



Weekly News



Luminar Files for Bankruptcy, Using Light to Communicate with the Brain

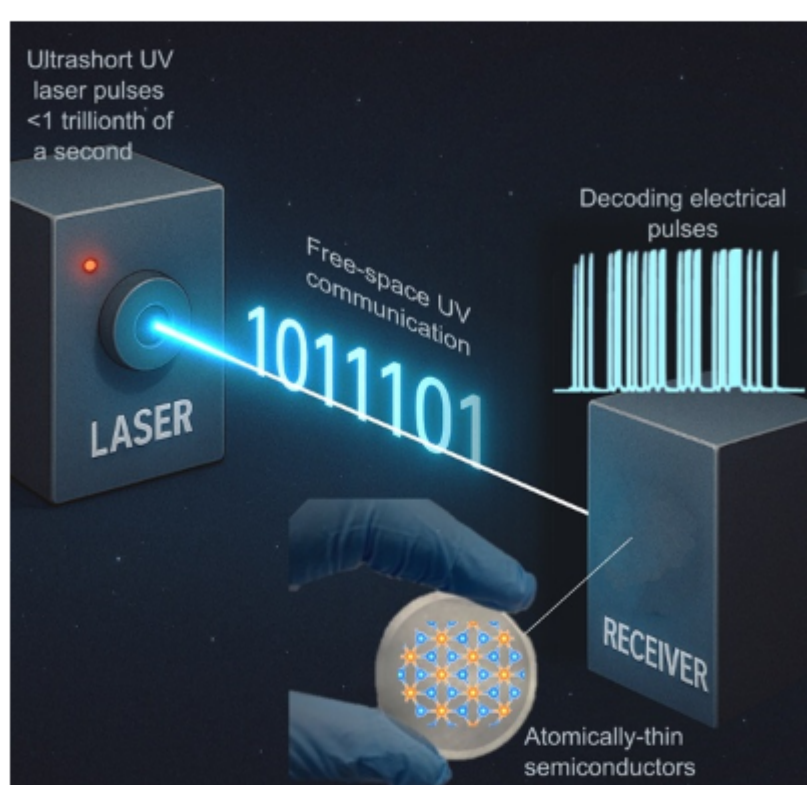
Following Luminar's announcement of plans for Chapter 11 bankruptcy, the company is exploring the sale of its businesses. And a wireless device from Northwestern surpasses the body's natural sensory pathways and uses light to communicate to the brain.

[Watch Now](#)



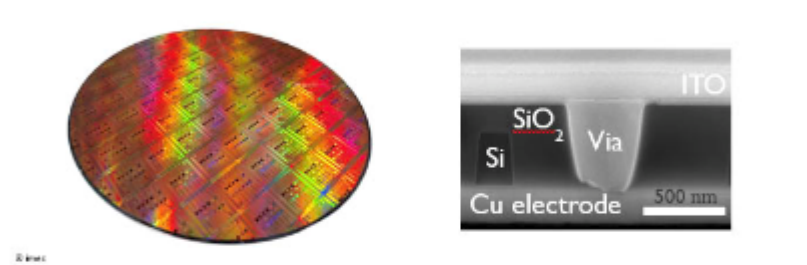
Implant Device Communicates With Brain Through Light

Northwestern University scientists have developed a wireless device that uses light to send information directly to the brain — bypassing the body's natural sensory pathways. The soft, flexible device sits under the scalp but on top of the skull, where it delivers precise patterns of light through the bone to activate neurons across the cortex. [Read Article](#)



Integrated Source-Sensor Produces and Detects FS UV-C Pulses

Ultraviolet-C (UV-C) light is widely used for water, air, and surface disinfection. It enables high-contrast imaging and precise targeting of biological tissues due to its strong interaction with organic molecules, and it is used to study ultrafast molecular dynamics, ionization processes, and nonlinear optical effects that are often inaccessible at longer wavelengths. [Read Article](#)



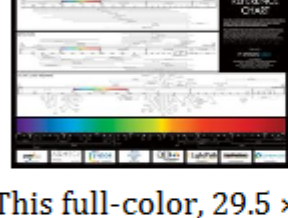
imec Integrates Colloidal Quantum Dot Photodiodes on Metasurfaces

Last week, imec demonstrated the integration of colloidal quantum dot photodiodes on metasurfaces developed on its 300 mm CMOS pilot line. This approach enables a scalable

platform for the development of compact, miniaturized SWIR spectral sensors, setting a new standard for cost-effective and high-resolution spectral imaging solutions. [Read Article](#)



Featured Products & Services



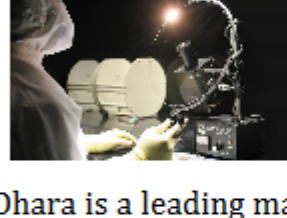
Photonics Spectra Reference Chart

Photonics Media

This full-color, 29.5 × 20.5-inch poster of the photonics spectrum displays the major commercial laser lines, detectors, and optical materials in the ultraviolet to the far-infrared and beyond. The convenient format makes it easy to quickly find the information you need.

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Precision Polished Substrates

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Ohara is a leading manufacturer of double-side polished substrates with extremely low surface roughness (RMS ~2 Angstroms) and flatness (~1 μm) values. Sizes 25- to 360-mm diameter, thin (down to 50 μm) and ultra-clean. Fused silica, optical glass, etc.

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More News

[Luminar to Sell Subsidiary to Quantum Computing Inc.](#)

[Brain Imaging Tool Bypasses the Bottlenecks Faced by Fluorescent Probes](#)

[Radiant Vision Systems Merges With Konica Minolta Sensing](#)

[Imagine Optics Acquires Karthala Systems, Expanding Bioimaging Capabilities](#)

Latest Webinars



Dynamic Beam Lasers for Free-Space Optical Propagation

Mon, Dec 22, 2025 11:00 AM - 12:00 PM EST

This webinar will explore how CBC and dynamic beam shaping are redefining high-power optical propagation. Attendees will learn how DBLs overcome turbulence, enhance beam stability, and enable precise, controllable optical transmission in real-world free-space environments. Dynamic beam lasers (DBLs), based on coherent beam combining (CBC), mark a new frontier in free-space optical propagation. Unlike traditional single-beam sources, DBLs can dynamically control beam shape, phase, and direction in real time. With power levels reaching up to 120-kW continuous wave, flexible beam steering, and adaptive beam shaping, DBLs deliver high-precision, high-reliability optical transmission across free-space environments.

[Register Now](#)



Artificial Intelligence Vision Fabric

Tue, Jan 6, 2026 11:00 AM - 12:00 PM EST

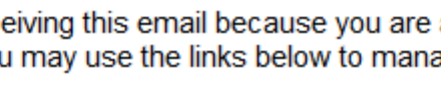
Vision has always been humanity's most powerful sense - our primary gateway for understanding, navigating, and surviving in the world. Today, technology demands even more: ultrafast perception, extreme accuracy, and reliable operation in any environment. The AI Vision Fabric delivers precisely that. It is a breakthrough platform that fuses advanced digital holography with Fresnel coherent diffraction imaging (FCDI), transforming

how artificial systems capture and interpret visual information. Inspired by nature's most efficient visual systems, this technology unlocks performance far beyond the limits of traditional optics. At its core is a quantum-ready multichannel electro-optic synchronization interface, enabling real-time recording of holographic data with scalable, ultrahigh precision. When paired with quantum multichannel processors, it opens the door to unprecedented speed, parallelism, and intelligence. This powerful fusion of AI, holography, and biological inspiration creates a new generation of vision technology - one that achieves human-like flexibility and scalability without precision lenses, moving parts, or heavy computational loads.

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Photonics Media is currently seeking technical feature articles on a variety of topics for publication in our magazines (*Photonics Spectra*, *BioPhotonics*, and *Vision Spectra*). Please submit an informal 100-word abstract to editorial@Photonics.com, or use our [online submission form](#).



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