

### User Manual

Code: ESP-WROOM-02 WI-FI MODULE **ESP-WROOM-02** ESP8266EX Espressif

## Warning!

Please read the user manual included in this work as it contains important information related with safety of installation and use of the device.

Only persons who read the user manual may use the device.

The user manual must be kept because it may be required in the future. The device is to be used exclusively for purposes specified in this user manual.

The device must be unpacked prior to starting-up. After removing the packaging make sure the device is in working order. If the product has defects, it should not be used until it is repaired.

The product is intended for use at home and commercial use and may not be used for other than intended use.

The manufacturer is not liable for damages resulting from not adhering to the rules contained in the user manual, therefore, we recommend to follow the aforementioned safety rules for operation and maintenance of the device. In this way you will ensure yourself safety and avoid causing damage to the device.

The manufacturer and the supplier are not liable for losses or damages arising out of the product, including financial or intangible losses, loss of profits, income, data, pleasure from use of the product or other products related with it - indirect, incidental or consequential loss or damage. The above provisions apply whether the loss or damage concerns:

- 1. Deterioration of quality or the lack of operation of the products or products related with it due to damage as well as the lack of access to the product when it is undergoing repair, which results in stoppage the loss of user's time or a break in business activity;
- 2. Improper results of operation of the product or products related with it;
- 3. It applies to losses and damages according to any legal category, including negligence and other losses, termination of a contract, expressed or implied guarantee and strict liability (even if the manufacturer or the supplier was notified about the possibility of occurrence of such damages).

#### Safety measures:

Particular attention at designing was directed to quality standards of the device where ensuring safety of operation is the most important factor.

The device must be secured against contact with caustic, staining and viscous fluids.

The ESP-WROOM-02 Wi-Fi module is a perfect complement to devices and systems based on popular microcontrollers (such as Arduino). This module allows you to extend the capabilities of devices with wireless communication - both working as a client and as an access point.

In addition, the processor present on the board, apart from supporting the Wi-Fi module, can perform other tasks, thanks to which the module can be used as an independent microcontroller with wireless connectivity. The integrated 4 MB Flash memory will also help in using the additional capabilities of the controller. Everything can be programmed via the appropriate USB -> UART 3.3V interface using the Arduino IDE or Eclipse IDE environment.

**Attention!** During programming and using the module, pay attention to the voltage levels of the logic circuits. The module has been designed for use with a voltage of 3.3  $V_{\rm DC}$  both on the supply side of the device and in the logical layer. Supplying 5  $V_{\rm DC}$  voltage to the inputs may cause permanent damage to the module.



Supported standards:	IEEE 802.11 b/g/n
Processor:	ESP8266EX





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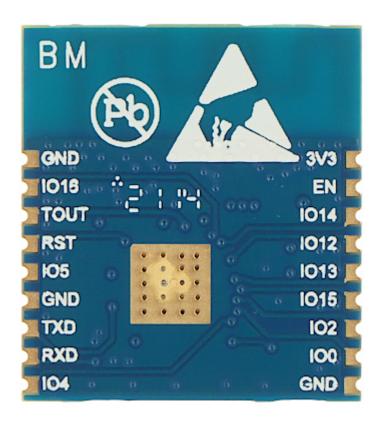
Operation modes:	Station / Soft AP / Station + Soft AP
Antenna type:	Indoor
Interface:	UART 3.3 V, SDIO, HSPI, I2C, I2S, GPIO, IR Remote Control, PWM
Frequency range:	2.4 GHz
Receiver sensitivity:	• 11b 11M : -91 dBm • 11g 54M : -75 dBm • 11n MCS7 : -72 dBm
Security measures:	WEP / TKIP / AES, WPA-PSK/WPA2-PSK
Operation temp:	-40 °C 85 °C
Weight:	0.001 kg
Dimensions:	20 x 18 x 2.8 mm
Manufacturer / Brand:	Espressif
Guarantee:	2 years





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**PACKAGE** 

Dimensions (L x W x H): 0x0x0 mm

Gross Weight: 0 kg