

802.15.4 compliant subGhz RF module

Manufacturers	Microchip Technology, Inc
Package/Case	SMD
Product Type	Embedded Processors & Controllers
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ATSAMR30M18A-I/RM100 or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ATSAMR30M18A is the world's most compact 802.15.4 Sub-GHz module for the IoT. It operates in the 780 MHz (China), 868 MHz (Europe) and 915 MHz (North America) Sub-GHz frequency bands, and is optimized for lowpower applications such as wireless sensors, building and home automation devices, alarms and industrial networks. The module combines the ATSAMR30E18A SiP (System-in Package) with Cortex M0+ MCU with 256KB Flash, 40KB RAM and a Sub-GHz radio, all in a compact, regulatory-certified 12.7mm x 11.0mm design. It supports IEEE 802.15.4 PHY based protocols such as 6LoWPAN, zigbee, and Microchip's own MiWi Networking protocols for self-healing Point-to-point, Star and Mesh networking. For ease of development, the ATSAMR30M18A is available in a fully-certified Xplained Prodevelopment board. There is also a free MiWi Networking protocol stack, and community support for 6LoWPAN.

Features

Compact 802.15.4 Sub-GHz module

ATSAMR30E18A SiP with ARM Cortex-M0+ MCU and Sub-GHz transceiver

Integrated Ultra Low Power Transceiver for 700/800/900MHz ISM band

256 KB Flash

16 Input/Output pins

Maximum operating frequency 48 MHz

128-bit Advanced Encryption Standard (AES) crypto engine

32-bit Medium Access Control (MAC) symbol counter

Automatic retransmission modes

Single 1.8V - 3.6V supply

FCC / ETSI compliant RF front end with harmonic filter

Two Serial Communication interface (SERCOM) units left for external applications

High precision 16 MHz crystal oscillator

12-bit, 350 ksps Analog-to-Digital Converter (ADC)

I2C up to 3.4 MHz

Full-speed (12 Mbps) Universal Serial Bus (USB) 2.0 interface

16 External General Purpose Input/Output (GPIO) lines

Related Products



[ATSAMA5D36A-CU](#)

Microchip Technology, Inc
LFBGA-324



[ATMEGA32M1-AU](#)

Microchip Technology, Inc
TQFP-32



[ATXMEGA128D3-AU](#)

Microchip Technology, Inc
TQFP-64



[ATTINY2313V-10SU](#)

Microchip Technology, Inc
SOIC-20



[ATMEGA64M1-15AZ](#)

Microchip Technology, Inc
TQFP-32



[ATMEGA16L-8PU](#)

Microchip Technology, Inc
PDIP-40



[ATTINY48-MU](#)

Microchip Technology, Inc
VQFN-32



[ATTINY4-TSHR](#)

Microchip Technology, Inc
SOT-23-6