

Connect PIC® MCU Applications to Google Cloud in Minutes with Microchip's New Development Board for Cloud IoT Core

Solution enables large ecosystem of PIC MCU applications to easily add secure cloud connectivity to next-generation designs

CHANDLER, Ariz., Feb. 21, 2019 (GLOBE NEWSWIRE) -- From coffee makers to thermostats to irrigation systems, PIC microcontrollers (MCU) are at the heart of millions of embedded applications. As developers migrate next-generation PIC MCU-based applications to the cloud, they currently must overcome complexities associated with communications protocols, security and hardware compatibility. To accelerate the development of these applications, Microchip Technology Inc. (**Nasdaq: MCHP**) today announced a new Internet of Things (IoT) rapid development board for Google Cloud IoT Core that combines a low-power PIC® microcontroller (MCU), CryptoAuthentication™ secure element IC and fully certified Wi-Fi® network controller. The solution provides a simple way to connect and secure PIC MCU-based applications, removing the added time, cost and security vulnerabilities that come with large software frameworks and Real Time Operating Systems (RTOS). Once connected, Google Cloud IoT Core provides powerful data and analytics to help designers make better, smarter products.

As part of Microchip's extended partnership with Google Cloud, the [PIC-IoT WG Development Board](#) enables PIC MCU designers to easily add cloud connectivity to next-generation products using a free online portal at www.PIC-IoT.com. Once connected, developers can use Microchip's MPLAB® Code Configurator (MCC) rapid development tool to develop, debug and customize their application. The board combines smart, connected and secure devices to enable designers to create connected applications in minutes, including:

- **eXtreme Low-Power (XLP) PIC MCU with integrated Core Independent Peripherals:** Ideal for battery-operated, real-time sensing and control applications, the [PIC24FJ128GA705](#) MCU provides the simplicity of the PIC architecture with added memory and advanced analog integration. With the latest Core Independent Peripherals (CIPs) designed to handle complex applications with less code and decreased power consumption, the device provides the ideal combination of performance with extremely low power consumption.
- **Secure element to protect the root of trust in hardware:** The [ATECC608A](#) CryptoAuthentication device provides a trusted and protected identity for each device that can be securely authenticated. ATECC608A devices come pre-registered on Google Cloud IoT Core and are ready for use with zero-touch provisioning.
- **Wi-Fi connectivity to Google Cloud:** The [ATWINC1510](#) is an industrial-grade, fully certified IEEE 802.11 b/g/n IoT network controller that provides an easy connection to

an MCU of choice via a flexible SPI interface. The module relieves designers from needing expertise in networking protocols.

“Microchip continues to introduce new rapid development tools that enable PIC MCU designers to meet changing application requirements and create differentiated products,” said Steve Drehobl, vice president of Microchip’s 8- and 16-bit MCU business units. “As designers add cloud connectivity and migrate their applications to the Internet of Things (IoT), our PIC-IoT WG development board provides a simplified development process to bring designs to market quickly.”

Google Cloud IoT Core provides a fully managed service that enables designers to easily and securely connect, manage and ingest data from devices at a global scale. The platform collects, processes and analyzes data in real time to enable designers to improve operational efficiency in embedded designs.

“The PIC-IoT WG development board provides Google Cloud IoT customers another option to accelerate the development of cloud-connected applications, without compromising on security,” said Antony Passemard, Head of Product Management for Google Cloud IoT. “Combined with Google Cloud Platform’s network infrastructure and Google’s IoT services, the simplicity of the board makes powerful analytics tools and unique machine learning capabilities accessible to anyone.”

The PIC-IoT WG development board joins the recently announced [AVR-IoT WG development board](#), giving designers the flexibility to easily create cloud-connected applications with their preferred MCU architecture.

Development Tools

The PIC-IoT WG development board is supported by the MPLAB X Integrated Development Environment (IDE) and MCC rapid prototyping tool. The board is compatible with more than 450 MikroElektronika Click boards™ that expand sensors and actuator options. Developers who purchase the kit will have access to an online portal for immediate visualization of their sensors’ data being published. Supported by complete board schematics and demo code, the PIC-IoT WG development board helps get customers to market quickly with differentiated IoT end products.

Pricing and Availability

The PIC-IoT WG Development Board (AC164164) is available in volume production now for \$29 each. For additional information, contact a Microchip sales representative, authorized worldwide distributor or visit Microchip’s website. To purchase products mentioned in this press release, visit the [PIC-IoT portal](#), visit our [purchasing portal](#) or contact one of Microchip’s authorized distribution partners.

Resources

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

- Board photo: <https://www.flickr.com/photos/microchiptechnology/46028523174>
- Video available through YouTube (feel free to post): <https://youtu.be/6NYZhA4b9g0>

About Microchip Technology

Microchip Technology Inc. (NASDAQ: MCHP) is a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions, providing low-risk product development, lower total system cost and faster time to market for thousands of diverse customer applications worldwide. 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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