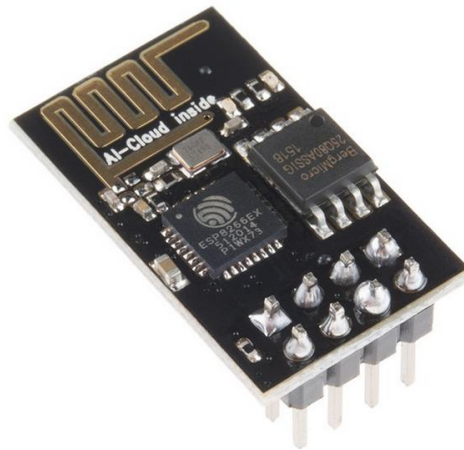




User Guide

ESP-01 ESP8266 WiFi Serial Module

The ESP-01 is a Wi-Fi module that allows microcontrollers access to a Wi-Fi network. This module is a self-contained SOC (System-On-Chip) that doesn't necessarily need a microcontroller to manipulate inputs and outputs as you would normally do with an Arduino, ESP-01 alone can function as a small computer. Thus, we can give a microcontroller internet access like the Wi-Fi shield does to the Arduino, or we can simply program the ESP8266 to not only have access to a Wi-Fi network, but to act as a microcontroller as well. This makes the ESP8266 very versatile, and it can save you some money and space in your projects. In this user-guide we are going to show you how to set up the ESP-01 Wi-Fi module, configure it, and verify that there is communication established between the module and another device.



SKU: [MDU1069](#)

Specifications:

- Operating Voltage: 3.3V.
- Wi-Fi 802.11 b/g/n.
- Integrated low power 32-bit MCU.
- External SPI Flash Memory: 1MByte.
- Integrated 10-bit ADC.
- Integrated TCP/IP protocol stack.
- Wi-Fi 2.4GHz, support WPA/WPA2.
- Support STA/AP/STA+AP operation modes.
- +20dBm output power in 802.11b mode.
- 2x4 2.54mm Pin Header Connector.

Module Pins Assignment:

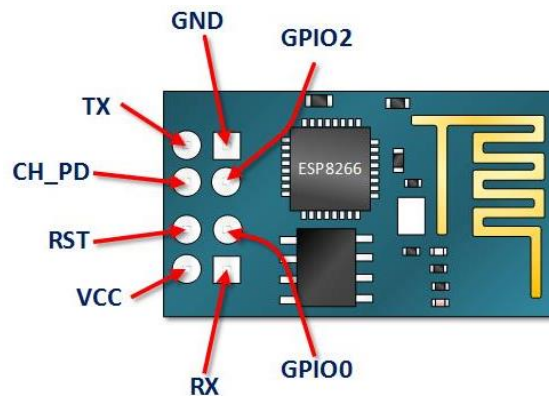
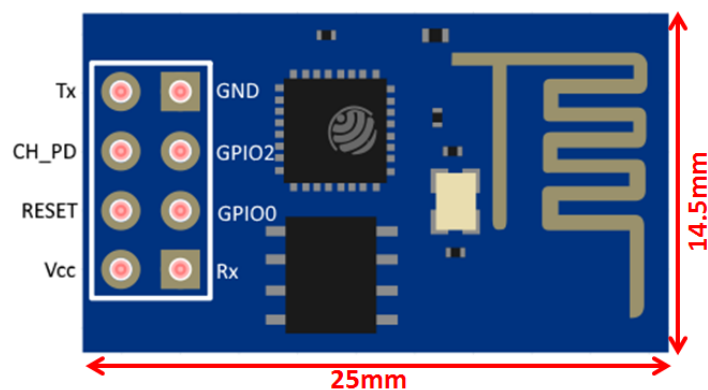


Figure-1

Function	Color	Description
TX	Blue	Transmit
RX	Black	Receive. Always use a level converter for incoming data. This device is not 5V tolerant.
CH_PD	Green	Chip enable. Should be high for normal operation. • 0 – Disabled • 1 – Enabled
RST	Yellow	External reset. • 0 – Reset • 1 – Normal
GPIO 0		Should be high on boot, low for flash update.
GPIO 2	Grey	Should be high on boot.
VCC	Orange	3.3V
GND	Purple	Ground

Board Dimension:

Unit: mm





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