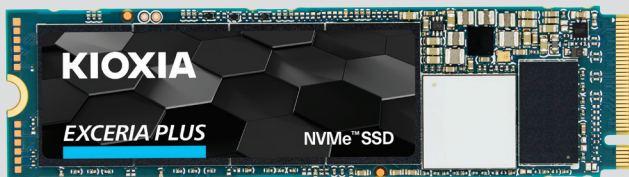


## EXCERIA PLUS NVMe™ SSD

*Upgrade Your Game*



### Capacity

500GB 1TB 2TB

### Max Sequential Read/Write Speed<sup>1</sup>

500GB: 3,400/2,500 MB/s  
1TB,2TB: 3,400/3,200 MB/s

### Max Random Read/Write Speed<sup>2</sup>

500GB: 420,000/570,000 IOPS  
1TB,2TB: 680,000/620,000 IOPS

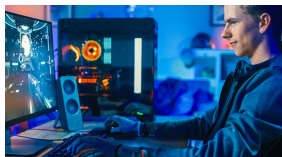
### Features

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

Your high-performance gaming system needs high-performance storage. KIOXIA EXCERIA PLUS SSD series is built to deliver enthusiast-class PCIe® performance thanks to a newly designed 8-channel controller that brings out the full potential of its BiCS FLASH™ 3D flash memory. This new enthusiast-class SSD series offers up to 2TB of capacity in a M.2 2280 form factor suitable for both desktops and mobile systems.

## Game-changing Storage

Don't let your storage be outclassed. The KIOXIA EXCERIA PLUS SSD series offer high performance storage for enthusiasts and hardcore gamers that feel held back by commodity storage hardware. With 3,400 MB/s sequential read speed(1) available to you, your system won't be deprived of the storage bandwidth it needs to excel.



### Game On!

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

### Small and Mighty

Featuring a thin and light M.2 2280 form factor, the EXCERIA PLUS SSD series plugs directly into the motherboard, reducing additional cable clutter for a sleeker system.



### 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

500GB, 1TB, 2TB

#### Form Factor

500GB: M.2 Type 2280-S3-M  
1TB, 2TB: M.2 Type 2280-D3-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)

500GB: 80.15 mm x 22.15 mm x 2.38 mm  
1TB, 2TB: 80.15 mm x 22.15 mm x 3.73 mm

#### Interface Command

NVM Express™ Revision 1.3c command set

#### Drive Weight

500GB: 8.0 g (typ.)  
1TB, 2TB: 10.0 g (typ.)

### Performance

#### Max Sequential Read Speed<sup>1</sup>

3,400 MB/s

#### Max Sequential Write Speed<sup>1</sup>

500GB: 2,500MB/s  
1TB, 2TB 3,200 MB/s

#### Max Random Read Speed<sup>2</sup>

500GB: 420,000 IOPS  
1TB, 2TB: 680,000 IOPS

#### Max Random Write Speed<sup>2</sup>

500GB: 570,000 IOPS  
1TB, 2TB: 620,000 IOPS

#### Endurance: TBW (Total Bytes Written)<sup>3</sup>

500GB: 200 TB  
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/s<sup>2</sup> {1,000 G} 0.5 ms half sine wave

#### Vibration

196 m/s<sup>2</sup> {20 G} Peak, 10~2000 Hz, (20 min / Axis) x 3 Axis

#### Supply Voltage

3.3 V ±5 %

#### Power Consumption (Active)

500GB: 5.1 W (typ.)  
1TB: 6.5 W (typ.)  
2TB: 7.6 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 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 warranty<sup>4</sup>

### Performance Optimization

TRIM, Idle Time Garbage Collection

## Ordering Information

### Global Package:

#### 500GB

PN: LRD10Z500GG8  
EAN: 4582563851962

#### 1TB

PN: LRD10Z001TG8  
EAN: 4582563851979

#### 2TB

PN: LRD10Z002TG8  
EAN: 4582563851986

### China Package:

#### 500GB

PN: LRD10Z500GC8  
EAN: 4582563851993

#### 1TB

PN: LRD10Z001TC8  
EAN: 4582563852006

#### 2TB

PN: LRD10Z002TC8  
EAN: 4582563852013

<sup>1</sup> EXCERIA PLUS SSD: Sequential speeds are measured with CrystalDiskMark 6.0.2 x64, Q=32, T=1

<sup>2</sup> EXCERIA PLUS SSD: 4KiB random performance is measured with CrystalDiskMark 6.0.2 x64, Q=32, T=8

<sup>3</sup> EXCERIA PLUS 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.

<sup>4</sup> 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 = 2<sup>30</sup> = 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.

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A kibibyte (KiB) means 2<sup>10</sup>, or 1,024 bytes, a mebibyte (MiB) means 2<sup>20</sup>, or 1,048,576 bytes, and a gibibyte (GiB) means 2<sup>30</sup>, 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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## EXCERIA NVMe™ SSD

### Upgrade Your Productivity



#### Capacity

250GB 500GB 1TB

#### Max Sequential Read/Write Speed<sup>1</sup>

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

#### Max Random Read/Write Speed<sup>2</sup>

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

<b>Capacity</b> 250GB, 500GB, 1TB	<b>Form Factor</b> M.2 Type 2280-S2-M
<b>Interface</b> PCI Express® Base Specification Revision 3.1a (PCIe®)	<b>Flash Memory Type</b> BiCS FLASH™ TLC
<b>Interface Maximum Speed</b> 32 GT/s (PCIe® Gen3x4L)	<b>Dimension (Max: LxWxH)</b> 80.15 mm x 22.15 mm x 2.23 mm
<b>Interface Command</b> NVMe Express™ Revision 1.3c command set	<b>Drive Weight</b> 250GB: 6.0 g (typ.) 500GB, 1TB: 6.9 g (typ.)

### Performance

<b>Max Sequential Read Speed<sup>1</sup></b> 1,700 MB/s	<b>Max Sequential Write Speed<sup>1</sup></b> 250GB: 1,200 MB/s 500GB, 1TB: 1,600 MB/s
<b>Max Random Read Speed<sup>2</sup></b> 250GB: 200,000 IOPS 500GB, 1TB: 350,000 IOPS	<b>Max Random Write Speed<sup>2</sup></b> 250GB: 290,000 IOPS 500GB, 1TB: 400,000 IOPS
<b>Endurance: TBW (Total Bytes Written)<sup>3</sup></b> 250GB: 100 TB 500GB: 200 TB 1TB: 400 TB	<b>MTTF</b> 1.5 million hours

### Environmental

<b>Operating Temperature</b> 0 °C (Ta) to 85 °C (Tc)	<b>Storage Temperature</b> -40 °C to 85 °C
<b>Shock Resistance</b> 9.806 km/s <sup>2</sup> (1,000 G) 0.5 ms half sine wave	<b>Vibration</b> 196 m/s <sup>2</sup> (20 G) Peak, 10~2000 Hz, (20 min / Axis) x 3 Axis
<b>Supply Voltage</b> 3.3 V ±5 %	<b>Power Consumption (Active)</b> 250GB: 3.8 W (typ.) 500GB: 3.9 W (typ.) 1TB: 5.3 W (typ.)
<b>Power Consumption</b> 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 warranty<sup>4</sup>

### 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

<sup>1</sup> EXCERIA SSD: Sequential speeds are measured with CrystalDiskMark 6.0.2 x64, Q=32, T=1

<sup>2</sup> EXCERIA SSD: 4KiB random performance is measured with CrystalDiskMark 6.0.2 x64, Q=32, T=8

<sup>3</sup> 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.

<sup>4</sup> 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/".

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

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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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## EXCERIA SATA SSD

*Upgrade to the Future*



### Capacity

240GB 480GB 960GB

### Max Sequential Read/Write Speed<sup>1</sup>

555/540 MB/s

### Max Random Read/Write Speed<sup>2</sup>

240GB: 79,000/87,000 IOPS

480GB: 82,000/88,000 IOPS

960GB: 81,000/88,000 IOPS

### Features

BiCS FLASH™

Shock Resistant

2.5-inch, 7mm Height Form Factor

SSD Utility Management Software

Upgrading from a hard disk drive (HDD) should be easy and affordable and that's where EXCERIA SATA SSD series come in. Designed to boost the speed of your desktop or notebook PC over conventional HDDs, the EXCERIA SATA SSD series leverages BiCS FLASH™, to deliver well-balanced performance, reliability, and value that will transform your desktop or mobile system.

## Instant Performance Upgrade

Up your productivity with the EXCERIA SATA SSD series and enjoy faster boot ups, file transfers, and system responsiveness. Say goodbye to hard disk drive lag and get a computing experience worthy of your time.



### Performance Made Affordable

Upgrading to an SSD from a conventional HDD can feel like you've purchased an entirely new system. EXCERIA SATA SSD series balance price and performance so you have enough funds left over for other.

### Improved for On-the-go

Compared to hard disk drives, EXCERIA SATA SSD series also offer improved durability and power consumption, which can translate into longer battery life to keep you up and running longer.



### 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

<b>Capacity</b> 240GB, 480GB, 960GB	<b>Form Factor</b> 2.5-inch, 7mm height
<b>Interface</b> Serial ATA (SATA)	<b>Flash Memory Type</b> BiCS FLASH™ TLC
<b>Interface Maximum Speed</b> 6 Gbit/s	<b>Dimension (Max: LxWxH)</b> 100.45 x 70.10 x 7.20 mm
<b>Interface Command</b> ATA/ATAPI Command Set-3 (ACS-3)	<b>Drive Weight</b> 240GB: 45.5g (typ.) 480GB: 45.6g (typ.) 960GB: 45.7g (typ.)

### Performance

<b>Max Sequential Read Speed<sup>1</sup></b> 555 MB/s	<b>Max Sequential Write Speed<sup>1</sup></b> 540 MB/s
<b>Max Random Read Speed<sup>2</sup></b> 240GB: 79,000 IOPS 480GB: 82,000 IOPS 960GB: 81,000 IOPS	<b>Max Random Write Speed<sup>2</sup></b> 240GB: 87,000 IOPS 480GB, 960GB: 88,000 IOPS
<b>Endurance: TBW (Total Bytes Written)<sup>3</sup></b> 240GB: 60 TB 480GB: 120 TB 960GB: 240 TB	<b>MTTF</b> 1.5 million hours

### Environmental

<b>Operating Temperature</b> 0 °C to 65 °C	<b>Storage Temperature</b> -40 °C to 85 °C
<b>Shock Resistance</b> 14.7 km/s <sup>2</sup> {1500 G} 0.5 ms half sine wave	<b>Vibration</b> 196 m/s <sup>2</sup> {20 G} (Peak, 10 to 2,000 Hz) , (20 min / Axis) x 3 Axis
<b>Supply Voltage</b> 5 V ± 5%	<b>Power Consumption (Active)</b> 240GB, 480GB: 1.6W (typ.) 960GB: 1.7 W (typ.)
<b>Power Consumption (Idle)</b> 100 mW (typ.)	<b>Power Consumption (DevSleep)</b> 10 mW max



## Compatibility

### Serial ATA (SATA)

ATA/ATAPI Command Set-3 (ACS-3) and Serial ATA revision 3.2 interface specifications supported

### Connector Type

Standard SATA Power Connector

### Target Applications

Client desktops and laptops

## Additional Features

### Services and Support

3-year manufacturer's warranty<sup>4</sup>

### Performance Optimization

TRIM, Idle Time Garbage Collection

## Ordering Information

### Global Package:

#### 240GB

PN: LTC10Z240GG8  
EAN: 4582563851849

#### 480GB

PN: LTC10Z480GG8  
EAN: 4582563851856

#### 960GB

PN: LTC10Z960GG8  
EAN: 4582563851863

### China Package:

#### 240GB

PN: LTC10Z240GC8  
EAN: 4582563851870

#### 480GB

PN: LTC10Z480GC8  
EAN: 4582563851887

#### 960GB

PN: LTC10Z960GC8  
EAN: 4582563851894

<sup>1</sup> EXCERIA SATA SSD: Sequential speeds are measured with ATTO v3.05, QD10

<sup>2</sup> EXCERIA SATA SSD: 4KiB random performance is measured with CrystalDiskMark 5.1.2 x64 QD32

<sup>3</sup> EXCERIA SATA SSD: Definition and conditions of TBW (Terabytes Written) are based on JEDEC standard; JESD218A, February 2011, and defined for the service life.

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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.

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