

Avnet BCM4343W SoC Module (AES-BCM4343W-M1-G)



The Avnet BCM4343W SoC Module (AES-BCM4343W-M1-G) is a high performance, highly integrated WiFi and BLE module that provides a programmable ARM® Cortex™ M4 microprocessor for running user application code. The module is ideal for low-power Internet of Things (IoT) enabled sensor and actuator based devices that need wireless connectivity to cloud services. The compact 20 x 35 mm LGA package makes the module a perfect fit for small, embedded applications.

This module is pre-certified, thus minimizing development time and certification costs. The module combines advanced Cypress® 2.4GHz 802.11 b/g/n and Bluetooth® 4.1 SoC radios with 8Mb of serial Flash and a ST Microelectronics STM32F411 ARM® Cortex™ M4 MCU supporting 512KB Flash and 128KB SRAM. Several of the M4 MCU peripheral functions are made available on the module I/O, allowing for easy connection to user specified interfaces. Advanced security capabilities are available with an optional authentication chip.

This module includes both on-board dual fractal PCB antennas supporting improved RF performance through antenna diversity, and dual coax connectors supporting external antenna connection.

Application software development is supported by two different toolchains: Cypress WICED™ SDK (Software Development Kit), and ZentriOS SDK (from original developers of WICED™ SDK). These integrated development environments include cloud-connected examples for both Amazon Web Services (AWS) and IBM Watson IoT.

FEATURES

Integrated System-on-Chip module

Cypress BCM4343W SoC radio

- Supports WiFi 2.4 GHz 802.11 b/g/n and Bluetooth® 4.1

ST Microelectronics STM32F411 microcontroller

- ARM® Cortex™ M4 MCU
- 512KB Flash and 128KB SRAM
- External access to peripherals
 - Digital I/O – 6
 - Analog inputs – 4
 - I2C Ports – 2
 - SPI Port – 1
 - UART Ports – 2
- JTAG programming and debug port

Additional 8Mb SPI serial Flash

On-board dual fractal PCB antennas

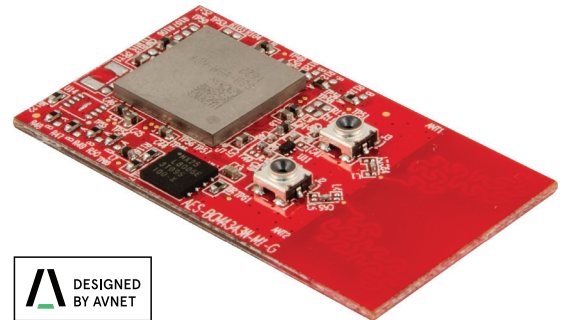
Application software development using:

- Cypress WICED™ SDK
- ZentriOS™ SDK

20 x 35 mm 45-pin LGA package

Certifications (pending): FCC, IC, CE, RoHS

To purchase this kit, visit www.cloudconnectkits.org



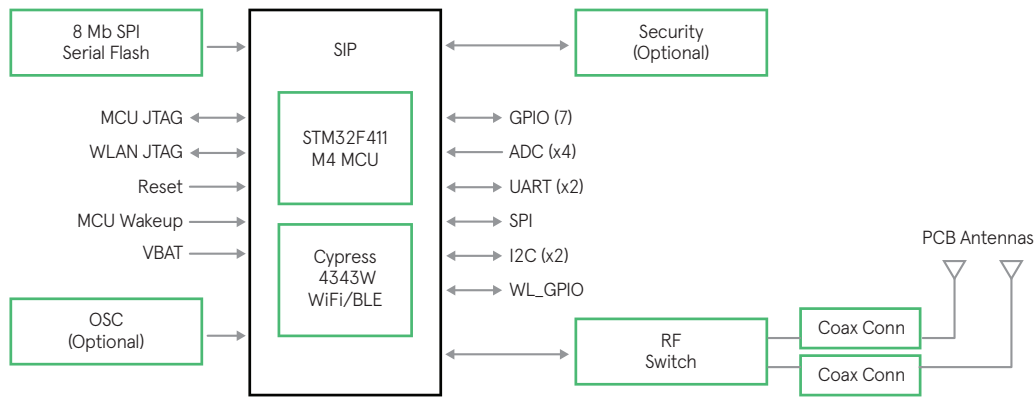
KIT INCLUDES

- Avnet BCM4343W SoC Module (AES-BCM4343W-M1-G)

TARGET APPLICATIONS

- Industrial Automation
- Building Automation
- Smart Home Appliances
- IoT and M2M
- WiFi/BLE Gateway

BLOCK DIAGRAM



FEATURED MANUFACTURERS



PARTS

Part Number	Description	Resale
AES-BCM4343W-M1-G	WiFi+BLE+MCU SoC module with PCB antennas	\$11.50 USD @ Qty=5k <\$10.00 USD @ Qty=50k+

RELATED PARTS

Part Number	Description	Resale
AES-EVB-BCM4343W-G	BCM4343W IoT Starter Kit	\$49.95 USD

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