



Low Noise DPSS Laser System

DPLF Series

Data Sheet



Overview

The DPLF series is a line of visible and near infrared diode pumped solid state (DPSS) lasers with less than 1% noise that generate output power levels up to 1500mW. The laser series features a compact design, low noise, long lifetime, easy operation, and FDA-compliant system with driver. The DPLF series is widely used in scientific experiment, laser fluorescence, and many other applications.

Features

- Visible and near IR wavelengths
- CW operating mode
- Optical output power 30mW to 1500mW
- Low noise
- Ultra-compact design
- FDA compliant

Applications

- Fluorescence sensors
- Raman spectrum
- Laser printing
- Holography
- Laser display
- Submarine communication
- Biomedicine
- Laser lighting show

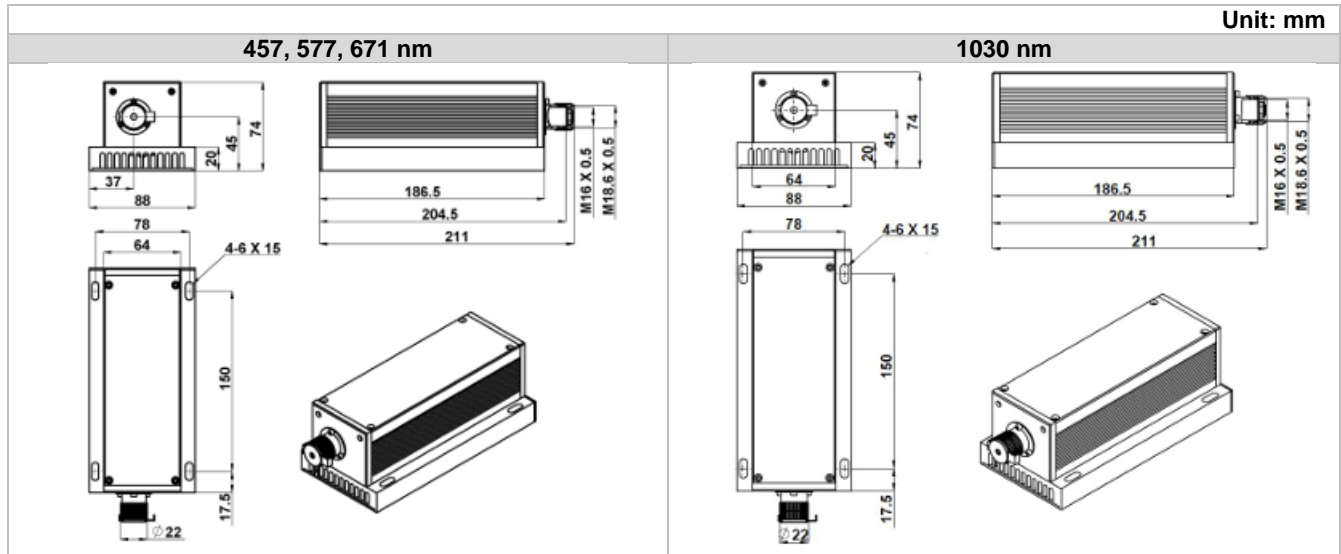
457-1030 nm Specifications

Parameter	DPLF457		DPLF577		DPLF671	DPLF1030
Wavelength	457±1 nm		577±2 nm		671±1 nm	1030±1 nm
Output power	>50 mW, >100 mW, >300 mW	>500 mW, >800 mW, >1000 mW	>30 mW, >50 mW, >100 mW, >200 mW	>300 mW	>1000 mW, >1500 mW	>50 mW, >100 mW
Transverse mode	Near TEM ₀₀	Near TEM ₀₁	TEM ₀₀		TEM ₀₀	TEM ₀₀
Operating mode	CW		CW		CW	CW
Noise of amplitude (rms, 1Hz-20MHz)	<3%		<1%		<1%	<1%
Power stability (rms, over 4 hours)	<10%, <5%, <3%		<3%, <2%, <1%	<5%, <3%, <2%	<3%, <2%, <1%	<5%, <3%, <2%
Spectral linewidth	<0.2 nm		<0.2 nm		<0.2 nm	<0.2 nm
M ² factor	<2.0		<1.2		<1.2	<1.5
Beam diameter at aperture (1/e ²)	~3.0 mm		<3.0 mm		~3.0 mm	~2.0 mm
Beam divergence, full angle	<1.5 mrad		<1.5 mrad		<2.0 mrad	<2.0 mrad
Polarization ratio	>100:1		>100:1		>100:1	>100:1
Warm-up time	<5 min		<5 min		<5 min	<5 min
Pointing stability after warm-up	<0.05 mrad		<0.05 mrad		<0.05 mrad	<0.05 mrad
Operating temperature	10-35°C					
Expected lifetime	10,000 hours					
Warranty period	10 months					

Remarks:

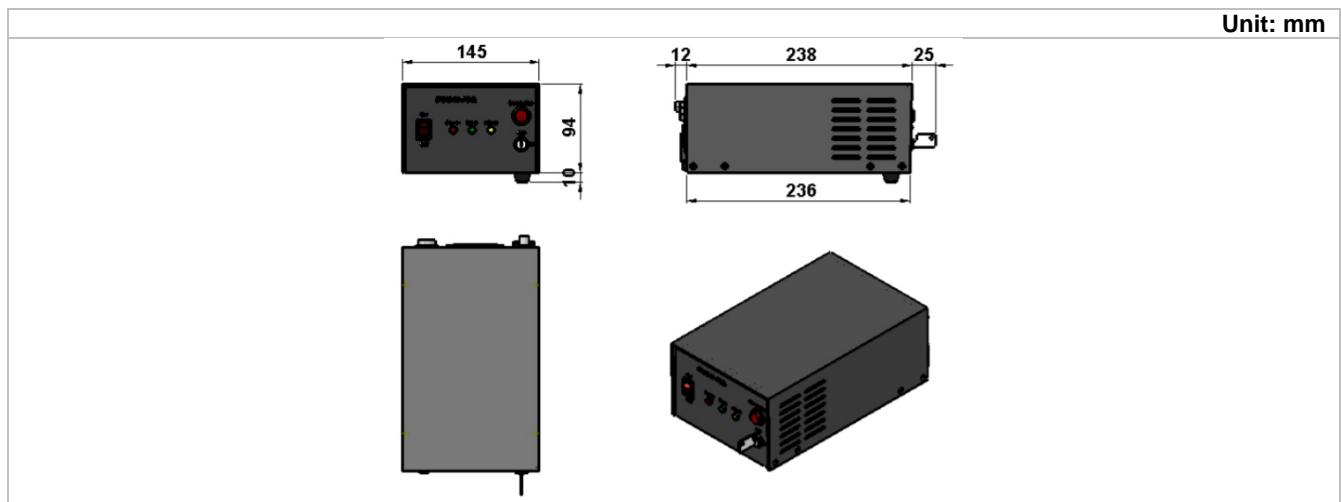
- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.
- Specifications are subject to change without notice.

DPLF Series Laser Head Dimensions



Parameter	457, 577, 671 nm	1030 nm
Dimensions	211(L)x88(W) x74(H) mm ³	211(L)x88(W) x74(H) mm ³
Weight	1.6 kg	1.6 kg
Beam height from base plate	45 mm	45 mm
Beam exit (from side)	37 mm	44 mm

DPLF Series Power Supply Dimensions



Parameter	High Power Elite Power Supply
Dimensions	275(L) x145(W) x104(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 DPLF[1][2][3][4][5][6]						
DPLF = Laser Model Series	[1] = Wavelength	[2] = Output Power	[3] = Power Supply	[4] = Power Stability	[5] = Noise of Amplitude	[6] = Spectral Linewidth
	457= 457nm 577= 577nm 671= 671nm 1030= 1030nm	30= >30mW 50= >50mW 100= >100mW ... 1W= >1000mW 1H= >1500mW	H=High Power Elite Power Supply	B=<10% A=<5% E=<3% 2=<2% D=<1%	1= <1% 3= <3%	K=<0.2nm

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