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# Microchip Increases Manufacturing Capacity of its Hydrogen Masers

## The company opened a new facility in Tuscaloosa, Ala., to increase production and reduce lead times

CHANDLER, Ariz., April 27, 2026 (GLOBE NEWSWIRE) -- A hydrogen maser is an atomic clock that uses properties of hydrogen atoms to emit precise microwave frequencies for highly stable and precise timekeeping. Hydrogen masers are deployed globally and actively contribute to Coordinated Universal Time (UTC), the global standard for the time of day, synchronizing critical applications such as power grids, cell phone networks and satellite communications. The demand for hydrogen masers is on the rise as nations rely on independent timescale systems to protect their infrastructure from disruptions and outages. To meet the growing demand for hydrogen masers, Microchip Technology **(Nasdaq: MCHP)** today announces it opened a new facility in Tuscaloosa, Ala., that will focus on manufacturing of its **MHM-2020 Active Hydrogen Maser** to increase production and reduce lead times.

Microchip's MHM-2020 Active Hydrogen Maser is designed for applications requiring extreme frequency stability and low phase noise. These applications include scientific research, national timekeeping services, radio astronomy, deep space tracking networks and GNSS/GPS ground stations. The MHM-2020 Active Hydrogen Maser is engineered to offer 1 picosecond synchronization for precise calibration to GNSS, with a demonstrated lifetime of greater than 20 years of continuous operation and minimal maintenance.

The new Tuscaloosa facility expands manufacturing of Microchip's time and synchronization portfolio, including the MHM-2020 Active Hydrogen Maser, Auxiliary Output Generator™ (AOG-110) and ultra-high-performance 1000C-OCXO crystal oscillator. The AOG-110 provides supplementary functionality for stable frequency standards while the 1000C-OCXO provides exceptional phase noise for metrology and laboratory applications.

Microchip's presence in Alabama comes from a series of acquisitions dating back to Frequency Time Systems in 1996. Since then, the company has operated a facility in Tuscaloosa County. The new facility is approximately 15,000 square feet with temperature stability testing areas and a state-of-the-art research and development laboratory. Within miles of the University of Alabama (UA) campus, the company formed a strategic collaboration with UA, which includes leveraging equipment, training and employing students, as well as advisory board participation.

"The Quantime Lab at the University of Alabama focuses on the investigation of basic quantum physics principles and developing timing, frequency and navigation tools. For the past three years, we have worked closely with Microchip on its hydrogen maser program," said Dr. Thejesh Bandi, the principal investigator of the University of Alabama Quantime Laboratory and technical director of the ACCEPT program. "This expansion of their local

manufacturing demonstrates our shared commitment to advancing timing and frequency solutions."

"This facility in Tuscaloosa was a priority for Microchip, both to meet the growing customer demand for our hydrogen masers and to strengthen our collaboration with the University of Alabama's Precision Navigation and Time Laboratory," said Randy Brudzinski, corporate vice president of Microchip's frequency and time systems business unit. "This investment increases our capacity to deliver the advanced timing technologies our customers rely on."

Microchip offers an extensive portfolio of clock and timing systems, which ranges from miniature component oscillators, to small plug-in timing server cards, to multi-rack time scale systems. As a primary contributor to the world's time, Microchip's timing solutions are trusted, reliable and resilient. For more information, visit **Microchip's Clock and Timing Systems web page**.

**Pricing and Availability**

The MHM-2020 Active Hydrogen Maser is now available for purchase. For additional information and to purchase contact a Microchip **sales representative or authorized worldwide distributor**.

**Resources**

High-res images available through Flickr or editorial contact (feel free to publish):

- Application image: **www.flickr.com/photos/microchiptechnology/54798958024/sizes/l**
- Facility image: **www.flickr.com/photos/microchiptechnology/54797870622/sizes/l**

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