

SAMSUNG

PM1633 SAS SSD

Outstanding performance, high reliability
and exceptional value for demanding
storage systems



PERFORMANCE EXCELLENCE FROM THE SSD TECHNOLOGY LEADER.

Entrust your valuable data to Samsung's high-performance, highly reliable PM1633 SSD

Data centers have challenging requirements to ensure that they operate optimally 24/7, 365 days a year. Consistent performance with low latency is essential. It is also critical that data centers maintain stable operations when processing changing read and write workloads. The most crucial is protection from data corruption or loss due to unexpected power outages. Considering each of these factors, IT and data center managers are tasked with finding dependable, high-performing storage solutions.

Samsung provides data centers with solid-state drives (SSDs) that deliver exceptional performance in read-intensive applications, such as for mail servers, data warehousing and high-performance computing (HPC). These high-quality SSDs also ensure outstanding reliability for continual operations regardless of power losses. Using its proven expertise and a wealth of experience in cutting-edge SSD technology, Samsung storage solutions help data centers operate continually at optimal performance levels. Samsung also has the added advantage of being a vertically-integrated supplier of SSDs, ensuring one of the highest levels of quality and compatibility.

ENTRUST YOUR VALUABLE DATA TO SAMSUNG'S HIGH-PERFORMANCE, HIGHLY RELIABLE PM1633 SSD

Samsung PM1633 SSD delivers:

- **High performance** Unsurpassed sequential and random read speeds and a low-latency rate, using Samsung's state-of-the-art 3D vertical-NAND (V-NAND) flash memory and an optimized proprietary (REX) controller
- **Outstanding reliability** Self-Monitoring, Analysis and Reporting Technology (SMART) failure detection monitoring, enterprise-level power-loss protection (PLP) architecture and advanced signal processing algorithms for integrity assurance
- **Exceptional Value** Triple Level Cell (TLC) technology, when combined with V-NAND, delivers enterprise-level performance without breaking the bank.

Superb performance with low latency in read and write workloads

To satisfy a data center's exceptionally high demands, Samsung SSDs are engineered for sustained performance over long periods of time and will nicely accommodate a variety of workloads that simultaneously access the device. In addition, its SSDs provide the performance consistency to satisfy grueling Quality of Service (QoS) requirements.

Highly optimized for a wide range of data center applications

The Samsung PM1633 SSD is optimized to excel in virtually any data center scenario. This enterprise-level, ultra-high performance SSD provides unsurpassed random and sequential read performance for a diverse range of RAID configurations and is particularly well-suited for read-intensive applications.

The advanced Serial Attached SCSI (SAS) interface SSD also showed lower latency under various workloads in extensive performance evaluations, as well as the highest performance consistency.

Enterprise-grade power loss protection

During normal power-off periods, the host server allocates time to preserve data integrity by transmitting a standby command to each device. In the event of an unexpected power loss, though, the cached data in a storage device's internal buffers (DRAM) can be lost. This can occur with unexpected power outages or users unplugging devices from the system. However, the Samsung PM1633 SAS SSD has been designed to prevent data loss resulting from unexpected power shutdowns with its power-loss protection architecture. Upon detection of an external power failure, the SSD immediately uses the stored energy from tantalum capacitors to provide enough time to transfer the cached data in DRAM to the flash memory, ensuring no loss of data.

SAMSUNG PM1633 SAS SSD TECHNICAL SPECIFICATIONS

Form Factor	2.5"
Capacity (GB)	480GB, 960GB, 1.9TB, 3.8TB
Host Interface	SAS 12Gb/s
MTBF	2,000,000 hours
Power Consumption (Active/Idle)	12W/4W
Endurance	1 DWPD (5 years)
UBER	1 in 10 ¹⁷
Sequential Read	Up to 1,400 MB/s
Sequential Write	Up to 930 MB/s
Random Read	Up to 200,000 IOPS
Random Write	Up to 37,000 IOPS
Physical Dimensions	70 x 100 x 15 mm
Weight	140 grams



For more information, visit: www.samsung.com/flash-ssd
For specific sales inquiries, contact us via email at: ssd@ssi.samsung.com

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