



AMD Advances Chip Process With Applied Materials' RTP System

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SANTA CLARA, Calif.--(BUSINESS WIRE)--Oct. 26, 1998--

Industry-Leading RTP XE Centura System is Production Tool of Record at AMD for New CMOS Cobalt Silicide Logic Process

Applied Materials, Inc. today announced that its industry-leading rapid thermal processing (RTP) tool, the RTP XE Centura(R) system, has been successfully incorporated into AMD's latest volume manufacturing flow.

Designed to handle the most demanding fabrication requirements, the RTP XE Centura's patented thermal control technologies enabled AMD to rapidly develop and transfer its most challenging RTP processes into volume production.

Dr. Craig Sander, vice president of technical operations at AMD's Submicron Development Center, said, "The RTP XE Centura is a strategic tool for our chip production. We are utilizing RTP Centura systems for rapid thermal annealing process steps both in production and in our development fabs as a key tool for future process development."

Dr. Chris Gronet, vice president of Applied Materials' Thermal Processing Division, said, "Applied Materials' strategy to deliver new capabilities to our customers through continuous technological advancement is represented by the RTP XE Centura's TempMatch(TM) calibration tool.

"With this enabling technology, we have brought to customers like AMD the capability to quickly develop, qualify and transfer process recipes, providing significant time and cost savings."

As device features scale down below 0.18-micron, the extendibility of titanium silicide will diminish, creating a need for alternative materials like cobalt silicide for gate and source/drain diffusion areas. The RTP XE Centura is uniquely designed for production annealing of cobalt silicide films at temperatures well below 500 degrees C.

When used in combination with the TempMatch tool's capability to accurately match the process temperature between multiple chambers and systems, the RTP XE Centura enables new materials such as cobalt silicide to be rapidly transferred from development to full production.

Designed to precisely calibrate process temperatures to better than plus-or-minus 1.75 degrees C between multiple chambers, the TempMatch sensor calibration tool is the industry's most accurate solution for system-to-system matching.

This superior temperature repeatability is provided by the tool's unique patented technology that unifies the response of multiple sensors at a given temperature. Additionally, since calibration is typically required only once, maintenance costs are dramatically reduced compared to other RTP systems, which require frequent and extensive recipe optimization for each chamber.

With its combination of advanced technologies that provide unmatched temperature uniformity and repeatability, the RTP XE Centura achieved market leadership in 1996, less than one year after its introduction.

According to Dataquest, a market research firm, Applied Materials was the world's leading supplier of RTP systems in 1997 with 59 percent share of the market, an increase of 22 percent over 1996. Dataquest expects the RTP market to grow from \$251 million in 1998 to \$688 million by 2003.

AMD is a global supplier of integrated circuits for the personal and networked computer and communications markets. AMD produces processors, flash memories, programmable logic devices, and products for communications and networking applications. Founded in 1969 and based in Sunnyvale, Calif., AMD had revenues of \$2.4 billion in 1997. (NYSE:AMD).

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>.