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Microchip Introduces First PIC® Microcontroller That Integrates 16-bit ADC, 10 Msps ADC, DAC, USB and LCD

PIC24FJ128GC010 Family Provides Intelligent Analog and eXtreme Low Power for Portable Medical and Industrial Applications

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ:MCHP), a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions, today announced a new family of **microcontrollers** (MCUs)—the **PIC24FJ128GC010**. This family is an analog system on a chip that integrates a full analog signal chain, including Microchip's first ever on-chip precision 16-bit ADC and 10 Msps 12-bit ADC, plus a DAC and dual operational amplifiers (op amps), along with eXtreme Low Power (XLP) technology for extended battery life in portable medical and industrial applications.

Watch a short video: **http://www.microchip.com/get/69EM**

View a brief presentation: **http://www.microchip.com/get/VT7L**

This combination of analog integration and low power consumption reduces system cost and noise, and improves the signal throughput in applications such as portable medical monitoring devices, (e.g., blood-glucose meters and blood-pressure monitor), as well as industrial applications such as portable monitoring devices (e.g., voltage and current monitors, gas sensors and high-speed sensor arrays), among others. The PIC24FJ128GC010 family includes an integrated LCD display driver that provides the ability to drive up to 472 segments with information-rich user displays that include scrolling alphanumeric banners. Integrated USB supports the uploading of clinical data for medical equipment, and can act as a service/data port for industrial equipment. Capacitive touch sensing is supported with an on-chip mTouch™ peripheral. The integration of a 16-bit ADC, USB and LCD into a single low-power MCU allows for very small form factor, battery-powered applications. The PIC24FJ128GC010 family represents a significant cost reduction over a multi-chip implementation, enabling lower noise, faster throughput, smaller PCB size and faster time to market.

"Designing precision analog circuits is a challenge. Microchip has made analog design easier with the launch of this latest intelligent-analog microcontroller family," said Joe Thomsen, director of Microchip's MCU16 Division. "We started with the customer's end product in mind debugging the noise and communication so designers get consistent analog performance across applications. We also created a comprehensive starter kit on which our customers can build their software, hardware and sensors—drastically improving their development time by eliminating the need to design a board."

Development Support

The PIC24FJ128GC010 family is supported by Microchip's **Starter Kit for PIC24F Intelligent.Integrated.Analog** (part # DM240015), which is being offered for a special introductory price of $89.99 for a limited time. This kit is focused on the family's integrated analog to preserve signal integrity. It provides 95% of what designers need to develop a handheld analog prototype—all they need to do is add sensors.

Pricing & Availability

The new PIC24FJ128GC010 MCU family is available today for sampling and volume production, starting at $2.59 each in volume. The PIC24FJ128GC010 (128 KB Flash) and PIC24FJ64GC010 (64 KB Flash) are available in 100-pin TQFP and 121-pin BGA packages. The PIC24FJ128GC006 (128 KB Flash) and PIC24FJ64GC006 (64 KB Flash) are available in 64-pin TQFP and QFN packages.

For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at **http://www.microchip.com/get/6T4J**. To purchase products mentioned in this press release, go to **microchipDIRECT** or contact one of Microchip's authorized distribution partners.

Resources

High-res Images Available Through Flickr or Editorial Contact (feel free to publish):

- Chip Graphic: **http://www.microchip.com/get/HDEA**

- Block Diagram: **http://www.microchip.com/get/PN5F**

- Development Board Photo: **http://www.microchip.com/get/N013**

Video Available Through YouTube or Editorial Contact (feel free to post):
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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 **http://www.microchip.com/get/K60C**.

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Tags / Keywords: Low-Power MCU, 16-bit ADC, Portable Medical, Home Medical, Current Sensor, Fault Detector, High-Speed Sensor, Instrumentation

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