

TOSHIBA



TR200 Series

SATA 6 Gbit/s

State-of-the-art storage for entry level HDD upgrades

November 2019





Overview

Upgrading from a hard disk drive (HDD) should be easy and affordable and that's where OCZ TR200 SSDs come in. Designed to boost the speed of your notebook or PC over conventional HDDs, the TR200 Series leverages advanced BiCS FLASH™, to deliver well-balanced performance, reliability, and value that will transform your mobile or desktop system.

Instant Performance Upgrade

Up your productivity with the TR200 Series and enjoy faster boot ups, file transfers, and system responsiveness. Say goodbye to hard disk drive lag and get a computing experience worthy of your time.

State-of-the-art Storage

With a 3D BiCS vertically stacked cell structure, BiCS FLASH technology enables higher capacity, endurance, performance, and efficiency in the same footprint, delivering a state-of-the-art storage experience.

Performance Made Affordable

Upgrading to an SSD from a conventional HDD can feel like you've purchased an entirely new system. TR200 SSDs balance price and performance so you have enough funds left over for other upgrades.

Improved for On-the-Go

Compared to hard disk drives, TOSHIBA OCZ TR200 SSDs also offer improved durability and power consumption, which can translate into longer battery life to keep you up and running longer.



Features



3D Flash Memory

Built with BiCS FLASH™ memory.



Longer Battery Life

Lower power consumption compared to HDDs for longer battery life with built-in power management modes.



Quality & Reliability

KIOXIA technology built into every drive



Controller

Leverages an in-house SSD controller



Cost-effective Design

Well-balanced price to performance ratio



Slim Form Factor

Sleek housing offers slimmer 7mm height for compatibility with thin notebooks

SSD Utility SSD Management Software

The SSD Utility was designed to help your OCZ drive thrive and lets you be in control of maintenance, monitoring, SSD tuning, OS tuning and more!



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Specifications

Performance	240 GB	480 GB	960 GB
Sequential Read Speed¹	Up to 555 MB/s	Up to 555 MB/s	Up to 555 MB/s
Sequential Write Speed¹	Up to 540 MB/s	Up to 540 MB/s	Up to 540 MB/s
Random Read² (4 KiB, QD32)	Up to 79,000 IOPS	Up to 82,000 IOPS	Up to 81,000 IOPS
Random Write² (4 KiB, QD32)	Up to 87,000 IOPS	Up to 88,000 IOPS	Up to 88,000 IOPS

¹ Sequential speeds are measured with ATTO v3.05, QD10.

² 4KiB random performance is measured with CrystalDiskMark 5.1.2 x64 QD32.

Endurance	240 GB	480 GB	960 GB
TBW (Total Bytes Written)³	60 TB	120 TB	240 TB

³ Definition and conditions of TBW (Terabytes Written) are based on JEDEC standard; JESD218A, February 2011, and defined for the service life.

Physical

Capacities	240 GB, 480 GB, 960 GB
Flash Memory Type	BiCS FLASH™ TLC
Interface	Serial ATA (SATA) 6 Gbit/s
Form Factor	2.5-inch, 7mm height
Dimensions	100.45 x 69.85 x 7.00 mm
Drive Weight	240GB: 45.5g (typ.) 480GB: 45.6g (typ.) 960GB: 45.7g (typ.)

Power Requirements

Supply Voltage	5V ±5 %
Power Consumption	Active Up to 1.7 W (typ.) Idle 100 mW (typ.)
DevSleep Power	10 mW max



Environmental

Operating Temperature	0 °C to 65 °C
Storage Temperature	-40 °C to 85 °C
Shock Resistance	14.7 km/s ² {1500 G} (0.5 ms)
Vibration (Operational & Non-operational)	196 m/s ² {20 Grms} (Peak, 10 to 2,000 Hz)

Reliability / Security

MTTF	1.5 Mhours
Product Health Monitoring	Self-Monitoring, Analysis and Reporting Technology (SMART) Support

Compatibility

Serial ATA	ATA/ATAPI Command Set-3 (ACS-3) and Serial ATA revision 3.2 interface specifications supported
Operating System⁵	Windows [®] 10, Windows [®] 8.1, Windows [®] 7; Linux [®] Fedora 21; Mint 17.1; OpenSUSE 13.2; Ubuntu 14.04; Ubuntu 14.10; Mac [®] OS X [®] 10.9, 10.10, 10.11
Connector Type	Standard SATA connector
Targeted Applications	Client desktops and laptops

⁵ Compatible operating system for SSD is not the same as compatible operating system for SSD Utility or CLOUDT

Additional

Performance Optimization	TRIM, Idle Time Garbage Collection
Service & Support	3-Year Standard Warranty, Online Tech Support
Software	SSD Utility (SSd management software)

Ordering Information	Model	Part Number	UPC
TR200	240 GB	THN-TR20Z2400U8(CS)	889661182696
	480 GB	THN-TR20Z4800U8(CS)	889661182702
	960 GB	THN-TR20Z9600U8(CS)	889661182719



The security erase function of the TR200 only erases the “Look-up-Table,” which renders the data inaccessible, but does not erase user data stored on NAND flash memory. At some point in the future, we plan to release a tool that can erase user data on NAND flash memory, but such functionality is not currently available.

Definition of capacity: KIOXIA defines a megabyte (MB) as 1,000,000 bytes, a gigabyte (GB) as 1,000,000,000 bytes and a terabyte (TB) as 1,000,000,000,000 bytes. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB = 2^{30} = 1,073,741,824 bytes and therefore shows less storage capacity. Available storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software and operating system, such as Microsoft Operating System and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

A kibibyte (KiB) means 2^{10} , or 1,024 bytes, a mebibyte (MiB) means 2^{20} , or 1,048,576 bytes, and a gibibyte (GiB) means 2^{30} , or 1,073,741,824 bytes.

IOPS: Input Output Per Second (or the number of I/O operations per second)

MTTF (Mean Time to Failure) is not a guarantee or estimate of product life; it is a statistical value related to mean failure rates for a large number of products which may not accurately reflect actual operation. Actual operating life of the product may be different from the MTTF.

Read and write speed may vary depending on the host device, read and write conditions, and file size.

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Product image may represent design model.

Warranty terms available at <https://ssd.toshiba-memory.com/en-amer/support/warranty>

