New Product Announcement

Now at Mouser: Microchip's SAM R30 Sub-GHz Module for Ultra-Low-Power WPAN Designs

August 26, 2019 – Mouser Electronics, Inc., the authorized global distributor with the newest semiconductors and electronic components, is now stocking the SAM R30 sub-GHz module from Microchip Technology. The industry's smallest IEEE 802.15.4-compliant module, the SAM R30 combines an ultra-low-power microcontroller with a sub-GHZ radio in a 12.7 × 11 mm package, enabling long-lasting battery life in space-constrained designs like wireless-networked sensors and controls in home automation, smart city, and industrial applications.

The Microchip SAM R30 module, available from Mouser Electronics, is based on a Microchip SAMR30E18A system-in-package (SiP) with 32-bit Arm® Cortex®-M0+ core and up to 256 Kbytes of flash and 40 Kbytes of RAM. Designed for use in unlicensed sub-1GHz frequency bands worldwide — such as 780 MHz (China), 868 MHz (Europe), and 915 MHz (North America) — the module delivers receive (RX) sensitivity up to -105 dBm and transmit (TX) output power up to +8.7 dBm.

The module offers twice the connectivity range and better communication through walls and floors than similarly powered devices using the 2.4 GHz frequency band. Featuring an ultra-low-power sleep mode of under 800 nA, the SAM R30 module is ideal for Internet of Things (IoT) sensor applications that require long battery life. Further, developers can implement propriety point-to-point, star, or self-healing mesh networks with Microchip's MiWi™ protocol stack.

Mouser also stocks the SAM R30M Xplained Pro Evaluation Kit, which includes an onboard embedded debugger, QTouch® button, two Xplained Pro extension headers, and embedded current measurement circuitry. The board features both a chip antenna and an SMA connector for an external antenna, a digital temperature sensor, and USB-UART/I²C convertor. The board is supported by the Atmel Studio integrated development platform, which provides predefined application examples.

Both the module and the evaluation kit are certified with the Federal Communications Commission (FCC), Industry Canada (IC), and Radio Equipment Directive (RED), allowing designers to focus on time-to-market instead of RF testing certification costs.

For more information on the SAM R30 module, visit www.mouser.com/microchip-atsamr30m18a-modules.

With its broad product line and unsurpassed customer service, Mouser strives to empower innovation among design engineers and buyers by delivering advanced technologies. Mouser stocks the world's widest selection of the latest semiconductors and electronic components for the newest design projects. Mouser Electronics' website is continually updated and offers advanced search methods to help customers quickly locate inventory. Mouser.com also houses data sheets, supplier-specific reference designs, application notes, technical design information, and engineering tools.

About Mouser Electronics

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