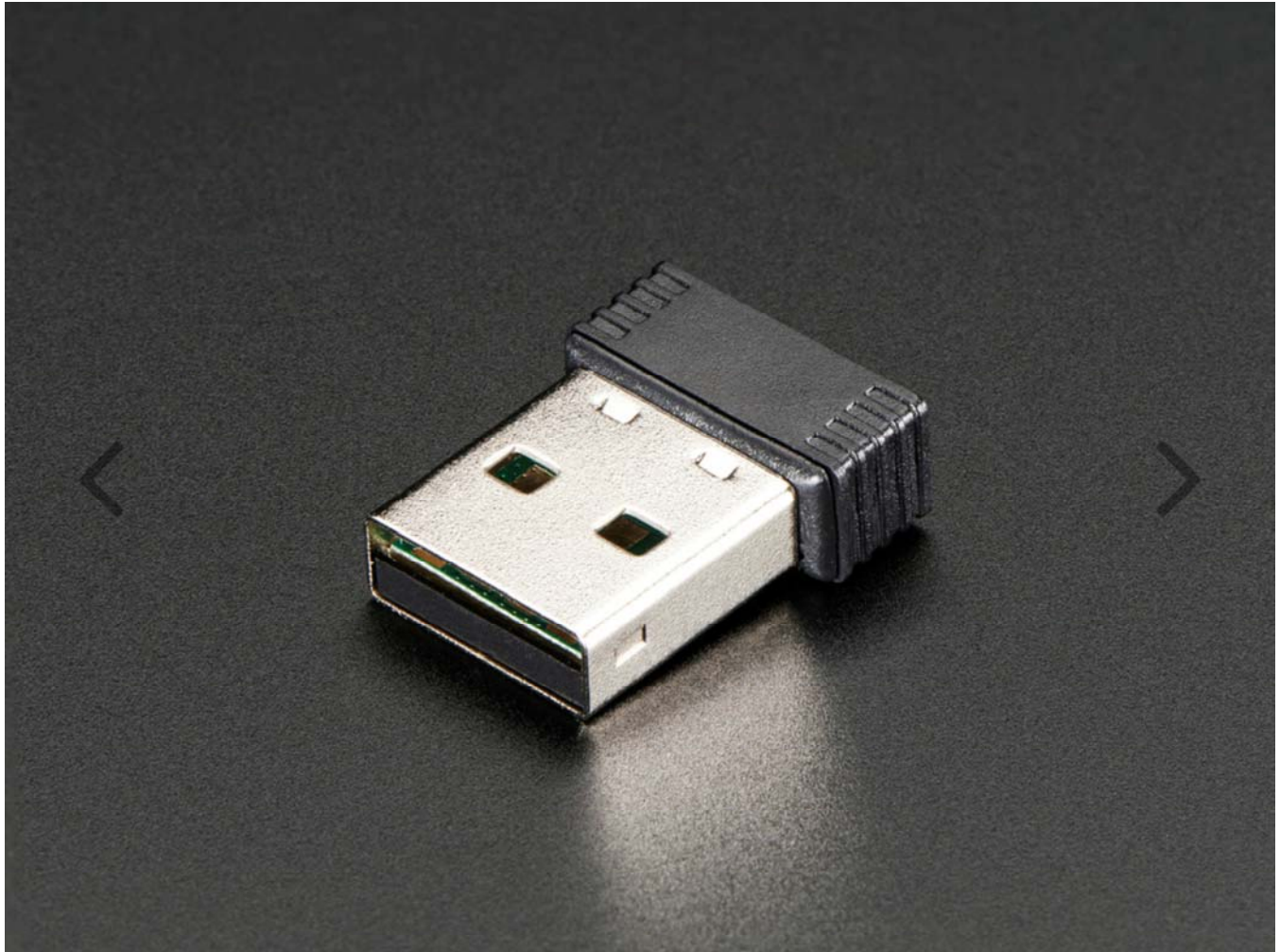


# Miniature WiFi (802.11b/g/n) Module: For Raspberry Pi and more

PRODUCT ID: 814



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## DESCRIPTION

Make your Internet of Things device cable-free by adding WiFi. Take advantage of the Raspberry Pi and Beagle Bone's USB port to add a low cost, but high-reliability wireless link. We tried half a dozen modules to find one that works well with the Pi and Bone without the need of recompiling any kernels: its supported by the Bone's Angstrom/Debian installation that comes with each Bone as well as Raspbian and just about any other modern Pi operating system. You'll have wireless Internet in 10 minutes! Works great with 802.11b/g/n networks.

If using with a Beagle Bone: Because of the high power required by WiFi, a 5V 2A power adapter is required to power both the Bone and WiFi. Flaky behavior and crashes may result if this is not followed! We have a tutorial for using this module with the Beagle Bone!

If using with a Raspberry Pi: The latest Raspbian distributions support this module out-of-the-box. Check out our detailed tutorial for how to set up WiFi networking on the Pi. If you have a model B you may find that you need to have a powered hub to use this adapter, so if you're having power flakiness with your Pi, try a hub!

Please note: These are good for home/office usage with a Raspberry Pi when the router is nearby. For installation projects or large-scale distribution, we strongly recommend upgrading to this stick with a larger antenna – especially if you plan on putting the Pi behind something or inside an enclosure/wall/box/sign/etc!

The WiFi module may look slightly different than above, but all modules shipped contain the same chipset and have equivalent performance, the only difference is the plastic shell and any printing. We have requested to minimize packaging and now ship without a CD since all modern computers have support built in. If you need drivers, see the Technical Details tab

# Technical Details



RTL8192/8188CUS Chipset

Sticks out 8mm (0.3") beyond USB port

Weight: 2.17g

Wireless Standards: IEEE 802.11n (draft), IEEE 802.11g, IEEE 802.11b

Host Interface: High speed USB2.0/1.1 interface

Data Rate: 802.11n: up to 150Mbps (downlink) and up to 150Mbps (uplink) , 802.11g: 54 / 48 / 36 / 24 / 18/ 12 / 9 / 6 Mbps auto fallback, 802.11b: 11 / 5.5 / 2 / 1 Mbps auto fallback

Frequency Band: 2.4GHz ISM (Industrial Scientific Medical) Band

Chipset: Realtek

RF Frequency: 2412 ~ 2462 MHz (North America), 2412 ~ 2472 MHz (Europe), 2412 ~ 2484 MHz (Japan)

Radio Channel: 1 ~ 14 channels (Universal Domain Selection)

Range Coverage: Up to 3 times farther range than 802.11g

Antenna Type: Integrated Antenna

Roaming: Full mobility and seamless roaming from cell to cell

RF Output Power: 13 ~17 dBm (Typical)

Modulation: 11n: BPSK, QPSK, 16QAM, 64QAM with OFDM, 11g: BPSK, QPSK, 16QAM, 64QAM, OFDM, 11b: DQPSK, DBPSK, DSSS, CCK

Data Security: 64/128-bit WEP Encryption

WPA, WPA-PSK, WPA2, WPA2-PSK. TKIP/AES

Network: Auto-switch to use 802.11n or 802.11g or 802.11b mode

Supports Ad-Hoc, Infrastructure WLAN network, Wireless roaming, Data rate auto fall-back under noisy environment or longer range distance, Site Survey with Profile function

Configuration & Management: Plug-and-Play setup and installation, Management Utility supports 2000 / XP/ Vista

Media Access Control CSMA/CA with ACK

LED Indicator Link/Active ( Blue )

Operating Temperature 0°C to 40°C

Storage Temperature -20°C to 75°C

Operating Humidity 10% ~ 90% (Non Condensing)

Storage Humidity 5% ~ 95% (Non Condensing)

Requirements: Available USB 2.0 port

[Download drivers \(shouldn't be necessary but in case\) from this site, look for the RTL8188CUS download table](#)