# Laserglow Product Datasheet

## LRS-1990 DPSS Laser System

## Laserglow Part Number: RJ82005FX




### Similar Products:

For information about the other lasers in this product family visit:

http://www.laserglow.com/RJ8

### Ordering:

Order Online Now or Request Quote:

http://www.laserglow.com/RJ82005FX

### Series Specifications:

| | |
|---|---|
| Nominal Wavelength | 1990 nm |
| Output Type | CW |
| Laser Source Type | DPSS |

### Overview:

The LRS-1990 Series of Diode-Pumped Solid-State (DPSS) Lasers are ideal for applications requiring 10 mW to 500 mW of 1990 nm laser light with a high level of long-term output power stability and long operating lifetime at an aggressively competitive cost.

These lasers are commonly used for various scientific applications such as measurement, communications research, spectral analysis, 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.

Available with both on-board and remote on/off control as well as a wide array of output power and stability levels, Laserglow products are currently being used by some of the World's top universities and other prominent research facilities.

**Key Features:**

- 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
- TTL and Analog modulation (input via BNC connector) *lab-spec models only*
- Adjustable output power (via lockable dial) *lab-spec models only*
- LED display showing LD current, laser cavity temperature *lab-spec models only*
- 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 RJ82005FX, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to RJ82005FX have been highlighted below in **red + bold**.

| | | |
|---|---|---|
| Output Power (mW) | >10, >50, >100, **>200** | >1000, >3000 |
| Output Power Stability (%RMS/4h) | <1, <3, **<5**, <10 | <3, <5, <10 |
| Central Wavelength (nm) | **1990** | 1990 |
| Wavelength Tolerance (+/- nm) | **2** | 5 |
| Divergence (mrad, full angle) | **<8** | <8 |
| Beam Dimensions (mm, 1/e²) | **4** | 4 |
| Warm-up Time (minutes) | **10** | 10 |
| $M^2$ | | <4 |
| Polarization Ratio | **>500** | >500 |
| Beam Pointing Stability (mrad) | **<0.05** | |
| Operating Temperature Range (°C) | **10 to 35** | 10 to 35 |
| Max. Analog Modulation Freq. (Hz) | **500** | 500 |
| Max. TTL Modulation Freq. (Hz) | **500**, 10000 | 500, 10000 |
| Modulation Input Signal | **0-5 VDC** | 0-5 VDC |
| Max. Power Input Duty Cycle | **100%** | 100% |
| Standard Warranty (months) | **12** | 12 |
| MTTF (operational hours) | **10000** | 10000 |
| Weight of Product or Laser Head (kg) | **1.6** | 6.1 |
| Beam Height from Base Plate (mm) | **45** | 93.5 |
| Dimensions of Product or Laser Head (mm) | **211.5 (l) x 88 (w) x 74 (h)** | 346 (l) x 140 (w) x 125 (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: | **FF** | **FW** |
|---|---|---|---|
| FDA-Compliant LabSpec  | Input Power | **85v to 264v** | 85v to 264v |
| | Power Supply Weight (kg) | **2.6** | 5.2 |
| | Dimensions (mm) | **268 (l) x 145 (w) x 106 (h)** | 307 (l) x 168 (w) x 123 (h) |

| | Power Supply Type: | **SF** | **SW** |
|---|---|---|---|
| FDA-Compliant Standard  | Input Power | 85v to 264v | 85v to 264v |
| | Power Supply Weight (kg) | 2.3 | 5.1 |
| | Dimensions (mm) | 238 (l) x 146 (w) x 102 (h) | 307 (l) x 168 (w) x 123 (h) |

*Power supply may not be exactly as shown, see dimensional drawings on next 2 pages.

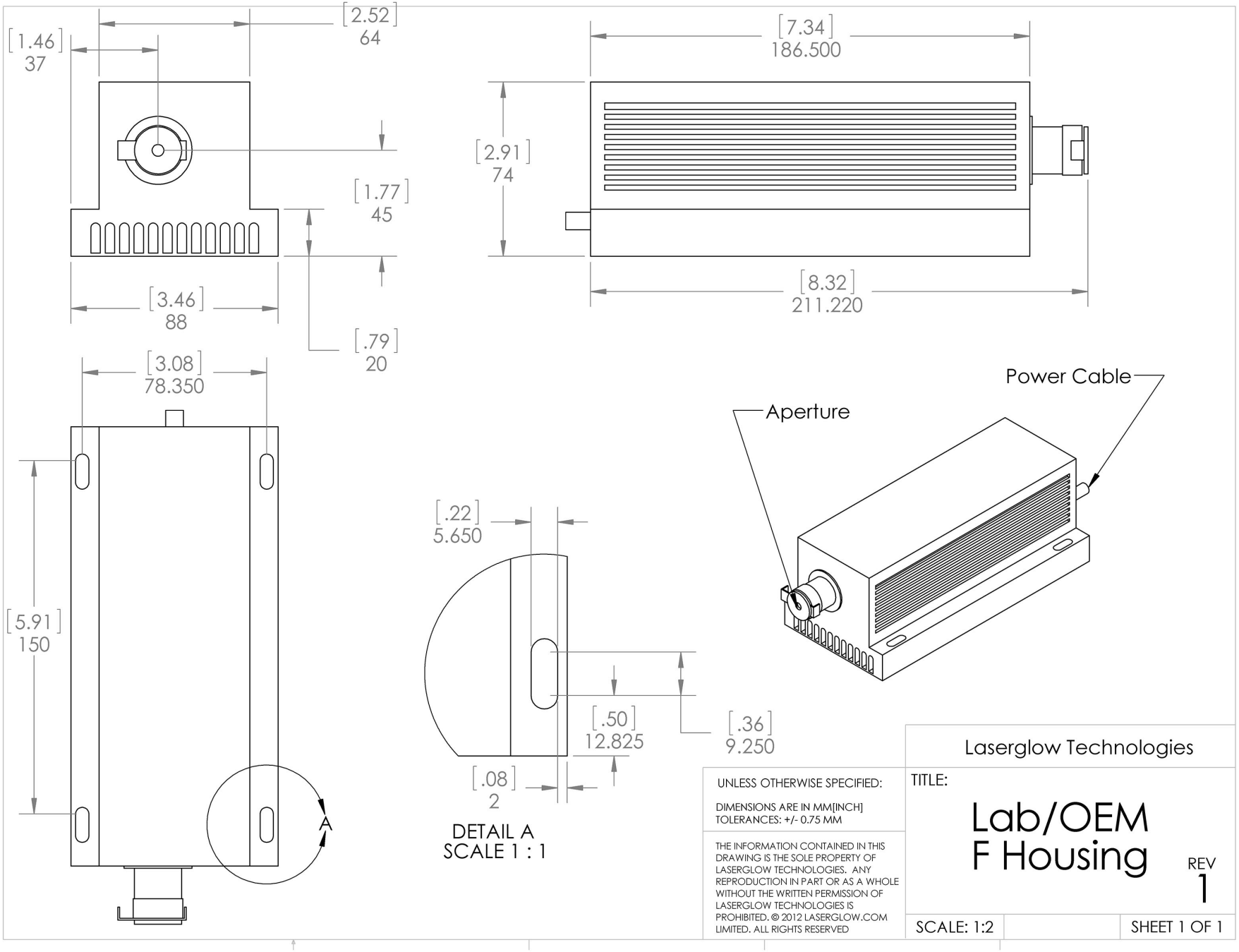
*Dimensions for fiber-integrated (I_) include laser head packaged inside.

## Regulatory Classification:

The model you have selected (RJ82005FX) requires the following safety label(s):



Dimensional Drawing - Laser Form Factor: F:




Laserglow Technologies

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN MM[INCH]
TOLERANCES: +/- 0.75 MM

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF LASERGLOW TECHNOLOGIES. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF LASERGLOW TECHNOLOGIES IS PROHIBITED. © 2012 LASERGLOW.COM LIMITED. ALL RIGHTS RESERVED

TITLE:

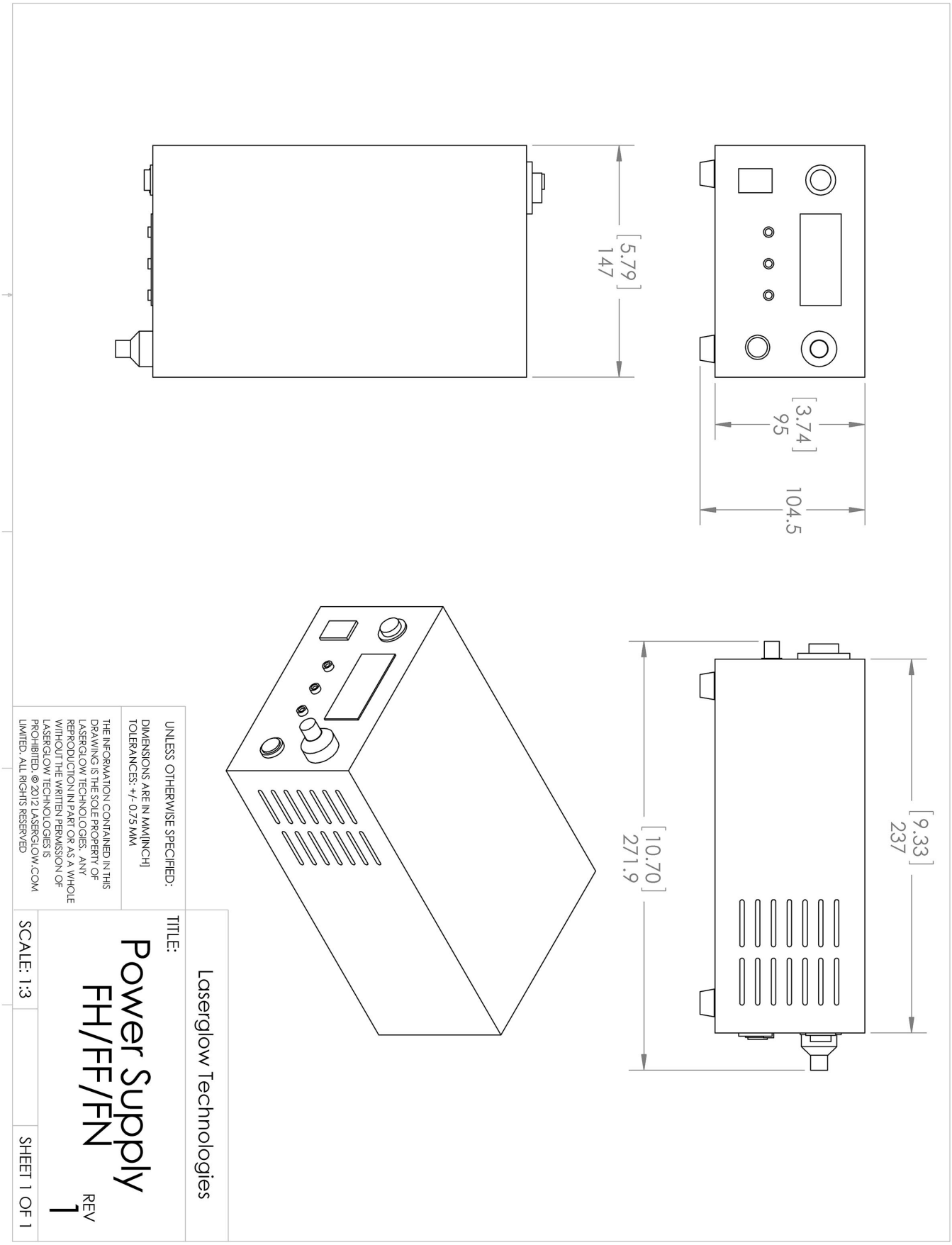
# Lab/OEM F Housing

REV 1

SCALE: 1:2

SHEET 1 OF 1

**Dimensional Drawing - Power Supply Form Factor: FF:**



## Accessories:

The most popular accessories for model RJ82005FX are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

| Part Number | Description | |
|---|---|---|
|  ACALBHFXX | Carrying Case-103<br>Holds Lab/OEM H, F and O size Standard/LabSpec laser<br>Full Details: www.laserglow.com/ACA | Included With Laser |
|  AGFMIR4XX | LSG-MIR-NF-4 Fit-Over Safety Goggles Mid-IR Range<br>Output: OD 4+ at 945-10600 nm<br>CE Certified<br>Full Details: www.laserglow.com/AGF | |

## 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

E&OE: Data included in this sheet may be subject to change without notice.
Please confirm critical specifications with our staff prior to ordering.