KIOXIA

HK6-R Series

6Gbit/s Data Center SATA Read Intensive SSD

HK6-R Series is a 6 Gbit/s data center SATA SSD supporting a broad range of read Intensive applications, such as scale-out, cloud applications, transactional database, business intelligence and data analytics. Designed for scale-out data centers, the HK6-R is designed for low latency, consistent performance and reduced power consumption.

Featuring KIOXIA Corporation's 64-layer BiCS FLASH™ 3D TLC memory, the HK6-R Series includes power-loss protection and data path protection. It comes with 1 DWPD (Drive Writes Per Day) endurance and capacities up to 7.68 TB.



Product image may differ from the actual product.

Key Features

- 6.0Gbit/s SATA 3.3 interface
- Capacities from 480 GB to 7.68 TB
- Up to 85 KIOPS random read (4 KiB)
- Low latency and operating power
- Consistent performance
- 2.5-inch form-factor, 7.0 mm Z-Height
- 1 DWPD with 100 % random write workload
- Power loss protection and end-to-end data protection

Key Applications

- Business intelligence
- Machine learning
- Transactional database (OLTP)
- Big data analytics
- Streaming media

Specifications

Model Number	KHK61RSE7T68	KHK61RSE3T84	KHK61RSE1T92	KHK61RSE960G	KHK61RSE480G
Physical					
Capacity	7,680 GB	3,840 GB	1,920 GB	960 GB	480 GB
Interface	SATA-3.3				
Interface Speed	6.0 Gbit/s , 3.0 Gbit/s , 1.5 Gbit/s				
Memory Type	BiCS FLASH™ TLC				
Performance					
Sustained 128 KiB Sequential Read	550 MB/s				
Sustained 128 KiB Sequential Write	530 MB/s				450 MB/s
Sustained 4 KiB Random Read	83K IOPS	84K IOPS		85K IOPS	82K IOPS
Sustained 4 KiB Random Write	23K IOPS	24K IOPS	22K IOPS	18K IOPS	20K IOPS

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Specifications (Continued)

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Capacity	7,680 GB	3,840 GB	1,920 GB	960 GB	480 GB
Power Requirements					
Supply Voltage	5 V ± 5 %				
Power Consumption	5.5 W RMS	5.5 W RMS	5.5W RMS	5.0W RMS	4.0W RMS
Reliability					
MTTF	2,000,000 hours				
DWPD	1				
Mechanical					
Height	6.90 + 0.30 / -0.40 mm.				
Width	69.85 ± 0.25 mm.				
Length	100.4 mm Max.				
Wight	68 g Max.				
Environmental					
Temperature (Operating)	0 °C to 70 °C				
Humidity (Operating)	5 % to 95 % R.H. (No condensation)				
Vibration (Operating)	21.27 m/s^2 { 2.17 Grms } (7 to 800 Hz)				
Shock (Operating)	9,800 m/s^2 { 1,000 G } (0.5 ms duration)				

Product image may represent a design model.

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, a mebibyte (MiB) means 2^20, or 1,048,576 bytes, and a gibibyte (GiB) means 2^30, or 1,073,741,824 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 drive write per day means the drive can be written and re-written to full capacity once a day every day for five years, the stated product warranty period. Actual results may vary due to system configuration, usage and other factors.

Read and write speed may vary depending on the host device, read and write conditions, and file size.

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

There are some models of KIOXIA Corporation SSD Products which deliver various security functions as optional feature. For more information of security options, please contact your KIOXIA Corporation sales representative.

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