

EXCERIA BASIC NVMe™ SSD

Fast Enough



Capacity

1TB, 2TB

Max Sequential Read/Write Speed¹

2TB: 7,300/6,800 MB/s

1TB: 7,200/6,600 MB/s

Max Random Read/Write Speed²

2TB: 1,000,000/1,250,000 IOPS

1TB: 1,000,000/1,150,000 IOPS

Features

BiCS FLASH™

NVMe™ 2.0d Technology

M.2 2280 Form Factor

PCIe® Gen4 x4

SSD Utility Management Software

Boost your everyday tasks with the EXCERIA BASIC SSD series supporting PCIe® 4.0. The KIOXIA EXCERIA BASIC SSD Series, an entry-level model, takes performance to the next level with up to 7,300 MB/s of sequential read speed¹, delivering balanced performance and value that will transform your system. Leveraging BiCS FLASH™ 3D flash memory, this updated SSD series now offers up to 2TB of capacity in a M.2 2280 form factor suitable for both desktops and notebooks.

Performance Made Affordable

Upgrading from a SATA SSD or PCIe® 3.0 SSD can feel like you've purchased an entirely new system. EXCERIA BASIC SSD series balance price and performance so you have enough funds left over for other.



NVMe™ Technology

Why keep using an interface that was designed for hard drives? Utilizing the latest NVMe™ 2.0d technology, EXCERIA BASIC 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, 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 1TB, 2TB	Form Factor M.2 Type 2280-S3-M
Interface PCI Express® Base Specification Revision 4.0 (PCIe®)	Flash Memory Type BiCS FLASH™ QLC
Interface Maximum Speed 64 GT/s (PCIe® Gen4 x4)	Dimension (Max: LxWxH) 80.15 mm x 22.15 mm x 2.38 mm
Interface Protocol NVMe Express™ Base Specification 2.0d	Drive Weight 5.6 g (typ.)

Performance

Max Sequential Read Speed¹ 2TB: 7,300 MB/s 1TB: 7,200 MB/s	Max Sequential Write Speed¹ 2TB: 6,800 MB/s 1TB: 6,600 MB/s
Max Random Read Speed² 1,000,000 IOPS	Max Random Write Speed² 2TB: 1,250,000 IOPS 1TB: 1,150,000 IOPS
Endurance: TBW (Total Bytes Written)³ 2TB: 600 TB 1TB: 300 TB	MTTF 1.5 million hours

Environmental

Operating Temperature 0 °C (Ta) to 85 °C (Tc)	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 25.4mm peak-to-peak (10Hz to 20Hz), 20G peak (20Hz to 2000Hz), (20min /Axis) x 3 Axis	Supply Voltage 3.3 V ±5 %
Power Consumption (Active) 2TB: 4.3W 1TB: 3.8W	Power Consumption PS3: 50 mW (typ.) PS4: 3 mW (typ.)

Compatibility

Connector Type M.2 M key Socket	Target Applications Client desktops and laptops
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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, Host Memory Buffer	SSD Management Software Please visit our website for information on the required OS version at “personal.kioxia.com”.

¹ EXCERIA BASIC 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 BASIC 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 BASIC 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 Directive(*). 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. RoHS 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.

PCIe VDM (Vendor Defined Messages) is NOT supported.

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