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Microchip Technology Expands Cost-Effective PIC24F Microcontroller Family With World's Lowest Power Large-Memory 16-bit MCUs

PIC24FJ256GA1 is Only 16-bit MCU Family With Integrated Capacitive-Touch Peripheral; Eliminates Need for External Cap-Touch Components

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

Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller and analog semiconductors, today announced nine new members of the cost-effective PIC24F 16-bit microcontroller (MCU) family, which are the lowest power (2.6 uA standby current) large-memory (up to 256 KB Flash and 16 KB RAM) 16-bit microcontrollers in the world. Additionally, this is the world's first 16-bit MCU family with an integrated Charge Time Measurement Unit (CTMU) peripheral, which--along with the royalty-free mTouch(TM) Sensing Solution software development kit--enables designers to easily add a capacitive-touch user interface without any external components. When combined with Microchip's free Graphics Software Library, engineers have access to a complete and cost-effective user interface solution. For I/O flexibility in advanced applications, the entire PIC24FJ256GA1 family allows the use of all onboard peripherals, by enabling designers to map them to the pin they desire through the "Peripheral Pin Select" pin-mapping function.

Embedded engineers must constantly add more functions and capabilities to their designs, without sacrificing cost, space or power consumption. This is driving the demand for MCUs, such as the 16-bit PIC24FJ256GA1 family, that provide larger memory for advanced applications and higher integration to save space while maintaining low power consumption. Additionally, the enhanced peripherals of the PIC24FJ256GA1 family provide up to four UARTs, three SPI ports and three I2C(TM) ports to expand control capabilities and eliminate the space and cost of support chips.

"Microchip's latest 16-bit PIC(R) MCUs provide customers with a new level of integration for general-purpose applications. Large code space, low power, and a powerful peripheral set expand the general-purpose capabilities of our cost-effective PIC24F family," said Mitch Obolsky, vice president of Microchip's Advanced Microcontroller Architecture Division.

According to Obolsky, "These are also the industry's only 16-bit microcontrollers, through the integrated CTMU, that enable designers to add capacitive touch capabilities to their designs without adding cost and components to the board design. Combined with our free QVGA graphics library, Microchip offers a complete and easy-to-use solution with which customers can add exciting and compelling user interfaces to their products."

Rarely are designers working on point applications, but rather complete portfolios of end products. To provide the flexibility that this design approach requires, the PIC24FJ256GA1 family maintains pin, peripheral and software compatibility with all of Microchip's general-purpose 32-bit MCU and 16-bit MCU/DSC families. To further ease migration and protect tool investments, Microchip's is the only complete portfolio of 8-, 16- and 32-bit devices to be supported by a single Integrated Development Environment--the free MPLAB(R) IDE.

The PIC24FJ256GA1 family is designed to meet a wide range of design-engineering needs across a broad spectrum of industries, especially those looking to provide an improved user-interface experience. Specific application examples include: Battery-Powered (sensors, portable meters and measurement equipment, security applications, remote controls, home automation); Consumer (home security systems, heating control, audio equipment, fitness equipment); Automotive (vehicle tracking, diagnostic equipment, audio electronics); Appliance (coffee makers, washing machines, dishwashers, HVAC); Instrumentation/Measurement (scales, medical instruments and monitoring); Industrial (building monitor-and-control systems, security/access systems, sensors); Medical (patient monitors, dosing pumps, blood gas analyzers).

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Key Features:

--  Low power--standby current of 2.6 uA

--  CTMU peripheral for capacitive touch

--  Peripheral Pin Select flexible pin mapping

--  Expanded peripherals - 4 UARTs, 3 SPI, 3 I2C(TM) ports

--  23 independent timers

Development Tools & Training
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All PIC24F family members are supported by Microchip's world-class development tools, including the MPLAB IDE, the MPLAB C30 C compiler, the MPLAB REAL ICE(TM) emulation system, the MPLAB ICD 2 in-circuit debugger, and the MPLAB PM3 universal device programmer. Owners of the Explorer 16 development board can purchase a $25 PIC24FJ256GA1 plug-in module (part # MA240015), which is available today at www.microchipdirect.com.

A number of PICtail(TM) Plus daughter cards and software libraries are available for the Explorer 16 that enable designers to add QVGA graphics support, Ethernet connectivity, a SD/MMC card, speech playback and an IrDA(R) standard connection. Finally, Microchip's 16-bit devices are supported by an increasing number of third-party tool and software vendors.

Availability & Pricing

The nine-member PIC24FJ256GA1 family is offered in 64-, 80- or 100-pin TQFP package options--in commercial and extended temperature ranges--and all are available now for general sampling with volume production expected in April 2008. Pricing starts at $3.39 each in 10,000 unit quantities. For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at www.microchip.com/16bit.

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, Arizona, 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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