

SAMSUNG

990 PRO PCIe Gen4 NVMe™ M.2 SSD

Blistering performance

Reach max performance of PCIe® 4.0¹. Experience longer-lasting, opponent blasting speed. The in-house controller's smart heat control delivers our best power efficiency while maintaining ferocious performance that always keeps you at the top of your game.



1TB MZ-V9P1T0B/AM | UPC 887276657004

2TB MZ-V9P2T0B/AM | UPC 887276657011

4TB MZ-V9P4T0B/AM | UPC 887276795195

Key Features

Performance



Get random read/write speeds that are 40%/55% faster than 980 PRO. Experience up to 1600K/1550K IOPS, while sequential read/write speeds up to 7450/6900 MB/s reach near the max performance of PCIe® 4.0². Fly high in gaming, video editing, 3D modeling, data analysis and more.

Thermal Control



Samsung's own nickel-coated high-end controller delivers effective thermal control and helps prevent sudden performance drops from overheating.

Winning Combination



A more than 55% improvement in random performance³ enables faster loads for an ultimate gaming experience on PS5 and DirectStorage PC games⁴.

Samsung Magician Software



Get the most out of your SSD with Samsung Magician's advanced yet intuitive optimization tools. Monitor drive health, protect valuable data, receive important updates for your 990 PRO. It's your personal SSD toolkit.

Power Efficiency



Get more performance while using less power. Enjoy up to 50% improved performance per watt over 980 PRO⁵.

¹PCIe 4.0's best theoretical sequential read is 8000 MB/s - 990 PRO reaches 7450 MB/s as of Q3, 2022. ²Sequential and random write performance was measured with Intelligent Turbo Write technology being activated. Intelligent Turbo Write operates only within a specific data transfer size. Performance may vary depending on SSD's firmware, system hardware & configuration and other factors. For detailed information, please contact your local service center. 990 PRO reaches 7,450 MB/s based on test system configuration: AMD Ryzen 7 5800X 8-Core Processor CPU@3.80GHz, DDR4 3600MHz 16GBx2 (PC4-25600 Overclock), OS - Windows 10 Pro 64bit, Chipset - ASRock-X570 Taichi. To maximize the performance of the 990 PRO, please check whether your system supports PCIe 4.0 at the Intel or AMD website. ³As compared to 980 PRO. ⁴DirectStorage technology from Microsoft loads games faster than before by leveraging the multiple GB/sec speed of modern NVMe SSDs. ⁵980 PRO Sequential Read/Write - 1,129/877 MB/Watt, 990 PRO Sequential Read/Write - 1380/1319 MB/Watt based on test result of 1TB capacity model.

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WORLD'S
No. 1
FLASH MEMORY
BRAND*
SINCE 2003
SAMSUNG



Specifications

Source: 2003–2022 OMDIA data: NAND suppliers' revenue market share.

Interface PCIe® Gen.4 X4, NVMe™ 2.0

Form Factor M.2 (2280), Heatsink

Hardware	NAND	DRAM
	V7 V-NAND TLC	1GB LPDDR4 (1TB)
	V8 V-NAND TLC	2GB LPDDR4 (2TB)
	Controller	4GB LPDDR4 (4TB)
	In-House	

Capacity 1TB/2TB/4TB

Sequential Read/Write (MB/s) Up to 7,450/6,900

Random Read/Write (IOPS,QD32) Up to 1,600k

Device Sleep 5.8 mW

Data Encryption Class 0 (AES 256), TCG/Opal v2.0, MS eDrive (IEEE1667)

Total Bytes Written 600 TBW (1TB)
1,200 TBW (2TB)
2,400 TBW (4TB)

Warranty Limited 5-year

1TB

2TB

4TB

**990 PRO: Gen4 PCIe®
NVMe™ SSD**

