



375nm-940nm Laser Diode Modules with Shutter

DLXS Series



Overview

The Lasermate DLXS series laser diode module is available in a wide range of wavelengths from 375nm to 940nm. The diode laser features integrated electronics, shutter for protection, built-in TEC cooler, Automatic Current Control (ACC) circuit design, plug and play, good beam profile, miniaturization, international standard interface and optional TTL or Analog modulation. The laser is the ideal solution for a wide range of applications, including life sciences, environmental monitoring, inspection, and machine vision.

Features

- Wide range of wavelengths from 375nm to 940nm (375nm, 405nm, 450nm, 520nm, 637nm, 655nm, 660nm, 785nm, 808nm, 915nm, 940nm)
- Shutter as a safety feature for protection
- Built-in TEC cooler
- ACC circuit design
- Optional TTL or Analog modulation

Applications

- Life sciences
- Environmental monitoring
- Inspection
- Machine vision

Specifications

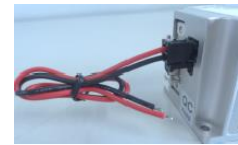
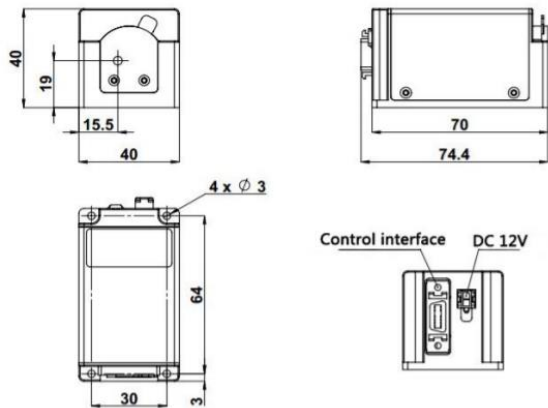
Model Number	DLXS- W -PFIDQ	
Wavelength (nm)	Ultraviolet: 375±5 (W=375); Blue: 405±5 (W=405), 450±5 (W=450); Green: 520±5 (W=520); Red: 637±5 (W=637), 655±5 (W=655), 660±5 (W=600); Infrared: 785±5 (W=785), 808±5 (W=808), 915±5 (W=915), 940±5 (W=940)	
Output power (mW)	For 375nm: >30 (P=30), >50 (P=50); For 405nm: >50 (P=50), >100 (P=100), >200 (P=200); For 450nm: >30 (P=30); For 520nm: >20 (P=20), >50 (P=50); For 637nm: >50 (P=50), >100 (P=100); For 642nm: >50 (P=50), >100 (P=100); For 655nm: >50 (P=50), >80 (P=80); For 660nm: >50 (P=50), >80 (P=80); For 785nm: >50 (P=50); For 808nm: >50 (P=50); For 915nm: >50 (P=50), >100 (P=100); For 940nm: >50 (P=50), >100 (P=100);	
Transverse mode	Near TEM ₀₀	
Operating mode	CW	
Power stability (rms, over 4 hours)	<1%	
Noise of amplitude (rms, 20Hz-20MHz)	<1%	
M ² factor	For 375nm, 785nm, 808nm, 915nm, 940nm: <1.5; For 405nm, 450nm, 520nm, 637nm, 642nm, 655nm, 660nm: <1.2	
Beam diameter at aperture (1/e ² , mm)	~1.2	
Beam divergence, full angle (mrad)	<1.0	
Polarization ratio	For 375nm: >10:1, Horizontal ±5 degree; For 405nm, 450nm, 520nm, 637nm, 642nm, 655nm, 660nm: >50:1, Horizontal ±5 degree	
Warm-up time (minutes)	<5	
Beam height from base plate (mm)	19	
Operating temperature (°C)	10~35	
Laser module	Dimensions	74.4(L) x40(W) x40(H) mm ³
	Weight	0.2 kg
Operating voltage	12VDC 4A	
Modulation	None	None (Q=0)
	TTL	1Hz-1kHz (Q=T1), 1kHz-10kHz (Q=T2), 10kHz-30kHz (Q=T3), 30kHz-100kHz (Q=T4), 100kHz-300kHz (Q=T5), 300kHz-500kHz (Q=T6), 500kHz-1MHz (Q=T7)
	Analog	1Hz-1kHz (Q=A1), 1kHz-10kHz (Q=A2), 10kHz-30kHz (Q=A3), 30kHz-100kHz (Q=A4)
Optional AC adapter (Part No. AC12DC)	Input voltage	100-240VAC
	Dimensions	121(L) x50(W) x30.8(H) mm ³
	Weight	0.3 kg
Expected lifetime (hours)	10,000	
Warranty	10 months	

Remarks:

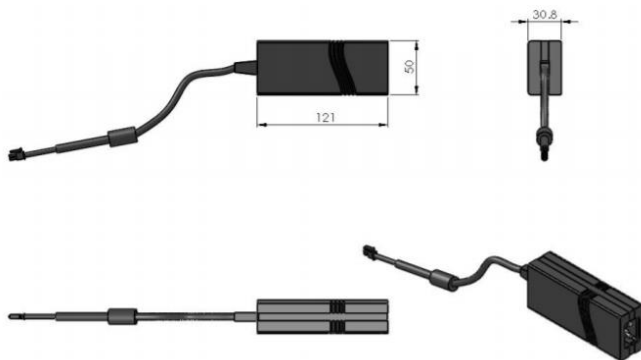
1. The stability of output power may change when you adjust the output power.
2. The laser head needs to be used on a heat sink with good heat dissipation.

Outline Dimensions (unit: mm)

Laser Module



Optional AC Adaptor (Part No. AC12DC)



Additional Notes

- The DLXS series laser modules are designated solely as OEM components for incorporation into the customer's end products. Therefore, it is the customer's responsibility to comply with the appropriate requirements of FDA 21CFR, section 1040.10 and 1040.11 for complete laser products. For the code of FDA regulations, please refer to [FDA Performance Standards for Light-Emitting Products](#) for detailed information.
- Additional heat sink may be needed if the laser module is operated continuously for a long period of time.
- Specifications are subject to change without notice.



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