

Origin of 505nm Laser Diode in Germany



Overview

Die Idee, eine Halbleiterdiode als zu nutzen, wurde nach dem Erscheinen der ersten Laser 1960 und auch schon vorher von verschiedenen Physikern verfolgt. Anfang der 1960er Jahre lieferten sich mehrere Labore einen Wettlauf um den Bau des ersten Halbleiterlasers: von (), von General Electric (), Marshall Nathan von und Robert Redi.

AI Overview

505nm laser diodes in Germany are primarily produced by specialized companies such as Frankfurt Laser Company (FLC) and Lumics, offering single-mode and high-precision devices for research and industrial applications. German Manufacturers Frankfurt Laser Company (FLC) produces 505nm laser diodes, such as the FVL50580S model, which delivers single-mode output up to 80mW in a TO-18 can package. These diodes include integrated features like a monitor photodiode for power feedback and a zener diode for reverse transient protection, making them suitable for R&D applications in North America and Europe . FLC also provides engineering support for custom solutions and integration into laser modules. Lumics, based near Berlin, is another key German manufacturer, although their primary wavelength range is 670–1940nm. While Lumics focuses on GaAs, InP, and GaSb-based diode lasers, their expertise in single-emitter technology and full in-house production capabilities—from wafer to fiber-coupled modules—demonstrates Germany's advanced infrastructure for high-quality diode laser manufacturing . Technical Context Laser diodes emitting at 505nm fall within the green portion of the visible spectrum (495–570nm). Producing efficient green laser diodes is challenging due to material limitations, and historically, output powers in this range have been lower compared to blue or infrared diodes . German companies like FLC have addressed these challenges by offering low-noise, single-mode diodes suitable for p...

Article Content

Direct Diode Emission Device of 505nm Green Laser Diode Module

505nm green laser diode module When propagating in the atmosphere and other media, 505nm green laser diode module 's scattering characteristics are neither too strong like short

505nm Green Laser Diode Modules | Berlinlasers

Direct diode emission 505nm green laser diode keeps work with intense and highly bright green laser light projection form inner 505nm green laser diode, assuring high stability and high efficiency dot

Laserdiode - Wikipedia

ÜbersichtGeschichteFunktion und AufbauStand der TechnikElektrisches Verhalten und AnsteuerungTypische Parameter und BesonderheitenAnwendungenWeblinks

Die Idee, eine Halbleiterdiode als Laser zu nutzen, wurde nach dem Erscheinen der ersten Laser 1960 und auch schon vorher von verschiedenen Physikern verfolgt. Anfang der 1960er Jahre lieferten sich mehrere Labore einen Wettlauf um den Bau des ersten Halbleiterlasers: Robert Noel Hall von General Electric (Schenectady), Nick Holonyak von General Electric (Syracuse), Marshall Nathan von IBM und Robert Redi

505nm Laser Systems | Lasermate Group, Inc.

505nm Green Diode Laser Systems Lasermate Group, Inc. is proud to offer 505nm laser systems. Our laser products at 505nm include the following series:

Laser Components

Our production sites in Germany, Canada, and the USA specialize in manufacturing products on customer request that are individually tailored to your applications.

505nm Laser Diodes from Frankfurt Laser Company

These model FVL50580S laser diodes from Frankfurt Laser Company (FLC) are 505nm lasers with a single mode output up to 80mW. These devices are offered in a TO-18 can package with a monitor

505 nm Laser (CW Diode; PM Fiber)

This laser module is permanently fiber-coupled to a single-mode polarization-maintaining fiber and provides a perfect beam with a polarization extinction ratio of more than 20 dB. By default, this type

DLL505 Series 505nm Low Noise Diode Laser System up to 80mW

Overview The DLL505 series diode laser is ideal for applications that require a wavelength of 505nm and output power levels up to 80mW. The laser features a compact design, low noise, long operating

505nm Laser Diode from COHERENT

The laser system is controlled remotely via USB or RS232, and the PC control software is included. The OBIS system provides features to ensure a long operating lifetime, and to help protect the user while

Laser Technology and the German Laser Industry

The quantitative analysis of innovation networks in the German laser industry requires a profound understanding of industry characteristics. This includes a solid understanding of the

Excelsior® CW Lasers | CW Lasers

Features Diode-Pumped Solid State Lasers Using patented frequency-doubling techniques, Excelsior diode-pumped solid state (DPSS) lasers provide visible light with high conversion efficiency for lower

nm laser modules – Kvant Modules

The diode laser modules that output red, green and blue laser beam, as well as full-colour white-light laser beam (RGB laser diode modules), are used mainly in laser display projectors. For this purpose

505 nm lasers

505 nm lasers Here are our selection of solid state 505 nm lasers. Choose between diode lasers with powers up to 300 mW and tunable lasers. Perfect for interferometry, Raman spectroscopy and

FWSL-505-050-TO18-SM

FWSL-505-050-TO18-SM - Laser Diode from Frankfurt Laser Company. Get product specifications, Download the Datasheet, Request a Quote and get pricing for FWSL-505-050-TO18-SM on

505nm Laser Diode, 100mW

505nm, 100mW Cyan Laser Source System Overview This plug-and-play laser source utilizes Coherent's Optically Pumped Semiconductor Laser (OPSL) technology to deliver industry-best laser

505nm, 515nm, 520nm, 532nm Green Laser Diode Modules

Wide range wavelengths of 505nm, 515nm, 520nm, and 532nm green laser diode modules assure high brightness green laser light emission and highly clear green dot measurement

Coherent® OBIS™ 1270955 | 505nm LX 50mW Laser

Coherent® High Performance OBIS™ LX/LS Laser Systems enable DNA Sequencing, polymerase chain reaction (PCR) diagnostic instruments, genomics, drug discovery, and virology.

505nm 5mW to 100mW Green Laser Diode Modules

Direct diode made 505nm green laser diode module gets advanced use of thermal emitting system, qualified 505nm green laser diode and glass coated lens, it assures high quality and high brightness

Stradus 505-70

The first medical use of a laser occurred in 1961, shortly after the invention of the laser, when an ophthalmologist named Dr. Charles J. Campbell used a ruby laser to treat a retinal tumor.

505 nm Green Solid State Lasers

Scitec Instruments offers cost effective ultra-compact Diode Pumped Solid State (DPSS) lasers. Its lasers feature high reliability, high stability, high efficiency, low noise and excellent beam quality.

Low Noise 505nm laser used in life science and scientific experiment

505nm 70mW Diode Laser Lasence designed a series of high performance lasers with very compact size used in the applications of Life Science, Scientific Experiment, Optical Instrument, Medical

505nm Diode Pumped Solid State Laser | Lasers | KYOCERA SOC

Introduction to 505nm laser. KYOCERA SOC Corporation's 505nm laser is a Nd:YAG and Nd:YVO4 based diode pumped solid state product generating 505nm wavelength light through the non-linear

Laser diode

While initial diode laser research was conducted on simple P-N diodes, all modern lasers use the double-hetero-structure implementation, where the carriers and the photons are confined in order to

505nm Laser Diode, 30mW Green Laser

505nm Single-Mode Green Laser Diode These 505nm laser diodes offer optical output power of up to 30mW. They are housed in a TO-Can type 5.6 mm package. 505nm Green Laser Diode Features:

1.1 Laser Diodes: A Very Brief History

reader should develop an appreciation for how lasers work in general, how semiconductor lasers look and operate and finally how laser diodes may be combined with other micro-optical components to

505nm VS 532nm Green Laser Diode Module | Berlinlasers

532nm green laser diode module applies advanced 532nm green DPSS laser tech, and 505nm green laser applies advanced semiconductor laser diode tech. Both are getting great use for

505nm Laser Diode from COHERENT

505nm, 40mW Blue Laser Source System Overview These plug-and-play laser sources utilize Coherent's Optically Pumped Semiconductor Laser (OPSL) technology to deliver industry-best laser

Contact Us

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