

What is a Nordic laser diode



Overview

Laser Components Each product in our wide range of detectors, laser diodes, laser modules, optics, Laser Combiner-Nordic Combiner Laser Engine from Combine.

Key Takeaways

A Nordic laser diode is a semiconductor laser component offered by LASER COMPONENTS Nordic, designed for a wide range of wavelengths and applications in photonics and optoelectronics. What is a Laser Diode?

A laser diode is a semiconductor device that converts electrical current into coherent light through stimulated emission. It operates similarly to a light-emitting diode (LED) but is designed to produce a highly focused, monochromatic, and coherent light beam. The diode consists of a p-n junction where electrons and holes recombine in the active region, emitting photons. The wavelength of the emitted light depends on the semiconductor material used, ranging from infrared to ultraviolet spectra. Laser diodes are widely used in fiber-optic communications, barcode scanning, laser printing, medical devices, and general illumination when combined with phosphors.

Nordic Laser Diodes

Nordic laser diodes are part of the product portfolio of LASER COMPONENTS Nordic, a company serving Sweden, Norway, Finland, Denmark, and Iceland. They manufacture and distribute a variety of laser components, including:

- Continuous-wave (CW) laser diodes in infrared, red, green, and blue wavelengths.

- Pulsed laser diodes (PLDs) at 850 nm, 905 nm, and 1550 nm for applications like range finding and machine vision.
 - VCSEL emitters with stable beam quality and temperature-independent wavelengths.
 - UV LEDs covering UVA, UVB, and UVC ranges from 200 nm to 415 nm.
 - High-power visible lasers and modules with wavelength and power stabilization.
 - Drive electronics and collimators for precise beam shaping and operation .
- Applications

Nordic laser diodes are used in diverse fields, including:

- Sensor technology and industrial automation
- Biotechnology and life sciences
- Aerospace and defense
- Medical technology
- Scientific research and environmental monitoring

Customization and Support

LASER COMPONENTS Nordic emphasizes customized solutions, allowing clients to request specific wavelengths, power levels, or module configurations. Their in-house production ensures quality control, and they provide technical support for integrating laser diodes into various systems . In summary, a Nordic laser diode refers to a laser diode product from LASER COMPONENTS Nordic, offering a broad range of wavelengths, types, and applications, with options for customization to meet specific industrial, scientific, or medical needs.

Article Content

Emitters

LASER COMPONENTS Nordic - Your competent partner for optical and optoelectronic components in Sweden, Norway, Finland,

Laser Combiner-Nordic Combiner Laser Engine from CrystaLaser

The Nordic Combiner can combine the diode laser systems and the DPSS laser systems together into one beam or one fiber output,

LASER COMPONENTS Nordic

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About us

LASER COMPONENTS Nordic - Your competent partner for optical and optoelectronic components in Sweden, Norway, Finland,

Detectors

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

