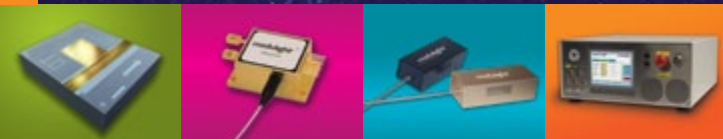


modulight
on your wavelength

Company profile and Products



On your
wavelength

Modulight, Inc. Company profile

Laser expertise.

Modulight, Inc. is an ISO 9001:2001, ISO 14001:2004 and ISO 13485:2003 certified diode laser company providing value-added solutions to optical applications for medical, industrial, communication, defense, and aerospace industries. Modulight's critical success factors are: Agility, Profitability, Customer focus, and Reliability.

Service beyond the standards.

Modulight is committed to providing exceptional satisfaction and responsiveness to all customers. This would not be possible without our highly skilled experts and sophisticated production environment combined with unique business process management through state-of-the-art IT tools.

At Modulight, we don't promise, we deliver!

Exceeding customer expectations continues to be one of Modulight's key principles. During the past years we've taken another step towards full service customer experience. Working together with some of our key customers, we have developed products tailored specifically for their new applications.



Proven performance

The excellence of Modulight's work is recognized by customers and market analysts.

Modulight was awarded two times by Frost & Sullivan: in 2006 for its innovative approaches and remarkable efforts to develop high-power laser diodes and in 2008 for outstanding product development strategy and impressive revenue growth.

Our customers stand
proof of our success:

"I sincerely wish to continue our good relationship. It is that I can relay internally that this is not only a matter for providing a few-off solution for us, but that there is a strategic commitment by Modulight in providing full solution."

- Senior scientist, Global solutions provider in genetics and diagnostics

"Thank you for the really fast process. It's really great to work with you."

- Development engineer at a global medical equipment manufacturer

Still googling for a solution?

Modulight products include various types of lasers from visible to infrared with output power levels from milliwatts to hundreds of watts. Modulight also provides laser solutions from design and manufacturing of laser diodes to OEM-based optical sub-systems and turnkey laser systems

Modulight product offering



SparkLight - turnkey systems >

Wavelength: 465 - 1550 nm
Power: 3 - 40 W



Chips and mounted products >

Wavelength: 632 - 1650 nm
Power: 0.1 - 100 W (CW)



LimeLight - laser systems >

Wavelength: 465 - 1550 nm
Power: 0.4 - 1.5 W



FiberLight - fiber-coupled lasers >

Wavelength: 465 - 1550 nm
Power: 0.4 - 30 W

Let us find the best laser for your application!

Taking care of your well-being

Lasers for medical applications

Lasers are increasingly being deployed in the medical field from surgery to non-invasive therapeutic procedures. Semiconductor lasers are wavelength versatile and offer a high level of customization of the output power and beam delivery. This enables their use in applications as diverse as non-surgical treatment of varicose veins, dentistry or therapeutic and cosmetic treatments.



Photodynamic therapy (PDT) is an important technique for the treatment of cancer, age-related macular degeneration, psoriasis and for bacteria reduction in dentistry. **Low level laser therapy (LLLT)** is typically used for therapeutic and/or stimulating skin treatments and involves lower laser power doses than those generally used in surgical operations.

In **surgery**, lasers are used to cut, coagulate and vaporize. Various types of lasers and pulse energies are used based on the absorption properties of the target tissue. The application of lasers in **dentistry** enables dentists to perform a wide variety of dental procedures they otherwise might not be capable of performing. When used for surgical and dental procedures, the laser acts as a cutting instrument or a vaporizer of tissue that it comes in contact with. When the laser is used for curing a filling, it helps to strengthen the bond between the filling and the tooth. In teeth whitening procedures, the laser acts as a heat source and enhances the effect of tooth bleaching agents.

modulight+



Modulight solutions >

Photodynamic therapy

Wavelength: 635 - 690 nm, 730 - 810 nm
Power: 0.5 - 7 W

Low level laser therapy

Wavelength: 465 nm, 635 - 690 nm
Power: 0.5-7 W

Dentistry

Wavelength: 465 nm, 810 - 980 nm
Power: 0.5-10 W

Surgery

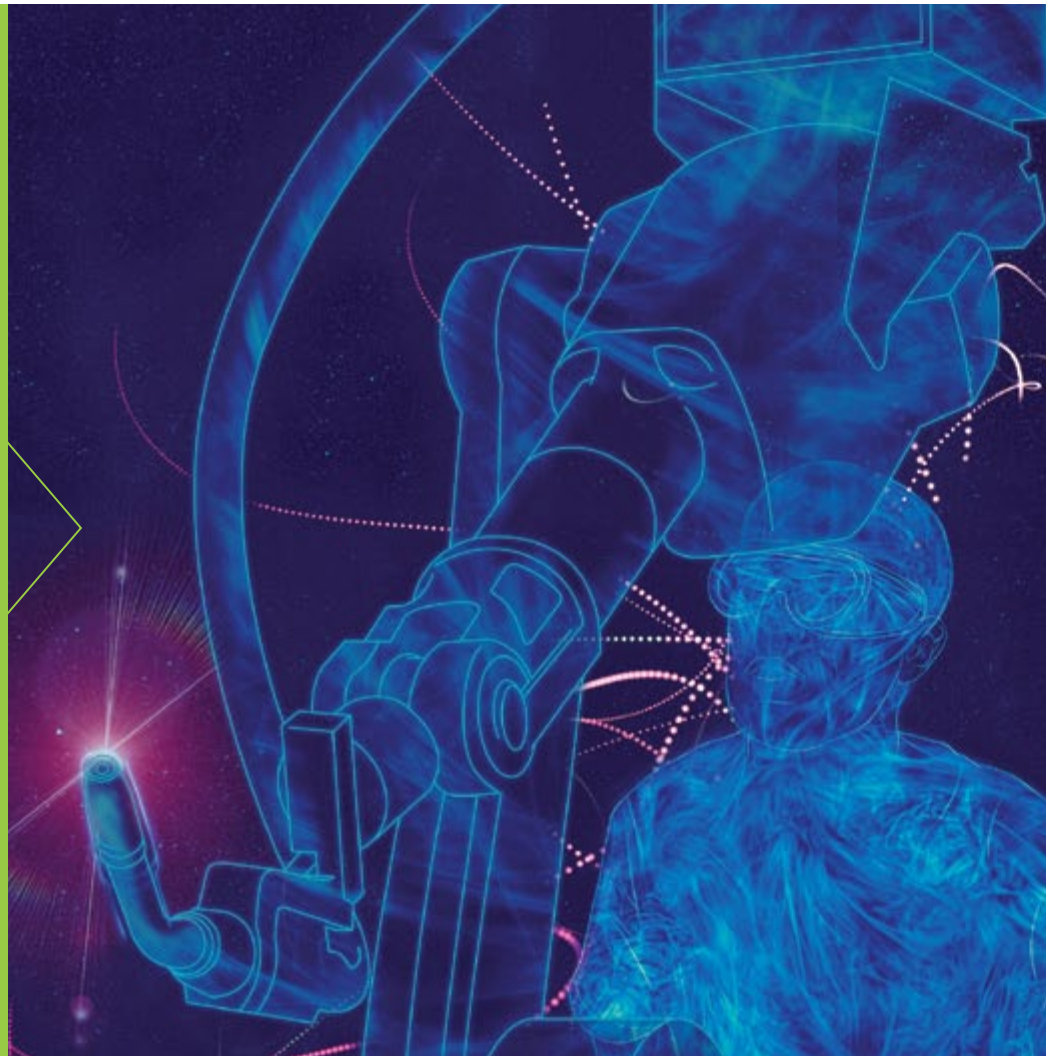
Wavelength: 800-1500 nm
Power: 10-35 W



Powering your productivity

Lasers for industrial & environmental applications

Lasers are already essential tool for monitoring and materials processing in many industrial and environmental processes. Key drivers for this development have been high efficiency and brightness compared to conventional light sources, possibility for remote non-contact materials processing and monitoring, and shorter cycle times through fast processing. We are using daily laser processed products without perhaps recognizing this; most of the cars, cell phones and also many food products are nowadays laser processed or controlled.



Since their discovery, lasers have offered revolutionary solutions to **environmental monitoring**. Some examples among the possible atmospheric deployment of lasers include: profiling of density, humidity and temperature of air; observation of stratospheric aerosols; monitoring of pollutants or detecting hazardous and greenhouse gases. Compact **gas detection** instruments are increasingly needed for industrial health and safety, environmental monitoring and process control.

High-power pump diode lasers are at the heart of almost all solid-state and fiber laser systems deployed in **materials processing**. In many industrial applications such as printing, scanning, and marking or plastic welding, high-power diode laser solutions are also becoming more competitive for direct use due to their compactness and cost efficiency.

Lasers have been widely deployed in **test and measurement** applications in a number of industries. Applications range from detection of defects or non-uniformities in paper, steel, or food industries to conditioning fiber optic networks in optical communications by optical time domain reflectometry (OTDR).

Modulight solutions >

Environmental monitoring, gas sensing

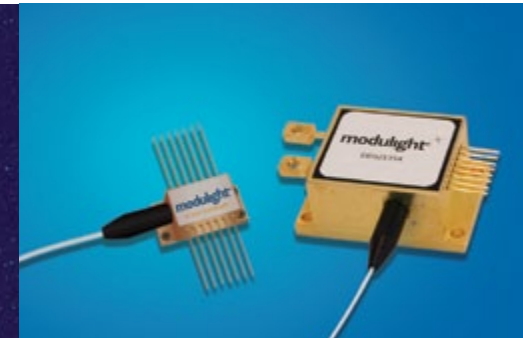
Wavelength: 830 nm, 905 nm, 1300 - 1650 nm
Power: 200 mW - 50 W

Materials processing

Wavelength: 790 - 850 nm, 940 - 980 nm, 1300 - 1650 nm
Power: up to 50 W (CW) and 250 W (QCW)

Test & measurement

Wavelength: 790 - 850 nm, 1300 - 1650 nm
Power: 10 - 300 mW



Lighting up your perimeter

Lasers for defense & security applications

Lasers and laser technologies are widely used in defense and security fields. Applications include perimeter security, range-finding, target designation, monitoring of hazardous gases, and illumination. Having to pass the critical qualification criteria required for deployment in defense applications has helped make diode laser technology one of the most reliable photonics technologies available today.



A **rangefinder** is a device that measures the distance from the observer to a target for the purposes of surveying, auto-focusing or accurately aiming a weapon. Whether you are **pointing** at a specific location or adjusting your line-of-sight, lasers can help accurately assess the situation. Designed for continuous-wave operation and boasting impressive life spans, the compact and low power consumption diode lasers can really make a difference in this application area.

Illumination is a critical part of battlefield conditions. Shadows offer good places to hide, while bright areas are more exposed. It is often beneficial to fight with the sun or other light source behind one's back giving the enemy a disturbing visual glare and partially hiding one's own movements in backlight. If natural light is not present, searchlights and flares usually at near IR wavelengths, can be used both, directly and from the air. However, the use of an illuminator may also disclose one's own hidden position, so the use of eye-safe illuminators, not visible with conventional imaging technologies, may be desired.

Looking to **secure a perimeter**? Fiber optics is the ideal way to do that. Impervious to lightning, water, frost, dust, or sunlight, optical fiber provides a higher level of security while reducing personnel costs.



Modulight solutions >

Lasers range-finding and scanning

Wavelength: 850 - 1550 nm
Power: up to 30 W

Pointing and illumination

Wavelength:
635 nm, 690 nm, 830 nm, 1550 nm
Power: 50 mW - 35 W

Perimeter security

Wavelength: 1310 - 1550 nm
Power: 3 - 100 mW



Brightening your view

Lasers for display & projection applications

Solid-state visible lasers are fueling the revolution in display and projection technology by offering an unbeatable color and brightness experience. By optimally selecting blue, green and red lasers, one can create a display with unbeatable natural color space by any other technology. Laser light sources also offer 3-5 times better power efficiency and over tenfold increase in lifetime supporting sustainable energy consumption globally. Having very bright and directional light beam, lasers are ideal solution for large scale projection applications.



A large transformation in changing the cinemas to digital and eventually 3D is currently taking place. The key driver for upgrading the screens to **digital cinema** has been eliminating the cost of film printing and distribution. The next revolution following the success of 3D deployment is expected to be the replacement of conventional lamp projector technology with high-efficiency, long lifetime and color rich **laser projectors**. Lasers are also being deployed in compact front projectors for business and home use supporting low energy consumption and longer, service-free operation.

Laser projectors composed of visible lasers are used also for flight **simulators**, planetariums, as well as in virtual reality applications and **laser shows**. Due to the special features of laser projectors it is possible to project images or data on any kind of projection surface. Typically, sharpness, color space and contrast are higher than that of other projection technologies. High-efficiency visible lasers are also becoming the technology of choice for many **backlit display** applications, including flat panel displays and TVs. In many cases the ultimate drivers are unbeatable brightness and lower power consumption than any other lighting solution.



Modulight solutions >

Lasers cinema & projectors

Wavelength: 465 nm, 635 nm
Power: 3 - 100 W

Lasers shows & simulators

Wavelength: 465 nm, 635 nm
Power: 1 - 50 W

Display backlighting

Wavelength: 465 nm, 635 nm
Power: 200 mW - 12 W



MODULIGHT, INC.

Laser diode solutions from
bare die to turnkey laser systems.

www.modulight.com

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