



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

FL6 Series
PCIe® / NVMe™ SSD



2.5-inch

CM6 Series
PCIe® / NVMe™ SSD



2.5-inch

PM6 Series
SAS SSD

Product image may differ from the actual product.



BiCS FLASH™

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	*2 Security Feature	*3 DWPD	Interface	Form Factor	*4 User Capacity (GB)	Performance (up to)				*9 Typical Power Consumption (W)	*10 Operating Temperature (°C)	*11 Dimensions H / W / L (mm)
						Sequential (128 KiB) *5 *6 *7		Random (4 KiB) *5 *6 *7 *8				
						Read	Write	Read	Write			
KFL61HUL800G	-	60	PCIe® 4.0, NVMe™ 1.4	2.5-inch	800	6,200	6,200	1,480	360	14	0 to 70	15.0 / 69.85 / 100.45
KFL6XHUL3T20	SIE	60	PCIe® 4.0, NVMe™ 1.4	2.5-inch	3,200	6,200	6,200	1,500	400	19	0 to 70	15.0 / 69.85 / 100.45
1,600					380							
800					360							
KFL6DHUL3T20	SED	60	PCIe® 4.0, NVMe™ 1.4	2.5-inch	3,200	6,200	6,200	1,500	400	19	0 to 70	15.0 / 69.85 / 100.45
1,600					380							
800					360							
KFL6XHUL3T20	FIPS	60	PCIe® 4.0, NVMe™ 1.4	2.5-inch	3,200	6,200	6,200	1,500	400	19	0 to 70	15.0 / 69.85 / 100.45
1,600					380							
800					360							

CM6 Series

Based on 96-layer BiCS FLASH™ 3D flash memory, the CM6 Series of dual-port PCIe® 4.0/ NVMe™ SSDs is available in 2.5-inch (15 mm Z-height) 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	Interface	Form Factor	User Capacity (GB)	Performance (up to)				Typical Power Consumption (W)	Operating Temperature (°C)	Dimensions H / W / L (mm)
					Sequential (128 KiB) *5 *6 *7		Random (4 KiB) *5 *6 *7 *8				
					Read	Write	Read	Write			
KCM61VUL12T8	3	PCIe® Gen4 single x4, dual x2	2.5-inch	12,800	6,900	4,000	1,400	325	21	0 to 70	15.0 / 69.85 / 100.45
KCM61VUL6T40				6,400							
KCM61VUL3T20				3,200							
KCM61VUL1T60				1,600							
KCM61VUL800G				800							
KCM61RUL30T7	1	PCIe® Gen4 single x4, dual x2	2.5-inch	30,720	6,850	4,000	1,400	170	21	0 to 70	15.0 / 69.85 / 100.45
KCM61RUL15T3				15,360							
KCM61RUL7T68				7,680							
KCM61RUL3T84				3,840							
KCM61RUL1T92				1,920							
KCM61RUL960G				960							

PM6 Series

Based on 96-layer BiCS FLASH™ 3D flash memory, the PM6 Series of dual-port 24G SAS SSDs is available in a 2.5-inch (15 mm Z-height) 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	Interface	Form Factor	User Capacity (GB)	Performance (up to)				Power Consumption Mode (W)	Operating Temperature (°C)	Dimensions H / W / L (mm)
					Sequential (128 KiB) *5 *6 *7		Random (4 KiB) *5 *6 *7 *8				
					Read	Write	Read	Write			
KPM61MUG3T20	10	SAS-4 Narrow Single Narrow Dual	2.5-inch	3,200	4,150	3,700	595	460	9 / 12 / 14 / 18	0 to 70	15.0 / 69.85 / 100.45
KPM61MUG1T60				1,600							
KPM61MUG800G				800							
KPM61MUG400G				400							
KPM61VUG12T8	3	SAS-4 Narrow Single Narrow Dual	2.5-inch	12,800	4,150	3,700	595	305	9 / 12 / 14 / 18	0 to 70	15.0 / 69.85 / 100.45
KPM61VUG6T40				6,400							
KPM61VUG3T20				3,200							
KPM61VUG1T60				1,600							
KPM61VUG800G				800							
KPM61RUG30T7	1	SAS-4 Narrow Single Narrow Dual	2.5-inch	30,720	4,150	3,200	595	80	9 / 12 / 14 / 18	0 to 70	15.0 / 69.85 / 100.45
KPM61RUG15T3				15,360							
KPM61RUG7T68				7,680							
KPM61RUG3T84				3,840							
KPM61RUG1T92				1,920							
KPM61RUG960G				960							

*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

- CM6 and PM6 Series offer a range of security options ; Sanitize Instant Erase (SIE), Self-Encrypting Drive (SED), and Self-Encrypting Drive (SED) with FIPS 140-2 validation or compliance.
- Drive models with different security options have different model numbers.
- SIE option supports Crypto Erase, which is a standardized feature defined by the technical committees (T10) of INCITS (the International Committee for Information Technology Standards) or by NVMe Express Inc.
- FL6 and CM6 Series: SED supports TCG Opal and Ruby SSCs. It has a few unsupported TCG Opal features.
- FIPS drives are designed to comply with FIPS 140-2 Level 2, which define security requirements for cryptographic module by NIST(National Institute of Standards and Technology). CM6 and PM6 series are planning to make FIPS 140-2 validated drives available.
- For more details and the latest validation status of each drive, please make inquiries through "Contact us" in each region's website, <https://business.kioxia.com/>
- Optional security feature compliant drives are not available in all countries due to export control and local regulations.

*3 : DWPD: Drive Write 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 (10⁹) bytes

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

*6 : The performance of the CM6 Series is based on single-port mode (single x4). The performance specifications of the PM6 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 : The FL6 Series can operate in a range of power modes: 5W, 11W, 14W, 18W, 25W. The CM6 Series can operate in a range of power modes: 9 W, 11 W, 14 W, 16 W, 18 W, 25 W. The PM6 Series can operate in a range of power modes: 9 W, 12W, 14 W, 18 W.

*10 : Case surface temperature

*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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