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Microchip Technology Introduces Lowest-Cost USB PIC(R) MCUs

Small-Footprint PIC18F1XK50 MCUs Enable Addition of USB to Any Application

CHANDLER, Ariz.--(BUSINESS WIRE)--

Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller and analog semiconductors, today announced a new family of 8-bit PIC(R) microcontrollers (MCUs) for USB applications. The PIC18F13K50 and PIC18F14K50 (PIC18F1XK50) are the lowest-cost USB MCUs from Microchip and provide a host of features not normally found on inexpensive 8-bit MCUs--enabling the addition of embedded USB into a wide range of applications. The new devices are supported by Microchip's free USB software stack and the free MPLAB(R) IDE Integrated Development Environment, which provides a consistent development platform across all PIC MCUs. This offers design engineers a solid migration path to higher levels of performance and functionality.

More engineers are taking advantage of USB as a standardized interface to connect with larger computer-based systems, in combination with other standard embedded serial-interface protocols. The PIC18F1XK50 MCUs include a host of serial communications interfaces, such as USB 2.0, I2C(TM), SPI and USART; enabling them to transfer data between USB and other embedded serial networks. Additionally, they provide a 10-bit, 9-channel Analog-to-Digital Converter (ADC) and dual comparators with S/R Latch, giving users the capability to process a variety of environmental inputs--from temperature and humidity logging to capacitive touch-sensing.

"The introduction of the PIC18F1XK50 USB family exemplifies Microchip's commitment to remain at the forefront of the embedded marketplace," said Steve Drehobl, vice president of Microchip's Security, Microcontroller and Technology Development Division.

Drehobl continued, "More and more, our customers are making USB the protocol of choice when connecting their embedded systems to the outside world. This PIC18 family allows them to add USB to their designs using a single MCU to perform both the communication and the primary application tasks."

Additional features onboard the PIC18F1XK50 MCUs include a USB host-detection capability, whereby the MCU can be configured to enter SLEEP or any other power-managed mode when a USB connection is not present. The new MCUs can also be internally or externally clocked with seamless on-the-fly switching, bringing further power savings to the user. Furthermore, with an operating voltage range of 1.8 - 5.5V, the MCUs are designed for use in a wide variety of operating environments and power supplies, including batteries, USB interfaces or other power sources.

Device-Specific Features

The PIC18F13K50 has 8 KB Flash and 512 Bytes of RAM memory, whereas the PIC18F14K50 has 16 KB Flash and 768 Bytes of RAM. Both devices have 256 Bytes of EEPROM for non-volatile data storage. Low-power options are available for both devices (PIC18LF1XK50) offering 1.8 - 3.6V operation, with reduced power consumption for extremely power-sensitive applications.

The new MCUs are well-suited for a myriad of applications--from smart remote controls to USB battery chargers. Examples include applications in the Consumer Electronic (battery-operated remote controls, personal media players, personal computing); Industrial (battery-operated data loggers, industrial machines that currently utilize the RS-232 protocol, handheld instruments); Medical (patient monitors, dosing pumps, blood gas analyzers) and other markets.

Development Support

Microchip announced two new development kits today, to help engineers get started using the PIC18F1XK50 MCUs in their designs. The Low Pin Count USB Development Kit with PICkit(TM) 2 Debugger/Programmer (Part # DV164126) includes populated and unpopulated reference-design boards, a PICkit 2 Debugger/Programmer, a CD with tutorials and other supporting materials. For engineers not requiring the PICkit 2 Debugger/Programmer, Microchip also announced the Low Pin Count USB Development Kit (Part # DM164127) today. This kit includes the reference-design boards, CD and supporting materials, only. Both kits are expected to be available for purchase in calendar Q3 2008 at www.microchipdirect.com.

Additionally, as with all PIC18F MCUs, the PIC18F1XK50 family is supported by Microchip's world-class development tools, including the MPLAB IDE, the MPLAB REAL ICE(TM) emulation system, the MPLAB ICD 2 in-circuit debugger and the MPLAB PM3 universal device programmer. Microchip's free USB software stack can be downloaded from www.microchip.com/USB.

Device Packaging, Pricing and Availability

The PIC18F1XK50 MCUs are all available in 20-pin SSOP, SOIC, PDIP and 5 x 5 mm QFN packages. The PIC18F13K50 and PIC18LF13K50 MCUs are priced at $1.32 each, in 10,000-unit quantities; the PIC18F14K50 and PIC18LF14K50 MCUs at $1.46 each, in 10,000-unit quantities. Higher-volume pricing is below $1.00, depending upon quantity.

Limited sampling is available now, and volume production is scheduled for calendar Q3 2008. For further information, please contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at www.microchip.com/USB.

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 www.microchip.com. The Support area provides a fast way to get questions answered; the Sample area offers free 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 www.microchip.com.

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