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Microchip Launches Two New SAM Microcontroller Families with Extensive Connectivity Interface Options

SAM D5x and E5x MCUs Provide Powerful Performance and Enhanced Security Features

CHANDLER, Ariz., Aug. 01, 2017 (GLOBE NEWSWIRE) -- The **SAM D5x** and **SAM E5x** microcontroller (MCU) families are now available from Microchip Technology Inc. (NASDAQ:MCHP). These new 32-bit MCU families offer extensive connectivity interfaces, powerful performance and robust hardware-based security for a wide variety of applications.

The SAM D5/E5 microcontrollers combine the performance of an ARM® Cortex®-M4 processor with a Floating Point Unit (FPU). This combination offloads the Central Processing Unit (CPU), increasing system efficiency and enabling process-intensive applications on a low-power platform. Running at up to 120 MHz, the D5x and E5x MCUs feature up to 1 MB of dual-panel Flash with Error Correction Code (ECC), easily enabling live updates with no interruption to the running system. Additionally, these families are available with up to 256 KB of SRAM with ECC, vital to mission-critical applications such as medical devices or server systems.

These new MCUs have multiple interfaces that provide design flexibility for even the most demanding connectivity needs. Both families include a Quad Serial Peripheral Interface (QSPI) with an Execute in Place (XIP) feature. This allows the system to use high-performance serial Flash memories, which are both small and inexpensive compared to traditional pin parallel Flash, for external memory needs. The SAM D5/E5 devices also feature a Secure Digital Host Controller (SDHC) for data logging, a Peripheral Touch Controller (PTC) for capacitive touch capabilities and best-in-class active power performance (65 uA/MHz) for applications requiring power efficiency. Additionally, the SAM E5 family includes two CAN-FD ports and a 10/100 Mbps Ethernet Media Access Controller (MAC) with IEEE 1588 support, making it well-suited for industrial automation, connected home and other Internet of Things (IoT) applications.

Both the SAM D5x and E5x families contain comprehensive cryptographic hardware and software support, enabling developers to incorporate security measures at a design's inception. Hardware-based security features include a Public Key Cryptographic Controller (PUKCC) supporting Elliptic Curve Cryptography (ECC) and RSA schemes as well as an Advanced Encryption Standard (AES) cipher and Secure Hash Algorithms (SHA).

"Applications are becoming increasingly complex and there is a great need to move to faster MCUs with better connectivity options and flexible peripheral support," said Rod Drake, vice president of Microchip's MCU32 business unit. "The SAM D5/E5 microcontrollers provide an excellent migration path for developers wanting a cost-effective solution with powerful performance, comprehensive interface options and built-in security."

Development Support
The SAM E54 Xplained Pro Evaluation Kit is available to kick-start development. The kit incorporates an on-board debugger, as well as additional peripherals, to further ease the design process. All SAM D5x/E5x MCUs are supported by the Atmel Studio 7 Integrated Development Environment (IDE) as well as Atmel START, a free online tool to configure peripherals and software that accelerates development.

Pricing and Availability
SAM D5x and SAM E5x devices are available today in a variety of pin counts and package options in volume production quantities.

- Devices in the SAM D5/E5 series are available starting at $2.43 each in 10,000 unit quantities.
- The SAM E54 Xplained Pro Evaluation Kit is available for $84.99 each.

For additional information, contact any Microchip sales representative or authorized worldwide distributor. To purchase products mentioned in this press release, go to Microchip's easy-to-use online sales channel **microchipDIRECT** or contact one of Microchip's authorized distribution partners.

Resources
High-res images available through Flickr or editorial contact (feel free to publish):

- PR graphic: **www.flickr.com/photos/microchiptechnology/36020329792/**
- Chip shot: **www.flickr.com/photos/microchiptechnology/35352057604/**
- Block diagram: **www.flickr.com/photos/microchiptechnology/35352054364/**

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 **www.microchip.com**.

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