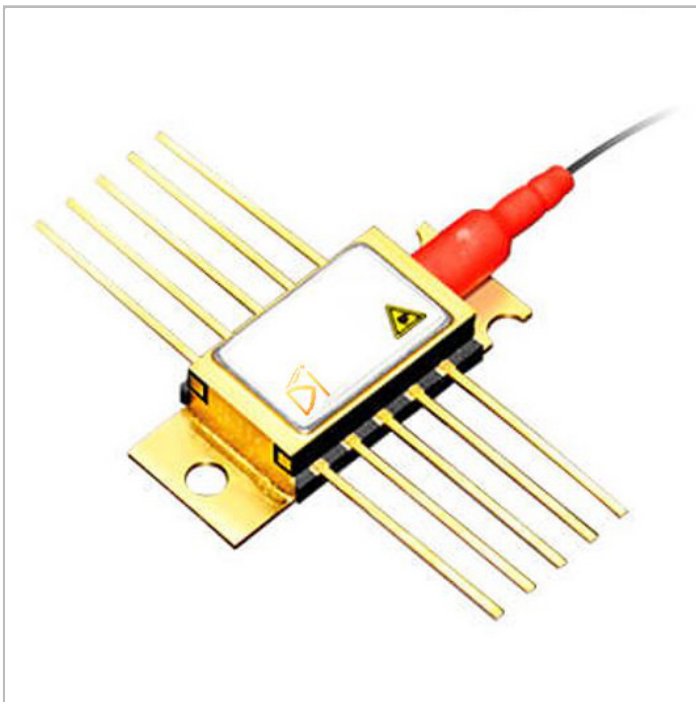




Offered by  
**LASER LAB SOURCE**

manufactured by **AeroDiODE**

## 1064nm CW Laser Source System, 500mW Output Fiber-Bragg Grating Stabilized, PM Fiber



### 1064NM CW LASER DIODE SOURCE FIBER-BRAGG GRATING STABILIZED

- o Output Power (CW mode): 500 mW
- o Spectral Width (FWHM): 2 nm (CW)
- o 10-Pin Butterfly Package
- o SM98-PS-U25D-H or Nufern PM980 Fiber

## CW LASER SOURCE SYSTEM -- 1064LD-3-1-1 / LASER-DIODE / CCS-CW

The 1064nm CW laser diode source system is built around the fiber-Bragg grating stabilized laser diode. This preconfigured, pretested CW source system is delivered ready-to-use and delivers up to 500mW optical output power from polarization-maintaining fiber.

The CCS-CW laser diode controller and mounting module provides precision control of the drive current and the laser temperature. The controller system is operated by the included graphical user interface over USB, and allows several source systems to be controlled at the same time.

### 1064NM CW LASER DIODE OPTICAL OUTPUT SPECIFICATIONS

- Center Wavelength: 1064nm ( $\pm$  2nm)
- CW Output Power (typ): 500mW

### PULSED AND CW ELECTRONICS SPECIFICATIONS

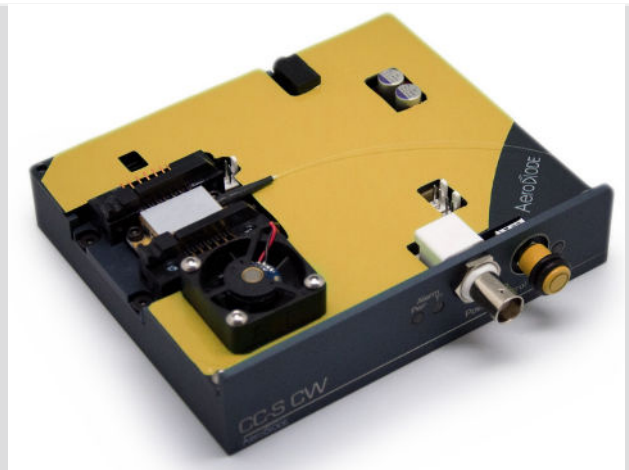
- Output Current CW Mode: 0.00 mA - 800.00 mA
- Output Voltage Maximum: 4.8 Volts
- Current Noise and Ripple (100Hz to 10 MHz): < 0.03% of Full Scale
- Current Set-point Resolution @ 500mA: 0.1mA
- Current Set-point Resolution @ 1000mA: 0.3mA

### TEMPERATURE CONTROLLER & MOUNTING SOCKET SPECIFICATIONS

- TEC Current Range: 0.0 - 1.5 Amps
- TEC Voltage Range: 0.0 - 3.8 Volts
- TEC Controller Compatible with NTC Thermistors: 1k $\Omega$  - 100 k $\Omega$
- Mounting Socket Base Material: Anodized Aluminum
- Mounting Socket Technology<sup>2</sup>: Zero Insertion Force Socket

### USER INTERFACE , DIMENSIONS AND POWER INPUT

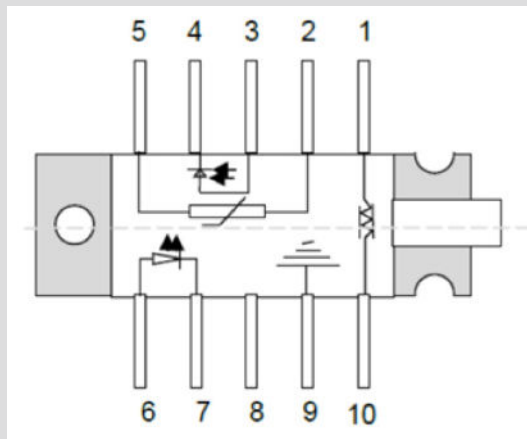
- Current Adjustment through Side Panel Control Knob or USB
- Remote Interface: USB
- Control Software: Control Software Windows GUI Included
- Input Power Supply: 12 VDC (220V/110V adapter included)
- Module Dimensions: 130 mm (W) x 126.8 mm (L) x 32.5 mm (H)
- Libraries: DLLs - Hexa/Linux - Labview - Python
- Analog Interface (0 - 3.3V): Peak Power Adjustment
- OS Compatibility: Windows XP / Windows 7



## 1064NM GRATING STABILIZED BUTTERFLY LASER DIODE

These diode lasers employ a Fabry-Perot cavity laser and fiber Bragg grating to provide a 2nm linewidth up to 650mW CW output power and 2000mW in pulsed mode. The high stability makes them an excellent choice for sensing, spectroscopy, metrology, telecom, and atomic physics research applications.

These laser diodes are offered in a 10-pin butterfly package with a polarization-maintaining fiber pigtail. They have an integrated thermo-electric cooler, an internal 10 kΩ thermistor, and an internal monitor photodiode. The package is electrically floating relative to ground, offering flexibility in mounting and control of the laser.



Pin	Description	Pin	Description
1	TEC (+)	6	Laser anode (+)
2	Thermistor	7	Laser cathode (-)
3	Monitor anode (-)	8	NC
4	Monitor cathode (+)	9	Package ground
5	Thermistor	10	TEC (-)



## OPTICAL AND ELECTRICAL SPECIFICATIONS

- Wavelength: 1064 nm ( $\pm$  2 nm)
- Pulsed Output Power: 2000 mW
- CW Output Power: 650 mW
- Threshold Current: 30 mA
- Operating Current: 350 mA
- Operating Voltage: 2.0 V



## FIBER PIGTAIL

- PM fiber: SM98-PS-U25D-H or Nufern PM980
- Mode Field Diameter: 6  $\mu$ m
- Buffer Diameter: 250  $\mu$ m
- Fiber Termination: Ferrule



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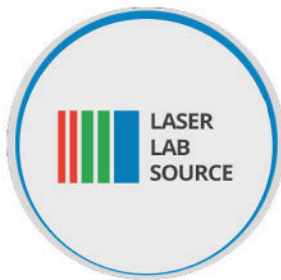
manufactured by **AeroDIODE**

## **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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