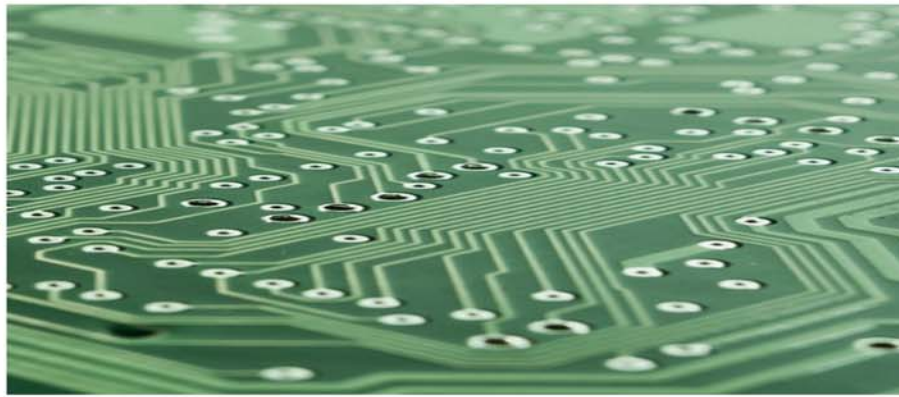


ESP32-C6 WIFI + BLUETOOTH MINI DEVELOPMENT BOARD 20 PINS, 4 MB FLASH, USB-C CONNECTOR



ESP32-C6-DEV20P

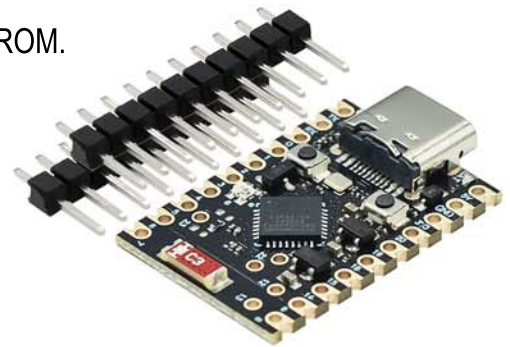
Introduction :

This development board is equipped with a module based on the ESP32-C6FH4 single-core 32-bit RISC-V microcontroller (4 Mbits Flash + 528 Kbits SRAM + 320 Kbits ROM), integrating Wi-Fi 6 IEEE 802.11 ax/b/g/n and Bluetooth 5.3 communication functions within a single component. The board has 20 pins and can be powered directly via its USB-C connector. The board features a 40 MHz external oscillator to drive the microcontroller, which can reach up to 160 MHz internally. It includes a power and status indicator (RGB LED) as well as two micro-switches to perform a RESET or enter programming mode.

There are numerous Arduino applications available for the ESP32, and the 2.54mm-pitch pins on both sides of the board allow developers to easily connect it to another development board or prototype. This board, based on the ESP32 micro-processor, enables a wide range of wireless applications that combine speed with low power consumption, whether using Wi-Fi, Bluetooth or Zigbee, all integrated into a single component. It can be used to manage wireless sensors, transmit data, music or images in real time, communicate with a router or a mobile phone, or for any other industrial applications.

Technical specifications :

Microcontroller: ESP-32-C6FH4 RISC-V 32 bits.
Memory: 4 Mbits Flash + 512 Kbits HP SRAM + 16 Kbits LP SRAM + 320 Kbits ROM.
Clock frequency: up to 160 MHz.
Supported interfaces: UART / GPIO / ADC / SDIO / PWM / SPI / I2C / I2S.
Data rate: 150 Mbps.
Power supply: 5.0 Vdc (USB-C) or 5.0 Vdc / 3.3 Vdc (pins).
Antenna : onboard PCB.
Wi-Fi 6 transmission: 802.11 ax/b/g/n from 2.412 GHz to 2.484 GHz.
Bluetooth transmission: 5.3 LE standard and Mesh.
Maximum gain: +20 dBm (TX) and -106 dBm (RX).
Operating temperatures: -40°C to +105°C. Humidity: <90%.
Board dimensions: 26 x 18 mm (20 pins). Weight: 3 g.



Items included :

Development board with unwelded pins.
2x8 straight pins header.

Available for download online:

- Arduino or Raspberry Pi IDE software for the ESP32.
- Espressif ESP32-C6 datasheet.
- Espressif ESP-IDF open-source programming guide.

