

Excelitas Technologies to Demonstrate Photonics, Imaging Innovations at BiOS Expo and Photonics West 2025

WHO: [Excelitas Technologies® Corp.](#), 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, aerospace and defense end markets, will display and demonstrate its latest high-performance photonics offerings at SPIE [BiOS Expo](#) and SPIE [Photonics West 2025](#). Excelitas will also present several sessions at Photonics West.

WHAT: At both events, Excelitas will demonstrate the following technologies in its booth:

- A **microscopy demo** featuring Excelitas' [X-Cite XYLIST™ II Broad Spectrum LED Illumination System](#), an arc lamp replacement for routine and advanced fluorescence imaging applications, and [pco.edge 10 bi CLHS](#) camera with a back-illuminated image sensor, offering quantum efficiency up to 85% with broad spectrum to NIR.
- **Multispectral technology** 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](#) with a modular design and infinity corrected optics for maximum versatility in machine vision, automated optical inspection and non-contact metrology.
- An **Optical Coherence Tomography (OCT)** demo showcasing how Excelitas' [Axsun High-Speed SS-OCT Tunable Laser Engines](#)' tuning bandwidth, output power, sweep speed and coherence length enable cutting-edge performance in next-generation OCT systems.

Additional demonstrations at the Excelitas Photonics West booth will include:

- **Automated sorting** with Excelitas' [pco.edge® 26 CLHS sCMOS Camera](#) and new [LINOS® inspec.x 5.6/105 VIS-NIR Lens](#) for optics and imaging. This demonstration delivers quick response sorting driven by AI-based image processing, using a NVIDIA Jetson board, in the image data stream
- **High-speed object recognition** using Excelitas' new [pco.dimax 3.6 ST High-Speed Camera](#) and [LINOS d.fine HR-M Series Lens](#) for use in high-speed sorting, analysis and inspection applications.
- **Solid-state LiDAR demonstration** showcasing a custom 16-channel pulsed laser module with a monolithic 4-channel chip. The chip on ASIC integrated driver features the capabilities of [Excelitas high-power lasers](#) (150 W /channel at 50 A) as well as CMOS SPAD (Single Photon Avalanche Diode) array for use in LiDAR system applications.
- **Live motion detection demo** with Excelitas [Low-Power DigiPyro PYD 1598](#) works at the new industry-leading standard of 1.8V supply voltage with significantly reduced supply current. The family of Low-Power DigiPyro can be

customized for element sizes and packages. These DigiPyros offer added features and low-current power consumption for extended remote motion detection in battery operated devices.

Excelitas will also present three sessions at Photonics West:

- [Faraday rotator design for 343nm and 355nm lasers](#): Volker Melzer, January 28, 11:50 AM - 12:10 PM PST, Moscone Center, Room 206 (Level 2 South)
- [Phase stable OCT with a 1050 nm tunable VCSEL and photonic integrated circuit](#): Bart Johnson, January 29, 5:00 PM – 5:15 PM PST, Moscone Center, Room 203 (Level 2 South)
- [OFDR of a 1050 nm photonic integrated circuit](#): Bart Johnson, January 29, 6:00 PM – 8:00 PM PST, Moscone Center Room 2003 (Level 2 West)

WHERE: Moscone Center, San Francisco, CA
BiOS: January 25 – January 26, 2025, Excelitas Booth # 8530
Photonics West: January 28 – January 30, 2025, Excelitas Booth # 641

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About Excelitas Technologies Corp.

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, aerospace and defense 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 our website at www.excelitas.com for more information.

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