



High Power Laser Diode Controller and Mounting Socket Butterfly Type-2 Package

CCS-CW-HP-T2 / Control and Mount Module

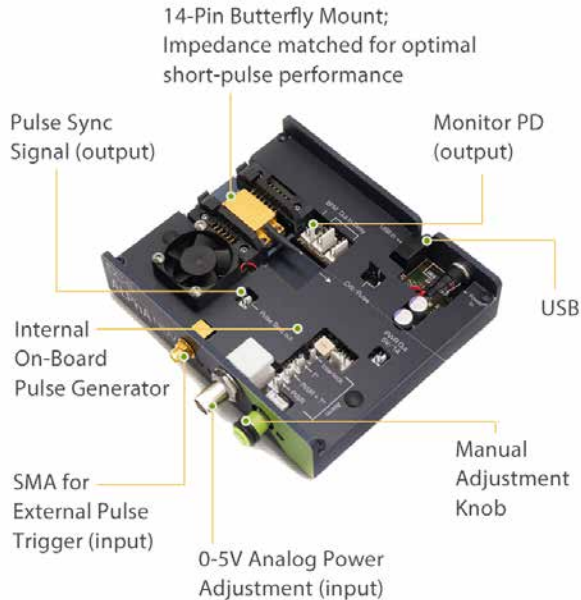


- o Pre-Configured for Type 2 Pinout Butterfly Laser Diodes
- o 1500mA Current Source + TEC Controller + Butterfly Mount
- o User Adjustable Laser Output Power by On-Board Control Knob, Analog Voltage Signal or USB
- o Noise and Ripple < 0.03% full scale
- o USB Interface, Includes Programming Tools Software Suite, DLL Library and GUI
- o Models Available for Type 1 and Type 2 Butterfly Laser Pin Configurations



TURN-KEY INTEGRATED CONTROL ELECTRONICS AND MOUNTING SYSTEM

These fully integrated laser diode controller and mounting modules for butterfly packaged pump lasers are designed for cost effective precision control of semiconductor lasers in research labs. These controllers provide a 1,500 mA laser diode current source and a high efficiency 12 watt TEC controller. They include an integrated butterfly mount. 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.



INTEGRATED ADVANCED 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.



COMPACT AND EASY TO USE

The CCS-CW-HP controllers are compact, and, thanks to the clean and efficient design, are easy to configure and operate. The controllers are designed for remote control via USB, and include on-board indicators to provide users with operating status at a glance.

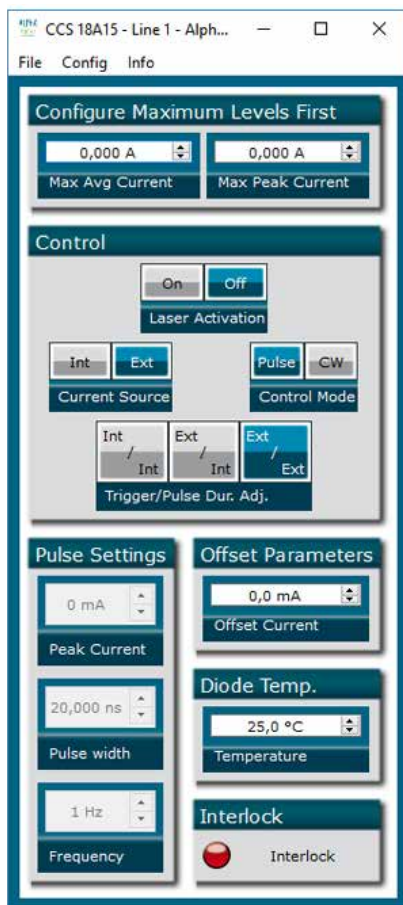


GRAPHICAL USER INTERFACE INCLUDED

Configuration and operation of the controller is streamlined and simplified by providing control over the critical operating parameters of the controller: peak pulse current, pulse width, frequency, triggering, and other driver parameters are available.

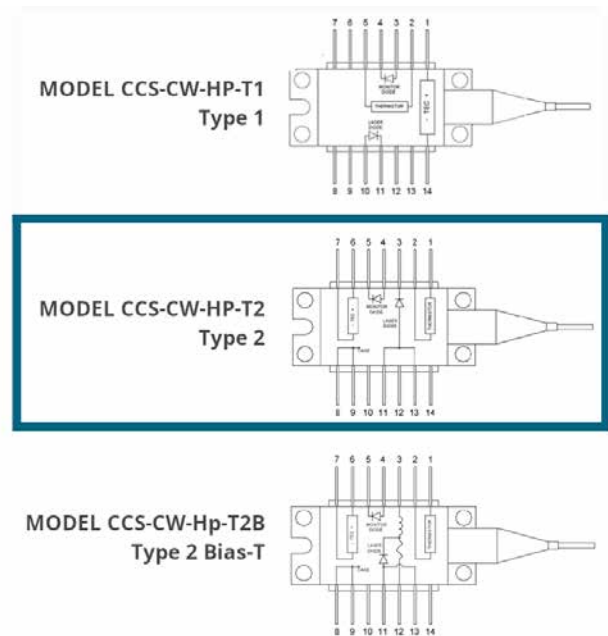
The GUI also provides control over laser diode temperature, and includes operational safety limits to help protect the laser diode from damage.

In addition to providing real-time control over the laser diode, the GUI displays real-time operating status of the controller and laser diode operating parameters.



PIN CONFIGURATION OPTIONS

The CCS-CW-HP can be ordered for any of the industry-standard butterfly package pin configuration. The CCS-CW-HP-T2, is preconfigured for Type 2 butterfly laser pin configurations with internal modulators.





CCS-CW-HP-T2 / Control and Mount Module Performance Specifications

LASER DIODE CURRENT SOURCE

- Output Current: 0.00 mA - 1500.00 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 Current: ± 3 A
- TEC Voltage: 4.6V
- TEC Control Loop Type: PID
- Temperature Control Accuracy (min.) : 0.01°C
- Temperature Set-Point Resolution: < 0.1 °C
- 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 2 Configuration
- 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-HP-T2 / 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



Offered by
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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