

Article Overview

Q blue laser diodes are available in CW and Q-switched configurations, typically at wavelengths of 438-473 nm, offering high stability, compact design, and fiber-coupling options for scientific, industrial, and OEM applications.

Overview of Q Blue Laser Diodes

Wavelengths and Types: Q blue laser diodes are commonly available at 438 nm, 440 nm, 447 nm, and 473 nm. They come in continuous wave (CW) and Q-switched diode-pumped solid-state (DPSS) configurations. CW lasers provide stable, low-noise output for measurement, communication, and spectrum analysis, while Q-switched lasers deliver high peak power, short pulse duration, and high repetition rates, suitable for marking, carving, and scientific research . **Power and Performance:** These lasers feature high power output, excellent power stability, and long operational lifetimes. Many models are designed for ultra-compact integration, with low noise and minimal vibration, making them ideal for laboratory and industrial setups . **Fiber Coupling and Modules:** Most 440 nm Q blue laser modules can be coupled with multi-mode (MM) or single-mode (SM) fibers of various core diameters. The FC series integrates the laser diode, resonator, fiber coupling optics, power supply, and temperature/current control in a single package, simplifying operation and enhancing reliability . **Applications:** Q blue laser diodes are widely used in:

- o Scientific research and spectroscopy
 - o Laser pointing and measurement
 - o Industrial marking and micromachining
 - o OEM and medical applications requiring compact, stable laser sources
- Manufacturers and Availability:** Companies like HT Laser and CrystaLaser provide a range of Q blue laser diodes with plug-and-play operation, no cooling requirements, and high beam quality. These lasers are designed for TEM00 mode operation, low amplitude noise, and energy-efficient performance . **Distributors** such as Mouser Electronics offer datasheets, pricing, and inventory for various blue laser diode models . **Special Features:** Some Q blue laser diodes offer ultra-stable single longitudinal mode with coherence lengths exceeding 50 meters, and optional long-term power stability (

Laser diodes are available at Mouser Electronics from industry leading manufacturers. Mouser is an authorized distributor for many

This buyer's guide for blue lasers provides technical background, comparison of major types, selection

Mouser offers inventory, pricing, & datasheets for Blue 450 nm Laser Diodes.

Q Blue Laser Diode Model

Amazon.com: Blue Diode Laser Check each product page for other buying options. Price and other details may vary based on

Compact high-brightness and highly manufacturable blue laser modules Serafini, Valentina, Riva, Martina, Pippione,

High-speed GaN-based lasers play a pivotal role in visible light communication (VLC) systems; however, the causes

Laser diodes, which are capable of converting electrical current into light, are available from Thorlabs with

“I have been using laser diodes from QPhotonics for several years in time-resolved luminescence experiments. These laser diodes

QPhotonics offers a variety of single mode fiber pigtailed laser diodes in the wavelength range from 660nm to 1550nm in 14 pin DIL,

Blue 450 nm Laser Diodes are available at Mouser Electronics. Mouser offers inventory, pricing, & datasheets for Blue 450 nm Laser

Back Blue laser modules are available at 375 nm, 405nm, 440nm, 473nm and 488nm wavelengths. Blue

Lumentum Q-Series[®] lasers lead the market for high-power Q-switched diode-pumped UV and green lasers used for a wide variety

SPECIFICATION DEVICE SPECIFICATION FOR Laser Diode MODEL No. GH04W10A2GC
Mar.13,2015 ELECTRONIC

Laser diodes (LD) are semiconductor devices that convert electrical energy into high-power optical energy. These

ROHM offers laser diodes (LDs) for Light Detection and Ranging (LiDAR). This application note will introduce ROHM's LD line-up

These blue lasers are specifically designed for OEM, scientific and industrial use. Current available blue laser products including

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

