Micron Low-Power Memory Solution Boosts Mixed and Virtual Reality Experiences on Snapdragon XR2 Gen 2

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Micron's LPDDR5X and UFS 3.1 solutions provide high speeds and power efficiency for metaverse applications

BOISE, Idaho, Oct. 19, 2023 (GLOBE NEWSWIRE) -- Micron Technology, Inc. (Nasdaq: MU), announced today that its low-power double data rate 5X (LPDDR5X) DRAM and Universal Flash Storage (UFS) 3.1 embedded solutions are now qualified on Qualcomm Technologies' latest extended reality (XR) platform, Snapdragon® XR2 Gen 2 Platform. Micron's LPDDR5X and UFS 3.1 deliver next-level speed, performance and low-power consumption in the smallest form factors needed to support untethered mixed reality (MR) and virtual reality (VR) devices. Micron's LPDDR5X is the company's most advanced low-power memory, delivering power efficiency enabled by its innovative 1-alpha process node technology and JEDEC power advancements.

The global augmented reality (AR) and VR market is expected to reach $200 billion by 2030, growing at a compound annual growth rate of 24% from 2021.[1] Micron's embedded products provide robust XR-ready solutions to accelerate customer adoption and realize the potential of this expanding market. Enabling concurrent processing across multiple applications and sensors, Micron's LPDDR5X and UFS 3.1 seamlessly integrate constantly changing presence, position and sensory perception in the metaverse to create realistic, immersive experiences for VR users.

While Micron's LPDDR5X can achieve speeds of up to 8.533 Gbps (gigabits per second), it is also backwards compatible for LPDDR5 speeds of 6.4 Gbps, providing device manufacturers with platform integration flexibility while consuming less power.

"The metaverse has vast potential to revolutionize how we work and play. Bringing this innovation to life requires high-performance and low-power hardware that can keep pace with the lightning-fast speeds needed for mixed reality experiences," said Chris Jacobs, Micron vice president and general manager of Micron's embedded market segments. "Our LPDDR5X and UFS 3.1 solutions are ideally positioned to serve as the foundation for the next generation of XR devices, providing the performance and power to unlock rich virtual worlds."

As announced on Sept. 27, the Snapdragon XR2 Gen 2 processor was developed in close collaboration with Meta and commercially debuted on Meta Quest 3, Meta's newly launched headset. The Snapdragon XR2 Gen 2 Platform offers a single-chip architecture to unlock next-level immersive MR and VR experiences in thinner and more comfortable headsets that don't require an external battery pack. Engineered to deliver a lag-free experience with breathtaking visuals and fully immersive sound, the spatial computing platform allows users to blend virtual content with their physical surroundings and transition seamlessly between MR and VR experiences.

LPDDR5X provides 24% increased power efficiency compared to previous generations[2] — optimal for untethered MR and VR headsets, extending battery life between charges for the most optimal user experience. At peak data rates of 8.533 Gbps, Micron's LPDDR5X enables metaverse applications with a 33% increase in data access speeds,[3] resulting in fast response times. Micron's 1-alpha node process technology, which underpins Micron's LPDDR5X, provides higher bit density, performance and energy efficiency for XR devices.

Micron's UFS 3.1 client storage is the world's first UFS powered by Micron's 176-layer NAND with high storage densities in a tiny footprint — freeing up space for more design flexibility in devices such as MR and VR headsets with space constraints.

Micron's 128 gigabyte UFS 3.1 and 8 gigabyte LPDDR5X qualified for the Snapdragon platform are now available to the MR ecosystem via Micron's sales channels, distributors and partners.

Resources

- **Blog:** AR and VR, the next generation of user interface

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 and 5G 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] Prescient & Strategic Intelligence, AR and VR Market Report by Type (AR, VR), Offering (Hardware, Software), Device Type (AR Devices, VR Devices), Application (Consumer, Commercial, Enterprise) - Industry Analysis and Growth Forecast to 2030

[2] Simulated power improvement comparing full LPDDR5X speed (8.533 Gbps) to previous-generation LPDDR5 (6.4 Gbps)

[3] Comparing peak data rates for LPDDR5X (8.533 Gbps) to previous-generation LPDDR5 (6.4 Gbps) DRAM based on published JEDEC specifications (8.533/6.4 = 1.33)

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