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Agilent Joins High-Speed Memory Test Race

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Agilent Technologies Inc. has announced it has entered the high-speed memory test market with the Agilent 93000 High-Speed Memory Series, billed by company officials as "the fastest and most accurate memory final-test product on the market."

Gentlemen, start your test market engines.

The HSM Series, Agilent says, is a high-volume production, final-test product for the new class of high-speed DRAM devices used in memory-hungry computer and consumer electronics devices, such as game consoles -- your Sony PlayStation 3 and Microsoft Xbox 360, say -- high-definition TV, and servers.

Agilent says it used the "advanced test technology" and scalable, per-pin architecture of its Agilent 93000 test platform to ensure high test quality and fast "yield learning" at the lowest cost-of-test in this memory category. Complementing the Agilent Versatest Series of memory testers that provide flash wafer sort/final test and DRAM wafer sort, the new HSM Series tests memory device interfaces at speeds exceeding 3.6 gigabits per second.

"High-reproduct graphics applications and advanced processor architectures are blazing new trails for memory specifications," said Bob Merritt, vice president of Semico Research Corp. "Moving that kind of performance into the price range for high-volume applications is inextricably tied to the test infrastructure."

It's been a generally good week for Agilent, as last Friday the Associated Press reported that Waters Corp., a maker of instruments used by chemical researchers, "reached a roughly \$6.1 million settlement with Agilent Technologies Deutschland GmbH to resolve their patent suit."

Under the deal, the AP said, "Waters said it agreed to make a one-time payment to Agilent of 3.5 million British pounds (\$6.1 million). In turn, Agilent agrees to withdraw its claims of past patent infringement by Agilent and Agilent's British affiliate. Waters stopped using the patented technology in question several years ago."

The speed of high-end DRAM increases by about 30 percent annually to keep pace with the need for higher-memory bandwidth in applications that require intensive computing, such as gaming and high-definition entertainment.

So as the speed, density and complexity of DRAM designs have increased, manufacturers have adopted nanometer process technology, which, in turn, has introduced new categories of manufacturing defects, such as internal random delay, intra-die variation of transistor parameters, and crosstalk-based AC timing delay.

The HSM Series is available now in two speed classes: 2.2 Gbps data rate (speed binned hardware) and a top-speed version at 3.6 Gbps.

In an interview published by Dow Jones today, Agilent China Communications Operation General Manager Gail Heck-Sweeny said China will likely issue third-generation mobile phone licenses this year or risk seeing its homegrown technology fall behind two other rival technologies in signing up subscribers.

"As a supplier to the industry, I think they're pretty close," she said, when asked if the Chinese standard, Time Division Synchronous Code Division Multiple Access or TD-SCDMA, is mature.

Her view echoes what the Ministry of Information Industry said last month, Dow Jones reported, "when it named TD-SCDMA, which has never been used in a commercial network, China's official standard, ahead of WCDMA and CDMA2000."

David Sims is contributing editor for TMCnet. For more articles please visit David Sims' columnist page.

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