



FOR IMMEDIATE RELEASE:

Excelitas Technologies Debuts C30683 Silicon Avalanche Photodiode with a Transimpedance Amplifier for LiDAR, Range Finding and Laser Meters

New APD in hermetically sealed TO-8 package allows for low-noise, high-speed operation



Pittsburgh, Pa., January 16, 2025 – [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, today announced its [C30683 Series Silicon Avalanche Photodiode \(APD\) with a Transimpedance Amplifier \(TIA\)](#). Combining Excelitas' high-performance Si APD with a discrete transimpedance amplifier (TIA) in a TO-8 can, these

receivers provide the highest available level of performance with best-in-class noise performance for high signal-to-noise ratio. Designed for low-noise, high-speed operation in a hermetically sealed TO-8 package, the new C30683 modules deliver high response between 830 nm and 1100 nm with a bandwidth of up to 400 MHz.

The C30683 Series Si APD with a TIA incorporates the same proven APDs as the C30737 Series, making it an ideal solution for a wide range of photon detection applications. Key product features of the series include:

- 500µm Active Area Si APD
- Spectral response 400 nm – 1100 nm
- Differential output
- High responsivity
- Low noise equivalent power (NEP)
- Hermetically sealed TO package

“We are excited to add the C30683 Series as the latest addition to our Si APD product family. In addition to offering higher bandwidth, lower noise and higher responsivity than other solutions on the market, the C30683 Si APD with an integrated TIA delivers a built-in thermistor to monitor temperature. 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,” said Richard Simons, Product Manager – Photon Detection at Excelitas Technologies.

The C30683 Si APD with Integrated TIA will make its debut at [SPIE Photonics West](#) Booth #641 from January 28 - 30, 2025 in San Francisco, CA. For additional information, visit <https://www.excelitas.com/product/c30683-si-apd-receiver-tia-400mhz-8>.

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**About Excelitas Technologies**

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.

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