



## 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)<sup>\*1</sup>. KIOXIA enterprise SSDs offer a range of security options<sup>\*2</sup> designed for business critical data storage.



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™**

### 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<sup>\*2</sup>.

| Model Number | DWPD <sup>*3</sup> | Interface                     | Form Factor | User Capacity (GB) <sup>*4</sup> | Performance (up to)                             |       |   |       | Typical Power Consumption (W) <sup>*9</sup> | Operating Temperature (°C) <sup>*10</sup> | Dimensions H / W / L (mm) <sup>*11</sup> |
|--------------|--------------------|-------------------------------|-------------|----------------------------------|---|-------|---|-------|---|---|--|
|              |                    |                               |             |                                  | Sequential (128 KiB) <sup>*5 *6 *7</sup> (MB/s) |       | Random (4 KiB) <sup>*5 *6 *7 *8</sup> (KIOPS) |       |   |   |  |
|              |                    |                               |             |                                  | 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 <sup>*3</sup> | Interface                             | Form Factor | User Capacity (GB) <sup>*4</sup> | Performance (up to)                             |       |   |                  | Power Consumption Mode (W) <sup>*9</sup> | Operating Temperature (°C) <sup>*10</sup> | Dimensions H / W / L (mm) <sup>*11</sup> |       |     |       |     |
|---------------------|--------------------|---------------------------------------|-------------|----------------------------------|---|-------|---|------------------|--|---|--|-------|-----|-------|-----|
|                     |                    |                                       |             |                                  | Sequential (128 KiB) <sup>*5 *6 *7</sup> (MB/s) |       | Random (4 KiB) <sup>*5 *6 *7 *8</sup> (KIOPS) |                  |  |   |  |       |     |       |     |
|                     |                    |                                       |             |                                  | Read  | Write | Read  | Write            |  |   |  |       |     |       |     |
| <b>KPM61MUG3T20</b> | 10                 | SAS-4<br>Narrow Single<br>Narrow Dual | 2.5-inch    | 3,200                            | 4,150   | 3,700 | 595   | 9 / 12 / 14 / 18 | 0 to 70                                  | 15.0 /<br>69.85 /<br>100.45               |  |       |     |       |     |
| 1,600               |                    |                                       |             | 2,450                            |   |       |   |                  |  |   | 460                                      |       |     |       |     |
| 800                 |                    |                                       |             | 2,700                            |   |       |   |                  |  |   | 452                                      |       |     |       |     |
| 400                 |                    |                                       |             | 1,450                            |   |       |   |                  |  |   | 466                                      |       |     |       |     |
| <b>KPM61VUG12T8</b> | 3                  | SAS-4<br>Narrow Single<br>Narrow Dual | 2.5-inch    | 12,800                           | 4,150   | 3,700 | 595   | 9 / 12 / 14 / 18 | 0 to 70                                  | 15.0 /<br>69.85 /<br>100.45               |  |       |     |       |     |
| 6,400               |                    |                                       |             | 2,450                            |   |       |   |                  |  |   | 240                                      |       |     |       |     |
| 3,200               |                    |                                       |             |                                  |   |       |   |                  |  |   |  | 2,700 | 265 |       |     |
| 1,600               |                    |                                       |             |                                  |   |       |   |                  |  |   |  |       |     | 1,450 | 145 |
| 800                 |                    |                                       |             |                                  |   |       |   |                  |  |   |  |       |     |       |     |
| <b>KPM61RUG30T7</b> | 1                  | SAS-4<br>Narrow Single<br>Narrow Dual | 2.5-inch    | 30,720                           | 4,150   | 3,200 | 595   | 9 / 12 / 14 / 18 | 0 to 70                                  | 15.0 /<br>69.85 /<br>100.45               |  |       |     |       |     |
| 15,360              |                    |                                       |             | 2,450                            |   |       |   |                  |  |   | 115                                      |       |     |       |     |
| 7,680               |                    |                                       |             |                                  |   |       |   |                  |  |   |  | 2,700 | 125 |       |     |
| 3,840               |                    |                                       |             |                                  |   |       |   |                  |  |   |  |       |     | 1,450 | 75  |
| 1,920               |                    |                                       |             |                                  |   |       |   |                  |  |   |  |       |     |       |     |
| 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 NVM Express Inc.
- 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 (10<sup>9</sup>) bytes

\*5 : A kibibyte (KiB) means 2<sup>10</sup>, 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 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 size.

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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