

LDM 4412

Temperature
Controlled
Laser Diode
Mount

Product Features

Interchangeable mounting plates for various package styles

Unobstructed access to front of laser diode package

Standard 4" optical beam height

X-Y adjustable collimated beam

Case temperature control

Optional water-cooled backplate for increased heat dissipation

Collimating lens options from 500 to 1550 nm

Nitrogen purge connection

The LDM-4412 Temperature Controlled Laser Diode Mount is a flexible mount that is comprised of three basic parts: laser housing, lens housing and detachable base. The laser housing provides enough space to mount a 3" x 3" printed circuit board. This versatile mount offers optional mounting plates that accommodate various package styles. ILX also offers a complete line of compatible mount accessories.



Flexibility and Temperature Control
in the Same Laser Diode Mount

 **ILX Lightwave**
Photonic Test and Measurement

LDM 4412

Temperature
Controlled
Laser Diode
Mount

Precision Lens Alignment

The LDM-4412 provides a precision, collimating lens alignment mechanism. It accommodates most flanged, open heat-sink, TO-3 window, 5.6 mm and 9 mm can packages.

Complete Customizations

ILX sells compatible accessories to ensure the LDM-4412 can meet any custom requirements. Optional accessories include lens assemblies, water cooled back plate, interconnect cables, extra lens cartridges and laser mounting plates.



Specifications

LENS HOUSING

Lens Adjustments: 3 mm X- and Y-axes, 100 mm focus;
focus adjustments threaded at 64 TPI
Adjustment Mechanism: Parallelogram Flexure Type, excellent
Z-axis rigidity
Lens Cartridge: 9/16" inside diameter for lens mounting
Features: Safety covers on all adjustments

LASER HOUSING

Mounting Plate: Laser diode pilot hole pre-drilled
Features: Pre-drilled and tapped holes for circuit
board mounting; dry nitrogen purge nipple

INPUT CONNECTORS

Current Source: 9-pin D-sub, female
Temperature Control: 9-pin D-sub, male
Ground: Banana jack

TEMPERATURE CONTROL

Sensor Type: TS-510 Calibrated 10k Ω thermistor ($\pm 0.2^\circ\text{C}$)
TE Module Ratings

Q_{\max} 28 W (2-15mm x 30mm TEC modules)
 ΔT_{\max} 70°C
 I_{\max} 6.0 A
 V_{\max} 8.0 V

BASE ASSEMBLY

Mounting Base: Four slotted holes, 1/4" x 1"
(conforms to standard 1/4-20, 1" on-center holes in optical tables)
Base Spacer: Beam height - 4" nominal
Beam height - 2.5" with spacer removed

GENERAL

Size (HxWxD): 160 mm x 111 mm x 97 mm
(6.3" x 4.4" x 3.8")
Weight: 1.36 kg (3 lbs)

ORDERING INFORMATION

LDM-4412	Temperature Controlled Laser Diode Mount
LDM-4014	5.0 mm FL 0.50 NA Lens Assembly (514-830 nm)
LDM-4015	5.0 mm FL 0.50 NA Lens Assembly (600-1020 nm)
LDM-4017	7.5 mm FL 0.30 NA Lens Assembly (780-890 nm)
LDM-4018	5.0 mm FL 0.50 NA Lens Assembly (1300-1550 nm)*
LDM-4019	9 mm FL 0.25 NA Lens Assembly (780-860 nm)
LDM-441208	Water Cooled Backplate
LDM-441213	Flanged/Open Heatsink Laser Mounting Plate
LDM-441214	TO-3 and Can Laser Mounting Plate
LDM-441216	Extra Lens Cartridge
CC-305S	Current Source/Laser Diode Mount Interconnect Cable
CC-505S	TE Controller/Laser Diode Mount Interconnect Cable

 **ILX Lightwave**
Photonic Test and Measurement

P.O. Box 6310, Bozeman, MT 59771 • FAX: 406-586-9405

www.ilxlightwave.com

For information call

1-800-459-9459

International Inquiries: 406-556-2481
email: sales@ilxlightwave.com



Rev03. 052411