



Enterprise SSDs

Leveraging state-of-the-art BiCS FLASH™ 3D flash memory with in-house designed controllers and firmware, KIOXIA enterprise SSDs optimize high performance, endurance and reliability to run mission critical applications in enterprise data center environments. To meet the demands of highly transactional and high-bandwidth workloads, these SSDs feature high levels of performance and data protection with power-loss-protection (PLP)^{*1}. KIOXIA enterprise SSDs offer a range of security options^{*2} designed for business critical data storage.



2.5-inch

E3.S

2.5-inch

E3.S

2.5-inch

CM9 Series
PCIe® / NVMe™ SSD

CM7 Series
PCIe® / NVMe™ SSD

FL6 Series
PCIe® / NVMe™ SSD



2.5-inch

2.5-inch

PM7 Series
SAS SSD

RM7 Series
SAS SSD



BiCS FLASH™

Product image may differ from the actual product.

KIOXIA CM9 Series

Based on BiCS FLASH™ generation 8, the CM9 Series of dual-port PCIe® 5.0/ NVMe™ SSDs is available in 2.5-inch and E3.S form factor with capacities up to 61.44 TB. These SSDs feature Power Loss Protection (PLP) and offer a range of security/encryption options².

Model Number	DYPD	Interface	Form Factor	User Capacity (GB)	Performance (up to)				Typical Power Consumption (W)	Operating Temperature (°C)	Dimensions T / W / L (mm)
					Sequential (128 KiB) ^{*5 *6 *7}		Random (4 KiB) ^{*5 *6 *7 *8}				
					Read	Write	Read	Write			
KCM9XVUL12T8	3	PCIe® Gen5 single x4, dual x2	2.5-inch	12,800	14,800	11,000	3,400	800	25	0 to 75	15.0 / 69.85 / 100.45
6,400				10,000							
3,200				14,500	7,000	2,900	600				
1,600								3,600			
KCM9XVJE12T8	3	PCIe® Gen5 single x4, dual x2	E3.S	12,800	14,800	11,000	3,400	800	25	0 to 75	7.5 / 76.0 / 112.75
6,400				10,000							
3,200				14,500	7,000	2,900	600				
1,600								3,600			
KCM9XRUL61T4	1	PCIe® Gen5 single x4, dual x2	2.5-inch	61,440	13,500	10,000	1,200	100	25	0 to 75	15.0 / 69.85 / 100.45
30,720				9,750							
15,360				14,800	11,000	3,400	540				
7,680								10,000			
3,840				14,500	7,000	2,900	360				
1,920								3,600			
KCM9XRJE30T7	1	PCIe® Gen5 single x4, dual x2	E3.S	30,720	13,500	9,750	2,750	270	25	0 to 75	7.5 / 76.0 / 112.75
15,360				14,800							
7,680					10,000	500					
3,840				14,500	7,000	2,900	360				
1,920								3,600			

KIOXIA CM7 Series

Based on BiCS FLASH™ generation 5, the CM7 Series of dual-port PCIe® 5.0/ NVMe™ SSDs is available in 2.5-inch and E3.S form factor with capacities up to 30.72 TB. These SSDs feature Power Loss Protection (PLP) and offer a range of security/encryption options².

Model Number	DYPD	Interface	Form Factor	User Capacity (GB)	Performance (up to)				Typical Power Consumption (W)	Operating Temperature (°C)	Dimensions T / W / L (mm)
					Sequential (128 KiB) ^{*5 *6 *7}		Random (4 KiB) ^{*5 *6 *7 *8}				
					Read	Write	Read	Write			
KCMY1VUG12T8	3	PCIe® Gen5 single x4, dual x2	2.5-inch	12,800	14,000	7,000	2,400	550	25	0 to 73	15.0 / 69.85 / 100.45
6,400				6,750							
3,200				14,000	7,000	2,400	300				
1,600								3,500			
KCM71VJE12T8	3	PCIe® Gen5 single x4, dual x2	E3.S	12,800	13,000	5,300	2,000	470	25	0 to 73	7.5 / 76.0 / 112.75
6,400				14,000							
3,200					14,000	7,000	2,700	600			
1,600				3,500							
KCMY1RUG30T7	1	PCIe® Gen5 single x4, dual x2	2.5-inch	30,720	10,000	4,900	1,600	150	25	0 to 72	15.0 / 69.85 / 100.45
15,360				14,000							
7,680					14,000	6,750	2,450	300			
3,840				14,000							
1,920					3,500	2,000	155				
KCM71RJE15T3	1	PCIe® Gen5 single x4, dual x2	E3.S	15,360	13,000	5,300	2,000	260	25	0 to 73	7.5 / 76.0 / 112.75
7,680				14,000							
3,840					14,000	7,000	2,700	310			
1,920				3,500							

KIOXIA FL6 Series

The FL6 series is a dual-port PCIe® 4.0 / NVMe™ SSD utilizing low latency, high endurance KIOXIA XL-FLASH Storage Class Memory (SCM). It provides fast system response for latency-sensitive applications, such as server caching, write logging, and read / write cache for tiered storage in enterprises and hyperscale data centers.

Model Number	DYPD	Interface	Form Factor	User Capacity (GB)	Performance (up to)				Typical Power Consumption (W)	Operating Temperature (°C)	Dimensions T / W / L (mm)
					Sequential (128 KiB) *5 *6 *7 (MB/s)		Random (4 KiB) *5 *6 *7 *8 (KIOPS)				
					Read	Write	Read	Write			
KFL61HUL3T20	60	PCIe® Gen4 single x4, dual x2	2.5-inch	3,200	6,200	6,200	1,500	400	19	0 to 70	15.0 / 69.85 / 100.45
KFL61HUL1T60				1,600			1,480	380	16		
KFL61HUL800G				800			360	14			

KIOXIA PM7 Series

Based on BiCS FLASH™ generation 5, the PM7 Series of dual-port 24G SAS SSDs is available in a 2.5-inch form factor with capacities up to 30.72 TB. These SSDs feature Power Loss Protection (PLP) and offer a range of security/encryption options².

Model Number	DYPD	Interface	Form Factor	User Capacity (GB)	Performance (up to)				Power Consumption Mode (W)	Operating Temperature (°C)	Dimensions T / W / L (mm)
					Sequential (128 KiB) *5 *6 *7 (MB/s)		Random (4 KiB) *5 *6 *7 *8 (KIOPS)				
					Read	Write	Read	Write			
KPM71VUG12T8	3	SAS-4 Narrow Single Narrow Dual	2.5-inch	12,800	4,200	4,100	720	330	9 / 12 / 14 / 18	0 to 70	15.0 / 69.85 / 100.45
KPM71VUG6T40				6,400				355			
KPM71VUG6T40				3,200				340			
KPM71VUG1T60				1,600				320			
KPM71RUG30T7	1	SAS-4 Narrow Single Narrow Dual	2.5-inch	30,720	4,200	4,100	720	80	9 / 12 / 14 / 18	0 to 70	15.0 / 69.85 / 100.45
KPM71RUG15T3				15,360				160			
KPM71RUG7T68				7,680				175			
KPM71RUG3T84				3,840				155			
KPM71RUG1T92				1,920				3,400			

KIOXIA RM7 Series

Based on BiCS FLASH™ generation 5, the RM7 Series of single-port 12 Gbit/s SAS SSDs is available in a 2.5-inch form factor with capacities up to 7.68 TB. These SSDs feature Power Loss Protection (PLP) and offer a range of security/encryption options².

Model Number	DYPD	Interface	Form Factor	User Capacity (GB)	Performance (up to)				Power Consumption Mode (W)	Operating Temperature (°C)	Dimensions T / W / L (mm)
					Sequential (128 KiB) *5 *7 (MB/s)		Random (4 KiB) *5 *7 *8 (KIOPS)				
					Read	Write	Read	Write			
KRM7XVUG3T84	3	SAS-3 Narrow Single	2.5-inch	3,840	1,100	1,050	190	55	9	0 to 70	15.0 / 69.85 / 100.45
KRM7XVUG1T92				1,920				40			
KRM7XVUG960G				960				180			
KRM7XRUG7T68	1	SAS-3 Narrow Single	2.5-inch	7,680	1,100	1,050	190	40	9	0 to 70	15.0 / 69.85 / 100.45
KRM7XRUG3T84				3,840							
KRM7XRUG1T92				1,920							
KRM7XRUG960G				960							

*1 : PLP (Power Loss Protection): In case of an unexpected shutdown, PLP allows data recorded in buffer memory to be written to flash memory, utilizing back up power from solid capacitors.

*2 : Optional security features

- Drive models with different security options have different model numbers.
- CM9, CM7, PM7 and FL6 Series security options: Sanitize Instant Erase (SIE), Self-Encrypting Drive (SED), FIPS (Federal Information Processing Standards) SED optional models are available.
- RM7 Series security options: Sanitize Instant Erase (SIE), Self-Encrypting Drive (SED) optional models are available.
- CM9, CM7 and FL6 Series: SED optional model supports TCG Opal and Ruby SSCs. It has a few unsupported features of TCG Opal SSC.
- PM7 and RM7 Series: SED optional model supports TCG Enterprise SSC.
- SIE optional model supports Cryptographic Erase, which is a standardized feature defined by the technical committees (SCSI) of INCITS (the InterNational Committee for Information Technology Standards).
- FIPS SED optional models of PM7 and FL6 utilize a security module designed to comply with FIPS 140-2 and FIPS 140-3, which define security requirements for cryptographic module by NIST (National Institute of Standards and Technology). FIPS SED optional models of CM9, CM7 utilize a security module designed to comply with FIPS 140-3.
- For more details and the latest validation status of each drive, please make inquiries through "Contact us" in each region's website, <https://www.kioxia.com/>.
- Optional security feature compliant models are not available in all countries due to export control and local regulations.

*3 : DWPD: Drive Writes Per Day. One full drive write per day means the drive can be written and re-written to full capacity once a day every day under the specified workload for the specified lifetime. Actual results may vary due to system configuration, usage and other factors.

*4 : Definition of capacity: 1 terabyte (1 TB) = 1,000 gigabytes (GB), 1 GB = 1,000,000,000 (10⁹) bytes

*5 : A kibibyte (KiB) means 2¹⁰, or 1,024 bytes.

*6 : The performance of the CM9, CM7 and FL6 Series is based on single-port mode (single x4). The performance specifications of the PM7 Series is based on testing in dual-port mode, running at 18 W of power.

*7 : Read and write speed may vary depending on various factors such as host devices, software (drivers, OS etc.), and read/write conditions.

*8 : IOPS: Input Output Per Second (or the number of I/O operations per second)

*9 : Case surface temperature

*10 : Composite temperature reported by SMART.

*11 : Dimensions represent the nominal values.

Customers must refer to and comply with the latest versions of all relevant KIOXIA information, including without limitation, this document, the specifications, the data sheets and application notes for Product and the precautions and conditions set forth in the KIOXIA Corporation Reliability Handbook and the instructions for the application with which the Product will be used with or for.

All information provided in this catalog is subject to change without any prior notice. For the latest and detail specification, please send an inquiry through "Contact us" in each region's website, <https://www.kioxia.com/>.

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