March 26, 2013

Microchip Expands PIC24 Lite Microcontroller Portfolio with Advanced Analog Integration and 5V Operation

New PIC24 Lite MCUs Feature On-Chip Op Amps, 8-bit DACs, 12-bit ADC, Flexible PWM Modules and eXtreme Low Power Technology for Cost-Sensitive Automotive, Consumer, 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 addition to its 16-bit PIC® microcontroller (MCU) portfolio with the low cost PIC24F "KM" family. This family offers up to 16 KB Flash, 2 KB RAM and 512B EEPROM, along with advanced analog integration, in low pin-count options for cost-sensitive automotive, consumer, medical and industrial applications.

Watch a short video: **http://www.microchip.com/get/99E7**

The **PIC24F "KM"** family provides a new level of integrated analog functionality such as a 12-bit ADC with threshold detection, 8-bit DACs for analog control loops and precision comparator references, and op amps to assist in sensor amplifications. The PIC24 "KM" MCUs are the first to feature the new Multiple-output Capture Compare PWM Module (MCCP) and Single-output Capture Compare PWM Module (SCCP) peripherals, which include integrated timers and advanced PWM control to enable motor-control, power-supply and lighting applications. The MCCP and SCCP modules combine timers, input captures, output compare and PWM functions in a single time base for optimal flexibility. These modules include 16/32-bit timer support, and can operate from a high-speed clock for higher resolution due to their ability to operate asynchronously. They also allow for automatic operations during sleep mode, to optimize power consumption.

This is also the first PIC24 family to offer a **Configurable Logic Cell (CLC)** for increased on-chip interconnection of peripherals. The CLC module helps in creating custom real-time logic functions on-chip and is supported by the CLC configuration tool, which helps in coding the circuit graphically instead of in assembly or C, thereby saving time for the programmers.

In addition to advanced peripheral integration, the "KM" family includes support for both 3V and 5V applications. Many customers prefer 3V operation for portable, battery-operated applications, and the 3V "KM" products all include **eXtreme Low Power (XLP)** for optimal battery life. Other customers prefer 5V operation with the PIC24FV16KM product variants, for applications where more dynamic range, noise immunity and robustness are the key factors. The PIC24F "KM" with its extreme low power and advanced analog integration, is an excellent solution for customers working on cost-sensitive applications, such as flow meters, smoke detectors, stepper and BLDC motors, LED dimming, battery charging, environmental sensors and portable disposable medical products.

“Microchip continues to innovate with new flexible peripherals, to help designers simplify their board designs and minimize system-level costs,” said Joe Thomsen, director of Microchip’s MCU16 Product Division. “The new PWM modules, CLC and highly-integrated analog signal chain on the KM family help a wide variety of applications.”

Development Support

Customers wanting to get started on developing with the 3V PIC24F “KM” MCUs can purchase the **Microstick for the 3V PIC24F K-series** (part # DM240013-1, $34.95). Customers who want to develop with the 5V PIC24FV “KM” MCUs can purchase the Microstick for 5V PIC24F K-series (part # DM240013-2, $29.95). Both Microsticks are USB powered and include an integrated debugger/programmer, so no external programmer is needed. They also include a Device-Under-Test (DUT) socket for easy device swapping, and can be plugged into a prototyping board. These Microsticks are supported by Microchip’s free **MPLAB® X Integrated Development Environment (IDE)**, and are compatible with all 3V and 5V PIC24F K-series MCUs in 28-pin SPDIP packages. The **Microstick for 5V PIC24F K-Series** (DM240013-2) is available for the promotional introductory price of $19.99.

Pricing & Availability

The PIC24F “KM” MCUs operate from 1.8 to 3.6V, while PIC24FV “KM” versions operate from 2 to 5.5V. The PIC24F(V)16KM204, PIC24F(V)08KM204 and PICF(V)16KM104 are offered in 44-pin TQFP and QFN packages, as well as 48-pin UQFN packages. The PIC24F(V)16KM202, PIC24F(V)08KM202, PIC24F(V)16KM102 and PIC24F(V)08KM102 are available in 28-pin SOIC, SSOP, SPDIP and QFN packages. The PIC24F(V)08KM101 is offered in 20-pin SOIC, SPDIP and SSOP packages. All of these new MCUs are available today for sampling and volume production, starting at $1.77 each in 10,000-unit quantities.

For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip’s Web site at **http://www.microchip.com/get/B7SP**. To purchase products mentioned in this press release, go to **microchipDIRECT** or contact one of Microchip’s authorized distribution partners.

Resources

Watch a short video on these new MCUs (feel free to embed/post): **http://www.microchip.com/get/99E7**

High-res Photo and Block Diagram Available Through Flickr or Editorial Contact (feel free to publish):

- Product Photo: **http://www.microchip.com/get/V806**
- Block Diagram: **http://www.microchip.com/get/G8VV**

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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/HCDM**.

Tags / Keywords: PIC, Microcontroller, MCU, eXtreme Low Power, low power, XLP

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Source: Microchip Technology Inc.