

Origin of 505nm Laser Diodes in Northern Europe



Article Overview

505 nm laser diodes in Northern Europe are primarily based on InGaN (Indium Gallium Nitride) technology, with key production and development led by companies such as ams OSRAM.

Technology Background

505 nm laser diodes fall within the green visible spectrum and are typically produced using InGaN semiconductor materials, which allow direct emission of green light without frequency doubling. InGaN diodes are highly efficient, capable of operating at elevated temperatures up to 85°C without active cooling, and can deliver stable output power for thousands of hours, making them suitable for compact optical systems and industrial applications (ams OSRAM) .

Regional Production and Companies

In Northern Europe, Germany-based ams OSRAM is a leading developer and supplier of visible InGaN laser diodes, including green wavelengths around 505 nm. Their technology portfolio includes single-mode and multi-mode diodes, with power outputs ranging from tens of milliwatts to several watts, suitable for applications such as pico projectors, optical imaging, and industrial laser systems . While other European companies may distribute or integrate these diodes, ams OSRAM represents the primary source for high-quality 505 nm diodes in the region....

Article Content

Sep 12, 2025

Laser Diodes | more important information about laser diodes

In addition to integrating laser diodes into engraving lasers and scientific lasers, Opt Lasers also sells individual laser diodes, often in

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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

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Laser Diode

The first visible wavelength laser diode was demonstrated by Nick Holonyak, Jr. later in 1962. Other teams at MIT Lincoln

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Light-emitting diode

In a light-emitting diode, the recombination of electrons and electron holes in a semiconductor produces

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FVLD-505-80S

The entertainment industry employs visible lasers in light shows to create striking visual effects. In measurement and detection, laser

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505nm Laser Diode from COHERENT

505nm, 40mW Blue Laser Source System Overview These plug-and-play laser sources utilize Coherent's Optically Pumped

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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

Mar 12, 2026

High-Power Laser Diodes Market in Western and Northern Europe

Demand for high-power laser diodes in Western and Northern Europe is forecast to expand at a compound annual rate

May 05, 2026

The Origin of 505 nm-Peaked Photoluminescence from Ba

A 505 nm-peaked photoluminescence of phosphor for white-light-emitting diodes originating from an intermediate

Jan 01, 2026

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

Dec 06, 2025

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

Coherent® High Performance OBIS™ LX/LS Laser Systems enable DNA Sequencing, polymerase chain reaction (PCR) diagnostic

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505nm 30mW Pigtailed Laser Diode

Pigtailed Laser Diode Modules feature an integrated driver for plug and play operations, making them ideal for laboratory and OEM

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Western and Northern Europe Ultraviolet Laser Diodes

The Western and Northern Europe ultraviolet laser diodes market sits at the intersection of advanced photonics, precision

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

505nm Diode Pumped Solid State Laser JUNO Compact series offers a Nd:YAG and Nd:YVO4 based diode pumped solid state

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Visible InGaN Laser Diodes

We offer various versions from 1.6 to 5.0 Watt for industry and automotive applications with a typical wavelength of 447 nm. With the

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48 Laser Diode Manufacturers in 2026

48 Laser Diode Manufacturers in 2026 This section provides an overview for laser diodes as well as their applications and principles.

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Laser diode

While initial diode laser research was conducted on simple P-N diodes, all modern lasers use the double-hetero-structure

May 28, 2026

Photonic Frontiers: Laser diodes: Looking back/Looking

Once the weaklings of the laser world, unable to emit a few milliwatts continuously at room temperature,

Jun 01, 2026

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

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505 nm Laser (Diode; Free-Space)

DESCRIPTION Green laser sources are often used for fluorescence excitation, Raman scattering, as well as for Ti:sapphire pumping

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Visible Laser Diodes Market in Western and Northern Europe | Report ...

The Western and Northern Europe visible laser diodes market is estimated to expand at a compound annual growth

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Toc 1..8

They made lasers with GaAs active regions and GaPAs cladding layers, but the lattice mismatch between the two materials made

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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

May 02, 2026

European Laser Science and Technology Landscape and Roadmap

This analysis aims to broadly qualify and quantify the European laser community to provide a better understanding of: the services

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405nm Laser Diodes

However, relative to red laser diodes, 405nm blue devices are more expensive and more difficult to procure. The 405nm wavelength

Nov 23, 2025

Why the Sharp 5.6mm GH05050A2G Green 505nm Laser Diode Is

The blog explores the benefits of the Sharp 5.6mm GH05050A2G 505nm laser diode, highlighting superior spectral compatibility,

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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

Jul 19, 2026

Short history of laser development

Optical Engineering is an SPIE journal that publishes peer-reviewed articles reporting on research, development, and applications of

Oct 18, 2025

505 nm Green Laser, Diode Laser | CNIlaser

505nm green diode laser is manufactured by CNIlaser, the power can be provided for 1-80mW, with high performance.

Nov 14, 2025

A History of the Laser: 1960

A History of the Laser: 1960 - 2019 By Hank Hogan In 2020, the laser will celebrate its 60 th anniversary. Here Photonics Media

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Europe 405nm Laser Diodes Market Demand and Revenue Growth

The "Europe 405nm Laser Diodes Market Industry" provides a comprehensive and current analysis of the sector, covering key

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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

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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.

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405nm Laser Diodes Market Analysis 2026

The Global 405Nm Laser Diodes market size is USD 108951.2 million in 2023 and will expand at a compound annual growth rate

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List of Europe Laser

Find detailed info on Laser - Diode manufacturers in Europe. View 8 Europe Laser - Diode manufacturing company profiles. Submit a

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