

# XG5 Series

## Client SSD

XG5 series SSDs feature KIOXIA's latest 64-layer, 3D TLC (3-bit-per-cell) flash memory BiCS FLASH™. This new line of NVMe™ based client SSDs deliver high performance up to 3000 MB/s of sequential read and 2100 MB/s of sequential write with a maximum interface bandwidth of 32 GT/s. XG5 series SSDs also feature an SLC cache to accelerate burst type workloads, as well as improved power consumption comparing to prior generation XG3, making these SSDs an efficient option for high performance mobile computing.

XG5 Series SSDs are available in 256GB, 512GB and 1024GB capacities in compact single-sided M.2 2280 form factors.

Self-encrypting drive (SED) models supporting TCG Opal Version 2.01 are also offered, making the new series highly suited to address data security needs for commercial PCs or other business applications.

### Key Features

- KIOXIA 64-Layer BiCS FLASH™
- PCIe® Gen3 x4, NVMe™
- Capacities up to 1,024 GB
- M.2 2280 Single-sided
- TCG OPAL 2.01 Optional for SED\*

\* Availability of the SED model line-up may vary by region.

### Key Applications

- Thin performance Notebook
- Enthusiast Desktop/Laptop
- Mainstream PC Computing
- Server/Storage Boot

## Specifications

Model Number	KXG50ZNV1T02	KXG50ZNV512G	KXG50ZNV256G
SED Model Number	KXG5AZNV1T02	KXG5AZNV512G	KXG5AZNV256G
<b>Physical</b>			
Capacity <sup>[1]</sup>	1,024 GB	512 GB	256 GB
Form Factor	M.2 2280-S2 Single-sided		
Interface	PCIe® Base Specification Revision 3.1		
Interface Speed	32 GT/s (PCIe® Gen3 x4)		
Command	NVMe™ Revision 1.2.1		
Memory Type	BiCS FLASH™		
Connector Type	M.2 M		

## Specifications (Continued)

Model Number	KXG50ZNV1T02		KXG50ZNV512G		KXG50ZNV256G	
SED Model Number	KXG5AZNV1T02		KXG5AZNV512G		KXG5AZNV256G	
Capacity <sup>[1]</sup>	1,024 GB		512 GB		256 GB	
Form Factor	M.2 2280-S2 Single-sided					
<b>Performance<sup>[2]</sup> (Up to)</b>						
Sequential Read	3,000 MB/s {2,900 MiB/s}				2,700 MB/s {2,580 MiB/s}	
Sequential Write	2,100 MB/s {2,000 MiB/s}		1,050 MB/s {1,000 MiB/s}			
<b>Power Requirements</b>						
Supply Voltage	3.3 V ±5 %					
Power Consumption	Active	4.5 W typ.		4.3 W typ.		4.0 W typ.
	L1.2 mode	3 mW typ.				
<b>Reliability<sup>[3]</sup></b>						
MTTF	1,500,000 hours Product Life: Approximately 5 years					
<b>Mechanical</b>						
Dimension (LxWxH)	22.0mm x 80.0 mm x 2.23 mm					
Weight (Typ.)	7.3 g typ.				7.0 g typ.	
<b>Environmental</b>						
Temperature	Operating : 0 to 95 °C (Controller Temperature) 0 to 85 °C (Other Components Temperature)					
	Non-Operating: -40 °C to 85 °C					
Shock (Operating)	14.7 km/s <sup>2</sup> {1.500 G} (0.5ms)					
Additional Features	<ul style="list-style-type: none"> <li>• Device Self-test is supported.</li> <li>• Host Controlled Thermal Management (HCTM) is supported.</li> <li>• Strong &amp; highly-efficient ECC named QSBCTM is supported.</li> <li>• TCG Pyrite Version 1.00 is supported.</li> <li>• Storage Interface Interactions Specification(SIIS) Version 1.06 is supported.</li> </ul>					

[1] Definition of capacity: KIOXIA Corporation 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.

[2] 1 MiB (mebibyte) = 2<sup>20</sup> bytes = 1,048,576 bytes, and 1 MB (megabyte) = 1,000,000 bytes.

[3] 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.

Products and specifications discussed herein are subject to change without notice. All information discussed herein is provided on an "as is" basis, without warranties of any kind. Before creating and producing designs and using, customers must refer to and comply with the latest versions of the product specifications.

\*PCIe® is a registered trademark of PCI-SIG.

\*NVMe™ is a trademark of NVM Express, Inc.

\*Product image may represent a design model.

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