



SLMFM Series

High Frequency Modulated Single Frequency Laser System

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 400mW 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 up to 400mW
- Single frequency / single longitudinal mode
- High frequency modulation up to 1MHz
- Narrow spectral linewidth <1MHz
- 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

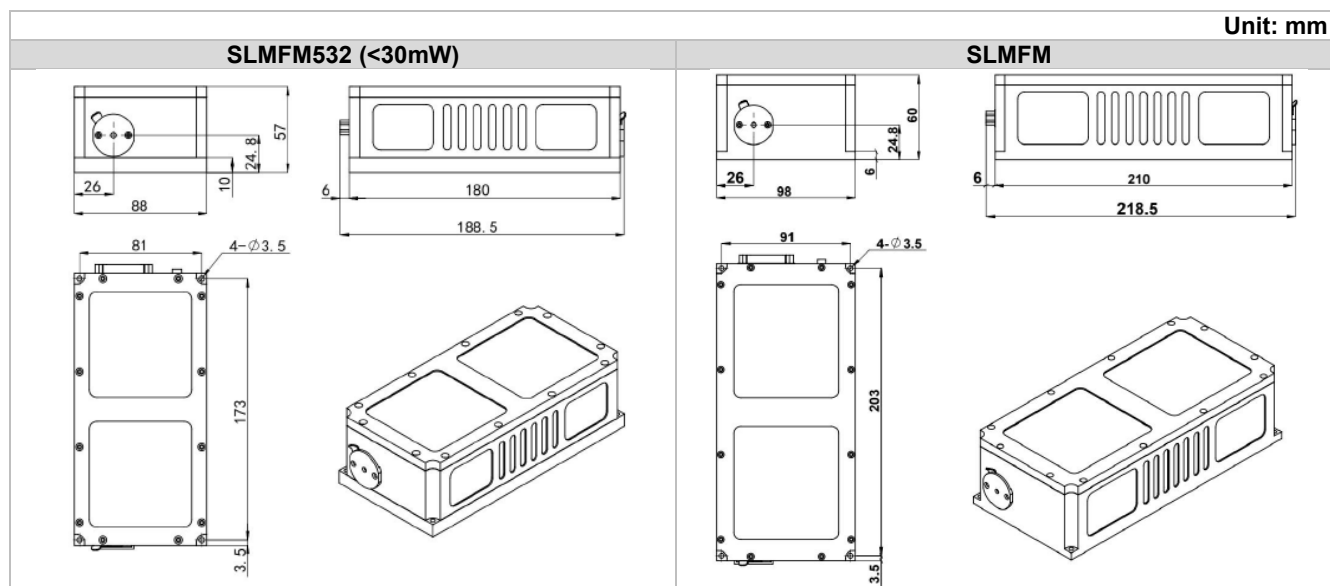
Parameter	SLMFM473	SLMFM532	SLMFM556	SLMFM561	SLMFM671
Wavelength	473±1 nm	532±1 nm	556±1 nm	561±1 nm	671±1 nm
Operating mode	CW				
Output power ⁽¹⁾	1-200 mW	1-800 mW	1-80 mW	1-100 mW	1-400 mW
Power stability (rms, 4 hours ±3°C)	<3%, <2%, <1%				
Transverse mode	TEM ₀₀				
Longitudinal mode	Single				
Spectral linewidth	<1MHz				
Coherent length	>50 m				
Optical noise (rms, 20Hz~20MHz)	<0.5%				
Beam diameter at aperture (1/e ²)	<1.5 mm				
Beam divergence, full angle	<1.5 mrad				
M ² factor	<1.2				
Polarization ratio	>100:1, Vertical				
Warm-up time	<5 min				
Pointing stability over 2 hours after warm-up and ±3°C	<50 urad				
Pointing stability over temperature	<8 urad/°C				
Operating temperature	10-35°C				
Modulation option	TTL/Analog: DC-1MHz				
Expected lifetime	>10,000 hours				

Remarks:

1. Any output power level can be selected within this range.
2. The laser head needs to be used on a heat sink with good heat dissipation.
3. 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.
4. Specifications are subject to change without notice.



SLMFM Series Laser Head Dimensions



Parameter	SLMFM532 (<30mW)	SLMFM
Dimensions	188.5(L)×88(W) ×57(H) mm ³	218.8(L)×98(W) ×60(H) mm ³
Weight	1.6 kg	1.9 kg
Beam height from base plate	24.8 mm	24.8 mm
Beam exit (from side)	26 mm	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	100-240 VAC

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
				E= <3% 2= <2% D= <1%

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

