

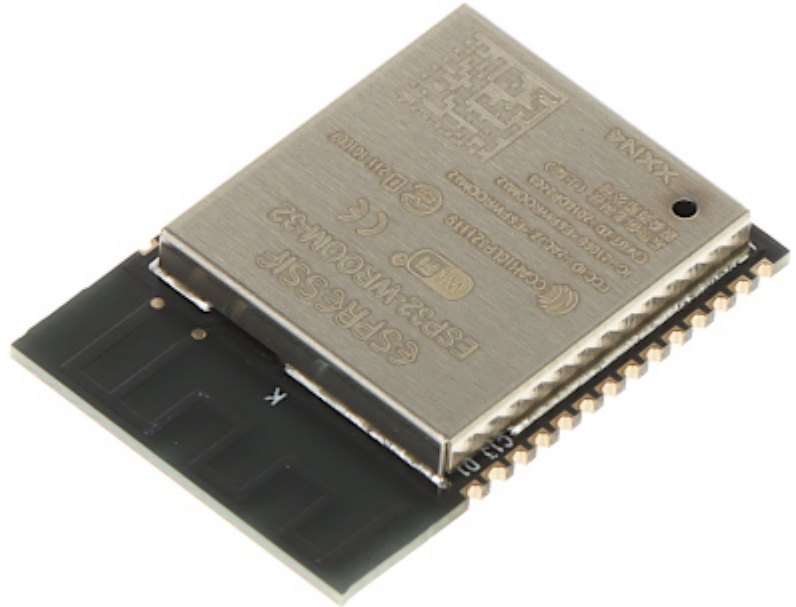
Code: ESP-WROOM-32

WI-FI + BLUETOOTH + BLUETOOTH LE MODULE **ESP-WROOM-32** Espressif

The ESP-WROOM-32 radio communication module allows you to extend projects based on various microcontrollers with wireless communication in the 2.4 GHz band. The device allows you to use Wi-Fi (802.11 b/g/n), Bluetooth / Bluetooth LE protocols and, if necessary, your own protocols written by the user.

The system is equipped with two Xtensa® 32-bit LX6 microprocessors and an additional low-power auxiliary processor that allows performing simple operations (e.g. listening for transmissions, timer, waiting for a wake-up signal) without using the main processors. 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_{DC} both on the supply side of the device and in the logical layer. Supplying 5 V_{DC} voltage to the inputs may cause permanent damage to the module.



Supported standards:	IEEE 802.11 b/g/n, Bluetooth LE
Processor:	2 x Xtensa® 32-bit LX6
Supported transmission speeds:	max. 150 Mbps
Operation modes:	Station / Soft AP / Station + Soft AP
Antenna type:	Indoor
Interface:	UART 3.3 V, SDIO, SPI, I2C, I2S, GPIO, ADC, DAC, PWM, TWAI®, RMT
Frequency range:	2.4 GHz
Receiver sensitivity:	<ul style="list-style-type: none"> • 11b 11M : -88 dBm • 11g 54M : -75 dBm • 11n HT20 MCS0 : -93 dBm • 11n HT20 MCS7 : -70 dBm • 11n HT40 MCS0 : -90 dBm • 11n HT40 MCS7 : -70 dBm • Bluetooth : -94 dBm
Security measures:	WEP / TKIP / AES, Hash (SHA-2), RSA, ECC
Operation temp:	-40 °C ... 85 °C
Weight:	0.001 kg
Dimensions:	25.5 x 18 x 3.2 mm
Manufacturer / Brand:	Espressif
Guarantee:	2 years