WiFi PLUS click



WiFi PLUS click is a compact solution for adding WiFi communication to your project. The click features <u>MRF24WB0MA</u> – 2.4GHz, IEEE std. 802.11 - compliant module from Microchip, as well as <u>MCW1001</u> companion controller with on-board TCP/IP stack and 802.11 connection manager.

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WiFi PLUS click is designed to run on a 3.3V power supply. It communicates with the target MCU over an UART interface.

PCB antenna

The MRF24WB0MA RF transceiver module contains integrated PCB antenna with range up to 400m.

MRF24WB0MA module

MRF24WB0MA is a low-power, 2.4 GHz, IEEE 802.11-compliant, surface mount module with all associated RF components such as crystal oscillator, bypass and bias passives with integrated MAC, baseband, RF and power amplifier, and built-in hardware support for AES, and TKIP (WEP, WPA, WPA2 security). The module has low power consumption modes. In sleep mode it uses 250 μ A (typical), and while in hibernate mode the typical power consumption is only **0.1** μ A.

MCW1001A companion chip

The **MCW1001A** is a companion chip to the MRF24WB0 802.11 module. It provides simple socket based method of sending and receiving data from the MRF24WB0 802.11 module. The MCW1001A has an on-board TCP/IP stack and 802.11 connection manager to simplify the connection between a wireless network and the TCP/IP stack management.

Key features

- MRF24WB0MA module from Microchip
 - IEEE 802.11-compliant RF Transceiver
 - Compatible with IEEE 802.11b/g/n networks
 - Integrated PCB antenna
 - Range: up to 400m (1300 ft.)
- MCW1001A companion chip
- Interface: UART
- 3.3V power supply

Туре	Wi-Fi
Applications	WiFi PLUS click does not use the memory resources of the target microcontroller for TCP/IP stack operations, which makes this module the best choice for wide range of different devices
On-board modules	MRF24WB0MA, MCW1001
Key Features	Meets 2.4GHz, IEEE std. 802.11 standard. Integrated PCB antenna with range up to 400m
Key Benefits	MCW1001 companion controller features on-board TCP/IP stack and 802.11 connection manager
Interface	GPIO,UART
Input Voltage	3.3V
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)

Pinout diagram

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

Notes	Pin	mikroBUStm				Pin	Notes
General-purpose I/O	GP0	1	AN	PWM	16	GP1	General-purpose I/O
Reset	RST#	2	RST	INT	15	GP2	General-purpose I/O
Not connected	NC	3	CS	тх	14	тх	UART transmit
Not connected	NC	4	SCK	RX	13	RX	UART receive
Not connected	NC	5	MISO	SCL	12	RTS#	Request to send
Not connected	NC	6	MOSI	SDA	11	CTS#	Clear to send
Power supply	+3.3V	7	3.3V	5V	10	NC	Not connected
Ground	GND	8	GND	GND	9	GND	Ground