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///OCZ

VX500 Series
SATA 6 Gbit/s

High Endurance SSD for Mainstream PCs & Notebooks

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Overview

Designed for mainstream desktops and notebooks, the Toshiba OCZ VX500 SATA SSDs provide a faster, more responsive computing, gaming, and application experience compared to traditional hard disk drives (HDDs). Prioritizing storage endurance[1], the Toshiba MLC NAND flash-based VX500 series is suitable for users with write-intensive PC environments seeking well-balanced speed and features that will take system performance to the next level.

Meet Your Performance Potential

Mechanical hard drives limit system speed and deprive users of experiencing the full potential of their notebook or desktop. Toshiba OCZ VX500 SSDs are the quick and simple way to upgrade your PC's performance.

Excellent MLC Endurance

Is endurance important to you? We thought so. Equipped with MLC, the VX500 series offers endurance ratings from 74 to 592 terabytes written (TBW)[2].

Enhanced Everyday Computing

When it comes to real world applications, your VX500 drive will thrive. Imagine faster boot-ups, file transfers, game level loading, and data access compared to your lag-prone hard disk drive.

Benefits Beyond Speed

More than just a speedy storage, Toshiba OCZ VX500 SSDs also offer improved durability and power consumption over traditional hard drives, elevating your mobile computing experience.

Quality from the Inside Out

DIYers have more than just a need for speed, and that's reliability. With Toshiba expertise built into every VX500 drive, you can expect quality hardware, firmware, and a 5-year Advanced Warranty Program[3] you can trust.

Free Data Migration Software

Bundled with Acronis® True Image™ 2016 cloning software key to easily transfer your OS, applications, and data from your old hard disk drive or SSD.

[1]Compared to TLC NAND flash.
[2]128GB = 74 TBW, 256GB = 148 TBW, 512GB = 296 TBW, 1024GB = 592 TBW.
[3]Available to limited regions and countries.

Specifications

Performance

	128GB	256GB	512 GB	1024GB
Sequential Read Speed[4]	Up to 550 MB/s	Up to 550 MB/s	Up to 550 MB/s	Up to 550 MB/s
Sequential Write Speed[4]	Up to 485 MB/s	Up to 510 MB/s	Up to 515 MB/s	Up to 515 MB/s
Random Read[5] (4 KiB, QD32)	Up to 62,000 IOPS	Up to 90,000 IOPS	Up to 92,000 IOPS	Up to 92,000 IOPS
Random Write[5] (4 KiB, QD32)	Up to 49,000 IOPS	Up to 58,000 IOPS	Up to 64,000 IOPS	Up to 65,000 IOPS

Endurance

	128GB	256GB	512 GB	1024GB
TBW (Total Bytes Written)[6]	74 TB	148 TB	296 TB	592 TB
Daily Usage Guidelines[7]	40 GB/day	81 GB/day	162 GB/day	324 GB/day

[4]Sequential speeds are measured with ATTO v3.05.
[5]4 KiB random performance is measured with CrystalDiscMark, 1000MB test file size, QD32.
[6]Definition and conditions of TBW (Terabytes Written) are based on JEDEC standard; JESD218A, February 2011, and defined for the service life.
[7]Daily usage guidelines value is calculated by dividing TBW by 365 x 5.

Physical

Capacities	128GB, 256GB, 512GB, 1024GB
NAND Flash Memory Type	MLC
Interface	Serial ATA (SATA) 6 Gbit/s
Form Factor	2.5-inch, 7 mm height
Dimensions	100 mm x 69.85 mm x 7.00 mm
Drive Weight	128 GB, 256 GB: 49 g (typ.) 512 GB: 52 g (typ.), 1024 GB: 54 g (typ.)

Environmental

Operating Temperature	0 °C to 70 °C
Storage Temperature	-40 °C to 85 °C
Shock Resistance	14.7 km/s^2 {1500 G} (0.5 ms)
Vibration	196 m/s^2 {20 Grms} (Peak, 10 to 2,000 Hz)
Certifications	CE, BSMI, RCM, KCM, UL

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Power Requirements

Supply Voltage	5V ±5 %	
Power Consumption	Active	Up to 3.4 W (typ.)
	Idle	128GB, 256GB, 512GB: 125 mW (typ.), 1024GB: 260 mW (typ.)
	DevSleep	128GB, 256GB, 512GB: 5 mW max

Reliability / Security

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

Compatibility

Serial ATA	ATA/ATAPI Command Set-2 (ACS-2) and Serial ATA revision 3.1 interface specifications supported
Operating System[8]	Windows® 10 x64, Windows® 8.1 x64, Windows® 7 x64; Linux® Fedora x64 22, 23, Mint x64 17, 17.1, 17.2, 17.3, Ubuntu Desktop 14.04 LTS, 15.10, Ubuntu Server 16.04 LTS; Mac® OS X® 10.9, 10.10, 10.11.4
Connector Type	Standard SATA Power Connector
Targeted Applications	Client desktops and laptops

[8]Compatible operating system for SSD is not the same as compatible operating system for SSD Utility or CLOUT.

Additional

Performance Optimization	TRIM
Service & Support	5-Year Advanced Warranty Program[9], Toll-free and online Tech Support
Software	SSD management software: SSD Utility and Command Line Online Update Tool (CLOUT) Cloning software: Acronis® True Image™ 2016 with Windows®10 support

[9]Available to limited regions and countries. For more information, go to https://ocz.com/us/support/advanced-warranty.

ADVANCED WARRANTY
PROGRAM

Advanced Warranty Program

A new approach to service that mitigates the hassle surrounding support and warranty claims consumers often have to deal with. This program provides advanced replacement with no return shipping costs. Advanced Warranty Program is limited by selected regions. Detailed warranty terms available at www.ocz.com

Ordering Information	Model	Part Number	UPC
	128GB	VX500-25SAT3-128G	842024037910
	256GB	VX500-25SAT3-256G	842024037927
VX500	512GB	VX500-25SAT3-512G	842024037934
	1024GB	VX500-25SAT3-1T	842024037941

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 1,073,471,824 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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Product image may represent design model.

OCZ VX500 comes with a 5-Year Advanced Warranty Program. Advanced Warranty Program is limited by selected regions. Detailed warranty terms available at www.ocz.com