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Family of Live Updateable Controllers for Digital Power Expanded

The dsPIC33EP128GS808 Digital Signal Controller Family now Offers up to 128 KB of Flash while Enabling Firmware Updates to Power Supplies with Zero Down-Time

CHANDLER, Ariz., Feb. 27, 2017 (GLOBE NEWSWIRE) -- The latest high-performance, live updateable dsPIC® digital signal controller (DSC) family is now available from Microchip Technology Inc. (NASDAQ:MCHP), a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions. The new **dsPIC33EP128GS808** devices have up to 128 KB of dual-partition Flash memory with live update capability, advanced analog features and enhanced Core Independent Peripherals (CIPs) suitable for high-end digital power applications such as AC/DC power supplies, DC-DC converters, power inverters and advanced lighting applications.

These devices offer high-resolution pulse width modulators optimized for digital power applications. In addition, the devices include advanced analog features and peripherals. There are five separate high-speed 12-bit Analog-to-Digital Converter (ADC) modules each with 300 ns conversion latency. Up to 22 input channels are shared across these five ADC units. There are also four analog comparators, each with their own dedicated 12-bit reference Digital-to-Analog Converter (DAC); and two programmable gain amplifiers to reduce external component count.

New features include a peripheral trigger generator, which is a user-programmable state machine that can respond to events faster than a firmware-driven implementation while offloading the processor for other tasks. In addition, a four-channel Direct Memory Access (DMA) unit is included to further increase the controller's overall system performance. These devices also have configurable logic cells that can be used to create combinatorial Pulse Width Modulation (PWM) signals for advanced applications or to minimize the need for external glue logic in the design. They also contain up to two CAN communication interfaces for automotive and industrial applications. Select new variants in the family of dsPIC digital signal controllers are offered in an 80-pin package giving designers increased memory and more interface pins to fulfill the requirements of more sophisticated designs.

"Design engineers are under a lot of pressure to get products to market on-time," said Joe Thomsen, vice president of Microchip's MCU16 business unit. "The dsPIC33EP128GS808 family has the DSP performance, advanced peripherals and memory options that designers need. Plus, the family is supported by Microchip's free Digital Compensator Design Tool (DCDT), advanced SMPS libraries, evaluation platforms and reference designs which all help customers accelerate the overall process of designing their digital power supply."

The dsPIC33EP128GS808 family is supported by the MPLAB® ecosystem including MPLAB X Integrated Development Environment (IDE) and XC16 compiler.

For more information, visit: http://www.microchip.com/dsPIC33EP128GS808.

Pricing and Availability
All 14 parts in the dsPIC33EP128GS808 family are available today to sample or purchase, with volume production starting at $2.50 USD in 10k unit quantities. The parts are available in a variety of package options including TQFP, QFN and SOIC with 28-, 44-, 48-, 64- and 80-pin variants.

For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's website. 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):

- Chip graphic: www.flickr.com/photos/microchiptechnology/33037517455/sizes/l
- Block diagram: www.flickr.com/photos/microchiptechnology/33037514915/sizes/l

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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