



High Frequency Modulated Single Frequency Laser System SLMFM Series

Data Sheet



Overview

The SLMFM series is a family of visible blue, green, and red high frequency modulated single longitudinal mode lasers that can deliver up to 200mW output power. The laser series features quick modulation rate with modulation frequency up to 1MHz, high extinction ratio, easy coding, convenient use, and FDA-compliant system with driver. The laser is widely used in laser text-image processing, laser lithography, laser phototypesetting, laser digital communication, OEM system integration, scientific research laboratories, and many other applications.

Features

- Available wavelengths: 473nm, 532nm, 556nm, 561nm, and 671nm
- Optical output power 10mW to 200mW
- Single frequency / single longitudinal mode
- High frequency modulation up to 1MHz
- Narrow spectral linewidth <0.00001nm
- Coherent length >50m
- FDA compliant

Applications

- Laser text-image processing
- Laser lithography
- Laser phototypesetting
- Laser digital communication
- OEM system integration
- Scientific research laboratory

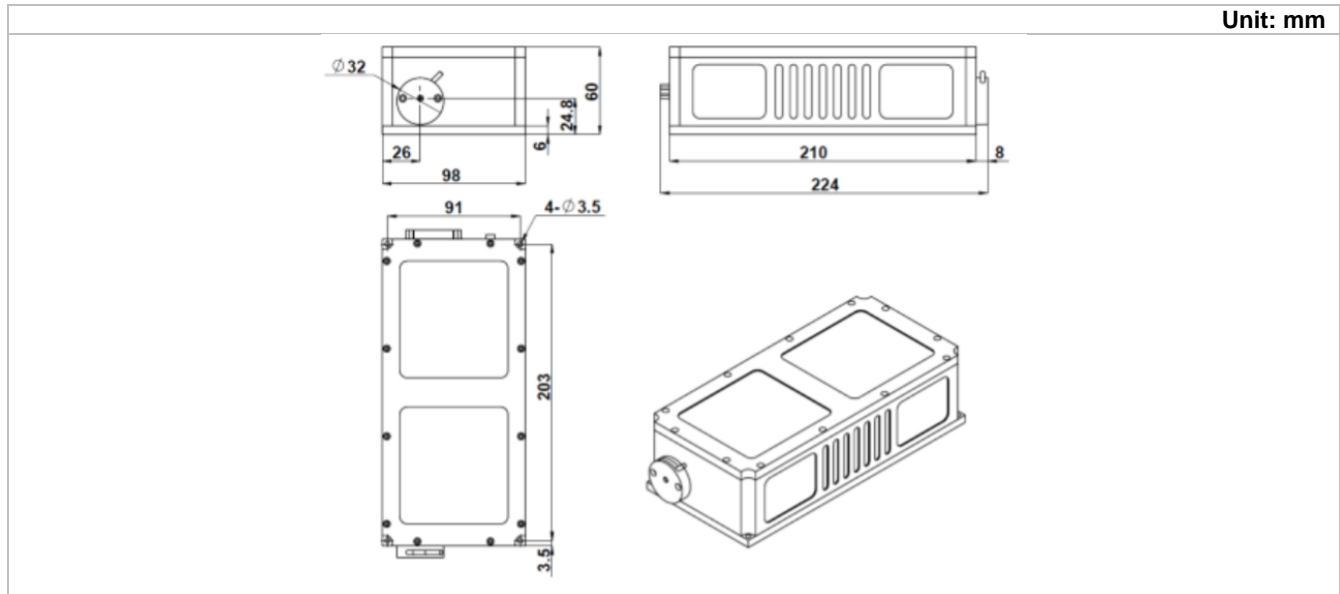
473-671 nm Specifications

Parameter	SLMFM473	SLMFM532	SLMFM556	SLMFM561	SLMFM671
Wavelength	473±1 nm	532±1 nm	556±1 nm	561±1 nm	671±1 nm
Operating mode	CW				
Output power	>10 mW, >30 mW, >50 mW	>30 mW, >50 mW, >100 mW, >200 mW	>30 mW	>30 mW, >50 mW	>50 mW, >100 mW
Power stability (rms, over 4 hours)	<5%, <3%, <1%				
Transverse mode	Near TEM ₀₀				
Longitudinal mode	Single				
Spectral linewidth	<0.00001 nm				
Coherent length	>50 m				
Optical noise (rms, 1Hz-20MHz)	<0.5%				
Beam diameter at aperture (1/e ²)	<1.5 mm				
Beam divergence, full angle	<1.5 mrad				
M ² factor	<1.5				
Polarization ratio	>100:1				
Warm-up time	<5 min				
Pointing stability after warm-up	<0.05 mrad				
Operating temperature	10-35°C				
Modulation	1MHz				
Expected lifetime	10,000 hours				
Warranty period	10 months				

Remarks:

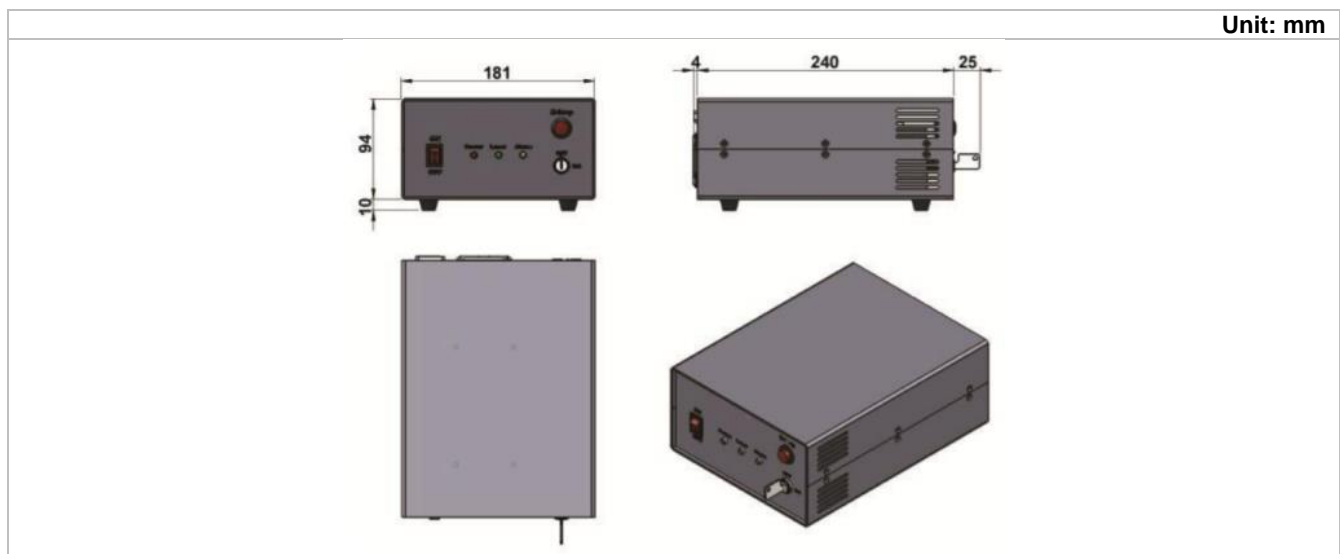
- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.
- Specifications are subject to change without notice.

SLMFM Series Laser Head Dimensions



Parameter	SLMFM Series
Dimensions	224(L)×98(W) ×60(H) mm ³
Weight	1.9 kg
Beam height from base plate	24.8 mm
Beam exit (from side)	26 mm

SLMFM Series Power Supply Dimensions



Parameter	High Power Elite AOM Power Supply
Dimensions	269(L) ×181(W) ×104(H) mm ³
Weight	2.7 kg
Input voltage	90-264VAC

Ordering Information

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

Part Number Configuration SLMFM[1][2]AH[3]				
SLMFM = Laser Model Series	[1] = Wavelength	[2] = Output Power	AH = Power Supply	[3] = Power Stability
	473= 473nm 532= 532nm 556= 556nm 561= 561nm 671= 671nm	10= >10mW 30= >30mW 50= >50mW 100= >100mW 200= >200mW		A= <5% E= <3% D= <1%

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