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CC-M

High power laser diode driver 36V/21A

CCM

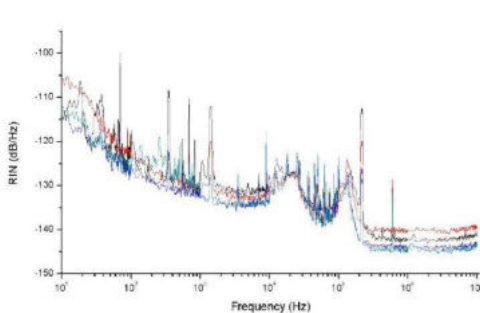## High Power Laser Diode Driver (36 V/21 A)

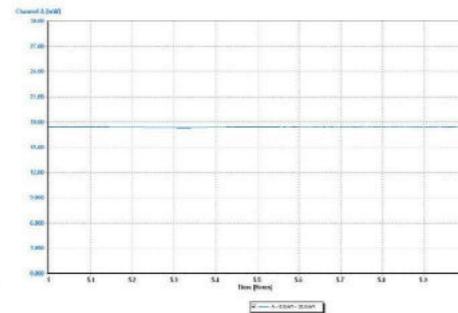A module to drive the current and control the temperature of high-brightness laser diodes up to 180 W.

This high power laser diode driver allows to control external single or multiple emitter laser diodes up to 36 V - 21 Amps in either CW or pulse mode. Several laser diodes can be mounted in series on a single module. The laser diodes can be stabilized in either ACC (Automatic Current Control) or APC (Automatic Power Control) using an external photodiode signal.
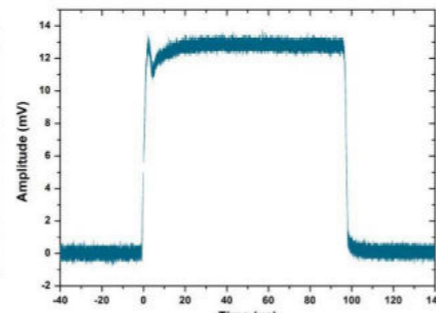
Key features:

- Compatible with multiple elements laser diodes like II-VI, NLight, IPG, Lumentum, Dilas etc.
- Drives laser diodes up to 36 V - 21 A
- Controls the laser diode temperature (15-40°C)
- Adjusts the fan speed automatically.
- Ultra-stable laser power for short and long term operation
- More than 180 W CW power with new generation laser diodes
- Max modulation frequency : 100 kHz ; Shortest pulses ~ 5 µs
- Highly efficient (> 80 % from plug)
- Smart control (USB interface to drive simultaneously several modules from AeroDIODE laser electronics series)
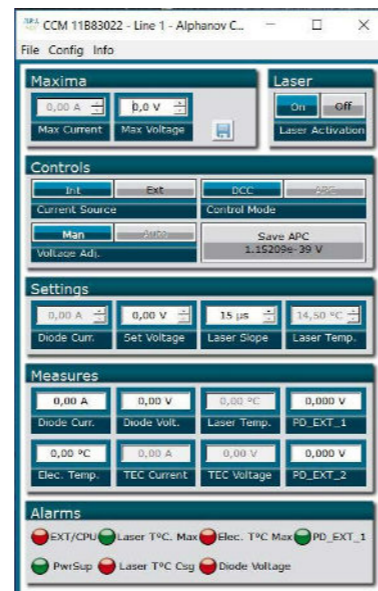- Multiple software libraries (LabVIEW, Hexa, DLLs, Pythoin etc.)
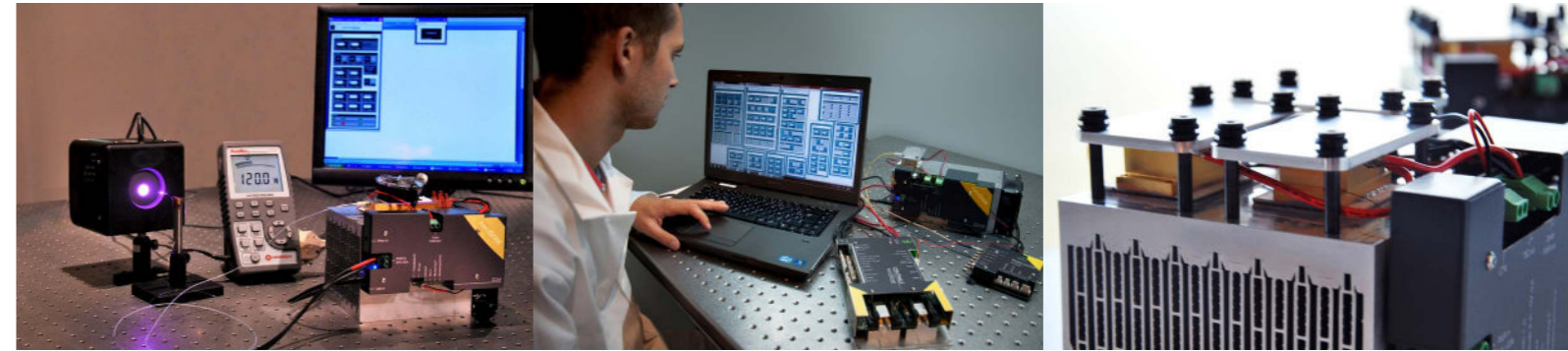
Extremely low noise   Ultra-stable laser power   Rise time
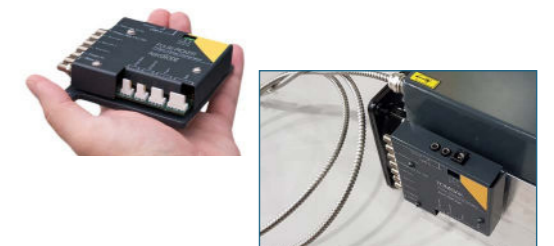
Technical Specifications

Electronic and Optical

	CCM-Mini	CCM-std	CCM-HP (High Power)	CCM-UHP (Ultra-High Power)
Laser diodes optical power* :	up to 20 W	up to 60 W	up to 120 W	up to 180 W
Output current :	0 - 13 A		0 - 21 A	
Output voltage (adjusted automatically) :	0 - 23 V		0 - 36 V	
Laser diode package temp. regulation range :	15 - 40 °C			
Temperature stability (integration dependant) :	10 mK			
Low power adjustment precision :	0.05 A			
Laser power stability :	< 0.05 %			
Max modulation rate :	100 kHz			
Software & Libraries :	AeroDIODE GUI + complete SDK : DLLs / Hexa / LabVIEW / Python			
Interface :	USB-UART			
Power supply :	24 V			
Dimensions (mm³) :	180*94*66	238 * 119 * 112	238 * 146 * 142.5	318*146*142.5

* Corresponding to standard AlGaAs Multi-emitters 8XX, 9XX or 1064 nm laser diodes with >45% slope efficiency - Contact us when considering other diodes much less efficient like, for example, InP laser diodes at 1470 or 1550 nm.

- TOMBAK is an OPTIONAL pulse delay generator and AWG module which meets the most complex synchronization needs. When ordered simutaneously with the CCM, it is mounted on the side of the product and connected to the CCM analog input. See the dedicated product page on AeroDIODE website.

AeroDIODE

AeroDiODE

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