

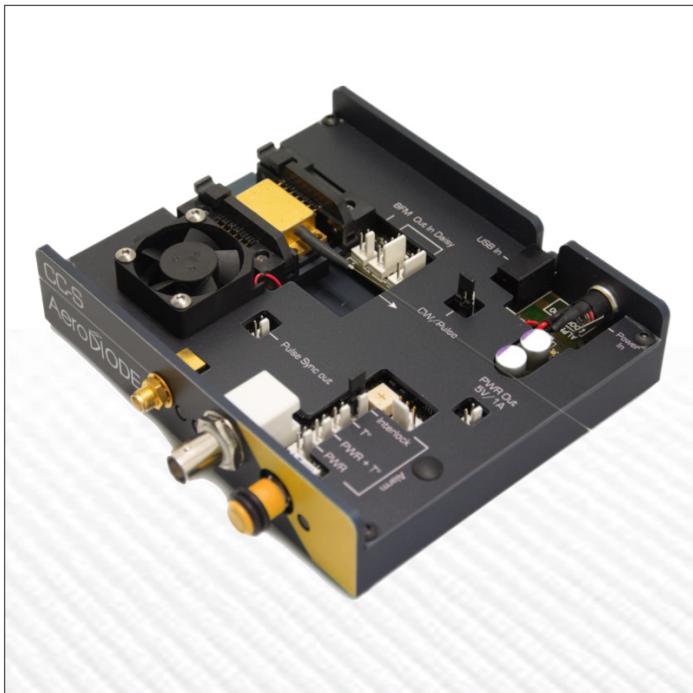


Offered by
LASER LAB SOURCE

manufactured by **AeroDIODE**

TURN-KEY 1550nm DFB LASER DIODE SOURCE

1550nm DFB Laser Diode, 10 mW CW / 20 mW Pulsed



1550nm Laser Diode Integrated with Control and Mounting Module

- Pulsed Output Power: 20 mW
- CW Output Power: 10 mW
- 1.5 ns Pulse Width, Internally or Externally Triggered
- Up to 4 MHz Repetition Rate
- Pre-wired 14-Pin Butterfly Mount
- Integrated Temperature Controller
- Remote Control via USB; Libraries available at no charge: LabVIEW VIs, Hexa, Python, DLLs
- Part No. RLS/1550nm-Model 1 / CCS-PULSE



LASER DIODE INTEGRATED WITH HIGH SPEED PULSED LASER DIODE CONTROLLER

These turn-key pulsed and CW 1550nm diode laser source & control modules provide a pre-configured, calibrated solution for nanosecond-level fast pulsing applications, with pulse widths as narrow as 1 to 3 nanoseconds. The butterfly laser diode is impedance matched to the pulse-current PCB in the mounting socket to ensure clean pulse performance with almost no ring or overshoot. The customer has the option to request that the butterfly package be soldered into the mounting socket, which allows for the shortest possible pulses. These modules are designed primarily for pulsed fiber laser, direct frequency conversion, and spectroscopy applications which require a narrow spectral bandwidth and high peak power.

LASER DIODE CONTROLLER AND MOUNTING MODULE

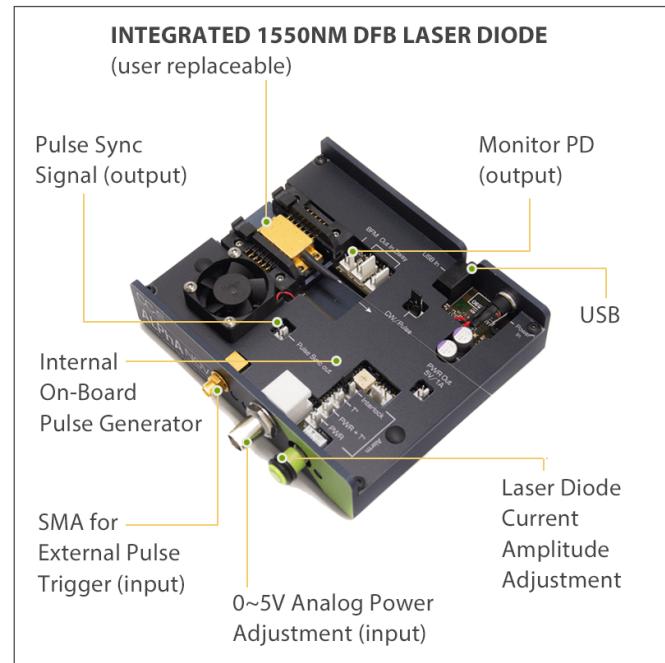
The control electronics and mounting module for these laser diodes delivers high speed pulses that can be generated internally by an on-board pulse generator, or on-demand from an external TTL signal. The external trigger source can be used to trigger the pulse parameters which are preset in the control module. These control modules offer multiple mechanical, thermal and electronic protection features for the laser source. They ensure that your laser diode is protected and operated safely. The on-board TEC controller incorporates a fast feedback PID control loop to provide high temperature set-point stability. A user-set temperature limit keeps the source from thermal damage. Additionally, multiple bias current / voltage protection features are designed to keep the source safe from ESD, power outages and reverse voltage. A user controlled current limit clamps the current in both Pulsed and CW mode.

1550NM PULSED LASER DIODE OUTPUT SPECIFICATIONS

- Wavelength: 1550 nm (± 5 nm)
- CW Output Power: 10 mW
- Pulsed Output Power: 20 mW
- Spectral Line Width: < 200 kHz
- Temperature tuning (20 - 50°C range) : ~0.35 nm / °C
- SMSR: 35 dB (min)
- Wavelength Temperature Coefficient: 0.35 nm/°C

CONTROL ELECTRONICS AND MOUNTING MODULE

- Laser Diode Temperature Tuning Range : 20 - 35 °C
- TEC Controller Compatible with NTC Thermistors: 1kΩ - 100 kΩ
- Mounting Socket Base Material: Anodized Aluminum
- Mounting Socket Technology: Zero Insertion Force Socket





USB AND CONTROL SOFTWARE

The user can set and monitor all of the control parameters of the 1550nm DFB source laser using the USB input and the supplied GUI software. These units ship with the USB cable to connect your PC to the connector on the side panel. A simple to use, single page graphical user interface allows you to control all of the pulse or CW parameters as well as set current and temperature limits. Other features of these control modules include a daisy chain output, sync output, alarm monitor and back facet monitor output to monitor the laser power.

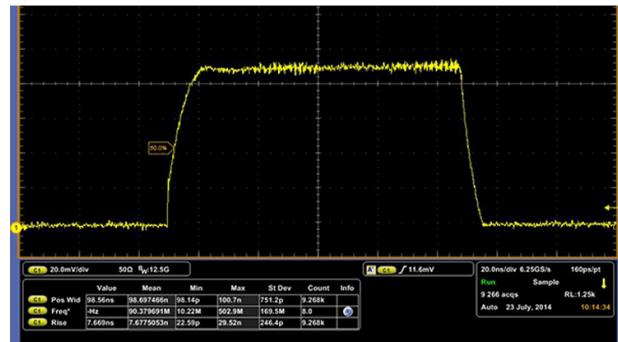
USER INTERFACE , DIMENSIONS AND POWER INPUT

- Interface: USB
- OS Compatibility: Windows XP / Windows 7
- Control Software: Control Software - Windows GUI Included
- Input Power Supply: 12 VDC (220V/110V adapter included)
- Module Dimensions: 126.8mm (W) x 130mm (L) x 32.5mm(H)
- Libraries: DLLs - Hexa/Linux - Labview - Python
- Analog Interface (0-3.3V): Peak Power Adjustment

LASER DIODE FIBER AND CONNECTOR

- Fiber Type: Single Mode (PM available on request)
- Mode Field Diameter: 6 μ m
- Buffer Diameter: 250 μ m
- Connector: FC/APC

CCS IMPEDANCE MATCHING PROVIDES CLEAN PULSE PERFORMANCE



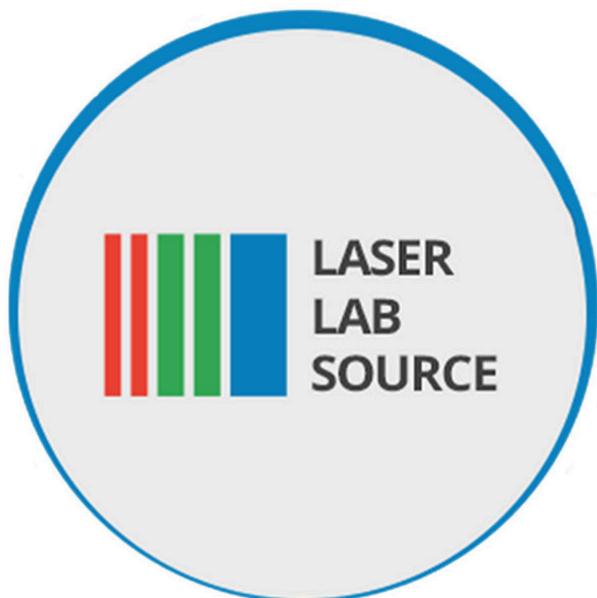
Matching the impedance of the butterfly packaged laser diode load to the impedance of the current source transmission path improves the quality of your laser diode's pulse shapes

PRODUCT SALES AND SERVICE:

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.



AeroDIODE

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