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Microchip Technology Introduces World's First 16-bit Microcontrollers with 64 Kbytes of Flash in 28-Pin Packages

PIC24FJ64GA004 Family Debuts Pin-Mapping Function for Optimum Design Flexibility

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

Microchip Technology Inc. (NASDAQ:MCHP), a leading provider of microcontroller and analog semiconductors, today announced eight new members of the cost-effective PIC24F 16-bit microcontroller family, which extend the line into smaller and lower cost 28- and 44-pin packages with 16 to 64 Kbytes of Flash program memory and up to 8 Kbytes of RAM. The new PIC24FJ64GA002 microcontroller provides more onboard memory than any other 28-pin packaged 16-bit microcontroller. The entire PIC24FJ64GA004 family allows the flexible use of all onboard peripherals, by enabling designers to map them to the pin they desire through the "Peripheral Pin Select" pin-mapping function.

Design engineers are adding functions in software to even the smallest microcontrollers, driving the demand for higher performance and larger memory in low pin count packages--to better address cost- and space-constrained applications. The PIC24FJ64GA004 family's industry-leading memory densities, in packages as small as a 6x6 mm QFN, address these design concerns.

However, engineers still require a broad range of peripheral combinations within these low pin count packages. The PIC24FJ64GA004 family contains a similar peripheral set to the 100-pin PIC24FJ128GA family, in a package as small as 28 pins. Through Peripheral Pin Select, Microchip enables designers to use the available pins in the exact manner they like. This flexibility provides engineers with the option to use a smaller, more cost-effective microcontroller.

"Microchip's latest 16-bit PIC(R) microcontrollers allow customers with space-constrained applications that have large amounts of code to utilize our cost-effective PIC24F family," said Mitch Obolsky, vice president of Microchip's Advanced Microcontroller Architecture Division. "These are the industry's only 16-bit microcontrollers that enable designers to utilize smaller packages without sacrificing peripheral versatility."

The PIC24FJ64GA004 family is designed to meet a wide range of design engineering needs across a broad spectrum of industries. Specific application examples include: consumer (security systems, heating control, audio equipment); automotive (body control, steering systems); instrumentation/measurement (scales, medical instruments and monitoring); industrial (building monitor-and-control systems, security/access systems, sensors).

In addition to Peripheral Pin Select, this new PIC24F family features two independent channels of I2C(TM), UART and SPI communications. These channels allow the microcontrollers to communicate to a number of devices over multiple protocols, for easier system design. Additionally, the PIC24FJ64GA004 family is designed for an easy transition to other members in the PIC24F family and for migration to other families in Microchip's 16-bit portfolio, including the PIC24H and dsPIC33 families, through code compatibility. This compatibility enables the seamless migration from a 16 MIPS PIC24F microcontroller all the way to a 40 MIPS dsPIC33 digital signal controller.

Development Tools & Support

All eight members of the PIC24FJ64GA004 family are supported by the full complement of tools that are common to all of Microchip's controllers, including the free MPLAB(R) Integrated Development Environment with its Visual Device Initializer component, which graphically assists designers in mapping pins and initializing code for the on-chip Peripheral Pin Select pin-mapping function. The MPLAB C30 C compiler provides industry-leading code densities, along with math and peripheral libraries. For emulation and debugging, Microchip offers the full-featured MPLAB REAL ICE(TM) tool and the low-cost MPLAB ICD 2 tool.

A new version of the Explorer 16 is available with a 44-pin PIC24FJ64GA004 onboard (part # DM240002, $129.99). For those who already own the Explorer 16--which is a low-cost, efficient development board for evaluating the features and performance of Microchip's 16-bit families--a new Plug-in Module (PIM) was created (part # MA240013) to enable development with the PIC24FJ64GA004 family. Additionally, a number of PICtail(TM) Plus daughter cards are available for the Explorer 16 that enable designers to add 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.

In addition to providing tool support, Microchip has developed an instructional Webinar on this new 16-bit family, which is available now at www.microchip.com/training.

Pricing & Availability

All eight members of the PIC24FJ64GA004 family are available now for general sampling and volume production, with prices starting at $1.69 each in 10,000 unit quantities. The PIC24FJ64GA004, PIC24FJ48GA004, PIC24FJ32GA004 and PIC24FJ16GA004 are available in 44-pin TQFP and QFN packages. The PIC24FJ64GA002, PIC24FJ48GA002, PIC24FJ32GA002 and PIC24FJ16GA002 are available in 28-pin SOIC, QFN, SSOP and SDIP packages.

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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