



Low Noise DPSS Laser System

DPLN Series

Data Sheet



Overview

The DPLN series is a line of visible blue, green, yellow, orange, and red and near infrared diode pumped solid state (DPSS) lasers with less than 1% noise that can provide output power levels up to 5000mW. The DPLN laser series features a compact design, low noise, long lifetime, easy operation, and FDA-compliant system with driver. The DPLN visible series laser is widely used in collimation, laser medical treatment, scientific experiment, optical instrument, laser display, laser lighting show, and many other applications. The DPLN infrared laser series is widely used in scientific experiment, optical instrument, optical sensor, measurement, communication, spectrum analysis, and many other applications.

Features

- Visible-NIR wavelengths
- CW operating mode
- Optical output power 10mW to 5000mW
- Low noise
- Ultra-compact design
- FDA compliant

Applications

- Collimation
- Laser medical treatment
- Scientific experiment
- Optical instrument
- Laser display
- Laser lighting show
- Optical sensor
- Measurement
- Communication
- Spectrum analysis

457-1342 nm Specifications

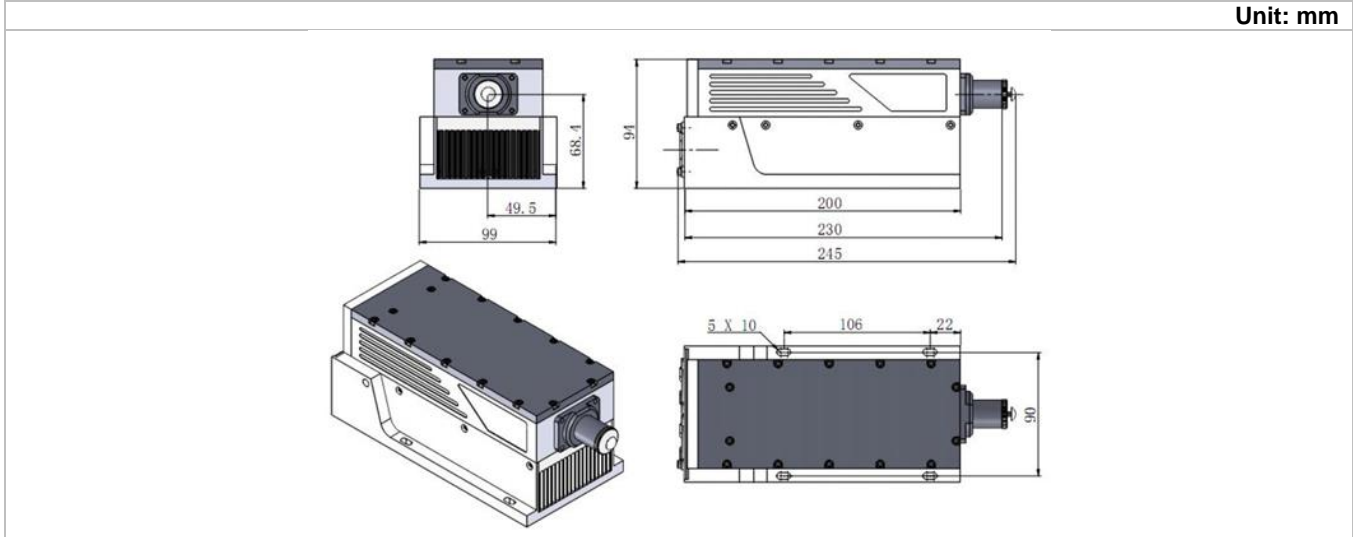
Parameter	DPLN457	DPLN515	DPLN532	DPLN671	DPLN1064	DPLN1342
Wavelength	457±1 nm	515±1 nm	532±1	671±1 nm	1064±1 nm	1342±1 nm
Output power	>500 mW, >800 mW, >1000 mW	>10 mW, >30 mW, >50 mW, >60 mW, >100 mW	>3000 mW, >4000 mW, >5000 mW	>1500 mW, >2000 mW, >2500 mW, >3000 mW	>4000 mW, >5000 mW	>2000 mW, >3000 mW
Transverse mode	Near TEM ₀₀	TEM ₀₀	Near TEM ₀₀	Near TEM ₀₀	Near TEM ₀₀	Near TEM ₀₀
Operating mode	CW					
Noise of amplitude (rms, 1-20MHz)	<3%	<1%	<1%	<1%	<1%	<1%
Power stability (rms, over 4 hours)	<5%, <3%, <1%	<5%, <3%, <1%	<5%, <3%, <2%, <1%	<5%, <3%, <2%, <1%	<5%, <3%, <2%, <1%	<5%, <3%, <2%, <1%
M ² factor	<3.0	<1.2	3.0-5.0	<3.0	<3.0	3-6
Beam diameter at aperture (1/e ²)	~3.0 mm	~2.0 mm	~3.0 mm	~3.0 mm	~3.0 mm	~3.0 mm
Beam divergence, full angle	<1.2 mrad	<1.2 mrad	<1.5 mrad	<1.5 mrad	<1.5 mrad	<3.0 mrad
Polarization ratio	>100:1	>100:1	>100:1	>100:1	>100:1	>100:1
Warm-up time	<10 min	<10 min	<10 min	<10 min	<10 min	<15 min
Operating temperature	10-35°C					
Modulation option	TTL/Analog: 1Hz-1kHz, 1kHz-10kHz, 10kHz-30kHz					
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.

DPLN Series Laser Head Dimensions

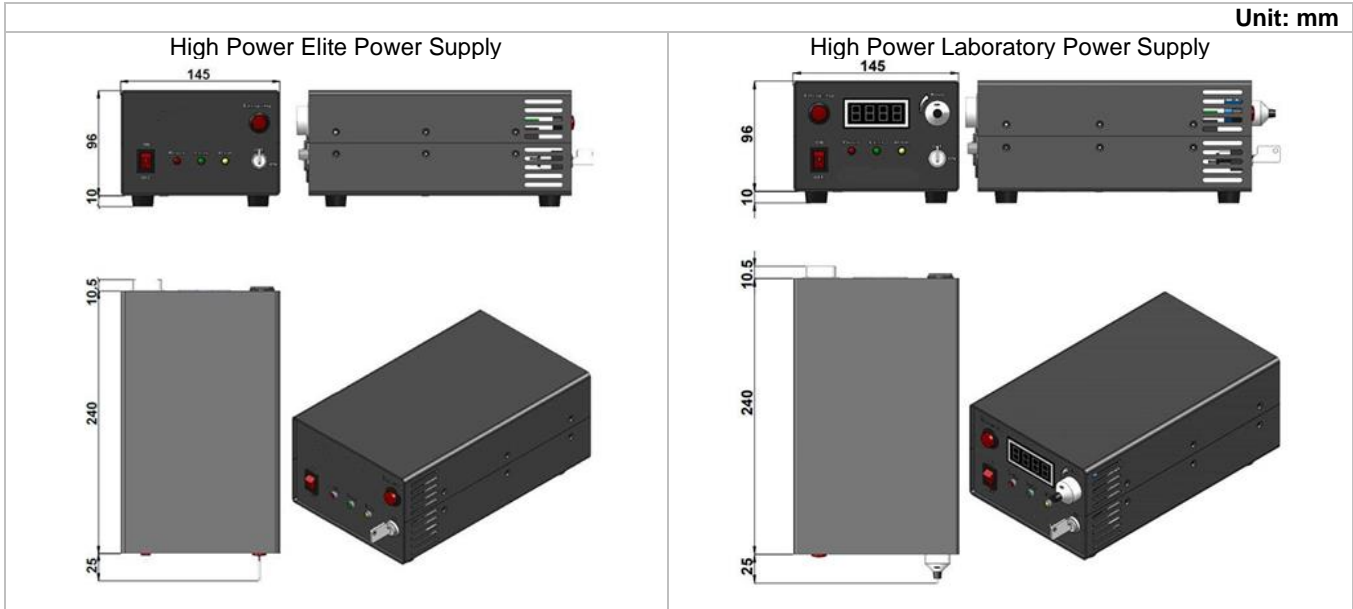
Unit: mm



Parameter	DPLN Series
Dimensions	245(L)x99(W) x94(H) mm ³
Weight	2.6 kg
Beam height from base plate	68.4 mm
Beam exit (from side)	49.5 mm

DPLN Series Power Supply Dimensions

Unit: mm



Parameter	High Power Elite Power Supply	High Power Laboratory Power Supply
Dimensions	275.5(L) x145(W) x106(H) mm ³	275.5(L) x145(W) x106(H) mm ³
Weight	2.5 kg	2.5 kg
Input voltage	90-264VAC	90-264VAC
Features	Standard	Adjustable power

Ordering Information

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

Part Number Configuration DPLN[1][2][3][4][5][6]						
DPLN = Laser Model Series	[1] = Wavelength	[2] = Output Power	[3] = Power Supply	[4] = Power Stability	[5] = Noise of Amplitude	[6] = Modulation
	457= 457nm 515= 515nm 532= 532nm 671= 671nm 1064= 1064nm 1342= 1342nm	10= >10mW 30= >30mW ... 1W= >1000mW 1H= >1500mW 2W= >2000mW 2H= >2500mW 3W= >3000mW 4W= >4000mW 5W= >5000mW	H=High Power Elite Power Supply M=High Power Laboratory Power Supply	A=<5% E=<3% 2=<2% D=<1%	1= <1% 3= <3%	0=None T1=TTL 1Hz-1kHz T2=TTL 1kHz-10kHz T3=TTL 10kHz-30kHz A1=Analog 1Hz-1kHz A2=Analog 1kHz-10kHz A3=Analog 10kHz-30kHz

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