TOSHIBA

Leading Innovation

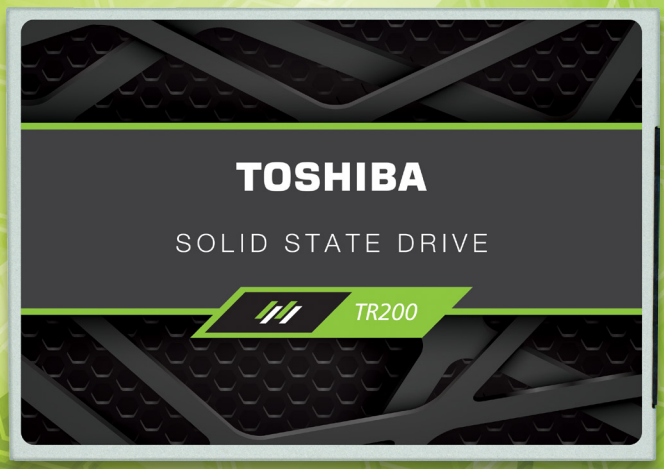
OCZ

TR200 Series

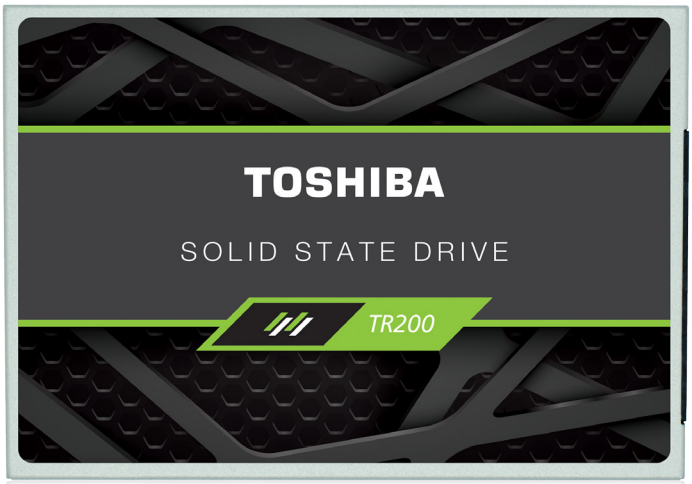
SATA 6 Gbit/s

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

Sep 2017



BiCS FLASH™



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 Toshiba's advanced 64-layer 3D 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 64-layer vertically stacked cell structure, Toshiba 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 latest BiCS FLASH™ memory.

Longer Battery Life

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

Quality & Reliability

Toshiba technology built into every drive

Toshiba Controller

Leverages a Toshiba 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!

Specifications

Performance	240 GB	480 GB	960 GB
Sequential Read Speed[1]	Up to 555 MB/s	Up to 555 MB/s	Up to 555 MB/s
Sequential Write Speed[1]	Up to 540 MB/s	Up to 540 MB/s	Up to 540 MB/s
Random Read[2] (4 KiB, QD32)	Up to 79,000 IOPS	Up to 82,000 IOPS	Up to 81,000 IOPS
Random Write[2] (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
Daily Usage Guidelines[4]	55 GB/day	110 GB/day	219 GB/day

[3] Definition and conditions of TBW (Terabytes Written) are based on JEDEC standard; JESD218A, February 2011, and defined for the service life.
[4] Daily usage guidelines value is calculated by dividing TBW by 365 x 3.

Physical

Capacities	240 GB, 480 GB, 960 GB
NAND Flash Memory Type	64-layer 3D BiCS 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 Idle	Up to 1.7 W (typ.) 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)
Certifications	UL/cUL, FCC, CE, RCM, KC, BSMI, VCCI, and ISED

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 System[5]	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 CLOUT

Additional

Performance Optimization	TRIM, Idle Time Garbage Collection
Service & Support	3-Year Standard Warranty, Toll-Free Tech Support
Software	SSD management software: SSD Utility and Command Line Online Update Tool (CLOUT)

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 theTR200 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: Toshiba 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.

Subject to Change: While Toshiba has made every effort at the time of publication to ensure the accuracy of the information provided herein, product specifications, configurations, prices, system/component/options availability are all subject to change without notice.

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Warranty terms available at https://www.ocz.com/us/support/warranty