



SLMS Series

Environmentally Sealed Single Frequency Laser System

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

- Wavelengths at 532nm and 1064nm
- CW operating mode
- Optical output power up to 700mW
- Single frequency / single longitudinal mode
- Narrow spectral linewidth <1MHz
- 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	SLMS532A	SLMS1064	SLMS1064A
Wavelength	532±1 nm	532±1 nm	1064±1 nm	1064±1 nm
Operating mode	CW			
Output power ⁽¹⁾	1-150 mW	1-150 mW	1-700 mW	1-700 mW
Power stability (rms, 4 hours ±3°C)	<3%, <2%, <1%	<3%, <2%, <1%	<3%, <2%	<3%, <2%
Transverse mode	TEM ₀₀			
Longitudinal mode	Single			
Spectral linewidth	<1MHz			
Coherent length	>50 m			
Noise of amplitude (rms, 20Hz-20MHz)	<0.5%			
Beam diameter at aperture (1/e ²)	<1.0 mm	<1.0 mm	1.00±0.05 mm	1.00±0.05 mm
Beam divergence, full angle	<1.5 mrad	<1.5 mrad	<1.7 mrad	<1.7 mrad
M ² factor	<1.2			
Polarization ratio	>100:1, Horizontal	>100:1, Horizontal	/	/
Warm-up time	<5 min			
Pointing stability over 2 hours after warm-up and ±3°C)	<50 urad			
Pointing stability over temp	<8 urad/°C			
Frequency shift over 8 hours (optional)	<±200 MHz			
Frequency shift with temp (optional)	<200 MHz/°C			
Power consumption	<30 W	<30 W	<40 W	<40 W
Shock tolerance (6ms)	7g laterally, 15g vertically			
IP rating	IP65	IP67	IP65	IP67
Operating temperature	10-35°C	0-60°C	10-35°C	0-60°C
Expected lifetime	>10,000 hrs			

Remarks:

- Any output power level can be selected within this range.
- The laser head needs to be used on a heat sink with good heat dissipation.
- Specifications of the CW laser are 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.



SLMS Series Laser Head Dimensions

		Unit: mm
SLMS	SLMS-A	

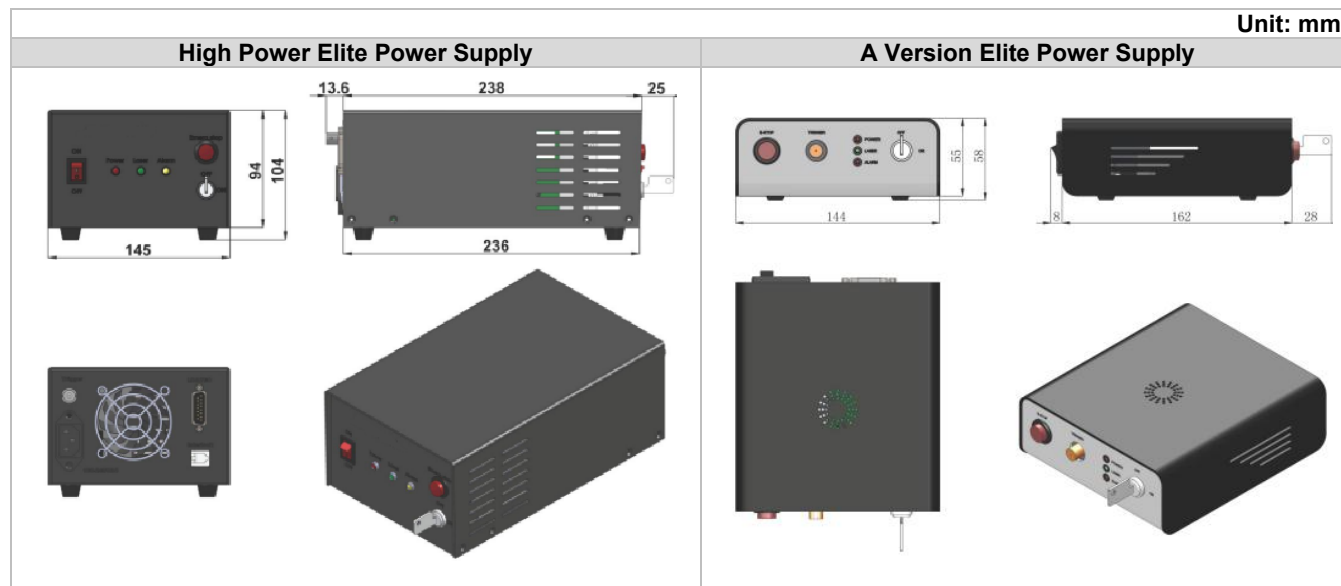
Parameter	SLMS	SLMS-A
Dimensions	100(L)×40(W) ×40(H) mm ³	110(L)×50(W) ×38(H) mm ³
Weight	0.36 kg	0.6 kg
Beam height from base plate	19 mm	19 mm
Beam exit (from side)	20 mm	25 mm

SLMS Series Heat Sink Dimensions

		Unit: mm
HS4		

Parameter	HS4
Dimensions	188(L)×76.2(W) ×43(H) mm ³
Weight	0.65 kg

SLMS Series Power Supply Dimensions



Parameter	High Power Elite Power Supply	A Version Elite Power Supply
Dimensions	276.6(L) × 145(W) × 103.6(H) mm ³	198(L) × 144(W) × 58(H) mm ³
Weight	2.3 kg	0.5 kg
Input voltage	100-240 VAC	100-240 VAC
Notes	SLMS-A	SLMS

Ordering Information

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

Part Number Configuration SLMS[1][2]-[3][4][5][6]						
SLMS = Laser Model Series	[1] = Wavelength	[2] = Laser Type	[3] = Output Power	[4] = Power Supply	[5] = Power Stability	[6] = Frequency Stabilized Option
	532= 532nm 1064= 1064nm	Blank= IP65 (Normal) A= IP67 (Harsh condition)		H= High Power Elite Power Supply F= A Version Elite Power Supply	E= <3% 2= <2% D= <1%	Blank = No FS = Yes

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

