



## AKT Launches New CVD System for Manufacturing Flat Panel Displays

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SANTA CLARA, Calif.--(BUSINESS WIRE)--Feb. 17, 2000--

New Generation AKT(R) 5500 System Enables Display Makers  
to Produce 50 to 100 Percent More Panels Per System

AKT, Inc., an Applied Materials, Inc. company and the world's

leading supplier of CVD (chemical vapor deposition) equipment to the flat panel display (FPD) industry, introduces the AKT(R) 5500, a new-generation CVD system designed to reduce the unit cost of FPD manufacturing by enabling the processing of larger glass substrates.

"Our new AKT 5500 system provides cost-effective CVD capability that will enable display makers to quickly implement the large substrate sizes needed to meet the accelerating demand for affordable FPD desktop monitors and high-end notebook PCs," said Dr. Kam Law, president of AKT. "We've extended our proven technology and combined it with several new innovations to enable significant increases in panel production."

The AKT 5500 deposits semiconducting and insulating films used in creating the transistor structures (switches) that control the pixels of Thin Film Transistor (TFT) Active Matrix Liquid Crystal Displays (AMLCDs). TFT-AMLCDs constitute the majority of flat panel displays currently manufactured and are typically used in notebook computers, hand-held devices, desktop monitors, and recently, televisions. With a substrate size capability of approximately 700mm x 900mm (exact size depends on customer specification), the AKT 5500 system can process approximately 50 percent more 15-inch flat panel displays and 100 percent more 17-21 inch displays than the previous generation of systems.

According to DisplaySearch, a market research firm, the market for TFT-AMLCD display manufacturing equipment was \$2.3 billion in 1999, reaching \$3.2 billion by 2003. DisplaySearch ranked AKT as the global market leader in CVD equipment for flat panel display manufacturing in 1999.

DisplaySearch forecast the overall market for TFT-AMLCD displays to be \$12.9 billion in 1999, growing to \$36.7 billion by 2003. The research firm also expects the TFT-AMLCD desktop monitor market, which is driving the flat panel industry's current expansion, to account for 4.5 million units or 4.5 percent of the total monitor market in 1999, growing to 12.9 percent of the market by 2005 on a unit basis. This represents a compound annual growth rate of 38 percent worldwide over the next six years.

In addition to processing larger substrates, the new AKT 5500 system incorporates a number of enhancements to its process chambers and substrate handling components. For example, the system's central platform has been expanded to accommodate five process chambers, rather than four as in the previous system. This enables higher system throughput for increased customer productivity. Substrate temperature uniformity has been optimized through new heating modules in the pre-heat and process chambers, and a modified chamber design further improves deposition uniformity.

A number of other new features have been included to enhance the system's reliability, particle control and process performance, building on AKT's experience gained from its large installed base of production CVD systems. These include a second-generation remote plasma clean technology for periodic process chamber cleaning to improve deposition repeatability and further increase hardware lifetime and reliability.

AKT has multiple commitments for the new AKT 5500 CVD system from customers in Japan, Korea and Taiwan that are scheduled for delivery throughout 2000. The system has already begun shipping to customers building display manufacturing facilities that use the largest class of substrates available.

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](http://www.appliedmaterials.com).

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