



Applied Materials Overcomes Critical Defect Roadblock with Integrated CMP Vapor Dry Technology

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Applied Reflexion(R) LK is Industry's Only CMP System to Integrate
Vapor Drying Technology Licensed from SCP Global Technologies

Applied Materials, Inc. (Nasdaq:AMAT), the leading supplier of chemical mechanical polishing (CMP) systems to the semiconductor industry, announces that it has obtained an exclusive patent license from SCP Global Technologies to integrate single-wafer vapor drying technology on its Applied Reflexion(R) LK CMP system. The Reflexion LK is the world's first and only production CMP system to offer this advanced post-CMP cleaning technology, which eliminates watermark defects and enables an order of magnitude improvement in device reliability in leading-edge copper/low k chips.

"By integrating SCP's vapor drying technology on our Reflexion LK system, we've made it possible to polish advanced copper devices using low k films (k less than 3.0) with low defects and high yield," said Russell Ellwanger, vice president and general manager of Applied's Planarization and Plating Product Group. "Without this drying technology, post-CMP defects found on low k surfaces presented a roadblock to fabricating leading-edge copper chips. The Reflexion LK system overcomes this barrier and allows manufacturers the flexibility to choose a low k dielectric scheme that is optimal for their chip designs."

Prior to the Reflexion LK system's vapor drying technology, single-wafer post-CMP cleaners generally used a spin-rinse-dry (SRD) process for drying wafers. Since the SRD process relies on spinning water off the wafer surface, watermarks are formed when the remaining thin film of water breaks into droplets that subsequently dry on the wafer surface. This source of defects is eliminated with the Reflexion LK system's integrated vapor drying technology since the wafer emerges from the rinse bath completely dry. The system's full immersion rinse bath for vapor dry is critical in preventing watermarks, as it provides a stable interface between water and vapor on the wafer surface. The Reflexion LK system also provides low downforce polishing that reduces mechanical damage on low k films and eliminates copper pull-outs.

"This agreement with an industry leader such as Applied Materials validates the excellent performance of our drying technology on advanced copper/low k devices," said Mark Peterson, president and CEO of SCP Global Technologies. "We are pleased to be working with Applied in providing semiconductor manufacturers with an integrated drying solution that will enable the use of low k dielectrics in next-generation chip designs."

Applied Materials (Nasdaq:AMAT), the largest supplier of products and services to the global semiconductor industry, is one of the world's leading information infrastructure providers. Applied Materials enables Information for Everyone(TM) by helping semiconductor manufacturers produce more powerful, portable and affordable chips. Applied Materials' Web site is <http://www.appliedmaterials.com>.

Note: A photo is available at URL:

<http://www.businesswire.com/cgi-bin/photo.cgi?pw.093003/bb7>

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