

## Laser Diode Control Electronics & Mounting Module

Designed for TO-Can and Coaxial Packaged Laser Diodes



### CCS-CW-COAX Control and Mount Module

Integrated Low Noise Laser Diode Current Source +  
Heatsink / Mount for TO-Can & Coaxial Packages

User Adjustable Current to the Laser Diode by  
On-Board Control Knob, Analog Voltage Signal or USB  
with Control GUI

Current Noise & Ripple <0.03% full scale

Software Suite, DLL Library, and GUI

## INTEGRATED LASER DIODE DRIVER + FIBER-COUPLED COAXIAL LASER MOUNT

These fully integrated laser diode controller and mounting modules are designed for cost effective precision control of semiconductor lasers in research labs. These controllers provide a low noise CW laser diode current source with pre-configured mounting plate. The mounting plate for the laser has a high surface flatness and finish to provide a low thermal impedance between the package at the heat sink base.

### LASER DIODE PROTECTION FEATURES

The integrated laser diode protection circuits protect your device under test at all times. A user set current limit clamps the bias current to prevent damage to the laser. A soft-start current ramp to the user defined current set-point protects the laser from the possibility of thermal shock or current surges. Also, the integration of the mounting socket directly with the current source simplifies the wiring connections from the controller to the laser package. This greatly reduces the likelihood of ESD damage to the laser which can occur from plugging and unplugging cables. Set-point and limits are set using a simple one screen graphical user interface which is opened when you connect your PC to the USB interface. The GUI control software is included with the purchase price and offers users simple set-up and control.

## CCS-CW-COAX General Specifications

### LASER DIODE CURRENT SOURCE

- Output Current: 0.00 mA - 800.00 mA
- Output Compliance Voltage Maximum: 4.8 Volts
- Current Noise and Ripple: < 0.03% of full scale
- Current Set-Point Resolution (ie @ 200 mA): 0.05mA
- Current Stability (24 hour): Better than 15 ppm

### LASER DIODE PROTECTION

- User Set Current Limit
- Safety Interlock
- Soft-Start Ramp to Current Set-Point
- Transient and ESD Surge Clamp
- Closed Short Circuit (when laser OFF)

### USER INTERFACE, MODULATION AND POWER INPUT

- PC Interface: USB with GUI and Control Software
- Analog Voltage Control Input: 0 to 5V (DC to Full Scale Laser Bias Current)
- Side Panel Manual Control Adjustment Knob

### DIMENSIONS AND INCLUDED PARTS

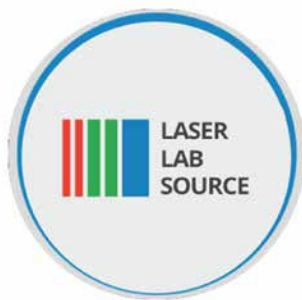
- Dimensions: 130mm (W) 110mm (L) 37mm (H)
- Weight: < 0.5 kgs
- Power Supply: +12VDC Power Supply Included
- USB Cable: Micro-Connector to Standard PC USB Connector Included

#### PRODUCT SALES AND SERVICE:

Unlimited phone and email support is provided for products purchased through Laser Lab Source. 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 work-manship for a period of one year from the date of shipment. The warranty does not cover damage to the to the product due to mishandling or use of the product outside of its specified maximum ratings.



Laser Lab Source, Inc  
1820 W. Lincoln Street  
Bozeman, MT 59715  
[contact@LaserDiodeSource.com](mailto:contact@LaserDiodeSource.com)  
[contact@LaserDiodeControl.com](mailto:contact@LaserDiodeControl.com)  
800-877-5065



Rue François Mitterrand Institut d'Optique d'Aquitaine  
33400 Talence  
FRANCE