**990 PRO w/ Heatsink PCIe®4.0 NVMe™ SSD 1TB**

**MZ-V9P1T0 /MZ-V9P1T0CW**

* • Designed for tech enthusiasts, hardcore gamers and heavy-workload professionals who want blazing fast speed.  
    
  • Compatible with Playstation®5.  
    
  • The integrated heatsink disperses heat to maintain speed, power, efficiency and thermal control, preventing downtime overheating on consoles and PCs.  
    
  • Sequential read/write speeds up to 7,450/6,900 MB/s.
* **Storage**
* **[2TB](https://www.samsung.com/us/computing/memory-storage/solid-state-drives/990-pro-w-heatsink-pcie-4-0-nvme-ssd-2tb-mz-v9p2t0cw/" \t "_self)**
* [$309.99](https://www.samsung.com/us/computing/memory-storage/solid-state-drives/990-pro-w-heatsink-pcie-4-0-nvme-ssd-2tb-mz-v9p2t0cw/" \t "_self)
* **[1TB](https://www.samsung.com/us/computing/memory-storage/solid-state-drives/990-pro-w-heatsink-pcie-4-0-nvme-ssd-1tb-mz-v9p1t0cw/" \l "benefits" \t "_self)**
* [$189.99](https://www.samsung.com/us/computing/memory-storage/solid-state-drives/990-pro-w-heatsink-pcie-4-0-nvme-ssd-1tb-mz-v9p1t0cw/" \l "benefits" \t "_self)
* General Feature

**Application**

Client PCs, Game Consoles

**Capacity**

1,000GB (1GB=1 Billion byte by IDEMA) \* Actual usable capacity may be less (due to formatting, partitioning, operating system, applications or otherwise)

**Interface**

PCIe Gen 4.0 x4, NVMe 2.0

**Dimension (WxHxD)**

80 x 24.3 x 8.2 mm (with heatsink)

**Weight**

Max 28.0g Weight

**Form Factor**

M.2 (2280)

**Storage Memory**

Samsung V-NAND 3-bit MLC

**Controller**

Samsung in-house Controller

**Cache Memory**

Samsung 1GB Low Power DDR4 SDRAM

* Performance

**Sequential Read**

Up to 7,450 MB/s \* Performance may vary based on system hardware & configuration

**Sequential write**

Up to 6,900 MB/s \* Performance may vary based on system hardware & configuration

**Random Read (4KB ,QD32)**

Up to 1,200,000 IOPS \* Performance may vary based on system hardware & configuration

**Random Write (4KB ,QD32)**

Up to 1,550,000 IOPS \* Performance may vary based on system hardware & configuration

**Random Read (4KB ,QD1)**

Up to 22,000 IOPS \* Performance may vary based on system hardware & configuration

**Random Write (4KB ,QD1)**

Up to 80,000 IOPS \* Performance may vary based on system hardware & configuration

* Type

**Product Type**

990 PRO with Heatsink

* Key Features

**NVMe**

Yes

* Environmental Specs

**Operating Temperature**

0 - 70 ℃ Operating Temperature

**Shock**

1,500 G & 0.5 ms (Half sine)

* Software

**Management SW**

Magician Software for SSD management

* Warranty

**Product**

5-Year Limited Warranty or 600 TBW Limited Warranty

* Special Feature

**TRIM Support**

Supported

**S.M.A.R.T Support**

Supported

**GC (Garbage Collection)**

Auto Garbage Collection Algorithm

**Encryption Support**

AES 256-bit Encryption (Class 0)TCG/Opal IEEE1667 (Encrypted drive)

**WWN Support**

Not supported

**Device Sleep Mode Support**

Yes

* Environment

**Average Power Consumption (system level)**

\*Average: 5.4 W\*Maximum: 7.8 W (Burst mode)\* Actual power consumption may vary depending on system hardware & configuration

**Power consumption (Idle)**

Max. 50 mW \* Actual power consumption may vary depending on system hardware & configuration

**Allowable Voltage**

3.3 V ± 5 % Allowable voltage

**Reliability (MTBF)**

1.5 Million Hours Reliability (MTBF)

* Accessories

**Installation Kit**

Not Available