



Micron Ships Automotive UFS 4.1, Designed to Unlock Intelligent Mobility With Speed, Safety and Reliability

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Architected to power AI workloads, Micron's latest automotive solution, built with G9 NAND, equips the industry to create safer, smarter more connected driver experiences

MUNICH, Nov. 13, 2025 (GLOBE NEWSWIRE) -- Automotive Computing Conference -- Micron Technology, Inc. (Nasdaq: MU), today announced shipping of qualification samples of its automotive universal flash storage (UFS) 4.1 solution to customers worldwide, enabling rapid data access, robust reliability and enhanced safety and security for next-generation vehicles. Delivering bandwidth of 4.2 gigabytes per second (GB/s) — double that of its predecessor — Micron's automotive UFS 4.1 accelerates data access for AI models, enriching the in-cabin experience by powering features such as voice assistants, personalized infotainment and advanced safety alerts. This bandwidth in advanced driver assistance systems (ADAS) and autonomous vehicles also enables rich data capture from cameras, lidar and radar sensors to upload and feed AI model retraining and enhancement in the data center.

Micron's automotive UFS 4.1 is built with the company's sophisticated 9th-generation (G9) 3D NAND flash memory technology, delivering high performance and capacity and supplying the market with the latest process technology to accelerate AI. With this rollout, [Micron G9 NAND](#) is the most advanced NAND in the industry to be qualified for rigorous automotive standards such as the AEC-Q104¹ — enabling Micron's UFS 4.1 to meet the high bar required for automotive quality, safety and reliability.

[A Media Snippet accompanying this announcement is available by clicking on this link.](#)

"As the automotive industry shifts toward greater autonomy and more intelligent in-cabin experiences, robust high-performance storage is foundational to enabling the next generation of intelligent vehicles," said Kris Baxter, corporate vice president and general manager of Micron's Automotive and Embedded Business Unit. "Micron's automotive UFS 4.1 is engineered to deliver exceptional safety, reliability and performance, enabling the automotive industry to advance intelligent mobility and unlock AI at the edge."

Delivering a leap forward in automotive storage performance

As vehicles evolve into intelligent platforms, capabilities such as autonomous driving, enriched cabins and real-time AI applications require bandwidth to start up quickly from ignition, instantly access and swap large language models for generative AI interactions, and log massive volumes of sensor data. High-performance solutions like Micron's UFS 4.1 are essential to accelerating this intelligence at the source.

Micron's UFS 4.1 delivers:

- **Turbocharged read and write speeds:** UFS 4.1's bandwidth offers accelerated sequential read speeds for rapid data access for AI. Enhanced write speeds enable ultra-fast data logging for ADAS models, supporting refinement of perception and decision-making algorithms. UFS 4.1's high read performance can enable use cases such as rapid switching between generative AI models for in-cabin experiences, allowing system designers to store multiple models while reducing memory requirements — all while providing a low-latency user experience and optimizing costs.
- **Fast boot times:** Thanks to Micron's G9 technology and proprietary firmware, Micron's UFS 4.1 offers 30% faster device boot and 18% faster system boot.² These boot times enable intelligent systems to rapidly come online when the ignition is engaged, delivering more responsive cockpit experiences.
- **Ultra-high endurance:** Micron's automotive UFS 4.1 offers up to 100,000 program/erase (P/E) cycles for single-level cell mode and 3,000 program/erase cycles for triple-level cell mode, providing the necessary endurance for automotive applications where vehicles may operate for years with millions of write operations from lidar, radar and cameras.
- **Extended thermal protection:** Engineered for harsh vehicle environments, UFS 4.1 provides thermal protection and consistent high performance from -40°C up to 115°C case temperature — extending beyond JEDEC's standard 105°C to provide manufacturers the opportunity to reduce thermal cooling footprints without compromising reliability for mission-critical autonomous driving.
- **Advanced host features:** The solution offers advanced UFS 4.1 features, including a host-initiated defragmentation feature that leverages advanced algorithms to optimize data workloads for defragmentation to provide fast performance, especially during high-demand periods.

Micron's UFS 4.1 enables real-time telemetry, intelligent health, safety and security

Micron's automotive UFS 4.1 is engineered to meet the highest standards for automotive applications. The solution achieves Automotive Safety Integrity Level B compliance (ISO 26262) for functional safety. Software development aligned with ASPICE³ Level 3 and comprehensive product security engineering practices based on ISO/SAE 21434⁴ further strengthen quality and safeguard data to meet the rigorous demands of modern vehicles.

The solution provides comprehensive real-time telemetry with advanced health monitoring and device-level exception notifications, enabling

automotive platforms to proactively detect potential issues before they impact vehicle performance. This capability supports predictive maintenance and fleet management while minimizing the risk of failures on the road.

By delivering reliable, high-speed storage, Micron's latest automotive storage solution enables manufacturers to unlock new AI horizons and accelerate the development of next-generation vehicles, while end users benefit from enhanced safety, smarter in-cabin features and seamless connectivity on the road.

Visit Micron at booth 10 at the Automotive Computing Conference (Nov. 13–14) in Munich to speak with our experts. For more information on Micron's automotive UFS 4.1 solution, visit [here](#).

Additional Resources

- **Micron portfolio page:** [Automotive solutions](#)
- **Micron product page:** [Universal flash storage](#)
- **Micron image gallery:** [UFS 4.1 image gallery](#)
- **Micron solutions page:** [Functional safety for automotive](#)

About Micron Technology, Inc.

We are an industry leader in innovative memory and storage solutions, transforming how the world uses information to enrich life for all. With a relentless focus on our customers, technology leadership, and manufacturing and operational excellence, Micron delivers a rich portfolio of high-performance DRAM, NAND and NOR memory and storage products through our Micron® and Crucial® brands. Every day, the innovations that our people create fuel the data economy, enabling advances in artificial intelligence (AI) and compute-intensive applications that unleash opportunities — from the data center to the intelligent edge and across the client and mobile user experience. To learn more about Micron Technology, Inc. (Nasdaq: MU), visit micron.com.

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¹ Claim based on Micron market research finding that Micron G9 NAND is the highest-layered NAND in the industry to be qualified for automotive standards such as Automotive Electronics Council-Q104 (AEC-Q104): Automotive Electronics Council – Qualification standard for multi-chip modules (Q104)

² Based on Micron's internal testing, comparing Micron's automotive UFS 4.1 operated in UFS 3.1 mode to Micron's UFS 3.1 predecessor devices on an external UFS 3.1-compatible platform

³ Automotive SPICE (Software Process Improvement and Capability Determination) – Level 3 process maturity

⁴ International Organization for Standardization / Society of Automotive Engineers – Road vehicles cybersecurity engineering standard