

## Micron Begins Volume Production of GDDR6 High Performance Memory

# Next Generation Memory Leverages Expanding Ecosystem to Enable Broad Adoption in Networking, Automotive, and Graphics Markets

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### **News Highlights**

- Micron begins mass production for 8Gb GDDR6 memory, delivering significant performance improvements over the fastest available GDDR5 designs
- GDDR6 memory enables bandwidth intensive applications in core markets such as acceleration, graphics, networking and automotive
- GDDR6 delivers enhanced performance to a wide variety of applications ranging from virtual reality to 4K video, AI, autonomous vehicles, and beyond
- Micron has introduced ecosystem enablement tools with key ecosystem partners such as Rambus to ensure optimized performance and reduce time to market for new applications

Micron Technology, Inc. (Nasdaq:MU) today announced volume production on its 8GB GDDR6 memory. Built on experience and execution for several generations of GDDR memory, GDDR6 - Micron's fastest and most powerful graphics memory designed in Micron's Munich Development Center - is optimized for a variety of applications that require high performance memory, including artificial intelligence (AI), networking, automotive and graphics processing units (GPUs). Additionally, Micron has worked with core ecosystem partners to ramp GDDR6 documentation and interoperability, enabling faster time to market for designs.

"Micron is a pioneer in developing advanced high bandwidth memory solutions and continues that leadership with GDDR6. Micron demonstrated this leadership by recently achieving throughput up to 20 GB/s on our GDDR6 solutions," said Andreas Schlapka, director, Compute Networking Business Unit, Micron. "In addition to performance increases, Micron has developed a deep partner ecosystem to enable rapid creation of GDDR6 designs, enabling faster time to market for customers looking to leverage this powerful new memory technology."

The need for high performance GDDR6 memory has grown as end-users demand advanced applications. GDDR6 enables advanced performance with lower power consumption in a number of segments including:

- Artificial Intelligence Artificial intelligence, machine learning, deep learning are memory intensive applications that require more bandwidth from memory solutions. GDDR6 delivers the higher bandwidth required to accelerate Al in applications like computer vision, autonomous driving and the many other applications that require this higher bandwidth.
- Graphics Enabling significant performance improvements for today's top GPUs, GDDR6 delivers enhanced graphic memory speeds to enable higher application bandwidth. Micron GDDR6 will be a core enabling technology of advanced GPU applications, including acceleration, 4K video and improved rendering, VR/AR and crypto mining applications.
- Networking Advanced networking technologies require access to high speed/high bandwidth memory. GDDR6-powered smart Network Interface Cards (NIC) enable significant improvements in network bandwidth. Additionally, high bandwidth RAID controllers featuring GDDR6 memory deliver dramatic enhancements to data access and protection.
- Automotive As auto manufacturers push for autonomous vehicles, high performance memory is required to process the vast amounts of real-time data required to make this technology a reality. Micron GDDR6 delivers 448 GB/s auto qualified memory solutions, that deliver more than double the bandwidth of LPDDR5 automotive memory solutions.

"As demand for advanced automotive applications such as ADAS and other autonomous driving solutions grows, the need for high bandwidth memory in automotive will grow as well. Advanced high bandwidth GDDR6 memory solutions are a key enabling technology for autonomous vehicles and will be an important tool for the automotive industry as they develop next generation transportation initiatives," said Kris Baxter, vice president, Marketing, Micron's Embedded Business Unit.

Targeting up to 64GB/s in one package, GDDR6 brings a significant improvement over the fastest available GDDR5. This unprecedented level of single-chip performance, using proven, industry-standard BGA packaging provides designers a powerful, cost-efficient and low-risk solution using the most scalable, high-speed discrete memory available to the market.

In order to deliver this leading edge high bandwidth memory technology to customers, Micron is working directly with ecosystem partners in order to enable learning on both pre-silicon verification as well as validation. Prior to mass production of GDDR6 memory, Micron shipped early validation silicon to our ecosystem partners to accelerate engineering efforts behind validating intellectual property and build robust models and toolsets in the ecosystem and deliver board layout validation. This ensures that engineers are able to implement GDDR6 in designs at a faster rate and bring bandwidth intensive applications to the marketplace. These ecosystem partners include Rambus and more.

"With nearly 30 years' experience in implementing designs for high-speed interfaces, Rambus is the first IP provider to launch a comprehensive GDDR6 PHY solution for next-generation AI, ADAS, networking and graphics applications and continues to be at the leading edge of implementing industry standards. We are proud to work with Micron and other ecosystem partners to help customers accelerate time to market for GDDR6 designs and deliver the most advanced solutions based on GDDR6 memory," said Frank Ferro, senior director of product marketing, Rambus.

Micron GDDR6 memory solutions will be on display in booth B-1340 at <u>ISC 2018</u>, June 24-28, in Frankfurt, Germany. For more information, visit <u>www.micron.com</u>.

#### **Resources:**

ı Blog: <u>www.micron.com/about/blogs</u>

Twitter: www.twitter.com/MicronStorage

LinkedIn: www.linkedin.com/company/micron-storage

YouTube: <a href="http://www.youtube.com/user/MicronTechnology">http://www.youtube.com/user/MicronTechnology</a>

### **About Micron Technology, Inc.**

Micron Technology is a world leader in innovative memory solutions. Through our global brands — Micron, Crucial<sup>®</sup> and Ballistix<sup>®</sup> — our broad portfolio of high-performance memory technologies, including DRAM, NAND, NOR Flash and 3D XPoint<sup>™</sup> memory, is transforming how the world uses information. Backed by nearly 40 years of technology leadership, Micron's memory solutions enable the world's most innovative computing, consumer, enterprise storage, data center, mobile, embedded, and automotive applications. Micron's common stock is traded on the Nasdaq under the MU symbol. To learn more about Micron Technology, Inc., visit micron.com.

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Media Relations Contact: David Oro Micron Technology, Inc. +1 (707) 558-8585 davidoro@micron.com

Investor Relations Contact:
Shanye Hudson
Micron Technology, Inc.
+1 (208) 492-1205
shudson@micron.com