

Laser & LED Fixtures

200, 210, 220 & 230 SERIES LASERMOUNTS

The Arroyo Instruments line of **LaserMount** device fixtures solves the problem of how to best hold and thermally manage a laser diode. From TO-Can to Butterfly to C-mount and beyond, we probably have a **LaserMount** that will fit your device needs. If you don't see one on this brochure, just ask...we're always adding new device support.

Temperature Control

Many LaserMounts feature integrated Peltier (TEC) control, giving you a precise ability to thermally control your device. Whether you are trying to characterize device performance over temperature, or using temperature to wavelength tune your laser, you can rely on the LaserMount to give you excellent long term performance.



224 with opto-mech plate
(cage system not included)



Quick Specifications

Primary Specifications	203	205	207	213	215	224	226	234
Case TEC Control	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Thermal Capacity <i>Watts, 0°C ΔT at 25°C Ambient</i>	N/A	3.5 or 8*	10	N/A	2 or 3.5*	1.5	2.4	10
Sensor	10K Thermistor							
Nitrogen Purge	No	No	No	No	No	Yes	No	Yes
Laser Connector	DB9							
TEC Connector	DB15							
Fan (12VDC)	Opt	Opt	Opt	Opt	Opt	No	No	Yes



203 & 205 BF LaserMount

- Available with and without external TEC control
- Flexible pin assignments
- Optional fan base for increased performance



207 TEC LaserMount

- Medium power (10W) fiber pigtailed devices
- TEC control
- Quick-disconnect device harness



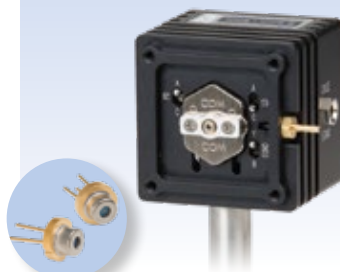
213 & 215 DIL LaserMount

- Available with and without external TEC control
- Flexible pin assignments



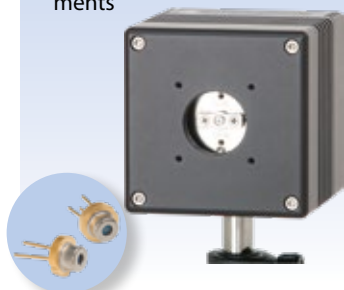
224 TEC To-Can LaserMount

- Nitrogen purge
- 3 & 4 pin devices
- Post mountable
- Toggle-switch configurable anode and cathode assignments



234 TEC To-Can LaserMount

- Nitrogen purge
- 2, 3 & 4 pin devices
- Post mountable
- Toggle-switch configurable anode and cathode assignments



226 TEC LED LaserMount

- TEC control
- Mounting hole for STAR LEDs and others
- Post-mountable



Accessories to Match

Many of our LaserMounts have useful accessories to extend the capabilities of the mount. For example, our 224 & 226 have opto-mechanical interfaces for lens tubes and 30mm cage systems, while our 203, 205, 207, 213, & 215 mounts have fiber management trays to keep your fiber under control and fan bases to significantly improve the performance of the mount.



205 with fan base

Fan base



205 with fiber tray

Fiber tray



205 with cover

Cover

High Power Fixtures

240 & 260 SERIES LASERMOUNTS

The 240 Series, and 262/264 **LaserMounts** feature a high thermal capacity heat sink and integrated fan to remove waste heat quickly and efficiently. The 242 and 264 **LaserMounts** also include high power TEC control, allowing you to control the case temperature of the device across a broad temperature range.

High Power

Supporting 25 watts of thermal load (at ambient, 25°C set point), the 242 is capable of handling even high power C-Mount devices. The 244, 246, and 262 offer low thermal resistances, as low as 0.2°C/Watt on the 262. Our most powerful fixture, the 264, supports up to 30 watts of thermal load.



Fits Your Application

The 242, 244, and 246 LaserMounts are designed to support industry standard C-Mount, HHL, and TO-3 packages right out of the box with no wiring or configuration needed. The 262 and 264 LaserMounts support a wide variety of devices from JDSU, nLight, Jenoptik, Lumics, and others, and can be customized to fit your exact application requirements.

Quick Specifications

	242	244	246	262	264
Primary Specifications					
Case TEC Control	Yes	No	No	No	Yes
Thermal Capacity <i>Watts, 0°C ΔT at 25°C Ambient</i>	25	N/A	N/A	N/A	30
Sensor	10K Thermistor				
Nitrogen Purge	Yes	No	No	Opt	Opt
Laser Connector	DB9			DB9 or 9W4	
TEC Connector	DB15				
Fan (12VDC)	Yes				



264 with device cover



242 TEC C-Mount LaserMount

- Nitrogen purge
- Simple cathode connection
- -5°C to +85°C operation



244 HHL LaserMount

- Slide-on connector
- Pre-wired for standard devices



246 TO-3 LaserMount

- Custom socket to accommodate various lead lengths



262 LaserMount

- High power fiber pigtailed devices
- Custom mounting options
- Low 0.2°C/W thermal resistance



264 LaserMount

- Integrated TEC control
- High power fiber pigtailed devices
- Custom mounting options



Customizing Your Cold Plate

Many applications and devices have a unique mounting pattern that is incompatible with our standard cold plates.

In these cases, we can often fabricate a custom mounting solution that meets the needs of your device.

Our 207, 262, 264, and 280 mounts support custom tooling options. Simply send us a data-sheet or mechanical drawing for the device, and we will review your requirements and provide a quote for your custom application.



TECMounts

270 & 280 SERIES TECMOUNTS

The **270 & 280 Series TECMounts** provide a flexible heating and cooling platform designed to meet demanding temperature control requirements.

The **270 Series** is our water-cooled fixtures, providing high capacity with a small form factor. The **280 Series** are air cooled mounts. Both employ a bread-board-style mounting system, making them easy to integrate into a broad range of applications.



Our Highest Power Mounts, Built for Your Application

The **270 & 280 Series** mounts were designed to provide high thermal capacities in a compact and functional enclosure, precision engineered and ready to go right out of the box. When using the mount with our 5300 or 5400 Series TECSOURCE temperature controllers and cables, setup couldn't be easier: select the appropriate mount from the menu, and the instrument auto-configures limits, gain, and fan settings for you.

Customizing the Cold Plate

When our standard breadboard plates just don't fit, the cold plate can be custom machined to fit the exact hole pattern of your application. We can put mounting holes just where you need them so your device mounts directly to the plate, without the need for adapters or modification.

At a Glance

Large Control Surface
High Thermal Capacity
Flexible Mounting Plates

Quick Specifications

	274	284	286
Primary Specifications			
Thermal Capacity <i>Watts, 25°C Plate and 25°C Ambient or 20°C Water</i>	180	30	100
Sensor (Standard Version)	10K Thermistor		
Plate Size	3.2"	3"Ø	4.2"
Fan (12VDC)	No	Yes	
Water Cooled	Yes	No	



Caution
Hot Surface!

High Temperature Option

An optional high temperature configuration is available, allowing for operation up to 150°C, but retaining the temperature range and thermal capacity of the standard mount. Because thermistors do not perform well at high temperatures, the sensor is replaced with a high accuracy Pt 100 RTD sensor.

M-Series Mounting System

New with the **280 Series** mounts is a series of mounting accessories to accommodate the integration of the **280 Series** mounts onto your optical bread board or other mechanical system. The **286** ships standard with an accessory kit that includes solutions for table and post mounting, and a kit can be ordered separately for the **284**.

Flexible Temperature Feedback

Some devices feature an integrated temperature sensor for precise temperature feedback. Others don't and require a feedback sensor integrated into the plate. The **270 & 280 Series** mounts handle both of these configurations with ease via an external (device) temperature input right on the side of the mount, and a switch to select between the plate-integrated (internal) temperature sensor and the device (external) temperature sensor. The **286** mount adds an auxiliary temperature sensor input for feedback back temperature measurements to controllers that support two sensor inputs, such as the 5400 TECSource.



Optional 284-MKIT
Accessory Kit



284 on optional MR-1.50 Riser
and MB-284 Base



286 on MB-286 Base
and MP-2.00 Posts

MultiMounts

7700 SERIES MULTIMOUNTS

*** PRELIMINARY ***

The 7700 Series MultiMount Modular Fixture System

provides a highly configurable rack-mounted fixturing system for diode heat sinking and temperature control. Each module bay in the 7700 mainframe can be individually configured, allowing for different laser types to be racked side-by-side. With each integration with the 7000 Series MultiSource, the MultiMounts provide a fast, flexible solution for rack-mounting arrays of laser diodes.

The **7700 Series** is intended to be used for light-source stations, laser qualification systems, life test systems, or even low-density burn-in applications. The **7700 Series** provides a range of fixtures that can be easily modified for different applications, enabling quick provisions for many multi-channel systems.



Active Heating and Cooling

Some 700 MultiMounts support active temperature control using Peltier coolers for the most precise temperature possible.

Copper Cold Plate

Cold plates can be machined from 100% copper with hard nickel plating for maximum performance and scratch resistance.

Standardized Cable Connectors

Designed to work with the 7000 MultiMounts using standard DB-style cable connectors.

Fiber Management

Many models include a fiber management system to maintain coiled fiber without pinching or damage.



*Butterfly
Devices*



*TO-Can
Devices*



*Fiber-Pigtailed
Modules*



*High Power
Devices*