EXCERIA G2 NVMe™ SSD

Boost up your PC performance

Capacity
500GB, 1TB, 2TB

Max Sequential Read/Write Speed[1]
2,100/1,700 MB/s

Max Random Read/Write Speed[2]
500GB, 1TB: 400,000/400,000 IOPS
2TB: 360,000/400,000 IOPS

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

The new 2nd generation KIOXIA EXCERIA G2 SSD Series takes performance to the next level with up to 2,100 MB/s of sequential read speed[1], enabling faster boot ups, file transfers and system responsiveness. Leveraging BiCS FLASH™ 3D flash memory, this updated mainstream-class 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

The KIOXIA EXCERIA SSD series redefines 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. Compared to SATA SSDs, the EXCERIA G2 SSD series delivers balanced performance and value that will transform your system.

Small and Compact for an Easy Upgrade

Featuring a thin, single-sided M.2 2280 form factor, the EXCERIA G2 SSD series plugs directly into the 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 NVMe™ 1.3c technology, EXCERIA G2 SSD series 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!

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
500GB, 1TB, 2TB

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® Gen3 x4)

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
500GB, 1TB: 6.8g (typ.)
2TB: 7.1g (typ.)

Performance

Max Sequential Read Speed[1]
2,100 MB/s

Max Sequential Write Speed[1]
1,700 MB/s

Max Random Read Speed[2]
500GB, 1TB: 400,000 IOPS
2TB: 360,000 IOPS

Max Random Write Speed[2]
400,000 IOPS

Endurance: TBW[3]
500GB: 200TB
1TB: 400 TB
2TB: 800 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, 10~2,000 Hz, (20 min / Axis) x 3 Axis

Supply Voltage
3.3V ± 5%

Power Consumption (Active)
500GB, 1TB: 3.5 W (typ.)
2TB: 5.3 W (typ.)

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

Compatibility

PCI Express
Compatible with PCI Express® Base Specification Revision 3.1a and NVM 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 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

SSD Management Software
SSD Utility Management Software (Windows 10 x64)

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

Ordering Information

Global Package:

500GB	**1TB**	**2TB**
PN: LRC20Z500GG8	PN: LRC20Z001TG8	PN: LRC20Z002TG8
EAN: 4582563853980	EAN: 4582563853997	EAN: 4582563854000

China Package:

500GB	**1TB**	**2TB**
PN: LRC20Z500GC8	PN: LRC20Z001TC8	PN: LRC20Z002TC8
EAN: 4582563854017	EAN: 4582563854024	EAN: 4582563854031

[1] EXCERIA G2 SSD: Sequential speeds are measured with CrystalDiskMark 8.0.1 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 G2 SSD: 4KiB random performance is measured with CrystalDiskMark 8.0.1 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 G2 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.

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 = 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.

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 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.

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