



Applied Materials Announces Order From Texas Instruments for Black Diamond Low k Film System for Advanced Interconnect Development

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Business Editors/High-Tech Writers

SANTA CLARA, Calif.--(BUSINESS WIRE)--June 2, 1999--

Black Diamond(TM) Dielectric Film Provides Manufacturable CVD Solution for Advanced Chip Circuit Structures

Texas Instruments, Inc. (TI) has ordered Applied Materials' Black Diamond low k dielectric film system for evaluation in the development of its advanced, high-speed interconnect designs at its Kilby Center facility in Dallas, Texas.

"The Black Diamond technology combines a significant reduction in dielectric constant with an evolutionary manufacturing approach that builds on our extensive knowledge of CVD process technology. By focusing on productivity and integration, we see this film as a potential solution to our advanced interconnect challenges," said Bob Helms, vice president and director of Silicon Technology Research at TI. "Such low k processes will contribute over time to major increases in device speed."

Introduced in 1998, the Black Diamond film has a dielectric constant (k) of less than or equal to 2.7, and is designed for 0.18-micron and beyond device technologies with speeds of up to one gigahertz. The film can be used as a dielectric for both aluminum and copper-based damascene interconnect designs to dramatically reduce interconnect delays and increase device performance. The Black Diamond CVD process is available on Applied Materials' Centura(R) platform in a high-productivity configuration with up to four process chambers and is expected to be available later this year on the company's recently introduced Producer(TM) platform for high-throughput volume manufacturing.

"TI's evaluations of this film has increased our understanding of Black Diamond technology and its worthiness for manufacturing," said Dr. Farhad Moghadam, vice president and general manager of the Dielectric Deposition Products Division at Applied Materials. "TI's applications are sophisticated and far-reaching with world-class chip manufacturing technology. We are pleased that they have chosen to evaluate Black Diamond as a low k solution to their leading-edge designs."

Of increasing importance to customers, the Black Diamond process operates with effectively zero volatile organic compound (VOC), perfluorocompound (PFC) and hazardous air pollutant (HAP) emissions. This process contrasts with alternative materials, such as organic dielectrics or spin-on films, which have high concentrations of toxic solvents, and involve complex hazardous waste and regulatory issues that are becoming more costly and difficult to address.

Applied Materials, Inc. is a Fortune 500 global growth company and the world's largest supplier of wafer fabrication systems and services to the global semiconductor industry. Applied Materials is traded on the Nasdaq National Market System under the symbol "AMAT." Applied Materials' web site is www.appliedmaterials.com.

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