June 27, 2011

Microchip Brings Advanced Control to Cost-Sensitive Designs With New PIC(R) MCUs & dsPIC(R) DSCs

16-bit Devices Provide Breakthrough Performance for General-Purpose and Motor-Control Applications

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, analog and Flash-IP solutions, today announced a new series of 16-bit PIC(R) microcontrollers (MCUs) and dsPIC(R) Digital Signal Controllers (DSCs) that bring advanced control to cost-sensitive general-purpose and motor-control designs. The new devices enable low-cost, sensorless motor-control designs, with support for a wide range of motor-control algorithms, and include an on-chip Charge Time Measurement Unit (CTMU) and 10-bit Analog-to-Digital Converter (ADC), to enable intelligent sensor applications and mTouch(TM) capacitive touch sensing. The devices are supported by three new Plug-In Modules (PIMs) and a single-board motor-control starter kit that includes cap-touch sliders and an onboard BLDC motor, making it easy for designers to create high-performance applications in the appliance (e.g. washing machines), medical (e.g. infusion pumps) and industrial (e.g. AC-induction motors) markets, among others.

A video can be viewed online at the following link (feel free to embed on your Web site): http://www.microchip.com/get/RUBM.

Today's designers are challenged to create higher-performing products at lower costs. With specialized features and peripherals optimized for general-purpose and motor-control applications, at prices near $1.00 each in high-volume quantities, the dsPIC33FJ16 "GP," dsPIC33FJ16 and PIC24FJ16 "MC" devices meet these needs. In addition to their on-chip CTMU and ADC peripherals, the general-purpose dsPIC33FJ16 "GP" devices include a Real-Time Clock/Calendar and up to 21 general-purpose output pins, making them ideal for driving intelligent sensors. The dsPIC33FJ16 and PIC24FJ16 "MC" devices include a 6-channel Pulse-Width Modulation (PWM) peripheral with synchronized outputs for 3-phase operation, enabling support for a wide range of motor-control algorithms and applications, from simple sensored motors to advanced Sinusoidal Field-Oriented Control (FOC), Brushless DC (BLDC), Permanent Magnet and Synchronous AC-Induction Motors (ACIMs).

"Customers are always looking for ways to incorporate more features and functionality into their designs without increasing costs," said Sumit Mitra, vice president of Microchip's High-Performance Microcontroller Division. "The dsPIC33FJ16 DSCs and PIC24FJ16 MCUs meet these needs, with the 'MC' versions enabling customers to enjoy the benefits of advanced motor control, such as higher efficiency, quieter operation, smoother torque and higher reliability."

Development Tool Support

Microchip announced several new development tools to help designers to get started using the new devices. The Motor Control Starter Kit With mTouch Sensing (part # DM330015, $89.99) contains a single board with a BLDC motor, capacitive-touch sliders and a built-in debugger. The dsPIC33FJ16GP102 (part # MA330029, $25), PIC24FJ16MC102 (part # MA240026, $25) and dsPIC33FJ16MC102 (part # MA330026, $25) Plug-In Modules (PIMs) are available, and work with the Explorer 16 (part # DM240001, $129.99) and dsPICDEM(TM) MCLV (part # DM330021, $150) development boards. All of these tools are available for purchase today, at microchipDIRECT (http://www.microchip.com/get/BTDH).

Packaging, Pricing & Availability

The dsPIC33FJ16GP101 DSC is available in 18-pin PDIP and SOIC packages, as well as a 20-pin SSOP packages. The dsPIC33FJ16GP102 and dsPIC33FJ16MC102 DSCs, and PIC24FJ16MC102 MCU are available in 28-pin QFN-S, SDIP, SOIC and SSOP packages, as well as a 36-pin VLAP package. The dsPIC33FJ16MC101 DSC and PIC24FJ16MC101 MCU are available in 20-pin PDIP, SOIC and SSOP packages. All of the devices are priced near $1.00 each in high-volume quantities. Samples can be ordered today at http://www.microchip.com/get/PHUE. Volume-production quantities can be purchased today at microchipDIRECT (http://www.microchip.com/get/BTDH). For further information, contact any Microchip sales representative or authorized worldwide distributor or visit Microchip's Web site at http://www.microchip.com/get/PFG6. To purchase products mentioned in this press release, go to microchipDIRECT or contact one of Microchip's authorized distribution partners.

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/1HW7).

Video (feel free to embed on your Web site): http://www.microchip.com/get/RUBM

High-res Photos and Block Diagrams available through editorial contact or Flickr (feel free to publish):

Photo http://www.microchip.com/get/1VT1

Block diagram, PIC24F16MC10X http://www.microchip.com/get/9JE8

Block diagram, dsPIC33FJ16MC10X http://www.microchip.com/get/XNVT

Block diagram, dsPIC33FJ16GP10X http://www.microchip.com/get/HCXD

Motor Control Starter Kit http://www.microchip.com/get/3J5D

Tags / Keywords: Microchip, MCHP, PIC, microcontroller, MCU, Digital Signal Controller, DSC, motor control

RSS Feed for Microchip Product News: http://www.microchip.com/get/2MJW

Source: Microchip Technology Inc.