# ESP32 MODULE TYPE-C

- ESP32 Dev Board CP2102 USB C 38 Pin


- **Description**

  **ESP32 Dev Board CP2102 USB C 38 Pin**

  The ESP32 CP2102 with USB-C Development Board is a powerful and versatile board designed for developing IoT applications. It features 448KB ROM, 520KB SRAM, and 16KB SRAM in RTC, providing ample memory for your projects. With Bluetooth V4.2, you can easily connect your device to other Bluetooth-enabled devices. The board also includes 4MB SPI flash for storing your code and data. Its compact design and easy-to-use interface make it a popular choice for hobbyists and professionals alike. Whether you're just starting out or looking to expand your skills, the ESP32 CP2102 with USB-C Development Board is an excellent choice for your next project.

  The ESP32 WROOM is a potent, all-purpose WiFi-BT-BLE MCU module that is intended for use in a wide range of jobs, from low-power sensor networks to the most difficult ones, such voice encoding, music streaming, and MP3 decoding. This module's ESP32S chip, which is made to be scalable and adaptive, is at its heart. The clock frequency of the two CPU cores, which ranges from 80 MHz to 240 MHz, can be changed independently. The user has the option of turning off the CPU and using the low-power coprocessor to continuously check the peripherals for adjustments or the crossing of thresholds. Capacitive touch sensors, Hall sensors, and other peripherals are all integrated within the ESP32. Ethernet, high-speed SDIO/SPI, UART, low-noise sensing amplifiers, SD card interface, and I2C are other examples.This module supports output at 22 dBm and data rates up to 150 Mbps. Users can connect to their phones or emit low energy beacons for their detection via Bluetooth. Wi-Fi allows for a wide physical range and a direct connection to the internet through a Wi-Fi router. The ESP32 chip requires less than 5 A, making it ideal for battery- or wearable-electronic applications.

  **SPECIFICATION**

- **Microcontroller**: ESP32 WROOM-32
- **Interface**: USB Type-C
- **Serial Chip**: CP2102
- **Connectivity**: WiFi and Bluetooth
- **Pin Count**: 38 pins
- **Processor**: Dual-core processor
- **Development**: Suitable for IoT and embedded systems development
- **Applications**: Versatile applications including home automation, IoT devices, and robotics
- **Compact Design**: Small form factor for easy integration
- **Power Supply**: Can be powered via USB or external power source
- **Compatibility**: Compatible with various development environments and programming languages

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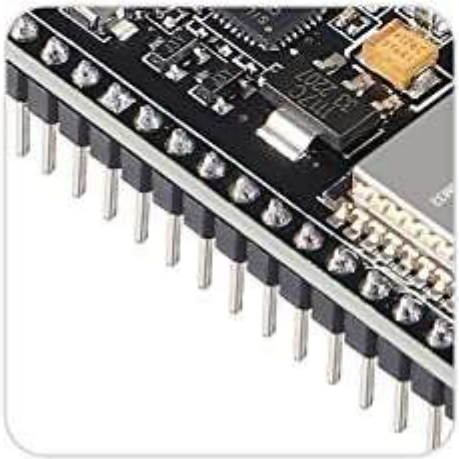




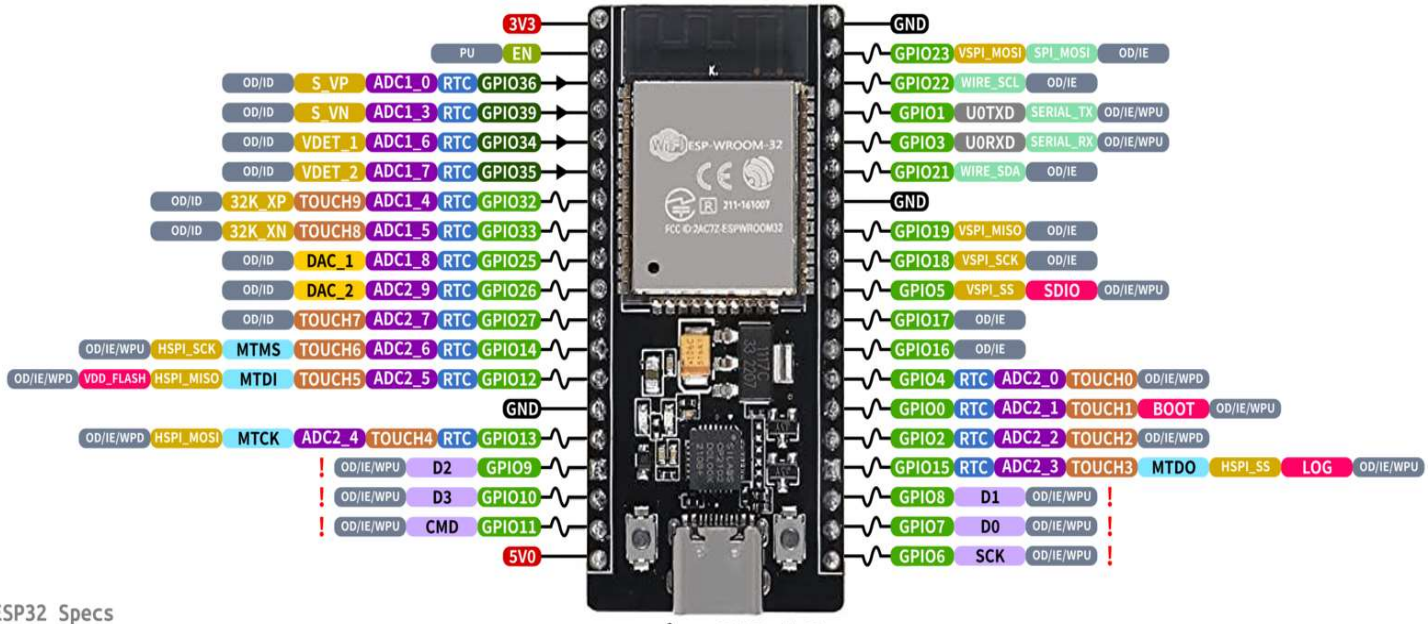
**Quick Spec**

- Chip: ESP32-Wroom-32E
- Operating Voltage: 3.3V ~ 5V

- 448KB ROM
- 520KB SRAM
- 16KB SRAM
- 4MB SPI Flash
- Communication Protocol: Bluetooth, Bluetooth Low Energy, IEEE 802.11b/g/n/e/
- Antenna Connector Type: PCB Antenna
- Micro USB interface
- Interfaces
    - GPIO
    - I2C
    - I2S
    - SPI
    - UART
    - WiFi
- Operating Temperature: -40 ~ +85°C
- Dimensions: 51.5 x 26mm

- **WiFi:** 2.4 GHz, speeds up to 150 Mbps.
- **Bluetooth:** BLE and Classic supported.
- **Processor:** Dual-core LX6, 160/240 MHz.
- **Memory:** 448 KB ROM, 512 KB SRAM.
- **USB:** CP2102 bridge, C-type USB port.
- **Pins:** 38 GPIO pins for versatile connectivity.

**Pinout**




**ESP32 Specs**

32-bit Xtensa® dual-core @240MHz
Wi-Fi IEEE 802.11 b/g/n 2.4GHz
BLuetooth 4.2 BR/EDR and BLE
520 KB SRAM (16 KB for cache)
448 KB ROM
34 GPIOs, 4x SPI, 3x UART, 2x I2C,
2x I2S, RMT, LED PWM, 1 host SD/eMMC/SDIO,
1 slave SDIO/SPI, TWAI®, 12-bit ADC, Ethernet