



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

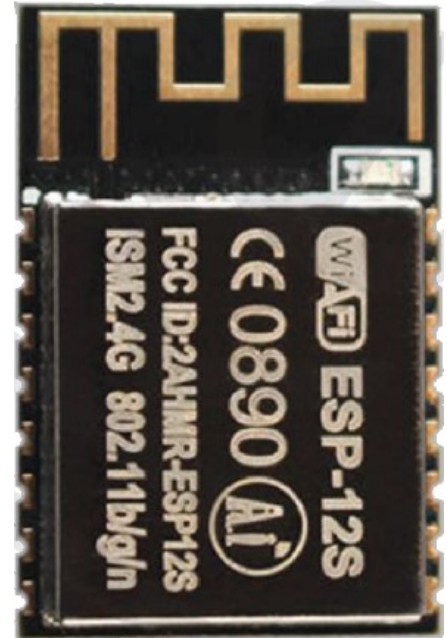
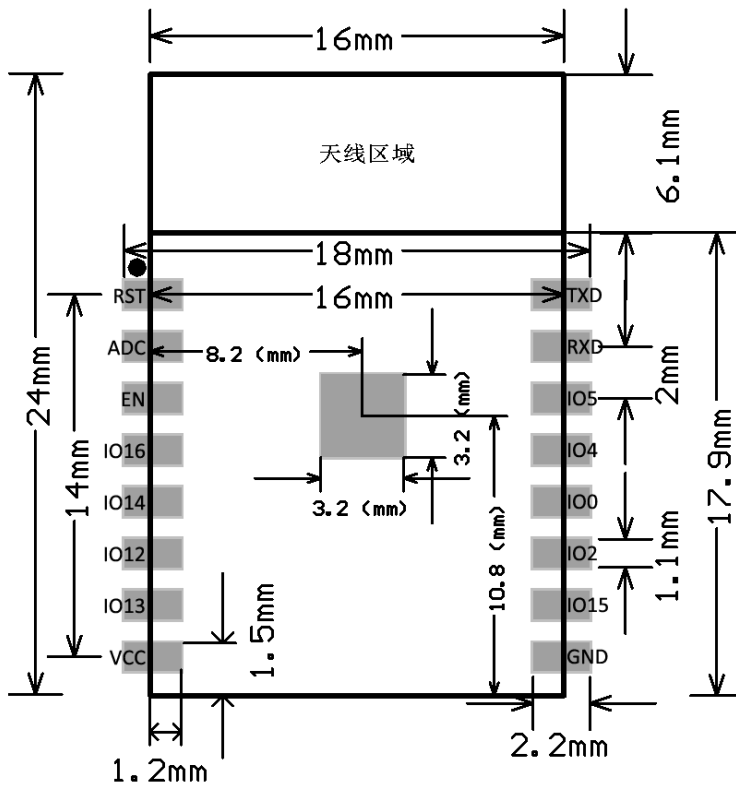
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ESP-12S 802.11 b/g/n Wi-Fi Module



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/HSPI/IIC/PWM/ADC
- SMD-16 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-12S has a highly competitive package size and ultra-low power technology.

ESP-12S 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-12S 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-12
Package	SMD-16
Size	24 x 16 x 3 (+/- 0.2)mm
SPI Flash	Default 32Mbit
Interface	UART/ HSPI/ IIC/ PWM/ ADC
IO Port	9
UART Baudrate	Support 300– 4608000 bps, Default 115200 bps
Frequency Range	2412– 2484MHz
Antenna	PCB antenna, 2 dBi
Transmit Power	802.11b: 16 +/- dBm (@11Mbps) 802.11g: 14 +/-2 dBm (@54Mbps) 802.11n: 13 +/- dBm (@HT20, MCS7)
Receiving Sensitivity	CCK, 1 Mbps: -90dBm CCK, 11Mbps: -85dBm 6 Mbps (1/2 BPSK): -88dB 54 Mbps (3/4 64-QAM): -70dBm
Power (Typical Values)	Continuous Transmission=> Avg: - 71mA, Peak: 300mA Modem Sleep: -20mA Light Sleep: -2mA Deep Sleep: -0.02mA
Security	WEP/WPA-PSK/WPA2-PSK
Power Supply	Voltage 3.0V– 3.6V, Current> 300mA
Operating Temperature	-20°C– 85°C
Storage Environment	-40°C– 90°C, <90%RH
Weight	0.45g
Certification	FCC. CE