

# **Laserglow Product Datasheet**

# LLD-0885 Low-Noise Collimated Diode Laser System



# **Series Specifications:**

Nominal Wavelength	885 nm
Output Type	CW
Laser Source Type	Diode

#### Overview:

The LLD-0885 Series of Low-Noise Collimated Diode Lasers are ideal for applications requiring less than 1% noise and output power levels from 100 mW to 1500 mW. These 885 nm NIR lasers maintain a high level of long-term output power stability and long operating lifetime at an aggressively competitive cost.

These lasers are commonly used for fluorescence excitation, PIV, Raman Spectroscopy, and a broad spectrum of other applications. The driver is available as a complete FDA-compliant system or as an O.E.M. component with significantly reduced dimensions.

Laserglow products are currently being used by some of the World's top universities and other prominent research facilities.

#### **Key Features:**

- 1% optical noise (20 Hz-20 MHz)
- · Air cooled no need for water cooling or external chiller
- Lightweight, compact design
- Efficient DPSS technology runs on standard AC power (85 264 V, 47 63 Hz)
- >10,000 hours continuous maintenance-free operating life
- FDA CDRH Compliant Class IIIb / Class IV enclosure
- 48-hour replacement coverage available for an additional fee on specific models

#### Package Includes:

- · Laser Head
- Driver/Power Supply
- Power Cable
- BNC Connector (LabSpec models only)
- Keys, Safety Interlock
- · Hard-shell Carrying Case

## Specifications:

This spec sheet has been generated specifically for part number J88-R, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to J88-R have been highlighted below in red + bold.

Output Power (mW)	>100, >200, >500, >1000, >1500
Output Power Stability (%RMS/4h)	<1, <3
Central Wavelength (nm)	885
Wavelength Tolerance (+/- nm)	5
Divergence (mrad, full angle)	<3
Beam Dimensions (mm, 1/e²)	5x8
Warm-up Time (minutes)	5
Optical Noise Amplitude (%RMS @ 20 Hz - 20 MHz)	<1
M²	<20
Polarization Ratio	>50
Beam Pointing Stability (mrad)	<0.05
Operating Temperature Range (°C)	10 to 35
Max. Analog Modulation Freq. (Hz)	30000
Max. TTL Modulation Freq. (Hz)	30000
Modulation Input Signal	0-5 VDC
Max. Power Input Duty Cycle	100%
Standard Warranty (months)	12
MTTF (operational hours)	10000
Weight of Product or Laser Head (kg)	0.6
Beam Height from Base Plate (mm)	24.8
Dimensions of Product or Laser Head (mm)	140.7 (l) x 73 (w) x 46.2 (h)

CW: All specifications are based on performance at full output power and after the specified warmup period. Output characteristics may change if the laser is run at a different power level.

Q-Switched: Specifications are based on the laser pulsing at the specified design frequency. Output characteristics may change if the laser is run at a different frequency.

### **Power Supply Options:**

These lasers are available with several different power supply options. The model that you have selected is highlighted below, and any other options are shown for easy reference.

	Power Supply Type:	FR
FDA-Compliant LabSpec	Input Power	85v to 264v
	Power Supply Weight (kg)	1.5
	Dimensions (mm)	154 (I) x 155 (w) x 95 (h)

<sup>\*</sup>Power supply may not be exactly as shown, see dimensional drawings on next 2 pages.

## **Regulatory Classification:**

The model you have selected (J88-R) requires the following safety label(s):



<sup>\*</sup>Dimensions for fiber-integrated (I\_) include laser head packaged inside.

# **Dimensional Drawing - Laser Form Factor: R:**



# **Dimensional Drawing - Power Supply Form Factor: FR:**



#### **Accessories:**

The most popular accessories for model J88-R are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

Part Number	Description	
AGFKTP59X	LSG-KTP-NF-6 Fit-Over Safety Goggles 532/808/1064nm Output: OD 6+ at 190-534/740-1064 nm CE Certified Full Details: www.laserglow.com/AGF	
AFF2002XX	Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length Full Details: <a href="https://www.laserglow.com/AFF">www.laserglow.com/AFF</a>	
AFS2002XX	Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length Full Details: <a href="https://www.laserglow.com/AFS">www.laserglow.com/AFS</a>	
ACFNIRHXA	FC/PC Fiber Coupler/Collimator for IR wavelengths (700 to 1000 nm) (installed and aligned) 11mm diameter input lens Full Details: <a href="https://www.laserglow.com/ACF">www.laserglow.com/ACF</a>	
ACSNIRHXA	SMA-905 Fiber Coupler/Collimator for IR wavelengths (700 to 1000nm) (installed and aligned) 11mm diameter input lens Full Details: <a href="https://www.laserglow.com/ACS">www.laserglow.com/ACS</a>	
ACALBMXXX	Carrying Case-102 Holds Lab/OEM M, R and S size, standard or LabSpec laser Full Details: <a href="https://www.laserglow.com/ACA">www.laserglow.com/ACA</a>	Included With Laser

## FOR MORE INFORMATION PLEASE CONTACT:

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E&OE: Data included in this sheet may be subject to change without notice.

Please confirm critical specifications with our staff prior to ordering.