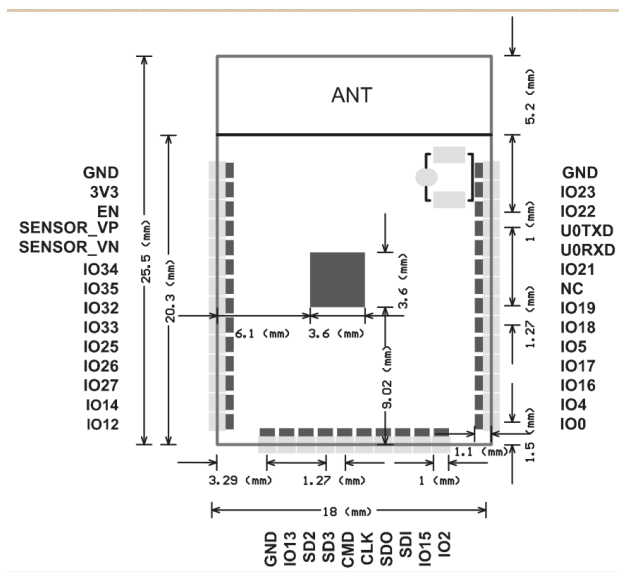# ESP32-S Wi-Fi+BT SoC Module

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, 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/e/i
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,De115200 bps
Frequency Range	2412 ~2462MHz for wifi/2402-2480 for bluetooth
Antenna	PCB Antenna
Transmit Power	802.11b: 20± 2 dBm (@11Mbps) 802.11g: 24± 2 dBm (@54Mbps) 802.11n: 24± 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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