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Microchip Introduces Industry's First Low-Power 8-bit Microcontrollers with LCD Driver, 5V Operation and On-Chip 12-bit ADC

PIC18F "K90" MCUs Feature nanoWatt XLP Technology, 1.8 - 5.5V Operation and Module for Capacitive Touch Sensing;
Capable of driving LCDs up to 192 Pixels

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, analog and Flash-IP solutions, today announced the PIC18F "K90" 8-bit microcontroller (MCU) family--the industry's first and only low-power, 5V, 8-bit MCUs that include an on-chip LCD driver module and 12-bit Analog-to-Digital Converter (ADC). The new MCUs feature nanoWatt XLP technology for eXtreme Low Power consumption, with industry-leading sleep currents down to 20 nA. The family comes in 64- and 80-pin packages, with memory options that range from 32 KB to 128 KB of Flash memory, up to 4 KB of RAM and 1 KB of on-chip EEPROM. With 24 channels of mTouch(TM) capacitive touch sensing, these MCUs enable higher system integration--combining the capability to sense a large number of cap-touch sliders, buttons and keys with the ability to drive large, segmented LCDs.

"The PIC18F 'K90' family represents a significant expansion of our high-end 8-bit LCD microcontroller offerings into the 5V operating range," said Mitchel Obolsky, vice president of Microchip's Advanced Microcontroller Architecture Division. "These products are ideal for customers wanting to drive large, segmented LCDs, while consuming very low amounts of power for longer battery life."

With this combination of features, these MCUs are well suited for applications in the home-automation (e.g. thermostats, security systems, in-home displays); appliance (e.g. coffee makers, ranges, refrigerators); industrial (e.g. electronic door locks, metering, HVAC controls); medical (e.g. pulse oximeters, glucometers, digital thermometers, portable health-monitoring devices); and automotive (e.g. alarm systems, keyless entry, dashboard and center-stack displays) markets, among others.

Development Tool Support

A Plug-In Module (PIM) for the PIC18F87K90 MCU was also announced, today (part # MA180027, $25). The PIM can be used with the PICDEM(TM) LCD 2 Demo Board (part # DM163030, $125), or stand alone in a custom application.

Designers can also use Microchip's complete suite of standard development tools, including the user-friendly and free MPLAB(R) IDE and corresponding suite of emulators, programmers and development boards, along with the free MPLAB C or HI-TECH C(R)

compiler for PIC18 MCUs. More information on Microchip development tools is available at http://www.microchip.com/get/X12K.

MCU Packaging, Pricing & Availability

The PIC18F "K90" MCUs are available in 64- and 80-pin TQFP and 64-pin QFN packages, with prices starting at $2.42 each in 10,000 unit quantities. Samples and volume-production quantities are available today. For further information on LCD products, software or development tools, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at http://www.microchip.com/get/59C0.

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 Web site (http://www.microchip.com/get/977V).

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

PIC18FXXK90 Photo: http://www.microchip.com/get/WV61

PIC18FXXK90 Block Diagram: http://www.microchip.com/get/H252

PIC18F87K90 PIM: http://www.microchip.com/get/VSWW

PICDEM LCD 2 Demo Board: http://www.microchip.com/get/95ST

Tags / Keywords: Microchip, PIC, 8-bit, microcontroller, PIC18, MCHP, XLP, eXtreme Low Power, nanoWatt, mTouch, capacitive, touch sensing, user interface, MPLAB, PIC18F87K90, PIC18FXXK90, LCD

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