



## **Applied Materials Ships 100th Ultima HDP-CVD Centura System to Toshiba; Market Leading HDP-CVD System Now Used by 17 of Top 20 Chipmakers**

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**SANTA CLARA, Calif.--(BUSINESS WIRE)--Oct. 1, 1998--**Applied Materials, Inc. has passed a milestone in HDP-CVD technology by shipping 100 Ultima HDP-CVD(TM) (high density plasma - chemical vapor deposition) Centura(R) systems to customers worldwide.

Already the industry's leading system for HDP-CVD, the Ultima is being used by semiconductor manufacturers for a wide variety of dielectric CVD gap-fill applications, including shallow trench isolation (STI) and intermetal dielectrics for sub-0.25 micron generation devices.

In addition, the Ultima is the only system currently being used in production for FSG (fluorinated silicate glass) reduced dielectric constant (low (kappa)) films.

The 100th system was shipped to Toshiba, a leading Japanese semiconductor manufacturer and pioneer in HDP-CVD technology applications. As production tool of record, the Ultima system will be used at Toshiba to manufacture state-of-the-art memory and logic devices.

"Over the past year our market leadership has steadily increased as customers discovered the remarkable flexibility of the Ultima system," noted Farhad Moghadam, vice president and general manager of the HDP-CVD Product Unit and Emerging DCVD Technologies at Applied Materials.

"Several major logic customers are now beginning to implement our FSG process as a critical first step on the road to low (kappa) films, since the process is easy to integrate into existing aluminum interconnect structures for immediate benefits in device speed.

"The Ultima has also become the leader in CVD for shallow trench isolation, where the system combines outstanding gap fill with extremely high quality oxide and attractive cost of ownership."

Applied Materials was reported by market researcher Dataquest to have over 48 percent share of the HDP-CVD market in 1997. This year, with 17 out of the top 20 semiconductor manufactures using the Ultima HDP-CVD Centura, Applied Materials estimates that its market share has grown significantly and that the Ultima is now the industry's leading system for shallow trench isolation and FSG applications, as well as for intermetal dielectrics.

According to VLSI Research, another market research firm, the HDP-CVD market is estimated to be \$319 million in 1998 and is expected to grow to \$1.4 billion by 2003.

The Ultima system was introduced in November 1996 and has rapidly gained acceptance as the industry's most cost-effective, reliable HDP-CVD system. In addition to its advanced multi-generational film deposition capability, the Ultima features Applied Materials' revolutionary Remote Plasma Clean technology which cuts operating costs by eliminating chamber consumables and significantly extends system uptime.

The first "green" CVD system, the Ultima system emits virtually no global warming gases, eliminating the need for exhaust scrubbers. Remote Plasma Clean technology also enables the low contamination levels required for STI applications.

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 <http://www.AppliedMaterials.com>.