



Single Frequency Laser System SLMF Series

Data Sheet



Overview

The SLMF series is comprised of CW single longitudinal mode laser at wavelengths of 515nm and 557nm that deliver up to 300mW output power. The series 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.

Features

- Available wavelengths: 515nm and 577nm
- CW operating mode
- Optical output power 10mW to 300mW
- Single longitudinal mode / Single frequency
- Ultra-compact design
- FDA compliant

Applications

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

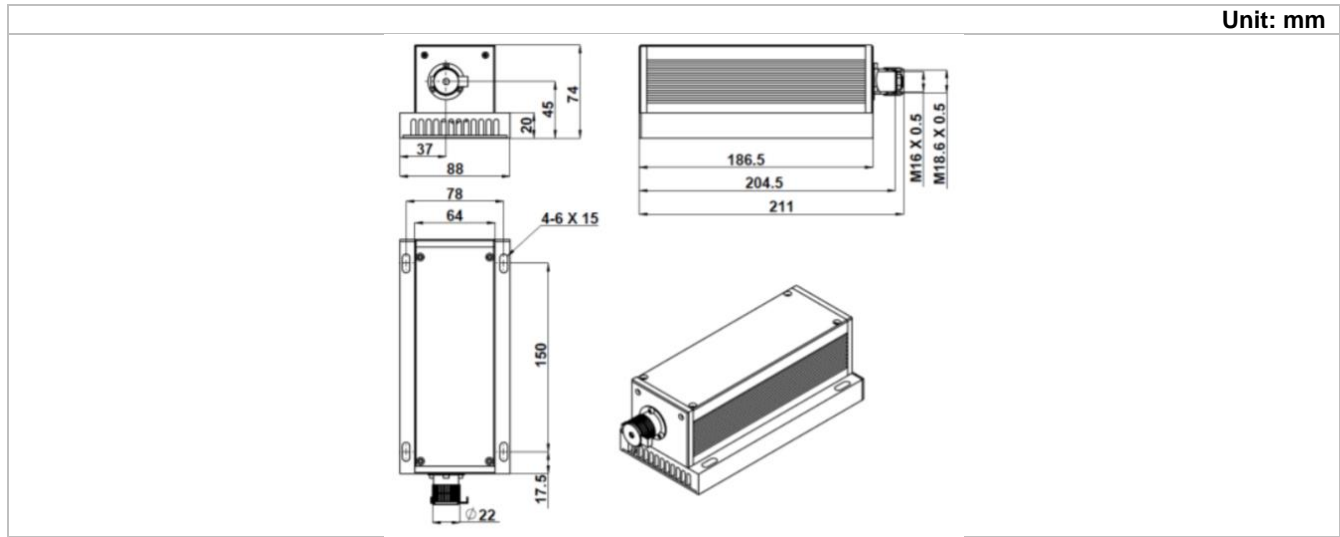
515-577 nm Specifications

Parameter	SLMF515	SLMF577	
Wavelength	515±1 nm	577±2 nm	
Operating mode	CW	CW	
Output power	>10 mW, >20 mW	>30 mW, >50 mW, >100 mW, >150 mW	>200 mW, >250 mW, >300 mW
Power stability (rms, over 4 hours)	<3%, <2%, <1%	<3%, <2%, <1%	<5%, <3%, <2%
Transverse mode	TEM ₀₀	TEM ₀₀	
Longitudinal mode	Single	Single	
Spectral linewidth	<0.00001 nm	<0.00001 nm	
Coherent length	>50 m	>50 m	
Noise of amplitude (rms, 1Hz-20MHz)	<1%, <0.5%	<1%, <0.5%	
Beam diameter at aperture (1/e ²)	<3.0 mm	<2.5 mm	
Beam divergence, full angle	<2.0 mrad	<1.5 mrad	
M ² factor	<1.5	<1.5	
Polarization ratio	>100:1	>100:1	
Warm-up time	<5min	<5min	
Pointing stability after warm-up	<0.05 mrad	<0.05 mrad	
Operating temperature	15-35°C	10-35°C	
Expected lifetime	10,000 hours	10,000 hours	
Warranty period	10 months	10 months	

Remarks:

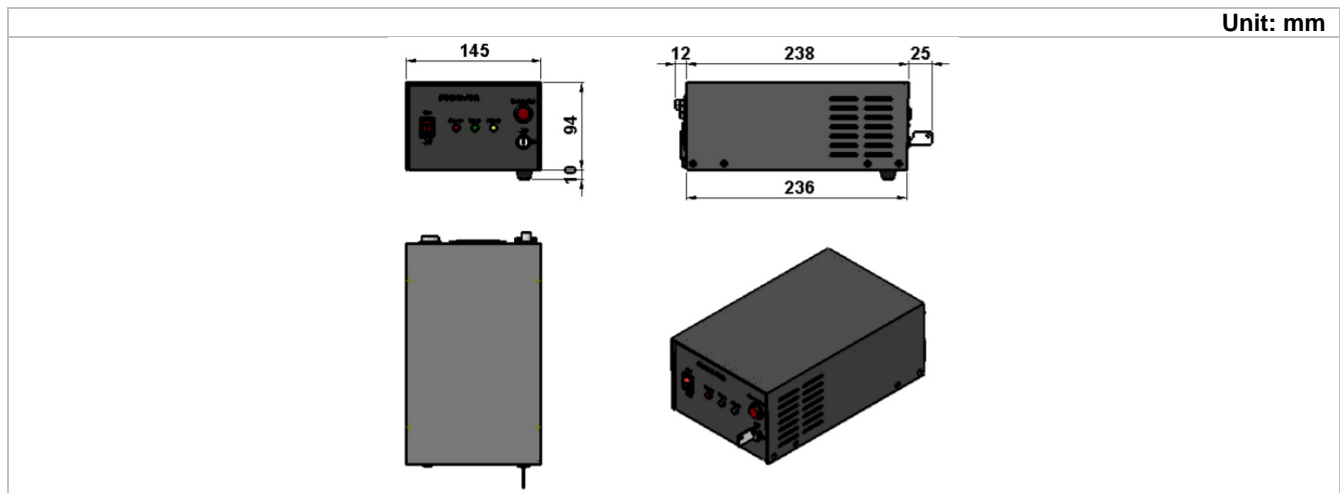
- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.

SLMF Series Laser Head Dimensions



Parameter	SLMF Series
Dimensions	211(L) x 88(W) x 74(H) mm ³
Weight	1.6 kg
Beam height from base plate	45 mm
Beam exit (from side)	37 mm

SLMF Series Power Supply Dimensions



Parameter	High Power Elite Power Supply
Dimensions	275(L) x 145(W) x 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 SLMF[1][2][3][4][5]					
SLMF = Laser Model Series	[1] = Wavelength	[2] = Output Power	[3] = Power Supply	[4] = Power Stability	[5] = Noise of Amplitude
	515= 515nm 577= 577nm	10= >10mW 20= >20mW 30= >30mW 50= >50mW 100= >100mW 150= >150mW 200= >200mW 250= >250mW 300= >300mW	H= High Power Elite Power Supply	A= <5% E= <3% 2= <2% D= <1%	1= <1% L= <0.5%

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