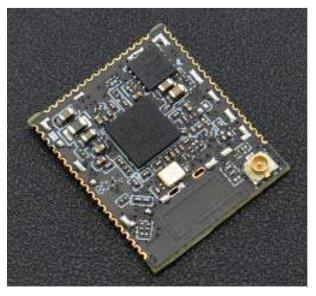
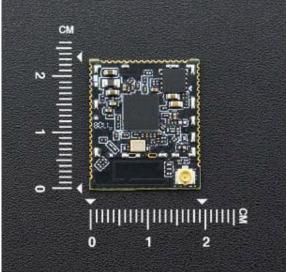


# Realtek Ameba-RTL8195AM WiFi & NFC Module

SKU:DFR0477





### **INTRODUCTION**

Ameba-RTL8195AM is an IoT (Internet of things) microcontroller developed by Realtek. It combines an ARM-Cortex M3 MCU, Wi-Fi and NFC (Near Field Communication) in a single chip. It provides high speed connectivity interface, such as USB 2.0 host, USB 2.0 device, SDMMC HS, SDIO device and MII/RMMII interfaces. It also provides a bunch of configurable GPIOs which are configured as digital peripherals for different applications and control usage. Moreover, the chip also has SPI, I2C, UART serial communication interfaces, and ADC & DAC analog interfaces.

Realtek, as one of the biggest suppliers of Wi-Fi solution, its Ameba-RTL8195AM offers trustworthy stability and reliability. Ameba-RTL8195AM, the first low power consuming IoT chip integrates Ethernet and NFC. It is a cheap and reliable choice for IoT developers.

Caution: RTL8195AM is developer-oriented and some functions are still in testing. Please check the official website for more details.

### **FEATURES**

- Support for Arduino and Micropython programing
- Supports 802.11 b/g/n 1x1 Wi-Fi
- Supports NFC read/write
- 10/100 Ethernet MII/ RMII/RGMII interface
- Supports USB OTG
- Supports SDIO device/SD card controller
- Hardware: SSL engine
- 30 x GPIO(Maximum)
- Supports 2 x SPI master-slave interface communication
- Supports 3 x UART interface (2x HS-UART & 1x log UART)
- Supports 2 x I2C master-slave interface communication
- Supports 2 x I2S/PCM master-slave interface communication
- Supports 4 x PWM
- Supports 2 x ADC
- Supports 1 x DAC
- Supports ultra-low power consumption
- Fast response (up to 400KHz)

## **SPECIFICATION**

• Operating Voltage: 3.0V~3.3V

• Micro-Controller: 32-bit ARM Cortex M3 (166MHz)

• Antenna Connector: U.FL

• ROM/RAM/Flash: 1MB ROM, 2MB SDRAM, 512KB SRAM

• Wireless Network Mode: station / softAP/ SoftAP+station

• Data rate: 802.11g 54Mbps (Max.), 802.11n 150Mbps (Max.)

• Operating Temperature range: -20°C~+85°C

• Dimensions: 19 x 24mm/0.75 x 0.94(inches)

### **SHIPPING LIST**

Realtek Ameba-RTL8195AM WiFi & NFC Module x1