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Microchip Expands Low-Power Leadership With Latest 16-bit eXtreme Low Power PIC(R) Microcontrollers

XLP PIC(R) MCUs Feature 5V Supply Voltage, More Memory in Low Pin Counts, and mTouch(TM) Capacitive Sensing That Works In Sleep

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, analog and Flash-IP solutions, today announced it has expanded its low pin-count 16-bit eXtreme Low Power PIC(R) MCUs by adding an on-chip 12-bit ADC, EEPROM, intelligent mTouch(TM) capacitive sensing, and the capability to run from a 5V supply. Featuring extremely low sleep currents down to 20 nA, for which all XLP PIC MCUs are known, the PIC24F32KA304 MCUs provide designers with the most versatile low-power products available today--giving them an edge in designing industrial, automotive, medical, utility metering, white goods and many other applications.

The PIC24F32KA304 family expands upon the popular PIC24F16KA family by adding twice as much Flash program memory and 30% more RAM, which provides even more support for wireless-communication protocol stacks. Additionally, the numbers of timers and Pulse-Width Modulators were tripled; the numbers of UART, I^2C(TM) and SPI channels doubled; the Analog-to-Digital Converter resolution quadrupled to 12-bits; and the pin count increased to 44-pins, over the PIC24F16KA family. The new PIC24F32KA304 MCUs' intelligent mTouch sensing module includes a Charge Time Measurement Unit (CTMU) that performs automated scan in sleep mode, enabling extremely low-power capacitive sensing. Further, as many touch-sensing applications are battery powered, this new CTMU dramatically reduces current, thereby conserving even more battery power. As many automotive and white-good applications require operation up to 5V, these MCUs simplify power-supply design by eliminating the need for discrete voltage regulators, and providing full analog performance up to 5V.

"Microchip's award-winning XLP technology is giving low-power designers what they have asked for--the world's lowest sleep and active currents, multiple wake-up sources, and more peripherals that operate in sleep without CPU intervention," said Mitch Obolsky, vice president of Microchip's Advanced Microcontroller Architecture Division. "Joining more than 100 MCUs featuring XLP technology, the PIC24F32KA304 family's smart and more numerous peripherals give designers the ability to add application features without the customary increase in power consumption."

Development Support

Microchip also announced the availability of the PIC24F32KA304 Plug-In Module (Part # MA240022, $25) for the Explorer 16 Development Board (Part # DM240001, $129.99). Alternatively, 20- and 28-pin PDIP packages are supported by the XLP 16-bit Development Board (Part # DM240311, $59.99). The MPLAB(R) IDE, MPLAB C Compiler for PIC24 MCUs

and dsPIC(R) DSCs, MPLAB ICD3 In-Circuit Debugger (Part # DV164035, $189.99) and PICkit(TM) 3 Debugger/Programmer (Part # PG164130, $44.95) are also available. All of these tools can be purchased today, at http://www.microchip.com/get/492M.

Packaging, Pricing & Availability

The PIC24F(FV)32KA304 MCU is available in 44-pin TQFP and 8 mm x 8 mm QFN packages, as well as a 48-pin 6 mm x 6 mm UQFN package. The PIC24F(FV)32KA302 MCU is available in 28-pin SOIC, SSOP, SPDIP and 6 mm x 6 mm QFN packages. The lowest pin-count options include the PIC24F(FV)16KA301 MCUs, which are available in 20-pin PDIP, SOIC and SSOP packages. The PIC24FXXKA3XX products operate from 1.8 to 3.6V, while PIC24FVXXKA3XX versions operate from 2 to 5V. Pricing starts at $1.78 each, in 10,000-unit quantities.

Samples are available today at http://www.microchip.com/get/J8FX. Volume-production quantities can be purchased today at microchipDIRECT (http://www.microchip.com/get/492M). For further information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at http://www.microchip.com/get/9MBT. To purchase products mentioned in this press release, go to microchipDIRECT or contact one of Microchip's authorized distribution partners.

About Microchip Technology

Microchip Technology Inc. (NASDAQ: MCHP) is a leading provider of microcontroller, 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, Ariz., Microchip offers outstanding technical support, along with dependable delivery and quality. For more information, visit the Microchip Web site (http://www.microchip.com/get/5C4K).

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High-res photos and block diagram available through editorial contact or Flickr (feel free to publish):

Photo 1 http://www.microchip.com/get/WFW2

Photo 2 http://www.microchip.com/get/2B87

Photo, PIC24F32KA304 PIM http://www.microchip.com/get/2F5S

Block Diagram http://www.microchip.com/get/QRL5

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