

Laserglow Product Datasheet

LID-1470 Enhanced Beam Profile Diode Laser System

Laserglow Part Number: IE71003FX

Similar Products:

For information about the other lasers in this product family visit: http://www.laserglow.com/IE7

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Series Specifications:

| Nominal Wavelength | 1470 nm |
|--------------------|---------|
| Output Type | CW |
| Laser Source Type | Diode |



Overview:

The LID-1470 Series of Enhanced Profile Collimated Diode (Semiconductor) Lasers are ideal for applications requiring a better beam profile than the standard 1470 nm diode laser. This series is available in a range of output power levels of 50 mW to 150 mW with high power stability and long operating lifetime.

These lasers are commonly used for various scientific applications involving biological research as well as PIV, 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.

Key Features:

- Round, homogeneous, flat-top transverse beam profile
- Air cooled no need for water cooling or external chiller
- · Lightweight, compact design
- Efficient Diode Laser technology runs on standard AC power (85 264 V, 47 63 Hz)
- >10,000 hours continuous maintenance-free operating life
- 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 IE71003FX, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to IE71003FX have been highlighted below in red + bold.

| Output Power (mW) | >50, >100 , >120 |
|--|----------------------------------|
| Output Power Stability (%RMS/4h) | <1, <mark><3</mark> , <5, <10 |
| Central Wavelength (nm) | 1470 |
| Wavelength Tolerance (+/- nm) | 10 |
| Divergence (mrad, full angle) | <8 |
| Beam Dimensions (mm, 1/e ²) | 2 |
| Warm-up Time (minutes) | 5 |
| Beam Pointing Stability (mrad) | <0.05 |
| Operating Temperature Range (°C) | 10 to 35 |
| Max. Analog Modulation Freq. (Hz) | 30000 |
| Max. TTL Modulation Freq. (Hz) | 10000, 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) | 0.6 |
| Beam Height from Base Plate (mm) | 24.8 |
| Dimensions of Product or Laser Head (mm) | 140.7 (l) x 73 (w) x 46.2 (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 |
|-----------------------|-----------------------------|-------------------------------|
| FDA-Compliant LabSpec | Input Power | 85v to 264v |
| | Power Supply Weight (kg) | 1.5 |
| | Dimensions (mm) | 154 (l) x 155 (w) x 95 (h) |

| | Power Supply Type: | SR |
|------------------------|-----------------------------|-------------------------------|
| FDA-Compliant Standard | Input Power | 85v to 264v |
| - F | Power Supply Weight (kg) | 1.2 |
| | Dimensions (mm) | 133 (l) x 130 (w) x 65 (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 (IE71003FX) requires the following safety label(s):







Dimensional Drawing - Power Supply Form Factor: FR:



Accessories:

The most popular accessories for model IE71003FX are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

| Part Number | Description | |
|-------------|---|---------------------|
| 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 |
| 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 | |

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.