

Laser Diode Focusing Module



AI Overview

Laser diode focusing modules are compact, adjustable devices that allow precise control of a laser beam's focus and shape for applications ranging from alignment to measurement and targeting. Overview Laser diode focusing modules are self-contained units that integrate a laser diode with an adjustable lens system, allowing users to control the beam's focus and shape. They are available in various wavelengths (typically 635–785 nm for visible red lasers) and power levels, and can produce either elliptical or circular beams depending on the lens configuration . These modules are often used as replacements for traditional helium-neon lasers due to their smaller size, durability, and versatility . Focusing Mechanisms Adjustable Lenses: Many modules include a user-adjustable glass or acrylic lens that allows fine-tuning of the beam focus. Glass lenses are preferred for long-distance applications or environments with larger temperature fluctuations, while acrylic lenses are suitable for short-distance focusing and minor temperature variations . Hand Focusing: Some modules, such as Z-Laser DM, S, and H series, provide a simple external hand focusing mechanism for easy adjustment . Collimation Tubes: For precise beam shaping, collimation and focusing tubes with aspheric optics can be used. These allow micrometer-level adjustments of the lens position without rotating the lens, improving pointing stability . Applications Laser diode focusing modules are widely used in: Alignment and positioning in industrial and robotic systems Dimensional scanning and measurement Target designation and inspection Bar code reading and analysis OEM integration in metrology and instrumentation Mounting and Accessories Modules typically feature threaded housings (e.g., M18) for easy mounting and compatibility with standard optomechanical components. Accessories may include line generators, power supplies, and mounting adapters. Some modules also provide LED indicators for operational status and pre-failure warnings . Power a...

Article Content

Coherent BioRay and StingRay Diode Laser Modules

StingRay is the highest-performing top-hat-profile laser available that comes in a variety of fan angles to create the line you need for measurement and profiling applications. Offering the same focus

Laser Diode Collimation and Focusing Tubes

Thorlabs offers passive laser diode mounts with premounted aspheric optics for collimation or focusing applications. Empty versions without optics included are

OBIS LS/LX

OBIS LS/LX are the original compact smart lasers, offering plug-and-play simplicity with over 30 wavelengths from the UV to near-IR plus optional fiber delivery.

Laser Diodes, Modules | Optoelectronics | DigiKey

Laser Diodes, Modules Laser Diodes and Modules are semiconductor devices that can emit a beam of high intensity focused radiation, typically in the infrared, visible or ultraviolet wavelength ranges of the

Module Diode Laser Rouge 12mm

Ce module diode laser rouge de 12mm offre une puissance de 5mW avec un focus réglable pour des motifs précis en point, ligne ou croix pour vos projets d'alignement et de positionnement.

Lasers | Coherent

Diode Laser Modules Coherent Diode Laser Modules are compact, economic modules that provide the beam shape, wavelength, and power you need for your

Focusable Laser Module, Adjustable Red Dot Laser

Ideal for industrial positioning, measuring, and pointing which would need a focusable laser beam at specific distances. This focusable laser module

New & Used Dual Laser Current Source Modules for sale. ILX

Search for used dual laser current source modules. Find ILX Lightwave, Perkin Elmer, Sartorius / Essen / Intellicyt, Newport, and Nikon for sale on Machinio.

ACMER X1 Laser Engraver on Kickstarter Review

The ACMER X1 laser engraver on Kickstarter combines a 120W water-cooled diode laser, optional 4W IR laser, and 200W CNC module on a platform that handles full 4x8 sheets on the X1 Ultra. 57x

0.9mW 670nm, LDM Focusable Laser Diode

Compact LDM Focusable Laser Diode Modules are self-contained and compact and offer a variety of features. They are an ideal replacement for a helium-neon laser in many applications and offer the

Laser Diodes and Pump Modules

Whether it is diodes for extremely high reliability applications such as LiDAR pumping or high-power pump modules for industrial and security applications, or

Laser Diode Modules

Diode lasers are the most common type of laser and are used in multiple applications due to their small footprint and low cost. We offer laser diode

Home | Hamamatsu Photonics

The official website of Hamamatsu Corporation whose mission is to advance science and industry through photonic technologies. Our products include optical sensors

AI Data Center Race Tightens Optical Component Supply as

CW-DFB laser diodes are gaining traction along a different path. While NVIDIA-led EML solutions focus on signal integrity and transmission performance, other cloud service providers are

Laser beam focusing

All you need to know about diode lasers focusing. Everything about 3 elements, G2, G7, G8 laser lenses. A lot of video guides and tutorials!

Laser Module (Dot/Line/Cross..) : Laser diode module, DPSS laser

2. Customized modules laser shape: dot, line, cross (green and blue-violet laser modules don't support cross shape);

Laser diode module red

The modules are equipped as standard with a high-quality, aspherical acrylic

Z-Laser Focusable Diode Modules | Edmund Optics

These versatile laser modules offer a simple external hand focusing mechanism and M18 threaded housing for easy mounting while also providing larger surface area for better heat sinking.

Laser Heads for CNC Engraving * Laser Systems,

European manufacturer of laser systems, modules, and electronics. Laser solutions for science and industry. E-shop: laser components, engraving laser heads for

Miniature LDM Focusable Laser Diode Modules

Self-contained and miniature, laser diode modules offer a variety of features. They are an ideal replacement for a helium-neon laser in many applications, and offer the benefits of superior

Desktop CNC Router Starter Kit Guide: Hybrid Versatility Maximize

Master desktop CNC router starter kits. Learn how to combine high-torque spindles with precision laser modules for safe, high-efficiency workshop production.

Compact LDM Focusable Laser Diode Modules

Compact LDM Focusable Laser Diode Modules are self-contained and compact and offer a variety of features. They are an ideal replacement for a helium-neon laser

1.2W Infrared Laser Module For Falcon A1C

Upgrade your Creality Falcon T1 with 5 laser module options (20W-MOPA). Engrave wood, metal, glass and more with precision. Bundle discounts available.ration before first use.

Contact Us

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