

T5503HS Test System

New tester delivers performance and speed needed to test DDR4 and LPDDR4 memory ICs used throughout portable electronics and servers



With today's mobile electronic devices and the servers that support them handling ever-increasing volumes of data, semiconductor memory manufacturers need a highly capable, cost-efficient means of testing their latest generations of high-speed, high-capacity memory ICs – including emerging DDR4-SDRAM and LPDDR4-SDRAM chips. ADVANTEST's T5503HS tester gives memory manufacturers that industry-leading performance and a low cost of test along with an upgradable system design.

High-speed test solution

ADVANTEST's T5503HS system provides an optimal test solution for double-data-rate SDRAMs and other next-generation memory chips. The tester can operate at speeds up to 4.5 Gbps, fast enough to perform full-coverage testing of the most advanced memories. In addition, the system uses individual level settings, I/O dead-band canceling and data-bus inversion (DBI) to maximize throughput in testing high-speed devices.

To further enhance test performance, the T5503HS automatically generates cyclic redundancy check (CRC) codes and command/address (CA) parity codes to match the I/O data rates and address of any DUT. This enables quick and efficient development of new test programs, which reduces the demands on customers' resources while also improving the time to market for new semiconductor designs.

Optimized for productivity

Capable of testing of up to 512 DDR4-SDRAM devices in parallel, the T5503HS is a cost-effective, high-volume test solution. The system's real-time source-synchronous function enables high throughput. Additionally, an advanced timing-training capability helps to identify the most effective test solution faster than other systems on the global market. Together, these functions allow the T5503HS tester to achieve much higher productivity than software-based systems.

Extendible lifetime

With its modular architecture, the T5503HS is designed to help customers get the most value from their capital investments. The system is available as a fully compatible upgrade on ADVANTEST's field-proven T5503 test platform. This enables users to extend the performance of their existing testers while also getting greater ROI as next-generation ICs are introduced.

Specification		T5503HS	T5503HS + New MB
Max. Frequency		2.256GHz / 4.511Gbps	2.256GHz / 4.511Gbps
Accuracy	OTA	+/- 60ps [SBCAL]	+/- 60ps [SBCAL]
	Dr/Cp Skew	46ps p-p	46ps p-p
TH Channels	DR pin	-	1344ch
	I/O pin	7680ch	8064ch
	Term pin	3072ch (in MB)	8960ch (in MB)
	Level DR pin	768ch	896ch
	PPS ch	1024ch	1024ch
	DC ch	128ch Additional DC : 448ch	128ch Additional DC : 448ch
FC Channels		480 I/O	84DR + 504 I/O
Size W x D x H (mm)	MF	2400 x 1050 x 1800	2400 x 1050 x 1800
	TH	870 x 1500 x 630	870 x 1500 x 630
Power Consumption		82kVA / System	82kVA / System
Power Lines (200VAC three-phase)		8 lines	8 lines
Cooling Water		2 lines	2 lines
System Software		FutureSuite	FutureSuite
Handler		M6242	M6242



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