

Description:

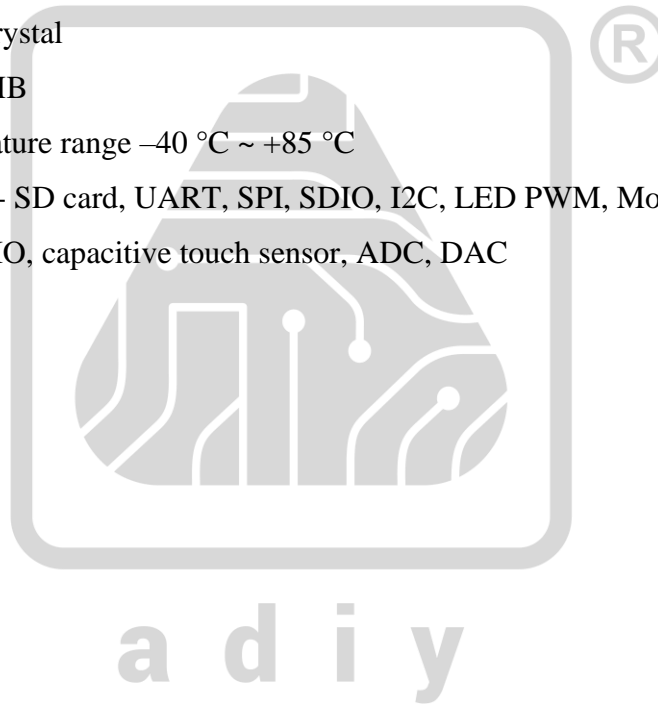
ESP32 Development board is based on the ESP32-WROOM-32U Module, which consists of ESP32 series microcontroller from ESPRESSIF. It is a Wi-Fi + Bluetooth + BLE development board. The module has a 32-Bit Dual Core MCU, ultra-low power, based on 40 nm. technology. The module supports 802.11 b/g/n along with Bluetooth v4.2 BR/EDR and BLE specification. It has integrated 4/8/16 MB Flash, and up to 512 KB RAM. It can operate at up to 240 MHz Frequency.

The ESP32 Development board is 30 pin board, with all of the interfaces accessible. It sports a Type-C USB Connector, and USB to UART Bridge, reset and boot mode buttons, and an LDO regulator. Most of the important GPIOs are accessible on board.

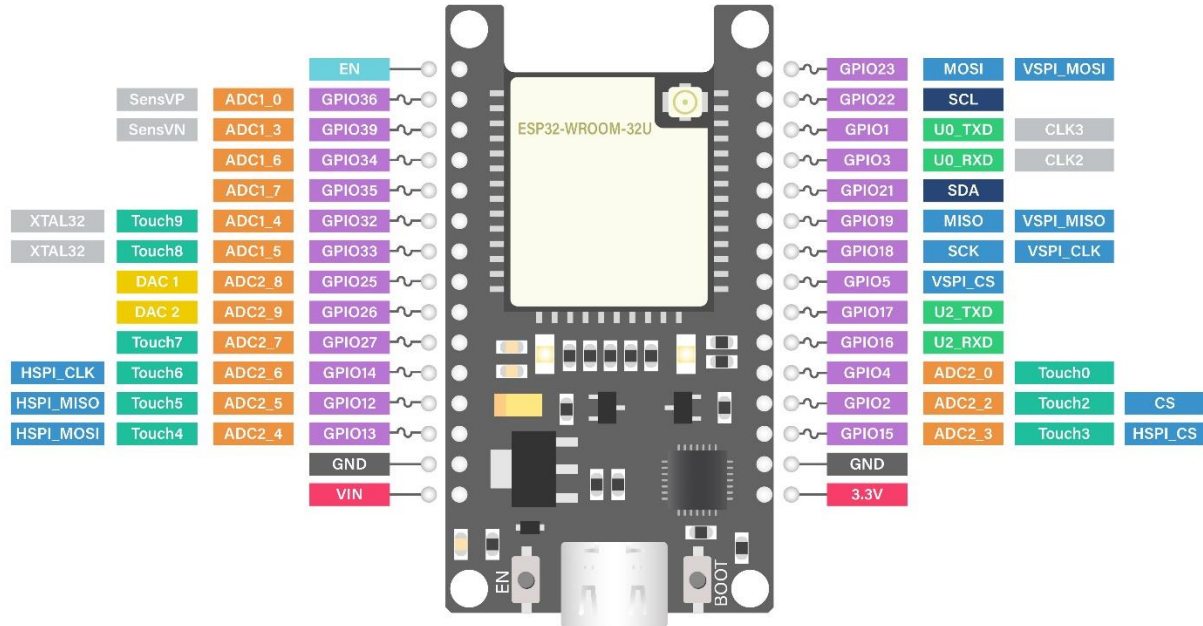
This board is useful to add high-capacity Wi-Fi, Bluetooth or BLE in any existing projects very rapidly. It also supports Lua scripting language, thereby making it easier to develop for the developers.

Features:

1. Operating voltage/Power supply 3.0 V ~ 3.6 V (Typical 3.3V)
2. Operating current Average: 80 mA
3. External antenna U. FL connector (which needs to be connected to an external antenna)
4. Wi-Fi protocol - 802.11 b/g/n (802.11n up to 150 Mbps)
5. Bluetooth Protocols - Bluetooth v4.2 BR/EDR and Bluetooth LE specification
6. ROM 448 KB
7. SRAM 520 KB
8. Crystal 40 MHz crystal
9. SPI flash 4/8/16 MB
10. Operating temperature range $-40\text{ }^{\circ}\text{C} \sim +85\text{ }^{\circ}\text{C}$
11. Module interfaces- SD card, UART, SPI, SDIO, I2C, LED PWM, Motor PWM, I2S, IR, pulse counter, GPIO, capacitive touch sensor, ADC, DAC



Pin Diagram:



Applications:

- Smart Home and Agriculture
- Industrial Automation
- Health Care
- Consumer Electronics
- Low-power IoT Sensor Hubs and IoT Data Loggers
- Camera for Speech, Video, and image Streaming
- SDIO Wi-Fi + Bluetooth Networking Card
- Touch and Proximity Sensing