May 4, 2016

Microchip Introduces Hardware Cryptography-Enabled 32-bit Microcontroller for Internet of Things Applications

CEC1302 Offers Significant Performance Improvement over Firmware-Based Security Solutions

CHANDLER, Ariz., May 4, 2016 /PRNewswire/ -- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, mixed-signal, analog and Flash-IP solutions, today announced a **new hardware crypto-enabled 32-bit microcontroller**. The CEC1302's hardware-based cryptography suite offers significant performance improvements over firmware-based solutions. The CEC1302 makes it easy to add security to Internet of Things (IoT) devices, offering easy-to-use encryption and authentication for programming flexibility and increased levels of security.

Security threats are increasing exponentially in terms of frequency, targeted devices, malignancy and costs of attacks. The CEC1302 allows for pre-boot authentication of the system firmware in order to ensure that the firmware is untouched and uncorrupted, thereby preventing security attacks such as man-in-the-middle, denial-of-service and backdoor vulnerabilities. It can also be used to authenticate any firmware updates, protecting the system from malware or memory corruption.

"Including cryptography in the hardware is a game changer in terms of security," said Ian Harris, vice president of Microchip's Computer Products Group. "It offers a level of speed and security that just isn't possible in low-power devices when implemented in firmware. There is a growing need for not just smart but connected devices, especially in IoT applications. Connectivity brings control, sensing and the ability to update system software over the Internet, but it also opens the door to security breaches. The CEC1302 offers

sophisticated security capabilities that offer the benefits of a connected device without the security concerns typically associated with being connected to the Internet."

The CEC1302 offers private key and customer programming flexibility with a full-featured microcontroller in a single-package solution in order to minimize customer risk. The device provides savings in terms of power drain and also improved execution of application performance. In addition, since the CEC1302 is a full 32-bit microcontroller with an ARM® Cortex®-M4 core, adding security functionality only results in a small additional cost. The CEC1302 can be used as a standalone security coprocessor or can replace an existing microcontroller. The hardware-enabled public key engine of the device is also 20 to 50 times faster than firmware-enabled algorithms, and the hardware-enabled hashing is 100 times faster.

For more information about the CEC1302 visit **www.microchip.com/CEC1302_Promo8263**.

Development Support

In order to quickly develop applications based on the CEC1302, use MikroElektronika's CEC1302 Clicker (part #: MIKROE-1970) and CEC1302 Clicker 2 (part #: MIKROE-1969). Use these boards with MikroElektronika's complete development toolchain for Microchip CEC1302 ARM® Cortex®-M4 MCUs which includes compilers, development boards, programmers/debuggers or with standard third-party ARM® MCU toolchains.

Pricing and Availability

The CEC1302 (part number CEC1302D-SZ-C0) is available today for sampling and volume production in a 144-WFBGA package starting at $1.75 each in 10,000 unit quantities.

For additional information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at **www.microchip.com/CEC1302**. To purchase products mentioned in this press release, go to **microchipDIRECT**. **(http://www.microchipdirect.com/ProductSearch.aspx?Keywords=cec1302)** 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: **flickr.com/photos/microchiptechnology/26682627102/sizes/l**

Follow Microchip:

- RSS Feed for Microchip Product News: **http://www.microchip.com/RSS/recent-PRProduct.xml**
- Twitter: **https://twitter.com/MicrochipTech**
- Facebook: **http://www.facebook.com/microchiptechnology**
- YouTube: **http://www.youtube.com/user/MicrochipTechnology**

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**.

Note: The Microchip name and logo are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries. All other trademarks mentioned herein are the property of their respective companies.

Tags / Keywords: Security, Cryptography, CEC1302

Editorial Contact:
Sarah Broome
480-792-4386
Sarah.broome@microchip.com

Reader Inquiries:
1-888-624-7435
www.microchip.com/CEC1302_Promo8263

Logo - https://photos.prnewswire.com/prnh/20141115/158835LOGO