

Arktis Laser Product Datasheet

LRS-0480 DPSS Laser System



Series Specifications:

| | |
|--------------------|--------|
| Nominal Wavelength | 480 nm |
| Output Type | CW |
| Laser Source Type | DPSS |

Overview:

The LRS-0480 Series of Diode-Pumped Solid-State (DPSS) Lasers are ideal for applications which specifically require 480 nm light with power levels from 5 mW to >150 mW.

These lasers are commonly used for fluorescence excitation, Raman Spectroscopy and a broad range 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 TTL and Analog modulation, and in 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
- 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 R48-N, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to R48-N have been highlighted below in **red + bold**.


| | |
|--|----------------------------------|
| Output Power (mW) | >50, >100, >150 |
| Output Power Stability (%RMS/4h) | <3, <5 |
| Wavelength Tolerance (+/- nm) | 1 |
| Divergence (mrad, full angle) | <1.5 |
| Beam Dimensions (mm, 1/e ²) | 3 |
| Warm-up Time (minutes) | 10 |
| Polarization Ratio | >100 |
| 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) | 2.6 |
| Beam Height from Base Plate (mm) | 68.2 |
| Dimensions of Product or Laser Head (mm) | 240 (l) x 99 (w) x 94 (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.

| | | |
|--|--------------------------|------------------------------------|
| <div>FDA-Compliant LabSpec</div>  | Power Supply Type: | FN |
| | Input Power | 85v to 264v |
| | Power Supply Weight (kg) | 2.6 |
| | Dimensions (mm) | 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 (R48-N) requires the following safety label(s):



Dimensional Drawing - Laser Form Factor: N:










Dimensional Drawing - Power Supply Form Factor: FN:



Accessories:

The most popular accessories for model R48-N 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: www.arktislaser.com/AFF | |
|  AFS2002XX | Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length Full Details: www.arktislaser.com/AFS | |
|  AGF5327XX | LSG-532-NF-7 Fit-Over Safety Goggles 532nm Output: OD 7+ at 190-532 nm CE Certified Full Details: www.arktislaser.com/AGF | |
|  ACFVISHXA | FC/PC Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm) (installed and aligned) 11mm diameter input lens Full Details: www.arktislaser.com/ACF | |
|  ACSVISHXA | SMA-905 Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm) (installed and aligned) 11mm diameter input lens Full Details: www.arktislaser.com/ACS | |
|  TBK | Complete optics kits with breadboard mounting hardware. External modulators, variable attenuators, free-space fiber launch systems Full Details: www.arktislaser.com/TBK | |
|  ACALBNWXX | Carrying Case-104 Holds Lab/OEM N or W size Standard/Labspec laser Full Details: www.arktislaser.com/ACA | 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.