



# Solve your data center challenges

In a digital landscape where data creation increases every day, building a fast, reliable data center is no longer just a nice to have. It's a vital investment in your business.



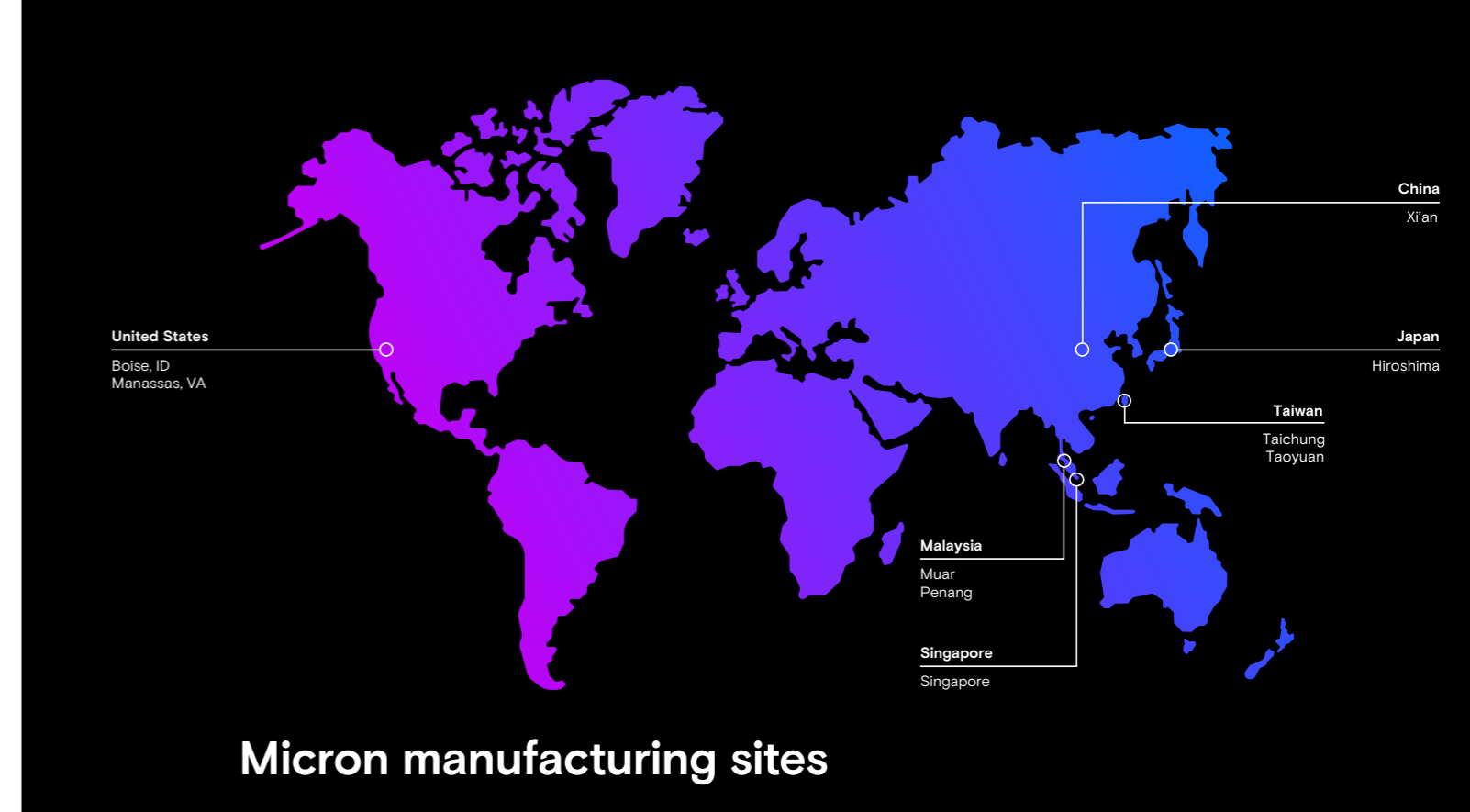
# Data center technology: engineered for growth

When you need your data center to provide a true competitive advantage, Micron delivers. With an industry-leading data center portfolio backed by 45 years of innovation and execution, Micron has a full range of memory and storage solutions to fit your unique business needs.

Micron solutions are engineered with industry concerns in mind. We did the troubleshooting for you: Our server memory and storage works to provide a solid bedrock for increasing workload complexity and torrents of data. For the demands of critical workloads (like AI), this foundation is not just ideal but necessary. From server DRAM to data center SSDs, Micron's portfolio delivers tomorrow's innovations today, so you can keep your business creating and growing.

## Micron data center solutions:

- Purpose-built workload solutions for every business
- Experienced tech support at your fingertips
- Solid foundations to tame increasing workload complexity
- A portfolio designed by industry professionals



## Micron moves data center innovation

In 45 years, Micron has driven and executed some of the world's most exciting data center memory and storage innovations. This includes designing and shipping the industry's first-to-market 1 $\beta$  DRAM process node and 232-layer NAND. Such innovation is followed through with integrity in manufacturing, supplying, and supporting.

Micron has now been established at the forefront of node advancement on both DRAM and NAND for successive generations. Memory and storage leadership means we can deliver power savings, performance gains and cost-effective solutions ahead of the competition – and we plan to continue that leadership.

Nearly half of our 46,000 team members are engineers and scientists, and a quarter of Micron's team members hold advanced degrees. We hold more than 54,000 patents. But a transformative company must deliver on product, and we've done that for decades.

## Our portfolio

Micron provides an industry-leading data center portfolio spanning memory and storage solutions that help transform data into the insights that deliver a true competitive advantage. We are uniquely qualified to provide guidance on the optimal mix of compute, DRAM and storage and we demonstrate the performance gains that can be achieved with the right memory and storage solution for workloads. We present faster, persistent platforms of mainstream storage for read-focused workloads to higher performance mixed-use workloads. We also offer a wide array of capacity, density, form factor, interface technology and thermal/environmental metric options to meet almost any deployment need.

With global and diverse manufacturing, we can efficiently deliver products worldwide. We have manufacturing facilities in 17 countries, including the United States.

And with the Memory and Storage Selector, you can easily find products that are compatible with your system. No guesswork is needed.

## Sales and engineering support

For our customers, one of our most important assets is the support our sales team and engineers give. At the very top of this support, we host training sessions where distributors and system integrators learn how to implement the advantages of our products. But it's our salespeople who really make the difference in supporting customers.

We've heard our customers characterize our sales team members as easy-going, nice, and available to help. That's a reflection of Micron's culture; ours is a place where we care about each other, which is written into the company's vision statement. We also know that we win by knowing our customers — another part of our vision statement. People on our sales team either know people from decades of interaction or are building new relationships to anticipate needs and extend service.

If anyone runs into trouble, people at Micron don't judge. We solve. In fact, we have application engineers that can troubleshoot problems in the field. With Micron, you're covered.

## Let Micron give you a competitive advantage

You may be looking for faster speeds for your servers, larger workloads for your data center, or memory and storage to support AI. Micron has what you're looking for, and we're also preparing for what you don't yet know that you'll need.

By working with us, you will easily find compatible parts, and you can rely on a sales team and engineers to help them run smoothly in your systems. It's the easiest way to pull ahead of your competition. We'll work beside you, and our scientists are scouting the horizon.

Visit [microncp.com/datacenter](https://microncp.com/datacenter) to connect with a Micron sales rep.

# Transforming how the world uses information to enrich life for all.

**11**

global manufacturing sites and 15 customer labs

**54,000+**

patents granted and growing

**5th**

largest semiconductor company in the world

**Founded 45 years ago  
on October 5, 1978.**

## Production expanding in the United States

Micron is the only U.S.-based manufacturer of memory.

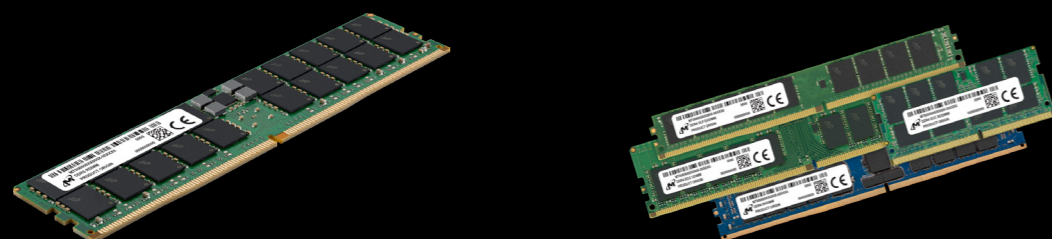
We're expanding this base by planning to build the largest semiconductor fabrication facility in the history of the United States. Micron intends to invest up to \$100 billion over the next 20-plus years to construct a new mega-fabrication plant in Clay, New York, with the first-phase investment of \$20 billion planned by the end of this decade. The new megafab will increase domestic supply of leading-edge memory and create nearly 50,000 New York jobs, including approximately 9,000 high-paying Micron jobs.

This construction will complement the company's other groundbreaking of a high-volume manufacturing-fabrication plant in Boise, Idaho, which is Micron's hometown. Micron will design, build, and operate the facility in accordance with the company's sustainability goals. The site could eventually include four 600,000 square-foot cleanrooms, for a total of 2.4 million square feet of cleanroom space — the size of approximately 40 U.S. football fields.

By expanding fabrication in the United States, we're securing the manufacturing for an expected future stream of innovations.

# Future-proof DRAM solutions

Bring the best balance of speed, bandwidth and value to your infrastructure. Micron's Server DRAM solutions are rigorously tested for a wide range of applications, so you know they'll hold up no matter your operation. Whether you're extending the value of legacy server platforms or accelerating critical workloads on next-gen platforms, Micron® Server DRAM delivers versatility with the optimal mix of performance and cost effectiveness.



## DDR5 Server DRAM highlights

Access more memory at higher speeds with Micron DDR5 Server DRAM. It delivers up to 2x the bandwidth of DDR4, and 5x the performance for deep learning. DDR5 performance is required to feed the continued growth of CPU cores in the data center for AI, HPC and enterprise workloads. DDR5 is the best fit for businesses with intensive AI workloads.

- Reverses the trend of decreased bandwidth per core
- Maximizes performance for compute intensive applications
- Protects your data with on-die ECC

## DDR4 Server DRAM highlights

Maximize IT Infrastructure – not budgets – with proven Micron® DDR4 Server DRAM. Increasing installed memory capacity with Micron Server DRAM is one of the easiest and most affordable ways to make your deployments faster and more efficient.

- Speed up applications
- Optimize existing systems to extend equipment life
- Higher density components for doubly dense modules
- Increase installed memory capacities

# Server DRAM complete portfolio



## Product highlights

- The easiest way to maximize your IT budget and the performance of your server and workstation systems
- JEDEC compliant backwards compatibility for legacy systems
- Uses genuine Micron DRAM components

## Compatibility

- 100% component and module tested to mission-critical server standards
- Optimized for the latest Intel® and AMD® processor product families

## Availability

- DDR4 and DDR5 in production

Model	Micron server and workstation DRAM*							
Density	8GB	16GB	24GB	32GB	48GB	64GB	96GB	128GB
Speed (MT/s)	3200	3200 4800	4800 5600	3200 4800	4800 5600	3200 4800	4800 5600	2933 3200
Module configuration	1Rx8	1Rx8 1Rx4	1Rx8	1Rx4 2Rx8 2Rx4	1Rx4 2Rx8	2Rx4 4Rx4	2Rx4	4Rx4
Voltage	1.2	1.2 1.1	1.1	1.2 1.1	1.1	1.2 1.1	1.1	1.2 1.1
Form factors	RDIMM, LRDIMM, ECC UDIMM & ECC SODIMM							
Interface	JEDEC DDR4 * DDR5							
DRAM	Micron 8Gb, 16Gb & 24Gb components							
Packaging	Single & trays							

\* Not all combinations are available in both DDR technologies



**Improve performance**  
Improve your server and workstation multitasking capability. Improve overall system responsiveness for all your computing needs.



**Tools for easy installation**  
Our simple instructions and how-to videos make installation straight forward. Millions of people have upgraded with Micron DRAM.



**Award-winning support**  
Our expert support team has your questions covered. Reach out via phone, chat, email or our community forum.



**3-year limited warranty**  
We stand behind our wide array of server and workstation DIMMs with a 3-year warranty.

# Find your SSD

Made for the big demands of challenging data center workloads, Micron SSDs deliver high performance with high reliability. Micron designs data center SSDs for the long haul, with superior data protection and optimal endurance, addressing the growing demands of data center workloads and the stringent requirements of industrial applications.

## High performance

### 9400 NVMe SSDs

6.4TB to 30.72TB  
Form factors — U.2/U.3 15mm



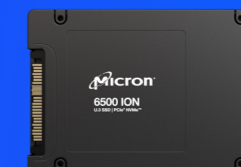
For performance-critical operations, seamless workload switching and top-of-the-line caching, look no further. The 9400 NVMe SSD delivers exceptional performance that surpasses other major competitors, up to 2.3 times mixed workload performance,<sup>1</sup> and improves power efficiency up to 77%.<sup>2</sup>

- 6x9s read latency leads the industry by as much as 3.2x<sup>3</sup>
- Mixed random performance frees up workloads when demand spikes
- More workload performance with less energy used

## High capacity

### 6500 ION NVMe SSDs

30.72TB  
Form factors — U.2/U.3 15mm, E1.L 9.5mm



Make cloud-storage challenges a thing of the past with massive capacity and purpose-built performance. The world's first 200+ layer NAND data center NVMe SSD eliminates the need to sacrifice cloud storage performance for capacity, or pay for speeds and endurance that will never be used.

- Enables environmental sustainability within data centers
- Consolidates more storage onto fewer servers
- 200+ layer NAND means cost-effectiveness is built in

## Mainstream

### 7450 NVMe SSDs

SATA: 240GB to 7.68TB  
NVMe: 400GB to 15.36TB



Form factors — U.2/U.3 7/15mm,  
M.2 22x80/110, E1.S 5.9/15mm

Engineered for mainstream data center workloads, the Micron 7450 PCIe<sup>®</sup> 4.0 NVMe SSD delivers exceptional latency with extensive deployment options. It consistently delivers 2ms and lower latency for 99.9999% QoS<sup>4</sup> and offers next-generation security features like Micron's unique Secure Execution Environment.<sup>5</sup>

- Storage for both cloud-scale and enterprise data
- 176-layer NAND for faster booting
- Broad range of Gen4 SSD form factors to enable major platform functions

## Mainstream

### 5400 SATA SSDs

960GB to 1.92TB  
Form factors — U.2/U.3 15mm



Micron's proven data center architecture helps you get more from your SATA platforms with SSDs that have 50% better reliability (mean time to failure rating, or MTTF) and up to 50% greater endurance than the other leading SATA SSDs.<sup>6</sup>

- Best-in-class mixed-use write speed performance
- Can extend the life of existing servers
- Performance can saturate typical network bandwidth, even at 240GB

# Market and competitive overview

## SSD model alignment matrix

Segment	Interface	Swim lane	Micron	Samsung	Solidigm	Kioxia	SK Hynix	WD	Seagate	Kingston
Enterprise	PCIe	MU	9400 MAX	PM1735		CM7-V		SN840		
		RC	9400 PRO	PM1733		CM7-R		SN840		
Data center	PCIe	MU	7450 MAX		D7-P5620	CD8-V	PE8130	SN650	Nytro 5550	
		RC	7450 PRO	PM9A3	D7-P5520	CD8-R	PE8110	SN650/Gold	Nytro 5350	DC1500M
		CAP (1)	6500 ION		D5-P5430		PE8111			
	SATA	MU	5400 MAX	PM897	D3-S4620		SE5031		Nytro 1551	DC500M
		RC	5400 PRO	PM893	D3-S4520		SE5110		Nytro 1361	DC500R
Client	PCI	CAP (2)	2400							
Consumer	PCIe	P	T700*	990 PRO	P44	Exceria Pro	Platinum P41	Black SN850x		KC3000
		M	P3 Plus*	970 EVO Plus	P41	Exceria Plus G2	Gold P31	Black SN770	BarraCuda 515	
		V	P3*	980	670p	Exceria G2		Blue SN570	BarraCuda Q5	NV2
	SATA	M	MX500*	870 EVO			Gold S31	Blue 3D	BarraCuda	KC600
		V	BX500*	870 QVO		Exceria		Green		A400

\*Crucial-branded products

MU – Mixed use (3-5 DWPD)  
 RC – Read centric (~1 DWPD)  
 CAP (1) – High-capacity applications  
 P – Performance  
 M – Mainstream  
 V – Value  
 CAP (2) – Value capacity



# Micron and Crucial Memory & SSD Selector

Find compatible memory and SSDs to make your PC, laptop, MAC, Server faster and more efficient.



[b2b.orderingmemory.com](https://b2b.orderingmemory.com)

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