

EXCERIA with Heatsink NVMe™ SSD

Stay Cool



Capacity

1,024GB; 2,048GB; 4,096GB

Max Sequential Read/Write Speed¹

4,096GB: 6,200/4,800 MB/s
2,048GB, 1024GB: 6,200/4,900 MB/s

Max Random Read/Write Speed²

4,096GB: 810,000/450,000 IOPS
2,048GB: 830,000/450,000 IOPS
1,024GB: 850,000/440,000 IOPS

Features

BiCS FLASH™
NVMe™ 1.4 Technology
M.2 Type 2280 with Heatsink, following PlayStation 5 Heatsink Size requirements
PCIe® Gen4 x4
SSD Utility Management Software

Meet the all-new EXCERIA with Heatsink Series, KIOXIA's first generation SSD to feature a heatsink for enhanced thermal dissipation. Designed specifically for the demanding environments of PlayStation 5 users and PC Gamers, the KIOXIA EXCERIA Heatsink SSD series offers the performance of PCIe 4.0® and ample storage with capacities up to 4,096GB.

Unleash Untapped Performance

Don't let legacy technology hold you back. With a next generation PCIe® 4.0 interface, the KIOXIA EXCERIA with Heatsink Series gets you in the game faster. Load levels quicker with up to 6,200 MB/s sequential read performance and download new titles faster with up to 4,900 MB/s of sequential write performance.



A Power-harnessing Heatsink

Stay "cool" under pressure whether using a desktop or PlayStation 5. With advanced heat dissipation capabilities, the KIOXIA EXCERIA with Heatsink Series is an excellent choice for gaming systems that need extra cooling during intense gaming sessions.

More Space, More Games.

Your next upgrade is here. With up to 4,096GB of flash memory capacity, you can store more games. The KIOXIA EXCERIA with Heatsink SSDs offer abundant storage for even the tightest spaces in your go-to PlayStation 5 and desktop PC. Please make sure to check out the guide on how to install an SSD into the PlayStation 5.



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, and more!

We highly recommend you install and update to the latest version to maximize your drive's performance and check its Percentage Life Left using the health gauge.



Specifications

Physical

Capacity

1,024GB; 2,048GB; 4,096GB

Dimension (Max: LxWxH)

80.65 mm x 24.70 mm x 11.20 mm

Interface

PCI Express® Base Specification Revision 4.0 (PCIe®)

Interface Maximum Speed

64 GT/s (PCIe® Gen4 x4)

Interface Command

NVM Express™ Revision 1.4 command set

Form Factor

M.2 Type 2280(Key M) with Heatsink



Flash Memory Type

BiCS FLASH™ TLC

Product Weight

4,096GB: typ. 46 g | 2,048GB, 1024GB: typ. 45 g

Performance

Max Sequential Read Speed¹

6,200 MB/s

Max Sequential Write Speed¹

4,096GB: 4,800 MB/s
2,048GB, 1024GB: 4,900 MB/s

Max Random Read Speed²

4,096GB: 810,000 IOPS
2,048GB: 830,000 IOPS
1,024GB: 850,000 IOPS

Max Random Write Speed²

4,096GB, 2,048GB: 450,000 IOPS
1,024GB: 440,000 IOPS

Endurance: TBW (Total Bytes Written)³

4,096GB: 2,400 TB
2,048GB: 1,200 TB
1,024GB: 600 TB

MTTF

1.5 million hours

Environmental

Operating Temperature

0 °C (Ta) to 85 °C (TSMART)

Storage Temperature

-40 °C to 85 °C

Certification

RoHS compliant⁴

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)

4,096GB : 7.8 W (typ.)
2,048GB : 7.8 W (typ.)
1,024GB : 7.7 W (typ.)

Power Consumption

PS3: 100 mW (typ.)
PS4: 10 mW (typ.)

Compatibility

PCI Express

“Compatible with PCI Express® Base Specification Revision 4.0 and NVMe™ Express™ Revision 1.4 command set

Connector Type

M.2 M key Socket

Target Applications

Desktop PC and PlayStation 5

Compatibility confirmed by KIOXIA's own testing in accordance with the PS5 manufacturer's technical requirements. Tested system software version: 23.02-08.40.00.05-00.00.00.0.1, as of 26.4.2024.

Additional Features

Services and Support

Up to 5-year manufacturer's warranty

MANUFACTURER'S WARRANTY IS EFFECTIVE EITHER (I) WARRANTY PERIOD 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/".

Performance Optimization

TRIM, Idle Time Garbage Collection, Heatsink

SSD Management Software

Please visit our website for information on the required OS version at "personal.kioxia.com".

¹ EXCERIA with Heatsink SSD: Sequential speeds are measured with CrystalDiskMark 8.0.4 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 with Heatsink SSD: 4KIB random performance is measured with CrystalDiskMark 8.0.4 x64, Q=32, T=16. 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 with Heatsink 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 KIOXIA Corporation defines "RoHS Compatible" products as products that either (i) contain no more than a maximum concentration value of 0.1% by weight in Homogeneous Materials for lead, mercury, hexavalent chromium, polybrominated biphenyls (PBBs), polybrominated diphenyl ethers (PBDEs), bis(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), benzyl butyl phthalate (BBP) and diisobutyl phthalate (DIBP) and of 0.01% by weight in Homogeneous Materials for cadmium; or (ii) fall within any of the application exemptions set forth in the Annex to the RoHS Directive¹). This does not mean that Kioxia Corporation products labeled "RoHS COMPATIBLE" are entirely free of substances controlled by the RoHS Directive and does not constitute a warranty or guarantee that such products will comply with the specific laws and/or regulations adopted in any particular jurisdiction. ¹RoHS Directive: KIOXIA Corporation defines "RoHS Directive" as the DIRECTIVE 2011/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

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 bytes = 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.

Product specifications and design are subject to change without prior notice.

Product images may represent design model. Actual product may vary.

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

To protect against accidental data loss, back up your data frequently on other storage media. KIOXIA Corporation does not warrant any data stored on the product.

For safety instructions, please visit: personal.kioxia.com/support/

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PCIe VDM (Vendor Defined Messages) is NOT supported.

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The line up of personal product vary by country and region.