

# SG6 Series

## Client SSD

SG6 Series is a Client SATA SSD lineup using 64-layer, 3-bit-per-cell (TLC) BiCS FLASH™.

The SG6 series SSDs with up to 1024 GB capacity, delivers performance of up to 550 MB/s sequential read and 535 MB/s sequential write. Furthermore, active power consumption was decreased by up to 40 % compared to previous SG5 series, enabling increased battery life for mobile computing.

Offered in both traditional 2.5-type (7 mm height) and compact M.2 2280 form factors, SG6 series is engineered for mainstream desktop PCs and notebook PCs, consumer upgrades, as well as applications needing data security with an option of self-encrypting drive (SED) models.



Product image may differ from the actual product.

## Key Features

- 64-layer, 3-bit-per-cell (TLC) BiCS FLASH™
- Capacities up to 1,024 GB
- SATA Revision 3.3, 6.0 Gbit/s interface
- 2.5-type and M.2 2280 form factor options
- TCG Opal Version 2.01 (SED model)

## Key Applications

- Desktop PCs
- Notebook PCs

## Specifications

Model Number	KSG60ZSE1T02	KSG60ZSE512G	KBG30ZPZ128G	KSG60ZM81T02	KSG60ZMV512G	KSG60ZMV256G
SED Model Number	KSG6AZSE1T02	KSG6AZSE512G	KSG6AZSE256G	KSG6AZM81T02	KSG6AZMV512G	KSG6AZMV256G
<b>Physical</b>						
Capacity <sup>[1]</sup>	1,024 GB	512 GB	256 GB	1,024 GB	512 GB	256 GB
Form Factor	2.5-type (7.0 mm height)			M.2 2280-D2 Double-sided	M.2 2280-S2 Single-sided	
Interface	SATA Rev. 3.3					
Interface Speed	6.0 Gbit/s					
Command	ACS-4					
Memory Type	BiCS FLASH™ TLC					
Connector Type	Standard SATA			M.2 B-M		

## Specifications (Continued)

Model Number	KSG60ZSE1T02	KSG60ZSE512G	KBG30ZPZ128G	KSG60ZM81T02	KSG60ZMV512G	KSG60ZMV256G	
SED Model Number	KSG6AZSE1T02	KSG6AZSE512G	KSG6AZSE256G	KSG6AZM81T02	KSG6AZMV512G	KSG6AZMV256G	
Capacity <sup>[1]</sup>	1,024 GB	512 GB	256 GB	1,024 GB	512 GB	256 GB	
Form Factor	2.5-type (7.0 mm height)			M.2 2280-D2 Double-sided	M.2 2280-S2 Single-sided		
<b>Performance<sup>[2]</sup> (Up to)</b>							
Sequential Read	550 MB/s {524 MiB/s}			550 MB/s {524 MiB/s}			
Sequential Write	535 MB/s {510 MiB/s}		340 MB/s {324 MiB/s}	535 MB/s {510 MiB/s}		340 MB/s {324 MiB/s}	
<b>Power Requirements</b>							
Supply Voltage	5.0 V ±5 %			3.3 V ±5 %			
Power Consumption (Typ.)	Active	3.5 W typ.	3.1 W typ.	2.3 W typ.	3.5 W typ.	3.1 W typ.	2.3 W typ.
	Idle	70 mW typ.	65 mW typ.	60 mW typ.	65 mW typ.	60 mW typ.	55 mW typ.
	L1.2 mode	6 mW max.			5 mW max.		
<b>Reliability<sup>[3]</sup></b>							
MTTF	1,500,000 hours Product Life: Approximately 5 years						
<b>Mechanical</b>							
Dimension (LxWxH)	100.0 mm x 69.85 mm x 7.0 mm			80.0 mm x 22.0 mm x 3.58 mm	80.0 mm x 22.0 mm x 2.23 mm		
Weight (Typ.)	43 g typ.	42 g typ.	41 g typ.	8.3 g typ.	6.9 g typ.		
<b>Environmental</b>							
Temperature	Operating: 0 to 70 °C (Case Temperature)			Operating: 0 to 80 °C (Components Temperature)			
	Non-Operating: -40 °C to 85 °C						
Vibration (Operating)	196 m/s <sup>2</sup> { 20 G } ( Peak, 10 ~ 2,000 Hz )						
Shock (Operating)	14.7 km/s <sup>2</sup> { 1,500 G } ( 0.5 ms )						
Additional Features	Strong & highly-efficient ECC named QSBC™ is supported. Firmware security feature (only digitally signed firmware can be installed) is supported.						

[1] Definition of capacity: KIOXIA Corporation defines 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 1 GB = 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) = 220 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.

\* 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.

\* Company names, product names, and service names mentioned herein may be trademarks of their respective companies.