

LDX SERIES LASER DIODE SYSTEMS



**LASER
LAB
SOURCE**

Advanced performance products
for laser scientists and engineers.

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LDX Series Laser Diode System with Integrated Nichia Laser Diode

The LDX series laser diode systems are precision-engineered to provide excellent beam quality, low noise, and high stability for use in research lab environments. These systems are based on an integrated Nichia laser diode, an integrated low noise laser diode driver to bias the laser, and a precision TEC controller for thermal regulation of the laser. They are designed to offer the user full control of all of the key laser diode operating parameters to ensure full flexibility for R&D applications.

TECHNICAL QUESTIONS AND INSTALLATION SUPPORT

800.887.5065

contact@LaserLabSource.com

1820 W. Lincoln Street
Bozeman, MT, 59715

User-Adjustable Output Power / Temperature / Modulation Provide Full Control of the Integrated Laser Diode

The user has full control over the integrated Nichia laser diode. The LDX series systems have an integrated laser diode driver and TEC controller so that the user can adjust the output power of the laser as well as set the target temperature to adjust wavelength. The user also has the ability to enable modulated mode through TTL or analog inputs.



MULTI-LAYER SAFEGUARDS FOR INTEGRATED LASER DIODE

Integrated Laser Diode Protection Features

These systems offer multiple layers of protection for the internal laser diode. They have an integrated LASORB diode on the current supply board which provides a physical layer shunt to protect against over-voltage. It eliminates the possibility of power surges and ESD damaging the laser. Integrated current limit, voltage limit and temperature limit features keep laser diode protected at all times. The over-temperature shut down feature is based on feedback from a 10Kohm sensor located against the Nichia laser diode package header.

On-Board LCD Display with Keypad | USB Interface | Analog & TTL Signal Controls

These laser diode systems offer multiple user interface options. The user can control laser diode parameters through an LCD display on the top of the module with a keypad. For remote control, all models come standard with a USB adapter and control software. A command set is available for customer designed software applications. The user can also control the unit using analog controls signal inputs.

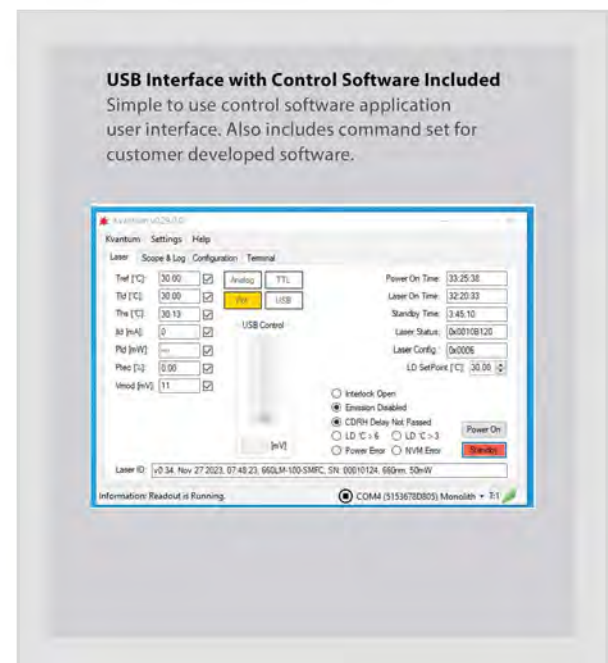
Optional Fiber-Coupled Output

The laser diode module can be ordered with a factory installed optional fiber-coupled output adapter. Multiple fiber core sizes are available. Please note that there is a power loss (relative to the free-space model) associated with choosing the fiber-coupled output option. These LDX laser diode systems exhibit power loss associated with the fiber-coupling which is on the order of 10 to 20% of the total power in a free-space configuration.

LCD Display



USB Interface + Control Software



SPECIFICATIONS

| MODEL | WAVELENGTH | OUTPUT POWER / MODE | LINK TO PRODUCT |
|------------------|------------|---------------------|--------------------------------|
| LDX-375NM-70MW | 375nm | 70mW / Single Mode | SPECIFICATIONS |
| LDX-375NM-200MW | 375nm | 200mW / Multi-Mode | SPECIFICATIONS |
| LDX-395NM-120MW | 395nm | 120mW / Single Mode | SPECIFICATIONS |
| LDX-405NM-300MW | 405nm | 300mW / Multi-Mode | SPECIFICATIONS |
| LDX-405NM-1200MW | 405nm | 1200mW / Multi-Mode | SPECIFICATIONS |
| LDX-405NM-200MW | 405nm | 200mW / Single Mode | SPECIFICATIONS |
| LDX-415NM-120MW | 415nm | 120mW / Single Mode | SPECIFICATIONS |
| LDX-445NM-100MW | 445nm | 100mW / Single Mode | SPECIFICATIONS |
| LDX-488NM-200MW | 488nm | 200mW / Single Mode | SPECIFICATIONS |
| LDX-520NM-120MW | 520nm | 120mW / Single Mode | SPECIFICATIONS |

Two Year Full Warranty

The LDC series laser diode controllers are warranted against defects in materials and workmanship for a period of two years from the date of shipment. The warranty is honored and transacted by Laser Lab Source. The warranty does not include customer induced damage to the product.

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