CW Diode Laser System (Red)
DLMD Series

Data Sheet

Overview

The DLMD series is a family of visible red diode lasers that can deliver up to 1800 mW output power. The laser series features ultra-compact design, long operating lifetime, easy operation, and FDA-compliant system with driver. The DLMD series is widely used in measurement, spectrum analysis, laser lighting show, etc.

Features

- Visible red spectral wavelength range
- CW operating mode
- Optical output power 500mW to 1800mW
- Ultra-compact design
- FDA compliant

Applications

- Measurement
- Spectrum analysis
- Laser lighting show

637-642 nm Specifications

Parameter	DLMD637	DLMD640	DLMD642
Wavelength	637 nm	640 nm	642 nm
Wavelength tolerance	±5 nm	±5 nm	±5 nm
Output power	>500 mW, >1000 mW	>500 mW, >1000 mW	>500 mW, >1000 mW
Operating mode	CW	CW	CW
Power stability (rms, over 4 hours)	<2%, <1%	<2%, <1%	<2%, <1%
Polarization direction	Horizontal/Vertical	Horizontal/Vertical	Horizontal/Vertical
Beam diameter at aperture ($1/e^2$)	5.1x4.1 mm	5.1x4.1 mm	5.1x4.1 mm
Beam divergence, full angle	<1.0 mrad	<1.0 mrad	<1.0 mrad
Warm-up time	<5 min	<5 min	<5 min
Operating temperature	10-35°C	10-35°C	10-35°C
Modulation option	TTL/Analog: 1Hz-1kHz, 1kHz-10kHz, 10kHz-30kHz		
Expected lifetime	10,000 hours	10,000 hours	10,000 hours
Warranty period	10 months	10 months	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.

650-660 nm Specifications

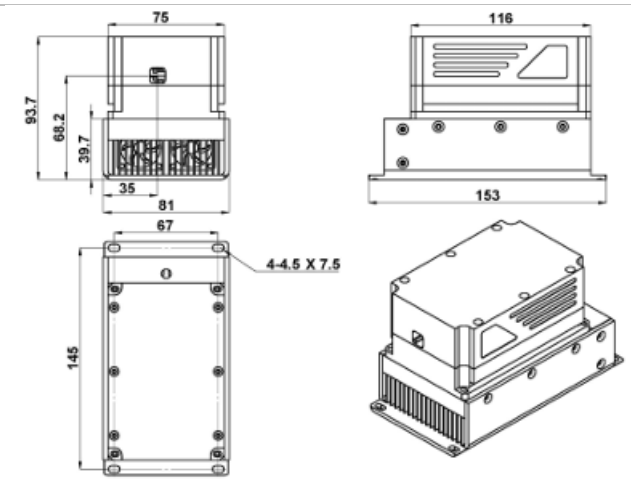
Parameter	DLMD650	DLMD655	DLMD660
Wavelength	650 nm	655 nm	660 nm
Wavelength tolerance	±10 nm	±10 nm	±5 nm
Output power	>1000 mW, >1800 mW	>1000 mW, >1800 mW	>1000 mW, >1800 mW
Operating mode	CW	CW	CW
Power stability (rms, over 4 hours)	<2%, <1%	<2%, <1%	<2%, <1%
Polarization direction	Horizontal + Vertical	Horizontal + Vertical	Horizontal + Vertical
Beam diameter at aperture ($1/e^2$)	~2x7 mm	~2x7 mm	~2x7 mm
Beam divergence, full angle	<4.7x4.0 mrad	<4.7x4.0 mrad	<4.7x4.0 mrad
Warm-up time	<5 min	<5 min	<5 min
Operating temperature	10-35°C	10-35°C	10-35°C
Modulation option	TTL/Analog: 1Hz-1kHz, 1kHz-10kHz, 10kHz-30kHz		
Expected lifetime	10,000 hours	10,000 hours	10,000 hours
Warranty period	10 months	10 months	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.

DLMD Series Laser Head Dimensions

Unit: mm

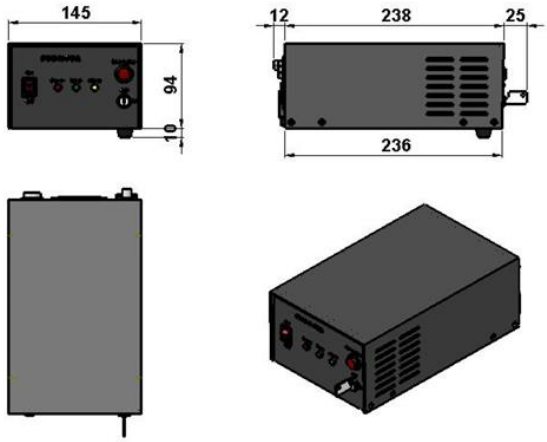


Parameter	DLMD Series
Dimensions	153(L)×81W) ×93.7(H) mm^3
Weight	1.8 kg
Beam height from base plate	68.2 mm

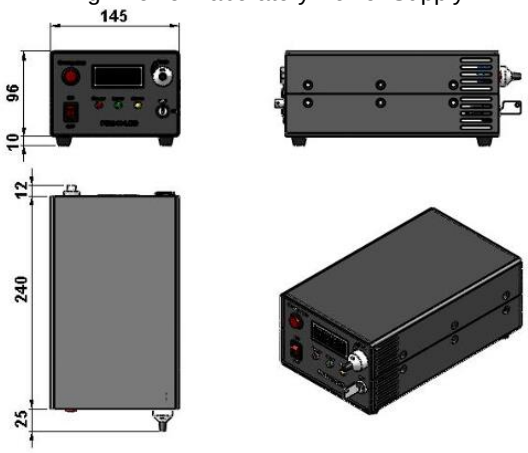
DLMD Series Power Supply Dimensions

Unit: mm

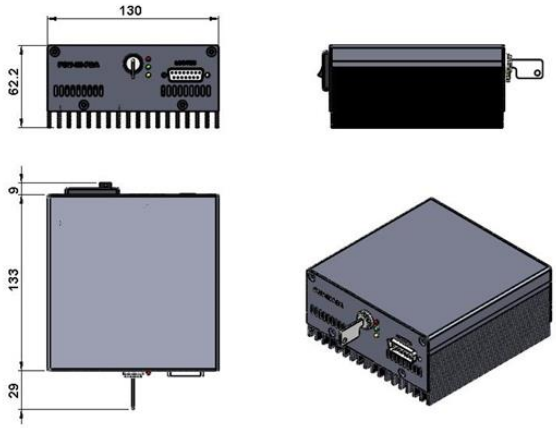
High Power Elite Power Supply



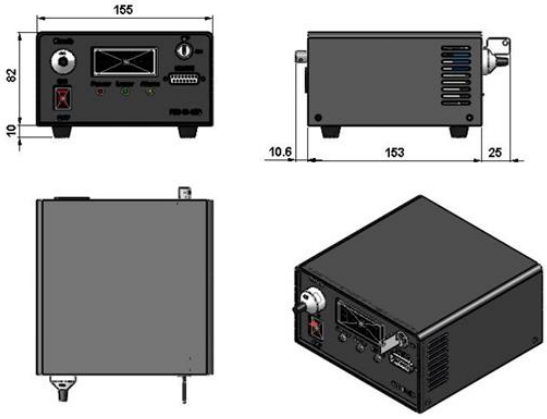
High Power Laboratory Power Supply



Elite Power Supply



Laboratory Power Supply



Parameter	High Power Elite Power Supply (637, 640, 642 nm)	High Power Laboratory Power Supply (637, 640, 642 nm)	Elite Power Supply (650, 655, 660 nm)	Laboratory Power Supply (650, 655, 660 nm)
Dimensions	275(L) ×145(W) ×104(H) mm^3	277(L) ×145(W) ×106(H) mm^3	171(L) ×130(W) ×62.2(H) mm^3	188.6(L) ×155(W) ×92(H) mm^3
Weight	2.1 kg	2.3 kg	1.2 kg	1.5 kg
Input voltage	100-240VAC	100-240VAC	85-264VAC	85-264VAC
Feature	Standard	Adjustable power	Standard	Adjustable power

Ordering Information

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

Part Number Configuration DLMD[1][2][3][4][5][6]						
DLMD = Laser Model Series	**[1] = Wavelength**	**[2] = Output Power**	**[3] = Power Supply**	**[4] = Power Stability**	**[5] = Modulation**	**[6] = Polarization Direction**
		500= >500mW 1W= >1000mW 1E= >1800mW	H=High Power Elite Power Supply M=High Power Laboratory Power Supply E=Elite Power Supply L=Laboratory Power Supply	2=<2% D=<1%	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	H=Horizontal V=Vertical M=Horizontal + Vertical

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