

Client SSD

Client SSDs offer fast transfer rates, high durability against shock and vibration, light weight and low power comparing with Client HDDs.

Our Client SSDs, equipped with the in-house developed flash memory, can be applied to a wide range of applications from mobile computing to entry level servers including security-required systems with SED models with the product line up of various form factors and interfaces.



▶ XG6 Series

Utilizing the latest 96-layer BiCS FLASH™ 3D flash memory, the XG6 NVMe™ SSDs are superior to the previous XG5 generation in performance and efficiency, which are suitable for power-sensitive and performance-oriented PCs.

Model Number	Capacity ^{*1}	Flash Memory	Form Factor /Connector Type	Interface /Command	Performance (Up to) ^{*2}		Shock (Operating)	Environmental Temperature (Operating)	Security Feature	Dimensions Height/Width/Length	Weight	Power Supply Voltage
					Sequential Read	Sequential Write						
XG6 Series (PCIe, M.2)												
KXG60ZNV256G	256 GB	BiCS FLASH™ TLC	M.2 2280-S2 /M.2 M	PCIe® Rev. 3.1a Gen3 x4 NVMe™ Rev. 1.3a	3,050 MB/s	1,550 MB/s	14.7 km/s ² {1,500 G} (0.5 ms)	0 to 95 °C (Controller) 0 to 85 °C (Other components)	—	2.23 mm / 22.00 mm / 80.00 mm	7.0 g typ.	3.3 V
KXG60ZNV512G	512 GB				3,100 MB/s	2,800 MB/s						
KXG60ZNV1T02	1,024 GB				3,180 MB/s	2,960 MB/s						
KXG6AZNV256G	256 GB				3,050 MB/s	1,550 MB/s						
KXG6AZNV512G	512 GB				3,100 MB/s	2,800 MB/s						
KXG6AZNV1T02	1,024 GB	3,180 MB/s	2,960 MB/s									

▶ XG6-P Series

Leveraging Toshiba Memory's 96-layer BiCS FLASH™ 3D TLC, the XG6-P SSDs offer up to 2,048GB of capacity and over higher sequential write bandwidth than its predecessor, which are suitable for high-end workstation PCs and gaming systems, as well as cost-optimized data center and composable infrastructures.

Model Number	Capacity ^{*1}	Flash Memory	Form Factor /Connector Type	Interface /Command	Performance (Up to) ^{*2}		Shock (Operating)	Environmental Temperature (Operating)	Security Feature	Dimensions Height/Width/Length	Weight	Power Supply Voltage
					Sequential Read	Sequential Write						
XG6-P Series (PCIe, M.2)												
KXG60PNV2T04	2,048 GB	BiCS FLASH™ TLC	M.2 2280-S2 /M.2 M	PCIe® Rev. 3.1a Gen3 x4 NVMe™ Rev. 1.3a	3,180 MB/s	2,920 MB/s	14.7 km/s ² {1,500 G} (0.5 ms)	0 to 95 °C (Controller) 0 to 85 °C (Other components)	—	2.23 mm / 22.00 mm / 80.00 mm	7.3 g typ.	3.3 V
KXG6APNV2T04	2,048 GB											

▶ BG4 Series

Compact single package NVMe™ SSDs that feature capacities up to 1024GB, a PCIe® Gen3x4 lane interface and 96-layer BiCS FLASH™, suitable for thin, light and performance-oriented systems such as ultra-thin PCs, IoT embedded devices and server boot in data centers.

Model Number	Capacity ^{*1}	Flash Memory	Form Factor /Connector Type	Interface /Command	Performance (Up to) ^{*2}		Shock (Operating)	Environmental Temperature (Operating)	Security Feature	Dimensions Height/Width/Length	Weight	Power Supply Voltage
					Sequential Read	Sequential Write						
BG4 Series (PCIe, M.2 / BGA)												
KBG40ZNS128G	128 GB	BiCS FLASH™ TLC	M.2 2230-S2 /M.2 M	PCIe® Rev. 3.1a Gen3 x4 NVMe™ Rev. 1.3b	2,000 MB/s	800 MB/s	14.7 km/s ² {1,500 G} (0.5 ms)	0 to 85 °C (T _{SMART})	—	2.23 mm Max./ 22.00 mm/ 30.00 mm	2.5 g typ.	3.3 V
KBG40ZNS256G	256 GB				2,200 MB/s	1,400 MB/s				2.38 mm Max./ 22.00 mm/ 30.00 mm		
KBG40ZNS512G	512 GB				2,300 MB/s	1,800 MB/s				2.6 g typ.		
KBG40ZNS1T02	1,024 GB		M.2 2230-S3 /M.2 M		2,300 MB/s	1,800 MB/s	2.6 g typ.					
KBG40ZPZ128G	128 GB		M.2 1620-S2 /BGA		2,000 MB/s	800 MB/s	—			1.30 mm Max./ 16.00 mm/ 20.00 mm	0.85 g typ.	3.3 V 1.8 V 1.2 V
KBG40ZPZ256G	256 GB				2,200 MB/s	1,400 MB/s						
KBG40ZPZ512G	512 GB				2,200 MB/s	1,400 MB/s						
KBG40ZPZ1T02	1,024 GB	M.2 1620-S3 /BGA		2,300 MB/s	1,800 MB/s	1.00 g typ.						

* Self-encrypting drive (SED) models and its specification will be available Q3 calendar year of 2019.
* T_{SMART}: Composite Temperature in SMART/Health Information

► BG3 Series

Compact NVMe™ SSDs, based on 64-layer BiCS Flash™ and Host Memory Buffer (HMB) feature, save power and space for the next generation of power-efficient and ultra-thin mobile computing devices and IoT embedded devices.

Model Number	Capacity ^{*1}	Flash Memory	Form Factor /Connector Type	Interface /Command	Performance (Up to) ^{*2}		Shock (Operating)	Environmental Temperature (Operating)	Security Feature	Dimensions Height/Width/Length	Weight	Power Supply Voltage
					Sequential Read	Sequential Write						
BG3 Series (PCIe, M.2 / BGA)												
KBG30ZMS128G	128 GB	BiCS FLASH™ TLC	M.2 2230-S2 /M.2 B-M	PCIe® Rev. 3.1a Gen3 x2 NVMe™ Rev. 1.2.1	1,300 MB/s	600 MB/s	14.7 km/s ² {1,500 G} (0.5 ms)	0 to 80 °C (Components)	-	2.18 mm/22.00 mm/30.00 mm	2.42 g typ.	3.3 V
KBG30ZMS256G	256 GB				1,400 MB/s	800 MB/s				2.38 mm/22.00 mm/30.00 mm	2.60 g typ.	
KBG30ZMS512G	512GB		M.2 2230-S3 /M.2 B-M		1,500 MB/s	1,000 MB/s				2.18 mm/22.00 mm/30.00 mm	2.42 g typ.	
KBG3AZMS128G	128 GB		M.2 2230-S2 /M.2 B-M		1,200 MB/s	550 MB/s				2.38 mm/22.00 mm/30.00 mm	2.60 g typ.	
KBG3AZMS256G	256 GB		M.2 2230-S3 /M.2 B-M		1,250 MB/s	750 MB/s				1.30 mm/16.00 mm/20.00 mm	0.85 g typ.	
KBG3AZMS512G	512GB		M.2 2230-S3 /M.2 B-M		1,300 MB/s	950 MB/s				1.50 mm/16.00 mm/20.00 mm	1.00 g typ.	
KBG30ZPZ128G	128 GB		M.2 1620-S2 /BGA		1,300 MB/s	600 MB/s	-	0 to 80 °C (Package)	-	1.30 mm/16.00 mm/20.00 mm	0.85 g typ.	3.3 V 1.8 V 1.2 V
KBG30ZPZ256G	256 GB		M.2 1620-S2 /BGA		1,400 MB/s	800 MB/s				1.50 mm/16.00 mm/20.00 mm	1.00 g typ.	
KBG30ZPZ512G	512GB		M.2 1620-S3 /BGA		1,500 MB/s	1,000 MB/s				1.30 mm/16.00 mm/20.00 mm	0.85 g typ.	
KBG3AZPZ128G	128 GB		M.2 1620-S2 /BGA		1,200 MB/s	550 MB/s				1.50 mm/16.00 mm/20.00 mm	1.00 g typ.	
KBG3AZPZ256G	256 GB		M.2 1620-S2 /BGA		1,250 MB/s	750 MB/s				1.30 mm/16.00 mm/20.00 mm	0.85 g typ.	
KBG3AZPZ512G	512GB		M.2 1620-S3 /BGA		1,300 MB/s	950 MB/s				1.50 mm/16.00 mm/20.00 mm	1.00 g typ.	

► SG6 Series

SATA SSDs with 64-layer BiCS FLASH™, deliver balanced performance and power efficiency for mainstream desktop PCs and notebook PCs.

Model Number	Capacity ^{*1}	Flash Memory	Form Factor /Connector Type	Interface /Command	Performance (Up to) ^{*2}		Shock (Operating)	Environmental Temperature (Operating)	Security Feature	Dimensions Height/Width/Length	Weight	Power Supply Voltage		
					Sequential Read	Sequential Write								
SG6 Series (SATA, 2.5 inch / M.2)														
KSG60ZSE256G	256 GB	BiCS FLASH™ TLC	2.5-type 7.0 mm Height /Standard SATA	SATA Rev. 3.3 ACS-4	550 MB/s	340 MB/s	14.7 km/s ² {1,500 G} (0.5 ms)	0 to 70 °C (Case surface)	-	7.00 mm/69.85 mm/100.00 mm	41 g typ.	5.0 V		
KSG60ZSE512G	512 GB					535 MB/s					42 g typ.			
KSG60ZSE1T02	1,024 GB					340 MB/s					43 g typ.			
KSG6AZSE256G	256 GB					535 MB/s					42 g typ.			
KSG6AZSE512G	512 GB					535 MB/s					43 g typ.			
KSG6AZSE1T02	1,024 GB					535 MB/s					43 g typ.			
KSG60ZMV256G	256 GB		M.2 2280-S2 /M.2 B-M		M.2 2280-D2 /M.2 B-M	SATA Rev. 3.3 ACS-4	550 MB/s	340 MB/s	14.7 km/s ² {1,500 G} (0.5 ms)	0 to 80 °C (Components)	-	2.23 mm/22.00 mm/80.00 mm	6.9 g typ.	3.3 V
KSG60ZMV512G	512 GB		535 MB/s					8.3 g typ.						
KSG60ZM81T02	1,024 GB		340 MB/s					6.9 g typ.						
KSG6AZMV256G	256 GB		535 MB/s					8.3 g typ.						
KSG6AZMV512G	512 GB		340 MB/s					6.9 g typ.						
KSG6AZM81T02	1,024 GB		535 MB/s					8.3 g typ.						

*1 : Definition of capacity: Toshiba Memory 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 = 2³⁰ = 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 may vary depending on the host device, read and write conditions, and file size.

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