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Microchip Doubles Flash Memory and Adds New Security Options in Latest Family of eXtreme Low Power PIC® Microcontrollers

PIC24F "GB4" MCUs Protect Embedded Data in Broad Range of Low-Power Applications

CHANDLER, Ariz., Aug. 24, 2015 /PRNewswire/ -- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions, today announced the expansion of its eXtreme Low Power (XLP) PIC® microcontroller (MCU) portfolio. Features of the new **PIC24F "GB4"** family include an integrated hardware crypto engine with both OTP and Key RAM options for secure key storage, up to 256 KB of Flash memory and a direct drive for segmented LCD displays, in 64-, 100- or 121-pin packages. Dual-partition Flash with Live Update capability allows the devices to hold two independent software applications, and permits the simultaneous programming of one partition while executing application code from the other. These advanced features make the PIC24F "GB4" family ideal for designers of industrial, computer, medical/fitness and portable applications that require secure data transfer and storage, and a long battery life.

To learn more about Microchip's PIC24F "GB4" family of MCUs, visit **http://www.microchip.com/PIC24FJ256GB410-082415a**.

"Securing your data is one of the key challenges in today's Internet of Things world," said Joe Thomsen, vice president of Microchip's MCU16 Division. "The combination of our XLP technology and encryption capabilities enables this new PIC24 'GB4' family to increase the integrity of embedded data for a broad range of applications, without sacrificing power consumption."

To protect embedded data, several Microchip Core Independent Peripherals (CIPs) that run without the CPU are integrated into the PIC24F "GB4" family. The fully featured hardware crypto engine, which includes support for the AES, DES and 3DES standards, reduces software overhead, lowers power consumption and enables faster throughput. A Random Number Generator is used for generating random keys for data encryption, decryption and authentication, enabling a higher level of security. For additional protection, this family offers the flexibility of choosing from two crypto-key storage options: One-Time-Programmable (OTP) to prevent overwriting keys, or Key RAM that erases keys if power is lost. To allow the application's Real-Time Clock to continue running when primary power is removed, a VBAT pin can be used to supply back-up power.

Reducing system components, a segmented LCD display driver provides the ability to directly drive up to 512 segments, enabling more informative and flexible displays that include descriptive icons and scrolling.

Development Support

The PIC24F "GB4" family is supported by Microchip's standard suite of world-class development tools, including the **PIC24FJ256GB410 Plug-In Module** (part # MA240038, $25.00) for the **Explorer 16 Development Board** (part # DM240001, $129.99).

Pricing & Availability

Product variants are available with USB (PIC24FJXXX**GB**4XX) and without USB (PIC24FJXXX**GA**4XX), and the following family table shows all options: **http://www.microchip.com/Table-082415a**. These latest PIC24F MCUs are available for immediate sampling and production volumes are available within typical lead times. Pricing starts at $1.80 each, in high volumes. For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at **http://www.microchip.com/PIC24FJ256GB410-082415a**. To purchase products mentioned in this press release, go to **microchipDIRECT** or contact one of Microchip's authorized distribution partners.

Resources

High-res Images Available Through Flickr or Editorial Contact (feel free to publish):

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About Microchip Technology

Microchip Technology Inc. (NASDAQ: MCHP) is a leading provider of microcontroller, mixed-signal, 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, Arizona, Microchip offers outstanding technical

support along with dependable delivery and quality. For more information, visit the Microchip website at **http://www.microchip.com/Homepage-082415a.**

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Tags / Keywords: Embedded Security, Encryption MCU, Crypto Engine, eXtreme Low Power, XLP, MCU, Low Power MCU, Secure Key Storage, Data Security, One Time Programmable, OTP, Dual Partition Flash, Live Update, Key RAM, Core Independent Peripheral, CIP

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