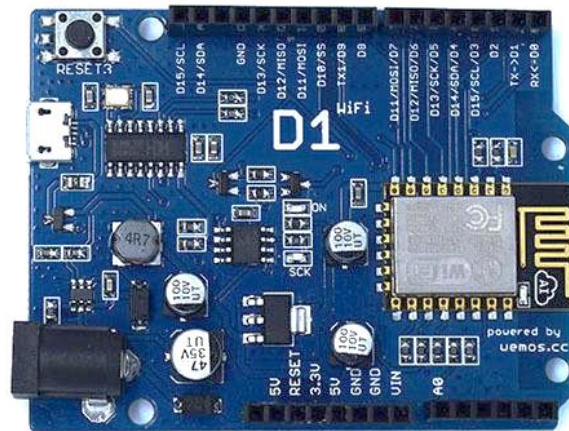


REF: B31-MAX30102

WiFi UNO ESP8266 WeMos D1 R1



Description

The WiFi Uno - Based on ESP8266 features a compact and user-friendly form factor. Its design is inspired by the classic Arduino Uno, which makes it familiar and easy to work with for those who have experience with Arduino development. This means:

- **Standard Dimensions:** The WiFi Uno follows the standard dimensions of the Arduino Uno, which is approximately 2.7 inches (68.6 mm) in length and 2.1 inches (53.3 mm) in width. This form factor is widely recognized and compatible with various accessories and shields designed for Arduino.
- **Arduino Compatibility:** The board is designed to be pin-compatible with the Arduino Uno, which means you can use Arduino shields and components seamlessly with the WiFi Uno. This compatibility simplifies the process of expanding your projects with additional hardware.
- **Familiar Layout:** The layout of the GPIO (General Purpose Input/Output) pins, power connectors, and other key components closely resembles that of the Arduino Uno. This layout ensures that you can easily connect and configure your sensors, actuators, and other peripherals just as you would with an Arduino Uno.

Specifications

- Microcontroller: ESP-8266EX
- Operating Voltage: 3.3V
- Digital I/O Pins: 11
- Analog Input Pins: 1
- Clock Speed: 80MHz/160MHz
- Flash: 4M bytes

Coding

```

LOLIN(WeMos) D1 R1
WiFiScan.ino
1  /*
2   * This sketch demonstrates how to scan WiFi networks.
3   * The API is almost the same as with the WiFi Shield library,
4   * the most obvious difference being the different file you need to include:
5   */
6
7  #include <ESP8266WiFi.h>
8
9  void setup() {
10   Serial.begin(115200);
11   Serial.println("\nESP8266 WiFi scan example");
12
13   // Set WiFi to station mode
14   WiFi.mode(WIFI_STA);
15
16   // Disconnect from an AP if it was previously connected
17   WiFi.disconnect();
18   delay(100);
19 }
20
21 void loop() {
22   String ssid;
23   int32_t rssi;
24   uint8_t encryptionType;
25   uint8_t *bssid;
26   int32_t channel;
27   bool hidden;
28   int scanResult;
29
30   Serial.println(F("Starting WiFi scan..."));
31
32   scanResult = WiFi.scanNetworks(/*async=*/false, /*hidden=*/true);
33
34   if (scanResult == 0) {
35     Serial.println(F("No networks found"));
36   } else if (scanResult > 0) {

```

Result

In the Arduino IDE, choose Tools > Serial Plotter. You should see a wave similar to the image below, when you swipe your hand over the sensor.

```

12:19:18.417 -> 06: [CH 12] [D4:01:68:04:09:D0] -78dBm * V 802.11b/g/n WPS Legend Pets-2.4GHz@unifi
12:19:18.417 -> 07: [CH 14] [9E:A3:A9:90:6F:09] -72dBm * H 802.11b/g/n
12:19:18.435 -> 08: [CH 14] [9E:A3:A9:89:DB:DD] -67dBm * H 802.11b/g/n
12:19:18.435 -> 09: [CH 14] [08:3A:2F:14:38:1C] -70dBm * V 802.11b/g/n NVR083a2f14381c
12:19:18.435 -> 10: [CH 14] [9E:A3:A9:90:6F:06] -72dBm * H 802.11b/g/n
12:19:18.435 -> 11: [CH 14] [08:3A:2F:11:7C:39] -76dBm * V 802.11b/g/n NVR083a2f117c39
12:19:23.416 -> Starting WiFi scan...
12:19:25.605 -> 15 networks found:
12:19:25.605 -> 00: [CH 01] [40:86:CB:77:B4:52] -89dBm * V 802.11b/g/n WPS Fusion1
12:19:25.605 -> 01: [CH 01] [D8:0D:17:89:4C:00] -91dBm * V 802.11b/g/n WPS leekeanseng-Maxis Fibre Internet
12:19:25.605 -> 02: [CH 01] [40:86:CB:77:B4:53] -89dBm * H 802.11b/g/n
12:19:25.605 -> 03: [CH 06] [46:D5:F2:27:C2:8A] -92dBm * V 802.11b/g/n WPS 4G-CPE_6687
12:19:25.605 -> 04: [CH 06] [30:F9:47:67:3D:4D] -69dBm * H 802.11b/g/n
12:19:25.638 -> 05: [CH 06] [32:F9:47:17:3D:4D] -69dBm * V 802.11b/g/n WPS MOHIDEEN@unifi
12:19:25.638 -> 06: [CH 10] [18:34:AF:03:F4:F7] -64dBm * V 802.11b/g/n WPS Synacorp-2.4G
12:19:25.638 -> 07: [CH 10] [F0:FE:6B:D3:04:C0] -81dBm * V 802.11b/g/n GF-1324D
12:19:25.638 -> 08: [CH 10] [18:34:AF:04:20:BB] -70dBm * V 802.11b/g/n WPS Synacorp-2.4G
12:19:25.638 -> 09: [CH 12] [D4:01:68:04:09:D0] -79dBm * V 802.11b/g/n WPS Legend Pets-2.4GHz@unifi
12:19:25.671 -> 10: [CH 14] [9E:A3:A9:90:6F:06] -71dBm * H 802.11b/g/n
12:19:25.671 -> 11: [CH 14] [08:3A:2F:11:7C:39] -76dBm * V 802.11b/g/n NVR083a2f117c39
12:19:25.671 -> 12: [CH 14] [9E:A3:A9:90:6F:09] -74dBm * H 802.11b/g/n
12:19:25.671 -> 13: [CH 14] [9E:A3:A9:89:DB:DD] -65dBm * H 802.11b/g/n
12:19:25.671 -> 14: [CH 14] [08:3A:2F:14:38:1C] -74dBm * V 802.11b/g/n NVR083a2f14381c

```