XG6 Series

Client SSD

The XG6 series utilizes KIOXIA's latest 96-layer, 3D TLC (3-bit-per-cell) flash memory. With 4th generation BiCS FLASH™ and SLC cache features, XG6 SSDs reach up to sequential read/write speeds of 3180 MB/s and 2960 MB/s respectively and deliver up to 355,000 random read and 365,000 random write IOPS. In addition to high performance, XG6 carries on the low power design of the XG family, consuming 4.7 W or less in active mode and less than 3 mW in stand-by mode.

The new XG6 series is optimized for power-sensitive mobile PCs, performance-oriented gaming PCs, as well as data center environments for server-boot, caching and logging.

Available in a compact M.2 2280 single-sided form factor, the XG6 series comes in three capacity models of 256 GB, 512 GB and 1,024 GB, each with the option of a Self-Encrypting Drive (SED) model supporting TCG Opal Version 2.01.

Product image may differ from the actual product.

Key Features

- KIOXIA 96-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 PCs
- High-performance desktop PCs
- Gaming PCs
- Server-boot, caching & logging use in data center

Specifications

Model Number	KXG60ZNV1T02	KXG60ZNV512G	KXG60ZNV256G
SED Model Number	KXG6AZNV1T02	KXG6AZNV512G	KXG6AZNV256G
Physical			
Capacity[1]	1,024 GB	512 GB	256 GB
Form Factor	M.2 2280-S2 Single-sided		
Interface	PCIe® Base Specification Revision 3.1a		
Interface Speed	32 GT/s (PCIe® Gen3 ×4 Lane)		
Command	NVMe™ Revision 1.3a		
Memory Type	BiCS FLASH™		
Connector Type	M.2 M		

Specifications (Continued)

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SED Model Number	KXG6AZNV1T02	KXG6AZNV512G	KXG6AZNV256G
Capacity[1]	1,024 GB	512 GB	256 GB
Form Factor	M.2 2280-S2 Single-sided		
Performance[2] (Up to)			
Sequential Read	3,180 MB/s	3,100 MB/s	3,050 MB/s
Sequential Write	2,960 MB/s	2,800 MB/s	1,550 MB/s
Power Requirements			
Supply Voltage	3.3 V ±5 %		
Power Consumption — Active	4.7 W typ.	4.1 W typ.	4.0 W typ.
Power Consumption — L1.2 mode	3 mW typ.		
Reliability[3]			
MTTF	1,500,000 hours		
Mechanical			
Dimension (LxWxH)	22.0mm x 80.0 mm x 2.23 mm		
Weight (Typ.)	7.3 g typ.		7.0 g typ.
Environmental			
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/s2 {1.500 G} (0.5ms)		
Additional Features	• Sanitize is supported. • Namespace Management and Namespace Attachment commands are supported. • Non-Operational Power State Configuration is supported. • TCG Storage Interface Interactions Specification (SIIS) Version 1.07 is supported.		

[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 = 2^30 = 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.

[2] Read and write speed, tested on the state of "SLC cache=ON", may vary depending on the host device, read and write conditions, and file size.

[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.

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