



Wooptix Launches New Phemet® In-line Semiconductor Wafer Metrology Fab Solution with Industry-leading Speed and Resolution

Phemet® captures more than 16 million data points in one second with ultra-high resolution for highly accurate surface measurements of memory and logic devices and advanced packages

MUNICH, Germany, November 18, 2025—[Wooptix](#), an innovation leader in semiconductor wavefront phase imaging metrology, today introduced its new Phemet® metrology system that provides ultra-fast and extremely accurate wafer shape and geometry measurements with sub-nanometer resolution. The company will showcase Phemet® at SEMICON Europa, Booth #B1679, taking place November 18-21 in Munich.

“Phemet® addresses the growing demand for improved process control in high-volume manufacturing, especially as the industry continues to innovate with higher performance, smaller and more complex devices that involve nanoscale feature sizes and novel integration approaches”, said José Manuel Ramos, CEO, Wooptix. “The Phemet® system’s ability to capture more than 16 million data points with sub-nanometer resolution with ultra speed in a single image sets a new metrology benchmark for the industry. The system is especially useful for high-throughput in-line measurements of hybrid bonding, back-side power delivery logic architectures, and next-generation 3D NAND and high bandwidth memory.”

The fully automated Phemet® metrology system measures the entire silicon wafer in a single image, capturing its shape and nanotopography, as well as bow, warpage and other customized parameters. It is a versatile tool that can measure blank, patterned or bonded wafers. Phemet® features low noise and is vibration-resistant, enhancing the accuracy of measurements. Raw data from the system provides fab and yield engineers with comprehensive traceability to pinpoint the origin of overlay errors and other defects to enhance yield.

Wooptix leverages its proprietary Wavefront Phase Imaging (WFPI) technology in Phemet®, which captures the wafer’s distribution of light to construct a phase map using a proprietary algorithm. WFPI quickly acquires sub-nanometer resolution wavefront phase maps with detailed information of the sample, including the wafer’s full topography and warpage. It offers ultra-high resolution at 4700x4700 pixels.

Risto Puhakka, general manager of semiconductor market analysis at TechInsights, said, “Accurate wafer shape and flatness measurements are becoming increasingly vital as semiconductor manufacturing pushes toward smaller geometries, 3D integration, and tighter process tolerances. The industry is always looking for new, innovative and high throughput metrology approaches, such as methods that combine full-field view, high-resolution, and high-speed measurements that can improve cost of process control, minimize overlay errors, and enhance overall device performance and yield.”

According to Ramos, “We have worked with tier one memory and logic customers to test Phemet® and the results have been remarkable. We look forward to shipping the Phemet® system to multiple key customers soon for high-volume manufacturing.”



Wooptix has raised over \$35 million in funding with investors including Samsung Venture Investment Corporation, Intel Capital and TEL Venture Capital, Inc., among others. Phemet® will be available for demonstrations starting in November 2025. To learn more visit: <https://wooptix.com/phemet/> and watch this video: [Phemet® - YouTube](#).

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About Wooptix

Wooptix has emerged as an innovation leader in semiconductor metrology through its use of wavefront phase imaging (WFPI), a technique derived from research in adaptive optics for astronomy. The company's multidisciplinary team is revolutionizing semiconductor metrology with proprietary systems and algorithms that deliver the highest lateral resolution and fastest measurement technique for in-line measurements. It has successfully deployed solutions at various customer sites worldwide. Wooptix offices are in Tenerife (Spain), Madrid (Spain), and San Francisco (USA). For more information, visit www.wooptix.com.

Phemet® is a registered trademark of Wooptix.

Media Contact:

Sandy Fewkes, Senior PR Manager
Kiterocket
Mobile: (408) 529-9685
SFewkes@Kiterocket.com