



Benchtop Laser Diode Source System

375nm, 150mW Fiber-Coupled Output



375nm Fiber-Coupled Laser Diode Discrete Turn-Key Source System

- o Fully Adjustable Operating Parameters
- o Includes Fiber-Coupled 375nm Laser Diode
- o CW Mode and Integrated Quasi-CW Pulse Generator; Pulse Widths from 20 μ s to CW
- o User-Programmable Soft-Start Current Ramp to Laser Diode Current Setpoint
- o Comprehensive Safety Features to Protect the Laser Diode and Controller



**LASER
DIODE
SOURCES**

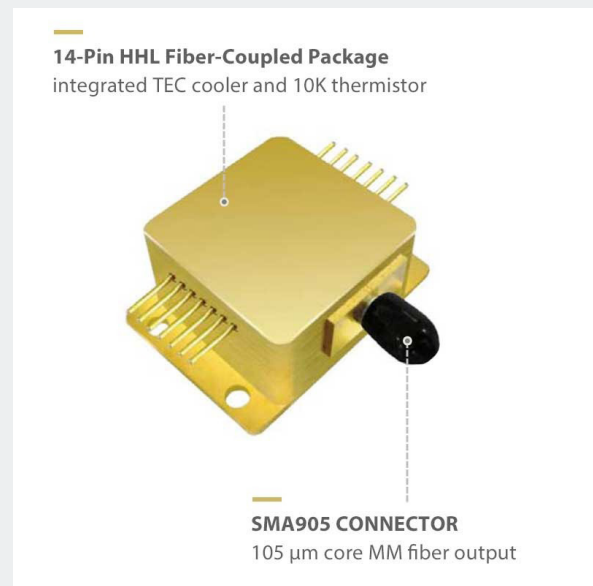


LDX-375NM-150MW Laser Diode Source System

The LDX-375NM-150MW fiber-coupled laser diode source is a preconfigured, plug-and-play light-source solution. The system includes the laser diode driver, the air-cooled mount, interconnect cables, and the laser diode. The system is configured before delivery, with safety limits pre-set, to provide plug-and-play operation upon delivery.

Modulation, Internal Function Generator, and QCW Pulse Modes

The source system operates in CW (continuous wave) mode, and also provides flexible modulation capabilities and a QCW mode. The controller has an internal function generator which can be used to drive quasi-CW pulses in continuous, single, and burst-mode. On the backpanel is a BNC input for an analog or TTL digital modulation. In QCW mode, the user can also set pulses to trigger from a remote TTL signal source. The modulation bandwidth and pulse widths are based on the laser driver capabilities, defined in the specifications table.



Discrete System Components Deliver Application Flexibility

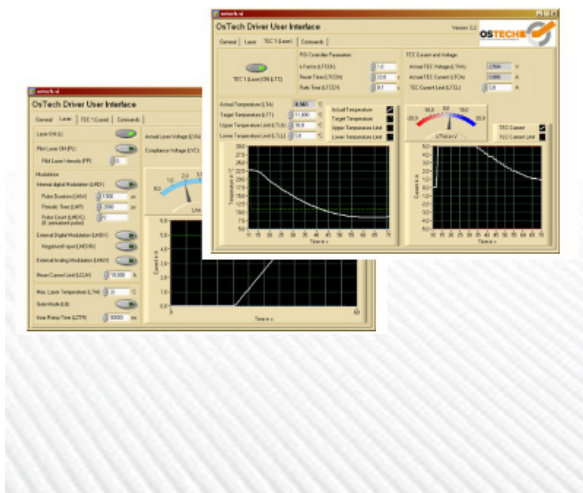
This source system is comprised of discrete components, delivering a compact and flexible solution for laboratory and R&D applications. The front-panel keypad control can be used to access all the operating parameters of the laser diode and temperature-controlled mount, and the system can be controlled remotely via RS232 (or optional USB interface). The open mount and fully accessible laser diode provides added flexibility, and even allows for changing the source laser as application requirements change.

Extensive Laser Diode Protection Features

These control systems provide a high degree of laser diode protection to ensure that your laser is protected at all times. Soft-start current, pre-programmed and adjustable current and temperature limits, and a fast and safe shut-down sequence keep the laser and the system protected at all times. Additionally, transient filters and AC line filters protect against damage from brown-out or black-out power conditions.

The back-panel safety interlock connector and safety key-switch ensure that the laser diode current is not switched on until the user has determined it is safe to do so.

LABVIEW DRIVERS





LDX375NM-150MW Laser Diode Source Specifications

LASER DIODE SPECIFICATIONS (TYPICAL @ 25°C)

- Output Power, CW (minimum): 150 mW
- Center Wavelength: 375 nm (± 10 nm)
- Spectral Width (FWHM): 2.0 nm (typ)
- Output Emission Spectra: Multimode
- Operating Current: 390 mA
- Operating Voltage: 5.0 V

LASER DIODE FIBER OUTPUT SPECIFICATIONS

- Core Diameter: 105 μ m UV Fiber
- Detachable Fiber Connector: SMA905

CONTROL UNIT LASER DIODE PROTECTION FEATURES

- Adjustable Pre-Set Maximum Current Limit
- Adjustable Pre-Set Temperature Limit
- Soft-Start Current Ramp Factory Default Set to 300 Milliseconds
- Soft-Start Current Ramp to Setpoint (User Programmable)
- ESD and Power Surge Clamp Reverse Voltage
- Reverse Voltage Transient Clamp
- AC Line Filter
- Keylock Switch and Safety Interlock
- Short Circuit when Laser Diode Current Turned OFF
- Open Circuit Detection

AIR-COOLED MOUNT AND CABLE FEATURES

- Laser Mounting Area (total): 75mm x 60mm
- Laser Mounting Plate Footprint: Machined for Included Laser Diode
- Includes 1.5 meter Current Interface Cable (20 Amp rated)
- Includes 1.5 meter TEC Controller Interface Cable
- Waste Heat Removed by Fan Embedded in Heat Sink Block
- Heat Sink Fan Driven by Temperature Controller Unit



LDX375NM-150MW Laser Diode Source Specifications

USER INTERFACE

- Front Panel LCD, Full Alphanumeric Display with Key Pad
- RS232 Standard, LabView Drivers Included
- USB Optional; Inquire
- GUI Control Software Included

CONTROL UNIT MODULATION AND SLOW PULSE (QCW) SPECIFICATIONS

- Modulation Bandwidth: DC ~ 25 kHz
- Modulation Signal: Accepts External Digital (TTL) or Analog
- Modulation Input Connector: BNC, Input Impedance 10 k Ω
- QCW Pulse Rise and Fall Time: < 20 μ s to CW (< 10 μ s on request)
- QCW Trigger: Internal Function Generator or External Trigger
- QCW Pulse Time Base Accuracy: \pm 1.0%
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- Modulation Input Voltage Range: 0 ~ 4 Volts (4V = Max Current)
- Analog Modulation Bandwidth: 1 Hz – 20 kHz

CONTROL UNIT DIMENSIONS AND POWER REQUIREMENT

- Power Input: Universal 100 ~ 230 VAC, 50/60 Hz
- Controller Dimensions: 200mm x 105mm x 85mm
- Mount Dimensions: 62mm x 89mm x 119mm



Product Sales and Service

Orders for this product are fulfilled by LaserDiodeControl.com, part of the Laser Lab Source group. It is manufactured for Laser Lab Source by OsTech, GmbH.

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.



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