



MEDIA ADVISORY

June 10, 2025

Excelitas to Display High-Performance Photonics Solutions at Laser World of Photonics 2025

WHO: [Excelitas®](#), the leading provider of advanced, life-enriching technologies that make a difference, serving global market leaders in the life sciences, advanced industrial, next-generation semiconductor and avionics sectors, will highlight its comprehensive portfolio of optics and imaging, lighting and lasers, and sensors and detectors at [Laser World of Photonics 2025](#).

WHAT: Excelitas experts will present the following demonstrations at Booth 110 in Hall B1:

- **Industrial Optical Coherence Tomography (OCT) demonstration** showcasing the [1060 nm Axsun Azmyth™ Swept-Source OCT Laser](#) integrated with a scanner, optics, robotic arm and image analysis software for unrivaled tuning bandwidth, output power, scanning speed and coherence length in OCT imaging. This can be used for high-resolution, high-speed 3D surface and sub-surface imaging on plastics, ceramics, organics, coatings and silicon-based materials for use in off-the-shelf image analysis software for inspection, measurement and defect detection.
- **High-Speed Object Recognition demonstration** featuring Excelitas' [pco.dimax 3.6 ST High-Speed Camera](#) and [LINOS® d.fine HR-M Series Lens](#). The new pco.dimax 3.6 ST (VIS-NIR, 1984 x 1808 pixel, 2166 fps) allows high-speed frame rates and direct image processing within the data stream for extreme high-speed imaging. The NVIDIA Jetson board AI image processing is complemented by the award-winning LINOS d.fine HR-M lens for optimal image quality to recognize and record high-speed occurrences of select alpha numeric sequences in a high-speed airflow.
- **Multispectral Technology demonstration** including the [pco.pixelfly™ 1.3 SWIR](#) high-performance machine vision camera with InGaAs image sensor, sensitive in the shortwave infrared (SWIR), near infrared and visible range of the electromagnetic spectrum; along with the [Optem® FUSION Microimaging System](#) consisting of a modular design and infinity corrected optics for maximum versatility in machine vision, automated optical inspection and non-contact metrology.
- **Optical Inspection demonstration** featuring the new [X-Cite TETREM™ 4-Channel LED Illumination System](#), [pco.panda 26 sCMOS camera](#) and [mag.x 125 Widefield Microscope System](#). This real-time inspection demonstration of next-generation display technology (micro-LED) showcases advanced auto-focus capabilities and high-resolution imaging across a wide field of view. The system is ideal for detecting fine details in complex structures while maximizing throughput.
- **Solid-state LiDAR demonstration** highlighting a custom 16-channel module using a pulsed laser diode array. The chip on ASIC integrated driver features capabilities of [Excelitas high-power lasers](#) (120 W /channel at 40 A) as well as CMOS SPAD (Single Photon Avalanche Diode) array for use in LiDAR system applications.

Additional products on display include:

- **[Next-Generation 905 nm TPG3 Series of Triple-Cavity Pulsed Laser Diodes:](#)** Designed for high-volume range finding and LiDAR systems, Excelitas' new pulsed laser diodes in a TO-56 can deliver improved beam uniformity, higher reliability and tailored performance options for diverse short- to long-range applications.
- **[C30683 Silicon \(Si\) APDs with a Transimpedance Amplifier \(TIA\):](#)** C30683 receivers offer best-in-class noise performance for high signal-to-noise ratio in photon detection. As a result, customers can achieve better accuracy, longer range and greater performance for applications including LiDAR, range finding, high-speed, low-light detection and analytical instrumentation.
- **[Enhanced C30645 / C30662 InGaAs Avalanche Photodiodes \(APDs\):](#)** The re-engineered diodes leverage improvements in Excelitas' III/V wafer growth and processing architecture to enable cutting-edge noise specifications for range-finding and LiDAR systems. The new design provides better Signal-to-Noise-Ratios (SNR), and therefore, increased range from the same laser output power.
- **[pco.edge 9.4 bi CLHS sCMOS Camera:](#)** The pco.edge 9.4 bi CLHS is Excelitas' first sCMOS camera with photon counting sensitivity for demanding microscopy, life science and physical science applications such as lightsheet fluorescence microscopy (LSFM/SPIM), structured illumination microscopy (SIM), confocal spinning disk microscopy, and dual-image acquisition for spectral analysis, HDR imaging and polarization studies. It combines an extremely low readout noise of 0.3 e- with a quantum efficiency of up to 85% and a broad spectrum out to NIR.
- **[UVC Disinfection Light Sources:](#)** Excelitas designs and manufactures ultraviolet solutions for disinfecting air, liquids and solid surfaces. The company's booth will have a variety of products on display including the [Kepri™ Upper-Air Disinfection System](#), [humm3® Flashlamp System](#) and [Excimer 222 nm light sources](#).
- **[LINOS inspec.x L 5.6/105 VIS-NIR Lens Series:](#)** LINOS inspec.x L 5.6/105 VIS-NIR lens series sets a new benchmark in visual and non-visual inspection. Engineered for long-line and large-area sensors, it boasts an exceptional apochromatic design. This allows for ultra-sharp, high-contrast images across a broad spectrum of wavelengths from 400 nm to 1150 nm, eliminating the need for refocusing. The series comes with four different lenses that are optimized for varying magnifications in the 0.25x to 4x range.
- **[LINOS UV F-Theta-Ronar Lenses:](#)** Excelitas offers an extensive line of LINOS F-Theta-Ronar Lenses, including the new LINOS UV F-Theta-Ronar Lenses 340 nm - 360 nm, for welding, fine cutting, additive manufacturing, laser cleaning, drilling, trimming, marking and many more laser applications.
- **[LINOS Ultra-Low Outgassing Faraday Isolator:](#)** Ideal for high-power laser applications, semiconductor manufacturing, space applications and high-vacuum environments, this ultra-low outgassing Faraday isolator features a patented, glue-free design and offers 50X lower outgassing than standard Faraday isolators.

WHEN: June 24 – 27, 2025

WHERE: Excelitas Booth 110, Hall B1
Messe München, Munich, Germany

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About Excelitas

Excelitas is the leading provider of advanced, life-enriching technologies that make a difference, serving global market leaders in the life sciences, advanced industrial, next-generation semiconductor and avionics end markets. Headquartered in Pittsburgh, PA, USA, Excelitas is an essential partner in the design, development and manufacture of photonic technologies, offering leading-edge innovation in sensing, detection, imaging, optics and specialty illumination for customers worldwide.

Connect with Excelitas on [LinkedIn](#), [Facebook](#), [X](#) and [Instagram](#), or visit www.excelitas.com for more information.

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