

Arktis Laser Product Datasheet

LRS-1940 DPSS Laser System



Series Specifications:

| | |
|--------------------|---------|
| Nominal Wavelength | 1940 nm |
| Output Type | CW |
| Laser Source Type | DPSS |

Overview:

The LRS-1940 Series of Diode-Pumped Solid-State (DPSS) Lasers are ideal for applications requiring 10 mW to 500 mW of 1940 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 IIb / 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 RJ4-F, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to RJ4-F have been highlighted below in **red + bold**.


| | |
|--|---|
| Output Power (mW) | >10, >50, >100, >200 |
| Output Power Stability (%RMS/4h) | <1, <3, <5, <10 |
| Central Wavelength (nm) | 1940 |
| Wavelength Tolerance (+/- nm) | 1 |
| Divergence (mrad, full angle) | <8 |
| Beam Dimensions (mm, 1/e ²) | 4 |
| Warm-up Time (minutes) | 10 |
| Polarization Ratio | >500 |
| Beam Pointing Stability (mrad) | <0.05 |
| Operating Temperature Range (°C) | 10 to 35 |
| Max. Analog Modulation Freq. (Hz) | 500 |
| Max. TTL Modulation Freq. (Hz) | 500, 10000 |
| 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) | 1.6 |
| Beam Height from Base Plate (mm) | 45 |
| Dimensions of Product or Laser Head (mm) | 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: | FF |
| | Input Power | 85v to 264v |
| | Power Supply Weight (kg) | 2.6 |
| | Dimensions (mm) | 268 (l) x 145 (w) x 106 (h) |

| | | |
|---|--------------------------|-----------------------------|
|  | Power Supply Type: | SF |
| | Input Power | 85v to 264v |
| | Power Supply Weight (kg) | 2.3 |
| | Dimensions (mm) | 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 (RJ4-F) requires the following safety label(s):



Dimensional Drawing - Laser Form Factor: F:





Dimensional Drawing - Power Supply Form Factor: FF:



Accessories:

The most popular accessories for model RJ4-F 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 Holds Lab/OEM H, F and O size Standard/LabSpec laser Full Details: www.arktislaser.com/ACA | Included With Laser |
|  AGFMIR4XX | LSG-MIR-NF-4 Fit-Over Safety Goggles Mid-IR Range Output: OD 4+ at 945-10600 nm CE Certified Full Details: www.arktislaser.com/AGF | |

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.