



SLMU457 Series 457nm Single Longitudinal Mode Laser System up to 300mW

Overview

The SLMU457 series single longitudinal mode laser is ideal for applications that require a wavelength of 457nm and output power levels up to 300mW. The laser features narrow spectral linewidth, long coherent length, ultra-compact design, 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.



Specifications

Model Number	SLMU457-XPZ	
Wavelength (nm)	457±1	
Operating mode	CW	
Output power (mW)	>30 (X=30), >50 (X=50), >100 (X=100), >150 (X=150), >200 (X=200), >300 (X=300)	
Power stability (rms, over 4 hours)	<3% (P=E), <2% (P=2), <1% (P=D)	
Transverse mode	TEM ₀₀	
Longitudinal mode	Single	
Spectral linewidth (nm)	<0.00001	
Coherent length (m)	>50	
Noise of amplitude (rms, 1Hz-20MHz)	<1% (Z=1), <0.5% (Z=L)	
Beam diameter at aperture (1/e ² , mm)	0.70±0.05	
Beam divergence, full angle (mrad)	<1.5	
M ² factor	<1.2	
Polarization ratio	>100:1, Horizontal ±5 degree	
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 temperature (°C)	50	
Operating temperature (°C)	10-40	
Dimensions of laser head (mm)	142.5(L)×60(W) ×50(H) mm ³	
Weight of laser head (kg)	1.0 kg	
Power supply		
High Power Elite Power Supply (Y=H)	Input voltage	90-264VAC
	Dimensions	275(L) ×145(W) ×104(H) mm ³
	Weight	2.3 kg
	Notes	Fixed output power
High Power S Version Laboratory Power Supply (Y=S)	Input voltage	90-264VAC
	Dimensions	188(L) ×145(W) ×83(H) mm ³
	Weight	2 kg
	Notes	Adjustable output power
Expected lifetime (hours)	10,000	
Warranty period	10 months	
FDA Compliance	FDA CDRH Title 21 CFR 1040.10/11 Class IIIb	

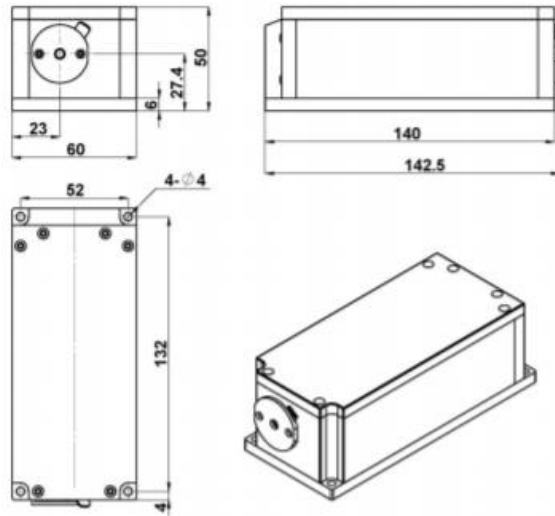
Remarks:

- 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.



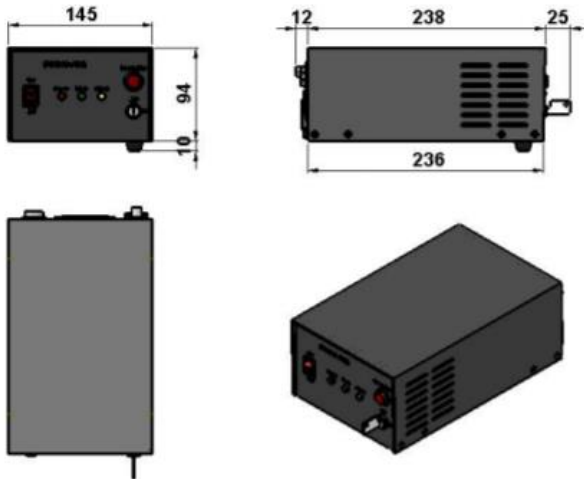
Outline Dimensions (unit: mm)

Laser Head



Power Supply Options

High Power Elite Power Supply (Y=H)



High Power S Version Laboratory Power Supply (Y=S)



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