Diode-Pumped Solid-State (DPSS) Picosecond Pulsed Laser
DPPS Series

Data Sheet

Overview

The DPPS series is a line of UV, visible, and near IR diode-pumped all solid-state (DPSS) picosecond pulsed lasers that provide up to 30 W output power. The DPPS series laser features short pulse duration <50ps, high repetition rate, and high average power. The laser offers 1064nm wavelength in the infrared range, visible wavelengths at 355nm and 532nm, and UV wavelengths at 213nm and 266nm. The DPPS series is commonly used in fluorescence lifetime measurement, scientific research, and many other applications.

Features

- Available in five different wavelengths at 213nm, 266nm, 355nm, 532nm, 1064nm
- Pulsed operating mode
- Optical output power 10mW to 30000mW
- Pulse duration <50ps
- Repetition rate 5MHz (261nm, 266nm, 355nm), 0.1-10MHz (532nm, 1064nm)

Applications

- Fluorescence excitation
- Time resolve spectrum
- High sensitive absorption spectroscopy
- Interference measuring method
- Laser medical treatment
- Industrial processing
- Scientific research

213-355 nm Specifications

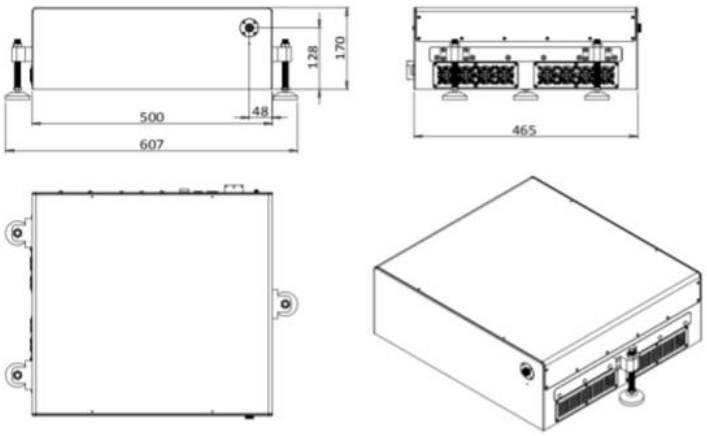
Parameter	DPPS213	DPPS266	DPPS355	DPPS532	DPPS1064
Wavelength	213±1 nm	266±1 nm	355±1 nm	532±1 nm	1064±1 nm
Operating mode	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed
Output power	~10 mW, ~20 mW, ~30 mW	~100 mW, ~200 mW, ~500 mW	~100 mW, ~300 mW, ~500, ~700 mW	~2000 mW, ~5000 mW, ~8000 mW, ~10000 mW	~5000 mW, ~10000 mW, ~20000 mW, ~30000 mW
Power stability (rms, over 4 hours)	<3%, <2%	<3%, <1%	<3%, <1%	<3%, <1%	<3%, <1%
Pulse duration	<50 ps	<50 ps	<50 ps	<50 ps	<50 ps
Repetition rate	5 MHz	5 MHz	5 MHz	0.1-10 MHz	0.1-10 MHz
Beam diameter	~2 mm	~2 mm	~2 mm	~2 mm	~2 mm
Beam divergence, full angle	<3 mrad	<3 mrad	<3 mrad	<1.5	<1.5
Beam height from base plate	128 mm	128 mm	128 mm	128 mm	128 mm
Cooled method	Air cooled	Air cooled	Air cooled	Air cooled	Air cooled
Warm-up time	<15min	<15min	<15min	<15min	<15min
Operating temperature	15~30°C	15~30°C	15~30°C	15-30°C	15-30°C
Dimensions of laser head	465(L)×500(W) ×170(H) mm^3	465(L)×500(W) ×170(H) mm^3	465(L)×500(W) ×170(H) mm^3	465(L)×500(W) ×170(H) mm^3	465(L)×500(W) ×170(H) mm^3
Weight of laser head	65 kg	65 kg	65 kg	65 kg	65 kg
Dimensions of power supply	850(L) ×545(W) ×590(H) mm^3	850(L) ×545(W) ×590(H) mm^3	850(L) ×545(W) ×590(H) mm^3	850(L) ×545(W) ×590(H) mm^3	850(L) ×545(W) ×590(H) mm^3
Weight of power supply	85 kg	85 kg	85 kg	85 kg	85 kg
Input voltage of power supply	220V AC	220V AC	220V AC	220V AC	220V AC
Expected lifetime	10,000 hours	10,000 hours	10,000 hours	10,000 hours	10,000 hours
Warranty period	10 months	10 months	10 months	10 months	10 months
FDA Compliance	FDA CDRH Title 21 CFR 1040.10/11 Class IV	FDA CDRH Title 21 CFR 1040.10/11 Class IV	FDA CDRH Title 21 CFR 1040.10/11 Class IV	FDA CDRH Title 21 CFR 1040.10/11 Class IV	FDA CDRH Title 21 CFR 1040.10/11 Class IV

Remarks:

- Specifications of the pulsed laser are based on the laser pulsed at the specified repetition rate. If the laser is run at a different repetition rate, the output characteristics may change.
- Specifications are subject to change without notice.

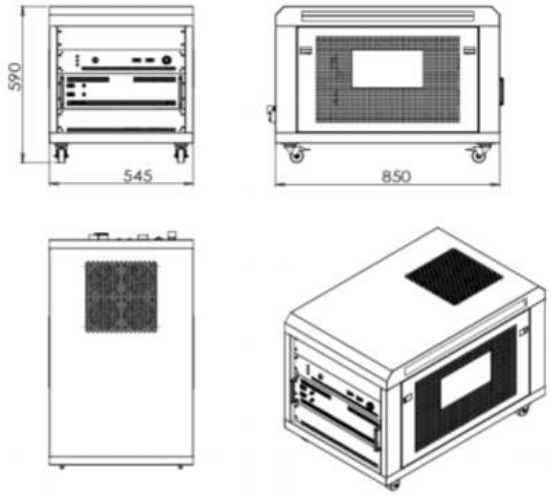
DPPS Series Laser Head Dimensions

Unit: mm



DPPS Series Power Supply Dimensions

Unit: mm



Ordering Information

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

Part Number Configuration **DPPS[1]-[2][3][4][5]**				
DPPS = Laser Model Series	**[1] = Wavelength**	**[2] = Output Power**	**[3] = Power Supply**	**[4] = Power Stability**
		10= ~10mW 20= ~20mW 30= ~30mW 100= ~100mW ….. 2W= ~2000mW 5W= ~5000mW 8W= ~8000mW 10W= ~10000mW 20W= ~20000mW 30W= ~30000mW	P=DPPS Power Supply	E=<3% 2=<2% D=<1%

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