



Applied Materials Slashes Mask Development Time with Industry's First Automated OPC Qualification Tool

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SANTA CLARA, Calif.--(BUSINESS WIRE)--Feb. 25, 2005--Applied Materials, Inc. (Nasdaq:AMAT) today introduced its Applied OPC Check(TM) product, the only system in the industry that performs automated qualifications of OPC (optical proximity correction) -based chip designs. Used in conjunction with the Applied VeritySEM(TM) metrology system, the industry's most productive CD-SEM(1), the OPC Check tool slashes mask verification time by 90% over current manual methods, closing the gap between design and production in the development of 65nanometer (nm) and beyond chip generations.

The Applied OPC Check is a specialized tool that uses EDA(1) OPC design data to automatically create accurate metrology recipes, then directs the Applied VeritySEM metrology system to measure thousands of sites on a wafer. With the VeritySEM's ultra-high throughput and unique automation capabilities, this entire automated sequence is completed in just a few hours without operator assistance, rather than days or weeks with manual methods. The metrology data is then sent back to the OPC Check and EDA systems where it can be analyzed and used for model building, mask qualification and process window characterization.

"OPC Check is an enabling technology that can help chipmakers accelerate their market entry for next-generation devices," said Dr. Gilad Almogy, vice president and general manager of Applied Materials' Process Diagnostics and Control group. "Our customer testing has shown much tighter integration between design and on-wafer verification, which has resulted in improved OPC modeling and reduced errors, plus much faster feedback into the design and maskmaking process. OPC Check also enhances chipmakers' Design for Manufacturability criteria, which helps align mask design with chip manufacturing, lowering costs and shortening time to market for new chip products."

OPC Check is already being implemented by major chipmakers in the U.S. as part of their 65nm development, and numerous other customers worldwide are evaluating the technology for their 65nm design programs.

OPC Check is part of Applied Materials' Resolution(TM) initiative, which is committed to cutting the time and cost of resolving yield-limiting defects through continuous advances in metrology and inspection technology. For more information, please visit: www.appliedmaterials.com/resolution/.

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

(1) CD-SEM = Critical Dimension Scanning Electron Microscope
EDA = Electronic Design and Automation

CONTACT: Applied Materials, Inc.
Betty Newboe, 408-563-0647 (editorial/media)
Paul Bowman, 408-563-1698 (financial community)

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