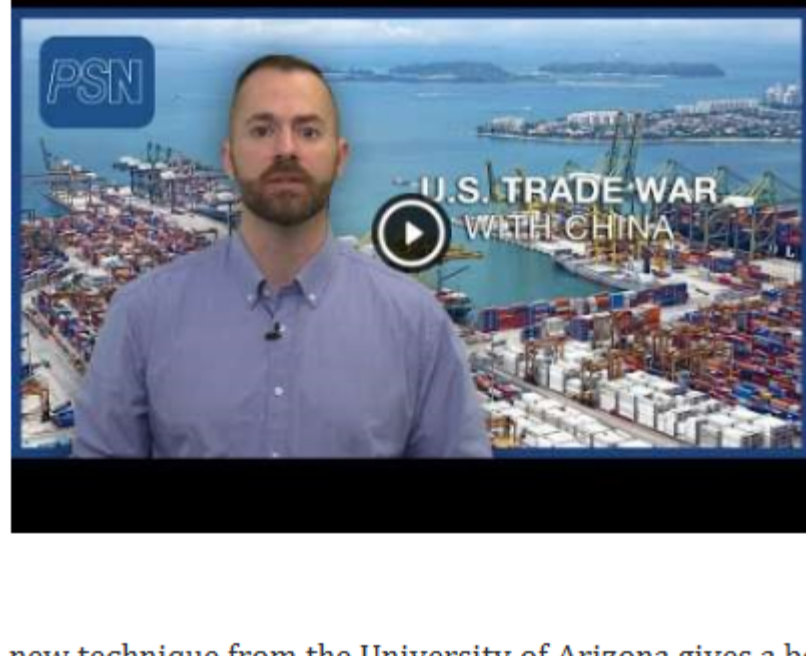




Weekly News



Export Controls from China Could Impact American Semiconductor Developers

The escalating trade war between the U.S. and China could disrupt production for American semiconductor developers. The companies impacted by Beijing's new export controls, and how the White House is responding. A breakthrough from the Capasso Group will have a lasting impact on imaging systems. Researchers from the University of Manchester are introducing a new class of reconfigurable intelligent surfaces with the power to shape terahertz and millimeter waves. A

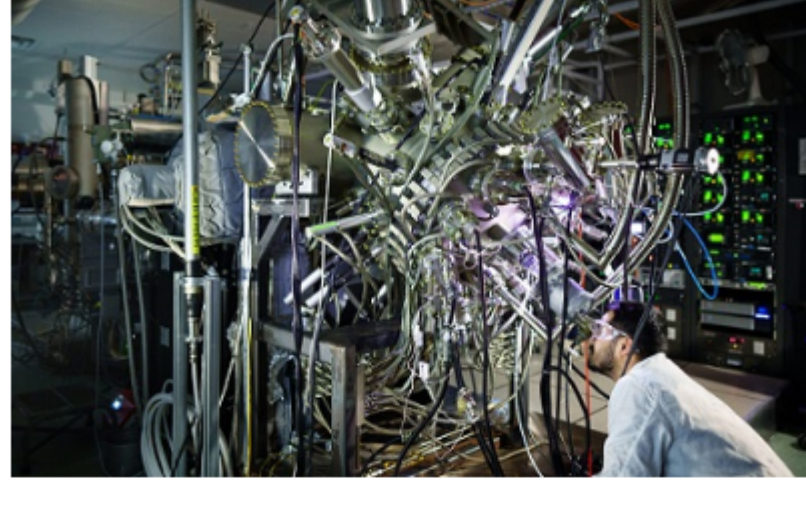
new technique from the University of Arizona gives a boost to AR/VR by increasing eye-tracking points from 12 to 4,000. The EU launches an initiative to support the development of photonic tech across Europe. And there's a new unified front in optical fiber and connectivity solutions. Why officials from Lightera say their new brand will drive innovation through global expertise. Sponsored by Chroma Technology and LightPath Technologies.

[Watch Now](#)



Bosch Launches Joint Venture with Diamond Developer Element Six

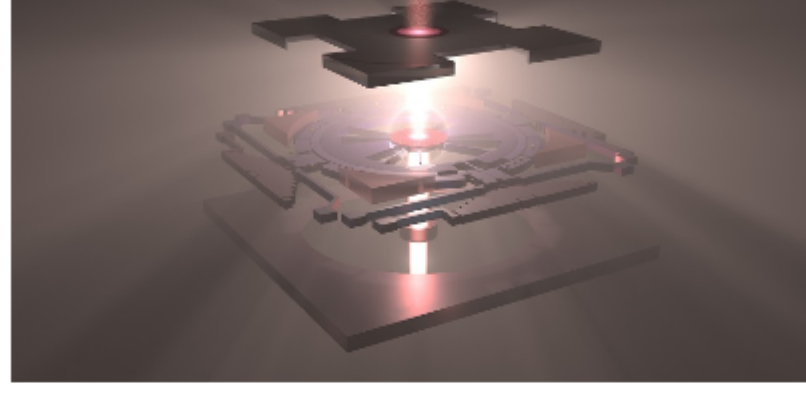
Bosch has established a joint venture aimed at commercializing quantum sensing with synthetic diamond producer Element Six. Called Bosch Quantum Sensing, the company will be based on the in-house start-up of the same name, which Bosch set up in 2022. Element Six, which has been a Bosch partner since 2023, will hold a 25% stake in the company. [Read Article](#)



Maxwell Labs Collaborates to Test Laser-Based Cooling Tech

Minnesota-based startup Maxwell Labs has entered into a cooperative R&D partnership with Sandia National Laboratories and the University of New Mexico to demonstrate laser-based photonic cooling for computer chips. The company is developing the technology to regulate the temperature of chips, significantly lower the power consumption, and increase the efficiency of conventional air

and water-based systems. [Read Article](#)



Optical Sensor Simultaneously Measures Wavelength and Polarization

Researchers from the Harvard John A. Paulson School of Engineering and Applied Sciences, in collaboration with Stanford University and the University of California, Berkeley, have developed an on-chip twisted moiré photonic crystal sensor that uses MEMS technology to control the gap and angle between the crystal layers in real time. The sensor can

detect and collect detailed polarization and wavelength information simultaneously. [Read Article](#)



Featured Products & Services



Diffraction Gratings for Telecommunication

CASTECH INC.
CASTECH's high DE reflection grating is ideal for

WSS and other applications in the optical communication industry. The high-precision design of the grating provides outstanding diffraction efficiency and perfect uniformity.

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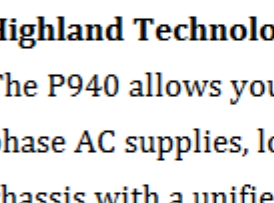
Green Laser to Deliver Stability

Ampliconyx Oy
The AMPX-PICO-532

picosecond green fiber laser, developed with patented technology, is designed to break new ground in time and spectral resolution flavored by versatile OEM integration and elegant control.

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Simplify Your Test Bench Power Requirements

Highland Technology Inc.

The P940 allows you to mix and match DC and 3-phase AC supplies, loads, and more in a single 3U chassis with a unified Ethernet interface with programmable monitor outputs.

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Lightning-Fast LED Illumination

CoolLED Ltd.

From high-content imaging to FRET and Fura-2 calcium imaging, lightning-fast LED microscopy illumination with the 8-channel pE-800 Series accelerates a range of applications.

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Looking for something else? Check the Photonics Marketplace.



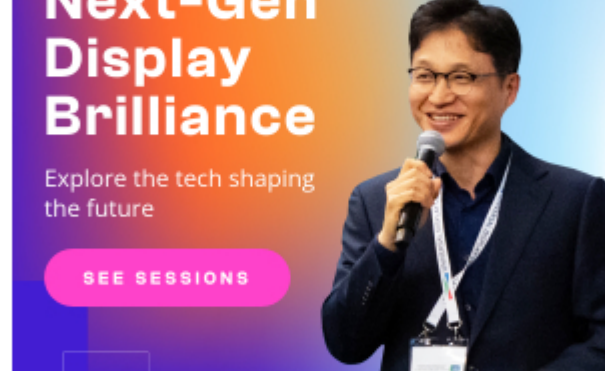
More News

[Laser Welding Technique Streamlines Durable PIC-to-Fiber Connections](#)

[Optical Connectivity Startup InfiniLink Raises \\$10M in Funding](#)

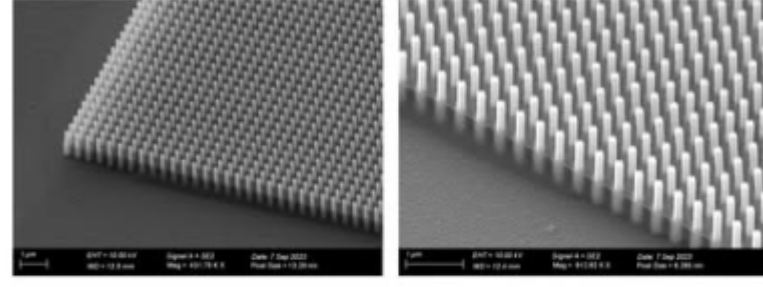
[Light-Activated Pacemaker Safe for Infants and Temporary Use](#)

[EU Invests \\$16.3M to Support Photonics Companies](#)



Latest Webinars

Bilayer Metasurfaces



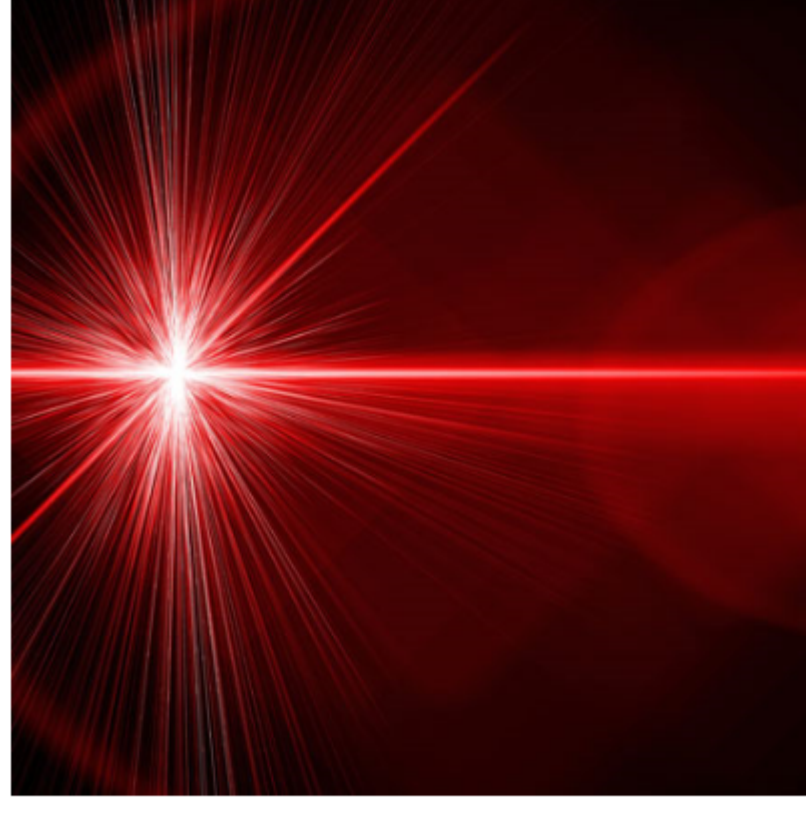
Multifunctional Metaoptics: From Science into Your Smartphones

Tue, Apr 15, 2025 1:00 PM - 2:00 PM EDT

Metasurfaces provide an almost unlimited toolbox to design the wavefront of light in search of new phenomena and applications. Using Matrix Fourier optics helped design the spatial distribution of Jones matrices to achieve polarization sensitive imaging, a

new type of holography with control of polarization in the far-field and Mueller matrix imaging. Polarization metaoptics has led to an error-free biometric authentication system for smartphones. Federico Capasso, Ph.D. will present recent developments in large area metalenses for astrophysics as well as high efficiency broadband metalenses. Then will conclude with recent work on bilayer free-standing metasurfaces and the new functionalities that they enable. Sponsored by Pixelligent.

[Register Now](#)



Laser-Based Particle Analysis: Enhancing Industrial and Biomedical Measurement Systems

Tue, Apr 29, 2025 1:00 PM - 2:00 PM EDT

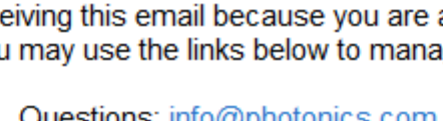
In this in-depth webinar, Jeremy Lane, Managing Director of the ProPhotonix Laser Business Unit, will explore the critical role of semiconductor diode laser technology in the detection, characterization, and analysis of particulates and dispersion droplets across a wide range of industrial and biomedical applications. Laser light scattering is a widely adopted technique for particle analysis, often combined with complementary methods such as spectroscopy — many forms of which also utilize semiconductor diode lasers. Together, these technologies play a vital role in applications ranging from verifying the quality of the output in industrial manufacturing processes to detecting and quantifying airborne pollution and dust particles in

environmental monitoring. In the biomedical field, laser-based systems are key to flow cytometry, where they are used to detect and characterize proteins on the surface of blood cells, measure cell size and shape, and support disease diagnostics. The webinar will also delve into how laser-based particle analysis is utilized to monitor dust concentrations in industrial environments, optimize milling processes, and aid in the development of new pharmaceuticals and food products. Don't miss this opportunity to learn how ProPhotonix's laser solutions can enhance your particle analysis applications across environmental, industrial, and biomedical sectors.

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