

Article Overview

Leading manufacturers of ultraviolet laser diodes include RPMC Lasers, Ushio Europe, EQ Photonics, and HUBNER Photonics, offering a wide range of UV wavelengths and custom solutions for industrial, scientific, and medical applications.

Key Manufacturers and Offerings

RPMC Lasers provides a broad selection of UV lasers and diodes covering wavelengths from 200 nm to 389 nm. Their products include single emitter diodes, DPSS, and microchip lasers, available in single-mode and multimode configurations. RPMC supports both free-space and fiber-coupled setups, with turnkey systems and OEM solutions for applications such as micromachining, Raman spectroscopy, and fluorescence studies . Ushio Europe offers UV laser diodes in the 375-410 nm range, with power levels from 5 mW to 3 W. Their diodes are compact, efficient, and suitable for precision applications in metrology, spectroscopy, sensor technology, quantum technology, and medical devices. Ushio emphasizes reliability, long lifetime, and compliance with RoHS and REACH standards . EQ Photonics focuses on next-generation UV laser diodes using ultra-wide band gap semiconductors like aluminum nitride (AlN). Their devices currently operate in the 265-295 nm range, with development extending up to 325 nm. EQ Photonics specializes in deep UV optoelectronics, offering innovative solutions for high-performance and emerging applications . HUBNER Photonics provides advanced UV lasers, including single-frequency and Q-switched lasers at 355 nm, and continuous-wave diode lasers at 375 nm. Their products are tailored for high-precision applications in research and industry, with long lifetimes and high stability .

Applications

UV laser diodes are widely used in:

- o Industrial processing: Micromachining, marking, and photolithography
- o Scientific research: Raman spectroscopy, laser-induced fluorescence, and quantum optics
- o Medical procedures: Corneal surgery, dermatology, and precise tissue ablation
- o Semiconductor manufacturing: Wafer inspection and nanometer-scale patterning

Considerations for Selection

When choosing a UV laser diode manufacturer, consider:

- o Wavelength range and compatibility with your application
- o Power output and beam quality (single-mode vs multimode)
- o Integration options (fiber-coupled, free-space, or turnkey systems)



Ultraviolet Laser Diode Manufacturer

- o Customizability for OEM or research-specific requirements
- o Reliability and lifetime, especially for high-demand industrial or medical use These manufacturers provide both off-the-shelf and custom solutions, ensuring flexibility for diverse applications in photonics, research, and industrial processes.

Single Diode Modules Our diode laser modules are equipped only with high-quality laser diodes manufactured by prestigious laser

Find your ultraviolet laser easily amongst the 77 products from the leading brands (TRUMPF, Newport, LASIT, ...) on DirectIndustry,

These efforts enable new solutions for a wide range of applications, including projection, lighting, industrial, automotive, and medical.

Bringing Our Expertise to UV Laser Process With 50 years of experience in UV lasers and optical systems,

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

Our CW laser diode (LD) modules include the laser diode with the thermal management and electrical interface in a simple and easy

At the forefront of ultra-wide band gap semiconductor innovation, Ultec specialize in AlN-based device technologies, a field where

Laser diode market leaders ranked: the top 10 companies powering telecom, healthcare, and defense innovation, with

Opto Diode designs and manufactures high quality standard and custom Detectors and emitters covering

World Star Tech offers laser diodes from leading manufacturers including OSRAM, USHIO, and II-VI, alongside our own laser diode

AlN offers exceptional potential for deep ultraviolet optoelectronics and next-generation power devices. Leveraging Ultec's expertise

UVC Photonics produces the worlds only deep ultraviolet diode laser modules. The Model 261 lasers are OEM components which

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



Ultraviolet Laser Diode Manufacturer

Ushio releases the world highest optical output power of 400mW at 405nm wavelength, single-mode laser diode. and have garnered

Ultraviolet (UV) Laser Diode Modules Historically, precise ultraviolet light has relied on gas-powered lasers. Recent technological

Integrated frequency conversion with massive bandwidth Leveraging groundbreaking developments within

Web: <https://bssoda.pl>

