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Microchip Unveils the SAM R30 System in Package for Wirelessly Connected Designs

Combining an Ultra-Low Power MCU with an 802.15.4 Radio, the SAM R30 Enables Long-Lasting Battery Life for Connected Devices

CHANDLER, Ariz., April 26, 2017 (GLOBE NEWSWIRE) -- The SAM R30 System in Package (SiP), a single-chip RF microcontroller (MCU), is now available from Microchip Technology Inc. (NASDAQ:MCHP). The SAM R30 SiP incorporates an ultra-low power microcontroller with an 802.15.4 sub-GHz radio, providing multi-year battery life in a compact 5 mm package. The SAM R30 SiP delivers design flexibility and proven reliability all in a small package, making it ideally suited for connected home, smart city and industrial applications. For more information about the SAM R30 SiP, visit: www.microchip.com/SAMR30

As the demand for battery-powered wirelessly connected systems continues to rise, the low-power SAM R30 meets the extremely power-conscious needs of these markets with features that extend battery life for multiple years. The SiP is built using the SAM L21 MCU which leverages the Cortex[®] M0+ architecture, the most energy-efficient ARM[®]-based architecture available. The SAM R30 features ultra-low power sleep modes, with wake from serial communication or General-Purpose Input/Output (GPIO) while consuming a mere 500 nA.

With the ability to operate within the 769-935 MHz range, the SAM R30 SiP gives developers the flexibility to implement a point-to-point, star or mesh network. Microchip helps developers get started immediately with Microchip's free MiWi[™] point-to-point/star network protocol stack. Mesh networking capabilities will be available later this year. Nodes outfitted with the SiP can be positioned as far as one kilometer apart, with the ability to double the range in a star topology. When used in a mesh network, the SAM R30 delivers reliable wide-area coverage for applications such as street lighting or wind and solar farms.

"This SAM R30 SiP offers an excellent migration path from a discrete MCU and radio to a single-chip solution for more compact, cost-effective designs," said Steve Caldwell, vice president of Microchip's wireless solutions group. "The combination of our industry-proven connectivity technology with the high performance of the SAM L21 MCU creates a reliable, extremely low-power solution."

Development Support

Developers can begin prototyping immediately with the ATSAMR30-XPRO development board, a convenient USB-interfaced development board that is supported by our easy-to-use Atmel Studio 7 Software Development Kit (SDK). For additional information on development tools and support, visit: <http://www.microchip.com/ATSAMR30-XPRO>

Pricing and Availability

The SAM R30 SiP is available in two QFN packages to be sampled or purchased in volume production quantities.

- The ATSAMR30E18 in a QFN32 package is available for \$4.11 each in 10k unit quantities
- The ATSAMR30G18 in a QFN48 package is available for \$4.26 each in 10k unit quantities
- The ATSAMR30-XPRO development board is available for \$65 per board

For additional information, contact any Microchip sales representative or authorized worldwide distributor. To purchase products mentioned in this press release, go to the new, easier-to-navigate and mobile-optimized **microchipDIRECT** (www.microchipdirect.com/ProductSearch.aspx?keywords=samr30) or contact one of Microchip's authorized distribution partners.

Resources

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

- Press graphic: www.flickr.com/photos/microchiptechnology/34121000506/
- Block diagram: www.flickr.com/photos/microchiptechnology/34121003026/

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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Editorial Contact:
Kimberly Kulesh
480-410-5750
Kimberly.kulesh@microchip.com

Reader Inquiries:
1-888-624-7435



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