



976nm Pretested and Calibrated CW Source System Grating Stabilized Fabry-Perot 1000mW Laser Diode

976LD-2-1-1 / LASER-DIODE / CCS-CW

- o CW Output Power: 1000 mW
- o Bare-Fiber Termination (Inquire for FC/APC Connector on Request)
- o Pre-wired 14-Pin Butterfly Mount
- o Integrated Temperature Controller
- o Remote Control via USB; Libraries available at no charge: LabVIEW VIs, Hexa, Python, DLLs
- o User-Replaceable Laser Diode





LASER DIODE INTEGRATED WITH LOW-NOISE LASER DIODE CONTROLLER

These 976nm grating stabilized Fabry-Perot laser source & CW control modules offer the user a pre-configured, calibrated bench top source solution.

The control electronics and mounting module for these laser diodes delivers high stability bias current, a precision TEC controller, and a pre-configured ZIF mounting socket. The TEC controller incorporates a fast-feedback PID control loop to provide high stability temperature control, which also helps to maintain a stable wavelength. These control modules provide multiple mechanical, thermal, and electronic protection features to protect the laser diode and ensure long operating lifetime.

The temperature limit keeps the source from thermal damage, and can be adjusted via the graphical user interface. A user controlled current limit clamps the current at the set limit level. Additionally, multiple bias current / voltage protection features are designed to keep the source safe from ESD, power outages and reverse voltage.

LASER DIODE CW OPTICAL OUTPUT SPECIFICATIONS

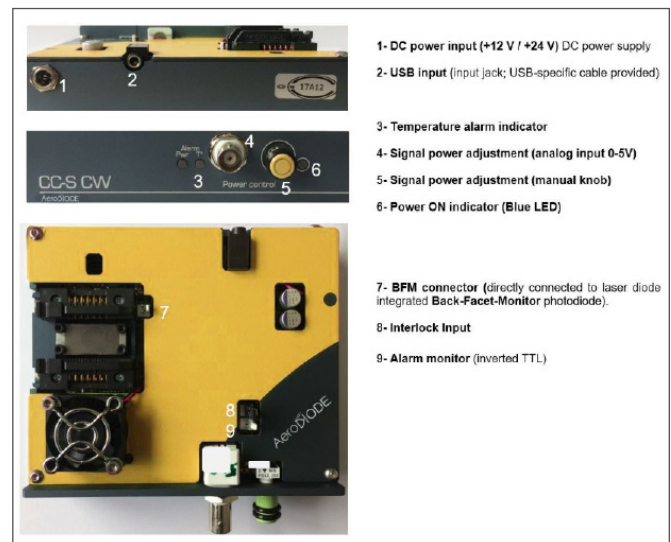
- Nominal operating power (min): 1000 mW CW
- Center Wavelength: 976.0 nm (± 0.5 nm)
- Wavelength Tuning vs Temperature: 0.02 nm / °C
- Spectral Width @ -3 dB (FWHM, max): < 0.1 nm
- Power in Band: > 90%

LASER DRIVER SPECIFICATIONS

- Output Current CW Mode: 0.00 mA - 1500.00 mA
- Output Compliance Voltage: 5 Volts
- Current Noise and Ripple (100Hz to 10 MHz): < 0.03% of Full Scale
- Current Set-point Resolution: 25 μ A (@ 100 mA)
- External Modulation Bandwidth: 100 Hz
- External Modulation Signal: 0 - 5 V

CONTROL ELECTRONICS AND MOUNTING MODULE

- TEC Current Range: 0.0 - 1.5 Amps
- TEC Voltage Range: 0.0 - 3.8 Volts
- TEC Controller Compatible with NTC Thermistors: 1k Ω - 100 k Ω
- Mounting Socket Base Material: Anodized Aluminum
- Mounting Socket: Zero Insertion Force Socket





USB AND CONTROL SOFTWARE

The user can set and monitor all of the control parameters of the 976nm source laser using the USB input and the supplied GUI software. These units ship with the USB cable to connect your PC to the connector on the side panel. A simple to use, single page graphical user interface allows you to control all of the pulse or CW parameters as well as set current and temperature limits. Other features of these control modules include a daisy chain output, sync output, alarm monitor and back facet monitor output to monitor the laser power.

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: 126.8mm (W) x 130mm (L) x 32.5mm(H)
- Libraries: DLLs - Hexa/Linux - Labview - Python
- Analog Interface (0 - 3.3V): Peak Power Adjustment
- OS Compatibility: Windows XP / Windows 7

LASER DIODE FIBER AND CONNECTOR

- Fiber Type: Polarization Maintaining (PM980)
- Polarization State: Aligned Parallel to the Slow Axis
- Coating Diameter (except along grating): ~ 250 μm
- Loose Tube Buffer Diameter: ~ 900 μm
- Fiber Pigtail Termination: Bare Fiber (FC/APC Available on Request)



Offered by
LASER LAB SOURCE



**LASER
DIODE
SOURCES**

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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