



Samsung Electronics Advances SATA Lineup with 860 PRO and 860 EVO Solid State Drives Powered by V-NAND

Both drives integrate the latest 64-layer V-NAND technology and MJX controller for ultimate performance and reliability

SEOUL, Korea – Jan 24, 2018 – Samsung Electronics Co., Ltd. today introduced the 860 PRO and 860 EVO solid state drives (SSDs), the most up-to-date additions to the company's SATA interface lineup. The products are aimed at consumers who require fast, reliable performance across various applications, from everyday computing to heavy workloads and graphic-intensive operations. Building on the successful launch of the [850 PRO and 850 EVO](#) – the industry's first consumer SSDs with V-NAND technology – the 860 PRO and 860 EVO achieve industry-leading performance for SATA SSDs, offering enhancements in speed, reliability, compatibility and capacity.

"The new 860 PRO and 860 EVO SSDs combine the latest 512Gb and 256Gb 64-layer V-NAND, up to 4GB LPDDR4 mobile DRAM and a new MJX controller to elevate the user experience for both consumers and businesses," said Un-Soo Kim, senior vice president of Brand Product Marketing, Memory Business at Samsung Electronics. "Samsung will continue to fuel meaningful innovations in the consumer SSD space and drive growth of the overall memory industry for years to come."

As file sizes continue to increase with high-resolution photos and 4K videos, the need for faster data transfers and sustainable high performance over a longer period of time has become paramount for users. To address this need, Samsung's 860 PRO and 860 EVO support up to 560 MB/s read and 530 MB/s write¹ speeds and offer unmatched reliability with an upgraded five-year limited warranty², or up to 4,800 terabytes written (TBW)³ for the 860 PRO and up to 2,400 TBW⁴ for the 860 EVO. The new MJX controller also enables faster communication with the host system. The controller is powerful enough to handle workstation storage, while improving Linux operating system compatibility.

The 860 PRO are available in 256GB, 512GB, 1TB, 2TB and 4TB⁵ capacities, with the 4TB memory storage holding up to 114 hours and 30 minutes of 4K Ultra HD video. The 860 PRO is available in a widely compatible 2.5-inch form factor, which is ideal for PCs, laptops, workstations and NAS.

The 860 EVO come in 250GB, 500GB, 1TB, 2TB and 4TB⁶ capacities, in a 2.5-inch for PCs and laptops, as well as mSATA and M.2 form factors for ultra-slim computing applications. The 860 EVO has up to six times longer sustained performance than its predecessor due to enhanced Intelligent TurboWrite⁷ technology, with read and write speeds of up to 550 MB/s and 520 MB/s⁸, respectively.

The 860 PRO and 860 EVO SSDs are available from this month with manufacturer's suggested retail prices starting at \$139.99 and \$94.99 USD, respectively. For more information, please visit www.samsung.com/SSD, www.samsungssd.com.

¹ Performance may vary based on SSD's firmware version, system hardware and configuration. Performance measurements based on CrystalDiskMark v.5.0.2 and IOMeter 1.1.0. *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 Five years or TBW, whichever comes first. For more information on the warranty, please find the enclosed warranty document in the package.

^{3,4} Warrantied TBW for 860 PRO: 300 TBW for 256GB model, 600 TBW for 512GB model, 1,200 TBW for 1TB model, 2,400 TBW for 2TB model and 4,800 TBW for 4TB model.

Warrantied TBW for 860 EVO: 150 TBW for 250GB model, 300 TBW for 500GB model, 600 TBW for 1TB model, 1,200 TBW for 2TB model and 2,400 TBW for 4TB model.

^{5,6} 1GB=1,000,000,000 bytes by IDEMA. A certain portion of capacity may be used for system file and maintenance use, so the actual capacity may differ from what is indicated on the product label.

⁷ 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. For more information on the TurboWrite, please visit www.samsungssd.com.

⁸ Performance may vary based on SSD's firmware version, system hardware & configuration. Sequential write performance measurements are based on Intelligent TurboWrite technology. 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.

Key Specifications

Category	860 PRO	860 EVO
Interface	SATA 6 Gbps	
Form Factor	2.5-inch	2.5-inch, mSATA, M.2
Storage Memory	Samsung V-NAND 2bit MLC	Samsung V-NAND 3bit MLC
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)
Capacity	4TB, 2TB, 1TB, 512GB, 256GB	[2.5-inch] 4TB, 2TB, 1TB, 500GB, 250GB [M.2] 2TB, 1TB, 500GB, 250GB [mSATA] 1TB, 500GB, 250GB
Seq.Read/Write Speed	Up to 560/530 MB/s	Up to 550/520 MB/s
Ran.Read/Write Speed (QD32)	Max. 100K IOPS / 90K IOPS	Max. 98K IOPS / 90K IOPS
Device Sleep	2.5 mW for 1TB (Up to 7 mW for 4TB)	2.6 mW for 1TB (Up to 8 mW for 4TB)
Management SW	Magician Software for SSD management	
Total Byte Written	4TB: 4,800TB 2TB: 2,400TB 1TB: 1,200TB 512GB: 600TB 256GB: 300TB	4TB: 2,400TB 2TB: 1,200TB 1TB: 600TB 500GB: 300TB 250GB: 150TB
Warranty	5 years or up to 4,800 TBW ⁹	5 years or up to 2,400 TBW

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About Samsung Electronics Co., Ltd.

Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI, foundry and LED solutions. For the latest news, please visit the Samsung Newsroom at <http://news.samsung.com>.

⁹ Terabytes Written