



Micron 7500 NVMe SSD

Low latency excellence

The Micron® 7500 SSD — Accelerating mainstream workloads

The Micron 7500 NVMe™ SSD is the world's most advanced mainstream PCIe Gen4 data center SSD and the first with 200+ layer NAND. It is built with leading-edge technology to deliver low and consistent QoS latency, superior performance across a wide range of workloads, and offers broad support for Open Compute Project (OCP) features in standard firmware. The 7500 SSD is a versatile solution that delivers the performance required by complex and critical business workloads.

World's most advanced mainstream data center SSD

Micron's industry-leading 232-layer NAND¹ enables increased performance and power efficiency while supporting the latest in security, TCG-Opal 2.01, and industry standards – Open Compute Project (OCP) 2.0 and NVMe 2.0b.

Best for



Cloud
infrastructure



Hyperconverged
infrastructure

Key features

- Power loss protection
- Enterprise data path protection
- Redundant array of independent NAND (RAIN)
- 132 NVMe namespaces
- NVMe-MI 2.0b support
- Open Compute Project (OCP) 2.0 support
- Firmware activated without reset
- Secure erase/secure boot
- Hardware root of trust, secure signed firmware
- Active garbage collection
- TRIM support
- Self-monitoring and reporting technology (SMART)
- Full-drive encryption capable – TCG OPAL 2.01
- 5-year limited warranty⁷

Creating a new class of sub-1ms latency drives

Low and consistent latency enables rapid, reliable responsiveness for demand data center workloads, such as real-time analytics, content distribution and financial trading. The Micron 7500 SSD leads the way with sub-1ms latency² for 6x9's quality-of-service (QoS) that is up to 83% lower than the competition³.

Accelerate your workloads with class-leading Gen4 speed

With PCIe Gen4 dominating the data center, the superior performance of the Micron 7500 SSD will accelerate data center workloads, such as AI, databases and cloud computing. Demanding write-centric applications will see up to 242% better random write performance when compared to the competition⁴.



Micron 7500 PRO SSD

Product specifications

Capacity ⁵	960GB, 1.92TB, 3.84TB, 7.68TB, 15.36TB
Interface	NVMe™ PCIe® Gen4 x4
Form factor	U.3 (15mm)
Sequential reads ⁶ (MB/s, 128KB, QD 128)	Up to 7,000MB/s
Sequential writes ⁶ (MB/s, 128KB, QD 128)	Up to 5,900MB/s
4KB Random reads ⁶ (MB/s, QD 128)	Up to 1.1M
4KB Random writes ⁶ (MB/s, QD 128)	Up to 250K @ 20W
Endurance (DWPD)	1.0
MTTF (million hours)	2
Warranty ⁷ (years)	5

Micron 7500 MAX SSD

Product specifications

Capacity ⁵	800GB, 1.6TB, 3.2TB, 6.4TB, 12.8TB
Interface	NVMe™ PCIe® Gen4 x4
Form factor	U.3 (15mm)
Sequential reads ⁶ (MB/s, 128KB, QD 128)	Up to 7,000MB/s
Sequential writes ⁶ (MB/s, 128KB, QD 128)	Up to 5,900MB/s
4KB Random reads ⁶ (MB/s, QD 128)	Up to 1.1M
4KB Random writes ⁶ (MB/s, QD 128)	Up to 410K @ 20W
Endurance (DWPD)	1.0
MTTF (million hours)	2
Warranty ⁷ (years)	5

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1. Additional information available here: www.micron.com/232.

2. Micron testing shows that the Micron 7500 SSD offers sub-1ms latency in 6x9s QoS with 4K 100% random read up to and including QD128.

3. Based on Micron internal testing using Flexible IO Tester (FIO) using a 4KB IO size and QD=128, see https://fio.readthedocs.io/en/latest/fio_doc.html for additional information on FIO. RocksDB statements based on Micron internal testing using RocksDB version 8.1.1 comparing 4KB random read and 4KB random read while writing workloads. See https://fio.readthedocs.io/en/latest/fio_doc.html for additional information on RocksDB.

4. Based on public information available at the time of this document's publication. RocksDB statements based on Micron internal testing using RocksDB version 8.1.1 comparing 4KB random read and 4KB random read while writing workloads. See https://fio.readthedocs.io/en/latest/fio_doc.html for additional information on RocksDB.

5. User capacity: 1GB = 1 billion bytes; formatted capacity is less.

6. 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 queue depth of 32; random read workloads measured using FIO with a queue depth of 256 (1,000,000 IOPS statement based on 4K sector size; random write workloads measured using FIO with a queue depth of 128).

7. 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.