

How much does a high-quality laser diode cost



AI Overview

Laser diode prices range from under \$1 for basic consumer devices to tens of thousands of dollars for high-power or specialized applications.

General Price Ranges

- Consumer applications (e.g., laser pointers, optical mice, simple sensors): \$1 to \$10 per unit .
- Mid-range applications (e.g., barcode scanners, low-power laser pointers, laser engraving): \$10 to \$50 per unit .
- Industrial and high-end applications (e.g., laser cutting, medical devices, high-power systems): \$50 to \$500 per unit, with some specialized devices exceeding \$1,000 or more .

Factors Affecting Price

- Wavelength: High-volume wavelengths like red (630–670 nm) or telecom near-IR lasers are cheaper due to mass production, while specialty wavelengths (375–488 nm) for biomedical or fluorescence applications are more expensive .
- Output Power: Higher power diodes generally cost more, though packaging and spectral requirements can influence this .
- Spectral Properties: Narrow linewidth, single-mode, or distributed feedback (DFB) lasers command higher prices due to precision and performance requirements .
- Package Type: Standard TO-can packages are less expensive, while butterfly, pigtail, or high-heat-load packages increase cost

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Why can laser pointers be so much cheaper than the diode alone?

Lately though ive noticed that many high powered laser pointers seem to cost far less than the diode of that power

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How Much Does a Laser Cutter Cost? (Explained)

The cost of replacing a laser module depends on the type and power – for example, high-quality 10W diodes usually

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Diode Lasers – Buyer's Guide & Supplier List | RP Photonics

This buyer's guide for diode lasers provides technical background, comparison of major types, selection criteria, and an overview of

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Laser diodes, which are capable of converting electrical current into light, are available from Lasertree with center wavelengths in the

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Are you curious about how much a laser cutting machine costs or what factors influence their prices? Whether you're

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What are Laser Diodes? | TechWeb

Typical diodes use silicon, but laser diodes use compound semiconductors, and therefore have high luminous

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Parameter Overview of Laser Diodes by Dr. Kamran S. Mobarhan

One laser diode could demonstrate a much higher threshold current than another device and yet be considered a much better laser.

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price list

CHIP-650-P5, 650 nm, 5 mW, laser diode chip, sm (no guarantee on bare dies!)

CHIP-650-P10, 650 nm, 10 mW, laser diode chip,

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LASER DIODE SOURCE

HIGH POWER LASER DIODE BASICS | HIGH POWER LASER DIODE PRICE GUIDE. High power laser

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Best Laser Cutters and Engravers 2026: Diode, CO2

Higher wattage machines are more expensive and can cut through thicker material in one pass. To help

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Our vast selection of laser diodes includes both free-space & fiber-coupled outputs, like high-power Fiber-Coupled Multimode, high

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Diode Laser Machine Cost & Pricing Factors

Pricing varies significantly depending on new vs pre-owned, single vs triple wavelength, handpiece design, and

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Amazon : Laser Diodes

Laser Diode 10Pcs 5V 650nm 5mW Mini Red Dot Laser Head, 6mm Outer Diameter Laser Module with Leads, for Arduino Laser DIY

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://ntmmgroup.co.za>

Email: sales@ntmmgroup.co.za

Phone: +27 82 471 2596

Address: Unit 7, Optic Park, 24 High-Tech Lane, Century City, Cape Town, 7441, South Africa

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