Applied Materials' Black Diamond II Drives Advanced Low k Technology for 45nm Chips

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SANTA CLARA, Calif.--(BUSINESS WIRE)--July 11, 2006--Applied Materials, Inc. extends its leadership in low k technology, with more than 10 customers in the U.S., Europe, Japan and Taiwan using its Applied Producer(R) Black Diamond(R) II CVD* system to implement advanced low k (k less than 2.5) technology for 45nm device pre-production. Applied's Black Diamond II film is also being extensively used by industry leaders for 32nm-generation process development.

"Low k technology drives copper interconnects, since it critically impacts the other processes used to make the chip's wiring structure," said Dr. Farhad Moghadam, senior vice president and general manager of Applied Materials' Thin Films Product Business Group. "Well over a hundred 300mm Producer low k systems are in the field, with more than 300 process chambers, depositing first and second-generation Black Diamond and barrier dielectric BLOk(TM) films. This significant achievement clearly demonstrates Applied Materials' unsurpassed ability to deliver precisely engineered low k films for the latest chip designs."

Oliver Vatel, process development director of the Crolles2 Alliance*, said, "With a compelling combination of low k values, integration worthiness and manufacturability, Applied Materials has demonstrated its low k leadership over multiple device generations. Through our strong partnerships with CEA-Leti* and Applied, we have successfully integrated Applied's complete suite of low k products on our 90nm and 65nm products and are currently working to incorporate Black Diamond II and even lower k materials into our 45nm and 32nm designs."

The Applied Producer Black Diamond II system's advanced deposition process and innovative NanoCure(TM) UV curing technology enables the finished low k film to withstand the stresses of multi-level process integration and packaging with excellent reliability. In addition, Applied Materials' low k and copper interconnect integration expertise ensures that customers can take full advantage of Black Diamond II film's properties to create faster, more powerful devices that will drive next-generation mobile electronics, entertainment applications and computers.

Applied Materials, Inc. (Nasdaq:AMAT) is the global leader in nanomanufacturing technology(TM) solutions for the electronics industry with a broad portfolio of innovative equipment, service and software products. At Applied Materials, we apply nanomanufacturing technology to improve the way people live. Learn more at www.appliedmaterials.com.

*CVD: chemical vapor deposition

*Crolles2 Alliance: a partnership of semiconductor manufacturers Freescale, Philips and STMicroelectronics located in Crolles, France

*CEA/Leti: Electronics and Information Technology Laboratory of the French Atomic Energy Commission is a leading European research organization located in Grenoble, France.

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