



Single Frequency Laser System SLMU Series (Visible)

Data Sheet



Overview

The SLMU Visible series is a line of visible blue, green, and red CW lasers with single longitudinal mode / single frequency in ultra-compact design. The SLMU series is available in four different wavelengths and delivers output power levels up to 1000mW. The laser series features narrow spectral linewidth, long coherent length, long lifetime, easy operating, and FDA-compliant system with driver. The laser is widely used in DNA sequencing, flow cytometry, cell sorting, optical instrument, spectrum analysis, interference, measurement, holography, physics experiment and many other applications.

Features

- Available wavelengths: 457nm, 473nm, 532nm, and 671nm
- Other wavelengths may be customized upon request.
- CW operating mode
- Optical output power 30mW to 1000mW
- Single frequency / single longitudinal mode
- Narrow spectral linewidth $<0.00001\text{nm}$
- Long coherent length $>50\text{m}$
- Frequency stabilized option
- FDA compliant

Applications

- DNA sequencing
- Flow cytometry
- Cell sorting
- Optical instrument
- Spectrum analysis
- Interference
- Measurement
- Holography
- Physics experiment

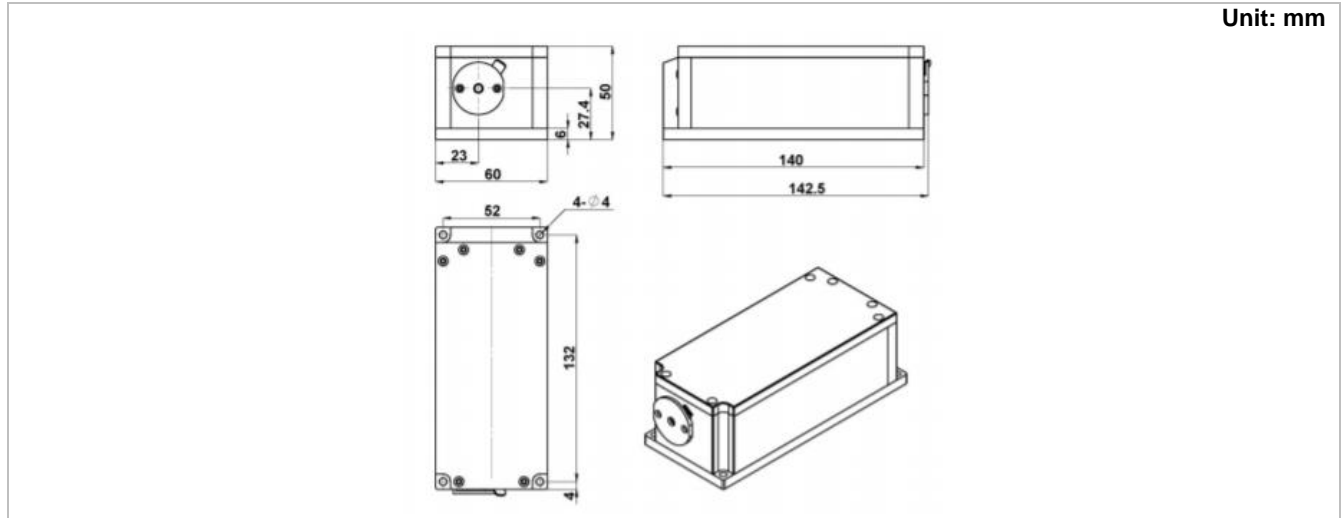
457-671 nm Specifications

Parameter	SLMU457	SLMU473	SLMU532		SLMU671
Wavelength	457±1 nm	473±1 nm	532±1 nm		671±1 nm
Operating mode	CW				
Output power	>30 mW, >50 mW, >100 mW, >150 mW, >200 mW, >300 mW	>30 mW, >50 mW, >80 mW	>30 mW, >50 mW, >100 mW, >200 mW	>300 mW, >400 mW, >500 mW, >1000 mW	>50 mW, >100 mW, >200 mW, >300 mW, >400 mW
Power stability (rms, over 4 hours)	<3%, <2%, <1%	<3%, <2%	<3%, <2%, <1%, <0.5%	<5%, <3%, <2%	<3%, <2%
Transverse mode	TEM ₀₀				
Longitudinal mode	Single				
Spectral linewidth	<0.00001 nm				
Coherent length	>50 m				
Noise of amplitude (rms, 1Hz~20MHz)	<1%, <0.5%				
Beam diameter at aperture (1/e ²)	<1 mm				
Beam divergence, full angle	<1.5 mrad				
M ² factor	<1.2				
Polarization ratio	>100:1				
Warm-up time	<5 min				
Pointing stability after warm-up	<0.05 mrad				
Frequency shift over 8 hours (optional)	<±200 MHz				
Frequency shift with temp (optional)	<200 MHz/°C				
Laser head consumption	15 W (typical), <25 W (40°C)				
Max. laser head base plate temp	50°C				
Operating temperature	10-40°C				
Expected lifetime	10,000 hours				
Warranty period	10 months				

Remarks:

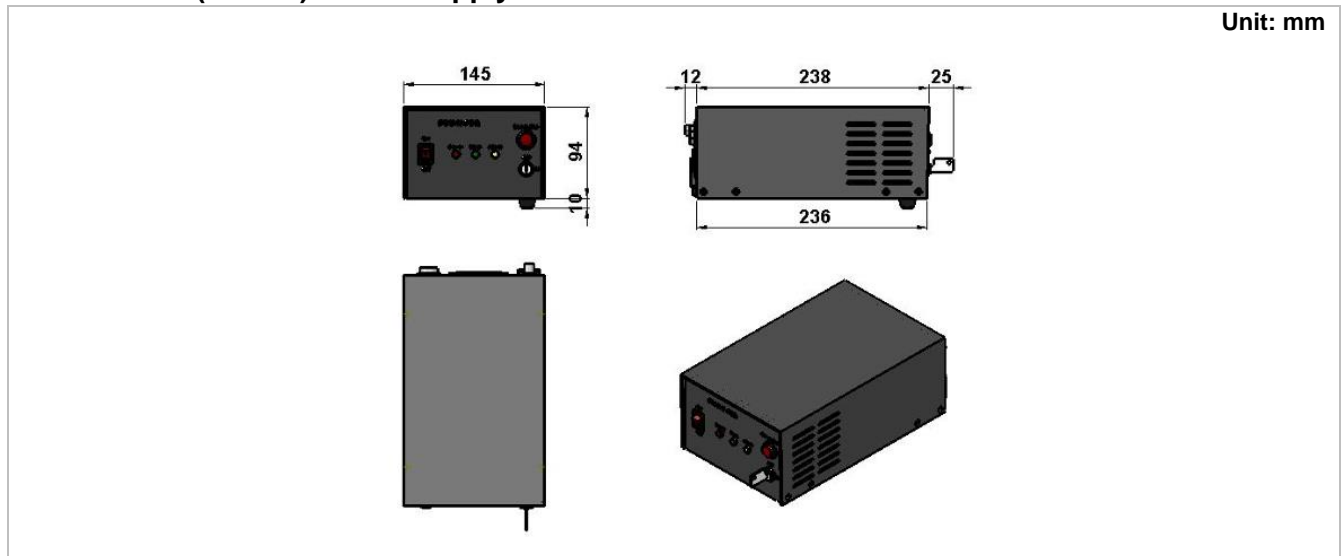
- The laser head needs to be used on a heat sink with good heat dissipation.
- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.
- Specifications are subject to change without notice.

SLMU Series (Visible) Laser Head Dimensions



Parameter	SLMU Series (Visible)
Dimensions	142.5(L)×60(W) ×50(H) mm ³
Weight	1.0 kg
Beam height from base plate	27.4 mm
Beam exit (from side)	23 mm

SLMU Series (Visible) Power Supply Dimensions



Parameter	High Power Elite Power Supply
Dimensions	275(L) ×145(W) ×104(H) mm ³
Weight	2.3 kg
Input voltage	90-264VAC

Ordering Information

For more information, please contact Lasermate directly at sales@lasermate.com.

Part Number Configuration SLMU[1][2][3][4][5][6]						
SLMU = Laser Model Series	[1] = Wavelength	[2] = Output Power	[3] = Power Supply	[4] = Power Stability	[5] = Noise of Amplitude	[6] = Frequency Stabilized Option
	457= 457nm 473= 473nm 532= 532nm 671= 671nm	30= >30mW 50= >50mW ... 500= >500mW 1W= >1000mW	H= High Power Elite Power Supply	A= <5% E= <3% 2= <2% D= <1% S= <0.5%	1= <1% L= <0.5%	Blank = No FS= Yes

Note: The above specifications are subject to change without notice.