

# Blue DPSS Laser

## Key Features

- Ultra Compact
- High Reliability
- Superior Performance
- Long Lifetime

## Applications

- Fluorescence Sensors
- Raman Spectrum
- Holography
- Submarine Communication
- Laser Printing
- Biomedicine
- Scientific Experiments
- Laser Display
- Laser Show



## Civea457M

AOTK Civea457M lasers are ultra compact, continuous wave, double thermoelectric (TE) cooled, over-temperature and over-current protection, diode-pumped all-solid-state of 457nm laser.

The Civea457M lasers are intended for stand-alone use in laboratory environment or for integration as OEM component in equipment for applications including Fluorescence Sensors, Raman Spectrum, Holography, Submarine Communication, Laser Printing, Biomedicine, Scientific Experiments, Laser Display and Laser Show, etc.

Available output power is 1000, 2000, 3000, 5000, 8000mW and higher power.

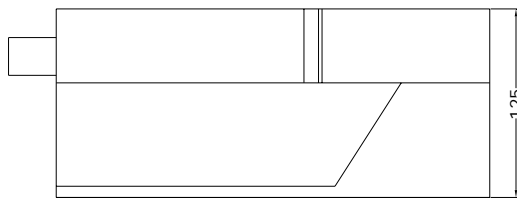
### Specifications

Wavelength	457 nm
Operating Mode	CW
Output Power	1000, 2000, 3000, 5000, 8000mW
Spatial Mode	Near TEM <sub>00</sub>
Mode Quality M <sup>2</sup>	< 2.0
Spectral Linewidth	< 0.1 nm
Beam Diameter @ 1/e <sup>2</sup>	3.0 mm ±0.2 mm
Beam Divergence (full angle)	< 2.0 mrad
Beam Ellipticity	< 10%
Pointing Stability	< 0.05 mrad
Power Stability (rms, over 4 hours)	< ±3%, < ±5% , < ±10%
Polarization Ratio	> 100:1
Warm-up Time	< 15 minutes
Beam Height from the Base (mm)	93.5 mm
Expected Lifetime	>10,000 Hours
TTL modulation	Optional, Upto 2KHz
Analog modulation	Optional, Upto 2KHz (0~max output when 0~5VDC signal input)

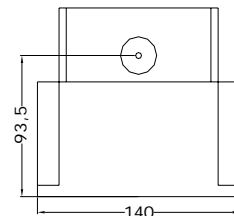
### Utility and Environmental Requirements

Operating Voltage	110VAC or 220VAC Optional
Power Consumption	< 200W
Maximum Laser Head Baseplate Temperature for Conductive Cooling	35°C
Ambient Temperature Operating Range	10-35°C
Storage Temperature	-20°C to 70°C
Dimensions (LxWxH)	
Laser Head	335 x 140 x 125 mm
Power Supply	325 x 278 x 142 mm
Cable - Laser Head to Power Supply	0.8 m
Weights	
Laser Head	6.0 kg
Power Supply	13 kg

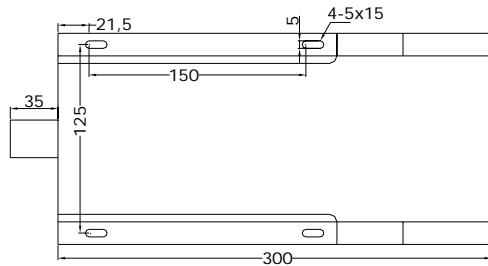
**Dimension Diagram: Laser Head (Specifications in mm)**



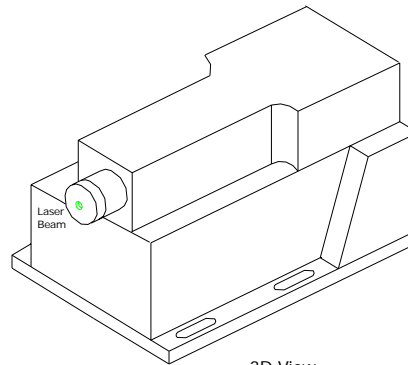
Side View



Front View

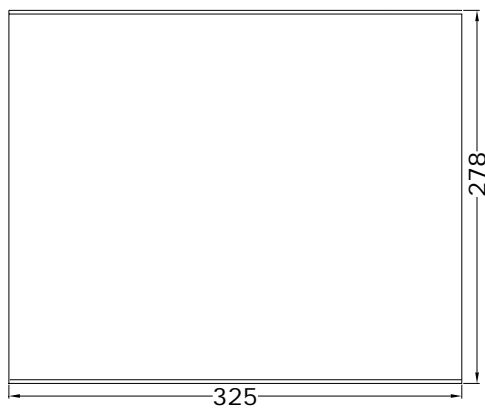


Top View

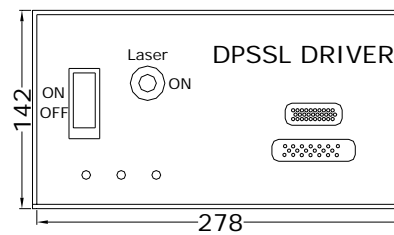


3D View

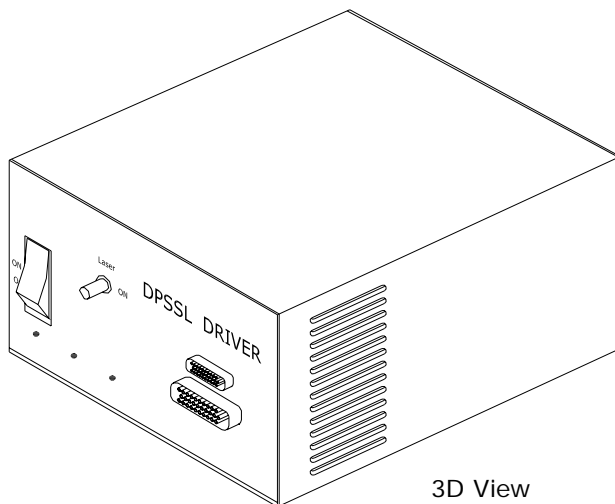
**Dimension Diagram: Power Supply (Specifications in mm)**



Top View



Front View



3D View

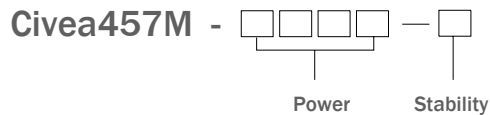
## Warranty

AOTK offers a limited warranty for all laser systems. AOTK diode-pumped solid state lasers are warranted to be free of defects in materials and workmanship for 12 months from the date of shipment. For full details of this warranty coverage of further products information, please refer to the Service and Support section at [www.AOTK.com](http://www.AOTK.com), or contact your local Sales or Service representative.

## Ordering information:

For more information on this or other products and their availability, please contact the sales management of AOTK, Inc.

**Sample:** Civea457M - 2000-5 (Civea457M Model, Wavelength: 457nm, Output Power: 2000mW, Power Stability: 5%)



## Laser safety and electrical safety:

Caution! Visible and invisible laser radiation is extremely dangerous. Avoid eye or skin exposure to direct radiation or diffuse reflection. Most AOTK laser systems fall into class III or class IV laser classification. Most laser systems utilize different level AC and DC voltage in both laser head and power supply. All AOTK products are designed in a compact package.

## NOTES

1. Due to our continuous product improvement program, specifications may change without notice.
2. Specifications apply to operation at the wavelength noted.
3. All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application, AOTK reserves the right to change at any time of a product offered for sale herein. AOTK makes no representations that the products herein are free from any intellectual property claims of others. Please contact AOTK for more information.