Samsung V-NAND SSD
PM893

PM893 2.5" 7.68TB (SATA6.0Gbps)

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TRADEMARKS & SERVICE MARKS

For more information, please visit www.samsung.com/ssd and www.samsungssd.com.

To download the latest software & manuals, please visit www.semiconductor.samsung.com/consumer-storage

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

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