

# **Laserglow Product Datasheet**

# LRS-1112 DPSS Laser System



# Series Specifications:

Nominal Wavelength	1112 nm
Output Type	CW
Laser Source Type	DPSS

#### **Overview:**

The LRS-1112 Series of Diode-Pumped Solid-State (DPSS) Lasers are ideal for applications requiring 20 mW to 500 mW of 1112 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 RB1-H, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to RB1-H have been highlighted below in red + bold.

Output Power (mW)	>20, >50, >100	>200, >500	
Output Power Stability (%RMS/4h)	<3, <5, <10	<3, <5, <10	
Central Wavelength (nm)	1112	1112	
Wavelength Tolerance (+/- nm)	3	3	
Divergence (mrad, full angle)	<1.5	<2	
Beam Dimensions (mm, 1/e <sup>2</sup> )	1.5	3	
Warm-up Time (minutes)	10	10	
M <sup>2</sup>	<1.5	<2	
Polarization Ratio	>100		
Beam Pointing Stability (mrad)	<0.05	<0.05	
Operating Temperature Range (°C)	10 to 35	10 to 35	
Max. Analog Modulation Freq. (Hz)	500	30000	
Max. TTL Modulation Freq. (Hz)	500	500, 30000	
Modulation Input Signal	0-5 VDC	0-5 VDC	
Total Power Consumption (W)	22, 30, 35	35	
Max. Power Input Duty Cycle	100%	100%	
Standard Warranty (months)	12	12	
MTTF (operational hours)	10000	10000	
Weight of Product or Laser Head (kg)	0.6	0.9	
Beam Height from Base Plate (mm)	24.8	29	
Dimensions of Product or Laser Head (mm)	140.8 (l) x 73 (w) x 46.2 (h)	155 (l) x 77 (w) x 60 (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:	FM	FH
FDA-Compliant LabSpec	Input Power	85v to 264v	85v to 264v
	Power Supply Weight (kg)	1.5	2.6
	Dimensions (mm)	154 (l) x 155 (w) x 95 (h)	268 (l) x 145 (w) x 106 (h)

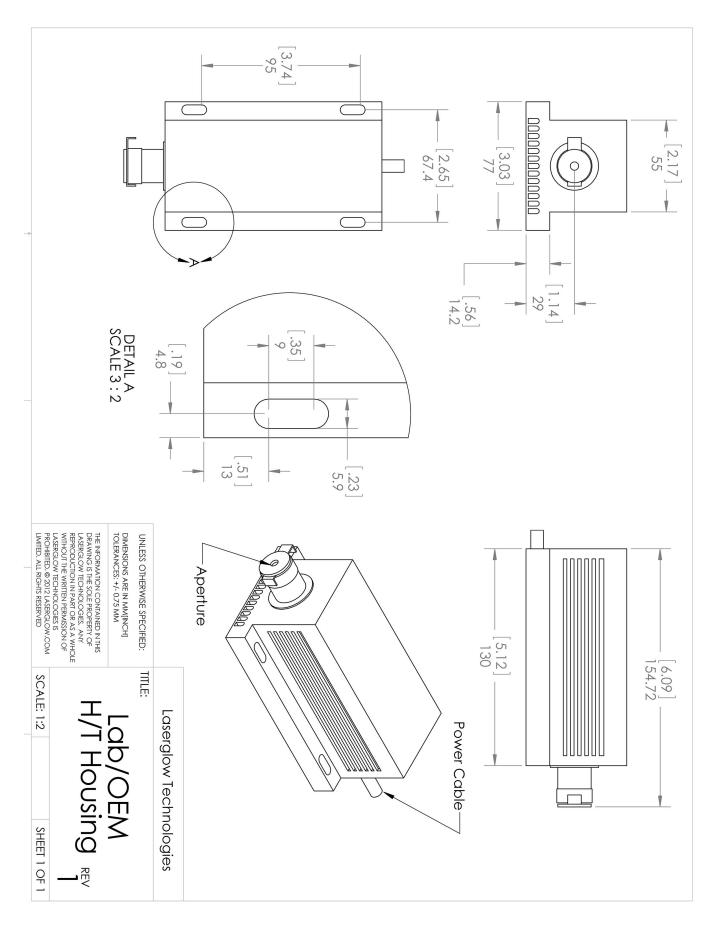
	Power Supply Type:	SM	SH
FDA-Compliant Standard	Input Power	85v to 264v	85v to 264v
	Power Supply Weight (kg)	1.2	2.3
	Dimensions (mm)	133 (l) x 130 (w) x 65 (h)	238 (l) x 146 (w) x 102 (h)

\*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.

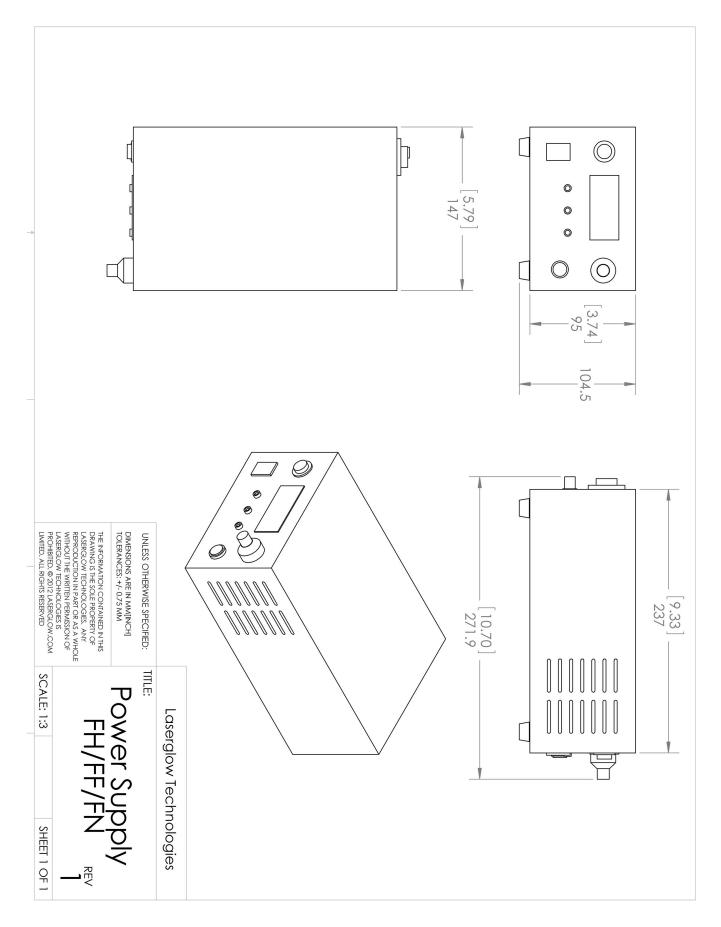
## **Regulatory Classification:**

The model you have selected (RB1-H) requires the following safety label(s):









#### Accessories:

The most popular accessories for model RB1-H are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

Part Number	Description	
ACFMIRHXA	FC/PC Fiber Coupler/Collimator for IR wavelengths (1000 to 1300 nm) (installed and aligned) 11mm diameter input lens Full Details: www.laserglow.com/ACF	
ACSMIRHXA	SMA-905 Fiber Coupler/Collimator for IR wavelengths (1000 to 1300 nm) (installed and aligned) 11mm diameter input lens Full Details: www.laserglow.com/ACS	
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
AFS2002XX	Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length Full Details: <u>www.laserglow.com/AFS</u>	
AFF2002XX	Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length Full Details: <u>www.laserglow.com/AFF</u>	
AGFMIR4XX	LSG-MIR-NF-4 Fit-Over Safety Goggles Mid-IR Range Output: OD 4+ at 945-10600 nm CE Certified Full Details: www.laserglow.com/AGF	
TBK	Complete optics kits with breadboard mounting hardware. External modulators, variable attenuators, free-space fiber launch systems Full Details: <u>www.laserglow.com/TBK</u>	

#### 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.