



MEDIA ADVISORY

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Excelitas to Showcase Latest Imaging, Sensing, Detection and Laser Solutions at BiOS Expo and Photonics West 2026

WHO: [Excelitas®](#), a 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 high-performance photonics innovations at SPIE [BiOS Expo](#) and [Photonics West](#). Company experts will also present four sessions at Photonics West.

WHAT: Featured technologies at BiOS Booth #8531 and Photonics West Booth #637:

- **Instant Co-Localization for Dual-Fluorescence Emission Demo** highlighting high-resolution, real-time imaging of biological samples with two distinct biomarkers, each stained with different fluorescent dyes. The [X-Cite TETREM™ 4-Channel LED Illumination System](#) will be used to excite the biomarkers through separate color channels, which are split by an akrima $\lambda/2$ image splitter and captured by the [pco.edge 9.4bi CLHS sCMOS Camera](#). This innovative setup operates at up to 122 frames per second to produce two 4-megapixel images side by side in a single exposure, which are controlled and displayed as co-localization images by the Visitron VisiView® software.
- **SWIR Hyperspectral Microscopy Demo** features the [pco.pixelfly™ 1.3 SWIR](#) high-performance machine vision camera with InGaAs image sensor to deliver high sensitivity across SWIR, NIR and visible wavelengths. Combined with the Nireos GEMINI X interferometric hyperspectral imaging module and the [Optem® FUSION modular microscopy platform](#) for precision and high magnification, this setup demonstrates how hyperspectral image stacks or cubes can be created to enable detailed spectral analysis for classification, differentiation and identification of sample components.
- **Optical Coherence Tomography (OCT) Demo** highlighting 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 for medical and industrial application.

Additional solutions at Excelitas' Photonics West booth will include:

- **High Magnification TDI Line Scan Inspection Demo** featuring the [pco.horizon 9.1 bi TDI CLHS Line Scan Camera](#) paired with the [Optem mag.x 125 Widefield Microscope](#) and [X-Cite XYLISTM II Broad Spectrum LED Illumination System](#). This setup demonstrates high-resolution TDI line scanning by detecting and capturing multiple lines from rotating cylinder with a barcode and reconstructing them into a static 2D image, showcasing exceptional performance for high-speed inspection applications.
- **High-speed Recording Demo** showcases the performance of the [pco.dimax 3.6 ST High-Speed Camera](#) paired with [LINOS d.fine HR lenses](#). Unlike

traditional high-speed cameras that are limited to fractions of a second, this streaming setup records and stores extended high-speed sequences, up to several tens of seconds, for real-time interaction with dynamic processes. The wide aperture and ultra-high-resolution lens ensure detailed imaging and optimal illumination. The high-speed recording system captures electrical discharges inside a glass sphere, showing how longer sequences can be recorded and replayed at true high-speed for deeper analysis of fast-changing phenomena.

- [**Next-Generation 905 nm Pulsed Laser Diode Family**](#) offers scalable output power from 16 W to 120 W, tailored to the full spectrum of Time-of-Flight applications – from compact near-field sensing to automotive long-range LiDAR.
- [**Pulsed Light UV Disinfection for Food and Beverage Production Demo**](#) featuring Excelitas' [**BlueLight® Small Area UVC Flash Disinfection System**](#) for fast, reliable and eco-friendly disinfection of food packaging, bottle caps and other organic materials.
- [**Endoscopy Demo**](#) focused on the capabilities of custom 3 mm mono and 10 mm stereo endoscopes for end-to-end optical system including optics, mechanical and thermal design, electronics development and illumination design.
- [**NEW SPCM-1064 Single-Photon Counting Module**](#) for high-performance detection across the 905 nm to 1064 nm wavelength range, which delivers superior near-infrared (NIR) sensitivity where many analytical and quantum optical systems operate. The module features a high-efficiency silicon avalanche photodiode that provides typical single-photon detection efficiency (PDE) of 10% at 1064 nm – a wavelength where reliable photon counting has traditionally been difficult.
- [**NEW C30733EQC-3 InGaAs Avalanche Photodiode \(APD\)**](#) delivers high gain of up to 100 and fast recovery time at wavelengths exceeding 1550 nm with cutting-edge noise and bandwidth performance, enabling superior sensitivity and timing in high-frequency distributed fiber sensing.

Excelitas will also present four sessions at Photonics West:

- [**A 1064 nm enhanced silicon APD for a free-running single photon counting module**](#): Paper 13904-24, Philippe Bérard, January 20, 3:40 PM – 4:00 PM PST. Room 3014 (Moscone West, Level 3)
- [**Ranging beyond the coherence length with a MEMS tunable VCSEL**](#): Paper 13837-44, Bart C. Johnson, January 20, 4:15 PM – 4:30 PM PST. Room 213 (Moscone South, Level 2)
- [**System components for laser free confocal microscopy**](#): Paper 13857-14, Tony Wilson (Aurox Ltd.), January 21, 3:40 PM – 4:00 PM PST. Room 314 (Moscone South, Level 3)
- [**Improved recovery time in low-noise, high-gain InGaAs APDs**](#): Paper 13892-57, Ioan Bucsa, January 21, 6:00 PM – 8:00 PM PST. Room 204 (Moscone South, Level 2)

WHERE: Moscone Center, San Francisco, CA

BiOS: January 17 – January 18, 2026, Excelitas Booth #8531

Photonics West: January 20 – January 22, 2026, Excelitas Booth #637

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About Excelitas

Excelitas is a 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 advanced technologies, offering leading-edge innovation in sensing, detection, imaging, optics and specialty illumination for customers worldwide. Excelitas is at the forefront of addressing many of the relevant megatrends impacting the world today, including precision medicine, industrial automation, artificial intelligence and connected devices (IoT).

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