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New Industrial Gigabit Ethernet Transceivers Offer Precision Timing Protocol to Optimize Process Automation Functionality

Microchip's LAN8840/41 are single-port Gigabit Ethernet transceivers delivering PTP-v2 (IEEE 1588-2008) time stamping for highly coordinated factory and process automation

CHANDLER, Ariz., Nov. 10, 2022 (GLOBE NEWSWIRE) -- Developers of industrial automation systems are looking to shift away from the reliance on proprietary solutions for process synchronization to standard-based solutions that offer broader compatibility and reduce design costs. To deliver critical process synchronization, Microchip Technology Inc. **(Nasdaq: MCHP)** announces the **LAN8840 and LAN8841 Gigabit Ethernet transceiver devices** that meet IEEE® 1588v2 standards for Precision Timing Protocol. The LAN8840/41 Ethernet devices are enabled with Linux® drivers and deliver flexible Ethernet speed options including 10BASE-T, 10BASE-Te, 100BASE-TX and 1000BASE-T.

The LAN8840/41 devices can facilitate critical packet prioritization by providing high-speed time stamping that is then relayed between the various components to determine network latencies, accommodate for those latencies, and synchronize time amongst all connected devices. This functionality is key for process automation applications that require precise control production systems such as robotics, distributed sensors and cooling and mixing systems. Designed with robust applications in mind, the LAN8840/41 devices can withstand extended industrial temperatures ranging from -40°C to +105°C.

"The new LAN8840/41 single-port transceivers round out our Time Sensitive Networking offering by providing the connectivity for end nodes in process automation applications," said Charles Forni, vice president of the USB and networking business unit at Microchip. "These devices complement our existing Ethernet portfolio, providing our customers with an end-to-end network solution of components, development tools and support from Microchip."

To help companies achieve sustainability goals by reducing a network's power consumption, the LAN8840/41 offers features like Wake-on-LAN (WoL) and energy-detect power-down mode.
Additionally, Energy-Efficient Ethernet (EEE) delivers low-power idle and clock stoppage modes for optimal power performance.

Microchip is an established supplier of industrial-grade networking solutions, offering a broad portfolio of robust and highly integrated products. The new LAN8840/41 devices are well suited for markets with applications requiring accurate and precise time stamping, such as gas and chemical processing, electrical distribution, and currency trade systems which must

be proven to be in sync with the National Institute of Standards and Technology (NIST) for Universal Coordinated Time (UTC) within one millisecond or finer increments.

Development Tools

The **LAN8841 Ethernet Development System (EDS)** Daughter Card is designed to provide a modular addition to compatible Microchip host boards. This EDS Daughter Card, when paired with the **PCIe® Networking Adapter**, enables evaluation of the LAN8841 through any host supporting the PCIe interface. Linux drivers supporting Precision Timing Protocol (PTP4L) are available for the LAN8841 on Microchip's GitHub repository.

Pricing and Availability

The LAN8840 (48 QFN) and LAN8841 (64 WQFN) are now available in high-volume production. Pricing starts at $2.78 in 10,000-piece quantities. For additional information or to purchase, contact a Microchip sales representative, authorized worldwide distributor or visit Microchip's Purchasing and Client Services website, **www.microchipDIRECT.com**.

Resources

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

- Application image: **www.flickr.com/photos/microchiptechnology/52442704368/sizes/l**

About Microchip Technology
Microchip Technology Inc. is a leading provider of smart, connected and secure embedded control solutions. Its easy-to-use development tools and comprehensive product portfolio enable customers to create optimal designs which reduce risk while lowering total system cost and time to market. The company's solutions serve more than 120,000 customers across the industrial, automotive, consumer, aerospace and defense, communications and computing markets. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip website at **www.microchip.com**.

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