



MEDIA ADVISORY

April 3, 2025

## Excelitas to Showcase Sensor and Detector Innovations for Defense Systems at SPIE Defense + Commercial Sensing 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 exhibit the company's latest sensor and detection technologies at [SPIE Defense + Commercial Sensing 2025](#).

**WHAT:** Excelitas experts will be at booth #732 to discuss featured products including:

- [NEW C30683 Silicon \(Si\) APDs with a Transimpedance Amplifier \(TIA\)](#): The new C30683 receivers deliver 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 \(APDs\)](#): Ideal for use in range finding and LiDAR systems, these re-engineered diodes leverage improvements in Excelitas' III/V wafer growth and processing architecture to enable cutting-edge noise specifications. The new design provides customers with better Signal-to-Noise-Ratios (SNR), and therefore, increased range from the same laser output power.
- [EXACTD Laser Warning Detectors](#): EXACTD Laser Warning Detectors for ground vehicle, naval vessels, and fixed or rotary wing aircraft Laser Warning Systems (LWS) are designed to detect and provide precise angle-of-arrival (AoA) information of incident light emitted by laser range finders, laser target designators and active laser Electro-Optic (E.O.) systems. The modules make use of 9-element Si and InGaAs detector arrays assembled in a sandwich configuration, in conjunction with light guides and a 6-bit digital gray code mask, which through shadowing of the individual channels, encode the incident laser beam AoA into a digital pattern.
- [YAG-Enhanced Quadrant Photodiodes](#): Excelitas is the leading provider of off-the-shelf and customer-specific YAG-enhanced terminal guidance detectors. Available in a range of devices that offer high speed, responsivity and quantum efficiency enhanced for 1064nm, the YAG-enhanced quadrant photodiodes provide an ideal solution for applications including precision munitions, target acquisition, laser spot tracking and semi-active laser (SAL) munitions guidance.
- [High-Energy Laser Optics and Assemblies](#): Excelitas ion beam sputtering (IBS) coating technology produces fully densified coatings that are resistant to environmental contaminants. These high energy optics meet the critical requirements of pulsed, solid-state lasers operating at distinct wavelengths, as well as multi-spectral laser systems and high-powered continuous wave (CW) lasers. Advanced fabrication techniques minimize sub-surface damage and are combined with rigorous control of contamination throughout the production process.
- [Custom Optical Components and Assemblies](#): Excelitas delivers precision optical assembly solutions for the most demanding applications. With highly specialized

abilities for lenses, mirrors, prisms and prism assemblies, Excelitas possesses the industry's most comprehensive optical manufacturing processes from the deep UV to the long wave IR.

**WHEN:** April 15 - 17, 2025

**WHERE:** Excelitas Booth #732  
Gaylord Palms Resort & Convention Center, Kissimmee, FL

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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, 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](http://www.excelitas.com) for more information.

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