



Product Highlights:

- **PCIe 5.0 technology delivers blistering read/write speeds up to 14,400/13,400MB/s¹ and accelerates load times by 200%² – great with AMD Ryzen and Intel i9**
- **A powerful 6nm controller optimizes heat control for a smoother experience and more efficient performance**
- **Superior Gen 5 performance and up to 8TB to eliminate bottlenecks and accelerate AI model training, inference, and real-time data processing**
- **DRAM Cache and SLC Dynamic Cache greatly enhance data transfer speeds to reduce wait times and improve system responsiveness**
- **Works with Microsoft DirectStorage³ to significantly boost game loads, minimize delays, conserve CPU power, and enrich the gaming experience**
- **Lexar DiskMaster SSD Management tool lets you perform firmware updates, manage the drive and its data, and monitor drive health**

Capacities:

1TB

up to 14,000MB/s read, 10,000MB/s write¹

2TB

up to 14,000MB/s read, 13,000MB/s write¹

4TB

up to 14,000MB/s read, 13,000MB/s write¹

8TB

up to 14,400MB/s read, 13,400MB/s write¹



Performance for the Next Level

Experience blazing load times up to 200% faster thanks to PCIe 5.0 technology and an advanced thermal control design. With incredible read speed up to 14,400MB/s and write speed up to 13,400MB/s,¹ the Lexar® Professional NM1090 PRO M.2 2280 PCIe Gen 5x4 NVMe SSD delivers the performance – and up to 8TB capacity – to accelerate AI model training and deliver stunningly immersive gaming and professional rendering, and more. DRAM Cache and SLC Dynamic Cache also contribute to enhanced data transfer speeds, reducing wait times and improving system responsiveness. Additionally, the drive's powerful 6nm controller increases heat dissipation to offset its blistering speed.

Accelerate Load Times by up to 200%. Experience blistering read/write speeds up to 14,400/13,400MB/s¹ thanks to a combination of PCIe 5.0 technology and next-gen 3D TLC NAND. Pair with AMD Ryzen or Intel i9 for a next-level game experience.

Heat-Defying 6nm Controller. A powerful 6nm controller optimizes heat control for a smoother experience and more efficient performance. At high performance loads, the NM1090 PRO SSD's peak temperatures are 36% lower compared to a competitor using a 12nm controller.

Perfect Internal SSD for AI PCs. The NM1090 PRO SSD offers superior Gen 5 performance and a huge 8TB capacity to eliminate bottlenecks and speed up AI model training, inference, and real-time data processing. Instantly load AI painting models, render videos seamlessly, and run multiple AI applications smoothly – all powered by the speed and space your AI PC demands.

A State-of-the-Art Experience. DRAM Cache and SLC Dynamic Cache greatly enhance data transfer speeds to reduce wait times and improve system responsiveness.

Compatible with Microsoft DirectStorage. Built to leverage Microsoft DirectStorage³ and significantly boost game loads, minimize delays, conserve CPU power, and enrich the gaming experience.

Easy Drive Management. The Lexar DiskMaster SSD Management tool allows you to perform firmware updates that enhance the drive's reliability, manage drive data, securely erase private files, and monitor drive health to detect potential issues.

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Specifications

Capacity	1TB, 2TB, 4TB, 8TB
Form Factor	M.2 2280
Interface	PCIe Gen 5x4
Speed	1TB: Sequential read/write speed up to 14,000/10,000MB/s ¹ , random read/write up to 1650K/1800K IOPs 2TB: Sequential read/write speed up to 14,000/13,000MB/s ¹ , random read/write up to 2100K/1800K IOPs 4TB: Sequential read/write speed up to 14,000/13,000MB/s ¹ , random read/write up to 2100K/1700K IOPs 8TB: Sequential read/write speed up to 14,400/13,400MB/s ¹ , random read/write up to 2000K/2100K IOPs
DRAM Capacity	1TB: 2GB, 2TB: 2GB, 4TB: 4GB, 8TB: 8GB
Operating Temperature	0° to 70° C (32°F to 158°F)
Storage Temperature	-40° to 85° C (-40°F to 185°F)
Shock Resistant	1500G, duration 0.5ms, Half Sine Wave
Vibration Resistant	10~2000Hz, 1.5mm, 20G, 1Oct/min, 30min/axis (X, Y, Z)
TBW	1TB: 700TBW, 2TB: 1400TBW 4TB: 2800TBW, 8TB: 5600TBW
MTBF	1,500,000 Hours
Dimensions (W x L x H)	80 x 22 x 3.8mm / 3.15" x 0.87" x 0.15"
Weight	8g / 0.02lbs
Warranty	Five-year limited warranty

Lexar Retail SKU	Capacity	Region	Single UPC Code	Inner Carton UPC Code	Inner Carton Qty
LN109P001T-RN1NG	1TB	Global	843367136780	10843367136787	10
LN109P002T-RN1NG	2TB	Global	843367136797	10843367136794	10
LN109P004T-RN1NG	4TB	Global	843367136803	10843367136800	10
LN109P008T-RN1NG	8TB	Global	843367145638	10843367145635	10
LN109P001T-RN1NU	1TB	NA	843367136810	10843367136817	10
LN109P002T-RN1NU	2TB	NA	843367136827	10843367136824	10
LN109P004T-RN1NU	4TB	NA	843367136834	10843367136831	10
LN109P008T-RN1NU	8TB	NA	843367145850	10843367145857	10

¹ Up to 14,400MB/s read transfer, up to 13,400MB/s write. Speeds based on internal testing. Actual performance may vary.² Compared to PCIe 4.0 SSDs.³ This feature will only work if the computer meets the working requirements of DirectStorage and the game is compatible with DirectStorage.

Lexar is not liable for any loss of data or images.

Product appearance, performance, software offerings, and packaging may vary depending on ship date and available inventory.

Actual usable memory capacity may vary. 1GB equals 1 billion bytes.

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