



Laser Diode Control Electronics & Mounting Module for Butterfly Packaged Laser Diodes



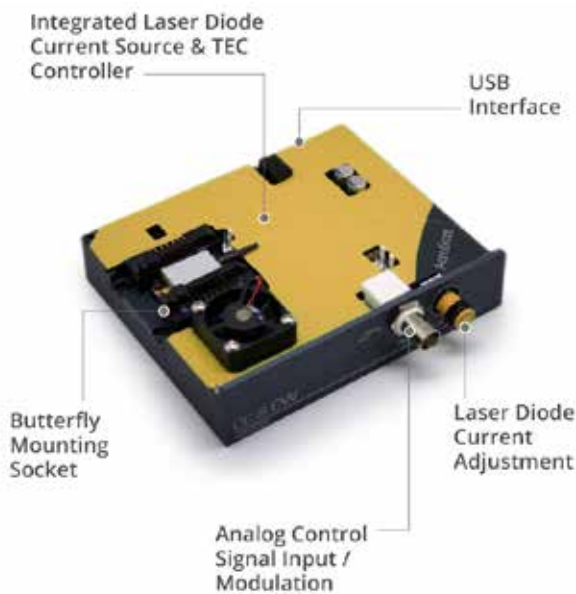
CCS-CW / Control and Mount Module

- o Integrated Current Source + TEC Controller + Butterfly Mounting Socket
- o Preconfigured for Type 1 Butterfly Laser Pinout (Type-2 Available on Request)
- o User Adjustable Laser Output Power by On-Board Control Knob, Analog Voltage Signal or USB with Control GUI
- o Noise and Ripple < 0.03% full scale
- o USB Interface, Includes Programming Tools, Software Suite, DLL Library, and GUI



INTEGRATED LASER DIODE DRIVER + TEC CONTROLLER + 14-PIN BUTTERFLY SOCKET

These fully integrated laser diode controller and mounting modules for butterfly packaged devices are designed for cost effective precision control of semiconductor lasers in research labs. These controllers provide a low noise CW laser diode current source and a high efficiency TEC controller with a pre-configured mounting socket. 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

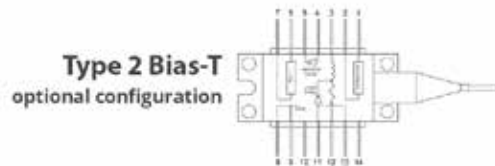
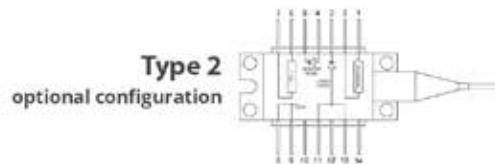
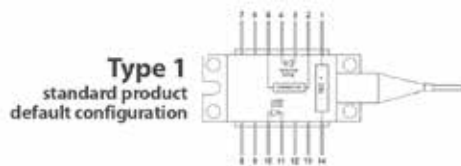
The integrated laser diode protection circuits protect your device under test at all times. A user set current limit and user set temperature limit clamp both the bias current and the operating temperature to prevent damage to the laser. A soft-start current ramp to the user defined current set-point protects the laser from the possibility of thermal shock or current surges. Also, the integration of the mounting socket directly with the current source eliminates the need for cables and connectors from the current path. 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.





MULTIPLE PIN CONFIGURATIONS AVAILABLE

The CCS-CW laser diode controller is available in two pre-configured pin configurations: The standard configuration is for Type 1 Butterfly laser diodes (see figure below). Preconfigured Type 2 pinout is also available; please inquire for details and to order.





CCS-CW / Control and Mount Module Performance 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 TEC CONTROLLER & MOUNTING SOCKET

- TEC Output Current: $\pm 3A$
- TEC Output Voltage: $\pm 4.6V$
- TEC Control Loop Type: PID
- Temperature Control Accuracy (min.) : 0.01°C
- Temperature Sensor Compatibility: NTC Thermistors
- Butterfly Mount: Zero Insertion Force Mounting Socket with Clamping Arms
- Butterfly Mount: Low Thermal Resistance Anodized Aluminum Butterfly Mount Base Plate
- Butterfly Mount: Standard Pre-Configured Pin Wiring for Type 1 and Type 2 Configurations
- Butterfly Mount: All Pin Configurations Available (request)

LASER DIODE PROTECTION

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



CCS-CW / Control and Mount Module Performance Specifications

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

PIN CONFIGURATIONS

- Standard Pin Configuration: Type-1
- Also Available: Type-2 and Type-2 Bias-T



Offered by
LASER LAB SOURCE



LASER
DIODE
CONTROLLERS



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 workmanship 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
contact@LaserDiodeControl.com
800-877-5065

AeroDIODE

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