

High-Performance, Low Latency and Cost-Optimized Data Center SSD

Data Center Series (PM853T)



Increasingly, data centers are embracing extremely fast, energy-efficient enterprise systems and system components to better support the client and server markets, as well as the virtual and cloud enterprise infrastructures.

IT management are driving today's business transformation initiatives, such as: Big Data systems, VDI and other high-performance enterprise platforms, in cloud infrastructures, rack-designed systems and virtualized environments. Larger investments in solid state drive (SSD) technology are sharply increasing storage and computing capacity in the data center.

Samsung has released the Data Center Series PM853T SSD, which features consistent low latency with a high-level of sustained writes (IOPS), coupled with power-loss protection—all at capacities up to 960GB. All of these features are featured in E-MLC or SLC-class SSDs but also have been incorporated into the **cost-optimized** PM853T.

Samsung Data Center Series PM853T

Exceptional Low Latency and a Workhorse of a Drive

The Samsung Data Center Series PM853T SSD delivers an exceptionally consistent level of performance (99.9% of reads at 200 μ s) over the life of the SSD at the same price category as consumer-based MLC-based offerings. The Samsung PM853T SSD is optimized for **sustained** random read and write workloads (87,000 / 15,000 IOPS).

Enterprise Power-Loss Protection

The Samsung PM853T SSD is built with tantalum capacitors to protect your data in a write cache in the case of a power failure. This enterprise-grade power-loss protection provides an added level of security to ensure that valuable write information is well protected against data corruption caused by a loss in power.

High-Capacity SSDs Available

The Samsung PM853T SSD is available in several densities, allowing you to maximize your capacity with the same number of drive slots. The drive processes 15,000 IOPS of random writes on the 960GB—over 7x the density over a 128GB SSD.

Data Center Series (PM853T) | Read-Centric Environments

		PM853T
General Features	Form Factor	2.5"
	Capacity (GB)	240/480/960
	Host Interface	SATA Gen 3.0 – 6Gb/s
	Physical Dimensions	100 x 70 x 7mm
	Weight (up to)	63g
	MTBF	1,500,000 hours
	Uncorrectable Bit Error Rate (UBER)	1 in 10 ¹⁶
	Power Consumption (Active/Idle)	3.4/1.1 W
Sustained Performance (up to)	Read Latency (99.9% QoS)*	200 μ s
	Write Latency (99.9% QoS)*	400 μ s
	4K Random Reads**	87,000 IOPS
	4K Random Writes**	15,000 IOPS
	64K Sequential Reads**	530 MB/s
	64K Sequential Writes**	410 MB/s
Endurance (up to)	4K Random WPD***	0.3 WPD
	64K Sequential WPD***	1.6 WPD



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

* Latency measured with FIO (4K Random, QD=1)
 ** Performance measured using Iometer 2006 with Queue Depth=32
 *** WPD = Drive Writes Per Day for 5 Years
 (Note: Warranty period is 3 years)



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