



FOR IMMEDIATE RELEASE:

Excelitas Debuts pco.horizon 9.1 Time Delay Integration CLHS Line Scan Camera for High-Speed, Precision Inspection Applications

9K resolution camera with temperature-stabilized CMOS sensor delivers unmatched image quality, reliability and performance



Pittsburgh, Pa., June 18, 2025 – [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, announces the launch of its [pco.horizon 9.1 Time Delay Integration \(TDI\) CLHS Line Scan Camera](#). Featuring a resolution of 9072 pixels and 256 TDI stages, the new line scan camera is optimized for high-speed inspection applications requiring exceptional sensitivity, resolution and image stability, including semiconductor inspection, print verification, web inspection and medical imaging.

With support for line rates up to 600 kHz, the pco.horizon 9.1 TDI is built for both speed and precision. It has a back-illuminated CMOS sensor and two photosensitive bands, offering enhanced light sensitivity and signal-to-noise performance. The camera's temperature-stabilized sensor with thermoelectric cooler (TEC) ensures reliable and consistent image quality over time, even in thermally challenging environments. Furthermore, its robust housing and modular thermal management interface make it ideal for integration into both new and existing industrial vision systems.

Features and benefits include:

- **9K High Resolution:** Provides ultra-high spatial detail, enabling the detection of the smallest defects or features in large-area inspection tasks (e.g., semiconductor wafers, web materials or fine print)
- **256 TDI Stages:** Enhances sensitivity by accumulating signal across multiple exposures for improved image quality in low-light or high-speed environments without requiring higher illumination
- **Temperature-Stabilized CMOS Sensor with TEC:** Delivers consistent image quality by minimizing thermal noise and drift, especially in environments with fluctuating temperatures—critical for repeatable precision imaging
- **Flexible Thermal Management Interface:** Allows for easy integration into different system architectures with customized cooling solutions, improving long-term stability and system reliability
- **Camera Link HS and Unified Connector (Power, Trigger, Status):** Consolidates power, status and triggering connections for simplified cabling and integration, which ensures fast, reliable data transmission and easier setup

“Our new pco.horizon 9.1 TDI CLHS Line Scan Camera offers a high-performance, premium option for customers who demand unmatched image quality, reliability and performance in high-speed, precision inspection environments,” said Alexander Grünig, Director, Advanced Imaging

Systems at Excelitas. "With its temperature-stabilized CMOS sensor and simplified system integration, it meets the rigorous demands of modern production and inspection workflows, especially where thermal variability and low-light/low contrast conditions pose a challenge. This includes high-speed inspection applications in semiconductors, printed materials and multilayer web materials, as well as medical imaging scenarios that require long-term stability and repeatability."

For additional information on Excelitas' pco.horizon 9.1 TDI CLHS Line Scan Camera, please visit <https://www.excelitas.com/product/pcohorizon-91-bi-tdi-clhs-line-scan-camera>. It will be on display at Excelitas Booth #110 in Hall B1 during [Laser World of Photonics 2025](#), June 24 - 27, 2025 in Munich, Germany.

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About Excelitas Technologies Corp.

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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