



# Environmentally Sealed Single Frequency Laser System SLMS Series

Data Sheet



## Overview

The SLMS series is a line of green 532nm and infrared 1064nm CW lasers with single longitudinal mode / single frequency and environmentally sealed to overcome harsh conditions. The SLMS series features good sealing with IP67 and IP65 ratings, 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

- Green at 532nm, and infrared at 1064nm
- CW operating mode
- Optical output power 30mW to 500mW
- Single frequency / single longitudinal mode
- Narrow spectral linewidth <0.00001nm
- Long coherent length >50m
- IP65 and IP67 ratings
- FDA compliant

## Applications

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

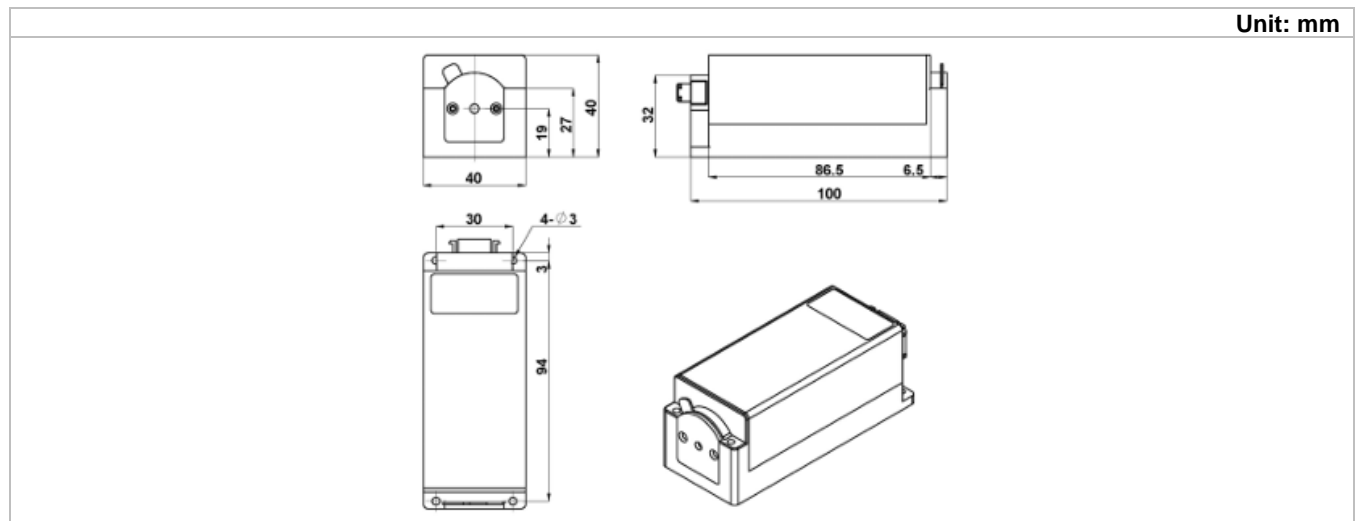
## 532-1064 nm Specifications

Parameter	SLMS532		SLMS1064	
Wavelength	532±2 nm		1064±1 nm	
Operating mode	CW		CW	
Output power	>30 mW, >50 mW, >100 mW		>50 mW, >100 mW, >200 mW, >300 mW, >500 mW	
Power stability (rms, over 4 hours)	<5%, <3%, <1%		<3%, <2%	
Transverse mode	TEM <sub>00</sub>		TEM <sub>00</sub>	
Longitudinal mode	Single		Single	
Spectral linewidth	<0.00001 nm		<0.00001 nm	
Coherent length	>50 m		>50 m	
Noise of amplitude (rms, 20Hz-20MHz)	<0.5%		<0.5%	
Beam diameter at aperture (1/e <sup>2</sup> )	<1.0 mm		1.00±0.05 mm	
Beam divergence, full angle	<1.5 mrad		<1.7 mrad	
M <sup>2</sup> factor	<1.2		<1.2	
Polarization ratio	>100:1, Horizontal ±5 degree		/	
Warm-up time	<5 min		<5 min	
Pointing stability over temp	<8 urad/°C		<8 urad/°C	
Pointing stability after warm-up	<0.05 mrad		<0.05 mrad	
Frequency shift over 8 hours (optional)	<±200 MHz		<±200 MHz	
Frequency shift with temp (optional)	<200 MHz/°C		<200 MHz/°C	
Power consumption	<30 W		<40 W	
Shock tolerance (6ms)	7g laterally, 15g vertically		7g laterally, 15g vertically	
IP rating	IP67	IP65	IP67	IP65
Max heat dissipation of head	10W@50°C	4W@25°C	10W@50°C	4W@25°C
Operating temperature	0-60°C	10-35°C	0-60°C	10-35°C
Expected lifetime	10,000 hrs		10,000 hrs	
Warranty period	10 months		10 months	

## Remarks:

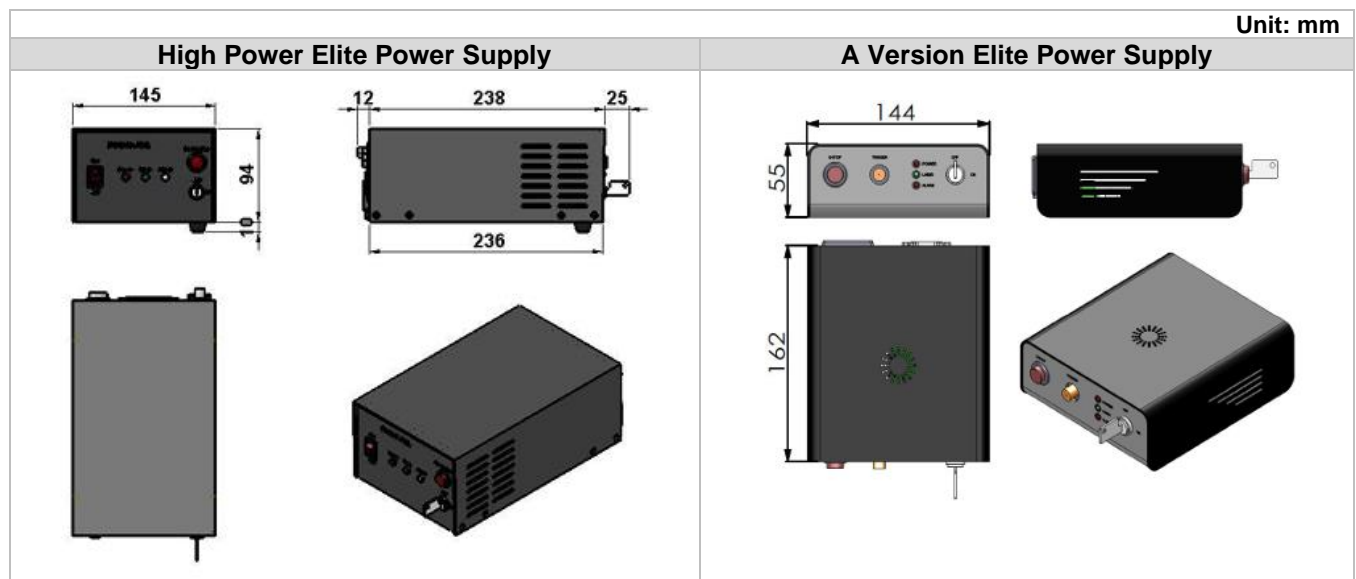
- The laser head needs to be used on a heat sink with good heat dissipation.
- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.

SLMS Series Laser Head Dimensions



Parameter	SLMS Series
Dimensions	100(L)x40(W) x40(H) mm <sup>3</sup>
Weight	0.36 kg
Beam height from base plate	19 mm
Beam exit (from side)	

SLMS Series Power Supply Dimensions



Parameter	High Power Elite Power Supply (IP67)	A Version Elite Power Supply (IP65)
Dimensions	275(L) x145(W) x104(H) mm <sup>3</sup>	162(L) x144(W) x44(H) mm <sup>3</sup>
Weight	2.3 kg	0.5 kg
Input voltage	90-264VAC	90-264VAC

**Ordering Information**

For more information, please contact Lasermate directly at [sales@lasermate.com](mailto:sales@lasermate.com).

Part Number Configuration SLMS[1][2][3][4][5][6]						
SLMS = Laser Model Series	[1] = Wavelength	[2] = Output Power	[3] = Power Supply	[4] = Power Stability	[5] = IP Rating	[6] = Frequency Stabilized Option
	532= 532nm 1064= 1064nm	30= >30mW 50= >50mW 100= >100mW 200= >200mW 300= >300mW 500= >500mW	H= High Power Elite Power Supply F= A Version Elite Power Supply	A= <5% E= <3% 2= <2% D= <1%	W= IP67 D= IP65	Blank = No FS = Yes

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