

WiFi Click boards - the best guide for choosing the right one

Eleven WiFi Click boards, each one with a different module and features it can be hard to choose the right one. That is why we have made this overview of WiFi Click boards for you.

By the end of the list, you'll know which one fits your project the best.



WiFi NINA click

WiFi NINA click is equipped with the state-of-the-art NINA-W132 module from u-blox, that can be easily configured with the u-blox s-center software, using AT commands. It offers a complete WiFi stack, it is really easy to use and provides a simple way to build secure IoT applications.

This WiFi module integrates a powerful dual 32bit MCU and a radio for wireless communication.

- Easily configured with the u-blox s-center software, using AT commands
- The WiFi module integrates a powerful dual 32bit MCU
- Offers a complete WiFi stack

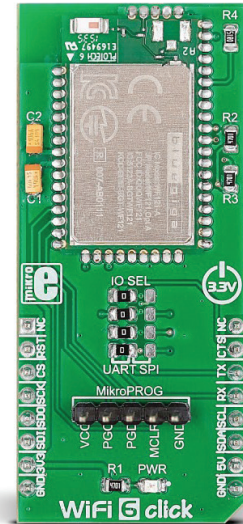


WiFi 6 click

WiFi 6 click comes with a module that has a fully integrated radio and 32-bit microcontroller. This makes it ideal for embedded applications. If you are building a device that requires low-power wireless TCP/IP connectivity, this is the Click board™ for you.

In WiFi client mode, the WF121 radio core automatically powers on the RF circuitry only when needed. The WiFi core processors support automatic sleep modes when not communicating actively, allowing very low idle consumption.

- Fully integrated radio and 32-bit microcontroller
- **mikroProg connector** allows updating the firmware
- WiFi client mode





WiFi 5 click

WiFi 5 click features GainSpan's GS1500M 802.11b/g/n Low Power Wi-Fi module with a PCB trace antenna. The click is suited for battery powered applications, due to its multiple power modes: standby, sleep, deep sleep].

The onboard module supports WiFi PHY rates up to 72.2 Mbps and is fully compliant with 802.11b/g/n and meets worldwide regulatory requirements.

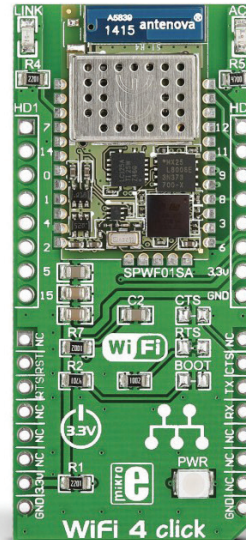
- Multiple power modes: standby, sleep, deep sleep
- A PCB trace antenna
- WiFi PHY rates up to 72.2 Mbps

WiFi 4 click

WiFi 4 click carries SPWF01SA, a complete standalone WiFi module with a single-chip 802.11 b/g/n transceiver, a 32-bit STM32 MCU, along with a built-in 2.4 GHz ISM band antenna.

The 14 additional GPIO pins that line the edges of the board have alternate functions like SPI, ADC, I2C, DAC [although access to those functions depends on the firmware version loaded in the module].

- Built-in 2.4 GHz ISM band antenna
- A 32-bit STM32 MCU
- **1.5 MB of internal flash**
- 64 KB of RAM

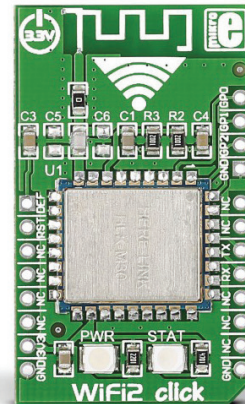


WiFi 2 click

WiFi2 click features the HLK-M30 WiFi module with a built-in TCP/IP protocol stack. WiFi2 click can be set up both as a TCP/IP client or server. You can configure it with either a static or dynamic IP address.

WiFi2 click supports standard security authentication systems [WEP64/WEP128/ TKIP/ AES, WEP/WPA-PSK/ WPA2-PSK]; as well as multiple network protocols [TCP/UDP/ DHCP/DNS]. All these features make WiFi2 click ideal for home automation applications, remote controls, telemetry etc.

- Built-in TCP/IP protocol stack
- supports standard security authentication systems



WiFi ESP click

WiFi ESP click can function in both AP [Access Point] WiFi mode, as well as in WiFi client mode. The click brings easy implementation and usage.

The module supports the following network protocols: IPv4/TCP/UDP/HTTP/FTP. Thanks to this the click can operate as a client device requesting a file from a file server device [FTP - file transfer protocol] in local network systems, or request a web page via the internet [IP/TCP/HTTP]. It can also be used as a small web server, for example, a wireless weather station prototype, etc.

- Functions as Access Point and as WiFi client mode
- The module supports these network protocols: IPv4/TCP/UDP/HTTP/FTP



WiFi PLUS click

WiFi PLUS click features MRF24WB0MA – **2.4GHz, IEEE std. 802.11** - compliant module from Microchip, as well as MCW1001 companion controller with onboard TCP/IP stack and 802.11 connection manager.

The combination of the MRF24WB0MA and MCW1001 results in support for IEEE Standard 802.11 and IP services.

- Integrated PCB antenna with a range up to **400m**
- **Low power consumption** (250 μ A in sleep mode)





WiFly click

WiFly click features the well-known RN131 from Microchip. With preloaded firmware and built-in networking stacks, the integration of the WiFly click is really easy.

Another great thing is that users with a beginner-level of knowledge can use this click to set up a home network. WiFi Protected Setup [WPS] protocol on the Click board is designed for an easy and secure establishment of wireless home networks.

- Preloaded firmware
- Built-in networking stacks
- Easy to set-up a home network, even for beginners

Brief Overview

NAME	MODULE	PRICE	INTERFACE	POWER SUPPLY
WiFi NINA	NINA-W132	\$45	UART	3.3V
WiFi 7 click	ATWINC1510-MR210PB	\$29	SPI	3.3V
WiFi 6 click	WF121-A	\$69	I2C, SPI, UART	3.3V
WiFi 5 click	GS1500M	\$9	UART	3.3V
WiFi 4 click	SPWF01SA	\$49	UART	3.3V
WiFi 3 click	ESP8266	\$27	UART	3.3V
WiFi 2 click	HLK-M30	\$29	UART	3.3V
WiFi ESP click	ESP-WROOM-02	\$15	UART	3.3V
WiFi PLUS click	MRF24WB0MA	\$45	UART	3.3V
WiFiFly click	RN-131	\$69	UART	3.3V
CC3100 click	CN3100	\$49	SPI, UART	3.3V

We hope that you found this overview useful. Next time you are searching for that perfect WiFi click, you'll know where to look for guidance. Let us know if you think we should do another post for a different category of Click boards™.

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