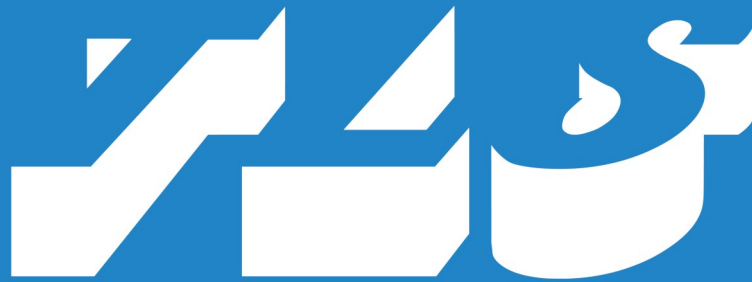


40 YEARS
OF PHOTONICS



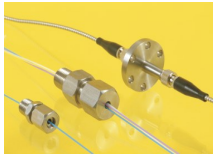
te lintelo systems bv
photonics. our passion!

your guide to

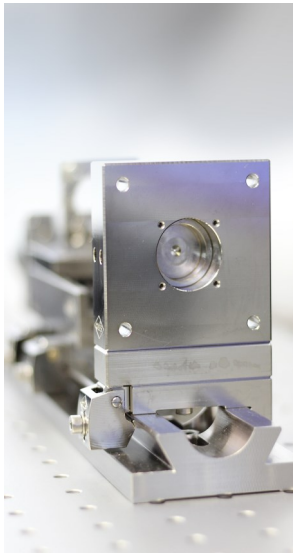
Emitting, Manipulating & Detecting light

laser • fiber optics • optical components • spectroscopy
imaging • interferometry • opto-electronic equipment • light metrology

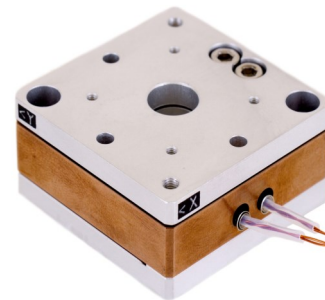
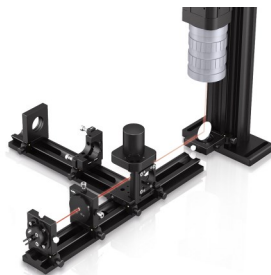
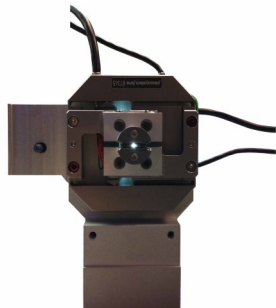
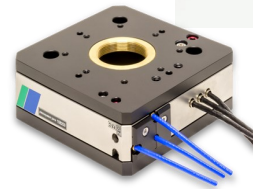
Mercurion 26 • 6903 PZ Zevenaar • The Netherlands
+31 316 340804 • contact@tlsbv.nl • www.tlsbv.nl

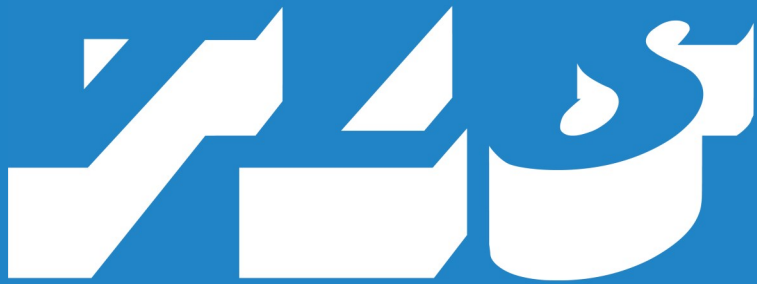


Let us know your application!



You arrange the coffee,
we bring the mugs & cookies





te lintelo systems bv
photonics. our passion!



Te Lintelo Systems BV

Mercurion 26 A
6903 PZ Zevenaar
The Netherlands
www.tlsbv.nl

Commercial register :
09163125
VAT no:
NL818765707B01

Te Lintelo Systems operates in the world of photonics, offering products and solutions in the fields of: lasers, fiber optics, optical components, spectroscopy, imaging, interferometry, opto-electronics, light metrology, (and many more).

For over 40 years we are a well-known and respected partner to both our customers and suppliers.

Our focus is finding the best photonics solutions, no matter how challenging the application, and to build long-lasting, thriving relationships, based on our core values, such as: honesty, customer focus and a high level of service and expertise.

We are a flexible organisation with a modern mindset, that strives to make both its customers and employees successful.

- laser
- fiber optics
- optical components
- spectroscopy
- imaging
- interferometry
- opto-electronic equipment
- light metrology
- and many more



Allied
PHOTONICS

www.alliedphotonics.com

Te Lintelo Systems is a founding- member of Allied Photonics, an association of independent European companies, engaged in the photonics industry.

All of its members operate according to the same work ethics and benefit from sharing their technical expertise amongst each other.

This results in a network of suppliers with a high level of expertise, here to support you with every photonics related need, all over Europe.

call us: +31 316 340804 | email: contact@tlsbv.nl | www.tlsbv.nl



Moglabs

light & optics division

MOGLabs is a company of in-the-lab scientists and engineers, people that know what you need because they've come from labs like yours. They supply products which balance outstanding performance, superb features, high-quality design, excellent ergonomics and moderate cost.

Their products are the result of years of active laboratory development by research students and scientists using diode lasers all day, everyday.

We hope that you will quickly take their products for granted in your lab, because they simply work the way you need them to.

- Tunable Lasers
- Optical Amplifiers
- Fibre Amplifiers
- Laser Electronics
- RF Electronics
- Wavemeters and Photodetectors




Quantum
Light
Instruments

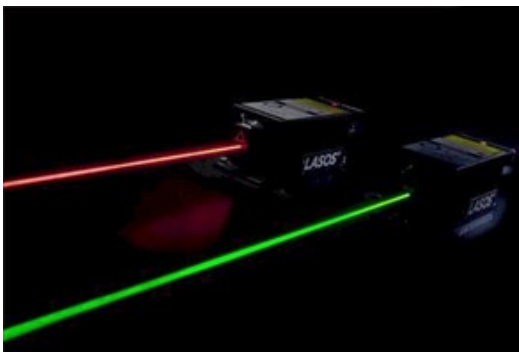
Quantum Light Instruments

QLI designs and produces compact, diode-pumped, air-cooled (and water-free!), passively or actively Q-switched, diode-pumped, solid-state lasers and accessories for them (harmonics generators, OPOs, Raman shifters, attenuators, energy monitors, fiber couplers etc.).

QLI focuses on bringing DPSS laser technology into types of applications that require pulse energy in the fundamental from 10mJ up to 200 mJ at relatively low pulse repetition rates (typically in the range of 10-100 Hz). Available wavelengths are: 1064nm, 1053nm, 532nm, 527nm, 355nm, 351nm, 266nm, 263nm, 213nm, 211nm. Pulse widths are always < 80ns. Another huge advantage of QLI's DPSS lasers is the lifetime of the lasers which can be > 2 Gigashots.

QLI key innovation is water-free laser crystal cooling technology combined laser diode end-pumping.



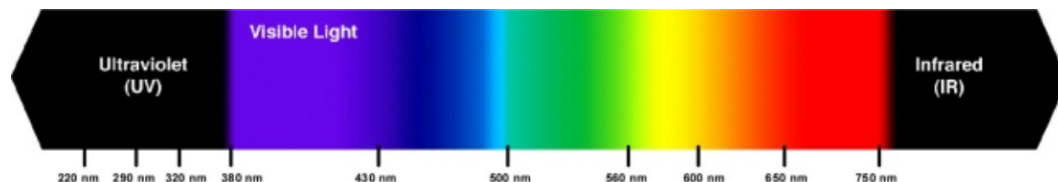
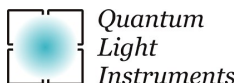


Emitting of light

Lasers

We offer a wide variety of lasers: from the deep UV to FIR wavelength ranges; from reasonable simple diode, to ultra-fast pico-second lasers, from mW to kW's.

- Helium-Neon (He-Ne) lasers
- Argon-Ion (Ar-Ion) lasers
- Diode Pumped Solid State (DPSS) lasers
- Diode lasers
- Intracavity DPSS lasers, free beam & fiber coupled
- Multi Colour Laser Systems
- Nano, Pico & Femto second intracavity laser
- Water free, diode pumped laser



High brightness Light sources UV-VIS-NIR

High brightness fiber couple / free beam (tunable) light sources, for LAB and OEM.



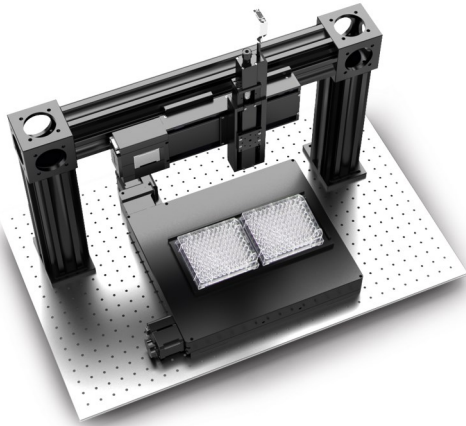
Uniform Light source, Luminance standards.

Absolute calibrated DAKS/accredited light sources, for calibration purposed.

Solar simulators

Solar simulators LED en traditional lamp based, for example to be used for material science and SPF testing following the upcoming ISO 23698 standard. Or combined to a ceiling wide large area solar simulator.





OWIS

Highly precise positioning systems & optical beam handling

OWIS GmbH was founded in 1980 and is headquartered in Staufen near Freiburg, in South-Western Germany. Their employees ensure excellent products and consistent customer service. They are very proud to distribute this successful family-owned company.

The company develops, produces, distributes and services optical beam handling as well as highly precise positioning systems – still according to the maxim »Made in Germany«. Information technology, mechanical engineering, biotechnology, medicine, image processing and printing industry are some of their product application areas.

An own development and an ultramodern manufacturing make OWIS to your perfect system partner in connecting macro, micro and nano worlds. This ideal combination enables short-term adjustments to their catalogue products – up to customized solutions.

They dedicate all their activities to constantly developing the OWIS® products and improving internal processes and at the same time to continuously deepening their knowledge and experience. Because they are sure: This is the only guarantee for steady customer satisfaction and future success.

Their strength is based on the innovation capacity and market orientation, which have tradition with OWIS from the very beginning. As a system partner to their customers they take special responsibility in continuously developing and improving their product portfolio to meet their customers' needs. You can find a detailed product catalog at: www.tlsbv.nl/suppliers/owis.



Teledyne Princeton Instruments

Scientific Imaging, Spectroscopy, X-Ray Imaging

Princeton Instruments (PI) designs and manufactures high-performance CCD, sCMOS, ICCD, EMCCD, eMCCD, and InGaAs cameras; spectrographs; and optics-based solutions for the scientific research, industrial imaging, and OEM communities. They take pride in partnering with their customers to solve their most challenging problems in unique, innovative ways.

Capabilities:

Scientific Imaging:

High-performance CCD, ICCD, EMCCD, eMCCD, and InGaAs cameras for an expansive range of applications, including astronomy, BEC, combustion, PIV, single-molecule imaging, surface and materials analysis, PSP, and nanotechnology.

Spectroscopy:

A wide selection of state-of-the-art CCD cameras, spectrographs, monochromators, and integrated systems for Raman, LIBS, absorption, fluorescence, NIR/SWIR, and luminescence spectroscopy.

X-ray Imaging:

Advanced scientific-grade CCD cameras for x-ray applications such as EUV, lithography, XRS, plasma, diffraction, microscopy, and tomography.



Manipulating light

Optical components

Our assortment of optical-components enables you to find solutions for various (laser) applications, from a simple plano convex lens, to variable optical lenses, beam splitter prisms, to high power reflective mirrors, all from a few to OEM qty's.



Fiber optics

Fiber Optics, from single- & multimode fibers to cables and/or fibers delivery systems dedicated designed and build to customer specification.



Manx Precision Optics

Positioning & Opto-mechanical components

- Air bearing systems
- Piezo actuated systems
- Motorized positioning systems
- Manual positioning systems
- Optical Mechanics



Opto-electronics

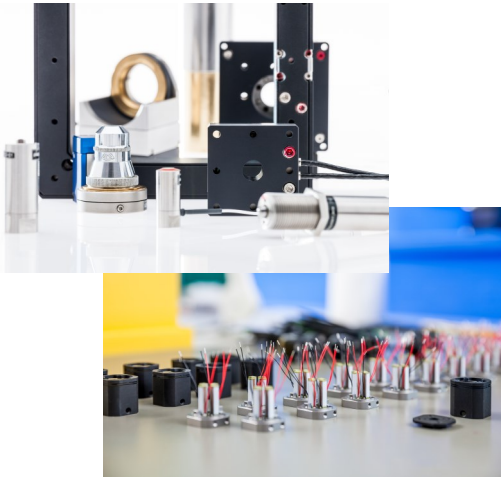
We offer a wide range of opto-electronical components, such as:

- Acousto-optics and acousto-optic modulators
- Acousto-optic deflectors
- Pulse pickers
- Q-switches
- Pockels Cells in wavelengths from the UV to the IR and the drivers



Nonlinear and Laser Crystals

A complete line of nonlinear optical crystals for different frequency conversion applications.



Piezosystem Jena

Piezosystem jena is a world leading company in the development, design and engineering of piezo electric actuators with almost 30 years of experience. These positioning systems are ideal for micro - and nanopositioning.

They show outstanding precision in the sub-nanometer range and can generate forces of up to several thousands of Newtons while achieving precise positioning in microseconds. Piezosystem jena offers grippers, mirror tilting systems, shutters, objective positioning systems, piezo stack type actuators, high load piezo actuators and piezo composites for material testing and shock generators. They have an extensive knowledge and in-depth technical expertise in the application of piezo technology to nano positioning tasks, and in the design of piezo flexure stages and development of piezo mechanical systems.

Their systems can be easily integrated into many existing applications like optics, lithography, life science and highly precise/dynamic scanning applications so as for vibrational excitations and shakers.

Applications:

- Optical Inter-Satellite Links
- Shaker Systems
- Wafer Positioning
- Microscopy
- Shock Testing Systems
- Auto Focus Devices
- Micro Manipulation
- Lithography
- Pixel-Shift



SIOS Messtechnik

SIOS Messtechnik GmbH is a company for design and manufacturing of laser-interferometric precision instruments for nano-metrology.

The measurement of lengths, angles, vibrations and other measured categories is done with the highest resolution and precision in conjunction with beneficial properties for users in areas of engineering, optics and semiconductor industries, in the calibration and metrology field, in research and development and many other application areas.

Application areas such as: Length measurement systems, combined length- and angle measurement systems, vibration measurement systems and calibration rigs and nano-measuring machines.

- Laser interferometer for length and angle measurement
- Dynamic alignment and calibration of linear axes
- Measuring in the electron storage ring
- Laser interferometer for length measurements
- Laser interferometric vibrometer
- Characterization of microstructures



Detecting light

Spectrometry

We offer a wide range of spectrometers for Scientific, Industrial & OEM, i.e.:

- FT-NIR, (handheld) Raman spectroscopy
- LIBS, absorption, fluorescence, NIR/SWIR, and luminescence spectroscopy
- Hyperspectral imaging



Light metrology

A full range of light measurement tools, from relatively simple hand-meters to in-line LED inspection systems, from DUV-IR.



Diagnostics

- Interferometry: The measurement of lengths, angles, vibrations and other measured categories with the highest resolution and precision.
- Surface and wavefront Interferometry, for "optical" components.
- Our Wavefront Sensors offers complete solutions for precise metrology of optical systems and lasers.
- We provide quality solutions for laser power and energy measurement applications.



Imaging

We offer solutions, i.e. for: EUV, X-ray and low-light level imaging.



Detectors

We can provide you with a large range of detectors, i.e. PSD, InGaAs, silicon, etc .





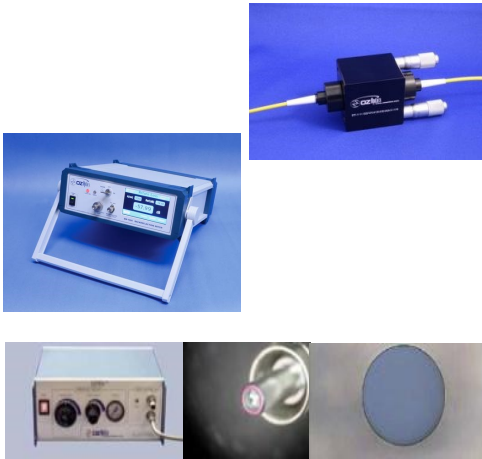
OZ optics

Fiber Optic Components

Established in 1985, OZ Optics Limited is a leading worldwide supplier of fiber optic products for existing and next-generation optical networks. In addition to designing and manufacturing components and test equipment for fiber optics markets, the company offers award-winning fiber optic sensor systems for remote monitoring of oil and gas pipelines, wells, refineries, bridges, dams and other large structures, security fences and for fire detection .

OZ makes world famous:

- Laser to Fiber Delivery Systems
- High Power Fiber Optic Components
- Polarization Maintaining Components
- Attenuators
- CO₂ Fiber Optics Cleaning Unit
- Benchtop & Handheld Polarization extinction ratio meter
- Benchtop & Handheld Backreflection meters
- Variable Bandwidth Tunable Filter
- Inline Optical Tap Monitors
- High Power Non-Contact Visible Fiber Optic Fault Locators
- Bare Fiber Adapters with Magnetic Clamps
- Compact High Power Isolators/Collimators
- High Power Shutters/Safety Interlocks
- V-Groove assemblies
- V-Groove chips
- Hermetically sealable patchcords with glass solder
- Collimators and focusers high power pigtail style



Gigahertz-Optik

Measurement of light—Measurement with light

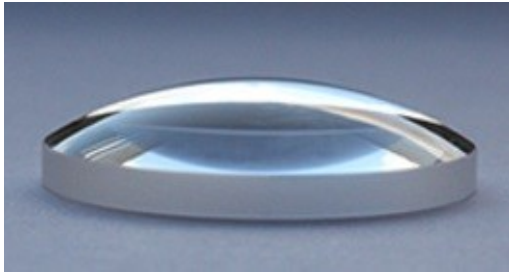
Measurement equipment that is traceable to international standards allows comparison of data gathered anywhere in the world. Therefore, traceable data is one of the prerequisites for the globalization of measurement technology.

One of the most important elements in nature and technology is optical radiation. Gigahertz-Optik develops and produces measurement devices for measuring optical radiation. It is our aim to offer our customers latest and future-oriented measurement technology now and in the future. In this way they are contributing to the process of globalization.

Our central themes are:

- Measurement of light and optical radiation
- Measurement with light and optical radiation
- Components of light measurement systems
- Laser power meters
- UV Spectral and Power meters
- Par meters

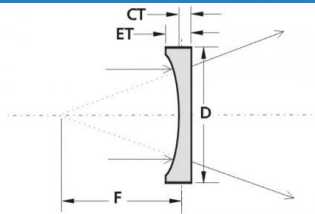




Custom Optical Components [OEM]

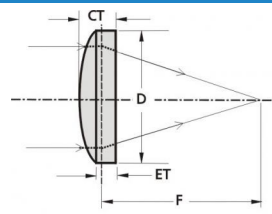
Te Lintelo Systems is your expert in photonics and optical components. Our extensive product range includes an unlimited selection of optics, from: lenses and filters, to fiber optics and optical systems. All designed and manufactured with the highest level of quality and reliability.

Why go for Te Lintelo Systems optical components?



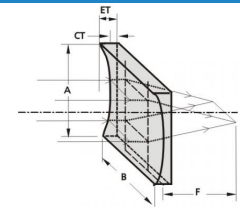
Expertise

With 40 years of experience in the photonics industry, we provide the knowledge and advice for your applications, and find solutions for your challenges.



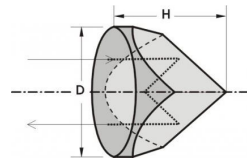
Unmatched Quality

We guarantee that all our products meet strict quality standards, ensuring optimal performance.



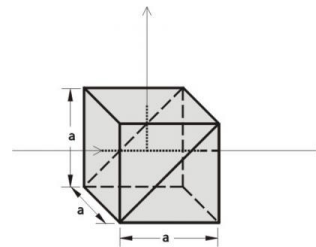
Reliability

Our components are designed for long-lasting use. Unique pieces, small batches or repeating products, you can rely on us time and time again.



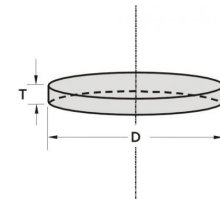
Wide Assortment

Whether you need a specific product or are looking for a complete solution, you'll find the right components for any project with us.



Competitive Prices

We offer high-quality products at competitive prices, ensuring you always get value for your money.



Custom Specifications

We provide optical components in various types, dimensions and quality levels, all specifications tailored to your exact needs.

We understand that different projects have different requirements.

Whether you need a few components to set up a prototype or larger quantities for mass production, we can accommodate your needs.

Concerns about product-to-product variations in quality? We at TLS promise to deliver the same high level of quality, product to product, batch after batch.

Contact us for the best optical solutions and discover why we are your partner for all your photonics needs.



LASER Components

If you want to improve your count, COUNT® on us

LASER COMPONENTS' single photon counting modules (SPCM) achieve an unrivaled quantum efficiency of over 70% in the red region. Another advantage of these photon counters over modules currently available on the market is their significantly higher quantum efficiency in the blue spectral range. In addition, these modules are perfectly suited for measurements across the entire wavelength range from 400-1000 nm.

Special Geiger-Mode APDs

The COUNT® series is based on a silicon Geiger-mode APD developed specifically for this series. It is one of the lowest-noise APDs on the market. Together with electronics that has been optimized down to the smallest detail, this APD represents the heart of the COUNT® module. Available in a compact housing, the photon counter can be integrated into your application without a problem.

Product Variations

Standard modules are available with dark count rates ranging from 20 to 250 counts. Modules with <10 cps (counts per second) are also available.



G2V Optics

The Most Advanced LED Solar Simulator For Your Most Advanced Research

G2V was founded because the world's leading researchers, engineers, designers, and dreamers are creating a better future — and that future revolves around the power of the sun. To create scalable, real-world solutions, dreamers need precise solar simulations. That's where they come in.

Easy to use. Easy to maintain. Quick to start up. Inspired by your work. That's G2V. Less Frustration. More Success.

Their team has been in the field. We know the frustration with solar simulation. It takes too long to get going and it's difficult to replicate. It leads to excess sample heating, skewed results, and downstream difficulties.

They knew it didn't have to be that way. That's why they married the capabilities of LED tech with the evolving needs of researchers. They saw the existing gas-discharge-lamp technology with expensive, rapidly-decaying bulbs, and decided to make something better.

With backgrounds in research and their hearts in engineering, They have created the most precise LED solar simulators in the world. That means you get accurate results, every time. Easy to use.

Easy to maintain. Quick to start up. Inspired by your work. That's G2V. Less Frustration. More Success.





PhotonETC

Discover the univers of the invisible

Thanks to its know-how in hyperspectral imaging in the visible and infrared spectral range, Photon etc. offers a wide range of products such as infrared cameras and lenses, hyperspectral imaging systems, pre-clinical imagers as well as tunable filters and laser sources. Specialized in the vertical integration of complete systems, Photon etc. has a solid reputation in the scientific community for applications such as small animals in vivo imaging, characterization of solar panels, development of nanotechnologies and industrial material sorting.

Applications fields of:

- Advanced Materials
- Life Sciences
- Industrial
- Other



Prospective Instruments

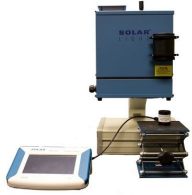
Multiphoton Microscopes : Turn-key, Flexible, Multimodal, Compact

The MPX-series multiphoton multimodal imaging platform is highly modular, offering two standard models that can be customized with options and accessories. Users have the flexibility to design a multiphoton microscope that suits their specific needs and budget. The scanhead can be easily configured in various positions, and the modular design allows for future upgrades and the addition of extra features on the same platform.

- Offers multiple imaging modes
- Built-in laser
- Dual-output tunable wavelength and low-noise 1030 nm fixed wavelength
- Up to 4 ultra sensitive GaAsP PMTs with low dark count rate in epi or transmission
- Fully flexible 360° scanhead for inverted, upright or oblique angle imaging
- Integrated workspace illumination
- Large 2" detection optics
- Easy mode switching via software
- User-friendly, compact and air-cooled



SOLAR[®] LIGHT



Solar Light Company

Solar Light Simulators - a precision research - grade instrument

Solar Light Company, Inc. has been providing research professionals with laboratory-grade solutions for the advancement of light sciences ever since we invented the world's first Solar Simulator in 1967.

Solar Light Simulators, or solar simulators, are precision research-grade instruments are specifically designed to comply with the latest laboratory standards from ASTM, IEC, ISO, and others.

A wide selection is offered, from the patented Model 601 Multiport[®] SPF Testing 6-output Simulator to the single output units, which are available in 150W / 0.4" (1 cm) output through 1000W / 6" (15.25 cm) output, in UV, Air Mass, and Custom Spectra configurations.

OSI Optoelectronics

Light Sensing Ideas

Silicon Photodiodes

These are semiconductor light sensors that generate photocurrent when its active area is illuminated by light. Generally they are sensitive between 200 to 1100nm.

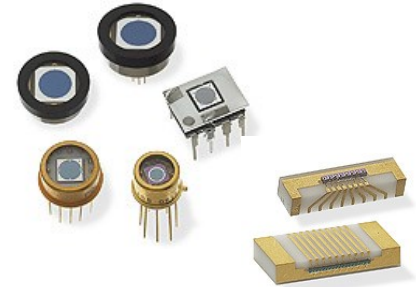
InGaAs detectors

These are InGaAs based semiconductor light sensors that generate photocurrent when its active area is illuminated by light. Generally they are sensitive between 800 to 1700nm.

GaAs Detectors

These are GaAs based semiconductor light sensors that generate photocurrent when its active area is illuminated by light. Generally they are sensitive between 400 to 850nm.

And more.....



Mountain Photonics GmbH



Mountain Photonics

Hyperchromator / high brightness tunable lightsource

The Hyperchromator is a high throughput monochromator originally designed for the Energetiq EQ-99X LDLS[™]. With fast optics, up to f/1.5, it efficiently collects the light directly from the small plasma spot of the light source without an entrance slit.

This monochromator is optimized for monochromatic illumination applications where a tunable output from a point source is required. Additionally, white light output is available (zero order reflection).

The output port has been designed with a very flexible opto-mechanical interface.

This allows for a multitude of illumination or light coupling options using standard catalog components, rendering the integration of the Hyperchromator into your setup hassle free and straight-forward.

laservision

Laservision

Laser safety eyewear and laser safety products

Based on more than 35 years of history, laservision has a long lasting experience on all relevant fields of laser safety.

Due to the unique characteristics of laser radiation (i.e. coherent, collimated and monochromatic) there is an increased danger to the eyes. Therefore special optical filters that transmit 'normal' light but block laser light must be used. Since laser light has a specific wavelength which is dependent on the laser active medium that emits light, protective filters that match the wavelength and power of the specific source of laser radiation are needed.

When wearing laser safety glasses some wavelengths of the spectrum that would normally reach our eyes are filtered out. This means, if light from the visible region is blocked, this will inevitably change the perception of the environment as well. First, by attenuation of the transmission the environment gets darker (similar to the effect of sun glasses). Second, blocking some wavelengths changes our perception of colour.

Therefore, a careful selection of the right filter resp. filter technology in accordance to the calculated and required protection levels and the requirements of the application pose an important challenge.



 NeoSpectra™
by Si-Ware



NeoSpectra by Si-Ware

Accurate NIR results when and where you need them

The rugged and easy-to-use handheld NeoSpectra Scanner brings lab-grade material analysis to the production line or field. Thousands of ready-to-use models from the NeoSpectra LabStore get you up and running quickly. Powered by the NeoSpectra Scan mobile application.

applications

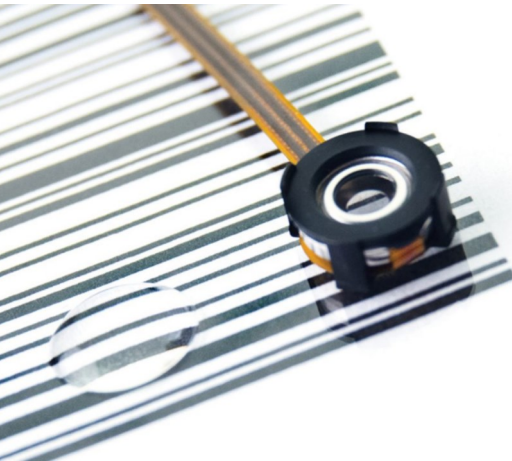
- Feed ingredients
- Flour milling
- Animal feed
- Forages
- Oilseed processing
- Pet food
- Dairy Products
- Food Ingredients
- Textiles
- Plastics

Key features

- Handheld rugged design with IP65 rating for use in field and factory environments
- Large selection of calibration models available in NeoSpectra LabStore
- Bluetooth connection and long battery life for easy on-site operation
- Large collection area for reliable results from non-homogeneous materials
- Wide spectral range for accurate results for a broad range of quality parameters

CORNING

Varioptic® Lenses



Varioptic

Liquid lenses

Varioptic Lenses Technology Advantages

The traditional way to perform the auto focus function is to mechanically move the lens module to adjust the back focal length (distance to the image sensor) depending on object distance. The unique characteristics of Corning Varioptic Lenses bring an ideal competitive advantage to the market that enables:

- No moving parts, significantly increasing the lens lifespan v.s. a mechanical actuator
- Hundreds of millions of cycles endurance
- Faster speed
- Robustness and unmatched vibration and mechanical shock resistance
- Close focus ability
- Low power consumption
- Silent operation



NIREOS

Hyperspectral Camers, Inteferometers and Detectors

Hyperspectral Imaging is a new analytical technique based on spectroscopy. It collects hundreds of images at different wavelengths for the same spatial area. While the human eye has only three color receptors in the blue, green and red, hyperspectral imaging measures the continuous spectrum of the light for each pixel of the scene with fine wavelength resolution, not only in the visible but also in the near-infrared. The collected data form a so-called hyperspectral cube, in which two dimensions represent the spatial extent of the scene and the third its spectral content.

Each material possesses a specific spectral signature that can be employed as a 'fingerprint' for its unique identification. Therefore, hyperspectral imaging finds a wide range of applications in remote sensing, thanks to its standoff, label-free and non-destructive capability in recognizing the components of matter. Hyperspectral imaging is employed in different fields such as astronomy, agriculture, molecular biology, biomedical imaging, mineralogy, geology, physics, cultural heritage, food processing, environment and surveillance.

HERA is the innovative Hyperspectral camera designed by NIREOS. Based on NIREOS' patented common-path interferometer, featuring intrinsic interferometric delay precision, long-term stability and insensitivity to vibrations, it provides superior sensitivity in a compact layout.



DLC diode laser concepts

Custom build diode assemblies

We leverage your engineering capabilities with our proven laser and optical design expertise. They solve manufacturing challenges by providing turnkey, high-quality optoelectronic and mechanical solutions. We deliver your production capacity needs from prototypes to full-scale OEM volume.

Industrial Sensing and Measurement

- Biomedical
- Medical Imaging
- Healthcare
- Machine Vision
- Factory Automation
- Lidar
- 3D Scanning and Imaging
- Optical Design & Engineering
- Industrial Sensing

Lasos

Helium Neon, diode & diode pumped solid –state lasers

LASOS designs, develops and manufactures high quality gas, diode and diode-pumped solid-state lasers from the ultraviolet to the near-infrared with special focus on OEM applications in Biophotonics, Microscopy, Raman Spectroscopy and Holography. Besides original equipment manufacturing LASOS is also a reliable partner and supplier for research and educational institutes.

- Microscopy
- Flow Cytometry
- Bionalytical Research
- Industrial Measuremnt
- Holography
- Testing, Science and Education
- Multicolor Lasers
- Confocal Microscopy
- Interferometry

LASOS

For worldwide photonics



Gooch & Housego

Fiber Optic Components / Acousto-optics / Crystal Optics / Electro Optics

Acousto-optics — a range of acousto-optic devices, i.e. Acousto-optic modulators, beam deflectors, Fiber-Q fiber coupled modulators, frequency shifters, mode lockers, multi-channel modulators, pulse pickers and cavity dumpers, q-switches, tunable filters and RF drivers.

Crystal optics — a range of crystal optics, i.e. Lithium niobate wafers, nonlinear optics and periodically-poled lithium niobate (PPLN).

Electro-optics — Pockels cells, pockels cell drivers and lithium niobate Q-switches .

Fiber optics — Benchtop laser controllers, DFB lasers and modules, Fiber-Q RF drivers, Fiber optic components, High reliability Erbium-doped fiber amplifier, high speed detectors, pump lasers, OCT and fiber optic assemblies.



Lightnovo



Lightnovo

Worlds smallest and cost-effective Raman Spectrometer at the market

MiniRaman spectrometers are the world's smallest research-grade Raman devices that utilize a patented internal reference channel for constant recalibration. These spectrometers ensure unparalleled accuracy and operational stability with each acquisition.

To expand the possibilities of research, Lightnovo company has developed a world's smallest confocal miniRaman microscope with modular design for chemical and structural analysis. The heart of the microscope is the miniRaman spectrometer.

This instrumental setup allows for both sample viewing using the optical microscopy capabilities and performing measurements by Raman spectroscopy simultaneously.

For applications that require high spectral and spatial resolution, large mapping area, extremely stable laser power, high sensitivity and broad spectral range (from low frequency to high frequency Raman shift), Lightnovo suggest RG Raman spectrometers and microscopes.

THOR, based on mirrorless Raman beam delivery technology, are ideally suited for sophisticated applications in Raman microscopy: fast 3D Raman imaging, SERS imaging, polarised Raman imaging, low frequency Raman measurements, Stokes/Antistokes Raman measurements, and fast optical shutter technology (<1ms).



Skylark

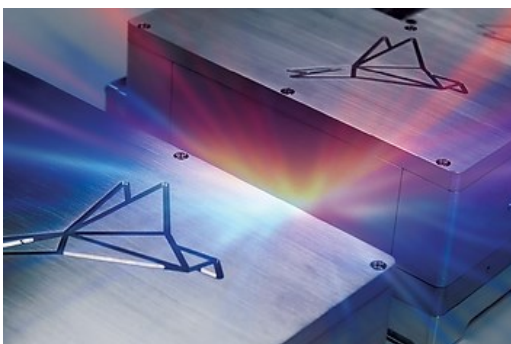
high performance DPSS lasers on a compact architecture

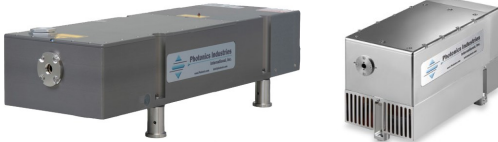
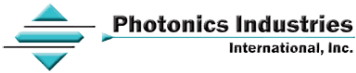
Skylark Lasers is a laser development company specializing in the design and manufacture of continuous wave (CW) single frequency compact diode-pumped solid-state (C-DPSS) lasers. They pursue the challenge of miniaturizing laser technology to enable the world's most demanding and cutting-edge applications – reducing cost, weight, and size while maximizing power and performance.

Skylark's integrated monolithic technology produces the highest output power on a small footprint - combining the superior optical properties of solid-state lasers with the small form-factor, high-efficiency operation of laser diodes.

Skylark's proprietary NX opto-mechanical platform enables the creation of robust, ultra-stable and repeatable lasers covering a wide range of the wavelength spectrum.

- Start up repeatability < 3 GHz on our absolute wavelength specification
- Narrow-linewidth operation < 200 kHz
- Wavelength drift < 20 MHz over 24 hours
- Intensity drift < 2 % over a 15°C temperature change
- Reduced background noise and increased SN ratio with side-band attenuation of > 70 dB





Photonics Industries

The Pioneer of intra-cavity solid state harmonic lasers, Nano, Pico, Femto s.

Photronics Industries International (PI) designs, develops and manufactures diode-pumped solid-state laser. Photronics Industries serves industrial, scientific and defense customers, providing a broad range of diode-pumped picosecond and nanosecond lasers as well as many tunable and customized laser solutions. Photronics Industries has a strong commitment to adapting and improving their products to keep up with today's high demanding technology markets.

Applications can be found in industrial, scientific, defense and medical market.

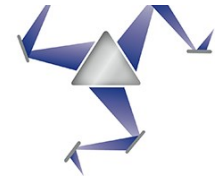
Nano, Pico, Sub Nano and Femto second lasers, following wavelengths 211, 266, 351, 355, 527, 532, 1053 & 1064 nm.

Manx Precision Optics

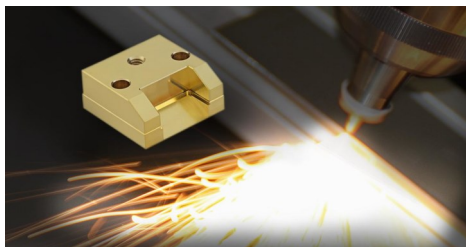
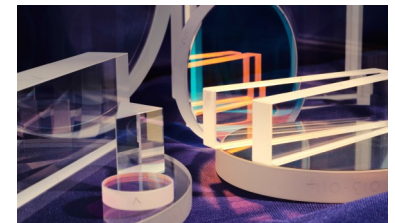
High Precision optics and Coatings

Manx Precision Optics Ltd. a family-owned manufacturer of high precision optics. Founded in 2013, the company employs an experienced workforce with all senior employees having over 20 years experience in precision optics manufacture. [Their Capabilities:](#)

- Optical Windows
- Air-spaced Etalons
- Solid Etalons
- Protected Metal Mirrors
- Reference Flats
- High-LIDT Mirrors
- VIPA Etalons
- Ultrafast Mirrors
- Ultrafast Polarisers
- Plate Polarisers
- Optically contacted Cube Polarisers
- Beamsplitters
- Beamsamplers



Manx Precision Optics



Jenoptik

Lasers for Precise and Efficient Material Processing

The JenLas® fiber ns 25-105 laser product family opens up a wealth of possibilities for laser material processing applications: the pulsed nanosecond fiber lasers are suitable for labeling, marking, and cutting different materials, as well as for structuring your surface exactly. They create laser marks on metals or plastics, for example, while extremely thin layers can be removed precisely.

The JenLas® fiber ns product family is available in 20, 30, 50, 100 & 500 watt power categories, based on reliable, industry-tested fiber laser technology. The lasers are air-cooled, offer pulse duration settings ranging from 190 to 250 nanoseconds, and reach peak pulse powers of up to 8 kilowatts. The laser's immunity to back reflections has been significantly improved through optical isolators, which are built-in as standard.



TORRENT photonics

Since their start in 2006, Torrent has invested in the people, innovation and technology our customers need to compete and win. Their aggressive growth has kept pace with their customers through photonics demand and key acquisitions, such as Pixelteq, Graflex, Arrow Thin Films, and Kreisher Optics.

Torrent Photonics has built a robust photonics supply chain and a culture of innovative systems thinkers. From customer service to engineering to leadership, they share a commitment to delivering reliable and safe technologies for users in the field.

Their Mission:

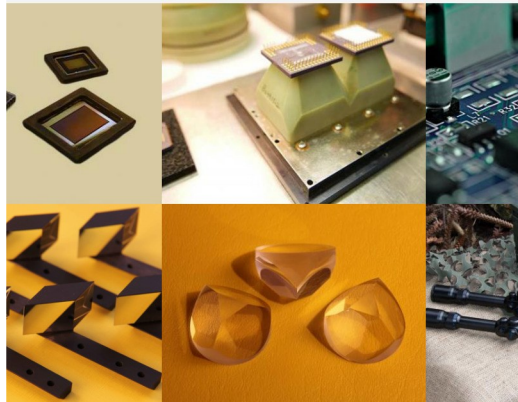
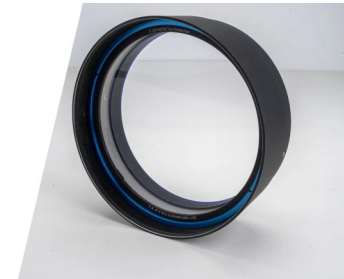
Robust and scalable solutions that enable new potential for their defense and industrial customers. Safety and reliability for their end users is top of mind every day, in all that they do.

Their Vision:

To be the preferred partner for industry leaders striving to gain a competitive edge through cutting-edge imaging and sensing technologies.

Examples of their Optical Assembly line:

- Image Sensing & Camera Modifications
- Electro-Optics Components, Bonding & Assembly
- Class 1000 and 100 Assembly Cells, Sub-Cells
- Sub-Micron, Traceable Metrology & Testing
- Image Sensor Services & Assemblies



New Scale Technologies

NewScale Technologies

M₃ Micro Motion Modules for Product Developers

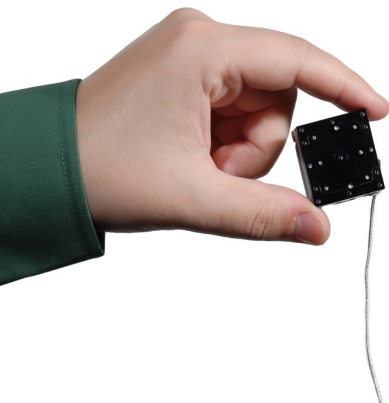
Since 2002, New Scale has been awarded numerous patents in the development of piezoelectric motors and motion systems. These patents, combined with our proprietary know-how, enable us to create products with unmatched miniaturization, micrometer-scale resolution, fully-integrated micro-electronics and intelligent firmware.

M₃ Smart Modules

Their M₃ Smart Modules are “all-in-one” motion systems, with built-in electronics, that deliver sub-micrometer precision in the smallest smaller possible space. Each M₃ Smart Module is a fully engineered solution that integrates our patented and propriety piezoelectric motor, drive, sensing, guide and control technologies.

Their standard M₃ Smart Modules include M₃-LS linear stages, M₃-RS rotary stages, M₃-FS focus modules and M₃-L linear actuators. These positioning modules and micro stages deliver ten times better movement precision and ten times the force and range of motion of VCM, stepper motor or galvo solutions.

Besides standard products NewScale can also do custom products.





Gentec-eo

Partners for accuracy Laser beam measurement experts

Gentec-EO has a long history in the laser measurement field. With a 45 year track record of innovation and providing quality solutions for laser power and energy measurement applications from the factory to the hospital and laboratory, Gentec-EO stands ready to serve you now and in the future with products in the following categories:

- Laser power and energy monitors
- Photo detectors & THz detectors
- (High) power meters
- Beam diagnostics
- Energy meters

Get accurate measurements with fast response times with our power and energy meters. Available with various absorbers, with the highest damage thresholds. The power meters can be connected with a computer via USB or Bluetooth.

Last, but certainly, not least: we also provide calibration services for Gentec's monitors and power and energy meters.

Calibration service ensures traceability to the:

- National Institute of Standards and Technology (NIST) &
- Physikalische Technische Bundesanstalt (PTB) .



Eksma Optics

Optical Components, Laser line components, Pockels cells, Crystals

EKSMA Optics is a manufacturer and global supplier of precision laser components used in lasers, laser systems, and other photonic instruments. The company serves customers across different laser and photonics applications in industrial, medical, aesthetic, scientific, and defense markets.

EKSMA Optics has been built on the long term of expertise in the laser and optics fields. Starting the first activities in 1983 developing of the opto-mechanical components for scientific laboratories later in 1990 the company has started sales and marketing of optical components dedicated to laser applications, non-linear and laser media crystals. Along with additional investments into manufacturing capabilities EKSMA Optics currently expanded their product portfolio with electro-optical modulators – Pockels cells and their high voltage drivers, high voltage power supplies, timing generators for precise synchronization of laser components or entire laser systems, pulse picking systems for ultrafast lasers, laser diode drivers.

EKSMA Optics established also a department of lens production, where currently are produced spherical, aspherical, and conical lenses starting from 8 to 150 mm diameter and department of dielectric coatings deposition based on Ion Beam Sputtering technology that is dedicated to laser optics and crystals.



Sound & bright



Sound and Bright

Lasers ultrasonics for non destructive testing

Sound and Bright offers cutting-edge laser-based ultrasound systems, with market-leading sensitivity and noise reduction. Ideal for Non-Destructive Testing applications ranging from laboratory research and development to industry.

Founded by optics and non-destructive testing experts, Sound & Bright specializes in developing innovative non-destructive testing instruments. These sophisticated systems are hand-assembled and tested by the experts who developed them. They are currently the only company on the market to offer a system based on multi-channel random quadrature (MCRQ), the Quartet, which was developed thanks to grants from NASA and NSF.

Their product line-up exist out of:

- Module Uno—Streamlined MCRQ for low power
- Modulo Quatro—Four—Point Laser Interferometer
- Tempo 2D—Multi component Receiver
- Tempo 1D—Ultra High Frequency Receiver
- The Quartet—Multi Purpose Receiver



Quartus

Optiquiver - Innovative Optical Metrology Tool

Quartus' OptiQuiver instrument combines high dynamic range wavefront sensing with the precision angular measurement and internal reference source of an electronic autocollimator.

Product Features:

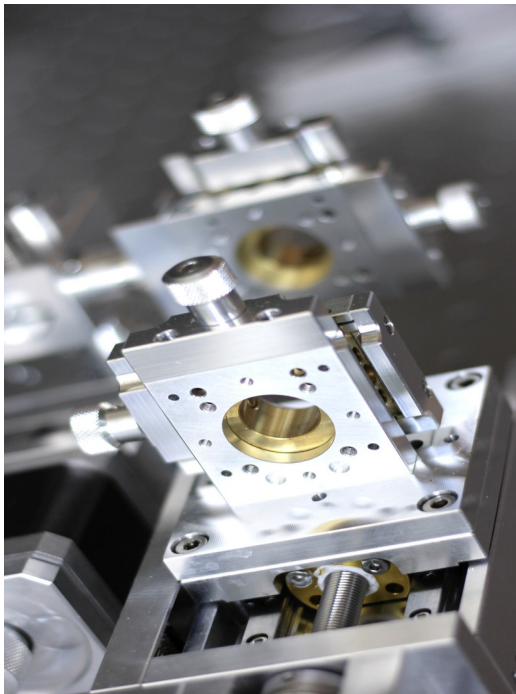
- High dynamic range for wavefront & tilt.
- Large FOV tilt and transmitted wavefront measurements.
- Surface figure measurements for all shapes, flat or curved optics.
- Simultaneous measurements of multiple optics.
- Intensity uniformity and asphere characterization.

Compatibility & Configuration:

- Compatible with coherent lasers and broad spectral sources.
- Scalable architecture and large clear aperture.

Software, Supports Windows and MacOS; offers live results, data logging, and APIs.



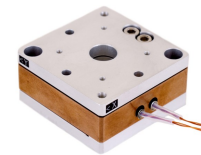


Vacuum

To manage your photonics vacuum application, together with our partners Te Lintelo Systems has a wide variety of products. For instance, to deliver your light into the vacuum chamber the best way and once in vacuum to highly and accurately manipulate photons using specialized equipment up to V-11.

Think of vacuum:

- multi axis positioning systems
- fiber optic vacuum feedthrough solutions
- optical beam handling and manipulation systems
- photonic vacuum chamber windows
- vacuum optical fibers and components

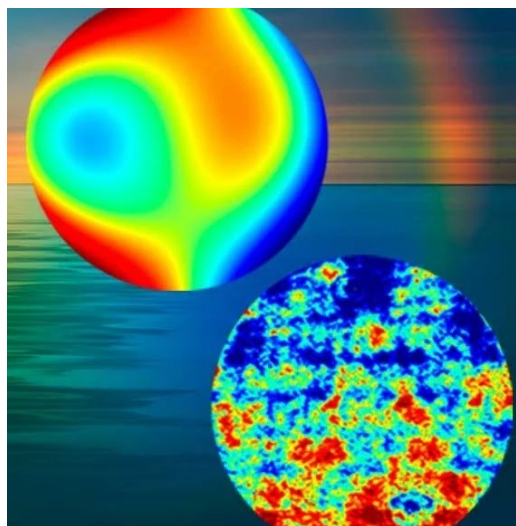


Please contact us to discuss your (photonics) vacuum application.



Äpre Instruments

Lasers for Precise and Efficient Material Processing



For almost a decade ÄPRE has been manufacturing surface and wavefront interferometers to advance the optical industry.

ÄPRE Mission:

The mission at ÄPRE is to provide their customers with the measurement tools needed to meet their demanding requirements while making their job less stressful and lowering overall production costs. They achieve this goal by providing state-of-the-art surface and wavefront interferometers, service, support, and consulting regarding interferometer usage and applications.

ÄPRE markets served:

ÄPRE is focused solely on the optical manufacturing industry. This includes materials, component manufacture, system alignment, and system final test. We are an active driver in the global optics revolution that is transforming our daily lives in communications, life sciences, aerospace, security, commercial electronics, and entertainment.



te lintelo systems bv
photonics. our passion!

