

Monthly newsletter from the editors of Photonics Spectra, with features, popular topics, new products, and what's coming in the next issue. Manage your Photonics Media membership at Photonics.com/subscribe.

Discover new and evolving trends in machine vision. #VSC2022

More than 30 presenters! Register for FREE

July 19-21, 2022

Outshining LEDs: Diode Lasers Deliver Intensity to Illumination

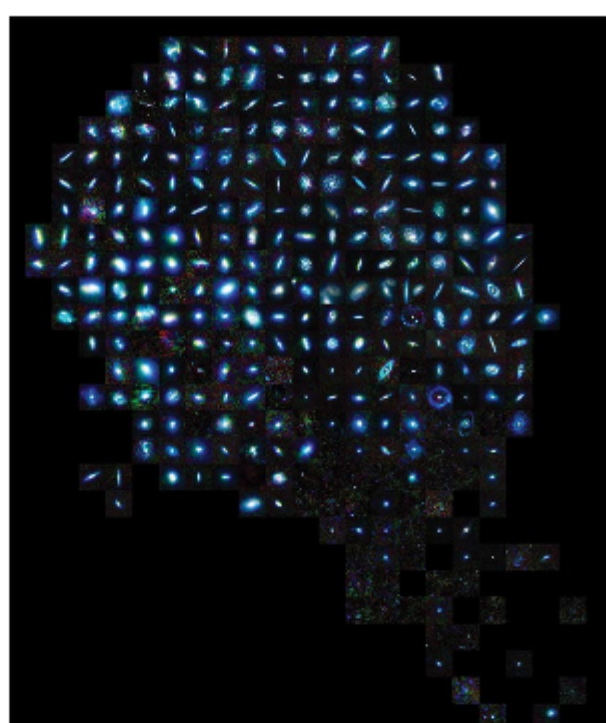
The development of light-emitting diode (LED) lighting has been a great success story of our times. LEDs are nearly ideal light sources that have largely replaced other lighting technologies, except in some niche applications. Solid-state lighting is now developing in directions such that even the few remaining areas served by discharge lamps will largely adapt to semiconductor-based light sources in the coming years.



[Read Article](#)

An Actively Cooled Mid-IR Telescope Peers Through Space Dust

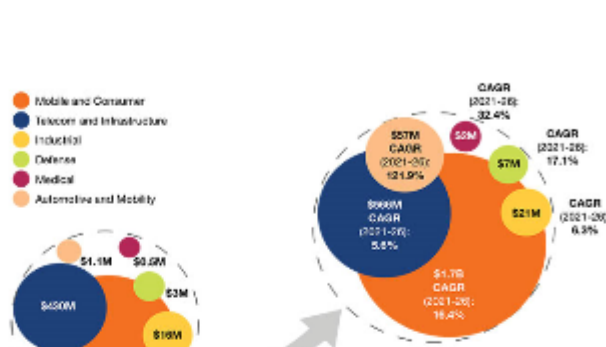
When the European Space Agency's Herschel Space Observatory revealed that the universe was far richer in star-forming dust than previously thought, the engineers who were developing a new mid-infrared space instrument recognized that their project's potential had expanded.



[Read Article](#)

VCSELs Increase Power and Wavelength for 3D Sensing

For vertical-cavity surface-emitting lasers (VCSELs), the future looks bright — because their performance is rising while their price is falling. On the horizon is also a move from near-IR to shortwave IR wavelengths. These trends will help VCSELs meet a surging demand that is driven by their increasing use in 3D sensing applications.



[Read Article](#)

.: Featured Products & Services



[D100 Compact 250A Laser Driver](#)

Highland Technology Inc.

The D100 is a constant-current pulsed laser driver ideal for powering pulsed laser bar arrays. Current/pulse width can be set by on-board trimpots or user-provided signals. A compact PCB outline makes the D100 well suited for bench laser evaluation and embedded OEM applications.

[Visit Website](#)

[Request Info](#)



[AccuFiz® D 600 mm Interferometer](#)

4D Technology Corporation

Dynamic, on-axis AccuFiz® D Fizeau interferometer with 600 mm beam expander measures large flat optics instantaneously. Separates each surface in plane-parallel optics. Vibration and turbulence immune. Dynamic measurement provides rapid, high precision averaging, without retrace error.

[Visit Website](#)

[Request Info](#)



[Aspherical Lenses](#)

CASTECH INC.

CASTECH offers CNC precision-polished aspherical lenses, with or without anti-reflection (AR) coatings, to enable our customers from prototype to mass production stage with greater freedom and imagination.

[Visit Website](#)

[Request Info](#)



[VCSEL with Polarization Control](#)

TRUMPF Photonic Components GmbH,

VCSEL and Photodiode Solutions
The new polarization-stable 940 nm multi-mode VCSEL has two emission zones that produce 8 mW of optical power. The stable and linear polarization improves the illumination quality and resolution of 3D lighting applications.

[Visit Website](#)

[Request Info](#)



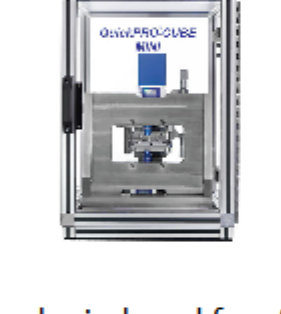
[Machine Vision](#)

Photonics Media

Machine Vision is a book for anyone designing or selecting machine vision systems, and implementing or considering the use of machine vision for a specific application. This engaging overview is a resource for designers, engineers, researchers, marketers and students looking for a broad survey of advancements...

[Visit Website](#)

[Request Info](#)



[QuickPRO™-CUBE-MINI](#)

Opto-Alignment Technology Inc.

Newly enhanced QuickPRO-CUBE-MINI features rapid, dual-sided QA/PC of molded, aspherical, and free-form optics. Takt time of 1 to 2 minutes for both surfaces. Wide range of fixtures and inserts are available to accommodate single-element samples as well as micro-lens arrays.

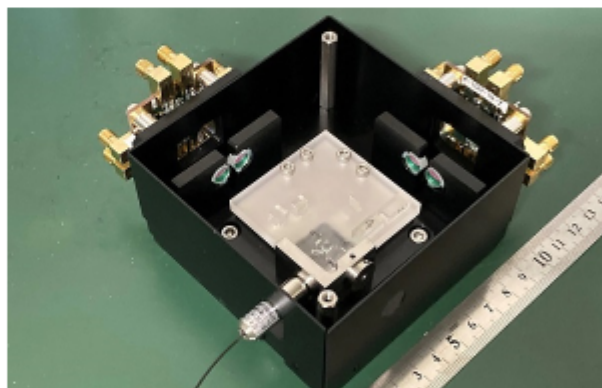
[Visit Website](#)

[Request Info](#)

.: In Case You Missed It

Mitsubishi Electric Develops Laser Communications Terminal for Use in Space

Mitsubishi Electric Corp. developed a prototype of an optical receiver for use in laser communication terminals (LCTs). The company claimed that the prototype is the first to integrate space optical communication using laser beams and a function to detect the direction of received beams in the 1.5-µm band, a general purpose band used for terrestrial optical fiber communications and other applications.



[Read Article](#)

PHOQUSING Project Yields Largest Photonic Processor to Date

As part of the European Union (EU) funded PHOQUSING project, quantum technology startup company QuiX Quantum has created what is reportedly the largest quantum photonic processor to date, compatible with quantum dots. The processor is the central component of the quantum sampling machine, a near-term quantum computing device able to show a quantum advantage, and one of the primary goals of the PHOQUSING project.

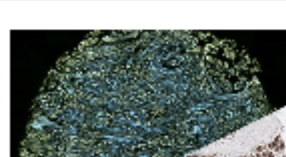
[Read Article](#)

Reusable Light-Writing Solution Reduces Paper Waste

A team led by professor Yadong Yin at the University of California, Riverside formulated a light-sensitive coating material for rewritable light-printing. The material is made from doped titanium dioxide nanocrystals that are synthesized in a single-step process.

[Read Article](#)

.: Upcoming Webinars



Virtual Biomarkers: An Emerging High-Throughput Research Tool

Thu, Aug 11, 2022 1:00 PM - 2:00 PM EDT

Pathology underlies every facet of healthcare, influencing more than 70% of all medical decisions. Yair Rivenson Ph.D., the CEO and Co-Founder of Pictor Labs, demonstrates how it is possible to alter the centuries old practice of histology with a digitized process in a non-destructive fashion. The process is enabled by a machine learning-based virtual staining technology which allows fully digital and virtual multiplex tissue platforms to substantively improve the quality and quantity of pathology samples. He will also discuss additional benefits of the technology.

[Register Now](#)

.: Next Issue:

Features

Quantum Workforce, Photonics in Cultural Preservation, Photonic Integrated Circuits, and more.

Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazine *Photonics Spectra*. Please submit an informal 100-word abstract to Daniel McCarthy, Senior Editor, at Daniel.McCarthy@Photonics.com, or use our online submission form www.photonics.com/submitfeature.aspx.

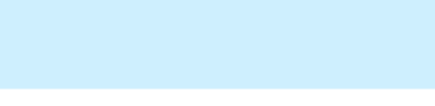
About *Photonics Spectra*



Since 1967, *Photonics Spectra* magazine has defined the science and industry of photonics, providing both technical and practical information for every aspect of the global industry and promoting an international dialogue among the engineers, scientists and end users who develop, commercialize and buy photonics products.

Visit Photonics.com/subscribe to manage your Photonics Media membership.

[View Digital Edition](#) [Manage Membership](#)



We respect your time and privacy. You are receiving this email because you are a Photonics Media subscriber, and/or a member of our website, Photonics.com. You may use the links below to manage your subscriptions or contact us.

Questions: info@photonics.com

[Unsubscribe](#) | [Subscribe](#) | [Subscriptions](#) | [Privacy Policy](#) | [Terms and Conditions of Use](#)

Photonics Media, 100 West St., PO Box 4949, Pittsfield, MA 01202-4949
© 1996 - 2022 Laurin Publishing. All rights reserved. Photonics.com is Registered with the U.S. Patent & Trademark Office. Reproduction in whole or in part without permission is prohibited.