



Offered by
LASER LAB SOURCE

manufactured by **AeroDIODE**

976nm VBG Stabilized Laser Diode, 10W Fiber-Coupled Output Turn-Key Source System



976NM VOLUME BRAGG GRATING STABILIZED LASER DIODE SOURCE

- o Output Power: 10 W
- o Spectral Width (FWHM): < 0.7nm
- o Turn-Key Laser System, Tested and Calibrated
- o 105 μ m Fiber Core
- o SMA Connector Fiber Termination

CW LASER SOURCE SYSTEM -- 976LD-3-4-2 / LASER-DIODE / CCM1

This 10 Watt, 976nm, CW source system is built around a highly reliable, volume Bragg grating-stabilized 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 - 13 Amps
- Compliance Voltage Range: 0 - 23 Volts
- Current Stability: $\pm 0.05\%$
- 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 μ 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 119 mm x 112 mm

LASER OUTPUT SPECIFICATIONS

- Wavelength: 976 nm (± 0.5 nm)
- Spectral Width: <0.7 nm
- Output Power: 10 W
- Fiber: 105 μ m, NA 0.22

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



976NM MULTIMODE FIBER-COUPLED LASER DIODE

These lasers deliver up to 10 Watts of CW output power. The typical emission bandwidth is < 0.7 nm, and the laser is coupled to multimode 105 μm fiber with $\text{NA} = 0.22$.

OPTICAL AND ELECTRICAL SPECIFICATIONS

- Wavelength: 976 nm (± 0.5 nm)
- Emission Bandwidth: ~ 0.7 nm
- CW Output Power Range: up to 10 Watts
- Wavelength Shift w Temperature: 0.02 nm/ $^{\circ}\text{C}$
- Feedback Isolation: > 30 dB (1020 nm to 1200 nm)
- Slope Efficiency: 0.9 W/A

ELECTRICAL SPECIFICATIONS

- Threshold Current: 0.9 A
- Forward Current: 13 A *
- Forward Voltage: 1.6 V
- * For operating currents above 6 Amps, the electrical connections must be soldered.



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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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