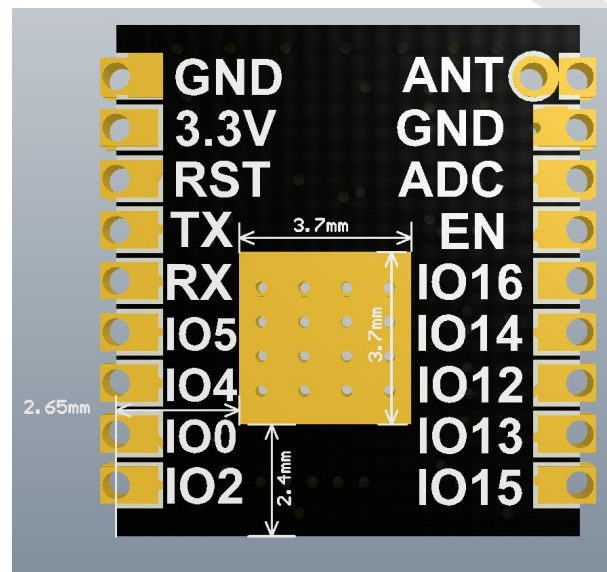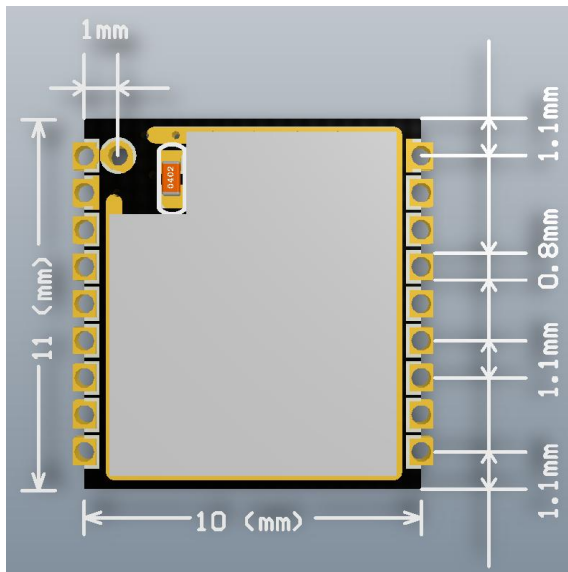# ESP-01F 802.11 b/g/n Wi-Fi MODULE

Features

- The smallest 802.11b/g/n Wi-Fi SOC module
- Low power 32-bit CPU, can also serve as the application processor
- Up to 160MHz clock speed
- Built-in 10 bit high precision ADC
- Supports UART/GPIO/IIC/PWM/ADC
- SMD-18 package for easy welding
- Integrated Wi-Fi MAC/BB/RF/PA/LNA
- Deep sleep current as low as 20uA
- Embedded lwIP protocol stack
- Supports STA/AP/STA + AP operation mode
- Support Smart Config/AirKiss technology
- UART baudrate up to 4Mbps
- General AT commands can be used quickly
- Supports remote firmware upgrade (FOTA)

Overview

ESP-01F has a highly competitive package size and ultra-low power technology. Measuring only 11*10*2.8mm

ESP-01F can be widely used in a variety of networking, for home automation, industrial wireless control, baby monitors, wearable electronic products, wireless location sensing devices, wireless positioning system signals and other networking applications.

ESP-01F is packaged in SMD, through the standard SMT equipment to achieve rapid production of products, to provide customers with high reliability of the connection, especially for automation, large-scale, low-cost modern production methods, It's suitable for all kinds of Internet of things hardware terminal occasions.

Product Specifications

Module Model	ESP-01F
Package	SMD-18
Size	11*10*2.8（±0.2）mm
SPI Flash	Built-in 1MByte
Interface	UART/GPIO/ADC/PWM
IO Port	9
UART Baudrate	Support 300 ~ 4608000 bps， Default 115200 bps.
Frequency Range	2412 ~ 2484MHz
Antenna	No built-in antenna, external spring antenna. Please contact our sales.
Secondary Development	Support
Transmit Power	802.11b: 16±2 dBm (@11Mbps) 802.11g: 14±2 dBm (@54Mbps) 802.11n: 13±2 dBm (@HT20, MCS7)
Receiving Sensitivity	CCK, 1 Mbps : -90dBm CCK, 11 Mbps: -85dBm 6 Mbps (1/2 BPSK): -88dBm 54 Mbps (3/4 64-QAM): -70dBm HT20, MCS7 (65 Mbps, 72.2 Mbps): -67dBm
Power (Typical Values)	Continuous Transmission => Average: ~ 71mA, Peak: 300mA Modem Sleep: ~20mA Light Sleep: ~2m Deep Sleep: ~0.02mA
Security	WEP/WPA-PSK/WPA2-PSK
Power Supply	Voltage 3.0V ~ 3.6V，Current >300mA
Operating temperature	-20 ℃ ~ 85 ℃
Storage Environment	-40 ℃ ~ 90 ℃ , < 90%RH
weight	About 0.35g

Contact US

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