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Microchip Expands XLP PIC® MCU Portfolio with Industry's Lowest Active Current for 16-bit MCUs & New Low-Power Sleep Modes

PIC24FJ128GA310 Family Features VBAT Battery Backup, Low-Power Sleep with RAM Retention and an LCD Driver

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, analog and Flash-IP solutions, today announced the expansion of its **eXtreme Low Power (XLP)** microcontrollers (MCUs) with the **PIC24F "GA3" family**, featuring industry's lowest active current for 16-bit Flash MCUs, as well as several flexible new low-power sleep modes. The PIC24F "GA3" devices feature 150 microamperes/MHz active current, as well as six DMA channels, which allow a routine to be executed with less power consumption and increased throughput. The family showcases continual advancement in Microchip's **XLP technology** and adds a new low-power sleep mode with RAM retention down to 330 nA. Additionally, these are the first PIC® MCUs with VBAT for battery backup of the on-chip Real-Time Clock Calendar. With these features, plus an integrated **LCD** driver and numerous other peripherals, the PIC24F "GA3" devices enable more efficient, less expensive designs in the **consumer** (e.g. thermostats, door locks, home automation); **industrial** (e.g. security, wired and wireless sensors, industrial controls); **medical** (e.g. portable medical devices, diagnostic equipment); and **metering** markets (e.g. e-Meters, energy monitoring, gas/water/heat meters, automated meter reading), among others.

View a **video**, here (feel free to embed on your site): **http://www.microchip.com/get/1TNA**

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Designers often want to create applications where the battery life approaches the end product's useful life. With its run currents of 150 microamperes/MHz, numerous low-power modes and a low-power sleep mode with RAM retention down to 330 nA, the PIC24F "GA3" MCUs enable maximum battery life by reducing the overall amount of power that the application consumes. 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 with only 400 nA. Additionally, the transition from VDD to the VBAT supply pin occurs automatically as VDD is removed. The integrated LCD display driver provides the ability to directly drive up to 480 segments, with an eight-common-drive capability, enabling more informative and flexible displays that include descriptive icons and scrolling. The MCUs also include a Charge Time Measurement Unit (CTMU) with a constant current source that can be used for **mTouch™ capacitive sensing**, ultrasonic flow measurement and many other sensors. The on-chip, 12-bit ADC features threshold detection and works in conjunction with the CTMU to perform proximity sensing while in sleep, to further reduce power consumption.

“The PIC24F ‘GA3’ family demonstrates our continuous investment in low-power technology,” said Mitch Obolsky, vice president of Microchip’s Advanced Microcontroller Architecture Division. “These new MCUs enable customers to maximize battery life by reducing active and sleep currents, with flexible new low-power modes for battery backup and RAM retention. The result is that customers can create lower-power, higher-performing end products.”

Development Tool Support

Microchip also announced the **PIC24FJ128GA310 Plug-In Module** [PIM (part # MA240029, $25.00)] for the Explorer 16 Development Board, today. For customers who would like to evaluate or develop with a 480-segment LCD, the **LCD Explorer Development Board** (part # DM240314, $125.00). The PIM and LCD Explorer board can be purchased today, at **http://www.microchip.com/get/VSKK**.

Packaging, Pricing & Availability

The PIC24F “GA3” family is available today for **sampling** and **volume production**. The PIC24FJ64GA306 and PIC24FJ128GA306 MCUs are available in 64-pin QFN and TQFP packages, with 64 KB and 128 KB of Flash, respectively. The PIC24FJ64GA308 and PIC24FJ128GA308 MCUs are available in an 80-pin TQFP package, with 64 KB and 128 KB of Flash, respectively. The PIC24FJ64GA310 and PIC24FJ128GA310 MCUs are available in 100-pin TQFP and 121 BGA packages, with 64 KB and 128 KB of Flash, respectively.

Volume pricing for the PIC24F “GA3” family is less than $1.99. For further information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip’s Web site at **http://www.microchip.com/get/0KJV**. 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/4700**).

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

PIC24FJ128GA310 MCU photo **http://www.microchip.com/get/LPLJ**

Block Diagram **http://www.microchip.com/get/GDG4**

LCD Development Board photo **http://www.microchip.com/get/AKKT**

PIC24FJ128GA3 PIM photo **http://www.microchip.com/get/1V0E**

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