SAMSUNG

860 **PRO** | 860 **EVO**

SSD performance
that makes a difference every day.

SAMSUNG
V-NAND

Introducing the latest hard-working additions to the world's best-selling SSD series.[1]

Whatever your job calls for, you can do it faster and more reliably. The Samsung 860 PRO and 860 EVO offer you and your business the perfect combination of speed, endurance and compatibility. Specifically engineered for long-lasting performance, these professional-level SSDs offer Samsung V-NAND technology, best-in-class TBW levels and a reinforced controller. Whether you need the highest performance or simply a boost in everyday tasks, the Samsung 860 PRO and 860 EVO will help you excel.

SAMSUNG V-NAND

[1]NPD (US data from Jan. 2015 to Oct. 2017) and GfK (EU5 data from Jan. 2015 to Sep. 2017, China data from Jan. 2016 to Sep. 2017)

860 PRO

Fast, enduring performance designed for creators, IT gamers and professionals using workstations, NAS or high-end computing.

• Built for workstations, NAS and high-end computing

• Less lag in gaming and rendering

• Smooth, multitasking performance

• Best-in-class endurance (up to 4,800 TBW)

860 EVO

Boost your everyday computing. Gain speed, endurance and worry-free reliability. Ideal for mainstream PCs and laptops.

• Designed for mainstream PCs and laptops

• Super-fast transfers of large files

• Refined everyday computing

• Wide compatibility with 2.5-inch, mSATA and M.2 form factors

• Best-in-class endurance (up to 2,400 TBW)

Exclusive Samsung 3D V-NAND technology.

Samsung 3D V-NAND flash memory fundamentally changes the architecture of flash memory. By vertically stacking each cell, more cells can fit within a smaller footprint, for higher capacity. Samsung V-NAND technology also offers faster performance, outstanding endurance and superb power efficiency over 2D planar NAND flash memory.

Enjoy the experience that true speed delivers.

The 860 PRO and 860 EVO boast best-in-class performance. The 860 PRO delivers sequential read (up to 560 MB/s) and write speeds (up to 530 MB/s) to tackle professional workloads. The 860 EVO is powered by Intelligent TurboWrite technology to speed up your overall computing experience.

Sequential Reads up to **560 MB/s**[2]   **Sequential Writes** up to **530 MB/s**[2]

Random Reads up to **100K IOPS**[2]   **Random Writes** up to **90K IOPS**[2]

[2]860 PRO.

Built to endure, project after project.

Lean on the industry's highest-rated max 4,800 TBW. The 860 PRO and 860 EVO are backed by a 5-year limited warranty and powered by the latest V-NAND technology to give you absolute confidence.[3]
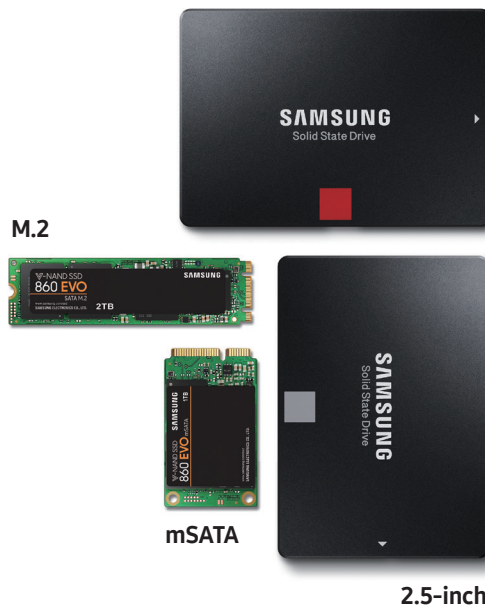
TBW 4,800 TBW   **5** years **5-Year Warranty**

[3]TBW for 860 PRO 4TB model. TBW (Total Bytes Written): The total amount of data that can be written on an SSD before it is likely to fail.

Expanded compatibility improves more devices.

The 860 PRO and 860 EVO deliver faster and more fluid system compatibility than the previous 850 series. The refined ECC algorithm and revamped controller generate higher speeds, and the improved queued trim enhances Linux compatibility. The 860 PRO comes in the widely compatible 2.5-inch form factor, while the 860 EVO is available in 2.5-inch, mSATA and M.2 to meet a broad range of computing device needs.

M.2

mSATA

2.5-inch

Easy maintenance with Samsung Magician software.

The simple, intuitive way to monitor, manage and maintain your SSD. Samsung Magician software sends notifications of new firmware with easy update installs, performance benchmark tests to help keep your system at its fastest, and security options that support AES 256-bit hardware-based encryption with TCG Opal and IEEE1667 compliancy.

Firmware Update   **Performance Benchmark**   **Data Security**

V-NAND SSD
860 PRO | 860 EVO

	860 PRO	860 EVO
Form Factor	2.5-inch	2.5-inch, M.2, mSATA
Application	Client PCs	Client PCs
Capacity	4TB, 2TB, 1TB, 512GB, 256GB	2.5-inch: 4TB, 2TB, 1TB, 500GB, 250GB M.2: 2TB, 1TB, 500GB, 250GB mSATA: 1TB, 500GB, 250GB
Interface	SATA 6 Gb/s Interface, compatible with SATA 3 Gb/s and SATA 1.5 Gb/s interface	SATA 6 Gb/s Interface, compatible with SATA 3 Gb/s and SATA 1.5 Gb/s interface
Dimension (WxHxD)	3.94" x 2.75", 0.27" / 100 x 69.85 x 6.8 mm	2.5-inch: 3.94" x 2.75", 0.27" / 100 x 69.85 x 6.8 mm M.2: 3.16" x 0.87" x 0.09" / 80.15 x 22.15 x 2.38 mm mSATA: 1.18" x 2.0" x 0.15" / 30 x 50.9 x 3.85 mm
Weight	2.19 oz. / 62.0g	2.5-inch: 2.19 oz. / 62.0g M.2: 0.28 oz. / 8.0g mSATA: 0.30 oz. / 8.5g
Storage Memory	Samsung V-NAND 2-bit MLC	Samsung V-NAND 3-bit MLC
Controller	Samsung MJX Controller	Samsung MJX Controller
Cache Memory	4GB LPDDR4 (4TB) / 2GB LPDDR4 (2TB) 1GB LPDDR4 (1TB) / 512MB LPDDR4 (256/512GB)	4GB LPDDR4 (4TB) / 2GB LPDDR4 (2TB) 1GB LPDDR4 (1TB) / 512MB LPDDR4 (250/500GB)
Sequential Read / Write[1]	Max. 560 MB/s / 530 MB/s	Max. 550 MB/s / 520 MB/s
Random Read/Write (4KB, QD32)	Max. 100K IOPS / 90K IOPS	Max. 98K IOPS / 90K IOPS
Random Read/Write (4KB, QD1)	Max. 11K IOPS / 43K IOPS	Max. 10K IOPS / 42K IOPS
Special Features	TRIM, S.M.A.R.T., World Wide Name, Device Sleep Mode	TRIM, S.M.A.R.T., World Wide Name, Device Sleep Mode, TurboWrite
GC (Garbage Collection)	Auto Garbage Collection Algorithm	Auto Garbage Collection Algorithm
Data Encryption	Class 0 (AES 256) TCG/Opal v2.0, MS eDrive (IEEE1667)	Class 0 (AES 256) TCG/Opal v2.0, MS eDrive (IEEE1667)
Average Power Consumption	Active Read/Write: Max. 4.5 W / Avg. 2.2 W (4TB) Idle: Max. 0.5 W (4TB) Device Sleep: 7 mW (4TB)	Active Read/Write: Max. 4.0 W (4TB) / Avg. 3.0 W (4TB) Idle: Max. 0.5 W (4TB) Device Sleep: 2 mW (4TB)
Allowable Voltage	5V ± 5% Allowable voltage	5V ± 5% Allowable voltage
Reliability (MTBF)	1.5 Million Hours Reliability (MTBF)	1.5 Million Hours Reliability (MTBF)
Operating Temperature	32˚ - 158˚ F / 0 - 70˚C	32˚ - 158˚ F / 0 - 70˚C
Shock	1,500 G, 0.5 ms (Half sine)	1,500 G, 0.5 ms (Half sine)
Management SW	Magician Software	Magician Software
Warranty (TBW)[2]	5 Years Limited Warranty or TBW Limited Warranty 4,800 TBW (4TB) / 2,400 TBW (2TB) / 1,200 TBW (1TB) 600 TBW (512GB) / 300 TBW (256GB)	5 Years Limited Warranty or TBW Limited Warranty 2,400 TBW (4TB) / 1,200 TBW (2TB) / 600 TBW (1TB) 300 TBW (500GB) / 150 TBW (250GB)

[1]Performance may vary based on SSD's firmware version and system hardware and configuration. Sequential performance measurements based on CrystalDiskMark v.5.0.2 and IOmeter 1.1.0. Sequential write performance measurements are based on Intelligent TurboWrite technology. The TurboWrite buffer size varies based on the capacity of the SSD; 12GB for 250GB model, 22GB for 500GB model, 42GB for 1TB model and 78GB for 2/4TB model. For more information on TurboWrite, please visit www.samsungssd.com. The sequential write performances after Intelligent TurboWrite region are 300 MB/s for 250/500GB and 500 MB/s for 1TB. Test system configuration: Intel Core i5-3550 CPU @ 3.3 GHz, DDR3 1333 MHz 4GB, OS Windows 7 Ultimate x64, Chipset: ASUS P8H77-V.

[2]Warranty 5 years or TBW, whichever comes first. For more information on the warranty, please find the warranty statement enclosed in the package.

Contact an Account Manager for more information.

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