



Offered by  
**LASER LAB SOURCE**

manufactured by **AeroDIODE**

## 980nm Diode Laser Source, 70W CW Multi-Mode Output



### 980NM 70W LASER DIODE SOURCE

- o Output Power: 70 W
- o Turn-Key, USB-Connected Operation
- o Spectral Width (FWHM): 6 nm
- o SMA Fiber Termination

## CW LASER SOURCE SYSTEM -- 980LD-5-4-2 / LASER-DIODE / CCM1

This 70 Watt, 980nm, CW source system is built around a highly reliable fiber-coupled laser diode. The system is preconfigured and pretested, and is delivered ready-to-run.

The CCM1 laser source system features closed-case construction: the laser, heat-sink, and controller electronics are contained in an enclosed case to help protect the laser diode and direct the cooling air from the automatic fan. The source system is easily operated using the included GUI over USB interface, and multiple systems can be operated by the same computer.

### LASER DIODE CONTROLLER SPECIFICATIONS

- Current Range: 0 - 21 Amps
- Compliance Voltage Range: 0 - 36 Volts
- Current Stability: < 0.05%
- Laser Diode Set-Point Adjustment Resolution: 0.05 Amps
- Max. Modulation Rate: 100 kHz

### TEC CONTROLLER

- Temperature Control Range (typ): 15 - 40°C
- Temperature Stability (typ): 10 mK
- TEC Power: > 150 Watts

### MODULATION SPECIFICATIONS

- Pulse Duration: 10  $\mu$ s to CW (External Source)
- Trigger: External Only
- Externally Adjustable CW Offset in Pulse Mode

### USER INTERFACE AND POWER INPUT

- USB with GUI Software
- Includes Control Software Libraries : DLLs, Hexa, Labview VI
- Power Supply \*: 24 VDC (input 110/230 VAC, 50/60 Hz)
- \* Power Supply Not Included. Inquire for Recommendations.

### DIMENSIONS

- 238 mm x 146 mm x 142.5 mm

### LASER OUTPUT SPECIFICATIONS

- Wavelength: 976nm ( $\pm$  3 nm)
- Spectral Width: 6 nm
- Output Power: 70 W

### Calibrated and Tested CW Laser Diode Source

Armored Fiber Jacket, SMA Fiber Termination  
Integrated Closed-Case Construction  
Multi-Mode Fiber-Coupled Output  
Adjustable Output Power



## 980NM MULTIMODE FIBER-COUPLED LASER DIODE

These lasers deliver up to 70 Watts of CW output power. The typical emission bandwidth is 6 nm, and the laser is coupled to multimode 105  $\mu\text{m}$  fiber with  $\text{NA} = 0.22$ .

The specifications below are for the laser diode module that is integrated into the controller.

### OPTICAL SPECIFICATIONS

- Wavelength: 976 nm ( $\pm 3$  nm)
- Emission Bandwidth: 6 nm
- CW Output Power: 70 W
- Wavelength Shift w Temperature: 0.2 nm/ $^{\circ}\text{C}$
- Wavelength shift w Current: 1 nm/A
- Feedback Isolation: >30 dB from 1020 - 1200 nm

### ELECTRICAL SPECIFICATIONS

- Threshold Current: 0.9 A
- Typical Drive Current: 12 A
- Typical Forward Voltage: 11 V
- Slope Efficiency: 6.5 W / A
- \* For operating currents above 6 Amps, the electrical connections must be soldered.

### FIBER SPECIFICATIONS

- Fiber Core: 105  $\mu\text{m}$ , NA 0.22
- Clad Diameter: 125  $\mu\text{m}$
- Buffer / Tube Diameter: 245/900  $\mu\text{m}$
- Min Bend Radius: 37.5 mm
- Connector: SMA 905



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## **PRODUCT SALES AND SERVICE:**

Orders for this product are fulfilled by Laser Lab Source in North America and select international regions. It is manufactured by Aerodiode, Talence, France.

## **PRODUCT WARRANTY:**

This product is sold with a full one-year warranty. It is warranted to be free from defects in material and/or workmanship for a period of one year from the date of shipment.



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