

# PHOTONICS

## showcase



### November 2016

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

### Precision Electroformed Optics

**From: Optiforms Inc.**

Electroforming is a versatile manufacturing technique used to produce precision optical components. Electroforming allows Optiforms to deliver complex forms with extremely close tolerances and a high degree of control, precision and reliability. Using either reusable or disposable mandrels, and materials such as nickel or copper, we accurately replicate thin- or thick-walled components ranging from 1 mm to 1 meter.



[Request Info](#) [Visit Website](#)

### Leybold Optics Helios 800

**From: Buhler Leybold Optics, Advanced Materials Div.**

The Helios series is a high-precision, high-yield platform for demanding optical filters. Helios is optimized for maximum repeatability, throughput and productivity. The PARMS process technology allows for precise control of very thin layers at atomic scale, resulting in extremely high process stability.



[Request Info](#) [Visit Website](#)

## Additional Products



### High-Load, Precision Hexapod

**Aerotech Inc.**

Aerotech's HEX500-350HL hexapod is ideal for applications in x-ray diffraction, sensor testing, high-force device manipulation, synchrotron sample or optics adjustment, semiconductor manufacturing and inspection, or satellite sensor testing. The HEX500-350HL provides  $\pm 0.5\text{-}\mu\text{m}$  linear/ $\pm 2.5\text{-}\mu\text{rad}$  angular positioning accuracy, and 20-nm linear/ $0.2\text{-}\mu\text{rad}$  angular positioning resolution.

[Visit Website](#) [Request Info](#)

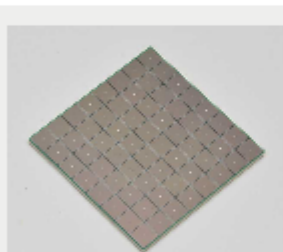


### New High-Speed Laser Wavelength Meter

**Bristol Instruments Inc.**

Bristol Instruments has introduced the model 871, a laser wavelength meter that measures the absolute wavelength of pulsed and CW lasers at a rate as high as 1 kHz. The system's accuracy is  $\pm 1$  part per million, guaranteed by automatic calibration with a built-in wavelength standard.

[Visit Website](#) [Request Info](#)



### New Silicon Photomultipliers

**Hamamatsu Corporation**

Hamamatsu's newest series of Multi-Pixel Photon Counters (a type of silicon photomultiplier) employs a through-hole electrode called TSV, which eliminates the need for wire bonding. These devices can be tiled with very small gaps between each detector. Other features include low crosstalk, low afterpulsing, high gain...

[Visit Website](#) [Request Info](#)



### Hard-Coated Narrowband Filters

**Andover Corporation**

Andover offers first-surface, plasma-deposited, hard-coated narrowband filters on Borosilicate glass. These filters do not utilize absorbing filter glasses, making them suitable for high-temperature applications. Steep transitions from high-peak transmissions to OD4 blocking. Available at wavelengths from 334 to 1550 nm, including all major laser lines and atomic absorption lines. Mounted in black anodized aluminum rings for protection and identification.

[Visit Website](#) [Request Info](#)



### Thin Films and Optical Assembly

**Applied Optics Center (AOC)**

The Applied Optics Center has been and continues to be one of the preeminent suppliers of laser blocking and absorbing filters as well as optical assemblies to both the U.S. military and commercial industry.

[Visit Website](#) [Request Info](#)



### Everstill™ Vibration Cancellation Platform

**TMC**

TMC's Everstill™ K-400 compact, bench-top platform isolates ultra-precision instruments from building floor vibration, enabling higher resolution and more precise measurements. Designed for maximum low-frequency performance, Everstill excels in the critical 1- to 10-Hz range where precision instruments tend to be most sensitive. It is ideal for optical microscopes, SPMs and metrology instruments. TMC is a unit of AMETEK Ultra Precision Technologies.

[Visit Website](#) [Request Info](#)



### Laser Seeker Test System LTS-1200

**Photodigm Inc.**

Seeker systems used in laser-guided weapons must undergo rigorous testing to simulate the approach to target. Working under SBIR contracts from the U.S. Air Force, Photodigm has developed a family of coding-format agile semi-active laser test systems to meet stringent customer requirements. Photodigm LTS products are currently being used in multiple laser-guided weapons programs.

[Visit Website](#) [Request Info](#)



### Ultra Precise Piezo-Z Axis Stage

**Applied Scientific Instrumentation Inc.**

Applied Scientific Instrumentation's (ASI) Ultra Precise Piezo-Z focusing stage has been specifically designed to provide a high-resolution, and highly repeatable, means of controlling the X, Y and Z position of the microscope stage. The XY axes derive their precise control through the use of closed-loop DC servomotors employing high-resolution rotary encoders for positioning feedback.

[Visit Website](#) [Request Info](#)



### 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.

[Visit Website](#) [Request Info](#)



### 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. We have a Phase-Locked-Loop Optical Chopper with direct digital synthesis to provide crystal controlled accuracy.

[Visit Website](#) [Request Info](#)



### Sapphire Wave Plates

**Meller Optics, Inc.**

Meller Optics sapphire wave plates for Er:YAG and holmium lasers extend polarization into the infrared and provide superior damage resistance to quartz and mica. They are available from 0.3 to 4.7  $\mu\text{m}$  and, for Er:YAG and holmium lasers, at 2.94 and 2.10  $\mu\text{m}$ , respectively.

[Visit Website](#) [Request Info](#)



### Mini "All-in-One" Beam Steering

**New Scale Technologies Inc.**

The easy, all-in-one solution for beam steering! Rotary microstages feature built-in controllers for smallest size and elegant simplicity. Familiar galvo form factor, but only 12-mm diameter INCLUDING closed-loop controller. Accepts high-level motion commands from your system processor via I2C, SPI, UART or analog servo interface. No other electronics needed. One-axis and two-axis beam steering developers' kits available now.

[Visit Website](#) [Request Info](#)

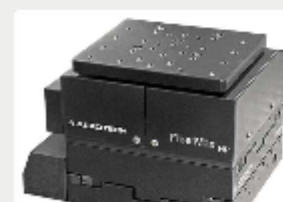


### IntelliTune™ Temperature Control

**Wavelength Electronics Inc.**

Our new TC LAB Series of temperature controllers with IntelliTune™ is available up to 10 A with 15 V compliance and stability of 0.0009 °C. These intuitive touchscreen instruments are ideal for benchtop or rack-mount research.

[Visit Website](#) [Request Info](#)



### FiberMax<sub>HP</sub> Photonic Alignment Platform

**Aerotech Inc.**

The FiberMaxHP is a second-generation 3-6 axis photonic alignment platform built on Aerotech ANT nanopositioning stages. It meets the demanding needs of critical photonics alignment in an automated, 24/7 production environment. It is capable of minimum incremental motion down to 2 nm coupled with speeds to 400 mm/s to meet the challenges of aligning next-generation photonics packages.

[Visit Website](#) [Request Info](#)



### USB-Rotator

**Picard Industries**

Picard's USB-Rotator offers a compact, efficient and simple method of remotely rotating an optical element. For use with polarizing filters, wave plates or any other 1.0-in. (25-mm) optic. The Rotator provides a USB-powered method of positional control unmatched in size, simplicity and cost. The system comes complete...

[Visit Website](#) [Request Info](#)



### PC-Controlled Variable Coupler

**Evanescent Optics Inc.**

The Model 905(P)-M is a variable-ratio fiber coupler; the ratio can be remotely controlled with a PC through a USB port. Available in SM, non-PM and PM versions, it operates over wavelengths from 590 nm to 2  $\mu\text{m}$ . Standard coupling range is from 0 to 99%; other ranges are available.

[Visit Website](#) [Request Info](#)