



MICRON[®] 9400

NVMe[™] SSD



When performance is critical

The Micron[®] 9400 NVMe[™] SSD sets a new performance benchmark for data center PCIe Gen4 storage. Decades of experience have led to a server SSD that packs in over 30TB¹ of usable capacity, outperforms competitors up to 2.3x in mixed workloads^{2,3} and improves power efficiency up to 77%⁴. There can be no concessions for performance-critical workloads. For these applications, fast ingest alone is not enough — responding in microseconds delivers a true competitive advantage.

Best For

- Artificial intelligence/machine learning
- High performance computing
- Content delivery networks
- Massive high-speed OLTP

Key Features

- Power loss protection
- Enterprise data path protection
- 128 NVMe namespaces
- NVMe v1.4
- NVMe-Management Interface (MI) over SMBus
- NVMe power states
- Firmware activated without reset
- Secure boot
- Secure firmware download
- Hardware root of trust, secure signed firmware
- TRIM support with garbage collection
- Self-monitoring and reporting technology (SMART)
- 5-year limited warranty⁶

Data center performance without compromise

Optimized for a wide variety of performance-critical workloads — caching, content delivery, block and object stores, and training/caching for AI — the Micron 9400 SSD can consistently read and write at 7GB per second for sequential data. In fact, the 9400 SSD sequential writes speed leads the industry by 66%². At the same time, its random read and write performance of up to 1.6M IOPS is also the industry fastest³. No other product in its class can deliver mixed-use optimal performance on both sequential/random and both read/write like this.

Deliver rapid and consistent responsiveness

The Micron 9400 SSD is optimized for mission-critical, strenuous data center workloads that require strong mixed performance and massive capacity. It also delivers results for massive high-speed OLTP. Workloads range from content delivery networks (caching) to AI/ML and performance-focused databases that thrive on extreme IOPS and low, consistent (six-nines)³ read latency. The Micron 9400 SSD produces mixed workload performance that is up to 2.3x greater² than the other leading brands while also improving 6x9s read latency by as much as 3.2x³. For these applications, fast ingest alone isn't enough: responding in microseconds delivers a competitive advantage.

Big capacities for big data

The Micron 9400 SSD brings the storage density that data centers and workloads demand. It offers more than 30TB¹ maximum capacity, twice the maximum capacity of our prior generation SSD. Increased capacity per SSD simplifies storage of your data assets by using half as many servers to help reclaim valuable rack space (and reduce maintenance costs).

One of the largest memory and storage manufacturers worldwide

Micron has produced some of the world's most advanced memory and storage technologies for more than 40 years. All Micron-branded products are developed by our engineering team to ensure best-in-class quality and reliability.

Micron® 9400 NVMe™ SSD		
		
U.2/U.3 15mm		
	9400 PRO 1 DWPD	9400 MAX 3 DWPD
Capacities ¹	7.68TB, 15.36TB, 30.72TB	6.40TB, 12.80TB, 25.60TB
Sequential reads (MB/s) ⁷	7000MB/s	7000MB/s
Sequential writes (MB/s) ⁷	7000MB/s	7000MB/s
Random reads (K IOPS) ⁷	1600K	1600K
Random writes (K IOPS) ⁷	300K	600K
Endurance (DWPD)	1 (random IO)	3 (random IO)

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- 30.72TB capacity is the largest option. User capacity; 1GB = 1 billion bytes; formatted capacity is less
- Comparisons are made based on other leading PCIe Gen4 Data Center U.2/U.3 NVMe SSDs based on data center market share as noted in the Forward Insights SSD Supplier Status Q2/22 report and available on the open market at the time of this document's initial publication. 1GB = 1 billion bytes, formatted capacity is less.
- Performance measured using 7.68TB SSDs at queue depth (QD) = 256 with FIO (additional details on FIO are available here: <https://fio.readthedocs.io/en/latest/>).
- 77% efficiency improvement is vs the Micron 9300 SSD. Efficiency is defined as performance per watt.
- Additional information available here: www.micron.com/176
- Warranty valid for 5 years from the original date of purchase or before writing the maximum total bytes written (TBW) as published in the product datasheet and as measured in the product's SMART data, whichever comes first.
- Performance measured under the following conditions: Steady-state as defined by SNIA Solid State Storage Performance Test Specification Enterprise v1.1; Drive write cache enabled; NVMe power state 0; Sequential workloads measured using FIO with a 128K IO size and a queue depth of 32; Random read workloads measured using FIO with a 4K IO size and queue depth of 256; Random write workloads measured using FIO with a 4K IO size and a queue depth of 128. Performance may vary based on capacity.

