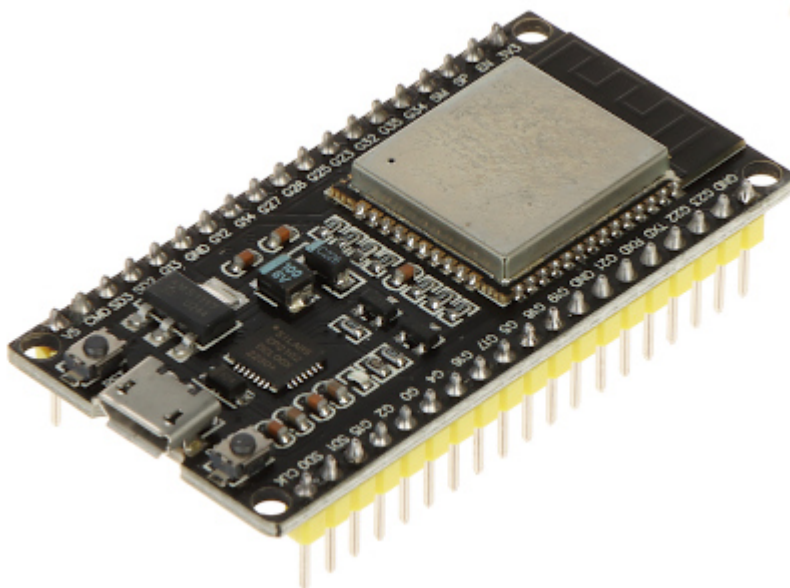# DATA SHEET

Code: ESP32-ESP-WROOM-32

DEVELOPMENT KIT **ESP32-ESP-WROOM-32** Espressif

The ESP32-ESP-WROOM-32 development kit is an ideal kit for learning how to program the ESP-WROOM-32 module and testing its capabilities. One board contains the above-mentioned communication module / micro-controller, a USB -> UART interface based on the CP2102 chip, buttons that facilitate switching the device to programming mode and a voltage converter thanks to which the whole thing is powered directly from the micro USB connector. In addition, all pins of the ESP-WROOM module are provided as goldpin connectors, so the module can be used with any breadboard without the need for soldering. The device allows you to use Wi-Fi (802.1 b/g/n), Bluetooth / Bluetooth LE protocols and, if necessary, your own protocols written by the user.

The integrated 4 MB Flash memory will also help in using the additional capabilities of the controller.

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:	Xtensa® 32-bit LX6
Supported transmission speeds:	max. 150 Mbps
Operation modes:	Station / Soft AP / Station + Soft AP
Antenna type:	Indoor
Interface:	micro USB, UART 3.3 V, SDIO, SPI, I2C, I2S, GPIO, ADC, DAC, PWM, TWAI®, RMT
Frequency range:	2.4 GHz
Receiver sensitivity:	• 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
Main features:	• Built-in USB -> UART interface (chip CP2102) • Buttons for operating the device in programming mode
Operation temp:	-40 °C ... 85 °C
Weight:	0.01 kg
Dimensions:	55 x 29 x 13 mm
Manufacturer / Brand:	Espressif

Guarantee:	2 years