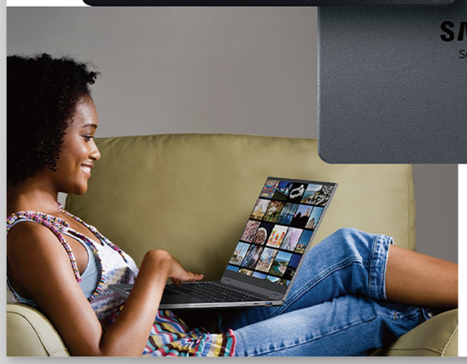
SAMSUNG

870 EVO | QVO

The definitive SSD for every need



WORLD'S No.1 FLASH MEMORY SINCE 2003 SAMSUNG

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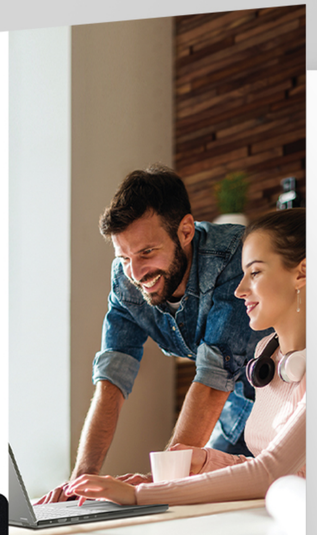

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The world's favorite SSD series

The 870 EVO and 870 QVO are Samsung's latest SATA SSDs in the 870 series that boast unparalleled speeds and reliability compared to HDDs that read and write data using moving parts. Accelerating all computing processes including everyday computing from booting, gaming, to processing heavy workloads, this affordable and easy-to-install SSD series is a great choice for replacing traditional HDDs.

Accelerate every task

Experience a computing environment expertly optimized for faster booting, multi-tasking, and high-end gaming. The 870 series boosts your computer's performance up to 3.6 times more compared to traditional HDDs*, providing maximum read and write speeds up to 560 and 530 MB/s respectively. The drive's Intelligent TurboWrite technology also helps maintain this peak performance for the long-term.

Intelligent TurboWrite

MB/s

Sequential Reads up to **560 MB/s** | Sequential Writes up to **530 MB/s**

* Comparing the sequential read speeds of the 860 EVO 1TB and the 2.5-inch 7200rpm HDD.

Sustainable performance

For world-class product integrity and reliability, the 870 series features improved sustained write performance up to 30%* compared to its predecessors** to ensure consistent performance throughout heavy or prolonged workloads. The 870 EVO gives you up to 2,400 TBW or a 5-year limited warranty and the 870 QVO delivers up to 2,880 TBW or a 3-year limited warranty, making sure your SSD experience stands the test of time.

870 EVO

Capacity	250GB	500GB	1TB	2TB	4TB
TBW	150TBW	300TBW	600TBW	1,200TBW	2,400TBW

870 QVO

Capacity	1TB	2TB	4TB	8TB
TBW	360TBW	720TBW	1,440TBW	2,880TBW

* 30% improvement for EVO, 21% improvement for QVO. ** Compared with 860 QVO 2TB and 860 EVO 250GB.

870 EVO

- The latest TLC SSD model of the world's best-selling* SSD series
- Provides maximum SATA speeds of up to 560/530 MB/s
- Versatile enough to meet the needs of any user

870 QVO

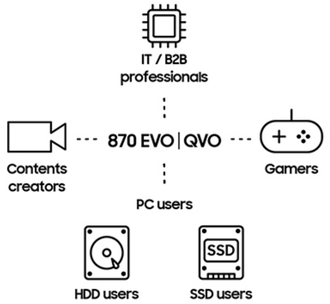
- The largest** client QLC SSD, providing 8TB of reliable storage
- Provides maximum SATA speeds of up to 560/530 MB/s
- Offering uncompromising performance at an affordable price for mainstream users

* Sources: 850 EVO and 860 EVO series, NPD (US data from Jan. 2015 to Apr. 2020) and GfK (EUS data from Jan. 2015 to Apr. 2020, China data from Sep. 2018 to Apr. 2020)

** 8TB is the largest Client SATA SSD as of its release date.

Tailored for any user

The 870 series meets the SSD needs of every user. Check to see which model will suit your needs.



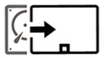
870 EVO | World's most popular all-around SSD series that can handle a wide spectrum of tasks from everyday computing, graphic-heavy workloads, to NAS applications.

870 QVO | The first consumer terabyte SSD to offer 8TB of storage, providing massive storage for mainstream users and specialized needs in data-heavy tasks and archiving.

Upgrade Easily

Anyone can easily upgrade to a 870 series SSD. Just plug in the 870 series into any PC or laptop that supports the standard 2.5-inch SATA form factor and run the renewed migration software to upgrade your computing experience in no time.

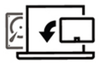
STEP 1.



Back-up

your data to SSD with Samsung Migration Software.

STEP 2.



Replace

the existing drive with the SSD. Re-boot and use your PC.

Terabyte-level storage

With more than enough capacity, the 870 series can handle 4K videos and massive 3D files with ease. While the 870 EVO is available in various sizes from 250GB, 500GB, 1TB, 2TB, to 4TB, the 870 QVO, being the first ever consumer terabyte SSD to offer 8TB of storage, opens a new era of affordable terabyte-level SSDs through options of 1TB, 2TB, 4TB, and 8TB.

870 EVO | 4TB | 4TB / 2TB / 1TB 500GB / 250GB

870 QVO | 8TB | 8TB / 4TB 2TB / 1TB

Technical Specifications

		870 EVO	870 QVO
General Feature	Form Factor	2.5-inch	
	Application	Client PCs	
	Capacity	4TB, 2TB, 1TB, 500GB, 250GB	8TB, 4TB, 2TB, 1TB
	Interface	SATA 6 Gb/s Interface, compatible with SATA 3 Gb/s & 1.5 interfaces	
	Dimension (WxHxD)	100 X 69.85 X 6.8 (mm)	
	Weight	Max. 48g	
	Storage Memory	Samsung V-NAND 3bit MLC	Samsung V-NAND 4bit MLC
	Controller	Samsung MKX Controller	
	Cache Memory	4GB LPDDR4 (4TB) / 2GB LPDDR4 (2TB) 1GB LPDDR4 (1TB) / 512MB LPDDR4 (250/500GB)	8GB LPDDR4 (8TB) / 4GB LPDDR4 (4TB) 2GB LPDDR4 (2TB) / 1GB LPDDR4 (1TB)
Performance	Sequential Read/Write	Max. 560 MB/s / 530 MB/s	
	Random Read/Write (4KB, QD32)	Max. 98K IOPS / 88K IOPS	Max. 98K IOPS / 88K IOPS
	Random Read/Write (4KB, QD1)	Max. 13K IOPS / 36K IOPS	Max. 11K IOPS / 35K IOPS
Special Features	TRIM	Supported	
	S.M.A.R.T		
	Device Sleep Mode		
	GC (Garbage Collection)	Auto Carbage Collection Algorithm	
	Data Encryption	AES 256-bit Full Disk Encryption, TCG/Opal V2.0, Encrypted Drive (IEEE1667)	
Power Consumption	Active (max.)	2.2W (4TB)	2.4W (8TB)
	Active (average)	2.5W (4TB)	3.3W (8TB)
	Idle	35mW (4TB)	45mW (8TB)
	Device sleep	6.5mW (4TB)	10mW (8TB)
Environment	Allowable Voltage	5V ± 5% Allowable voltage	
	Reliability (MTBF)	1.5 Million Hours Reliability (MTBF)	
	Operating Temperature	0 - 70 ℃ Operating Temperature	
	Shock	1,500 G & 0.5 ms (Half sine)	
Software	Management SW	Magician Software	
Warranty (Total Bytes Written)		5-Year Limited Warranty or TBW Limited Warranty	3-Year Limited Warranty or TBW Limited Warranty
		4TB: 2,400TB / 2TB: 1,200TB / 1TB: 600TB 500GB: 300TB / 250GB: 150TB	8TB: 2,880TB / 4TB: 1,440TB / 2TB: 720TB / 1TB: 360TB

- 1GB=1,000,000,000 bytes by IDEMA. A certain portion of capacity may be used for system file and maintenance, so the actual capacity may differ from what is indicated on the product label.
- Performances may vary depending on SSD's firmware version and system hardware & configuration. For 870 EVO and 870 QVO, performances were measured with activated Intelligent TurboWrite technology. Performances may not be sustained for the portion of data exceeding over Intelligent TurboWrite buffer size. Sequential performance measurements based on CrystalDiskMark v.5.0.2. and Random performance measurements based on IOmeter1.1.0.
- [870 EVO] Test system configuration: Intel® Core i7-470K CPU @ 4.0 GHz, DDR3 1600 MHz 8GB, OS-Windows 10 Pro 64bit, Chipset-ASUS Z97 PRO
- [870 QVO] Test system configuration: Intel® Core i7-7700K CPU@4.20GHz, DDR4 1200MHz 32GB, OS-Windows 10 Pro 64bit, Chipset-ASUS PRIME Z270-A
- The Intelligent TurboWrite buffer size varies based on the capacity of the SSD: Up to 12GB for 250GB model, up to 22 GB for 500GB model, up to 42GB for 1TB model and up to 78GB for 2/4/8TB models.
- [870 EVO] Limited warranty of 5-years or TBW, whichever comes first.
  [870 QVO] Limited warranty of 3-years or TBW, whichever comes first. For more information on warranty, please find the enclosed warranty statement in the package.
- TBW(Total Bytes Written): The total amount of data that can be written on an SSD before it is likely to fail.
- Actual power consumption may vary depending on system hardware & configuration.

For more information about the Samsung SSD, visit **samsung.com/ssd** or **samsungssd.com.**

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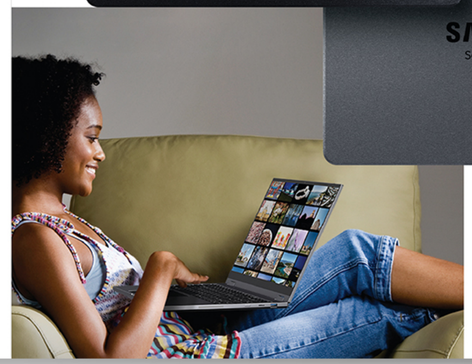

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