

Radicom Research, Inc.

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www.radi.com**USB WiFi Modules– WiFiHU52 Series****USB Interface**

The Radicom Research WiFiHU52 series is a 5G/2.4GHz WiFi module that easily adds connectivity to virtually any processor-based device. The module is IEEE802.11 b/g/n/ac™ 1T1R WLAN with USB 2.0 interface.

With reliable transmissions, this USB Wireless Ethernet (WLAN) device has extended transmission and receiving ranges with good minimum sensitivity. For legacy compatibility, Direct Sequence Spread Spectrum (DSSS), Complementary Code Keying (CCK) and OFDM baseband processing are included to support all IEEE 802.11a, 802.11b and 802.11g data rates. The compatible coding rate of 1/2, 2/3, 3/4, and 5/6 provides up to 433.3Mbps for IEEE 802.11ac with MIMO-OFDM.

The WiFiHU52 family supports fast receiver Automatic Gain Control (AGC) with synchronous and asynchronous control loops among antennas, antenna diversity functions, and adaptive transmit power control functions to obtain better performance in the analog portions of the transceiver.

The WiFiHU52 series feature Soft AP support. It can turn your Internet connected PC or Laptop into a WiFi Wireless Access Point. So any nearby WiFi devices such as iPhone, iPod, PDA, can connect to the Internet through your sharing.

The WiFiHU52 protects the host with compliance of WPA/WEP/WEP2 security protocols. The module is power efficient.

Models:

- WiFiHU52M : WiFi SMD Module for external antennas
- WiFiHU52M-a/c : WiFi SMD Module with dual on board chip antennas/U.FL connectors
- WiFiHU52S-a/c : WiFi SMD Module with dual on board chip antennas/U.FL connectors
- WiFiHU52-HM-a/c : WiFiHU52M-a/c module mounted on carry board for DIP (through-hole) interface.
- WiFiHU52-NE1-a/c : WiFiHU52-HM-a/c installed in Base Board with USB B Jack.
- WiFiHU52-NE2-a/c : WiFiHU52M-a installed in Base Board with mini USB A Jack.
- WiFiHU52E : WiFi module in Plastic Enclosure with embedded on-board antennas and mini USB A jack
- WiFiHU52E-T : WiFi module in Plastic Enclosure with pig tail USB A type cable
- WiFiHU52D : WiFi dongle with chip antenna and USB A type connector
- WiFiHU-CB1 : Base Board for WiFiHU52-HM DIP module

**Application:**

- Ethernet USB adapter
- Remote connectivity
- Remote monitoring and control
- Test and measurement equipment
- Network gateway adapter

Features:

- Small size: 0.59" x 0.56" x 0.11"(H)
- Extended temperature
- Complies with USB 2.0 for WLAN
- Complete 802.11n MIMO solution for 2.4GHz and 5Ghz band
- Support 802.11ac 1x1, Wave-2 compliant with MU-MIMO STA mode
- Maximum PHY data rate up to 86.7Mbps using 20MHz bandwidth, 200Mbps using 40MHz bandwidth, and 433.3Mbps using 80MHz bandwidth.
- Backward compatible with 802.11a/b/g devices while operating at 802.11n data rates
- Fast receiver Automatic Gain Control (AGC)
- WiFi security using WEP, WPA and WPA2
- Linux 4.4.x up to 5.x support
- Soft-AP Support
- Windows Win7, Win10, Win11 support
- LED output for visual monitoring of link and activity
- FCC/IC/CE certified (pending)
- RoHS 3 compliant