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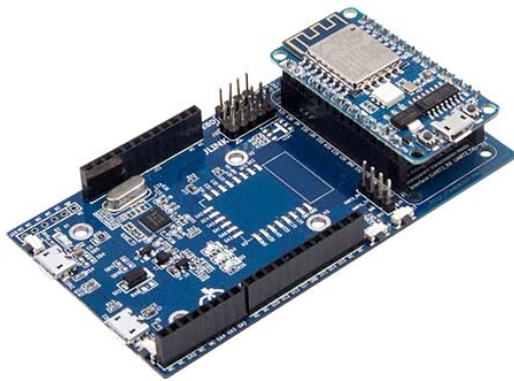
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# Ameba RTL8710AF Wireless Dev Board

SKU 114991091

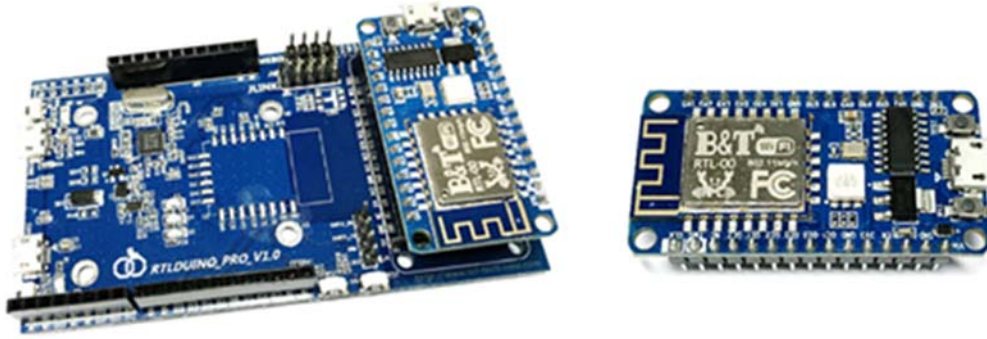


## Description

Ameba RTL8710AF is a highly integrated single-chip with low power consumption mechanism for IoT (Internet of Things). It combines an ARM®Cortex™-M3 MCU, Wi-Fi and provide a bunch of configurable GPIOs which are configured as digital peripherals for different applications and control usage.

RTL8710AF also integrates internal memory and flash to minimize IoT end-product size and reduce your development cost.

Ameba RTL8710AF Wireless Dev Board is a convenient development kit for makers. It separate into 2 boards, the small one- **RTL8710AF WiFi Board** on the top is main mother board with all functions included, and the other on the bottom is similar to Arduino UNO form factor size which provides the development interface CMSIS-DAP mode and J-LINK debugger mode.



Ameba, a Realtek semiconductor Corp. designed Wi-Fi SoC, named after the eukaryotic organism which has the ability to alter its shape and fit in. Like its name, Ameba can be applied to almost every IoT applications. This single of chip integrates Wi-Fi, MCU, and rich peripherals like high-speed, serial interface, analog interface. It is the best compact size and cost-effective chip for low-energy Wi-Fi IoT SoC.

Ameba Board is Arduino compatible. It supports Windows XP/7/8, 32 and 64 bits and MAC OS. With officially supported Wi-Fi, NFC, Low power, UVC camera and standard Arduino libraries, you can easily implement your IoT prototypes.

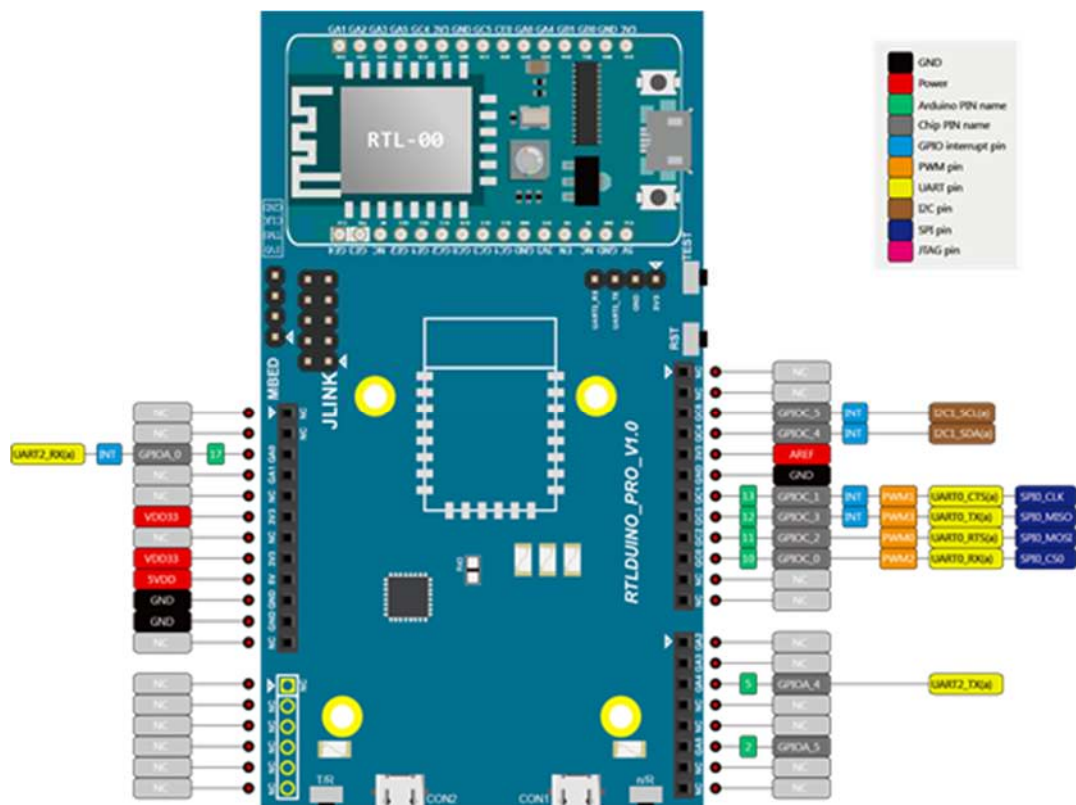
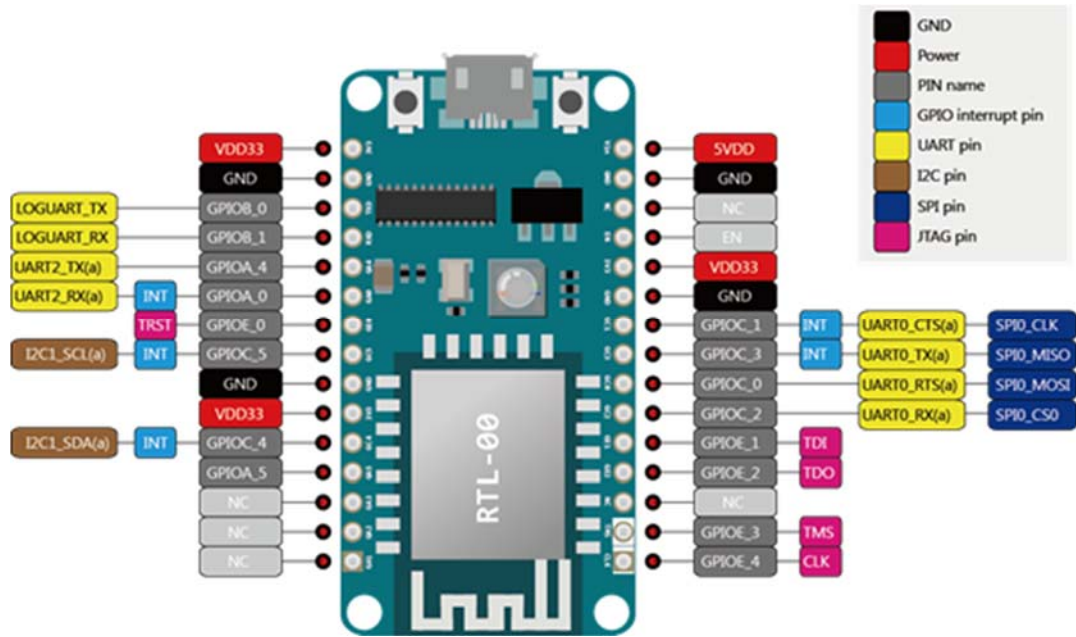
## CPU

- - 32-bit ARM Cortex M3, up to 83MHz
- Memory
- - 1MB ROM, 512KB SRAM and 1MB flash

## Key Features

- - Integrated with 802.11 b/g/n 1x1 Wi-Fi (HT20 only)
- - Hardware SSL engine
- - Maximum 16 GPIOs
- - 1 SPI Interfaces and support both master and slave mode

- 3 UART Interfaces including two HS-UART and one log UART
- 1 I2C Interfaces and support both master and slave mode
- 4 PWM interfaces



	Ameba	
Model	RTL8195AM	RTL8710AF
Package	TFBGA96	QFN48
Package Dimension	6x6mm	6x6mm
Operation Temp. (°C)	-20 ~ 85	-20 ~ 85
CPU	ARM Cortex M3 (166MHz)	ARM Cortex M3 (83MHz)
RAM/Flash	2.5MB / ext. flash	512KB / 1MB
SDIO Master/Slave	Yes	No
USB	Yes (Host & Device)	No
PCM	Yes	No
SPI	Yes (x2)	Yes (x1)
UART	Yes (HSx2 + Std1)	Yes (HSx2 + Std1)
I2S	Yes	No
I2C	Yes (x4)	Yes (x2)
ADC	Yes (x2)	No
DAC	Yes (x1)	No
PWM	Yes (x4)	Yes (x4)
GPIO	Yes (max. 30)	Yes (max. 17)
NFC Tag (R/W)	Yes	No
HT40/ HT20	Yes	Yes
SSL/Cloud Connectivity	Yes	Yes
Simple-Config	Yes	Yes
HomeKit	Yes	No
Cloud	Multiple	Single



## Part List

1 x Ameba RTL8710AF Wireless Dev Board(WiFi Board is included)