

### **Laserglow Product Datasheet**

# LRD-0750 Collimated Diode Laser System

## Laserglow Part Number: D750505FX

This model is listed as **inactive** in our product database. Stock may be limited, and availability is subject to change without notice.

#### **Similar Products:**

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

http://www.laserglow.com/D75

#### Ordering:

Order Online Now or Request Quote:

http://www.laserglow.com/D750505FX

#### **Series Specifications:**

| Nominal Wavelength | 750 nm |
|--------------------|--------|
| Output Type        | CW     |
| Laser Source Type  | Diode  |



#### Overview:

The LRD-0750 Series of Collimated Diode (Semiconductor) Lasers are ideal for applications requiring a wavelength of 750 nm and a wide range of output power levels of 10 mW to 5000 mW 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 communications research as well as scientific applications involving spectral analysis, biology research, 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 onboard 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 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 D750505FX, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to D750505FX have been highlighted below in **red + bold**.

| Output Dower (5514/)                           | E0 - 100 - 200 - E00 - 1000 - 1500 - 2000             | - 2000 - 4000 - E000      |  |
|--|---|---------------------------|--|
| Output Power (mW)                              | <b>&gt;50</b> , >100, >300, >500, >1000, >1500, >2000 | >3000, >4000, >5000       |  |
| Output Power<br>Stability (%RMS/4h)            | <1, <3, <5  |                           |  |
| Central Wavelength (nm)                        | 750   | 750                       |  |
| Wavelength<br>Tolerance (+/- nm)               | 5   | 5                         |  |
| Divergence (mrad, full angle)                  | ح3  | <3                        |  |
| Beam Dimensions (mm, 1/e²)                     | 5x8   | 5x8                       |  |
| Warm-up Time (minutes)                         | 5   | 5                         |  |
| Polarization Ratio                             | >50   |                           |  |
| Operating<br>Temperature Range<br>(°C)         | 10 to 35  | 10 to 35                  |  |
| Max. Analog<br>Modulation Freq.<br>(Hz)        | 30000   | 30000                     |  |
| Max. TTL<br>Modulation Freq.<br>(Hz)           | 30000   | 30000                     |  |
| Modulation Input<br>Signal                     | 0-5 VDC   | 0-5 VDC                   |  |
| Total Power<br>Consumption (W)                 | 40  |                           |  |
| Max. Power Input<br>Duty Cycle                 | 100%  | 100%                      |  |
| Standard Warranty (months)                     | 12  | 12                        |  |
| MTTF (operational hours)                       | 10000   | 10000                     |  |
| Weight of Product or<br>Laser Head (kg)        | 0.6   | 0.9                       |  |
| Beam Height from<br>Base Plate (mm)            | 24.8  | 29                        |  |
| Dimensions of<br>Product or Laser<br>Head (mm) | 140.7 (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:          | FR                            | FT                             |
|-----------------------|-----------------------------|-------------------------------|--------------------------------|
| FDA-Compliant LabSpec | Input Power                 | 85v to 264v                   | 85v to 264v                    |
|                       | Power Supply<br>Weight (kg) | 1.5                           | 2.6                            |
|                       | Dimensions (mm)             | 154 (I) x 155 (w) x<br>95 (h) | 268 (l) x 145 (w) x<br>106 (h) |

<sup>\*</sup>Power supply may not be exactly as shown, see dimensional drawings on next 2 pages.

#### **Regulatory Classification:**

The model you have selected (D750505FX) requires the following safety label(s):



<sup>\*</sup>Dimensions for fiber-integrated (I\_) include laser head packaged inside.

#### **Dimensional Drawing - Laser Form Factor: R:**



#### **Dimensional Drawing - Power Supply Form Factor: FR:**



#### **Accessories:**

The most popular accessories for model D750505FX are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

| Part Number | Description  |                     |
|-------------|--|---------------------|
| ACFNIRHXA   | FC/PC Fiber Coupler/Collimator for IR wavelengths (700 to 1000 nm) (installed and aligned) 11mm diameter input lens Full Details: <a href="https://www.laserglow.com/ACF">www.laserglow.com/ACF</a>  |                     |
| ACALBMXXX   | Carrying Case-102 Holds Lab/OEM M, R and S size, standard or LabSpec laser Full Details: <a href="https://www.laserglow.com/ACA">www.laserglow.com/ACA</a>   | Included With Laser |
| AFS2002XX   | Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length Full Details: <a href="https://www.laserglow.com/AFS">www.laserglow.com/AFS</a>  |                     |
| AFF2002XX   | Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length Full Details: <a href="https://www.laserglow.com/AFF">www.laserglow.com/AFF</a>   |                     |
| AGFKTP59X   | LSG-KTP-NF-6 Fit-Over Safety Goggles 532/808/1064nm Output: OD 6+ at 190-534/740-1064 nm CE Certified Full Details: www.laserglow.com/AGF  |                     |
| ACSNIRHXA   | SMA-905 Fiber Coupler/Collimator for IR wavelengths (700 to 1000nm) (installed and aligned) 11mm diameter input lens Full Details: <a href="https://www.laserglow.com/ACS">www.laserglow.com/ACS</a> |                     |

#### 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.