Make Your Mark With a New Caliber of Performance and Reliability

The 850 EVO enhances all aspects of daily computing through the latest in advanced 3D V-NAND technology.

Samsung SSD **850** EVO

Upgrade virtually every aspect of your computer's performance with Samsung's new 850 EVO, designed with the very latest in state-of-the-art SSD advancements including 3D V-NAND technology. As the next generation beyond the best-selling 840 EVO, you'll get the 850 EVO's new three-dimensional chip design that enables superior performance, greater reliability and superior energy efficiency so you can work and play faster and longer than ever before.

1 What is 3D V-NAND and how does it differ from existing technology?

Samsung's innovative 3D V-NAND flash memory architecture breaks through density limitations, performance and endurance of today's conventional planar NAND architecture. Samsung 3D V-NAND stacks 32 cell layers vertically resulting in higher density and better performance utilizing a smaller footprint.

3 Get into the fast lane with the improved RAPID mode

Samsung's Magician software supports RAPID mode for 2x faster performance[3] by utilizing unused PC memory (DRAM) as high-speed cache storage. The newest version of Samsung Magician supports up to a 4GB cache on a system with 16GB of DRAM.

[3]PCMARK7 RAW(250GB) : 7500 > 15000(Rapid mode)

2 Optimize daily computing with TurboWrite technology for unrivaled read/write speeds

Achieve the ultimate read/write performance to maximize your everyday computing experience with Samsung's TurboWrite technology. You can obtain up to 1.9x faster performance than the award-winning Samsung 840 EVO[1]. The 850 EVO delivers class-leading performance[2] in sequential read 540 MB/s and write 520 MB/s speeds. Plus, you also gain optimized random performance in all QD for better real-world performance.

[1]Random Write(QD32,120GB) : 36,000 IOPS(840 EVO) > 88,000 IOPS(850 EVO)
[2]Performance compared to 3-Bit MLC-class SSD drives

4 Guaranteed endurance and reliability bolstered by 3D V-NAND technology

The 850 EVO delivers guaranteed endurance and reliability by doubling the endurance[4] compared to the previous generation 840 EVO[5] and featuring a class-leading 5-year warranty. With enhanced long-term reliability, the 850 EVO assures long-term dependable performance of up to 30% longer than the previous generation 840 EVO.

[4]Sustained Performance (250GB) – 3300 IOPS (840 EVO) > 6500 IOPS (850 EVO), performance measured after 12-hour "Random Write" test.

[5]Highest among 3-bit MLC-class SSD drives.

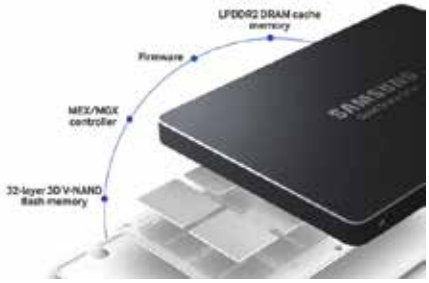
5 Improved energy efficiency enabled by 3D V-NAND

The 850 EVO delivers significantly longer battery life on your notebook with a controller designed and optimized for 3D V-NAND that supports Device Sleep for Windows® at a highly efficient 2mW. The 850 EVO features 25% better power efficiency than the 840 EVO during write operations[6] thanks to ultraefficient 3D V-NAND only consuming half the energy than that of traditional Planar 2D NAND.

[6]Power (250GB) – 3.2W (840 EVO) > 2.4W (850 EVO).

7 Level up to the 850 EVO simply without any hassle

In three simple steps the Samsung's One-stop Install Navigator software easily allows you to migrate all the data and applications from your existing drive to the 850 EVO. The included Samsung Magician software also allows you to set up, optimize and manage your system for peak SSD performance.



6 Secure valuable data through advanced AES 256-bit encryption

The 850 EVO comes fortified with the latest hardware-based full disk encryption engine. The AES 256-bit hardware encryption secures data without any performance degradation and complies with TCG Opal 2.0. It is also compatible with Microsoft® eDrive IEEE1667 to integrate simply in the latest versions of Windows so your data is protected at all times for your peace of mind.

8 Acquire an integrated in-house solution consisting of top-quality components

Samsung is the only SSD brand to design and manufacture all its components in-house, allowing for complete optimized integration. The result – enhanced performance, lower power consumption with an up to 1GB LPDDR2 DRAM cache memory and improved energy efficiency with the MEX/MGX controller – all from the #1 memory manufacturer in the world.

Comparison Chart

SAMSUNG

OPERATING FEATURES
- Standard Operating Voltage 5V ± 5%
- Power Consumption (Active):

MZ-75E120B/AM	2.1W
MZ-75E250B/AM	2.4W
MZ-75E500B/AM	3.0W
MZ-75E1T0B/AM	4.0W

- Power Consumption (Idle): 50mW

RELIABILITY (MTBF)
- 2.0M Hours

TEMPERATURE
- 32°F to 158°F (Operating)

HUMIDITY
- 5% to 95%, non-condensing

TRIM SUPPORT
- Yes (Requires OS Support)

RAID SUPPORT
- Yes (with RAID Controller)

ENCRYPTION
- Yes, Class 0 (256-Bit AES), TCG/Opal v2.0, MS eDrive (IEEE1667)

SOFTWARE COMPATIBILITY
- Windows 8 (32-bit and 64-bit), Windows 7 (32-bit and 64-bit), Vista (SP1 and above), XP (SP2 and above), Windows Server 2008 (32-bit and 64-bit), Windows Server 2003 (32-bit and 64-bit with SP2 and above)

WARRANTY
- 5 Years/150TBW

TECH SUPPORT
- 1-800-SAMSUNG (1-800-726-7864)

PRODUCT DIMENSION (W x H x L)
- 2.76 x .27 x 3.94 in.
- 2.5” Form Factor
- Only 7mm Thick to Accommodate Ultraportables and Netbooks

PRODUCT WEIGHT
- 1TB: Max. .12 lbs

Samsung SSD **850 EVO**

Samsung SSD **850 PRO**

Model Code	MZ-75E1T0B/AM	MZ-75E500B/AM	MZ-75E250B/AM	MZ-75E120B/AM	MZ-7KE1T0	MZ-7KE512	MZ-7KE256	MZ-7KE128
Memory Size	1TB (1000GB)*	500GB	250GB	120GB	1TB (1,024GB)	512GB	256GB	128GB
Type	SATA III				SATA III			
Controller	Samsung MEX Controller	Samsung MGX Controller			Samsung MEX Controller			
NAND Flash Memory	Samsung 32-Layer 3D V-NAND				Samsung 32-Layer 3D V-NAND			
Seq. Read	Up to 540MB/sec				Up to 550MB/sec			
Seq. Write	Up to 520MB/sec				Up to 520MB/sec			Up to 470MB/sec
Ran. Read @ 4KB/QD32	98000	98000	97000	94000	100,000			
Ran. Write @ 4KB/QD32	90000	90000	88000	88000	90,000			

*Actual usable capacity may be less (due to formatting, partitioning, operating system, applications or otherwise)