



What'll we think of next?®

## Anaren AIR for Wi-Fi A43364 Wi-Fi Module Series

The AIR for Wi-Fi A43364 module is the first of its kind to incorporate the Cypress CYW43364 system on chip alongside the STMicroelectronics STM32F412 ARM® Cortex®-M4-based microcontroller.

The Anaren AIR for Wi-Fi A43364 module boasts elite processing and memory for a wide range of applications, allowing customers to easily add Wi-Fi connectivity to their products.

This series of modules are high-performance, low-power Wi-Fi modules that provide Wi-Fi connectivity to embedded systems. The first of its kind to feature both the STM32F412 ARM Cortex-M4-based microcontroller with 1MB flash memory and 256KB SRAM and the Cypress CYW43364, these modules are ideal for device manufacturers looking to add wireless connectivity for their products. Enabling IoT connectivity to a wide range of device applications – such as industrial monitoring, preventative maintenance, automation, commercial monitoring, and much more is easier than ever with the Anaren A43364 module.

The modules are packaged in 27-piece matrix trays or 500-piece tape-and-reel for high-volume automated manufacturing. They are IEEE 802.11b/g/n compliant, and meet worldwide regulatory and certification requirements.\*

The A43364 series is supported by Anaren Atmosphere™, Anaren's innovative cloud-based development environment. The module is also compatible with the Cypress WICED™ SDK, providing yet another tool for development. Using these unique and powerful tools, the A43364 module provides a complete IoT toolkit for faster development and quicker time to deployment.

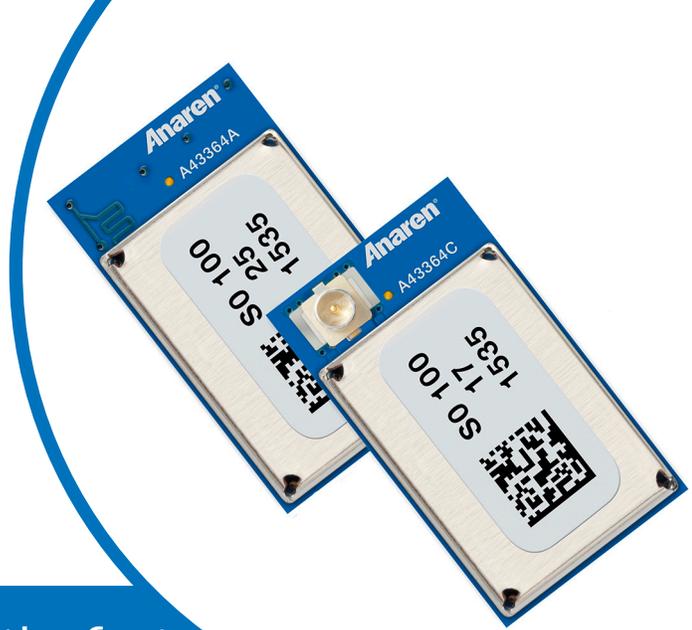
### Features

- Single-band 802.11b/g/n
- CYW43364 chipset with integrated ARM Cortex-M3 processor and on-chip memory
- STM32F412 ARM Cortex-M4-based microcontroller with 1MB flash memory and 256KB SRAM
- Embedded 26 MHz crystal
- 37 configurable GPIO pins available
- Interface options include UART, SPI, I<sup>2</sup>S, I<sup>2</sup>C, USB, CAN, JTAG, GPIO, ADC, and timers
- Support for secure OTA updates
- LGA footprint: 11mm x 19mm x 2.5mm
- Thermally optimized packaging

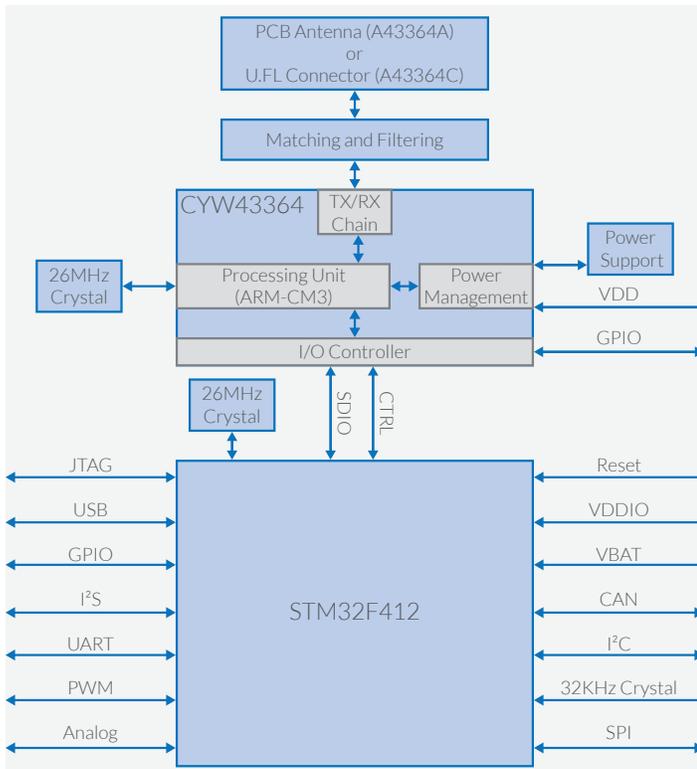
### Benefits

- 100% RF tested in production for repeatable performance
- Minimal RF and protocol experience necessary
- Only requires a two-layer host PCB implementation (GPIO dependant)
- No regulatory "intentional radiator" testing required
- FCC 15.247, IC RSS-210, and IC RSS-Gen certified
- Compliant with ETSI EN 300 328 V1.9.1
- RoHS compliant

\* Global certification is an ongoing process; please call for confirmation regarding specific locations.



## Block Diagram



## Applications

- Smart manufacturing
- Smart cities
- Building and home automation
- Automation and Control
  - Optimized resource consumption
  - Process optimization
- Information and analysis
  - Sensor-driven decision analytics
  - Behavior tracking
  - Situational awareness

## Specifications

- Operating temperature: -30°C to +85°C\*
- Operating voltage:
  - VDD: 3.0V to 4.8V
  - VDDIO: 1.8V to 3.6V
  - VBAT: 1.65V to 3.6V
- Output power:
  - FCC compliant up to +24.3dBm
  - ETSI compliant up to +19.9dBm
- Range up to 350 feet line of sight\*\*
- Approximate weight: 0.8g

For faster development and quicker time to market, the A43364 module is supported by Anaren's Atmosphere development platform.

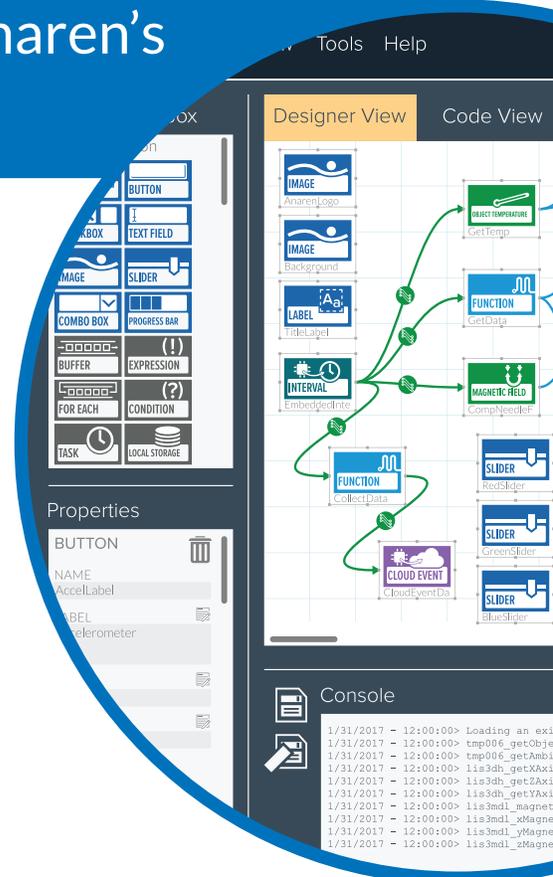


# ATMOSPHERE

Atmosphere is an easy-to-use and innovative development suite consisting of a free cloud-based Atmosphere IDE, programming software, and mobile app. The Atmosphere IDE features a unique "drag-and-drop" interface that allows users to quickly and easily develop firmware for the module and simultaneously create a browser interface to interact with the module.

Atmosphere includes the Atmosphere Cloud™, a freemium cloud hosting client that sends and receives data between the A43364 module and the cloud. The cloud is completely customizable and can host your supported devices for data analysis, information, monitoring, and much more.

The A43364 module series and Atmosphere allows you to quickly and easily develop a complete IoT solution. For more information on the Atmosphere development platform, visit [atmosphere.anaren.com](http://atmosphere.anaren.com).



\* Module might have degraded performance below -10°C and above +55°C due to crystal and/or chipset specifications.  
 \*\* Range may vary based on connected device.