LDP-1064NM-800MW-FBG

Single Mode, Fiber Bragg Grating Stabilized 1064nm Laser Diode, >800mW Pulse Mode Output Power

Includes 1060nm (+/-10nm) Laser Diode + Pre-Configured Pulse /CW Control Electronics & Mounting Module

PM Fiber Pigtail with FC/APC Connector
Built-In Pulse Generator and External TTL Triggering

USB Interface with Simple to Use GUI and Code Libraries: DLLs, Hexa, LABVIEW VIs, Python

SPECIFICATIONS - LDP-1064NM-800MW-FBG

FBG STABILIZED LASER DIODE OPTICAL OUTPUT

- Center Wavelength: 1060nm (+/-10nm)
- Pulsed Mode Output Power (< 5% dc): > 800mW
- CW Mode Output Power: 550mW
- Laser Diode Pulse Width Range : 30 nsec ~ CW
  NOTE: more narrow pulse widths are available in the DFB model
- Beam Quality: M^2: ~1
- Transverse Mode: Single Mode
- Spectral Width (Pulsed Mode, 100ns PW, 100kHz): < 1nm
- Integrated Laser Diode: 3SP Technologies Model 1064CHP

CONTROL ELECTRONICS AND MOUNTING MODULE: PULSED AND CW ELECTRONICS SPECIFICATIONS

- On-Board Generator Pulse Width Range: 1 nanosecond - 500 nanoseconds
- External Trigger Pulse Width Range: 1 nanosecond - CW
- Internal Pulse Generator Adjustment Precision: 10 picoseconds
- Optical Pulse Jitter: < 20 picoseonds (<8psec with HPP option)
- On-Board Pulse Generator Repetition Rate: 1Hz ~ 4MHz (250MHz, HPP option)
- Pulsed Output Current: 0.00 mA ~ 1.50 Amps (3.5Amps, HPP option)
- CW Output Current: 0.00 mA ~ 800.00 mA
- Output Voltage Maximum: 4.8 Volts
- Noise and Ripple (100Hz to 10 MHz): < 0.03% of Full Scale
- Set-point Resolution @ 500mA: 0.1mA
- Set-point Resolution @ 1000mA: 0.3mA

CONTROL ELECTRONICS AND MOUNTING MODULE: TEMPERATURE CONTROLLER & MOUNTING SOCKET SPECIFICATIONS

- TEC Current Range: 0.0 - 1.5 Amps
- TEC Voltage Range: 0.0 - 3.8 Volts
- Zero Insertion Force Mounting Socket
- Mounting Socket Base Material: Anodized Aluminum
- Mounting Socket Technology: Azimuth Zero Insertion Force Socket
- TEC Controller Compatible with NTC Thermistor Sensors: 1kΩ - 100 kΩ

USER INTERFACE, POWER INPUT AND DIMENSIONS

- PC Interface: USB
- Control Software Included: Software with Graphical User Interface
- Analog Signal Control: 0-3.3 Volts Peak Power Adjustment
- Input Power Supply (Included): 12VDC (220V/110V adapter included)
- Module Dimensions: 146mm (W) x 130mm (L) x 37mm(H)
- OS Compatibility: Windows XP / Windows 7

OPTIONS

- /HPP (High Pulse Performance) Technology : See Details Below
- Output Isolator
- Narrow emission bandwidth
- Separated collimator
- Customer Specified Connectors (FC, SMA)

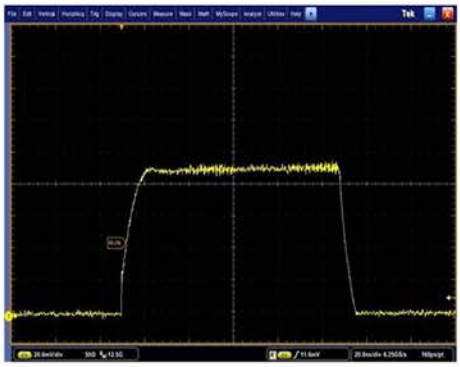
OPTIONAL HPP (HIGH PULSE PERFORMANCE) TECHNOLOGY

- Price: Additional $5,278
- < 8ps Jitter
- Up to 250MHz Repetition Rate (no recovery time)
- < 8ps Jitter
- Up to 3500mA max Current
- Configurable Offset Current Under Pulse
- Up to 1.5 Watt Peak Pulse Output Power

GRATING STABILIZED LASER DIODE FIBER AND CONNECTOR

- Fiber Type: PM, Polarization Maintaining Single Mode (PMF) Pigtail
- Fiber Type: SM98-PS-U25A-H or equivalent
- Connector: FC/APC, PM Aligned to Slow Axis
- Fiber Length: 1 meter
- Fiber Connector: FC/APC

100 NANOSECOND PULSE EXAMPLE
Fiber Bragg grating stabilized laser diode, 3SP model 1064CHP at full peak power:

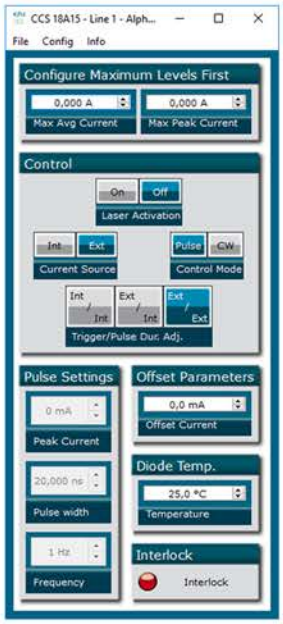


1064nm, 800mW FBG Source with User Adjustable Pulse Parameters

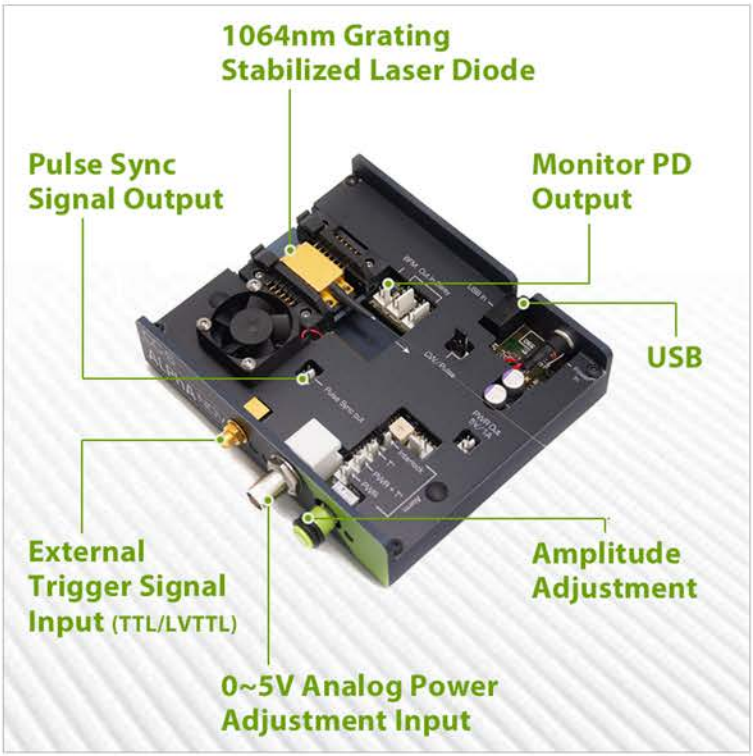
GRAPHICAL USER INTERFACE

Simple User Interface:

- ✔ Peak Pulse Current
- ✔ Maximum Average Current
- ✔ Pulse Width
- ✔ Pulse Frequency
- ✔ Pulse Current Source (Ext or Int)
- ✔ Pulse Trigger Source (Ext or Int)
- ✔ Offset Current
- ✔ Laser Diode Temperature
- ✔ Control Mode: CW or Pulsed
- ✔ Laser Diode Output ON/OFF



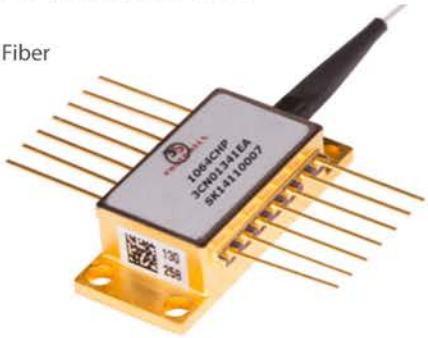
USB Interface, Includes Programming Tools Software Suite, DLL Library and GUI



Pulsed Laser Diode Driver with Integrated TEC Controller & Butterfly Mounting Socket

INTEGRATED LASER DIODE
1064nm FBG Laser Diode
Model 1064CHP from 3SP Technologies

- ✔ Fiber Bragg grating stabilized source, 800mW Pulsed Power, 1060nm (+/- 2nm)
- ✔ Pulse performance from 30 nanoseconds to CW
- ✔ Polarization Maintaining Fiber
- ✔ 14 Pin Butterfly
- ✔ Internal TEC Cooler
- ✔ Internal Monitor PD
- ✔ Telcordia GR-468-CORE Qualified



Integrated FBG Stabilized Laser Diode

PRODUCT SALES AND SERVICE:
Orders for this product are fullfilled by Laser Lab Source in North America and select internationl 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.

Laser Lab Source, a division of Research Lab Source Inc.
670 S. Ferguson St., Suite 3
Bozeman, MT 59718 USA

Phone: 406-219-1472

www.LaserLabSource.com

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

www.Aerodiode.com