

Samsung PM851 Solid State Drive

SATA Gen 3.0 – 6Gb/s (2.5", mSATA & M.2) Mobile/Client Edition



Samsung is taking a huge step forward in storage technology. We're delivering top-tier solid state drives for mobile, gaming, ultrabook, and notebook applications, with improved performance that enables increased productivity, while securing your files with leading-edge data protection.

Superior Endurance and Reliability

As the world's #1 DRAM, NAND Flash, and SSD supplier, Samsung has industry-leading engineering resources, design expertise and manufacturing prowess, as well as some of the most stringent quality control standards. All of this coalesces into producing an SSD which delivers the endurance that power users demand. Reliability is inherent in the design of the Samsung PM851, with endurance levels to assure extended long-term performance and extremely low error rates, even for devices that never stop running.

Industry-leading Design

The Samsung PM851 Mobile/Client Edition features stunning design and precision engineering—inside and out. With thicknesses from 7mm to as low as 2.4mm, it can be easily installed in most ultrabooks, notebooks, video recorders, etc. Like other Samsung SSDs, it's designed and built completely in-house, rather than sourcing a hodge-podge of generic parts from the market. The Samsung PM851 Mobile/Client Edition uses the latest in-house NAND Flash and an advanced in-house controller to deliver superior performance, exceptional reliability and minimal power drain.

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Outstanding Performance in PC Applications

Samsung's PM851 Mobile/Client Edition offers superior sequential reads (up to 540 MB/s), and a fast sequential write speed of up to 410 MB/s. The PM851's random read and write levels are also first-class. The drive is an ideal solution for performance-centric workloads, such as multi-tasking between several programs simultaneously, complex data manipulation and high-performance gaming.

Increased Capacity and Security

The Samsung PM851 Mobile/Client Edition is available in a variety of capacities, including 128, 256 and 512GB, and is designed to ensure that sensitive data is secure. Samsung's PM851 protects your data with AES 256-bit encryption, eliminating any concerns or uncertainties about data theft.

Key Benefits

- Samsung 3-core controller
- Samsung Toggle DDR NAND Flash memory
- Up to 540 MB/s read performance
- For easy adoption, variety of physical dimensions from 7mm down to 2.4mm thickness

Samsung PM851 Technical Specifications Client PC Environments			
Form Factor	2.5 inches	mSATA	M.2
Capacity (GB)	128, 256, 512		
Host Interface	SATA Gen 3.0 – 6Gb/s		
Encryption	AES-256		
MTBF	1,500,000 hours		
Uncorrectable Bit Error Rate (UBER)	1 in 10 ¹⁵		
Power Consumption (Active/Idle/DEVSLP)	250 / 50 / 2 mW	103 / 33 / 2 mW	190 / 50 / 2 mW
Peak Read Sequential Performance	540 MB/s		
Peak Write Sequential Performance	410 MB/s	380 MB/s	365 MB/s
Peak Random Performance	Reads: 100,000 IOPS Writes: 100,000 IOPS		
Physical Dimensions	100 x 70 x 7mm	51 x 30 x 3.85mm	22 x 80 x 2.4mm
Weight	45 - 54g	7.5 - 8.5g	8.5g



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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