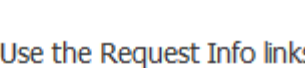


# PHOTONICS SHOWCASE



## September 2017

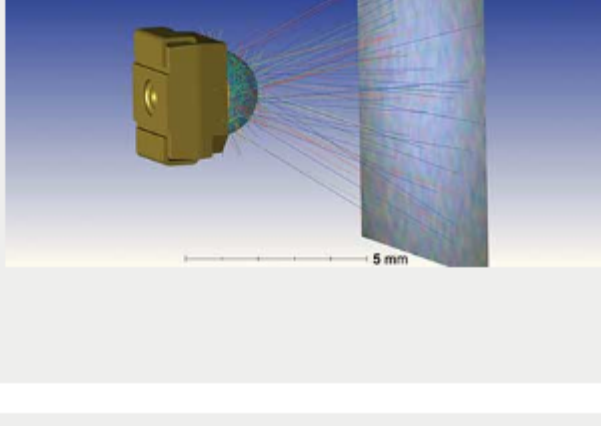
Bi-monthly product-focused newsletter with highlights from the latest issue of Photonics Showcase. Use the Request Info links below to ask for more information about these products, or visit [Photonics.com/rssc](http://Photonics.com/rssc).

## Featured Products

### Optical Design Software

**From: Zemax LLC, Optical & Illumination Design Software**

With a comprehensive suite of optical, laser, and illumination design features, OpticStudio® puts powerful ray-tracing tools in the hands of optical engineers and researchers. OpticStudio combines complex physics and interactive visuals so you can analyze, simulate, and optimize systems, all within tolerance specifications. Advanced tools help engineers incorporate manufacturing and assembly limits into design constraints to ensure manufacturability and production efficiency.

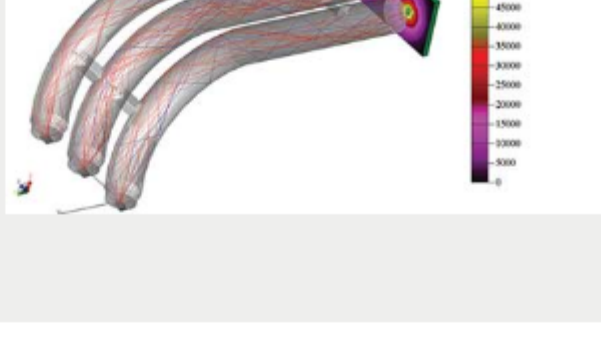


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### New TracePro and RayViz 7.8.2

**From: Lambda Research Corp.**

Lambda Research Corporation announces the latest releases of its easiest-to-use optical/illumination software programs. TracePro 8.0 features faster ray tracing and new utilities to expedite your illumination projects. RayViz adds ray tracing and visualization to SOLIDWORKS®. Streamline your prototype to manufacturing process with our intuitive interfaces and unparalleled interoperability with CAD.

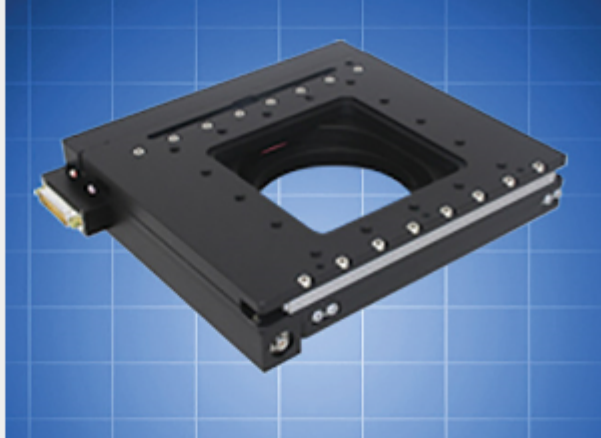


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### OE-1250 GEN II MS-Stage

**From: Applied Scientific Instrumentation Inc.**

ASI has designed the OE-1250 GEN II Stage specifically to be configurable for manufacturers and easily integrated into their systems. The OE-1250 Stage has custom mounting options, a flat top designed with multiple configurations, higher load capacity, precise motion and high repeatability. The OE-1250 provides controlled linear motion alignment, orthogonal movement and lower driving friction.



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### Ferroelectric Liquid Crystal Optics

**From: Meadowlark Optics Inc.**

Does your application require fast optical response time? Ask about our NEW FLC Shutters and Rotators:

- Response Time:  $\leq 100 \mu\text{sec}$
- Retardances:  $\lambda/4$  and  $\lambda/2$
- Clear Aperture: up to 40 mm
- Wavelength: 405 to 850 nm (custom ranges up to 2  $\mu\text{m}$ )



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High-Speed Binary Operation

High-Purity Linearly Polarized Output

Maximum Extinction Ratio

Solid-State — No Vibration

Optional FLC Controller Available

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### High-Res Imaging Colorimeter

**From: Radiant Vision Systems, Test & Measurement**

Evaluate the accuracy of light and color in displays, illuminated components and light sources, including the latest LED and OLED technologies and devices. Radiant Vision Systems ProMetric® I Imaging Colorimeters combine high-resolution CCDs (to 29 MP) and high dynamic range (to 73 dB) with optical filters that replicate human visual sensitivity — providing the truest evaluation of light quality.



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### 3 MPix Spatial Light Modulator

**From: Forth Dimension Displays Ltd.**

A Reflective LCOS with binary modulation of phase or amplitude with 2048 x 1536 pixels of 8  $\mu\text{m}$  pixel pitch. Optimized for 430 to 750 nm, it allows a max. 4.5 kHz refresh rate from a Non-video IF board storing max. 1024 bit planes created by an easy-to-use GUI. Application examples: Structured Light for 3D Optical Metrology, Microscopy & Coded Aperture Imaging.



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### Space-Qualified Laser Diodes

**From: Photodigm Inc.**

Photodigm's DBR fiber coupled and free space laser diodes are now flying in international payloads on both low orbit and deep space missions. The efficiency of Photodigm's LDs allows power budget optimization to meet the critical requirement of reliable operation over the mission lifetime. Due to their precise wavelengths and narrow linewidth, Photodigm Space-Certified™ DBR lasers were selected for use in critical metrology and environmental sensing applications. They are available today in wavelengths between 770 nm and 1083 nm.

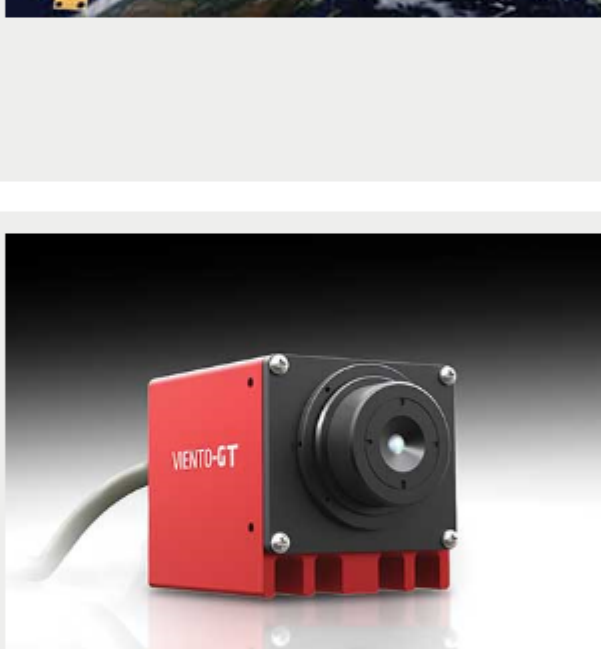


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### Thermographically Calibrated

**From: Sierra-Olympic Technologies Inc. (SOTI)**

Viento-GT is an affordable, easy-to-use, thermographically calibrated thermal camera featuring uncompressed 8-, 14-, or 16-bit digital video outputs and proprietary Image Contrast Enhancement (ICE). Power, control and video are provided over a single Ethernet cable via GigE Ethernet and Power-over-Ethernet (PoE) standards. Available with several lens combinations and two pixel resolutions, 640 x 480 and 320 x 240. Ideal for low-cost thermal monitoring tasks.

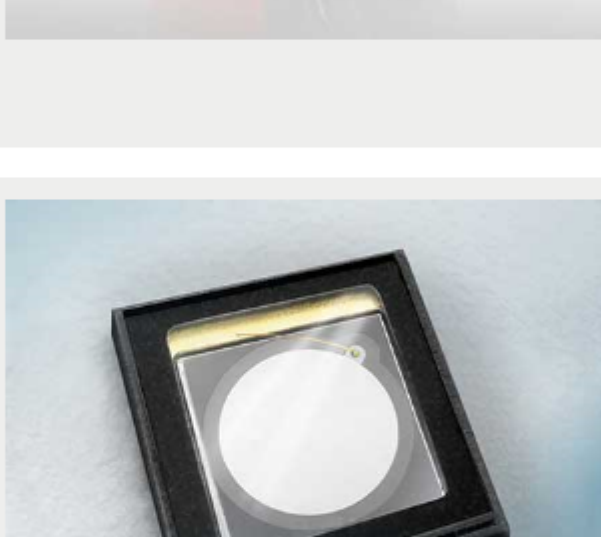


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### Red to NIR Enhanced Photodiode

**From: Opto Diode Corporation**

The NXIR-5C, a red to near-IR enhanced photodiode with a circular active area of 5mm<sup>2</sup>, has a spectral response from 320nm to 1100nm. The rugged photodiode is housed in a custom 4.7 x 4.9mm ceramic carrier surface-mount device (SMD) package. The new SMD joins the company's popular NXIR family of products that is optimized for the near-infrared spectrum.



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### True CW Deep UV-Visible Laser

**From: LEXEL Laser**

The versatile LEXEL™ QUANTUM-SHG Lasers provide multiple wavelengths (229 to 514 nm). They are the preferred lasers for Raman spectroscopy, planar waveguides and semiconductor metrology. The proprietary QuickSwitch™ technology provides rapid and seamless access between the Deep UV spectrum and Visible wavelengths. Enhanced Resonator Stabilization enables fast warmup and promotes excellent beam pointing characteristics for the UV and Visible TEM00 outputs.



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## Additional Products

**Laser Wavelength Meter**  
**Bristol Instruments Inc.**  
The 671 Series Laser Wavelength Meter uses a proven Michelson interferometer-based design to measure the CW wavelength to an accuracy as high as  $\pm 0.2$  parts per million. Operation is available from 375 nm to 12  $\mu\text{m}$ .

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**FRED Optimum Optical Engineering Software**  
**Photon Engineering LLC**  
FRED Optimum Optical Engineering is capable of simulating the propagation of light through any opto-mechanical system by ray tracing. Whether the design is imported from CAD, a lens design program or constructed from within the software itself..

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**Superior Polishing of Aspheres**  
**Schneider Optical Machines Inc.**  
The ALP 120 aspherical lens polisher was specifically designed for high-quality polishing. It is complemented by the Advanced Polishing System 3D, offering an intelligent process flow and requiring minimal user interaction.

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**Femtosecond Applications Protection**  
**Kentek Corporation**  
Kentek's C120C coated filter is an excellent choice for femtosecond applications including Ti:Sapphire for industrial, medical and scientific environments. The C120C filter provides scratchproof laser safety, 40 percent visibility and protection levels up to OD 9 at select wavelengths.

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**Low-Profile Motorized Gimbals**  
**Aerotech Inc.**  
Aerotech's AMG LP (Low Profile) gimbals provide the precise angular position, rate and acceleration for development and testing in space-constrained applications. Direct-drive allows significantly higher speeds/accelerations than competing products.

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**Sapphire Is Clear Protection**  
**Meller Optics Inc.**  
Custom-fabricated sapphire optics that are clear as glass and nearly hard as diamond to provide optimum front surface protection for cameras, sensors and other devices are available from Meller Optics Inc. of Providence, R.I.

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**Optical Laboratory Equipment**  
**Terahertz Technologies Inc.**  
Terahertz Technologies Inc. manufactures a variety of U.S.-made products for your optical laboratory needs. We offer O/E converters in bandwidths from DC to 20 GHz and E/O/E fiber optic, lab grade links.

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**3SAE Combiner Manufacturing System**  
**3SAE Technologies Inc.**  
The 3SAE Combiner Manufacturing System (CMS) is a vacuum-based optical glass processing system designed to maintain production level repeatability for combiners and other fused optical components.

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**Precision Polymer Optics**  
**GS Plastic Optics**  
GS Plastic Optics works with executives and program managers to solve complex optical challenges. We manufacture high-performance injection molded polymer optics specifically designed to help customers improve their competitiveness and market share.

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**XY Polisher**  
**SAGA**  
SAGA is a world leader in polishing and grinding machines. We offer rugged, versatile, compact units designed with great flexibility. In addition to our standardized machines, our engineers will design and build custom machines to meet your specific needs.

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**Asphere and Freeform Metrology**  
**Mahr Inc.**  
The MahrForm TFL 200 is the ideal measurement tool for contact and noncontact 3D measurement of optical surfaces • Fully automated alignment of lens • Export of differential profile for closed loop manufacturing

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**Optical Liquids**  
**Cargille Laboratories**  
This Specialty Optical Liquids catalog features high-transparency, safe-handling laser liquids; fused silica matching liquids; and specific refractive index liquids (1.300 to 2.11 nD). Also featured are transparent and light-absorbing gels.

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**USB XYZ-Stage**  
**Picard Industries**  
Picard's XYZ-Stage system offers a compact, efficient and simple method of remotely positioning a 2-Kg load in three dimensions. Each linear axis has 25 mm of range with 0.75  $\mu\text{m}$  incremental step motion.

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**Accuflect Vis & NIR Reflector**  
**Accuratus Corporation**  
Accuratus high-efficiency ceramic diffuse reflector material is compatible with high-energy and high-temperature application environments. It can be glazed for easy cleaning and use in wet environments (laser cavities).

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