

EXCERIA NVMe™ SSD

Upgrade Your Productivity



Capacity

250GB 500GB 1TB

Max Sequential Read/Write Speed¹

250GB: 1,700/1,200 MB/s
500GB, 1TB: 1,700/1,600 MB/s

Max Random Read/Write Speed²

250GB: 200,000/290,000 IOPS
500GB, 1TB: 350,000/400,000 IOPS

Features

BiCS FLASH™
NVMe™ 1.3c Technology
M.2 2280 Form Factor
PCIe® Gen3 x4 Lane
SSD Utility Management Software

Upgrading from a hard drive or SATA SSD should be easy and affordable and that's where EXCERIA SSDs come in. KIOXIA EXCERIA SSD Series is built to boost your mobile or PC experience and deliver balanced performance and value that will transform your system. Leveraging BiCS FLASH™ 3D flash memory, this new mainstream-class SSD series offers up to 1TB of capacity in a M.2 2280 form factor suitable for both desktops and notebooks.

Application Performance Maximized

KIOXIA EXCERIA SSD series redefine mainstream storage for everyday users that feel held back by SATA-based hardware. Say goodbye to hard drive lag and get a computing experience worthy of your applications.



Small and Compact for an Easy Upgrade

Featuring a slim and light M.2 2280 form factor, the EXCERIA SSD series plugs directly into thin notebooks' motherboard, reducing additional cable clutter for a sleeker and an easy system upgrade.

NVMe™ Technology

Why keep using an interface that was designed for hard drives? Utilizing the latest NVMe™ 1.3c technology, EXCERIA SSDs reduce latency in your system's I/O path between your SSD and your CPU, resulting in smooth and responsive performance.



Cutting Edge 3D Flash Memory

Each EXCERIA SSD is built with BiCS FLASH™ and a vertically stacked cell structure, delivering a cutting edge storage experience.

SSD Utility Management Software

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



Specifications

Physical

Capacity

250GB, 500GB, 1TB

Form Factor

M.2 Type 2280-S2-M

Interface

PCI Express® Base Specification Revision 3.1a (PCIe®)

Flash Memory Type

BiCS FLASH™ TLC

Interface Maximum Speed

32 GT/s (PCIe® Gen3x4L)

Dimension (Max: LxWxH)

80.15 mm x 22.15 mm x 2.23 mm

Interface Command

NVM Express™ Revision 1.3c command set

Drive Weight

250GB: 6.0 g (typ.)
500GB, 1TB: 6.9 g (typ.)

Performance

Max Sequential Read Speed¹

1,700 MB/s

Max Sequential Write Speed¹

250GB: 1,200 MB/s
500GB, 1TB: 1,600 MB/s

Max Random Read Speed²

250GB: 200,000 IOPS
500GB, 1TB: 350,000 IOPS

Max Random Write Speed²

250GB: 290,000 IOPS
500GB, 1TB: 400,000 IOPS

Endurance: TBW (Total Bytes Written)³

250GB: 100 TB
500GB: 200 TB
1TB: 400 TB

MTTF

1.5 million hours

Environmental

Operating Temperature

0 °C (Ta) to 85 °C (Tc)

Storage Temperature

-40 °C to 85 °C

Shock Resistance

9.806 km/s² (1,000 G) 0.5 ms half sine wave

Vibration

196 m/s² (20 G) Peak, 10~2000 Hz, (20 min / Axis) x 3 Axis

Supply Voltage

3.3 V ±5 %

Power Consumption (Active)

250GB: 3.8 W (typ.)
500GB: 3.9 W (typ.)
1TB: 5.3 W (typ.)

Power Consumption

PS3: 50mW (typ.)
PS4: 5 mW (typ.)

Compatibility

PCI Express

Compatible with PCI Express® Base Specification Revision 3.1a and NVMe Express™ Revision 1.3c command set

Connector Type

M.2 M key Socket

Target Applications

Client desktops and laptops

Additional Features

Services and Support

5-year manufacturer's warranty⁴

Performance Optimization

TRIM, Idle Time Garbage Collection

Ordering Information

Global Package:

250GB

PN: LRC10Z250GG8
EAN: 4582563851900

500GB

PN: LRC10Z500GG8
EAN: 4582563851917

1TB

PN: LRC10Z001TG8
EAN: 4582563851924

China Package:

250GB

PN: LRC10Z250GC8
EAN: 4582563851931

500GB

PN: LRC10Z500GC8
EAN: 4582563851948

1TB

PN: LRC10Z001TC8
EAN: 4582563851955

¹ EXCERIA SSD: Sequential speeds are measured with CrystalDiskMark 6.0.2 x64, Q=32, T=1. These values are the best values obtained in a specific test environment at KIOXIA Corporation and KIOXIA Corporation warrant neither read nor write speeds in individual devices. Read and write speed may vary depending on a device used and file size read or written.

² EXCERIA SSD: 4KiB random performance is measured with CrystalDiskMark 6.0.2 x64, Q=32, T=8. These values are the best values obtained in a specific test environment at KIOXIA Corporation and KIOXIA Corporation warrant neither read nor write speeds in individual devices. Read and write speed may vary depending on a device used and file size read or written.

³ EXCERIA SSD: 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.

⁴ MANUFACTURER'S WARRANTY IS EFFECTIVE EITHER (I) FIVE (5) YEARS FROM THE DATE OF PURCHASE IN ITS ORIGINAL SEALED PACKAGING OR (II) FOR THE TIME PERIOD UNTIL THE "PERCENTAGE LIFE LEFT" WILL BE ZERO, WHICHEVER IS SHORTER. The "Percentage Life Left" can be found using "Health" gauge of the SSD Utility for KIOXIA products, which is available at "personal.kioxia.com/support/".

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 = 2³⁰ = 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.

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

Subject to Change: While KIOXIA 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. Images for illustration purpose only. The product appearance may differ from the actual product. Actual number of flash components differs by drive capacity.

A kibibyte (KiB) means 2¹⁰, or 1,024 bytes, a mebibyte (MiB) means 2²⁰, or 1,048,576 bytes, and a gibibyte (GiB) means 2³⁰, 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.

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