



## **457nm-1047nm High Power DPSS Laser Modules, 142.5x60x50 mm<sup>3</sup>**

### **OMU Series**



### **Overview**

The Lasermate OMU series laser module is available in the wavelength spectral range from 457nm to 1047nm and with compact dimensions of 142.5mmx60mmx50mm and can deliver high output power up to 1500mW. The laser module features small size, high output power, and long operating lifetime. With its compact design, high compatibility and easy integration, the laser module is used in industrial, medical, and scientific fields. It is the ideal choice for design and integration into OEM instrumentation and system and can be used for end user's applications in research and development.

### **Features**

- Wide range of wavelengths from 457nm to 1047nm (including 473nm, 532nm, 561nm, 588nm, 589nm, and 671nm)
- High output power up to 1500mW
- Rectangular package
- Ultra-compact design
- Easy integration
- Optional TTL or Analog modulation up to 30kHz

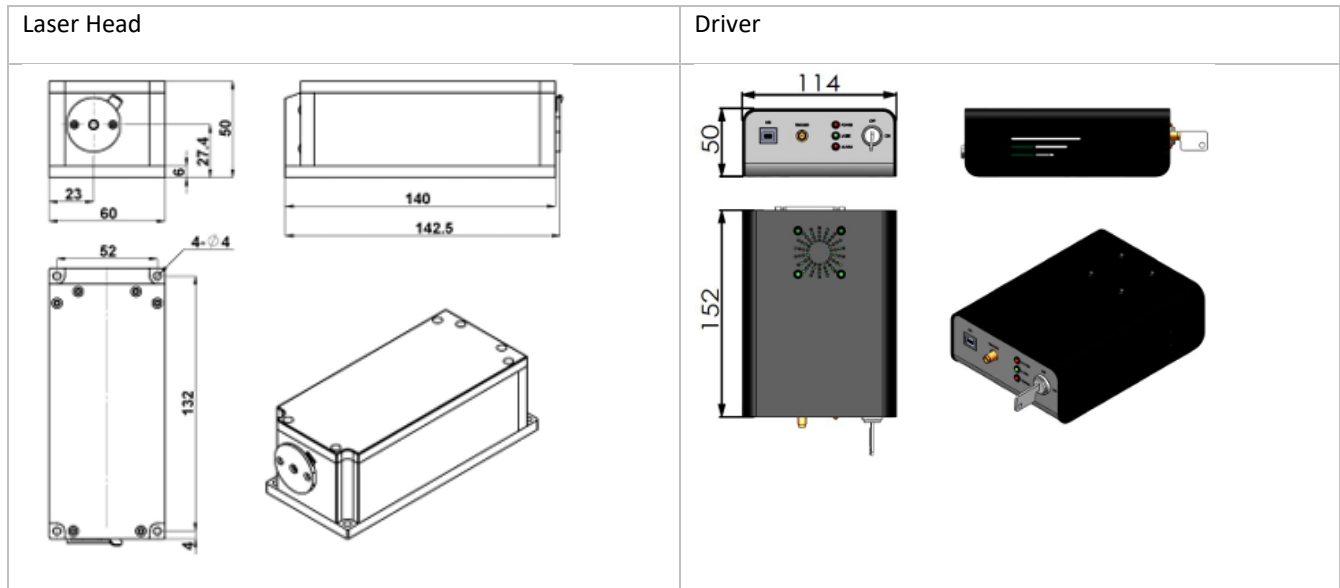
### **Applications**

- Medical measurement
- Scientific experiment
- Spectrum analysis
- Instrument

**Specifications**

Wavelength (nm)	457±1	473±1	532±1	561±1	588±2	589±1	671±1	1047
Operating mode	CW							
Output power (mW)	For 457nm: >150, ..., >500 For 473nm: >200, ..., >300 For 532nm: >1000, ..., >1500 For 561nm: >100, ..., >300 For 588nm: >100, ..., >200 For 589nm: >100, ..., >200 For 671nm: >300, ..., >500 For 1047nm: >200, ..., >500							
Transverse mode	TEM <sub>00</sub>							
M <sup>2</sup> factor	<1.5 (457nm); <1.2							
Beam diameter at aperture (1/e <sup>2</sup> , mm)	0.70±0.05; <1.0 (473nm)							
Beam divergence, full angle (mrad)	<1.5							
Polarization ratio	For 457/473/561nm: >100:1, Vertical ±5 degree For 532nm: >100:1 For 588/589/671/1047nm: >100:1, Horizontal ±5 degree							
Power stability (rms, over 4 hours) at 25°C	<5%							
Warm-up time (minutes)	<10							
Pointing stability after warm-up (mrad)	<0.05							
Beam height from base plate (mm)	27.4							
Laser head consumption (W)	15 (typical), <25 (40°C)							
Max. laser head base plate temp (°C)	50							
Operating temperature (°C)	10-40							
Driver	12VDC							
Modulation option	TTL or Analog up to 30kHz (1Hz-1kHz, 1kHz-10kHz, 10kHz-30kHz)							
Dimensions of laser head	142.5(L) x60(W) x50(H) mm <sup>3</sup>							
Weight of laser head	1.0kg							
Dimensions of driver	152(L) x114(W) x50(H) mm <sup>3</sup>							
Weight of driver	0.5kg							
Expected lifetime (hours)	10000							
Remarks	The laser needs to be used on a heat sink with good heat dissipation.							

**Outline Dimensions (unit: mm)**



**Ordering Information**

OMU[wavelength]-[output power]F12-[optional modulation]

**Additional Notes**

- The OMU series laser modules are designated solely as OEM components for incorporation into the customer's end products. Therefore, it is the customer's responsibility to comply with the appropriate requirements of FDA 21CFR, section 1040.10 and 1040.11 for complete laser products. For the code of FDA regulations, please refer to [FDA Performance Standards for Light-Emitting Products](#) for detailed information.
- Additional heat sink may be needed if the laser module is operated continuously for a long period of time.
- Specifications are subject to change without notice.



**Lasermate Group, Inc.**  
 19608 Camino De Rosa  
 Walnut, CA 91789 USA  
 Tel: (909)718-0999  
 Fax: (909)718-0998  
[sales@lasermate.com](mailto:sales@lasermate.com)  
[www.lasermate.com](http://www.lasermate.com)