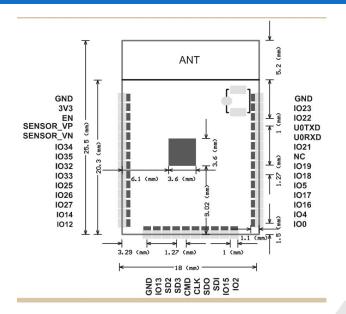# ESP32-S Wi-Fi+BT SoC Module

Features

- The smallest 802.11b/g/n Wi-Fi BT SoC Module
- Low power 32-bit CPU,can also serve the application processor
- Up to 160MHz clock speed，Summary computing power up to 600 DMIPS
- Overview built-in 520KB SRAM
- Supports UART/SPI/I2C/PWM/ADC/DAC
- SMD-38 package for easy welding
- Support for OpenOCD debugging interface
- Deep sleep current as low as 6.5μA
- Embedded Lwip and FreeRTOS
- Supports STA/AP/STA+AP operation mode
- Support Smart Config/AirKiss technology
- General AT commands can be used quickly
- Support for serial port local and remote firmware upgrades (FOTA)

Overview

Esp32-S has a highly competitive package size and ultra-low power technology.

Esp32-S can be widely used in various of networking, for home automation, industrial wireless control, baby monitors, wearable electronics products, wireless position sensing devices, wireless positioning system signals and other networking applications.

Esp32-S 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	ESP32-S
Package	SMD-38
Size	18.0*25.8*2.8（±0.2）mm
SPI Flash	Default 32Mbit
Bluetooth	Bluetooth 4.2 BR/EDR and BLE standards
Wi-Fi	802.11 b/g/n/
Interface	UART、SPI、SDIO、I2C、PWM、I2S、IR、ADC、DAC
On-chip Sensor	Hall sensor, Temperature sensor, Capacitive touch sensor
IO Port	22
UART Baudrate	Support 300~4608000bps,Default 115200bps
Frequency Range	2412 ~2484MHz
Antenna	PCB Antenna , Gain 2dBi
Transmit Power	802.11b: 17±2 dBm (@11Mbps) 802.11g: 14±2 dBm (@54Mbps) 802.11n: 13±2 dBm (@MCS7)
Receiving Sensitivity	CCK, 1 Mbps : -90dBm CCK, 11 Mbps: -85dBm 6 Mbps (1/2 BPSK): -88dBm 54 Mbps (3/4 64-QAM): -70dBm MCS7 (65 Mbps, 72.2 Mbps): -67dBm
Power Dissipation	300mA@3.3V
Security	WPA/WPA2/WPA2-Enterprise/WPS
Power Supply Range	3.0V ~ 3.6V
Operating Temperature	-20 ℃ ~ 85 ℃
Storage Environment	-40 ℃ ~ 90 ℃ , ＜ 90%RH
Weight	1.5g

Contact US

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