

Laserglow Product Datasheet

LLD-0447 Low-Noise Collimated Diode Laser System

Laserglow Part Number: J4415B5FX

This model is listed as **inactive** in our product database. Stock may be limited, and availability is subject to change without notice.

Similar Products:

For information about the other lasers in this product family visit: http://www.laserglow.com/J44

Ordering:

Order Online Now or Request Quote: http://www.laserglow.com/J4415B5FX

Series Specifications:

Nominal Wavelength	447 nm
Output Type	CW
Laser Source Type	Diode



Overview:

The LLD-0447 Series of Low-Noise Collimated Diode Lasers are ideal for applications requiring less than 1% noise and output power levels from 5 mW to 3500 mW. These 447 nm 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 IIIa to Class IV enclosure
- 48-hour replacement coverage available for an additional fee on specific models

- 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 J4415B5FX, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to J4415B5FX have been highlighted below in red + bold.

Output Power (mW)	>30, >50, >80	>200, >500, >1000	>1500 , >2000, >3500	
Output Power Stability (%RMS/4h)	<1, <3	<1, <3	<1, <3, <mark><5</mark>	
Central Wavelength (nm)	447	447	447	
Wavelength Tolerance (+/- nm)	5	5	5	
Divergence (mrad, full angle)	<1	<2x1.6	<1.4x0.2	
Beam Dimensions (mm, 1/e ²)	2.5	2.5x5	2.7x2.7, 3.5x3.5	
Warm-up Time (minutes)	5	5	5	
Optical Noise Amplitude (%RMS @ 20 Hz - 20 MHz)	<1	<1	<1	
M²	<1.5	<5		
Polarization Ratio	>50		>50	
Operating Temperature Range (°C)	10 to 35	10 to 35	10 to 35	
Max. Analog Modulation Freq. (Hz)	30000	30000	30000	
Max. TTL Modulation Freq. (Hz)	30000	30000	30000	
Modulation Input Signal	0-5 VDC	0-5 VDC	0-5 VDC	
Total Power Consumption (W)	12			
Max. Power Input Duty Cycle	100%	100%	100%	
Standard Warranty (months)	12	12	12	
MTTF (operational hours)	10000	10000	10000	
Weight of Product or Laser Head (kg)	0.6	0.6	1.6	
Beam Height from Base Plate (mm)	24.8	24.8	45	
Dimensions of Product or Laser Head (mm)	140.7 (l) x 73 (w) x 46.2 (h)	140.7 (l) x 73 (w) x 46.2 (h)	211.5 (l) x 88 (w) x 74 (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.

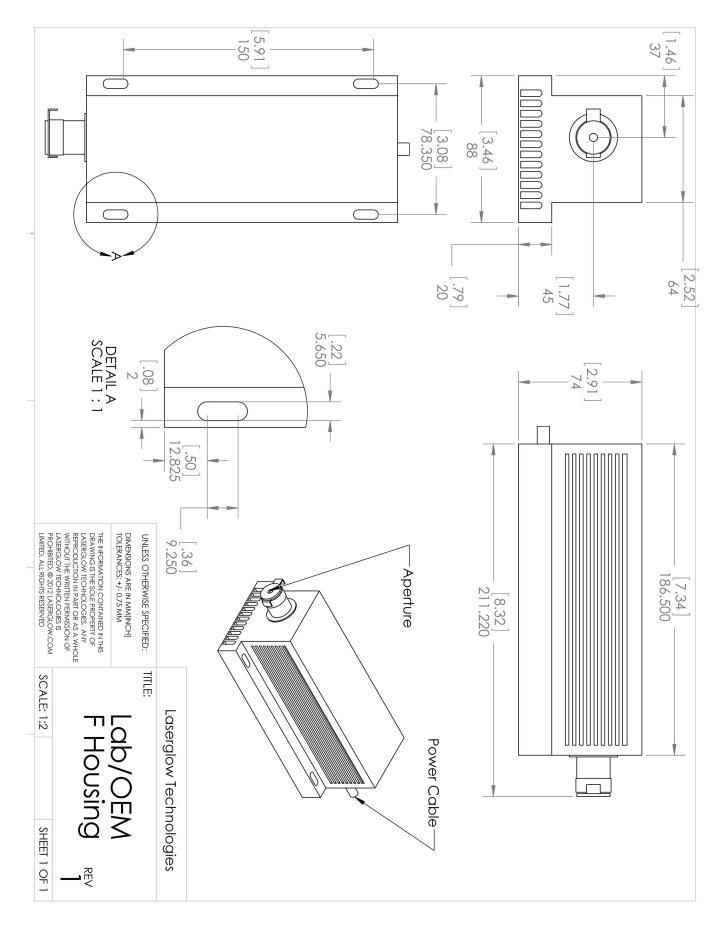
	Power Supply Type:	FR	FF
FDA-Compliant LabSpec	Input Power	85v to 264v	85v to 264v
	Power Supply Weight (kg)	1.5	2.6
and the second second	Dimensions (mm)	154 (l) x 155 (w) x 95 (h)	268 (l) x 145 (w) x 106 (h)

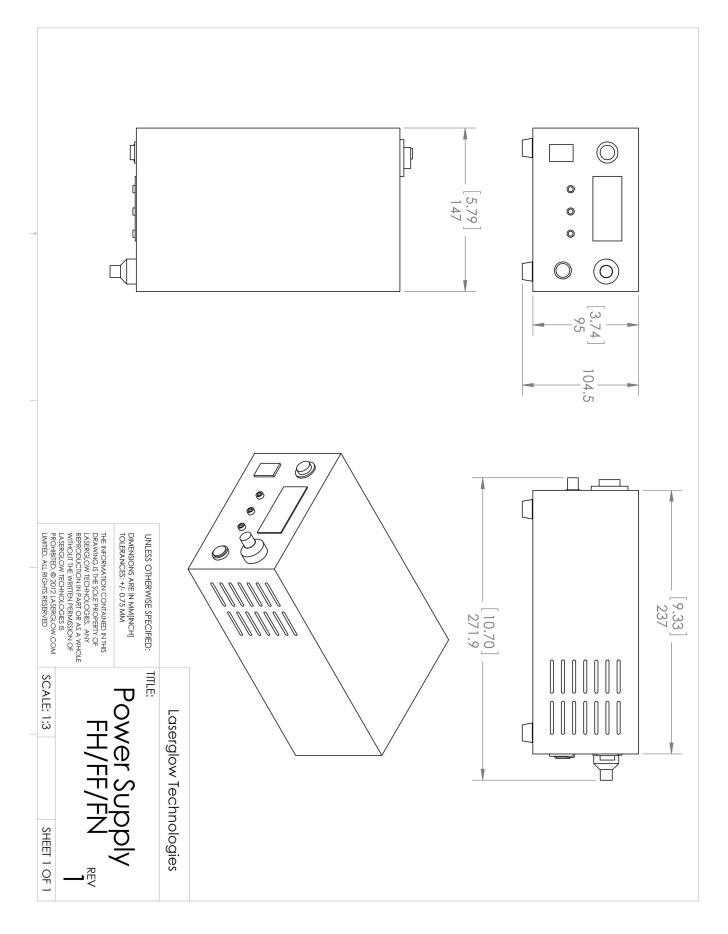
*Power supply may not be exactly as shown, see dimensional drawings on next 2 pages. *Dimensions for fiber-integrated (I_) include laser head packaged inside.

Regulatory Classification:

The model you have selected (J4415B5FX) requires the following safety label(s):







Accessories:

The most popular accessories for model J4415B5FX are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

Part Number	Description	
AFF2002XX	Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length Full Details: <u>www.laserglow.com/AFF</u>	
AFS2002XX	Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length Full Details: <u>www.laserglow.com/AFS</u>	
AGF5327XX	LSG-532-NF-7 Fit-Over Safety Goggles 532nm Output: OD 7+ at 190-532 nm CE Certified Full Details: www.laserglow.com/AGF	
ACSVISHXA	SMA-905 Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm) (installed and aligned) 11mm diameter input lens Full Details: www.laserglow.com/ACS	
ACFVISHXA	FC/PC Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm) (installed and aligned) 11mm diameter input lens Full Details: www.laserglow.com/ACF	
ACALBMXXX	Carrying Case-102 Holds Lab/OEM M, R and S size, standard or LabSpec laser Full Details: <u>www.laserglow.com/ACA</u>	Included With Laser

FOR MORE INFORMATION PLEASE CONTACT:

LASERGLOW TECHNOLOGIES 99 Ingram Dr. Unit B, North York, ON, Canada M6M2L7 Tel. (416) 729-7976 Fax (716) 322-3510 sales@laserglow.com www.laserglow.com

 $\ensuremath{\mathsf{E}\&\mathsf{OE}}$: Data included in this sheet may be subject to change without notice.

Please confirm critical specifications with our staff prior to ordering.