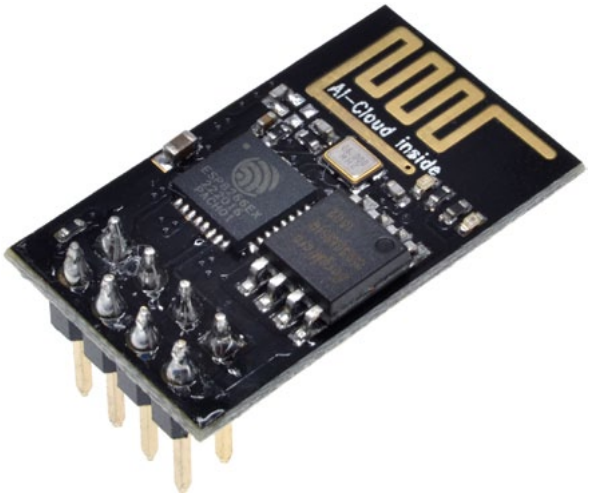
ARD 2

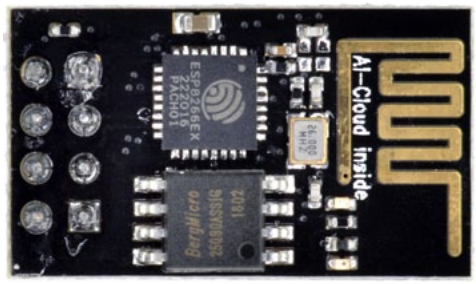
Arduino Compatibles

Controllers, Shields, Modules & Sensors

Wi-Fi Transceiver Module ESP8266 ARD2-2038



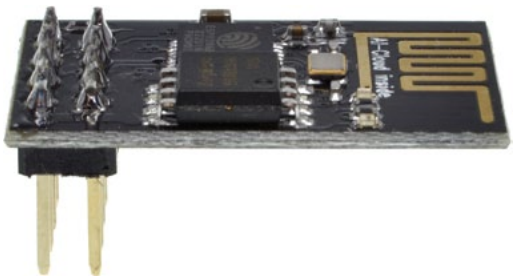
- **Add Wi-Fi to your Arduino/other microcontroller project**
- **Based on ESP8266 Wi-Fi chip**
- **WPA/WPA2 Security**
- **WEP/AES/TKIP Encryption**
- **802.11 b/g/n**
- **Wi-Fi Modes: Station/SoftAP/SoftAP+Station**
- **Integrated TCP/IP protocol stack**
- **Wake up and transmit packets in <2ms**
- **Standby power consumption of <1.0mW (DTIM3)**
- **+20dBm Output Power in 802.11b mode**
- **Integrated antenna**



Description

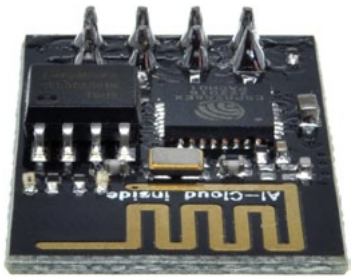
This ARD2 Wi-Fi module is perfect for adding wireless connectivity to your DIY electronics project. The module utilises an ESP8266 high quality wireless transceiver chip featuring efficient power usage, compact design and reliable performance, making it ideal for Internet of Things (IoT) applications. Possible applications include home appliances, home automation, industrial wireless control, baby monitors, IP cameras, wearable electronics and more.

Besides the Wi-Fi functionalities, the ESP8266 also integrates an enhanced version of Tensilica's L106 Diamond series 32-bit processor and on-chip SRAM. It can be interfaced with external sensors and other devices through the GPIOs.



Specifications

Chip	ESP8266
Default Baud Rate	115200
Operating Voltage	3.0~3.6V
Operating Current (avg.)	80mA
Operating Temperature	–40°C ~ 125°C
Wi-Fi Protocols	802.11 b/g/n
Frequency Range	2.4G ~ 2.5G (2400M ~ 2483.5M)
CPU	Tensilica L106 32-bit micro controller
Wi-Fi Modes	Station/SoftAP/SoftAP+Station
Security	WPA/WPA2
Encryption	WEP/TKIP/AES
Command RAM	64kB
Data RAM	96kB



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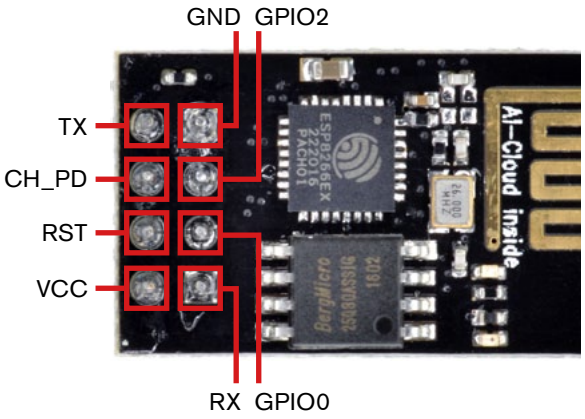
Pinout

Module	Arduino Uno	Function
TX	Pin 1	Transmit Data (3.3V level)
CH_PD	3.3V (always on)	Chip Power Down (low=power down active)
RST		Reset (reset=low active)
VCC	3.3V	Power 3.3V (3.6V max.) Supply Voltage
GND	Ground Pin	Ground
GPIO2		General Purpose I/O 2
GPIO0		General Purpose I/O 0
RX	Pin 0	Receive Data **(3.3V level only!)**



Test Code

```
void setup()
{
    Serial.begin(9600);
    Serial1.begin(9600);
}
void loop()
{
    while (Serial1.available()) {
        Serial.write(Serial1.read());
    }
    while (Serial.available()) {
        Serial1.write(Serial.read());
    }
}
```

Source: http://dalpix.com/blog/connecting-your-arduino-wifi-esp-8266-module

In order to test your module, you'll need two serial ports:

- One dedicated serial port, connected between Arduino and module, where Arduino will send AT commands to module.
- A second serial port, connected between Arduino and the computer, where you can type your AT commands.

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