PM6-V Series
(KPM61VUG/KPM6XVUG/KPM6VVUG/KPM6WVUG)
Enterprise Mixed Use SSD

PM6-V Series 24G SAS Enterprise SSD is optimized for mixed use applications, including relational database, streaming media, data warehousing and web services. The series is designed to deliver balanced levels of performance, reliability, capacity and endurance for mixed use and read intensive environments.

Featuring KIOXIA Corporation's 96-layer BiCS FLASH™ 3D flash memory, this 6th generation enterprise SAS SSD PM6-V offers 3 DWPD (Drive Writes Per Day) with capacities up to 12.8 TB.

Product image may differ from the actual product.

Key Features

- 24G SAS interface with single/dual-port support
- Capacities from 800 GB to 12.8 TB
- T10 Multi-Stream Write support
- Up to 595K random read IOPS (4 KiB) in dual-port mode
- 2.5-inch form factor, 15 mm Z-height
- 3 DWPD with 100 % Random Write Workload
- Power-Loss-Protection and End-to-End Data Protection, including T10 DIF
- Pin-3 Power Disable Support
- Sanitize Instant Erase (SIE) option[1, 2, 5]
- Self-Encrypting (SED) option[1, 3, 5]
- Self-Encrypting (SED), FIPS 140-2 validated option[1, 3, 4, 5]
- 5-year limited warranty

Key Applications

- Web servers
- Data warehousing
- Streaming media

Specifications

Model Number	KPM61VUG12T8	KPM61VUG6T40	KPM61VUG3T20	KPM61VUG1T60	KPM61VUG800G
SIE Model Number	KPM6XVUG12T8	KPM6XVUG6T40	KPM6XVUG3T20	KPM6XVUG1T60	KPM6XVUG800G
SED Model Number	KPM6VVUG12T8	KPM6VVUG6T40	KPM6VVUG3T20	KPM6VVUG1T60	KPM6VVUG800G
SED FIPS Model Number	KPM6WVUG12T8	KPM6WVUG6T40	KPM6WVUG3T20	KPM6WVUG1T60	KPM6WVUG800G
Physical					
Capacity	12,800 GB	6,400 GB	3,200 GB	1,600 GB	800 GB
Interface	24G SAS				
Interface Speed	22.5 Gbit/s, 12.0 Gbit/s, 6.0 Gbit/s, 3.0 Gbit/s, 1.5 Gbit/s				
Memory Type	BiCS FLASH™ TLC				

Specifications (Continued)

Capacity	12,800 GB	6,400 GB	3,200 GB	1,600 GB	800 GB
Performance (in dual-port mode)					
Sustained 128 KiB Sequential Read	4,150 MB/s				
Sustained 128 KiB Sequential Write	3,700 MB/s		2,450 MB/s	2,700 MB/s	1,450 MB/s
Sustained 4 KiB Random Read	595K IOPS				
Sustained 4 KiB Random Write	305K IOPS	290K IOPS	240K IOPS	265K IOPS	145K IOPS
Power Requirements					
Supply Voltage	5 V + 10% / -7% | 12 V ± 10%				
Power Consumption (Ready)	5.0 W Typ.				
Reliability					
MTTF	2,500,000 hours				
DWPD	3				
Warranty	5 years				
Mechanical					
Height	15.0 mm + 0, -0.5 mm				
Width	69.85 ± 0.25 mm				
Length	100.45 mm Max				
Weight	130 g Max.				
Environmental					
Case Surface Temperature (Operating)	0 ℃ to 70 ℃				
Humidity (Operating)	5 % to 95 % R.H. (No condensation)				
Vibration (Operating)	21.27 m/s^2 { 2.17 Grms } (5 to 800 Hz)				
Shock (Operating)	9,800 m/s^2 { 1,000 G } (0.5 ms duration)				

Definition of capacity: KIOXIA Corporation 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 = 2^30 = 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.

A kibibyte (KiB) means 2^10, or 1,024 bytes.

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.

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.

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

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

[1] The Sanitize Instant Erase (SIE), Self-Encrypting Drive (SED), FIPS (Federal Information Processing Standards) optional models are available.

[2] 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).

[3] SED option supports TCG Enterprise SSC.

[4] FIPS drives are validated as FIPS 140-2 Level 2, which defines security requirements for cryptographic module by NIST (National Institute of Standards and Technology).

[5] Optional security feature compliant drives are not available in all countries due to export and local regulations.

*All other company names, product names, and service names mentioned herein may be trademarks of their respective companies.
*Information in this product brief, including product specifications, tested content, and assessments are current and believed to be accurate as of the date that the document was first published (March 2021, Rev. 1.0), but is subject to change without prior notice. Technical and application information contained here is subject to the most recent applicable KIOXIA product specifications.