

VANCH VM-M50 Integrated UHF RFID Reader Module User Manual

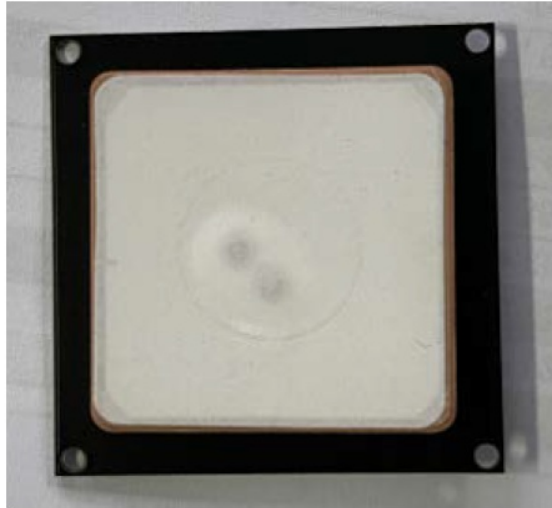
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VANCH VM-M50 Integrated UHF RFID Reader Module



Product Information: Integrated UHF RFID Reader Module VMM50

Shenzhen VANCH Intelligent Technology Co. ,Ltd presents the Integrated UHF RFID Reader Module VMM50. This module offers a range of features to enhance label reading capabilities and ensure a stable performance.

Product Features:

- Sensitive and stable label reading
- Stable reading distance of 0-2.5m
- Multi-label reading performance of over 50pcs
- Fast reading speed

Product Usage Instructions

1. Connect the Integrated UHF RFID Reader Module VMM50 to a power source using the provided power cable.
2. Ensure that the module is securely connected to the host device using the appropriate interface (e.g., USB, RS232, Ethernet).
3. Power on the module and wait for it to initialize. The LED indicators on the module will indicate the status.
4. Place the RFID labels within the reading range of 0-2.5m from the module's integrated antenna.
5. The module will automatically read the labels within its range.
The label reading process is sensitive and stable, ensuring accurate data capture.
6. To achieve multi-label reading, ensure that the labels are positioned properly and not overlapping. The module is capable of reading over 50pcs of labels simultaneously.
7. The module operates at a fast reading speed, allowing for efficient data collection.
8. After use, power off the module and disconnect it from the host device.

For detailed information on installation, troubleshooting, and advanced settings, please refer to the complete user manual provided with the Integrated UHF RFID Reader Module VMM50.


Product Feature

- Integrated antenna characteristics

1. The label reading is sensitive and stable.
 2. 0-2.5m stable reading distance.
 3. Multi-label reading performance: >50pcs.
 4. Reading speed: <50pcs/second.
- Solve the problem of heat completely:
 1. No need to connect any external heat sink. Long-term continuous full-load work without heat at room temperature.
 2. Sustain electricity<200mA @ 3.5V (26 dBm Output). Pulse peak current<260mA.
 - Outstanding stability:
 1. 24 hours x 365days work normally.
 2. Performance little influenced by cover, electromagnetic environment etc.
 3. Wide temperature design, extremely low temperature drift coefficient.
 - Excellent consistency:
 1. A model of consistent design.
 2. Choose the top level components to keep each parameters stable and consistence.
 - Brief and high efficient interface of hardware and software:
 1. Peripheral circuit is very easy. The signal power, no need for extra connecting tantalum capacitor.
 - Installation method: Support 5pin WAFER installation.

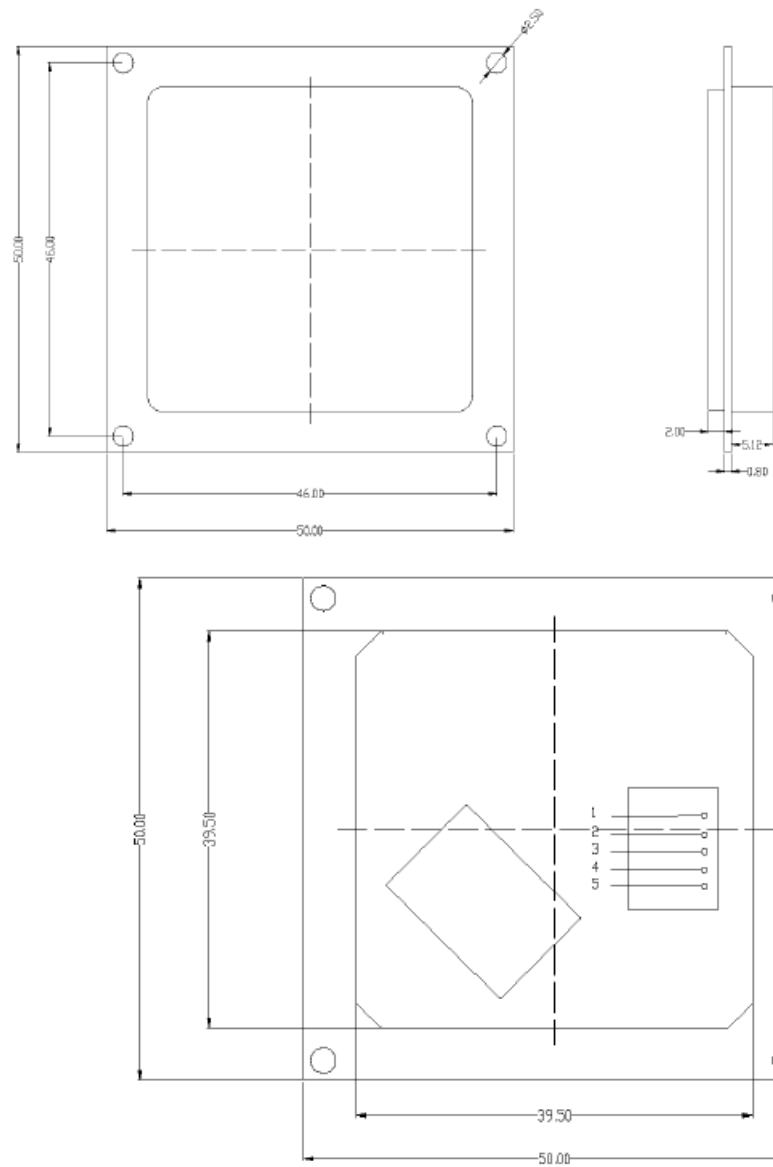
Parameters

Model No.	VM-M50
Electrical parmeters	
Working Voltage	DC 3.5~ 5 V
PCB Size	Pcb size: 50*50mm ,Ceramic antenna size: 40*40mm, Overall height: 8.5mm
Standby Current	<80mA (EN pin high level)

	Tel 0755-82426775	Fax: 0755-82403457-600
	Website: www.vanch.cn	E-mail: sales@vanch.net
	Add: 4/F, the West of Building B, Fuanna Industrial Park, No.1 Qingning Road,	

Working Current	180mA @5V (26 dBm Output 25°C)
Operating Time	<100mS
Operation temp.	- 20 °C - + 70 °C
Storage temp.	- 20 °C - + 85 °C
Working humidity	< 95% (+ 25 °C)
Protocol	EPCglobal UHF Class 1 Gen 2 / ISO 18000-6C
Frequency	902~928MHZ
Supported Working Areas	US, Canada and other regions following U.S. FCC Europe and other regions following ETSI EN 302 208 Mainland China Japan
Output Power Range	18-26 dBm
Read/Write	Read: 0-250cm; Write:0-50cm (Adjustable)
Output Power Accuracy	+/- 1dB
Output Power Flatness	+/- 0.2dB
Receive Sensitivity	< -70dBm
Store Tag Peak Speed	> 50pcs/sec
Tags storage capacity	200pcs tag @ 96 bit EPC
Tag RSSI	Support
Communication Interface	TTL Uart interface FPC
Communication Baud Rate	115200 bps (default and recommend)
Heat-dissipating method	Air cooling(no need for out install cooling fin)

Connector PIN definition and structural drawings:



5p transposon definition:

PIN	Definition	Explanation
1	–GND	
2	–EN	High level enable module
3	— Module RX	

4	–Module TX	
5	–VCC	Power DC 3.5V-5V
The antenna is welded to the PCB board by the antenna pin		

FCC Statement

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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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 or more 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 Radiation Exposure Statement

This modular complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

Shenzhen VANCH Intelligent Technology Co., Ltd./ADS-BLEnRF1-ANT902MHz ~ 928MHz: 2.5dBi

Host product manufacturers that they need to provide a physical or e-label stating, "Contains FCC ID: 2A3H9VM-M50 " with their finished product.

The host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. The final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.

The final host integrator must ensure there is no instruction provided in the user manual or customer documentation indicating how to install or remove the transmitter module except such device has implemented two-ways authentication between module and the host system.

The final host manual shall include the following regulatory statement: This equipment has been tested and found to comply with the limits. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

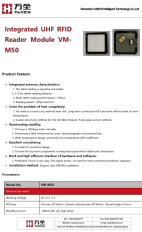
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This module has been tested and found to comply with part 15.247 requirements for Modular Approval.

Note: 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 or more of the following measures:

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Documents / Resources

	<p>VANCH VM-M50 Integrated UHF RFID Reader Module [pdf] User Manual VM-M50, 2A3H9VM-M50, 2A3H9VMM50, VMM50, Integrated UHF RFID Reader Module, VM-M50 Integrated UHF RFID Reader Module, UHF RFID Reader Module, RFID Reader Module, Reader Module, Module</p>
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References

- [17 RFID , , ,RFID](#)