



## DL785 Series 785nm Diode Laser System up to 2500mW

### Overview

The DL785 series diode laser is ideal for applications that require a wavelength of 785nm and output power levels up to 2500mW. The laser features a compact design, long operating lifetime, easy operation, and FDA-compliant system with driver. The laser is widely used in measurement, spectrum analysis, and many other applications.



### Specifications

Model Number	DL785H-XYPQ		DL785R-XYPQ		DLR785-XYPQ
Wavelength (nm)	785±5		785±10		785±10
Output power (mW)	>50 (X=50), >100 (X=100)		>100 (X=100)	>100 (X=100)	>500 (X=500), >1000 (X=1W), >2000 (X=2W), >2500 (X=2H)
Transverse mode	Near TEM <sub>00</sub>		Round		Round
Operating mode	CW		CW		CW
Power stability (rms, over 4 hours)	<1% (P=D), <0.5% (P=S)		<1% (P=D)		<1% (P=D), <0.5% (P=S)
M <sup>2</sup> factor	<1.5		~2.0		~2.0
Beam diameter at aperture (1/e <sup>2</sup> , mm)	~4		~10		~10
Beam divergence, full angle (mrad)	<1		~2.0	~2.0	<3.0
Polarization ratio	>50:1 Horizontal ±5 degree		-		-
Warm-up time (minutes)	<5		<5		<5
Pointing stability after warm-up (mrad)	<0.05		-		-
Beam height from base plate (mm)	24.8		24.8		24.8
Operating temperature (°C)	10-35		10-35		10-35
Dimensions of laser head (mm)	143.5(L)×73(W) ×46.2(H)		143.5(L)×73(W) ×46.2(H)		146(L)×73(W) ×46.2(H)
Weight of laser head (kg)	0.7 kg		0.7 kg		0.7 kg
Power supply options					
Elite Power Supply (Y=E)	Input voltage	85-264VAC			
	Dimensions	171(L) ×130(W) ×62.2(H) mm <sup>3</sup>			
	Weight	1.2 kg			
	Notes	Fixed output power, frequency 1Hz-30kHz			
Laboratory Power Supply (Y=L)	Input voltage	85-264VAC			
	Dimensions	188.6(L) ×155(W) ×92(H) mm <sup>3</sup>			
	Weight	1.5 kg			
	Notes	Adjustable output power, frequency 1Hz-30kHz			
A Version Laboratory Power Supply (Y=T)	Input voltage	100-240VAC			
	Dimensions	162(L) ×144(W) ×70(H) mm <sup>3</sup>			
	Weight	1.0 kg			
	Notes	Adjustable output power, LCD display, frequency 30kHz-100kHz			
Modulation option		None (Q=0)			
	TTL	1Hz-1kHz (Q=T1), 1kHz-10kHz (Q=T2), 10kHz-30kHz (Q=T3), 30kHz-100kHz (Q=T4)			
	Analog	1Hz-1kHz (Q=A1), 1kHz-10kHz (Q=A2), 10kHz-30kHz (Q=A3), 30kHz-100kHz (Q=A4)			
Expected lifetime (hours)	10,000				
Warranty period	10 months				
FDA Compliance	FDA CDRH Title 21 CFR 1040.10/11 Class IIIb	FDA CDRH Title 21 CFR 1040.10/11 Class IIIb	FDA CDRH Title 21 CFR 1040.10/11 Class IIIb	FDA CDRH Title 21 CFR 1040.10/11 Class IV	FDA CDRH Title 21 CFR 1040.10/11 Class IV

### Remarks:

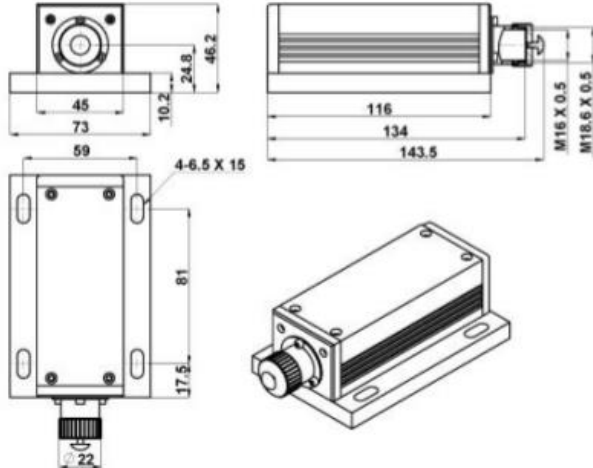
- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.



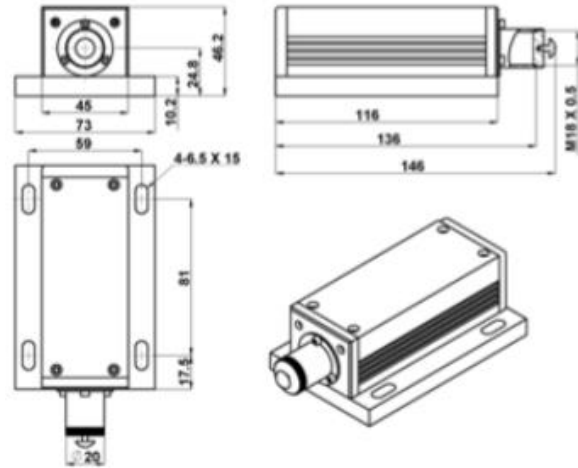
**Outline Dimensions (unit: mm)**

**Laser Head**

For DL785H and DL785R

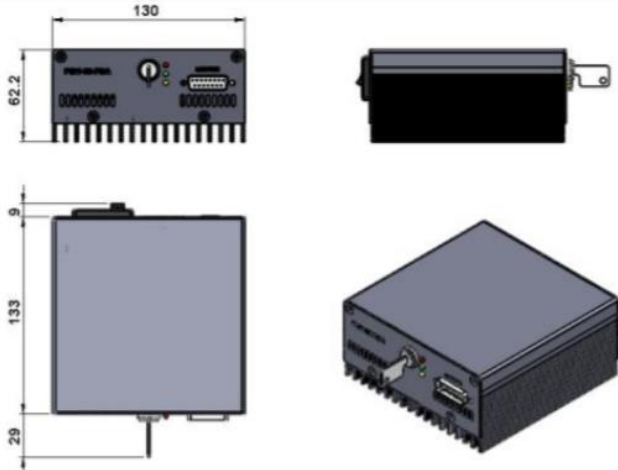


For DL785

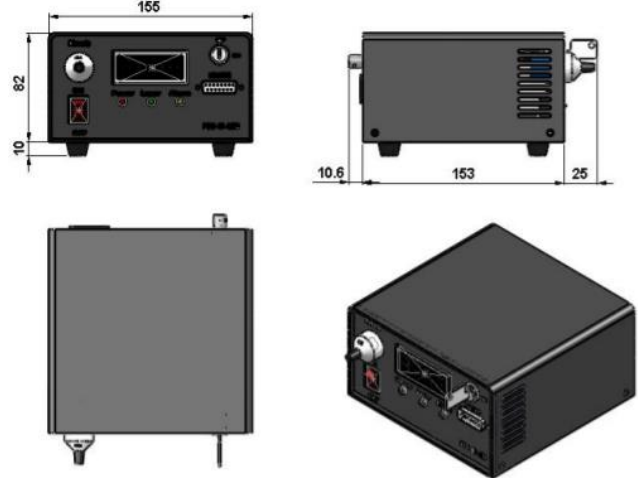


**Power Supply Options**

Elite Power Supply (Y=E)



Laboratory Power Supply (Y=L)



A Version Laboratory Power Supply (Y=T)



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