September 17, 2012

Microchip Expands USB Portfolio With Fifteen New 8-bit PIC® MCUs

Three Scalable, eXtreme Low Power Families Offer Substantial System Cost Savings by Eliminating External Crystal; Available With a Wide Range of Features

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. **(NASDAQ: MCHP)**, a leading provider of microcontroller, analog and Flash-IP solutions, today announced from the DESIGN East/ESC Boston Conference the expansion of its certified Full-Speed **USB 2.0 Device PIC® microcontroller portfolio** with three new Enhanced Midrange 8-bit families comprising 15 scalable MCUs ranging from 14 to 100 pins with up to 128 KB of Flash. All feature internal clock sources with the 0.25% clock accuracy necessary for USB communication, which saves up to $0.15 by eliminating the need for an external crystal. Additionally, all three families are eXtreme Low Power compliant, with power consumption down to 35 µA/MHz Active and 20 nA in Sleep mode.

View a brief presentation on these new MCUs, here: **http://www.microchip.com/get/FKW3**

The 14- and 20-pin **PIC16F145X MCUs** are Microchip's lowest-cost and smallest-form-factor USB MCUs to date. Available in packages as small as 4x4 mm and featuring a wide array of integrated peripherals, the three-member family enables embedded applications that require USB connectivity and capacitive touch sensing, such as pulse oxymeters, PC accessories and security dongles.

The **PIC18F2X/4XK50 devices**, available in 28- and 40/44-pins, offer a cost-effective, pin-compatible migration option for customers utilizing legacy PIC18 USB MCUs. The three family members feature 1.8-5V operation, and integrate a "Charge Time Measurement Unit" for higher performance cap-touch sensing as well as measurement in applications such as audio docks and data loggers.

The full-featured **PIC18F97J94 family** is Microchip's first to offer integrated LCD control, RTCC with Vbat, and USB on a single 8-bit PIC microcontroller. Available in 64, 80 and 100 pins, the nine-member family offers a 60x8 LCD controller (for a total of 480 segments), which eliminates the need for an external controller in applications with large segmented displays. It also integrates a real-time clock/calendar with battery back-up for end products such as home-automation/security panels, handheld scanners and single-phase energy meters.

"Today's broad announcement demonstrates our commitment to innovation in the 8-bit MCU market," said Steve Drehobl, vice president of Microchip's MCU8 Division. "No one else offers crystal-free USB microcontrollers from 14 to 100 pins with this level of integration and low power consumption."

Development Support

To help speed development times, the downloadable and open-source **USB Framework** within the free Microchip Library of Applications (MLA) includes USB drivers for many common USB classes, including HID, CDC, Mass Storage, Win-USB and Audio-MIDI. These drivers can be used with all 15 of the new PIC MCUs.

In addition to providing free USB software drivers and stacks, Microchip hardware development tools are available for purchase. The **Low Pin Count USB Development Kit** (part # DM164127, $39.99) is available now, for use with the PIC16F145X family. The PICDEM™ FS-USB Board (part # DM163025-1, $59.99) is expected to be available in October, for use with the PIC18FXXK50 family.

Full-Speed USB Plug-in Modules (PIMs) are expected to be available in November for the PIC18F97J94 and PIC18F87J94, at a cost of $45 each, that operate standalone or in conjunction with Microchip's existing LCD Explorer Development Board (part # DM240314, $125) and PIC18 Explorer Development System (part # DV164136, $165), respectively. Further documentation and information is available from Microchip's USB and LCD Design Centers at **http://www.microchip.com/get/34BL** and **http://www.microchip.com/get/J4RV**.

Pricing & Availability

Pricing starts at $0.50 each in high volumes. The **PIC16F145X family** is available now for sampling, and volume production is expected in Mid October. The PIC16F1454 and PIC16F1455 are offered in 14-pin SOIC, TSSOP and PDIP, as well as 4x4 mm 16-pin QFN packages, while the PIC16F1459 is available in 20 pins with the same package types and sizes.

The three-member **PIC18FXXK50 family** is available now for sampling, and volume production is expected in Early November. The PIC18F24K50 and PIC18F25K50 are offered in 28-pin SOIC, SSOP, SPDIP and 6x6 mm QFN packages, while the PIC18F45K50 is available in 44-pin TQFP, as well as 40-pin PDIP and 5x5 mm UQFN packages.

Finally, all nine members of the **PIC18F97J94 family** are expected to be available for sampling in October, and volume production is expected in Early November. The PIC18F65J94, PIC18F66J94 and PIC18F67J94 are offered in 64-pin TQFP and QFN packages. The PIC18F85J94, PIC18F86J94 and PIC18F87J94 are available in the 80-pin TQFP package. The PIC18F95J94, PIC18F96J94 and PIC18F97J94 are available in the 100-pin TQFP package.

For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at **http://www.microchip.com/get/DB2T**. To purchase products mentioned in this press release, go to **microchipDIRECT** or contact one of Microchip's authorized distribution partners.

Resources

High-res Photos & Block Diagrams Available Through Flickr or Editorial Contact (feel free to publish):

- Product Photo: **http://www.microchip.com/get/PRRE**
- Low Pin Count USB Development Kit Photo: **http://www.microchip.com/get/UNW4**
- PIC16F145X Block Diagram: **http://www.microchip.com/get/AE49**

- PIC18FXXK50 Block Diagram: **http://www.microchip.com/get/VL99**
- PIC18F97J94 Block Diagram: **http://www.microchip.com/get/1V82**

Follow Microchip:

- RSS Feed for Microchip Product News: **http://www.microchip.com/get/VGVP**
- Twitter: **http://www.microchip.com/get/ATAQ**
- Facebook: **http://www.microchip.com/get/AS1J**
- YouTube: **http://www.microchip.com/get/C3W7**

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, 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/TUBH**.

Tags / Keywords: USB, Low Power, Crystal Free, Active Clock Tuning, 8-bit, Segmented LCD, Real Time Clock, Vbat, Battery Backup, Touch Sensing, Cap Touch

Microchip Technology Inc.
Editorial Contact:
Eric Lawson, 480-792-7182
eric.lawson@microchip.com
or
Reader Inquiries:
1-888-624-7435
http://www.microchip.com/get/DB2T

Source: Microchip Technology Inc.