

SAMSUNG

860 EVO 2.5" Solid State Drives

250 GB	MZ-76E250E	1 TB (1,000 GB)	MZ-76E1T0E
500 GB	MZ-76E500E	2 TB (2,000 GB)	MZ-76E2T0E
		4 TB (4,000 GB)	MZ-76E4T0E

Speed, performance and reliability, easily installed.

The latest addition to the world's best-selling SSD series in an advanced consumer-level 2.5" form factor.

Whatever your job calls for, do it faster and more reliably. The 860 EVO boosts everyday computing with speed, endurance and worry-free durability. Specifically engineered for long-lasting performance, Samsung SSDs offer our groundbreaking V-NAND technology, best-in-class TBW levels and a reinforced controller. They're ideal for mainstream PCs and laptops. And they're ideal for any business looking for an upgrade in productivity.

Key Features



The SSD to Trust

Offering the latest V-NAND technology and a robust algorithm-based controller, this fast and reliable SSD is specially designed for mainstream PCs and laptops.



Enhanced Performance

The 860 EVO performs at sequential writes up to 520 MB/s with Intelligent TurboWrite technology, and sequential reads up to 550 MB/s. The TurboWrite buffer size is upgraded from 12 GB to 78 GB for faster file transfer, heavy workloads and multitasking.



Boosted Endurance

With up to 8x higher TBW (Terabytes Written) than the 850 EVO, the 860 EVO safely stores and renders large 4K videos and 3D data. The latest V-NAND technology gives you up to 2,400 TBW, or is backed by a 5-year limited warranty.



Smart Compatibility

Benefit from faster, more fluid communication with your host system. The refined ECC algorithm and a new MJX controller generate higher speeds, and the improved queued trim enhances Linux compatibility.



Samsung Magician Software

Manage your SSD with a simple and intuitive user interface. Get notifications when new firmware is released, and easily install updates. Check your SSD's sequential and random read/write speeds to maintain superb performance. And protect data with AES 256-bit hardware-based encryption and compliancy with TCG Opal and IEEE 1667.



Multiple Form Factors

Whatever size your computer needs, there's an 860 EVO for you. Choose the 2.5-inch SSD for desktop PCs and laptops, or choose the SATA-based M.2 (2280) or the mSATA for ultra-slim computing devices.



Samsung 860 EVO 2.5" Solid State Drives



	MZ-76E250E	MZ-76E500E	MZ-76E1TOE	MZ-76E2TOE	MZ-76E4TOE
Usage Application	Client PCs	Client PCs	Client PCs	Client PCs	Client PCs
Capacity ¹	250 GB	500 GB	1 TB (1,000 GB)	2 TB (2,000 GB)	4 TB (4,000 GB)
Dimensions (WxHxD)	3.94" x 2.76" x 0.27"	3.94" x 2.76" x 0.27"	3.94" x 2.76" x 0.27"	3.94" x 2.76" x 0.27"	3.94" x 2.76" x 0.27"
Interface	SATA 6 Gb/s (Compatible with SATA 3 Gb/s and SATA 1.5 Gb/s)	SATA 6 Gb/s (Compatible with SATA 3 Gb/s and SATA 1.5 Gb/s)	SATA 6 Gb/s (Compatible with SATA 3 Gb/s and SATA 1.5 Gb/s)	SATA 6 Gb/s (Compatible with SATA 3 Gb/s and SATA 1.5 Gb/s)	SATA 6 Gb/s (Compatible with SATA 3 Gb/s and SATA 1.5 Gb/s)
Form Factor	2.5"	2.5"	2.5"	2.5"	2.5"
Controller	Samsung MJX Controller	Samsung MJX Controller	Samsung MJX Controller	Samsung MJX Controller	Samsung MJX Controller
NAND Flash Memory	Samsung V-NAND 3bit MLC	Samsung V-NAND 3bit MLC	Samsung V-NAND 3bit MLC	Samsung V-NAND 3bit MLC	Samsung V-NAND 3bit MLC
DRAM Cache Memory	512 MB LPDDR4	512 MB LPDDR4	1 GB LPDDR4	2 GB LPDDR4	4 GB LPDDR4
Performance ²	Sequential Read (Max.)	550 MB/s	550 MB/s	550 MB/s	550 MB/s
	Sequential Write (Max.)	520 MB/s	520 MB/s	520 MB/s	520 MB/s
	4KB Random Read (QD1) (Max.)	10,000 IOPS	10,000 IOPS	10,000 IOPS	10,000 IOPS
	4KB Random Write (QD1) (Max.)	42,000 IOPS	42,000 IOPS	42,000 IOPS	42,000 IOPS
	4KB Random Read (QD32) (Max.)	98,000 IOPS	98,000 IOPS	98,000 IOPS	98,000 IOPS
	4KB Random Write (QD32) (Max.)	90,000 IOPS	90,000 IOPS	90,000 IOPS	90,000 IOPS
Data Security	AES 256-bit Full Disk Encryption, TCG/Opal V2.0, Encrypted Drive (IEEE1667)	AES 256-bit Full Disk Encryption, TCG/Opal V2.0, Encrypted Drive (IEEE1667)	AES 256-bit Full Disk Encryption, TCG/Opal V2.0, Encrypted Drive (IEEE1667)	AES 256-bit Full Disk Encryption, TCG/Opal V2.0, Encrypted Drive (IEEE1667)	AES 256-bit Full Disk Encryption, TCG/Opal V2.0, Encrypted Drive (IEEE1667)
Weight (Max.)	3.0 oz.	3.0 oz.	3.0 oz.	3.3 oz.	3.3 oz.
Reliability (MTBF)	1.5 Million Hours	1.5 Million Hours	1.5 Million Hours	1.5 Million Hours	1.5 Million Hours
TBW (Terabytes Written)	150 TBW	300 TBW	600 TBW	1200 TBW	2400 TBW
Power Consumption ³	Active Read/Write (Average/Max)	2.2W / 2.2W	2.5W / 2.5W	3.0W / 3.0W	3.0W / 3.0W
	Idle (Max.)	50mW	50mW	50mW	50mW
	Device Sleep (Typ.)	2mW	2mW	2.6mW	5mW
Supporting Features	TRIM (Required OS Support), Garbage Collection, S.M.A.R.T	TRIM (Required OS Support), Garbage Collection, S.M.A.R.T	TRIM (Required OS Support), Garbage Collection, S.M.A.R.T	TRIM (Required OS Support), Garbage Collection, S.M.A.R.T	TRIM a(Required OS Support), Garbage Collection, S.M.A.R.T
Temperature	Operating	0 °C ~ 70 °C	0 °C ~ 70 °C	0 °C ~ 70 °C	0 °C ~ 70 °C
	Non-Operating	-45 °C to 85 °C	-45 °C to 85 °C	-45 °C to 85 °C	-45 °C to 85 °C
Humidity	5% to 95%, Non-Condensing	5% to 95%, Non-Condensing	5% to 95%, Non-Condensing	5% to 95%, Non-Condensing	5% to 95%, Non-Condensing
Vibration (Non-Operating)	20~2000Hz, 20G	20~2000Hz, 20G	20~2000Hz, 20G	20~2000Hz, 20G	20~2000Hz, 20G
Shock (Non-Operating) ⁴	1500G, Duration 0.5m Sec, 3 Axis	1500G, Duration 0.5m Sec, 3 Axis	1500G, Duration 0.5m Sec, 3 Axis	1500G, Duration 0.5m Sec, 3 Axis	1500G, Duration 0.5m Sec, 3 Axis
Warranty ⁵	5 Years Limited	5 Years Limited	5 Years Limited	5 Years Limited	5 Years Limited



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¹1GB = 1,000,000,000 bytes. Actual usable capacity may be less (due to formatting, partitioning, operating system, applications or otherwise). ²Performance 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 sequential write performances after Intelligent TurboWrite region are 300 MB/s for 250/500 GB and 500 MB/s for 1TB. The TurboWrite buffer size varies based on the capacity of the SSD; 12 GB for 250 GB model, 22 GB for 500 GB model, 42 GB for 1 TB model and 78 GB for 2/4 TB model. For more information on TurboWrite, please visit www.samsungssd.com. Test system configuration: Intel Core i5-3550 CPU @ 3.3 GHz, DDR3 1333 MHz 4GB, OS Windows 7 Ultimate x64, Chipset: ASUS P8H77-V. ³Power consumption measured with Iometer 1.1.0 with Intel Core i5-3550 CPU @ 3.3 GHz, DDR3 1333 MHz 4 GB, OS Windows 7 Ultimate x64, Chipset: ASUS P8H77-V. ⁴Internal free fall shock test conducted under controlled conditions. ⁵Warranty 5 years or TBW, whichever comes first. For more information on the warranty, please find the warranty statement enclosed in the package.