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	2.5-inch	E3.S	2.5-inch
FL6 Series	**CM7 Series**		**PM7 Series**
PCIe® / NVMe™ SSD	PCIe® / NVMe™ SSD		SAS SSD

Product image may differ from the actual product.

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	DWPD[*3]	Interface	Form Factor	User Capacity (GB)[*4]	Performance (up to)				Typical Power Consumption (W)	Operating Temperature (°C)[*9]	Dimensions T / W / L (mm)[*11]
					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 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 options[2].

Model Number	DWPD [3]	Interface	Form Factor	User Capacity (GB) [4]	Sequential (128 KiB) [5][6][7] (MB/s) Read	Sequential Write	Random (4 KiB) [5][6][7][8] (KIOPS) Read	Random Write	Typical Power Consumption (W)	Operating Temperature [10] (°C)	Dimensions [11] T / W / L (mm)
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
KCMY1VUG6T40				6,400		6,750	2,450	550			
KCMY1VUG3T20				3,200			2,700	600		0 to 76	
KCMY1VUG1T60				1,600		3,500	2,000	310	22		
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
KCM71VJE6T40				6,400	14,000	6,750	2,450	550		0 to 76	
KCM71VJE3T20				3,200			2,700	600	24		
KCM71VJE1T60				1,600		3,500	2,000	310	21		
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
KCMY1RUG15T3				15,360	14,000	7,000	2,400	300		0 to 73	
KCMY1RUG7T68				7,680		6,750	2,450	300		0 to 73	
KCMY1RUG3T84				3,840			2,700	310		0 to 76	
KCMY1RUG1T92				1,920		3,500	2,000	155	22		
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
KCM71RJE7T68				7,680	14,000	6,750	2,450	300		0 to 76	
KCM71RJE3T84				3,840			2,700	310	24		
KCM71RJE1T92				1,920		3,500	2,000	155	21		

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 options[2].

Model Number	DWPD [3]	Interface	Form Factor	User Capacity (GB) [4]	Sequential (128 KiB) [5][6][7] (MB/s) Read	Sequential Write	Random (4 KiB) [5][6][7][8] (KIOPS) Read	Random Write	Power Consumption Mode [9] (W)	Operating Temperature (°C)	Dimensions [11] T / W / L (mm)
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		3,650		340			
KPM71VUG1T60				1,600		3,400		320			
KPM71RUG30T7	1	SAS-4 Narrow Single Narrow Dual	2.5-inch	30,720	4,150	3,200	720	80	9 / 12 / 14 / 18	0 to 70	15.0 / 69.85 / 100.45
KPM71RUG15T3				15,360	4,200	4,100		160			
KPM71RUG7T68				7,680				175			
KPM71RUG3T84				3,840		3,650		155			
KPM71RUG1T92				1,920		3,400					

*1 : PLP (Power Loss Protection): PLP allows to record data in buffer memory to flash memory, utilizing back up power of solid capacitor in case of sudden supply shut down.
*2 : Optional security features
- Drive models with different security options have different model numbers.
- FL6, CM7 and PM7 Series security options: The Sanitize Instant Erase (SIE), Self-Encrypting Drive (SED), FIPS (Federal Information Processing Standards) SED optional models are available.
- FL6 and CM7 Series: SED optional models support TCG Opal and Ruby SSCs. It has a few unsupported TCG Opal features.
- PM7 Series: SED optional models support TCG Enterprise SSC.
- SIE optional models support Crypto Erase, which is a standardized feature defined by the technical committees (T10) of INCITS (the InterNational Committee for Information Technology Standards).
- FIPS SED optional models of FL6 and PM7 utilize security modules 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 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 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 (10^9) bytes

*5 : A kibibyte (KiB) means 2^10, or 1,024 bytes.
*6 : The performance of the CM7 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 speeds 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.

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