40.7 ± 0.2 mm
<b>Maximum BPP</b>	Max. input angle – 25 deg.
<b>Maximum power density</b>	1,000,000 W/cm <sup>2</sup> (contact factory)
<b>Power measuring</b>	With user's pre-calibration at a selected point

## Ordering Information

**Model LAM-U3:** A camera for 350 – 1310 nm with motorized built-in filter wheel with high power attenuator and mounting adaptor, a set of interchangeable filters, USB3.0 cable, software and user manual on Flash Drive, carrying

<b>Maximum BPP</b>	Max. input angle – 25 deg.
<b>Maximum power density</b>	1,000,000 W/cm <sup>2</sup> (contact factory)
<b>Power measuring</b>	With user's pre-calibration at a selected point
<b>Power range @900/1070 nm</b>	CW 1-2500 W, Pulsed 1 – 1000 W
<b>Output power from back side of beam sampler</b>	With beam dump – no significant output power
<b>Cooling conditions</b>	Filtered pressurized air of 6-8 Bar
<b>Sensor type</b>	CMOS – 1/1.2" format
<b>Beam width accuracy</b>	±1.5%
<b>Power accuracy</b>	±5%
<b>Position resolution</b>	1 µm
<b>Pixel Size</b>	5.86 µm x 5.86 µm
<b>Pixel Bit Depth</b>	8/12 bits
<b>Background Subtraction</b>	User activated
<b>Trigger</b>	<ul style="list-style-type: none"> <li>• Internal Software</li> <li>• Hardware Falling or Rising Edge</li> <li>• Trigger Delay 0.015ms - 4.0 sec</li> </ul>
<b>Power Requirements</b>	~2 Watt (Via USB 3.0 interface)
<b>Dimensions (L x W x H) in mm</b>	147 x 105 x 48
<b>Weight (typical)</b>	Sensor head with cable ~ 1500 gr.
<b>Min. Hardware Requirements</b>	CPU i3 1.6 GHz, 4 GB RAM
<b>Interface</b>	USB 3.0, Windows 7/8/10 (32 & 64 bit)
<b>Mechanical Interface</b>	Post mounting: 2 concentric opposite M4, 6 mm depth
<b>Operating Temperature</b>	C° – 35°O

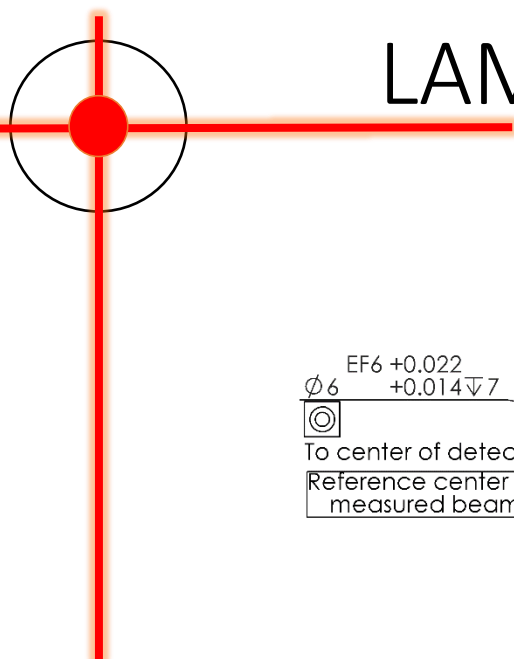
**Note:** The device should be handled carefully when exposed to high power, not exceeding 5 seconds continuously.

# DUMA OPTRONICS LTD.

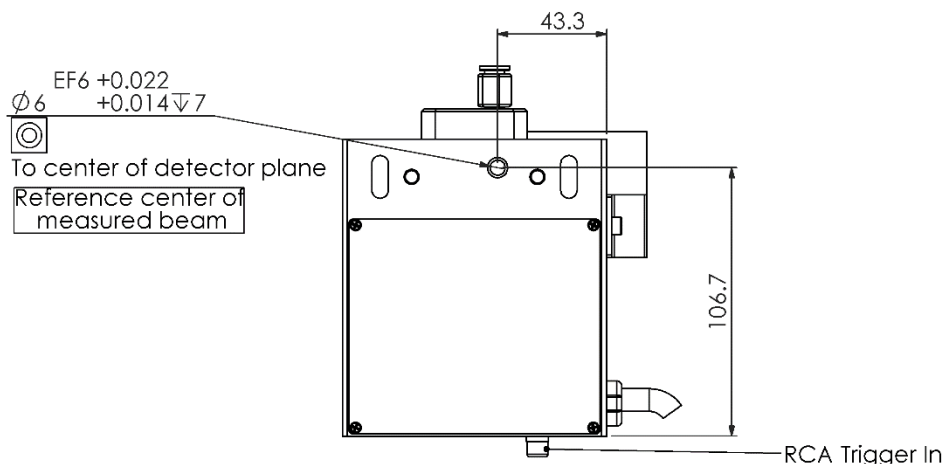
Website: <http://www.dumaoptronics.com>

E-mail: [sales@duma.co.il](mailto:sales@duma.co.il)

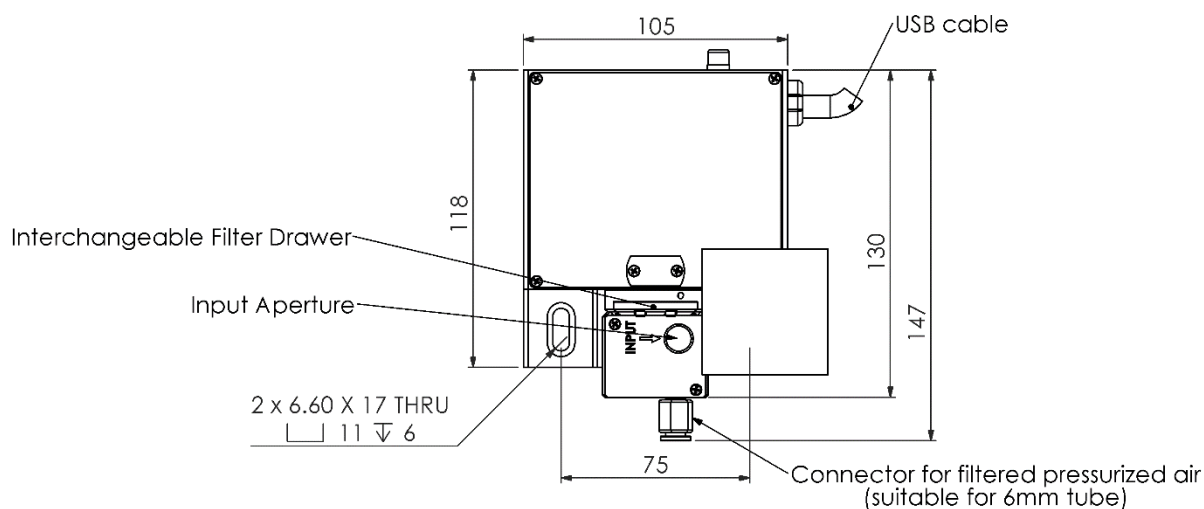
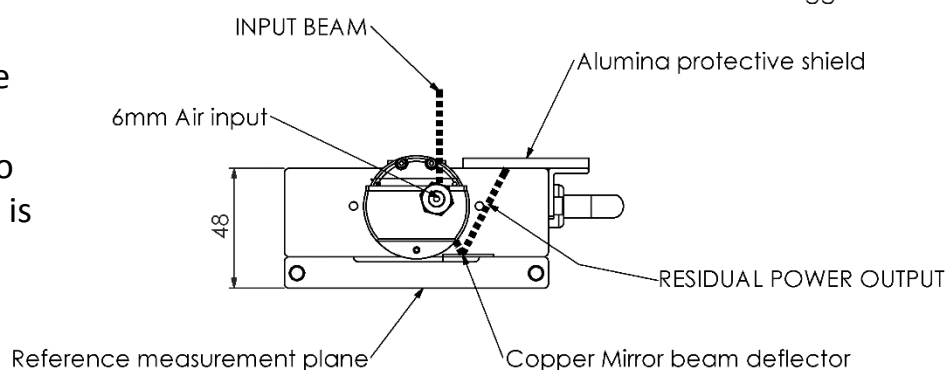
January 2020



# LAM U3 - Analyzer



Working distance  
between input  
aperture plane to  
measuring plane is  
about 41 mm.



**Note:** The device should be handled carefully when exposed to high power, not exceeding 5 seconds continuously.

## DUMA OPTRONICS LTD.

Website: <http://www.dumaoptronics.com>

E-mail: [sales@duma.co.il](mailto:sales@duma.co.il)

January 2020

