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KLA-Tencor Launches PlasmaVolt X2 to Measure Plasma Chamber Effects

MILPITAS, Calif.--(BUSINESS WIRE)--

KLA-Tencor (Nasdaq:KLAC) today introduced the PlasmaVolt(TM) X2 for measurement of plasma chamber conditions in semiconductor wafer processing systems. With an increased number of embedded sensors and improved spatial resolution, the PlasmaVolt X2 is highly sensitive to changes in various parameters such as radio frequency (RF) power, gas flows, magnetic fields, and chamber design. This plasma behavior measurement and characterization system enables enhanced chamber-to-chamber matching, tool qualification, system troubleshooting, and process development for production environments.

"The PlasmaVolt X2 is an important addition to our SensorWafer(TM) series, as engineers can now gain a unique, wafer-level fingerprint of the plasma-related effects in a chamber," said Larry Wagner, senior vice president and general manager, SensArray division of KLA-Tencor. "The PlasmaVolt X2 is the only available measure of plasma health at the wafer level today."

Etch engineers today are faced with the critical challenge of matching etch chambers to achieve consistent performance across an entire toolset, and etch performance is dependent on the control of multiple process parameters, including plasma uniformity. As the semiconductor industry migrates to advanced design rules, process windows continue to shrink, making plasmas increasingly sensitive to small changes in parameters. Currently, etch rates and uniformity are frequently measured on product or dummy wafers, a process that may take up to 12 hours. Such wafer tests produce only one result for the entire etch process, providing engineers with no visibility to other steps within the etch sequence.

The PlasmaVolt X2 measures "above the wafer" effects in a plasma chamber and provides detailed information about plasma behavior throughout the entire etch process. Results are available immediately after the measurement, reducing time-to-results by hours. With this complete chamber information in hand, etch engineers are now able to compare chambers across the fab and make the necessary process adjustments. Paired with KLA-Tencor's PlasmaTemp G4, which is designed for temperature measurements, the PlasmaVolt X2 is the best tool to effectively map the complete plasma chamber, for tool monitoring, tool qualification and process development applications.

About KLA-Tencor: KLA-Tencor Corporation is the world's leading supplier of process control and yield management solutions for the semiconductor and related microelectronics industries. Headquartered in Milpitas, Calif., the company has sales and service offices around the world. An S&P 500 company, KLA-Tencor is traded on The Nasdaq Stock Market under the symbol KLAC. Additional information about the company is available at <http://www.kla-tencor.com>. (KLAC-P)

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Source: KLA-Tencor Corporation