

T5503

256-DUT Parallel Test Capacity for Mass Production Test of
High Speed DDR3-SDRAM Memory Devices



Broadband communications are now widely used in households and businesses throughout the globe and expectations are growing for higher quality and larger capacity applications including video, audio, and on-line content. The demand for low-power, very high-speed memory to drive these applications is prompting the near-term transition from DDR2-SDRAM to DDR3-SDRAM. DDR3's increased performance, coupled with lower power requirements, promise to measurably enhance the capabilities of equipment such as PCs, notebooks and servers, as well as advanced consumer products such as game consoles and HDTV.

Accompanying the shift from DDR2-SDRAM to the faster DDR3-SDRAM, is a corresponding requirement from device manufacturers for higher-speed and more accurate test capabilities, and an insistence on lowered test costs for mass production of these new high-speed devices. Advantest's T5503 8448 Channel Test Head addresses these needs, with superior throughput and lowered test costs for high-speed manufacturing. When coupled with Advantest's M6242 handler, the T5503 provides a DDR3 test cell that delivers performance and yield as well as the industry's lowest cost of volume production test.

Up to 3.2Gbps of test speed and 256 device parallel test

For package test of the new-generation high-speed memory DDR3-SDRAM, the T5503 achieves the fastest test speeds in the industry of 3.2Gbps, while delivering parallel test of up to 256 devices (four times that of its predecessors). This contributes to a major reduction in test costs for high volume production lines and makes it an ideal solution for DDR3-SDRAM, as well as for GDDR3 and GDDR4.

In addition, the T5503 provides an enriched multi-strobe function to measure the phase difference between the reference clock signal and data output signals at each cycle, -- a significant benefit as the operating frequencies becomes higher. This function helps to measure the characteristics of memory devices at high speeds with a high level of accuracy.

Reduced power requirements and a space savings of 30%

By adopting the latest CMOS technology, a high degree of integration has been achieved in the semiconductor circuits mounted on the tester. While realizing four times the parallel test capacity of the earlier version, the new system configuration has a 30% smaller footprint, contributing to an energy-efficient and space-saving production line environment.

Using FutureSuite®, with multi-language support

Advantest's proprietary FutureSuite software with multi-language support enhances the system's operating system. In addition, the conventional ATL language, the MCI (Multi Control Interface) language allows programming in C.

T5503 Key Specifications

Target Devices:	DDR3-SDRAM, GDDR3/4-SDRAM, etc.
Parallel Testing:	Up to 256 devices per system
Test Speed:	Up to 3.2Gbps

*FutureSuite is a registered trademark of Advantest in Japan, US, and other countries.

Please refer to product manual for complete system specifications.

Specifications may change without notification.

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