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Microchip Unveils PIC(R) Microcontrollers for Single-Phase, Multi-Function Smart-Metering and Energy-Monitoring Applications

PIC18F87J72 Family Features High-Performance 16-/24-bit Analog Front End and 64 or 128 KB Flash Program Memory; Enables Meters Exceeding IEC Class 0.5 Performance

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, analog and Flash-IP solutions, today announced the 8-bit PIC18F87J72 microcontroller (MCU) family for single-phase, multi-function smart-metering and energy-monitoring applications. Featuring a dual-channel, high-performance 16-/24-bit Analog Front End (AFE), the new MCUs provide an accurate, reliable, easy-to-use and cost-effective solution for developing meters that exceed International Electrotechnical Commission (IEC) class 0.5 performance. The family includes 64 or 128 KB Flash program memory and 4 KB RAM, to enable time-of-use and multi-tariff functions; as well as a high level of peripheral integration, including an LCD driver, hardware Real-Time Clock/Calendar (RTCC) and a Charge-Time Measurement Unit (CTMU) that enables a capacitive-touch user interface. Energy-calculation firmware, a development board and a reference design are available, providing a complete solution that lowers costs and shortens time to market for a variety of smart-metering and energy-monitoring applications.

"The PIC18F87J72 MCU family addresses market demands for an integrated smart energy metering and power-monitoring MCU," said Mitchel Obolsky, vice president of Microchip's Advanced Microcontroller Architecture Division. "These new MCUs expand Microchip's existing energy-metering and power-monitoring portfolio. Customers now have the option of selecting the PIC18F87J72 MCU with AFE for small size, or a separate Microchip MCP390X AFE with a standard PIC(R) MCU for maximum flexibility."

Development Support

The PIC18F87J72 Single-Phase Energy-Meter Reference Design (part #ARD00280) can be obtained through Microchip sales representatives for evaluation, today. Featuring a shunt-based single-phase meter with energy-calculation firmware and GUI-assisted software calibration, the reference design enables calculation of active/reactive energy, forward/reverse energy, active/reactive/apparent power and RMS current/Voltage. Customers can reuse or customize the free firmware for their needs, which further shortens time to market and enables them to differentiate their products in the marketplace. The firmware, PC software and Gerbers are available for download at http://www.microchip.com/get/F0U4, today.

Additionally, the PIC18F87J72-based Energy Monitoring PICtail(TM) Daughter Board (part #ARD00330) can be plugged into Microchip's Explorer 16 Development Board (part

#DM240001) for easy development of energy-measurement and -monitoring devices. The PICtail board is expected to be available in November 2010.

Demonstrations of the Energy-Meter Reference Design and Energy-Monitoring PICtail Daughter Board can be viewed in Microchip's booth #201 at the Embedded Systems Conference (ESC) Boston Sept. 21-22 and its Metering Europe booth #F08 Sept. 20-24 in Vienna, Austria.

MCU Packaging, Pricing & Availability

The PIC18F87J72 family of MCUs are available in an 80-pin 12 mm x 12 mm x 1 mm TQFP package. Pricing starts at $3.93 each in 10,000-unit quantities for 64 KB Flash program memory. Samples can be ordered today at http://www.microchip.com/get/TKH0, and volume-production quantities can be purchased today at microchipDIRECT (http://www.microchip.com/get/W7SE).

For further information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at http://www.microchip.com/get/F0U4.

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, 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/81NG).

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

MCU Photo: http://www.microchip.com/get/N17J

Block Diagram: http://www.microchip.com/get/7HMT

Circuit Diagram: http://www.microchip.com/get/544U

Ref. Design Photo: http://www.microchip.com/get/A64T

PICtail Board Photo: http://www.microchip.com/get/8DUB

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