

# MicroMod WiFi Function Board

WRL-18430

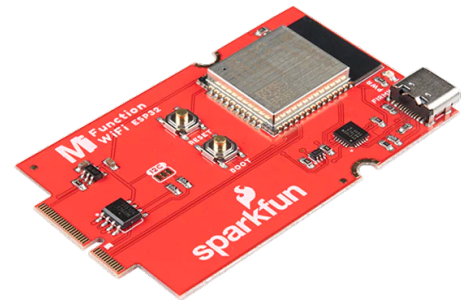
## Product Overview

10/17/2022

For the most up-to-date information, visit [www.mouser.com](http://www.mouser.com) or the supplier's website.

## Description

SparkFun MicroMod WiFi Function Board adds additional wireless options to MicroMod Processor Boards that do not have that capability. This function board acts as a coprocessor that takes advantage of Espressif's ESP32 WROOM to add WiFi and Bluetooth® to the applications. The ESP32 WROOM module features 16MB of flash memory, 520kB of internal SRAM, an integrated 802.11 b/g/n WiFi transceiver, and dual-mode BLUETOOTH® capabilities. At the core of the ESP32 WROOM module is the ESP32-D0WD-V3 chip which is designed to be both scalable and adaptive.



The MicroMod WiFi function board does not require soldering to connect it to any system. The key can be matched to the processor and function board's beveled edge connector to the respective key on the M.2 connector. The ESP32 WROOM module can then be controlled using AT commands via the serial UART port. The USB-C™ connector and CP2102 USB-to-serial converter can be used to add AT commands, flash custom firmware on the ESP32, or reprogram the ESP32.

## Features

- ESP32-WROOM-32E Module:
  - Xtensa® dual-core 32-bit LX6 microprocessor
  - Up to 240MHz clock frequency
  - 16MB of flash storage
  - 520kB internal SRAM
  - Integrated 802.11 b/g/n WiFi transceiver
  - Integrated dual-mode Bluetooth® (classic and BLE)
  - Hardware-accelerated encryption (AES, SHA2, ECC, and RSA-4096)
  - 2.5µA deep sleep current
- Buttons:
  - Reset
  - Boot

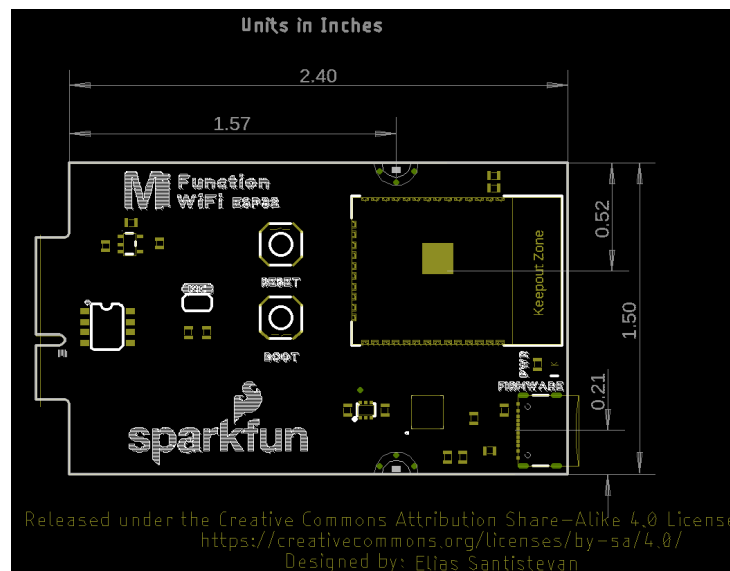
## Features

- Power LED
- USB Type C connector
- CP2102 USB-to-Serial converter
- AP2112 3.3V voltage regulator (rated 600mA)
- I<sup>2</sup>C Pull-up resistors
- Jumpers:
  - PWR LED
  - I<sup>2</sup>C Pull-up resistors

## Specifications

- Input voltage range:
  - 2.5V to 6V:
    - Typical 5V via Main Board's USB connector
    - Typical -3.7V to 4.2V via Main Board's LiPo battery connector
- 3.3V IO voltage

## Board Dimension



## Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/sparkfun/sparkfun-micromod-esp32-wifi-function-board/>