

Reference Price for Custom-Made Laser Diodes

Article Overview

Custom laser diodes can range from a few hundred dollars to tens of thousands of dollars depending on wavelength, power, packaging, and spectral requirements.

Price Range Overview

The cost of a custom laser diode is highly variable and depends on several key factors:

- o Wavelength and Application: High-volume wavelengths used in consumer electronics (e.g., red 630-670 nm) are generally less expensive, while specialty wavelengths for biomedical, industrial, or telecommunications applications can be significantly more costly due to lower production volumes and specialized requirements .
- o Output Power: Higher power diodes command higher prices. For example, a standard low-power diode may cost under \$10, whereas high-power or multi-watt diodes can reach several thousand dollars .
- o Package Type and Features: Hermetically sealed packages, integrated lensing, thermoelectric cooling (TEC), or photodiode monitoring increase the cost. Custom packages like HHL or SMA with specific lensing or cavity designs are more expensive than standard off-the-shelf packages .
- o Spectral Properties: Narrow linewidth, single-mode, or distributed feedback (DFB) diodes are more expensive than broad-spectrum or multi-mode diodes .
- o Quantity: Unit price decreases with larger production volumes, but custom designs often have higher initial setup costs .

Typical Cost Examples

- o Low-power, standard wavelength diodes: \$1-\$50 per unit for small quantities .
- o Specialty or high-power diodes: \$500-\$5,000 per unit depending on power, wavelength, and packaging .
- o Highly customized solutions: Multi-watt diodes with specific cavity lengths, hermetic sealing, and integrated optics can exceed \$10,000 per unit, especially for low-volume or prototype orders .

How to Obtain a Quote

For precise pricing, it is recommended to submit your specifications to custom laser diode suppliers such as RPMC Lasers or GoPhotonics, providing details like wavelength, output power, package type, and quantity. These suppliers can provide tailored quotes and suggest cost-effective alternatives if available .

Key Takeaway



Reference Price for Custom-Made Laser Diodes

Custom laser diode pricing is highly dependent on technical specifications and production volume. While basic diodes may be inexpensive, specialized or high-power custom diodes can be very costly, and obtaining a direct quote from a manufacturer is the most reliable way to determine the reference price for your specific requirements .

Customized Laser Diode Modules Overview Opt Lasers is uniquely renowned for quick development as a

Learn more The Best Laser Cutters & Laser Engravers Reviews 1. xTool D1 Pro 10W -

PRICE LIST 2026.06.18 EUR 1

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

We design and manufacture OEM laser diode modules tailored to your application requirements. Custom

261nm-14µm+ and 1mW-1kW+, featuring high precision, advanced modulation, specialty optics, USB control, and custom solutions

Shop our collection of Laser Diodes: 375-9400nm, largest selection of diode laser packages &

Shop DigiKey's large in-stock selection of Laser Diodes, Modules. View inventory, pricing and order now for same day shipping!

We produce a comprehensive range of premium laser diode chips for diverse application scenarios, utilizing state-of-the-art quantum

RPMC provides a wide selection of Made in the USA laser diodes, as well as ultra-compact, pulsed micro DPSS lasers. We provide

With nearly 30 years of experience providing the right laser at the best price, RPMC has the partnerships & technical knowledge to

With over 400 standard packages and three decades of experience, CEO's laser diodes have been used for a wide range of

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

Reference Price for Custom-Made Laser Diodes

LDX Optronics: US-made custom high-power laser diode solutions - Fully tailored: wavelength, power, packaging, lensing, hermetic

A Laser Diode is a type of semiconductor device that produces coherent light through the process of stimulated emission. Laser

Mouser offers inventory, pricing, & datasheets for Laser Diodes.

Web: <https://www.supremeacademicresearch.co.za>

