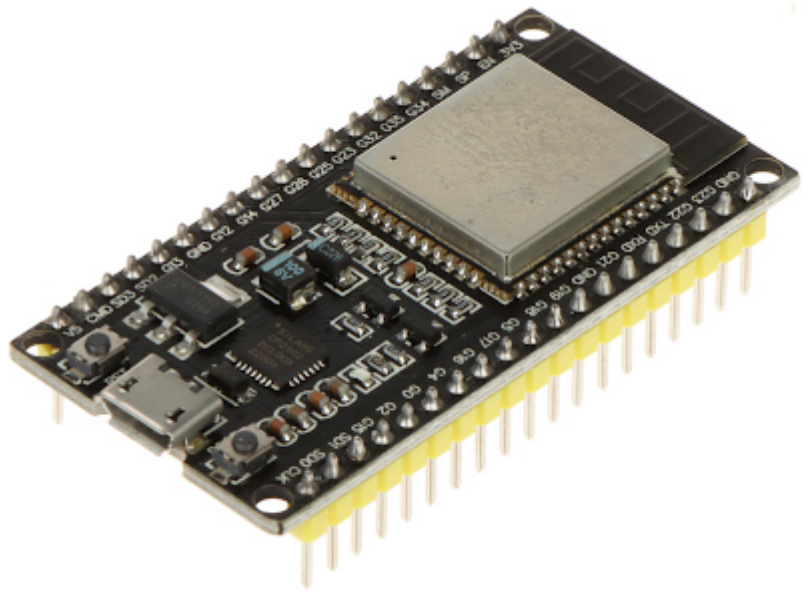


**DEVELOPMENT KIT ESP32-ESP-WROOM-32** EspressifNet: **9.01 EUR** Gross: **9.01 EUR**

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 (802.11 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<sub>DC</sub> both on the supply side of the device and in the logical layer. Supplying 5 V<sub>DC</sub> voltage to the inputs may cause permanent damage to the module.

**SPECIFICATION**

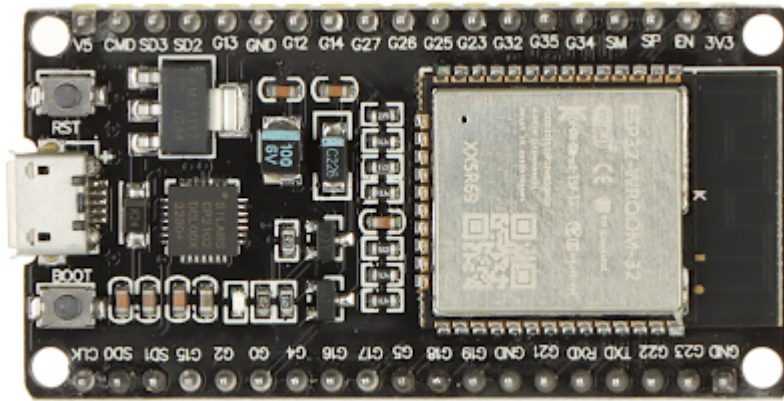
Supported standards:	IEEE 802.11 b/g/n, Bluetooth LE
Processor:	Xtensa® 32-bit LX6
Supported transmission speeds:	max. 150 Mbps
Operation modes:	Station / Soft AP / Station + Soft AP
Antenna type:	Indoor
Interface:	micro USB, UART 3.3 V, SDIO, SPI, I2C, I2S, GPIO, ADC, DAC, PWM, TWAI®, RMT
Frequency range:	2.4 GHz
Receiver sensitivity:	<ul style="list-style-type: none"> <li>• 11b 11M : -88 dBm</li> <li>• 11g 54M : -75 dBm</li> <li>• 11n HT20 MCS0 : -93 dBm</li> <li>• 11n HT20 MCS7 : -70 dBm</li> <li>• 11n HT40 MCS0 : -90 dBm</li> <li>• 11n HT40 MCS7 : -70 dBm</li> <li>• Bluetooth : -94 dBm</li> </ul>
Security measures:	WEP / TKIP / AES, Hash (SHA-2), RSA, ECC
Main features:	<ul style="list-style-type: none"> <li>• Built-in USB -&gt; UART interface (chip CP2102)</li> <li>• Buttons for operating the device in programming mode</li> </ul>
Operation temp:	-40 °C ... 85 °C
Weight:	0.01 kg
Dimensions:	55 x 29 x 13 mm
Manufacturer / Brand:	Espressif
Guarantee:	2 years

**PRESENTATION**

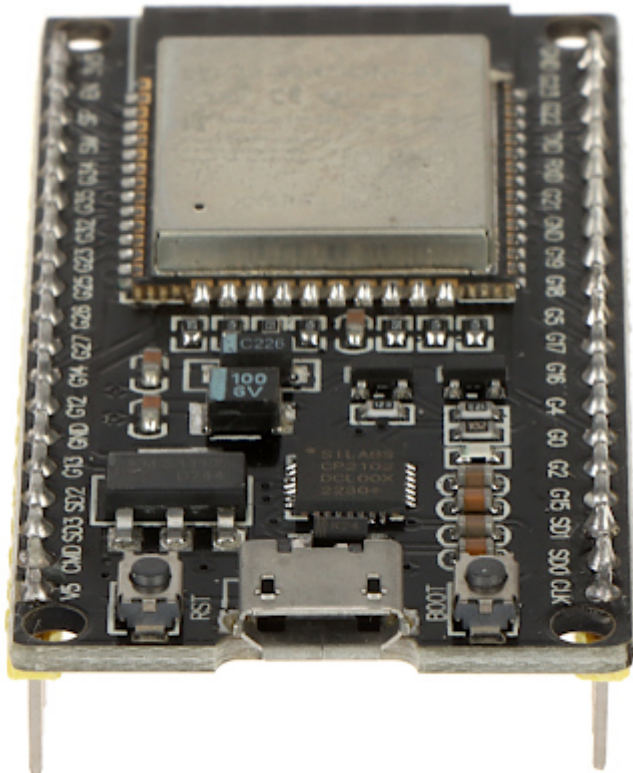
Top view:



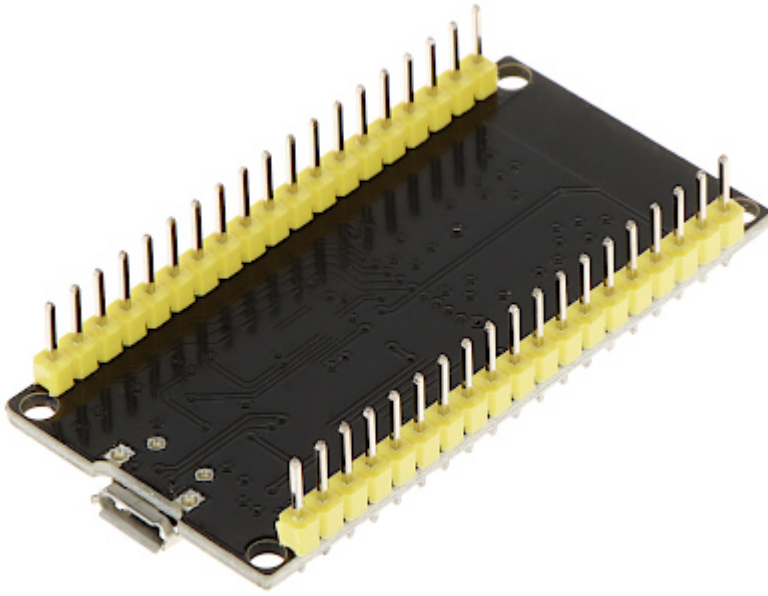
DELTA-OPTI Monika Matysiak; <https://www.delta.poznan.pl>  
 POL; 60-713 Poznań; Graniczna 10  
 e-mail: [delta-opti@delta.poznan.pl](mailto:delta-opti@delta.poznan.pl); tel: +(48) 61 864 69 60



micro USB connector:



Bottom view:



## PACKAGE

Dimensions (L x W x H): 0x0x0 mm	Gross Weight: 0 kg
----------------------------------	--------------------

