

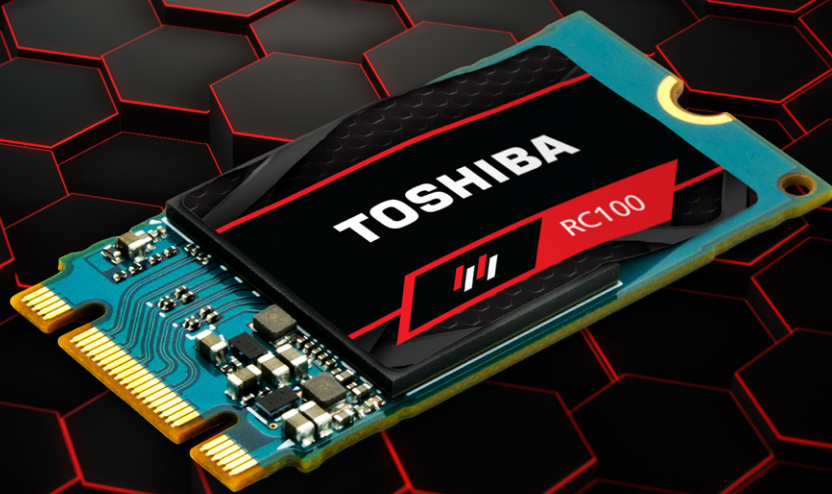
TOSHIBA

Toshiba OCZ RC100 Series

NVMe™ Solid State Drive (SSD)

NVMe™ Made Affordable

November 2019



 **BiCS FLASH™**

Overview

Want to take advantage of the latest storage technologies without breaking the bank? The Toshiba OCZ RC100 brings NVMe™ to everybody with performance surpassing that of SATA drives, but without the killer cost. Based off Toshiba's single package BGA SSDs, the Toshiba OCZ RC100 brings strong performance and power efficiency in a compact form factor suitable for both desktops and laptop systems.



No More SATA Bottleneck

Don't be held back by an interface designed for hard drives. The NVMe™ interface was designed from the ground up to take advantage of NAND flash technology and the PCI Express® bus means it has the bandwidth to deliver performance outclassing even enthusiast SATA SSDs.



NVMe™ Made Affordable

First generation NVMe™ drives had high performance, but also came at a high cost. Toshiba has leveraged our expertise in NAND flash to design an entire SSD that fits within a single BGA package, delivering an NVMe drive that balances cost and performance.



Power-Optimized Architecture

Leveraging this BGA SSD has resulted in a drive that's extremely power efficient, consuming almost half the active power draw of enthusiast NVMe drives giving you even longer battery life on the go.



Small Form Factor

Since the entire SSD is contained within a single BGA chip, the Toshiba OCZ RC100 fits onto an M.2 2242 PCB, making it one of the smallest SSDs available in retail. It's perfect for small form factor builds and plugs directly into the motherboard, reducing additional cable clutter.



State-of-the-Art 3D Flash Memory

Each Toshiba OCZ RC100 is built with Toshiba's advanced 3D BiCS FLASH™ memory and a vertically stacked cell structure, delivering a state-of-the-art storage experience.



SSD Utility SSD Management Software

The SSD Utility management software 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	120 GB	240 GB	480 GB
Sequential Read/Write Speed¹	Up to 1350/700 MB/s	Up to 1600/1050 MB/s	Up to 1600/1100 MB/s
Random Read/Write²	Up to 80,000/95,000 IOPS	Up to 130,000/110,000 IOPS	150,000/110,000 IOPS

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

² 4KiB random performance is measured with Iometer QD32, Drive as Data Disk.

Endurance	120 GB	240 GB	480 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; JESD219A Solid-State Drive (SSD) Endurance Workloads, July 2012, and defined for the service life.

Physical

Capacities	120 GB, 240 GB, 480 GB
NAND Flash Memory Type	64-layer 3D BiCS TLC
	PCI Express® Base Specification Revision 3.1a (PCIe®)
Interface	Maximum Speed 16 GT/s (PCIe® Gen3x2L)
	Command NVM Express™ Revision 1.2.1 command set
Form Factor	M.2 Type 2242-S3-B-M
Dimension (L x W x H)	42.00 ± 0.15 mm x 22.00 ± 0.15 mm x 2.38 mm
Drive Weight	120GB: 3.0 g (typ.) 240GB: 3.1 g (typ.) 480GB: 3.5 g (typ.)

Power Requirements

Supply Voltage	3.3 V ±5 %
Power Consumption (Active)	3.20 W (typ.)
Power Consumption (L1.2 Power)	5 mW (typ.)

Environmental

Operating Temperature (Tc)	0°C (Tc) to 70°C (Tc)
Storage Temperature	-40°C to 85°C
Shock Resistance	14.709 km/s ² {1500 G} 0.5 ms half sine wave
Vibration	196 m/s ² {20 G} Peak, 10~2000 Hz, (20 min / Axis) x 3 Axis
Certifications	TÜV-Bauart, BSMI, RCM, CE, UL & cUL (CSA), China RoHS, KC, FCC, ISED, VCCI, WEEE, PCI Express®

Reliability / Security

MTTF	1 Mhours
Product Health Monitoring	SSD Utility version 3.1 and above

Compatibility

PCI Express	Compatible with PCI Express® Base Specification Revision 3.1a and NVM Express™ Revision 1.2.1 command set
Operating System⁵	Windows® 10, Linux® Fedora 26, Fedora 27; Mint 18.1, 18.3; Ubuntu 17.10
Connector Type	M.2 B-M key Socket
Targeted Applications	Client desktops and laptops

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

Additional Features

Performance Optimization	TRIM, Idle Time Garbage Collection
Services and Support	3-Year Standard Warranty Program, Online Tech Support
Software	SSD management software: SSD Utility v3.1 and above.

Ordering Information

	Model	Part Number	UPC
Toshiba OCZ RC100	120 GB	THN-RC10Z1200G8(TS)	811375030024
Toshiba OCZ RC100	240 GB	THN-RC10Z2400G8(TS)	811375030031
Toshiba OCZ RC100	480 GB	THN-RC10Z4800G8(TS)	811375030048

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PCIe and PCI Express are registered trademarks of PCI-SIG.

All other company names, product names, and service names mentioned herein may be trademarks of their respective companies.

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.

Product image may represent design model.