

## **Nanometrics Introduces the Atlas® III for Critical Dimension and Thin Film Process Control**

### **Multiple Systems being Delivered, to Multiple Customers, for Every Leading-Edge Device Type**

MILPITAS, Calif., April 14, 2016 (GLOBE NEWSWIRE) -- Nanometrics Incorporated (NASDAQ:NANO), a leading provider of advanced process control systems, today announced the launch of Atlas® III, its latest flagship system for optical critical dimension (OCD) and thin film process control. Working in close collaboration with its launch partner, the company recently delivered multiple Atlas III systems to enable manufacturing of next-generation advanced memory devices. Additional Atlas III systems will be delivered to other leading customers in the second quarter of 2016 for advanced 7nm/5nm foundry, 1X DRAM and third-generation 3D-NAND process development.

The Atlas III delivers improvements in metrology capability and cost of ownership, and can further increase productivity and accelerate yield when combined as part of a unified fleet with Nanometrics' industry-leading NanoDiffract® OCD software and IMPULSE® integrated metrology solutions. The Atlas III incorporates a proprietary combination of spectroscopic reflectometry and spectroscopic ellipsometry solutions that enable precise control of every critical process step, providing yield-relevant insight into complex structure profiles across etch, clean, deposition and chemical mechanical polish (CMP) steps. The Atlas III extends the company's track record of offering the industry's leading common platform for both OCD and thin film measurements, enabling flexibility for customers in deployment and ramp to reduce cost of ownership, while providing consistent metrology performance for next-generation device process control.

Continued device scaling, use of novel materials and processes, and the emergence of high-aspect-ratio device architectures, such as those found in advanced logic, DRAM and 3D-NAND devices, all place increasing demands on process equipment and control, driving the need for better precision and accuracy. Additionally, tighter process tolerances are requiring more complex metrology including direct in-die SRAM measurements, as well as across complex arrays in memory devices. By extending metrology performance to sub-angstrom precision and accuracy levels, the Atlas III system enables advanced process control (APC) across a broad range of applications in high-volume manufacturing.

"The Atlas III system architecture of combined measurement technology and proprietary analysis algorithms provides the broadest range of semiconductor fab application metrology solutions and the richest data set, enabling the most complex measurements," commented Dr. Srinu Vedula, vice president of OCD/Thin Film Solutions at Nanometrics. "The new system significantly extends the capability of our industry-leading Mueller Matrix-based spectroscopic ellipsometry and spectroscopic reflectometry solution. Combined with the latest advancements in our NanoDiffract software, the Atlas III will be utilized at the most demanding front-end-of-line applications in transistor formation, storage capacitor, and 3D-NAND tier stack applications to accelerate information cycles in development, enabling APC on critical layers to improve yield of these new technologies, all while reducing cost of ownership with high productivity."

Since its initial launch in 2004, multiple generations of the Atlas system have been deployed across every fab segment for advanced logic, DRAM, 3D-NAND, advanced non-volatile memory, CMOS image sensor and power device manufacturing.

#### **About Nanometrics**

Nanometrics is a leading provider of advanced, high-performance process control metrology and inspection systems used primarily in the fabrication of semiconductors and other solid-state devices, including sensors, optoelectronic devices, high-brightness LEDs, discretes and data storage components. Nanometrics' automated and integrated metrology systems measure critical dimensions, device structures, topography and various thin film properties, including three-dimensional features and film thickness, as well as optical, electrical and material properties. The company's process control solutions are deployed throughout the fabrication process, from front-end-of-line substrate manufacturing, to high-volume production of semiconductors and other devices, to advanced three-dimensional wafer-level packaging applications. Nanometrics' systems enable advanced process control for device manufacturers, providing improved device yield at reduced manufacturing cycle time, supporting the accelerated product life cycles in the semiconductor and other advanced device markets. The company maintains its headquarters in Milpitas, California, with sales and service offices worldwide.

Nanometrics is traded on NASDAQ Global Select Market under the symbol NANO. Nanometrics' website is

<http://www.nanometrics.com>.

#### **Forward Looking Statements**

Certain statements in this press release are forward-looking statements that involve a number of risks and uncertainties that could cause actual results to differ materially from those described in this release. Although Nanometrics believes that the

expectations reflected in the forward-looking statements are reasonable, actual results could differ materially from these expectations due to a variety of factors, including, but not limited to, shifts in the timing of product deliveries, the failure to achieve improved processes, the rate of adoption of our products, customer spending plans, and general economic conditions. For additional information and considerations regarding the risks faced by Nanometrics that could cause actual results to differ materially, see its annual report on Form 10-K for the year ended December 26, 2015, as filed with the Securities and Exchange Commission on February 24, 2016, including under the caption "Risk Factors," as well as other periodic reports filed with the SEC from time to time. Nanometrics disclaims any obligation to update information contained in any forward-looking statement, except as required by law.

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