



Applied Materials Blazes Path to Advanced Interconnects with Leading-Edge Copper Technology

March 17, 2011

- **Innovative plating technology enables next-generation memory and microprocessor chips for more powerful consumer devices**
- **Up to 100% higher throughput and lowest operating cost of any system on the market**
- **Positioned to accelerate Applied's rapidly growing market share in copper plating solutions**

SANTA CLARA, Calif., March 17, 2011 - Applied Materials, Inc. today announced a significant innovation for fabricating copper interconnects at the 22nm technology node and beyond with its innovative [Applied Raider® GT](#) electrochemical deposition (ECD) system. Since advanced chips can have more than ten levels of [interconnects](#), fabricating these intricate structures is one of the most process-intensive and cost-sensitive portions of chip manufacturing. The Raider GT system solves this challenge by enabling customers to fill extremely narrow, high [aspect ratio](#) features while delivering up to 100% higher wafer throughput and the lowest operating cost of any ECD system.

"The new Raider GT system extends Semitool's ECD technology for the next three chip generations, enabling our customers to create the advanced devices that are powering the mobile revolution," said Larry Murphy, corporate vice president and general manager of the Semitool Business Unit at Applied Materials. "This launch is the culmination of a very successful year following the integration of Semitool with Applied Materials- a formidable collaboration that has resulted in growing our market share and providing the industry with world-class products like the Raider GT."

Key to the innovative Raider GT system is its high-speed, multi-anode control system that enables void-free filling of narrow, high aspect ratio trenches and vias during the critical first few seconds of the deposition process. This proprietary technology successfully suppresses the [terminal effect](#) to enable uniform deposition across the wafer, allowing customers to select their preferred combination of acid concentration and additive components to achieve optimized gap fill in the smallest features. Other ECD systems must use low-acid chemistry to achieve acceptable deposition uniformity at the expense of optimum feature fill.

The Raider GT system supports up to six plating chambers - twice as many as competing systems - while also accommodating programmable edge and back side metallic removal chambers, and optional anneal or metrology stations. This unique system architecture offers Applied's customers unrivalled productivity and process flexibility.

For more technical details about the innovative Raider GT system, visit www.becauseinnovationmatters.com.

Applied is the leading supplier of systems for manufacturing copper-based chips, with a comprehensive portfolio of equipment for depositing, etching and planarizing interconnect layers. To learn more about Applied's solutions for advanced interconnect fabrication, visit www.appliedmaterials.com/interconnects.

Applied Materials, Inc. (Nasdaq:AMAT) is the global leader in providing innovative equipment, services and software to enable the manufacture of advanced semiconductor, flat panel display and solar photovoltaic products. Our technologies help make innovations like smartphones, flat screen TVs and solar panels more affordable and accessible to consumers and businesses around the world. At Applied Materials, we turn today's innovations into the industries of tomorrow. Learn more at www.appliedmaterials.com.

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[Applied Raider GT ECD system for advanced copper interconnects](#)

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