July 13, 2009

8-bit Microcontrollers for Medical and Metering Applications Announced by Microchip Technology

PIC18F87J93 Direct-Drive LCD Microcontrollers Feature Enhanced Analog and Capacitive Touch-Sensing Peripheral

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ:MCHP), a leading provider of microcontroller and analog semiconductors, today announced a new four-member family of high-performance 8-bit PIC(R) microcontrollers (MCUs) for medical and metering applications. The PIC18F87J93 8-bit direct LCD-drive MCUs feature up to 16 channels of 12-bit Analog-to-Digital Conversion (ADC), the mTouch(TM) Charge Time Measurement Unit (CTMU) peripheral for capacitive touch sensing, and a hardware Real-Time Clock and Calendar (RTCC). With this enhanced analog functionality and rich peripheral set, the PIC18F87J93 family enables the highly precise measurements and sensors, as well as the high levels of integration that medical and metering applications require.

The 64- and 80-pin PIC18F87J93 MCUs have memory options ranging from 64 to 128 KB Flash program memory and 4 KB RAM, and are pin-out compatible with Microchip's entire LCD-drive MCU portfolio. The on-chip 12-bit ADC with up to 16 channels performs auto acquisition and works during sleep mode, enabling a low-power, reliable analog interface. The on-chip hardware RTCC also works in sleep mode, to enable real-time clock and calendar functions with low power consumption. Additionally, the mTouch CTMU peripheral enables the addition of capacitive touch-sensing user interfaces or precise time measurements, and lowers system costs. The LCD charge pump provides contrast control and maintains low-power ratings even with advanced feature sets.

"Microchip's PIC18F87J93 family expands our portfolio of cost-effective LCD products. For metering and medical applications, their 12-bit ADC, mTouch peripheral and extended memory deliver a cost-effective feature set," said Mitch Obolsky, vice president of Microchip's Advanced Microcontroller Architecture Division. "The new devices offer a drop-in upgrade in features and memory to our popular and low-cost PIC18F85J90 LCD family."

Example metering applications for the PIC18F87J93 MCUs include electricity, flow, gas and water meters. Example medical applications include blood-pressure meters, patient-monitoring systems, infusion pumps and CPAP devices. The new devices are also are well suited for applications in the consumer (Internet-enabled appliances, white goods, game controllers and coffee machines); industrial (home-alarm/security-system keypads, thermostats, power meters, security panels, data logging and central AC communication controllers); and automotive markets (control panels and body electronics), among others. The MCUs complement Microchip's 12-bit Quad MCP4728 Digital-to-Analog Converter (DAC), also announced, today.

Development Support

To get started with the PIC18F87J93 family, customers can use the PICDEM(TM) LCD 2 Demo Board (part # DM163030, $125) in combination with the PIC18F87J9X Plug-In Module (part # MA180025, $25), which includes capacitive-touch buttons. Both are available today at http://www.microchipdirect.com.

Additionally, the PIC18F87J93 family is supported by Microchip's standard development tool suite, including the free MPLAB(R) IDE, the MPLAB C Compiler for PIC18 and the MPLAB ICD 3 In-Circuit Debugger (part # DV164035). The MPLAB IDE now comes with the free Segmented Display GUI, which makes it easy to generate the code needed to drive LCD displays.

For additional design support, Microchip offers online Utility Metering (http://www.microchip.com/metering), Medical (http://www.microchip.com/medical) and LCD Design Centers (http://www.microchip.com/lcd). These comprehensive Web sites provide a wide range of technical tools and resources that designers can use for metering, medical and LCD applications--all in one, easy-to-reach place.

Device Packaging, Pricing & Availability

Pricing for the four-member PIC18F87J93 family starts at $2.71 each, in 10,000-unit quantities. The PIC18F66J93 and PIC18F67J93 MCUs are available in a 64-pin TQFP package, while the PIC18F86J93 and PIC18F87J93 MCUs are available in an 80-pin TQFP package. Samples are available today at http://sample.microchip.com, and volume-production quantities can be purchased today, at http://www.microchipdirect.com.

For further information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at http://www.microchip.com/pic18f87j93.

Microchip Customer Support

Microchip is committed to supporting its customers by helping design engineers develop products faster and more efficiently. Customers can access four main service areas at http://www.microchip.com. The Support area provides a fast way to get questions answered; the Sample area offers evaluation samples of any Microchip device; microchipDIRECT provides 24-hour pricing, ordering, inventory and credit for convenient purchasing of all Microchip devices and development tools; finally, the Training area educates customers through webinars, sign-ups for local seminar and workshop courses, and information about the annual MASTERs events held throughout the world.

About Microchip Technology

Microchip Technology Inc. (NASDAQ:MCHP) is a leading provider of microcontroller and analog semiconductors, 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 website at http://www.microchip.com.

Note: The Microchip name and logo, MPLAB, and PIC are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries. mTouch, and PICDEM

are trademarks of Microchip Technology Inc. in the U.S.A. and other countries. All other trademarks mentioned herein are the property of their respective companies.

Photos and Block Diagram available through editorial contact, or Flickr:

PIC18F87J93 Product Photo

http://www.flickr.com/photos/microchiptechnology/3663419756/sizes/l/

Block Diagram

http://www.flickr.com/photos/microchiptechnology/3663419898/sizes/l/

PICDEM(TM) LCD 2 Demo Board

http://www.flickr.com/photos/microchiptechnology/2847149074/sizes/l/

PIC18F87J9X Plug-In Module

http://www.flickr.com/photos/microchiptechnology/3672598688/sizes/l/

Video Available Through YouTube or Editorial Contact:

http://www.youtube.com/watch?v=xInj6UHglXk

Tags / Keywords: PIC18F87J93, PIC18F87J90, PIC, MCU, Microchip, microcontroller, 8-bit, LCD, medical, metering, sensors, Flash, MPLAB, IDE, ICD 3, MCHP, semiconductor, electronic, mTouch, RTCC, capacitive, touch sensing, user interface, low power, display

RSS Feed for Microchip Product News:

http://www.microchip.com/RSS/recent-PRProduct.xml

Source: Microchip Technology Inc.