Performance PLUS reliability PLUS productivity

Featuring the latest Samsung V-NAND technology and the proven Samsung in-house controller, the Samsung 970 EVO Plus NVMe™ SSD delivers unrivaled performance. Your business will benefit from sequential read/write speeds of up to 3,500/3,300 MB/s. And the faster your computers, the faster your work gets done. Upgrade your PCs and laptops, and upgrade your productivity with the Samsung 970 EVO Plus NVMe™ SSD.

250GB	MZ-V7S250B/AM	UPC 887276303734
500GB	MZ-V7S500B/AM	UPC 887276303741
1TB	MZ-V7S1T0B/AM	UPC 887276303758
2TB	MZ-V7S2T0B/AM	UPC 887276303765

Key Features

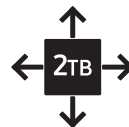### SSD Designed for Performance

SAMSUNG V-NAND SSD

The Samsung 970 EVO Plus delivers breakthrough speeds, best-in-class reliability and capacities of up to 2TB[1]. The latest V-NAND memory, Samsung in-house controller, and Intelligent TurboWrite technology enhance 4K and 3D graphic editing, high-end game play and virtually every other task.

NVMe™ Next-Level SSD Speed

The Non-Volatile Memory express (NVMe™) interface is specifically engineered to increase NAND flash storage transfer speeds. Combined with a Samsung in-house controller and Intelligent TurboWrite technology, the 970 EVO Plus streamlines graphic-intensive workflows. The 970 EVO Plus also features firmware optimization to reach sequential read/write speeds up to 3,500/3,300 MB/s[2].

Design Flexibility

The next advancement in NVMe™ SSD. The 970 EVO Plus fits 250GB, 500GB, 1TB or 2TB onto the compact M.2 (2280) form factor[3], greatly expanding storage capacity and saving space for other components. Samsung's innovative technology empowers you with the capacity to do more and accomplish more.

Exceptional Endurance

The new standard in sustainable performance. The 970 EVO Plus is warranted for up to 5 years or up to 1200 TBW (depending on drive size)[4]. The 970 EVO Plus provides your business exceptional endurance.
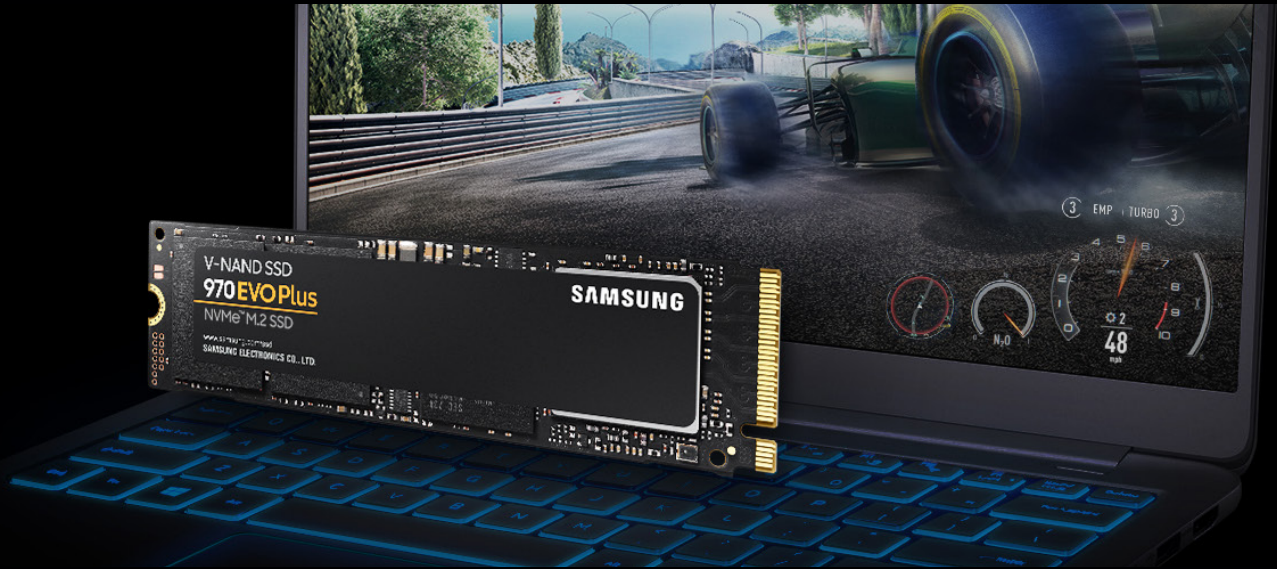
Unparalleled Reliability

Achieve a new level of drive confidence. Samsung's advanced nickel-coated controller and heat spreader enable superior heat dissipation. The Dynamic Thermal Guard automatically monitors and maintains optimal operating temperatures to minimize performance drops.

Samsung Magician Software

Advanced drive management made simple. The Samsung Magician software will help you keep an eye on your drive. A suite of user-friendly tools helps keep your drive up to date, monitors drive health and speed, and boosts performance through RAPID mode.

[1] GB=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. [2] Sequential and random performance measurements based on Iometer 1.1.0. Performance may vary based on SSD's firmware version, system hardware and configuration. Test system configuration: Intel® Core i7-7700K @ 4.2 GHz, Samsung DDR4 32 GB (16 GB x 2), Windows® 10 Built 10240, ASUS PRIME™ Z270-A. Sequential and random write performance was measured with Intelligent TurboWrite technology activated. The sequential write performances for the portion of data exceeding Intelligent TurboWrite buffer size are: 400 MB/s for 250GB, 900 MB/s for 500GB, 1700 MB/s for 1TB and 1750 MB/s for 2TB. The random write performances for the portion of data exceeding Intelligent TurboWrite buffer size (tested with QD 32 Thread 4) are: 100,000 IOPS for 250GB, 200,000 IOPS for 500GB, 400,000 IOPS for 1TB and 420,000 IOPS for 2TB. Performance may vary depending on SSD's firmware, system hardware and configuration, and other factors. [3] M.2 is a specification of form factor for ultra-thin PCs. The M.2 standard allows widths of 12, 16, 22 and 30 mm and lengths of 16, 26, 30, 38, 42, 69, 80 and 110 mm. Commercially, M.2 is popular with a width of 22 mm and lengths of 30, 42, 60, 80 and 110 mm. Samsung provides the most popular form factor with a 22 mm x 80 mm model (i.e., 2280) for user convenience. [4] Warranty 5 years or TBW, whichever comes first. For more information on the warranty, please find the warranty statement enclosed in the package. [5] Actual power consumption may vary depending on system hardware and configuration.

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*Source: 2003-Q3 2020 IHS Markit data: NAND suppliers' revenue market share

Specifications

Interface	PCIe® Gen3.0 x4, NVMe™ 1.3
Form Factor	M.2 (2280)

Hardware

Controller	DRAM Cache Memory
In-house	512MB LPDDR4 (250GB)
NAND Flash Memory	512MB LPDDR4 (500GB)
Samsung V-NAND	1GB LPDDR4 (1TB)
3-Bit MLC	2GB LPDDR4 (2TB)

Capacity[1]	250GB/500GB/1TB/2TB
Dimensions (L x W x H)	3.16" x 0.87" x 0.09"
Weight (Max.)	0.3 oz. / 8 g.

Sequential Read/Write (MB/s)[2]
Up to 3,500/2,300 (250GB)
Up to 3,500/3,200 (500GB)
Up to 3,500/3,300 (1TB & 2TB)

Random Read/Write (IOPS)[2]

QD1
Up to 17,000/60,000 (250GB)
Up to 19,000/60,000 (500GB & 1 TB)
Up to 19,000/62,000 (2TB)
QD32
Up to 250,000/550,000 (250GB)
Up to 480,000/550,000 (500GB)
Up to 600,000/550,000 (1TB)
Up to 620,000/560,000 (2TB)

Power Consumption[5]

System Level (Avg.)	Idle (Max.)
5W (250GB)	30 mW
5.8W (500GB)	
6W (1TB & 2TB)	

Data Encryption	AES 256-bit Full Disk Encryption (Class 0), TCG Opal V2.0, IEEE 1667 (Encrypted Drive)

Total Bytes Written
Up to 150 TBW (250GB)   Up to 600 TBW (1TB)
Up to 300 TBW (500GB)   Up to 1,200 TBW (2TB)

Warranty[4]	Limited 5-year

250GB   **500GB**   **1TB**   **2TB**

970 EVO Plus NVMe™ M.2 SSD