Applied Materials' New ALTA 4700 Laser Mask Writer Takes on 65nm Critical Layer Manufacturing

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SANTA CLARA, Calif.--(BUSINESS WIRE)--Dec. 1, 2004--Applied Materials, Inc. (Nasdaq:AMAT) today launched the Applied ALTA(R) 4700 Mask Pattern Generation system, the industry's lowest cost-of-ownership solution for the volume manufacturing of all 90nm and most 65nm critical mask layers. In addition to providing up to a 4x write-time advantage over competing e-beam systems, the laser-based DUV ALTA 4700 system features a 42x, 0.9 NA objective lens that dramatically boosts mask resolution, pattern fidelity, critical dimension control and placement performance.

"The transition to sub-100nm chips has forced many mask makers to use costly, slow and lower-yielding vector-based electron-beam tools for volume production mask pattern generation, creating a dramatic cost escalation in mask making for 90nm and beyond chip generations," said Gino Addiego, group vice president and general manager of Applied Materials' Mask Products group. "With its economic advantages and excellent patterning performance, the Applied ALTA 4700 enables customers to significantly improve their productivity in day-to-day volume production for the most advanced binary and phase-shift mask applications."

A key feature of the Applied ALTA 4700 system is aerial image improvement (AI2) pattern rendering which closely matches e-beam system fidelity. The system's high bandwidth datapath maintains a superior average write time of two hours, and combined with the systems' high yield, cuts mask manufacturing cycle time to nearly half that of 50kV systems, with lower manufacturing costs. For additional information on the Applied ALTA 4700 system please visit: http://www.appliedmaterials.com/products/alta_4700.html.

The Applied ALTA 4700 system builds on the highly successful Applied ALTA 4300 technology, which is in production at numerous sites worldwide for 130nm-90nm binary and 130nm-65nm PSM mask manufacturing. The first ALTA 4700 system is installed at DuPont Photomasks, Inc. (Nasdaq:DPMI) in Round Rock, Texas, where it is expected to support 90nm and 65nm-generation photomasks for a broad spectrum of DuPont Photomasks' customers.

Applied Materials, Inc., headquartered in Santa Clara, California, (Nasdaq:AMAT) is the largest supplier of equipment and services to the global semiconductor industry. Applied Materials' web site is www.appliedmaterials.com

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