16-bit eXtreme Low Power PIC® Microcontrollers

CHANDLER, Ariz. -- (BUSINESS WIRE) -- Microchip Technology Inc. has expanded its low pin-count 16-bit eXtreme Low Power PIC® MCUs by adding an on-chip 12-bit ADC, EEPROM, intelligent mTouch™ 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, I2C™ 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 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® IDE, MPLAB C Compiler for PIC24 MCUs and dsPIC® DSCs, MPLAB ICD3 In-Circuit Debugger (Part # DV164035, $189.99) and PICkit™ 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 [1].

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.

Source URL (retrieved on *05/21/2013 - 2:36am*):
http://www.wirelessdesignmag.com/product-releases/2011/04/16-bit-extreme-low-

power-pic%C2%AE-microcontrollers?qt-blogs=0

Links:
[1] http://www.microchip.com/get/492M