



# High Power CW DPSS Laser System DPW Series (SWIR)

Data Sheet



## Overview

The DPW SWIR series is a line of short-wavelength infrared diode pumped solid state (DPSS) lasers that can provide output power levels up to 13000 mW. The DPW laser series features a compact design, good beam quality, high power, long lifetime, easy operation, and FDA-compliant system with driver. The DPW 1910nm and 1990nm series laser is used in Ho: YAG laser pumping, medical, scientific research, etc. The DPW 1940nm series laser is used in measurement, communication, and spectrum analysis. The DPW 2096nm series laser is widely used in material processing, especially for plastics, and for pumping of laser sources for the mid-infrared region, medical procedures such as precise tissue ablation, ophthalmic surgery or dentistry, suppression of bleeding during operations, etc. The DPW 2796nm series laser is widely used in medical treatment, in which it can perform many procedures without a shot or a drill.

## Features

- Short-wavelength infrared wavelength spectral range
- CW operating mode
- Optical output power 200mW to 20000mW
- Ultra-compact design
- FDA compliant

## Applications

- Measurement
- Communication
- Spectrum analysis
- Material processing
- Medical procedures
- Medical treatment

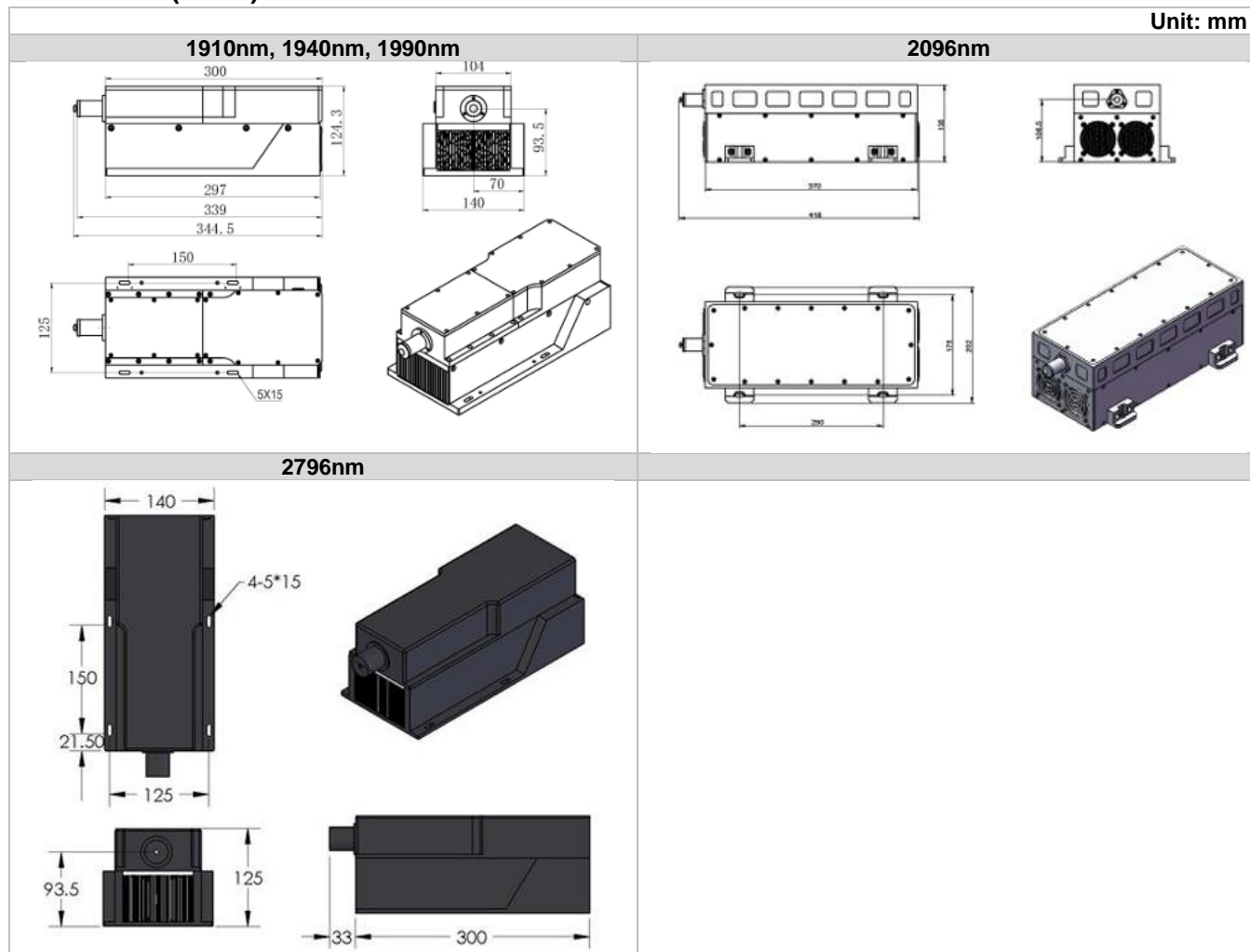
## 1910-2796 nm Specifications

Parameter	DPW1910	DPW1940	DPW1990	DPW2096	DPW2796
Wavelength	1910±4 nm	1940±2 nm	1990±3 nm	2096±6 nm	2796±3 nm
Output power	>1000 mW, >3000 mW, >5000 mW, >8000 mW, >10000 mW, >11000 mW, >13000 mW	>1000 mW, >3000 mW, >5000 mW, >8000 mW, >10000 mW, >11000 mW	>1000 mW, >3000 mW, >5000 mW, >8000 mW, >10000 mW, >11000 mW	>1000 mW, >2000 mW	>100 mW, >200 mW, >300 mW
Operating mode	CW	CW	CW	CW	CW
Transverse mode	Near TEM <sub>00</sub>	Near TEM <sub>00</sub>	Near TEM <sub>00</sub>	Near TEM <sub>00</sub>	Near TEM <sub>00</sub>
Power stability (rms, over 4 hours)	<5%, <3%	<5%, <3%	<5%, <3%	<3%	<5%, <3%
Beam diameter at aperture (1/e <sup>2</sup> )	<5 mm	<5 mm	<5 mm	<4 mm	<3 mm
Beam divergence, full angle	<8 mrad	<8 mrad	<8 mrad	<6 mrad	<8 mrad
Polarization ratio	>100:1	>100:1	>100:1	/	/
Warm-up time	<10 min	<10 min	<10 min	<10 min	<10 min
Operating temperature	15-30°C	10-35°C	10-35°C	15-30°C	15-30°C
Modulation option	TTL/Analog: 1Hz-1kHz, 1kHz-10kHz, 10kHz-30kHz			No	No
Expected lifetime	10,000 hours				
Warranty period	10 months				

## Remarks:

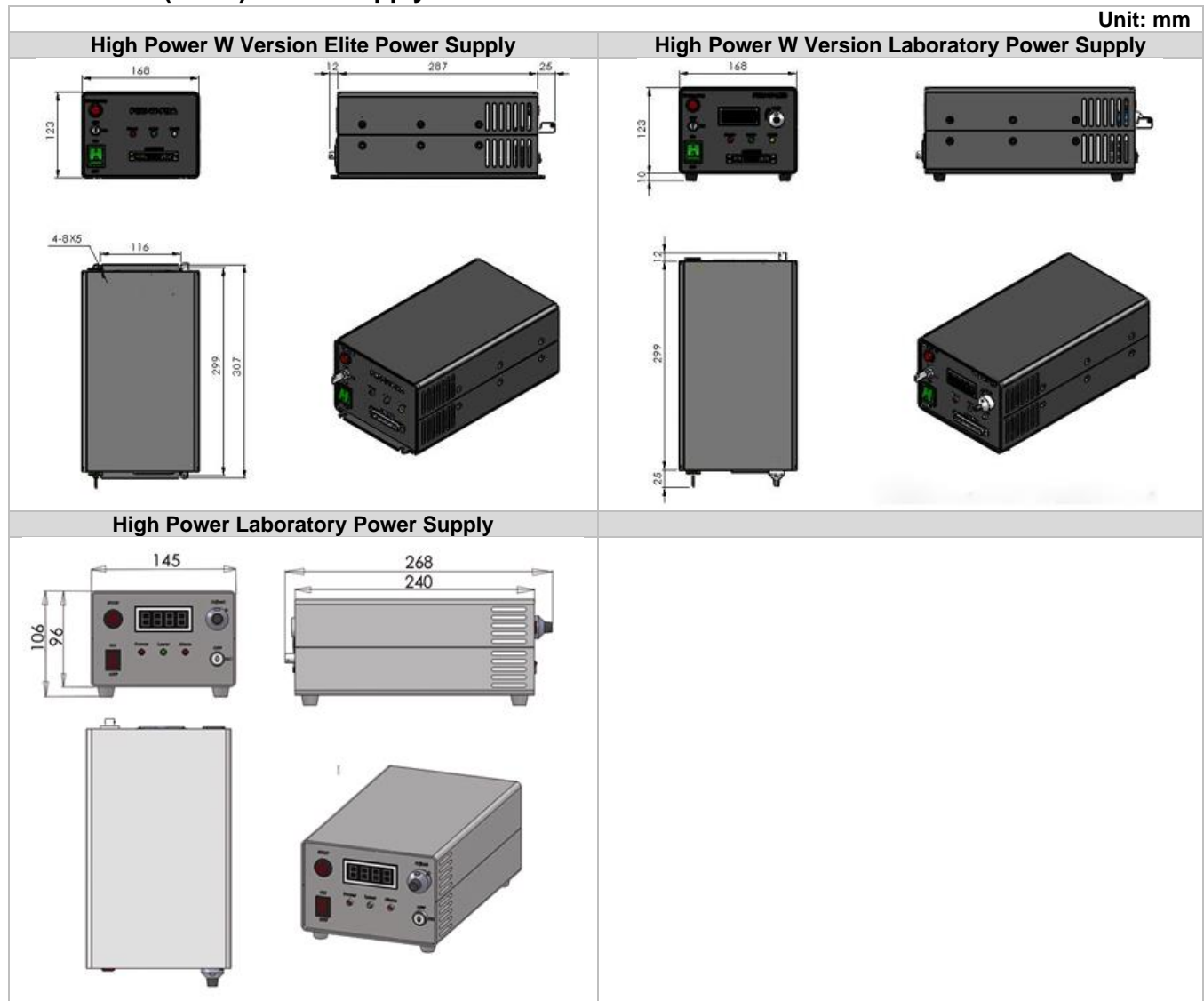
- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.

DPW Series (SWIR) Laser Head Dimensions



Parameter	1910nm, 1940nm, 1990nm	2096nm	2796nm
Dimensions	344.5(L)x140(W) x124.3(H) mm <sup>3</sup>	418(L)x202(W) x135(H) mm <sup>3</sup>	333(L)x140(W) x125(H) mm <sup>3</sup>
Weight	5.7 kg	9.5 kg	6.1 kg
Beam height from base plate	93.5 mm	108.5 mm	93.5 mm

DPW Series (SWIR) Power Supply Dimensions



Parameter	High Power W Version Elite Power Supply (1910, 1940, 1990, 2096 nm)	High Power W Version Laboratory Power Supply (1910, 1940, 1990, 2096 nm)	High Power Laboratory Power Supply (2796 nm)
Dimensions	307(L) x168(W) x123(H) mm <sup>3</sup>	336(L) x168(W) x133(H) mm <sup>3</sup>	268(L) x145(W) x106(H) mm <sup>3</sup>
Weight	4.5 kg	4.6 kg	2.6 kg
Input voltage	90-264VAC	90-264VAC	90-264VAC
Feature	Standard	Adjustable power	Adjustable power

**Ordering Information**

For more information, please contact Lasermate directly at [sales@lasermate.com](mailto:sales@lasermate.com).

Part Number Configuration DPW[1][2][3][4][5]					
DPW = Laser Model Series	[1] = Wavelength	[2] = Output Power	[3] = Power Supply	[4] = Power Stability	[5] = Modulation
	1910= 1910nm 1940= 1940nm 1990= 1990nm 2096= 2096nm 2796= 2796nm	100= >100mW 200= >200mW 300= >300mW 1W= >1000mW 3W= >3000mW 5W= >5000mW 8W= >8000mW 10W= >10000mW 11W= >11000mW 13W= >13000mW	W= High Power W Version Elite Power Supply N= High Power W Version Laboratory Power Supply M= High Power Laboratory Power Supply	A=<5% E=<3%	0=None T1=TTL 1Hz-1kHz T2=TTL 1kHz-10kHz T3=10kHz-30kHz A1=Analog 1Hz- 1kHz A2=Analog 1kHz- 10kHz A3=10kHz-30kHz

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