Agilent streamlines test program development and reduces cost of test for flash memory manufacturers

A flexible and complete test solution for memory in consumer electronic devices

Agilent's new Versatest Series Model V4100 TDS is a cost-effective and compact test development system that provides a complete test solution for non-volatile memory required in many popular consumer electronics—from wireless communications devices to digital cameras.

Available in performance levels of 40, 70 and 100 MHz, the Model V4100 TDS is fully compatible with the Agilent Versatest Series Model V4400 memory test system, enabling test programs from the Model V4100 TDS to be transferred directly to the Model V4400 for production.

The combination of both models—V4400 and V4100 TDS—provides a flexible and complete test solution, from development to production, for memory applications including flash memory, SRAM, embedded memory and for pure logic applications. Test engineers can now quickly and effectively build a program and debug their device while saving the valuable production tester resources by using the V4100 TDS to develop test programs in a lab environment instead of on the production floor.

"The V4100 TDS is another milestone in providing our customers with a complete memory test solution, while lowering the cost of test of memory required in many popular consumer electronics—from wireless communications devices to digital cameras," said Gayn Erickson, marketing manager of Agilent's Memory Test Division. "The V4100 TDS helps reduce the cost of test by enabling the test engineer to optimize test programs and to take advantage of the same capability of the V4400 system resources."

Requiring a mere 5.3 square-foot area (0.49 square meters), the V4100 TDS features a small footprint, which is better suited for lab use and further helps to trim the cost of test by minimizing the use of valuable floor space. The V4100 TDS is designed with a flexible interface for greater versatility in system use. Its single, detachable test head allows for a wide range of applications, from testing packaged parts to wafer sort and final test. The test head is also capable of supporting up to two test site modules, the same modules that are used in the V4400 memory test system, resulting in perfect correlation. The V4100 TDS can test up to 128 pin-count devices when used in combined resource mode.

The Agilent Versatest Series Model V4100 TDS is expected to ship in March 2002. More information is available from the Agilent Web site at www.agilent.com/see/memorytest. ◆

DID YOU KNOW?

Flies' ears inspire new microphones

In the past decade, biologists discovered a new mechanism by which animals locate sounds. The finding emerged from the observation that a parasitic fly stalks crickets by sound, even though the fly's head is too small for any of the previously known sound-localization mechanisms to work. Now, engineers are creating a micro-microphone inspired by the fly's extraordinary ear.

"The fly has given us an entirely different way of looking at microphone design," says Ronald N. Miles of the State University of New York at Binghamton. For one thing, the new design strategy could lead to hearing aids that hide within a person's ear canal yet gather sound primarily from the direction the listener is facing, its developers say. It may also find use in battlefield-surveillance devices and yet more compact substitutes for microphones now used in cell phones and other communications gear.

Last year, a Canadian study showed that female flies of the species Ormia ochracea pinpoint sounds to within 2 compass degrees—as precisely as an owl does.

The side-by-side eardrums of the fly span only about a millimeter. Unlike any other known ear structure, there's a bridge of stiff material connecting the two membranes almost as a hinge might. Other small-headed animals, including birds and frogs, use an internal air tube between ears to discern direction information, he adds.

Vibration studies by Miles and his colleagues have revealed that, because of its bridge, the fly ear responds to sound with mixtures of two motions: rocking like a teeter-totter and flapping like a wing. What's more, the location in the fly's ear structure of the peak amplitude from the vibrations reveals the direction of the sound source.

Source: Science News