Offered by
LASER LAB SOURCE

manufactured by AeroDIODE

High Power Laser Diode Control & Mount Module
Current Source + TEC Controller + Mount + TE Coolers

CCM-HP / Control and Mount Module

- 21 Amp Current Range; 36 Volt Compliance Voltage Range
- Integrated High Power TEC Controller; Includes 2 x TE Cooler (Peltier) Elements
- Includes Laser Diode Mounting Plate and Heat Sink
- Mounting Plate Can be Configured for Two Laser Diode Modules in Series
- Optimized for Fiber Coupled Multi-Emitter Pumps from II-VI, IPG, NLight, Lumentum, BWT, Coherent and LUMICS
- USB and UART Interface

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A COMPLETE SOLUTION FOR MOUNTING AND CONTROL OF HIGH POWER PUMP LASER DIODES

This High Power Laser Diode Driver is compatible with multimode fiber coupled multi-emitter pump lasers from II-VI, nLight , Lumentum , IPG , Dilas. BWT, Lumics and more. It is a high stability complete solution with a 13 Amp laser bias current range and 23V compliance voltage range. It includes the laser driver, the TEC controller and and air-cooled heat sink base. The integrated TEC elements under the mounting plate keep the temperature stable and remove the heat. The TEC power is optimized for high power pump laser diode driving. This control and mounting module is used primarily for CW mode. But it is also able to deliver pulses which are generated internally by an on-board pulse generator, or on-demand from an external analog modulation signal. This control and mounting module is very compact and offers an excellent pre-configured solution for OEM integration into your high power laser system.

CONFIGURED FOR TWO LASER DIODES IN SERIES

CCM can be configured to control 2 x high power multimode pumps in series

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.

GRAPHICAL USER INTERFACE

Simple User Control of all Laser Diode Parameters though USB Interface and GUI Software

CCM-HP / Control and Mount Module Performance Specifications

LASER DIODE DRIVER - CURRENT SOURCE

- Current Range: 0 - 21 Amps
- Compliance Voltage Range: 0 - 36 Volts
- Current Stability: +/- 0.025% of Full Scale Set-Point Current
- Laser Diode Set-Point Adjustment Resolution: 0.05 Amps
- Control Modes: ACC (constant current) and APC (laser output power feedback from photodiode)

TEC CONTROLLER

- Temperature Control Range (typ): 15-40°C
- Temperature Stability (typ): < 0.05°C
- TEC Power: > 150 Watts

MODULATION BANDWIDTH

- Bandwidth: 100 kHz
- Trigger: Internal or External

USER INTERFACE AND POWER INPUT

- USB with GUI Software
- UART
- Includes Control Software Libraries : DLLs, Hexa, Labview VI (prov)
- Power Supply (included) : 24 VDC (input 110/230 VAC, 50/60 Hz)

DIMENSIONS

- 238mm * 146mm * 142.5mm

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 warrantied 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.

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