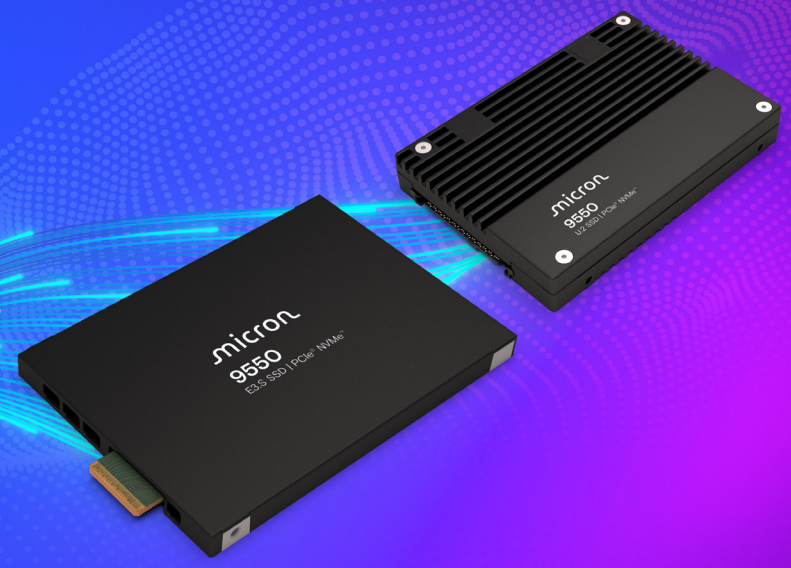
Micron 9550 NVMe SSD:
The ideal SSD for AI

Keep hungry GPUs fed with lightning-fast performance



Win the AI race with the high-performance, low power Micron 9550 NVMe SSD

The Micron® 9550 NVMe SSD enhances performance[2] and power efficiency[3,4] for AI workloads. It is designed from the ground up to accelerate the most demanding data center workloads.

Built to maximize GPU utilization, this leading SSD eclipses its competitors in AI-critical workloads such as Graph Neural Netwok (GNN) training, server memory extension (memory-mapped, file storage on the SSD), and standard AI performance benchmarks[5].

Micron IP and components are fully vertically integrated with Micron-designed controller ASIC, 232-layer NAND, DRAM, firmware, and validation.

Best for

- Artificial intelligence
- Server memory extension
- Massive high-speed OLTP
- High-performance computing

Key Features

Vertical integration

- Fully integrated Micron IP and components
- Micron-designed SSD controller ASIC
- Micron-produced and validated SSD firmware
- G8 NAND

Broad range of capacities and form factors

- 4TB to 32TB capacity
- U.2, E1.S, and E3.S standard form factors

Open standard support

- Compliance with the Open Compute Project (OCP) 2.0 (r21) standards
- Support for OCP 2.5 telemetry

Security features built in[7]

- SPDM 1.2 device security
- Self-encrypting drive (SED) options
- Micron Secure Execution Environment (SEE)
- FIPS 140-3 Level 2
- TAA-compliant options

5-year limited warranty[8]

Win the AI race with superior SSD performance

The Micron 9550 SSD is a breakthrough, high-performance storage device that offers high performance and power efficiency for AI. It's designed from the ground up to accelerate the most demanding data center workloads.

The ideal SSD for AI

GPUs are the tool of choice for AI and keeping them fed with data is a top priority for data centers. Both sequential and random read performance are critical for AI workloads. The Micron 9550 SSD provides the high sequential and random read performance required for LLMs and GNNs.

Micron innovation built in

The Micron 9550 SSD was developed in close collaboration with tier 1 OEMs for feature support and designed for qualification by all leading OEMs.

Built with NVMe 2.0 and OCP 2.0 support (with additional OCP 2.5 telemetry support), security, and SPDM 1.2 (device security for SSD authentication and end-user confidence).

Self-encrypting drive (SED) options help keep data safe by adding AES-256 encryption for hardware-based data encryption, with no loss of SSD performance.

Micron's Secure Encrypted Environment (SEE) provides dedicated security processing hardware with physical isolation for improved security.

Options are also available for FIPS 140-3 Level 2 and TAA compliance for US federal government procurement requirements.

Micron® 9550 NVMe™ SSD		
		
U.2/U.3 15mm		
	9550 PRO 1 DWPD	**9550 MAX** 3 DWPD
Capacities[1]	3.84TB-30.72TB	3.2TB-25.6TB
Sequential reads (MB/s)[7]	14,000MB/s	14,000MB/s
Sequential writes (MB/s) [7]	10,000MB/s	10,000MB/s
Random reads (K IOPS) [7]	3,300K	3,300K
Random writes (K IOPS) [7]	400K	900K
Endurance (DWPD)	1 (random IO)	3 (random IO)

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1. Among currently in production Gen5 data center performance SSDs from the top competitive suppliers of enterprise SSDs with at least 10% of market share by revenue as of February 2024, as noted in Forward Insights "SSD Supplier Status Quarterly Q4" report. Faster performance refers to MB/s or IOPS for 1 DWPD 7.68TB. Comparison based on public information for 7.68TB (unformatted capacity; 1GB = 1 billion bytes, formatted capacity is less) available at the time of this document's publication.
2. Performance refers to publicly available specifications for these SSDs (IOPS, throughput, or both) relative to the SSDs in footnote 1.
3. Power efficiency refers to units of work done divided by power consumed in doing that work. Examples of units of work include, but are not limited to, IOPS, MB/s, operations per second, sample rates, and similar data center storage-related activities.
4. Class refers to SSDs that meet the criteria in footnote 1.
5. Based on workload performance measurement by Micron engineering among SSDs that meet the criteria in footnote 1. Details are in Table 2. Other workloads may yield different results.
6. These and subsequent power efficiency and performance statements are based on Micron engineering test results in AI training offload, measured SSD-to-GPU direct data transfer rate with a 1TB dataset, and standard AI performance benchmarks. Values are maximums observed during testing. Performance improvements are calculated as the percentage difference between the Micron 9550 SSD performance and competitor drives in footnote 1.
7. No hardware, software or system can provide absolute security under all conditions. Micron assumes no liability for lost, stolen or corrupted data arising from the use of any Micron products, including those products that incorporate any of the mentioned security features.
8. 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.