WiFi 4 click

MIKROE-1913

Weight: 34 g

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 click is designed to run on a 3.3V power supply. It communicates with the target MCU over an UART interface (with additional functionality provided by Reset and Ready To Send pins, in place of default mikroBUS™ RST and CS pins).

SPWF01SA module

The SPWF01SA module has 1.5 MB of internal flash and 64 KB of RAM, and can achieve up to +18 dBm of output power.

In standby mode the module uses only 34 uA, while in sleep mode the typical power consumption is 15 mA.

Additional GPIO pins

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).

Key features

- SPWF01SA module
  - 1.5 MB of internal flash memory
  - 64 KB of RAM memory
  - Integrated TCP/IP protocol stack
  - WEP/WPA/WPA2 personal security
- Additional 14 GPIO pins
- Interface: UART
- 3.3V power supply

Specifications

Type	Wi-Fi
Applications	Connect things to the internet, create smart appliances, home automation systems, wireless data loggers and so on
On-board modules	SPWF01SA single-chip 802.11 b/g/n transceiver, a 32-bit STM32 MCU, along with a built-in 2.4 GHz ISM band antenna
Key Features	Fully integrated TCP/IP protocol stack. 64KB of RAM and 512 KB of Flash
Key Benefits	Additional GPIO pins, Additional Ready to Send and Reset pins
Interface	GPIO,UART
Input Voltage	3.3V
Compatibility	mikroBUS
Click board size	L (57.15 x 25.4 mm)

Pinout diagram

This table shows how the pinout on **WiFi 4 click** corresponds to the pinout on the mikroBUS™ socket (the latter shown in the two middle columns).

Notes	Pin		mikroBUS™		Pin	Notes
Not connected	NC	1	AN	PWM	16	NC	Not connected
Reset input	**nRESET**	2	RST	INT	15	**CTSb**	UART Clear to send input
UART Request to send output	**RTSb**	3	CS	TX	14	**TXD**	UART Transmit data output
Not connected	NC	4	SCK	RX	13	**RXD**	UART Receive data input
Not connected	NC	5	MISO	SCL	12	NC	Not connected
Not connected	NC	6	MOSI	SDA	11	NC	Not connected
Power supply	**+3.3V**	7	3.3V	5V	10	NC	Not connected
Ground	**GND**	8	GND	GND	9	**GND**	Ground