Dominion Semiconductor Selects Applied Materials' Entire Line of Metrology and Inspection Systems

September 19, 2000

SANTA CLARA, Calif.--(BUSINESS WIRE)--Sept. 19, 2000--

New Compass(TM) and Excite(TM) Systems, SEMVision(TM) cX and

VeraSEM(TM) 3D Systems "Exhibited the Best Overall

Performance Results In Our Aggressive Equipment Evaluation,"

According to Dominion

Dominion Semiconductor LLC, located in Manassas, Virginia, has ordered Applied Materials'(Nasdaq:AMAT) full line of metrology and inspection systems. Dominion expects to use these systems to provide a comprehensive process diagnostics and inspection solution to build advanced memory devices, including DRAMs and flash memory chips.

The order includes multiple units of the recently introduced Compass(TM) and Excite(TM) systems for wafer inspection, as well as the industry-leading SEMVision(TM) cX defect review SEM (scanning electron microscope) and VeraSEM(TM) critical dimension (CD) SEM systems. The systems are expected to be shipped in the fourth calendar quarter of 2000.

Benjamin R. Chu, Dominion Semiconductor's Defect & Failure Analysis Engineering manager, said, "We selected the entire suite of Applied Materials' metrology and inspection equipment because they exhibited the best overall performance results in our aggressive equipment evaluation. The most important criteria of metrology and inspection equipment are detection, accuracy, automation and throughput and the Applied Materials tool suite delivered excellent performance in all of these categories. The equipment has some very innovative features that we feel will give us an added advantage in the early detection of process anomalies and process deviations.

"With these tools we will be able to monitor our process more efficiently and subsequently improve and control our yields with unprecedented effectiveness. With the new additions to their metrology and inspection product line, Applied Materials has become a very strong player in yield management. Their experience base in semiconductor processing, coupled with their new metrology and inspection technology, gives us confidence in their ability to enhance our productivity and improve our overall metrology and inspection performance," Chu continued.

Applied Materials' Excite system is the industry's first high-speed particle detection system for inspecting both blanket (monitor) and patterned (product) wafers. Inspecting both wafer types reduces the need for costly, production-limiting monitor wafers, significantly increasing overall fab equipment efficiency. This innovation in particle detection helps discover process excursions much faster, alerting operators to process issues before increases in particle levels can significantly reduce production yield. Most blanket films can be inspected by the Excite system at over 60 wafers per hour, while patterned wafers can be processed at over 45 wafers per hour.

The Compass patterned wafer inspection system offers chipmakers the industry's first high-sensitivity in-line defect detection solution that can operate at production worthy throughput levels. Using the Compass system's innovative OmniView(TM) technology, which provides the high sensitivity needed to find and identify critical yield-limiting defects at speeds of up to 60 wafers per hour, customers can inspect many more wafers than before and thus achieve much better statistical confidence in equipment performance.

The SEMVision cX is a high throughput automatic defect review SEM that provides defect material and source information so that customers can quickly find the root cause of defects. Introduced in early 2000, the VeraSEM 3D is the first in-line production-worthy CD SEM system to provide three-dimensional imaging technology.

"Having Dominion Semiconductor select our entire suite of systems for its extremely cost- and yield-sensitive memory chip production shows its confidence in our broad product line," said Dr. Gino Addiego, president of Applied Materials' Process Diagnostics and Control Product Business Group. "We will be working very closely with Dominion's process and yield engineering staff to introduce these systems quickly into production, where they can help ramp the fab's yield quality."

Applied Materials (Nasdaq:AMAT) is a leader of the Information Age and the world's largest supplier of products and services to the global semiconductor industry. Applied Materials' web site is http://www.appliedmaterials.com.

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