KIOXIA RM7-V Series (2.5-inch)

(KRM7XVUG/KRM7VVUG)

Mixed Use Value SAS SSD

KIOXIA RM7-V Series Value SAS SSD (12 Gbit/s) is optimized for mixed use applications. The series is priced to replace SATA in servers, delivering improved performance and reliability, with no change to the server infrastructure.

Featuring KIOXIA BiCS FLASH™ 3D flash memory, this Value SAS SSD RM7-V Series offers 3 DWPD (Drive Writes Per Day) with capacities up to 3.84 TB.

Product image may represent a design model.

Key Features

- 12 Gbit/s SAS interface with single-port support
- Capacities from 960 GB to 3.84 TB
- Up to 190K random read IOPS (4 KiB)
- Form factor: 2.5-inch, 15 mm thickness
- 3 DWPD with 100 % random write workload
- Power Loss Protection (PLP) and End-to-End Data Protection, including T10 DIF
- Security options: SIE, SED[1][2][3][4]
- 5-year limited warranty

Key Applications

- Data warehousing
- Streaming media
- Web servers

Specifications

SIE Model Number	**KRM7XVUG3T84**	**KRM7XVUG1T92**	**KRM7XVUG960G**
SED Model Number	**KRM7VVUG3T84**	**KRM7VVUG1T92**	**KRM7VVUG960G**
Capacity	3,840 GB	1,920 GB	960 GB
Basic Specifications			
Form Factor	2.5-inch, 15mm thickness		
Interface	SAS-3		
Interface Speed	12.0 Gbit/s, 6.0 Gbit/s, 3.0 Gbit/s, 1.5 Gbit/s		
Flash Memory Type	BiCS FLASH™ TLC		

Specifications (Continued)

Capacity	3,840 GB	1,920 GB	960 GB
Performance			
Sustained 128 KiB Sequential Read	1,100 MB/s		
Sustained 128 KiB Sequential Write	1,050 MB/s		850 MB/s
Sustained 4 KiB Random Read	190K IOPS		180K IOPS
Sustained 4 KiB Random Write	55K IOPS		40K IOPS
Power Requirements			
Supply Voltage	12 V ± 10 %, 5 V +10 % / -7 %		
Power Consumption (Ready)	3.6 W typ.		
Reliability			
MTTF	2,500,000 hours		
Warranty	5 years		
DWPD	3		
Dimensions			
Thickness	15.0 mm +0 / -0.5 mm		
Width	69.85 mm ± 0.25 mm		
Length	100.45 mm Max		
Weight	130 g Max		
Environmental			
Temperature (Operating)	0 °C to 70 °C		
Temperature (Non-operating)	-40 °C to 80 °C		
Humidity (Operating)	5 % to 95 % R.H.		
Vibration (Operating)	21.27 m/s^2 { 2.17 Grms } (5 to 800 Hz)		
Shock (Operating)	9.8 km/s^2 { 1,000 G } (0.5 ms)		

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 bytes = 1,073,741,824 bytes and 1TB = 2^40 bytes = 1,099,511,627,776 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, 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 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.

Read and write speed 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] Sanitize Instant Erase (SIE) and Self-Encrypting Drive (SED) security optional models are available.

[2] SIE optional model supports Crypto Erase, which is a standardized feature defined by the technical committees (SCSI) of INCITS (the InterNational Committee for Information Technology Standards).

[3] SED optional model supports TCG Enterprise SSC.

[4] Security optional models are not available in all countries due to export and local regulations.

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