



Applied Materials Sees Record Adoption of New AdvantEdge Silicon Etch Technology

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- **Critical technical capability of system in demand for next DRAM, Flash and Logic devices**
- **Revolutionary source design delivers angstrom-level etch precision to edge of wafer**
- **Over 60 Mesa chambers already shipped for 32nm production and 22nm development**

SANTA CLARA, Calif., Jul 12, 2010 (BUSINESS WIRE) --

Applied Materials, Inc. today unveiled its new [Applied Centura^{\(R\)} AdvantEdge^{\(TM\)} Mesa^{\(TM\)}](#) system for creating nano-scale circuit features with angstrom-level precision in next-generation DRAM, Flash and Logic devices. As a result of this critical breakthrough in silicon etch technology, Applied has experienced very rapid demand for the AdvantEdge Mesa system. More than 60 chambers have shipped to customers in the last three months - where they are tool-of-record for 32nm chip production and 22nm development.

"Our customers' enthusiastic adoption of the AdvantEdge Mesa system illustrates the industry's strong unmet need for etch technology capable of fabricating high-density memory devices and energy-efficient microprocessors," said Ellie Yieh, corporate vice president and general manager of Applied's Etch business division. "By freeing chipmakers from the need to compensate for systematic non-uniformity limitations, the Mesa system can be a critical tool for helping customers shrink circuit features, control leakage current and achieve the high production yields necessary to build the smart mobile devices of the future."

Key to the AdvantEdge Mesa system is its new inductively-coupled plasma (ICP) source design, which eliminates the characteristic "etch signature" that has limited the performance of all previous ICP-based systems. The Mesa's ICP source provides a truly flat, uniform profile, enabling precise transfer of lithography patterns out to the extreme edge of the wafer to significantly increase die yield. Targeted for critical shallow trench isolation, buried bit and word lines, and double patterning silicon etch applications, the AdvantEdge Mesa system's best-in-class performance delivers 1% etch depth non-uniformity,* sub-nanometer CD* uniformity, and the highest available wafer throughput.

Applied's large installed base of existing AdvantEdge systems can be upgraded with Mesa technology, offering device makers a smooth upgrade path for multiple device generations using a proven platform.

The AdvantEdge Mesa system is one of several important technologies being announced by Applied during SEMICON West 2010 in San Francisco. Applied's online home at the show can be found at <http://www.semiwestapplied.com>.

Applied Materials, Inc. (Nasdaq:AMAT) is the global leader in Nanomanufacturing Technology(TM) solutions with a broad portfolio of innovative equipment, service and software products for the fabrication of semiconductor chips, flat panel displays, solar photovoltaic cells, flexible electronics and energy efficient glass. At Applied Materials, we apply Nanomanufacturing Technology to improve the way people live. Learn more at www.appliedmaterials.com.

**Depth range measured in 500nm stack thickness, >15:1 aspect ratio features; CD = critical dimension, 3 sigma*

Photos/Multimedia Gallery Available: <http://www.businesswire.com/cgi-bin/mmg.cgi?eid=6355407&lang=en>

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