



product focus

Photonics West is the premier photonics and laser event. With more than 1,250 companies, this exhibition continues to be the flagship event to find the latest products, tools, and applications for your research or business needs.

SPIE. PHOTONICS WEST

The Moscone Center
San Francisco, California, United States

10 - 12 February 2015

Welcome to the optics.org Product Focus which we have published specifically for Photonics West 2015 in partnership with SPIE and the Photonics West Show Daily.

Here you will find an effective at-a-glance guide to some of the latest products available on the market with booth numbers if available making it easy for you to check out the products for yourself.

All this information and more can be found on the optics.org website. Simply go to www.optics.org for all the latest product and application news.

Alternatively, why not sign up to our **free weekly newsletter** (www.optics.org/newsletter) and get the information delivered direct.



MultiCentric[®] Cementing Station

Multiplies the Efficiency
of the Cementing Process

- Lens alignment and cementing process with unrivaled productivity
- Short cycle time less than 10 sec
- SmartAlign Technology for the best lens centration: the upper lens is aligned to the optical axis of the lower lens
- Alignment accuracy better than 2 μm



See us in Hall B
Booth #1833

www.trioptics.com

ALTECHNA

Visit us at Booth #5135

PowerXP

The PowerXP is a compact version of Altechna's motorized attenuator. This device attenuates free space laser beam (or pulse) continuously without introducing additional energy fluctuations. Contrast better than 3000:1 (Tp:Ts) is achieved, since this attenuator is mounted with high contrast polarizer. This very compact attenuator version can be easily integrated in custom optical systems.

Product features:

- Divides laser beam into two parallel beams of adjustable intensity ratio
- High optical damage threshold
- Low dispersion for femtosecond and high energy laser pulses
- Stand-alone USB powered controller

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Diamond SA

Visit us at Booth #4235

F-SMA PSi Fiber Optic Power Connector

Diamond has further developed its existing F-SMA (SMA 905) MM connectors specifically for medium-high power laser delivery and thermal management in various applications.

This class of connectors is employed typically for beam injection of medium-high power Diode Lasers (DL) in order to provide a fiber-optic link between the DL source and the target.

High power transmission is achieved by the copper alloy ferrule and the excellent fiber alignment. Laser safety can be ensured by using steel-armored protection tubes.

Diamond's enhanced F-SMA PSi connector is based on the Cu-ferrule free-standing fiber technology with outstanding mechanical tolerances and eccentricity. And uses the mode strip technology to remove the undesired cladding modes.

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greenTEG AG

Visit us at Booth #4328

Laser Power Heads

greenTEG's Laser Power Heads enable fast and easy measurements of average laser powers up to 50 Watts with a non-accelerated response time of less than 250 milliseconds.

The active module is a thermal detector and therefore sensitive to the whole spectrum from UV to MIR.

Three models with nominal maximum laser powers of 5W, 10W and 50W are available.

Other laser power ranges are available upon request.

Mounting threads and channels for optional water cooling are incorporated into each head.

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Voltage Multipliers Inc.

Visit us at Booth #5128

Visit Voltage Multipliers Inc. to find out more about the 50kV OC500 optocoupler

The OC500 is designed for a push/pull configuration.

The optocoupler has two legs, each capable of 25kV switching voltage. Each leg can be controlled independently via low voltage LED connections. The OC500 features a standoff voltage capability of 50kV between the low voltage LEDs and the high voltage diode, a DC gain of 0.28% minimum (0.40% typical), and compact packaging.

VMI manufactures high voltage diodes, optocouplers, power supplies, and components.

ISO9001:2008 registered.

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Varioptic

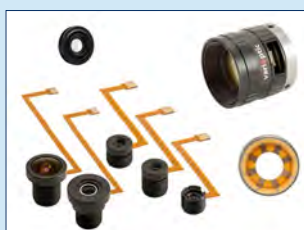
Visit us at Booth #5519

Liquid Lenses and Auto Focus M12/C-Mount modules

Varioptic's electrowetting technology enables ultra-fast and robust Auto Focus from a few centimeters (*or closer*) to infinity, with absolutely no moving parts.

The product range includes liquid lens components as well as M12 and C-mount imaging lens modules, with a choice of focal lengths and sensor size compatibility – addressing various applications in machine vision, barcode reading, medical imaging, lasers...

The new, revolutionary Visayan 80S0 liquid lens will be available in 2015 – its 8-electrode design offers variable astigmatism in addition to variable focus, for innovative ophthalmology equipment design.

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Nanoscribe GmbH

Visit us at Booth #4232

3D Printer for the Micrometer Scale

Nanoscribe's Photonic Professional GT systems provide maskless lithography and additive manufacturing on the micrometer scale in one device.

The 3D printers, winners of 2014 Prism Award, are unique with respect to resolution and writing speed: Empowered by their unprecedented 3D nano-/micro-fabrication capabilities, the two-photon polymerization driven systems set new standards in various applications, e.g. in photonics, MEMS, micro-optics, and small series production. Besides serving the scientific market, Nanoscribe also provides and develops solutions for pioneering innovators in industry.

Visit us at Photonics West 2015: booth #4232 (North Hall)

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Iridian Spectral Technologies

Visit us at Booth #515

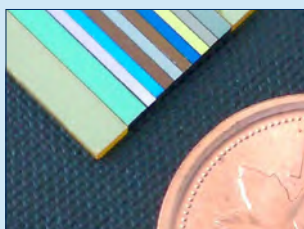
Leader in Optical Filter Solutions

IRIDIAN provides optical thin film filter solutions and coating services to a wide variety of industrial and research sectors.

The company is a leading global supplier for applications in telecommunications, spectroscopy (Raman, fluorescence, flow cytometry), biomedical imaging and sensing, and entertainment (glasses for 3D cinema, display coatings).

Our optical filters and coatings cover the spectrum from prototype development to volume production offering the highest levels of performance and durability at competitive prices.

New products: MWIR filters, Multi-spectral arrays, LaseReflect glasses.

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Special Optics, A Navitar Company

Visit us at Booth #601

High quality laser optics and custom high NA microscope objectives

Special Optics, A Navitar Company, offers a range of high quality laser optics and custom high NA microscope objectives.

Achromatic, apochromatic, single line and UV focusing objectives; VIS-NIR, confocal, telecentric UV laser scanning lenses; and a family of high transmission, diffraction limited laser beam expanders.

Custom objectives available for working distances from 0.3 mm to 30 mm; tailored to function at wavelengths from visible light (390-750 nm) to the near infrared (700-1400 nm); and modified for aqueous, oil, and vacuum research environments.

**Contact Details**

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Diverse Optics Inc.

Visit us at Booth #217

Custom Precision Polymer Optics

When you're looking for precision polymer optics to reduce cost, trim weight, simplify design, and improve performance, come to Diverse Optics.

We specialize in diamond turning (SPDT) and precision injection molding of custom polymer optics.

Prototype to series production of spheres, aspheres, domes, convex/concave, plano/convex, bi-convex, free-forms, diffractives, Fresnels, prisms, light-pipes, cylinders, lens arrays, collimators, combiners, toroids, CPC's, TIR's, micro-optics, mirrors, parabolics, off-axis, ellipticals, cylinders, and more!

Whether it's diamond turned prototypes or thousands of molded optics, we'll show you how polymer optics are perfected.



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CMOSIS

Visit us at Booth #109

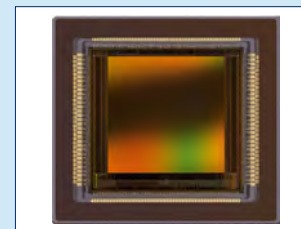
CSI2000

CMOSIS introduces the CSI2000, featuring a 1440 x 1440 pixel array with 12 x 12 μm^2 black and white global shutter pixels.

A frame rate of over 700 fps at 10 bits/pixel is output over 36 LVDS channels supporting row windowing and X/Y mirroring. With its full well capacity of min. 1.6 Me-/pixel is the CSI2000 optimized for FFOCT and other medical/scientific imaging applications.

This enables the detection of small signal variations in bright images captured at high-speed.

This development received funding from the EU FP7-ICT-2011-8 (*agreement 318729*).



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Ibsen Photonics

Visit us at Booth #943

FREEDOM mini Raman

We introduce the FREEDOM mini Raman spectrometer which offers the perfect balance between compact size and high performance in your instrument design.

Due to the small size, robust performance, and high resolution this unit is ideal for integration into portable instruments for Raman Spectroscopy.

The spectrometer is very flexible and can be used with many different laser wavelengths and detector systems.

For instance, with a 785 nm laser 200 – 3650 cm^{-1} can be covered with a resolution of 10 cm^{-1} .



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Xenics Infrared Solutions

Visit us at Booth #834

Versatile SWIR T2SL camera up to 2.35 μm

Hyperspectral imaging or laser beam analysis with extended SWIR is of special interest. The new Xeva-2.35 SWIR camera operates from 1.0 to 2.35 μm with a 4-stage TE Cooler at 350Hz full frame.

- Spectrometer compatible
- Scientific image recording and analysis
- Smallest TE4 - cooled camera for low dark current
- Two gain modes for high sensitivity or high dynamic range
- High speed imaging at 100 Hz (USB2.0) or 350 Hz (CameraLink)

Read the full product specifications:

www.xenics.com/SWIR-T2SL-camera-oo

Live demo booth# 834



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CILAS

Visit us at Booth #1223

The largest coating platform using magnetron sputtering technology in Europe

CILAS has the largest coating platform using magnetron sputtering technology in Europe, which can deposit optical coatings on pieces up to 2 m x 2 m (6.5 ft by 6.5 ft), up to 40 cm thick and weighing up to 1.5 tons (3000 lbs).

The platform has a five position load-lock for an increased productivity which enables a very large number of components to be processed in a single run with an exceptional uniformity.

Coatings: dielectric, aluminium and silver mirrors, metal-dielectric light absorbers, anti-uv filters, dichroics, anti-reflexion.



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ALPhANOV

Visit us at Booth #1323

Triggered picosecond laser platform

ALPhANOV introduces a new triggered picosecond laser platform based on a fully fibered innovative design.

This platform enabled the development of compact, robust and therefore reliable lasers (1064, 532 or 355 nm), at a very affordable cost.

The combination of high average power (above 50 W), high repetition rate (up to 2 MHz) and pulse energy of up to 50 μJ leads to a family of sources dedicated to numerous applications including: industrial machining for photovoltaic applications, selective ablation, cutting glass or LEDs; nonlinear optics.



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MÖLLER-WEDEL OPTICAL GmbH

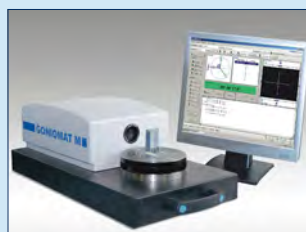
Visit us at Booth #436

Advanced Goniometer of GONIOMAT series

MÖLLER-WEDEL OPTICAL's advanced semi and fully automatic GONIOMATs are the first choice for ultra-precision measurement of prisms, polygons, wedges and angle gauges.

Due to special enhancements to the illumination hardware and the control software the goniometers can be used for measurement of micro-prisms with surface sizes down to 0.5 mm^2 .

Of course all of the GONIOMAT's features, such as measurement of deflection angles and sophisticated computer-based ray tracing analysis of the measurement data for verification, can also be used for micro-prism measurements.



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Vermont Photonics Technologies Corp.
www.vermontphotonics.com

Navitar

Visit us at Booth #601

MicroMate 3:1 Zoom Lens System

The MicroMate was designed to work with today's high resolution 4/3" sensor cameras. It images onto a 22.5mm diagonal with no vignetting when combined with Navitar objectives.

The MicroMate also allows you to capture and process four times as much critical data at the camera sensor while maintaining pixel resolution.

The modular design allows for seamless integration of traditional microscope options, such as fluorescence, DIC, brightfield and darkfield imaging.

Visit our booth #601 for more information.



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ID Quantique SA

Visit us at Booth #1040

Superconducting nanowire with 50% quantum efficiency and fastest electronics

ID Quantique's ID280 series detection system consists of a superconducting nanowire detector combined with high performance electronics. With quantum efficiencies higher than 50%, count rates of up to 20 MHz, dark counts <50 Hz (at 2.3K), jitter below 70ps and no afterpulsing, this system outperforms all commercial single photon detectors in all parameters. Besides the nanowire and electronics, the ID280 comes with everything that is necessary to install it in your own cryostat; including feed-throughs and cryogenic cables and connectors.



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Arden Photonics Ltd

Visit us at Booth #5515

BQM-50 Beam Propagation Analyzer

The BQM-50 Beam Propagation Analyzer from Arden Photonics. Compact, easy to align and adjust, it measures M^2 in less than 20 seconds, with a wavelength range of 400 to 1100nm. One of the most compact and capable beam quality systems available, the BQM-50 is designed to allow complete measurement of laser beam propagation characteristics. It applies patented NPL technology, which means it has no moving parts. This means there is no need for a translation stage which is normally required to allow beam widths to be sampled as the camera moves through the laser caustic.



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PI (Physik Instrumente) LP

Visit us at Booth #4801

PI Announces Air Bearing Stage and System Capabilities

PI (Physik Instrumente) is pleased to announce the introduction of their air bearing stage and system capabilities to complement their comprehensive range of piezo nano positioning stages and hexapod micro positioning systems. Building upon over 200 man years of in house air bearing experience including the acquisition in 2014 of Nelson Air Bearing Products in New Hampshire, PI will demonstrate linear, planar XY and Rotary air bearing stages at their booth to serve both the research and industrial markets. PI is present worldwide with ten subsidiaries, R&D / engineering on 3 continents and total staff of 800+.



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Spectrum Scientific Inc.

Visit us at Booth #2722

UV470-151 spectrometer

Spectrum Scientific Inc. introduces the UV470-151 spectrometer, incorporating our aberration corrected concave holographic grating. This single optical element design provides a high throughput and F # 2.0 performance. The addition of a Hamamatsu S11151 CCD detector enhances system performance for light starved applications and boasts a dynamic range of 7200:1 and a signal to noise ratio of 1600:1. The UV470-151 operates in a spectral range from 190-850 nm with a very low stray light of 0.07% @ 340 nm, measured using the ASTM E 387 standard method. The UV470-151 spectrometer is offered with interchangeable slit sizes including 15, 25, 50 and 100 um. This spectrometer will be ideal for OEM customers in need of a compact UV spectrometer to detect even very low signal levels with good spectral resolution. The UV 470 comes complete with a driver board and SDK, or can be purchased as an OEM unit without the driver board. **Product Page Link** http://ssioptics.com/cart/index.php?dispatch=categories.view&category_id=289



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SEEKING OXYGEN?

The power for O₂ Detection – eagleyards DFB-760 and DFB-764 Laser Diodes hit the lines



To see our live demo please visit us at South Hall, Booth # 743

www.eagleyard.com



the bigger picture

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Next Issues:

SPIE Defense, Security+Sensing
 20th-24th April 2015

Laser World of Photonics
 22nd - 25th June 2015

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