

Blistering performance

Reach near max performance with PCIe® 4.0¹. 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.

The integrated heatsink disperses heat to maintain speed, power efficiency, and thermal control, preventing downtime from overheating on Playstation®5 and PCs.



1TB

MZ-V9P1T0CW | UPC 887276656984

2TB

MZ-V9P2T0CW | UPC 887276656991

Key Features

Performance



Get random read/write speeds that are 40%/55% faster than 980 PRO. Experience up to 1400K/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.

Smart Thermal Solution



Samsung's own nickel-coated high-end controller delivers effective thermal control and prevents sudden performance drops from overheating. Play confidently with stable thermal power and minimizing fan noise even during heavy-graphic gaming. With its slim size, 990 PRO with Heatsink is a perfect fit for Playstation® 5, desktops and laptops that meet the PCI-SIG® D8 standard³.

Winning Combination



A more than 55% improvement in random performance⁴ enables faster loads for an ultimate gaming experience on PS5 and DirectStorage PC games⁵. With RGB LED lights, Heatsink's futuristic design adds style to function.

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 PRO⁶.

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. ³PCI-SIG®D8 standard spec: 8.8mm. ⁴As compared to 980 PRO. ⁵DirectStorage technology from Microsoft loads games faster than before by leveraging the multiple GB/sec speed of modern NVMe SSDs. ⁶980 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

SAMSUNG



Specifications

Source: 2003~1H.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) 2GB LPDDR4 (2TB)
	Controller In-House	

Capacity 1TB/2TB

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

Random Read/Write (IOPS,QD32) Up to 1,550k

Device Sleep 5 mW

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

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

Warranty Limited 5-year

1TB

2TB

990 PRO with Heatsink:
Gen4 PCIe® NVMe™ SSD

