SAMSUNG

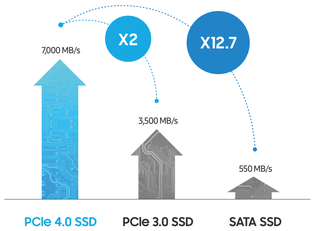
PCIe® 4.0 NVMe™ SSD
980 PRO | 980 PRO with Heatsink

Boost your gaming storage

Unleash the power of the Samsung PCIe® 4.0 NVMe™ SSD 980 PRO series for next-level computing. Designed for graphic-intensive games and heavy-duty applications, the 980 PRO series leverages Samsung's advanced in-house controller and the PCIe® 4.0 interface, to deliver double the data transfer rate of PCIe® 3.0 while staying backward compatible for total versatility. The added Heatsink elevates speed, power efficiency, and thermal control to maximize gaming performance.

WORLD'S No.1 FLASH MEMORY SINCE 2003 SAMSUNG

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



Next-level NVMe SSD performance

Powered by Samsung's in-house controller for PCIe® 4.0 SSD, the 980 PRO series is optimized for speed. It delivers read speeds up to 7,000 MB/s, making it 2 times faster than PCIe® 3.0 SSDs and 12.7 times faster than SATA SSDs. The 980 PRO achieves max speeds on PCIe® 4.0 and may vary in other environments.

A winning combination

Gamers and tech-savvy users will appreciate the thermal control, high-performance bandwidth, exceptional sustained performance, and throughput for heavy-duty applications in gaming, graphics, and more. It's fast at loading games, so play more and wait less. Play your best game in a quiet environment without distracting noise. Heavy workloads hardly need a cooling fan because smart heat management reduces heat rise and fan work. Now you can concentrate on uninterrupted, fully immersive gameplay. The 980 PRO series' compact M.2 2280 form factor easily plugs into desktops and laptops for maximum board design flexibility. The drive is ideal for building high-performance computing systems with its optimized power efficiency.

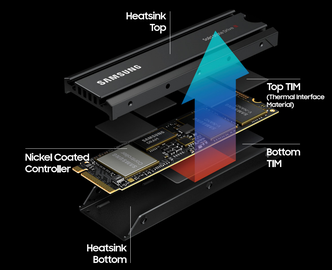
Sequential Reads up to **7,000 MB/s** | Random Reads up to **1,000K IOPS**
Sequential Writes up to **5,100 MB/s** | Random Writes up to **1,000K IOPS**

Intelligent Turbo Write

nvm EXPRESS™

Smart, reliable thermal control

The 980 PRO series' next-level performance is supported by exceptional thermal control. Samsung's own nickel-coated high-end controller delivers reliable thermal control while managing the heat levels of the NAND chip. The 980 PRO series' efficient heat spreader label also allows thermal control access, while the 980 PRO with Heatsink uses sophisticated and proven thermal control technology from Samsung Datacenter SSDs. The Heatsink effectively dissipates heat, minimizing sudden performance drops from overheating on most gaming consoles and PC systems for continuous, high-performance gameplay.



Technical Specifications

		980 PRO with Heatsink		980 PRO			
Model Code		MZ-V8P2T0CW	MZ-V8P1T0CW	MZ-V8P2T0BW	MZ-V8P1T0BW	MZ-V8P500BW	MZ-V8P250BW
General Feature	Capacity	2TB	1TB	2TB	1TB	500GB	250GB
	Form Factor	M.2 (2280)					
	Interface	PCIe Gen 4.0x4, NVMe 1.3c					
	Dimension (WxHxD)	Max 80.15 x Max 24.15 x 8.6 (mm)		Max 80.15 x 22.15 x 2.38 (mm)			
	Weight	Max 30.5 g weight		Max. 9.0 g Weight			
	Storage Memory	Samsung V-NAND 3-bit MLC					
	Controller	Samsung in-house Controller					
	DRAM Cache Memory	2GB LPDDR4	1GB LPDDR4	2GB LPDDR4	1GB LPDDR4	512MB LPDDR4	
Performance (Up to)	Sequential Read	7,000 MB/s	7,000 MB/s	7,000 MB/s	7,000 MB/s	7,000 MB/s	6,400 MB/s
	Sequential Write	5,100 MB/s	5,000 MB/s	5,100 MB/s	5,000 MB/s	5,000 MB/s	2,700 MB/s
	Random Read	1,000K IOPS	1,000K IOPS	1,000K IOPS	1,000K IOPS	800K IOPS	500K IOPS
	Random Write	1,000K IOPS	1,000K IOPS	1,000K IOPS	1,000K IOPS	1,000K IOPS	600K IOPS
Software	Management Software	Samsung Magician Software					
Warrenty	TBW	1,200TB	600TB	1200TB	600TB	300TB	150TB
	Warranty (years)	5-Year Limited Warranty					

* The NVM Express® design mark is a registered trademark of NVM Express, Inc.
* Results are based on a comparison with Samsung PCIe 3.0 NVMe SSDs and SATA SSDs.
* Sequential and random write performance was measured with Intelligent TurboWrite technology being activated. Intelligent TurboWrite 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.
* Test system configuration: AMD Ryzen 9 3900X 12-Core Processor CPU@3.79GHz, DDR4 2666MHz 16GBx2, OS-Windows 10 Pro 64bit, Chipset-ASUS-X570-ROG CROSSHAIR VIII FORMULA.
* 1GB=1,000,000,000 bytes by IDEMA. A certain portion of capacity may be used for system file and maintenance use, so the actual capacity may differ from what is indicated on the product label.
* Five years or TBW, whichever comes first. For more information on the warranty, please find the enclosed warranty document in the package.
* Samsung's warranty will be void if any of the following instructions violated.
  . When assembling the 980 PRO, do not overtighten the 980 PRO with Heatsink to the motherboard.
  . The 980 PRO with Heatsink has a pre-installed heat sink and it should not be removed as it can damage the device.
  . The max dimensions of the 980 PRO with Heatsink are 81.5 mm (L) x 24.15 mm (W) x 8.6mm (H). Please check your host system provides sufficient space for installation in advance.
  . Product warranty will be void if a heatsink is removed from 980 PRO with Heatsink.
* Samsung Electronics shall not be liable for any loss, including but not limited to loss of data or other information contained on Samsung Electronics product or loss of profit or revenue which may be incurred by user. For more information on the warranty, please visit samsung.com/ssd.

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