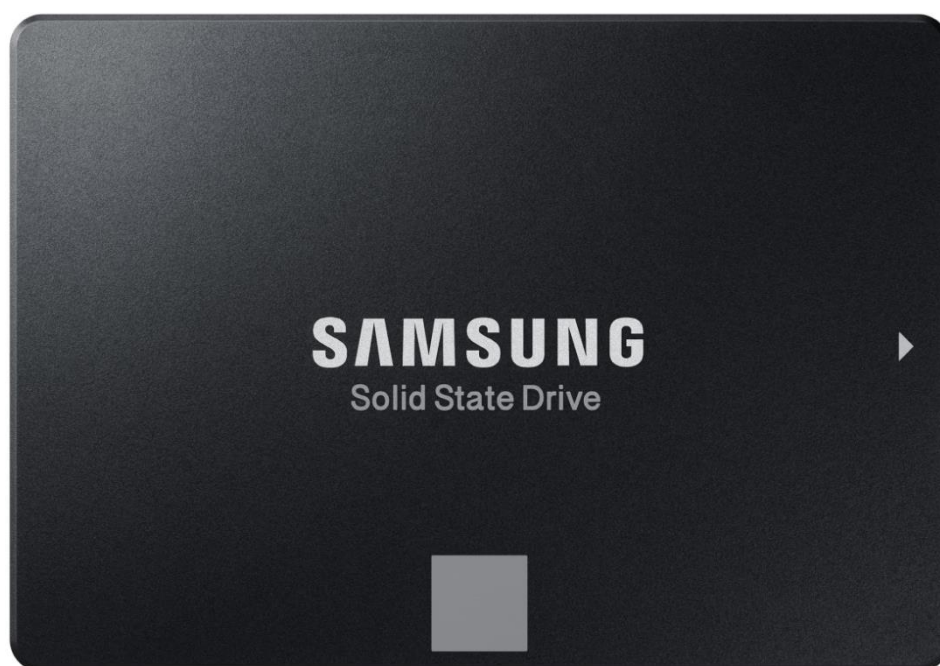


Samsung V-NAND SSD PM893

2022 Data Sheet

Revision 1.0



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TECHINCAL SPECIFICATIONS

Samsung SSD PM893

| Usage Application | Data Center, Server | | | | | | | |
|------------------------------------|----------------------------------------------------------------------------|-----------------------------|---------------------------------|----------|----------|----------|----------|----------|
| Interface | SATA 6 Gb/s Interface, compatible with SATA 3 Gb/s & 1.5 interfaces | | | | | | | |
| Hardware Information | Capacity ¹⁾ | 240GB | 480GB | 960GB | 1.92TB | 3.84TB | 7.68TB | |
| | Controller | Samsung in-house Controller | | | | | | |
| | NAND Flash Memory | Samsung V-NAND TLC | | | | | | |
| | Dimensions | 100.20x 69.85x 7.0(mm) | | | | | | |
| | Form Factor | 2.5 inch | | | | | | |
| Performance (Up to.) ²⁾ | Sequential Read | 550 MB/s | | | | | | |
| | Sequential Write ³⁾ | 380 MB/s | 520 MB/s | 520 MB/s | 520 MB/s | 520 MB/s | 520 MB/s | |
| | 4KB Ran. Read (QD32) | 98 KIOPS | | | | | | |
| | 4KB Ran. Write (QD32) | 15K IOPS | 29K IOPS | 30K IOPS | 30K IOPS | 30K IOPS | 30K IOPS | |
| Power Consumption ³⁾ | Idle | DIPM off | 1.5 W | 1.5 W | 1.5 W | 1.5 W | 1.5 W | 1.5 W |
| | Active (Avg.) | Read/Write | 2.1/2.7W | 2.1/3.2W | 2.2/3.2W | 2.2/3.2W | 2.2/3.2W | 2.2/3.2W |
| Reliability ⁴⁾ | Temp. | Operating | 0°C to 70°C | | | | | |
| | | Non-Operating | -40°C to 85°C | | | | | |
| | Humidity | | 5% to 95% non-condensing | | | | | |
| | Shock | Non-Operating | 1,500G, duration: 0.5ms, 3 axis | | | | | |
| | Vibration | Non-Operating | 20~2,000Hz, 20G | | | | | |
| MTBF | | 2.0 million hours | | | | | | |
| Warranty | TBW ⁵⁾ | 438TB | 876TB | 1,752TB | 3,504TB | 7,008TB | 14,016TB | |
| | Period | 5 year limited | | | | | | |
| Supporting Features | TRIM (Required OS support), Garbage Collection, S.M.A.R.T | | | | | | | |
| Data Security | AES 256-bit Full Disk Encryption, TCG/Opal V2.0, Encrypted Drive(IEEE1667) | | | | | | | |

- 1) GB: 1GB = 1,000,000,000 bytes. A certain portion of capacity may be used for system file and maintenance use, thus the actual available capacity may differ from the labeled total capacity.
- 2) Performance measurements are based on FIO 2.7 with queue depth 32, Z170 Intel SATA 6G port. Measurements are performed on whole LBA range. Write cache enabled. Actual performance may vary depending on use conditions and environment.
- 3) Active Read power is measured on 4 KB random read. Active Write power is measured on 4 KB random write.
- 4) All documented endurance test results are obtained in compliance with JESD218 Standards. Please visit www.jedec.org for detailed information on JESD218 Standards
- 5) TBW means Total Bytes Written.
- 6) Please refer to the detailed warranty statement here at <http://samsung.com/samsungssd>.
- 7) Warranty provides coverage for the stated time period or the TBW, whichever comes first.

PRODUCT LINEUP

| Density | Model Name | Part Number |
|----------------------|-------------|--------------------|
| 240GB* | MZ-7L324000 | MZ7L3240HCHQ-00W07 |
| 480GB* | MZ-7L348000 | MZ7L3480HCHQ-00W07 |
| 960GB* | MZ-7L396000 | MZ7L3960HCJR-00W07 |
| 1.92TB (1,920GB*) | MZ-7L31T900 | MZ7L31T9HBLT-00W07 |
| 3.84TB (3,840GB*) | MZ-7L33T800 | MZ7L33T8HBLT-00W07 |
| 7.68TB (7,680GB*) | MZ-7L37T600 | MZ7L37T6HBLA-00W07 |

* GB: 1GB = 1,000,000,000 bytes by IDEMA. The actual usable capacity may be less than the labeled capacity. For more information, including but not limited to the warranty provided for this product, please visit www.samsung.com/ssd and www.samsungssd.com.

Revision History

| Revision Number | Description | Revision Date |
|-----------------|-----------------|---------------|
| 1.0 | Initial Release | August 2022 |