

WUBQ-159ACN(BT)

802.11ac/abgn Dual-Band

1T1R USB Module



Wireless USB Module for Embedded Solution

Dual-Band 802.11ac Solution

SparkLAN WUBM-159ACN(BT) is an 802.11ac/b/g/n 2.4GHz + 5GHz USB module based on Qualcomm QCA9377 chipset. It supports 1T1R with RX diversity (Support Wi-Fi/BT co-existence) technology, which runs up to 433Mbps and 1~3Mbps EDR for BT, provides higher throughput performance, reliability and range. The WUBQ-159ACN(BT) supports 20/40/80MHz and 256-QAM to maximize bandwidth efficiency.

Embedded Application :

Applications include medical devices, security systems, industrial, PoS, digital signs, Gaming machine, Medical equipment, thin client devices, and many more.

Key Feature :

- Qualcomm Atheros QCA9377-7
- Antenna: Printed antennas or 1 x U.FL connectors (optional), 1T1R
- Data Rates: allows link speeds up to 433Mbps.
- Support Win7, Win8.1, Win10

Specification:

| | |
|----------------------------------|---|
| | IEEE 802.11ac/a/b/g/n (1T1R), Bluetooth V4.1,V4.0 LE, V3.0+HS, V2.1+EDR |
| Chipset: | Qualcomm Atheros QCA9377-7 |
| Data Rate: | 802.11b: 11Mbps / 802.11a/g: 54Mbps / 802.11n: MCS0 ~ 7/ 802.11ac: MCS0 ~ 9 Bluetooth: 1Mbps, 2Mbps and up to 3Mbps EDR |
| Operating Frequency: | IEEE 802.11 ac/a/b/g/n ISM Band, 2.412GHz ~ 2.472GHz, 5.180MHz ~ 5.825MHz *Subject to local regulations |
| Interface: | WLAN: USB, Bluetooth: USB |
| Form Factor: | USB Type A / Pin Header |
| Antenna: | Printed antennas or 1 x U.FL connectors (optional) Support WLAN / BT co-existence |
| Modulation: | 802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11a/g: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11n: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11ac: OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM) |
| Power consumption | TX: TBD / RX: TBD |
| Operating Voltage: | DC 5V |
| Temperature Range: | -20°C to +70°C (Operating) / -30°C to +85°C (Storage) |
| Humidity (Non-Condensing) | Operating Humidity (non-condensing): 5% ~ 90% Storage Humidity (non-condensing): 5% ~ 95% |
| Dimension (in mm): | 40mm x 20.3mm |
| Weight (g): | TBD |
| Driver Support: | Windows7, Windows8.1, Windows 10 |
| Security | 64/128-bits WEP, WPA, WPA2, 802.1x |

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- . Reorient or relocate the receiving antenna.
- . Increase the separation between the equipment and receiver.
- . Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- . Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

End Product Labeling

This transmitter module is authorized only for use in devices where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in visible area with the following: **“Contains FCC ID: RYK-WUBQ159ACNBT”**

End Product Manual Information

The user manual for end users must include the following information in a prominent location “IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be colocated or operating in conjunction with any other antenna or transmitter.” This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) This device may not cause harmful interference and (2) This device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE: In the event that these conditions can not be met (for example certain laptop configurations or colocation with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for reevaluating the end product (including the transmitter) and obtaining a separate FCC authorization. This device is intended only for OEM integrators under the following conditions: The antenna must be installed such that 20 cm is maintained between the antenna and users. As long as a condition above is met, further transmitter test will not be required. However, the OEM integrator is still

responsible for testing their end product for any additional compliance requirements required with this module installed (for example, digital device emissions, PC peripheral requirements, etc.).