



VCB-5001LN-WV2 User Manual

RTL8195AM 802.11b/g/n 1Tx1R WIFI Module

Rev. 1.0
2017/12/06

Notice:

1. Delta Networks Inc. reserves the right to change specifications detailed in this document at any time without notice, and assumes no responsibility for any errors within this document.
2. This document contains proprietary technical information in which is the property of the Delta Networks inc. and shall not be disclosed to others in whole or in part, reproduced, copied, or used as the basis for design, manufacturing, or sale of apparatus without written permission of Delta Networks Inc.

Table of Content

1. PRODUCT OVERVIEW	1
1.1. GENERAL DESCRIPTION	3
1.2. FEATURES	3
2. REVISION HISTORY	4

1. Product Overview

1.1. General Description

The VCB-5001LN-WV2 is a data collector module which can collect data from other devices via TTL UART serial port and then send out data via WIFI or Ethernet. This device is built in Realtek RT8195AM which is a highly integrated single-chip low power 802.11n Wireless LAN network controller. The RTL8195AM combines an ARM-Cortex M3 MCU, WLAN MAC, a 1T1R capable WLAN baseband, and RF in a single chip. It provides useful high speed connectivity interfaces, such as USB2.0 host, USB2.0 device, SDIO device, and MII/RMII interfaces. It also provides a bunch of configurable GPIOs which are configured as digital peripherals for different applications and control usage.

1.2. Features

- 802.11b/g/n compatible WLAN
- Up to 150 Mbps data rate
- TTL UART interface
- 10/100Mb Ethernet interface
- One 12-pin header connector

Standard	IEEE 802.11b/g/n
Data Rate	54, 48, 36, 24, 18, 12, 9, 6 20 MHz BW: ~72.2M 40 MHz BW: ~150M
Modulation	DSSS with DBPSK and DQPSK, CCK modulations with long and short preamble. OFDM with BPSK, QPSK, 16QAM, and 64QAM modulations, QPSK, 16QAM, 64QAM and 256QAM modulations.
Operating Frequencies	2.4GHz
Antenna Connector	SMA male

2. Revision History

Revision	Date	By Whom	Remark
1.0	2017/12/06	Wronski.Su	▪ Initialize
			▪
			▪

Federal Communication Commission (FCC) Radiation Exposure Statement

When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.

FCC statements:

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.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

A certified modular has the option to use a permanently affixed label, or an electronic label.

For a permanently affixed label, the module must be labelled with an FCC ID:

2AMVP-VCB5001LNW. The OEM manual must provide clear instructions explaining to the OEM the labelling requirements, options and OEM user manual instructions that are required

For a host using a this FCC certified modular with a standard fixed label, if (1) the module's FCC ID is not visible when installed in the host, or (2) if the host is marketed so that end users do not have straightforward commonly used methods for access to remove the module so that the FCC ID of the module is visible; then an additional permanent label referring to the enclosed module:

"Contains Transmitter Module FCC ID: 2AMVP-VCB5001LNW or "Contains FCC ID: 2AMVP-VCB5001LNW " must be used. The host OEM user manual must also contain clear instructions on how end users can find and/or access the module and the FCC ID.

Host product is required to comply with all applicable FCC equipment authorizations regulations, requirements and equipment functions not associated with the transmitter module portion. compliance must be demonstrated to regulations for other transmitter components within the host product; to requirements for unintentional radiators (Part 15B). To ensure compliance with all non-transmitter functions the host manufacturer is responsible for ensuring compliance with the module(s) installed and fully operational. If a host was previously authorized as an unintentional radiator under the Declaration of Conformity procedure without a transmitter certified module and a module is added, the host manufacturer is responsible for ensuring that the after the module is installed and operational the host continues to be compliant with the Part 15B unintentional radiator requirements. Since this may depend on the details of how the module is integrated with the host, we suggest the host device to recertify part 15B to ensure complete compliance with FCC requirement: Part 2 Subpart J Equipment Authorization Procedures , KDB784748 D01 v07, and KDB 997198 about importation of radio frequency devices into the United States.

*This module is not include external antenna, the testing antennal parameters are as below:

Vender: Shenzhen South Star Technology Co., LTD

P/N: N12-3869-R0A

Antenna type: Rod antenna

Frequency: 2400 MHz ~2500 MHz

VSWR: < 2

Efficiency: >50%

Impedance: 50 Ohm

Polarization: Linear

Gain: 0dbi

Please use the antenna same type and gain as the testing antenna as above.

The applied module is likely to be installed to mobile platform with other transmitter, and portable platform that requires further evaluation.

This device is intended for OEM integrators only.