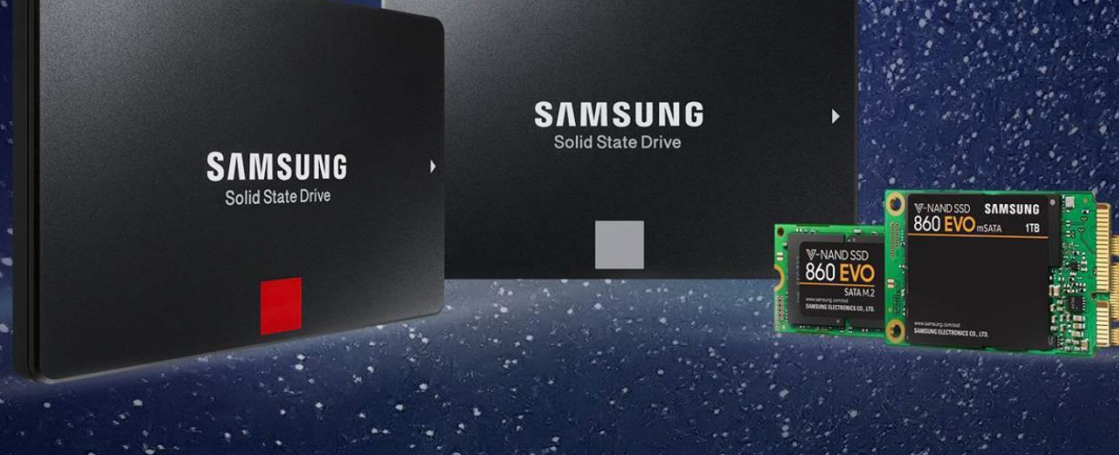# SAMSUNG

V-NAND SSD 860 PRO | EVO
Infographic Guide

As file sizes soar with 4K videos, high-resolution photos, and VR apps, you need more speed and higher capacity. Samsung introduces 860 PRO and 860 EVO, the newest drives of the world's best-selling SSD series *. Engineered with the Samsung's latest V-NAND technology, their best in class performance and TBW ratings ensure a fast, stable, and refined computing experience.

* Sources: 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)

In-house design. Seamless integration.

Designed, engineered, and manufactured in-house. Samsung's world-class SSDs work in perfect synergy, delivering superior quality and seamless component integration.

SAMSUNG V-NAND / **V-NAND**

Samsung's latest V-NAND technology stacks 64 layers improving speed, power efficiency, and endurance.

DRAM
Leading-edge DRAM delivers high clock speeds, greater density, compact size, and power efficiency

Controller
Reinforced MJX controller utilizes V-NAND technology for faster communication between host system and controller

Firmware
Latest firmware updates enhance performance, stability, and compatibility

Fast performance. Enhanced endurance.

Feel the difference of super fast SATA SSDs. And trust them to endure, with best in class TBW ratings.

Sequential Speed (MB/s) / **Random Speed** (IOPS)

Best in class sequential read speeds up to 560 MB/s, write speeds up to 530 MB/s

860 PRO	Sequential Reads up to 560 MB/s Sequential Writes up to 530 MB/s	Random Reads up to 100K IOPS Random Writes up to 90K IOPS
860 EVO	Sequential Reads up to 550 MB/s Sequential Writes up to 520 MB/s	Random Reads up to 98K IOPS Random Writes up to 90K IOPS

* Performance may vary based on SSD's firmware version, and system hardware and configuration. Test system configuration: Intel Core i5-3550 CPU @ 3.3 Ghz, DDR3 1333 MHz 4GB, OS - Windows 7 Ultimate x64, Chipset: ASUS P8H77-V.
* 860 PRO sequential performance measurements based on CrystalDiskMark v.5.0.2 and IOmeter 1.1.0.
* 860 EVO sequential write performance measurements are based on Intelligent TurboWrite technology. Sequential performance measurements based on CrystalDiskMark v.5.0.2 and IOmeter 1.1.0. The sequential write performances after Intelligent TurboWrite region are 300 MB/s for 250/500GB and 500 MB/s for 1TB.
* IOPS: Input / output operations per second.

5 years Warranty / **TBW Total Byte Written**

Industry's highest TBW rating (up to 4,800 terabytes written) 5-year limited warranty

Capacity	4TB	2TB	1TB	512GB / 500GB	256GB / 250GB
860 PRO	4,800	2,400	1,200	600 (512GB)	300 (512GB)
860 EVO	2,400	1,200	600	300 (500GB)	150 (250GB)

* 5-years or TBW, whichever comes first. For more information on the warranty, please see the enclosed warranty statement in the package.

Advanced technology puts you ahead

Our specialized tools and technology give your SSD more speed and security.

Intelligent TurboWrite
New Intelligent TurboWrite responsively accelerates speed; buffer size expanded from 12GB to 78GB for faster file transfers

* 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 the TurboWrite, please visit www.samsung.com

Dynamic Thermal Guard
Prevents overheating; maintains optimal temperature, with no drops in performance

256-bit Encryption
AES 256-bit hardware-based encryption engine; TCG™ Opal standard and IEEE® 1667 protocol compliant

Right size and fit

4TB Choose among capacity sizes up to 4TB to suit your exact need, in the same small space.

	Form factor	Capacity
860 PRO	2.5-inch	4TB, 2TB, 1TB, 512GB, 256GB
860 EVO	2.5-inch	4TB, 2TB, 1TB, 500GB, 250GB
	mSATA	1TB, 500GB, 250GB
	M.2	2TB, 1TB, 500GB, 250GB

2.5-inch / **M.2** / **mSATA**

Multiple form factors give you the right fit, for your desktop, laptop, or ultra slim PC

* M.2 and mSATA only available for 860 EVO.

Magician Software

Automatic updates; check drive health and speed; reach your SSD's maximum potential.

Firmware Update
Get notifications of new firmware; easily install updates for enhanced performance, stability, and compatibility

Performance Benchmark
Check sequential and random read/ write speeds; maintain superb performance

Data Security
Protect your important data by strengthened security options; AES 256-bit hardware-based encryption; TCG™ Opal standard and IEEE® 1667 compliant

RAPID Mode
Get 2x faster performance accelerated reads and writes

Drive Health & TBW Check
Get instant drive diagnostics (including TBW); assess overall SSD health; estimate remaining lifespan

System Compatibility
Uncover any system resource conflicts with your SSD; view summary of system components and SSD specs

Secure Erase
Fully remove sensitive data with no damage to SSD

SSD Authenticity
Confirm your SSD is authentic; ensure superior performance and reliability

S.M.A.R.T Check
Self-Monitoring, Analysis and Reporting Technology; SSD inspection; access critical data to preemptively detect possible drive failure

Performance Optimization
Restore SSD performance after extended use, with TRIM and Garbage Collection