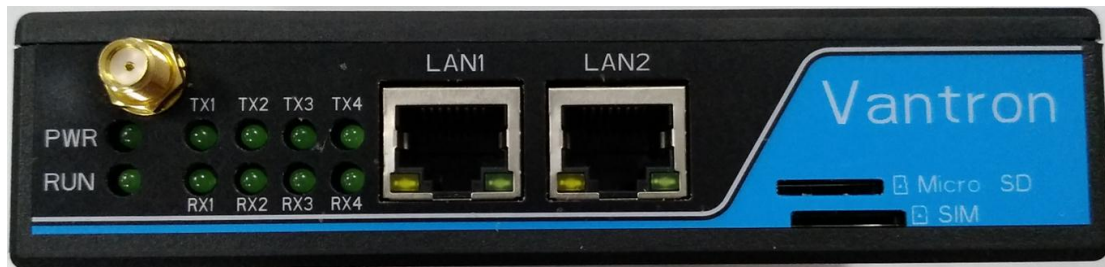

VT-M2M-C335

User's Manual



Vantron Technology
www.vantrontech.com

Revision History:

No.	Version	Description	Date
1	V1.0	First release	2018.6.5
2	V2.0	2 nd release	2018.9.26
3	V3.0	3 nd release	2019.3.1

Table of Contents

1 Foreword	4
1.1 Copyright Notice.....	4
1.2 Notes	4
1.3 Statement	4
1.4 Disclaimer	4
1.5 Limitation of Liability/Non-warranty	5
1.6 Safety Instructions.....	5
1.7 Precautions.....	5
1.8 Safety Instructions for Power Cables and Accessories	5
2 Overview	7
2.1 Introduction	7
3 VT-M2M-C335 Hardware Instructions	8
3.1 Product Appearance.....	8
3.2 Specifications	9
3.3 Dimension	11
3.4 Interface Description	12
3.4.1 User Interface(RS485 Optional)	13
3.4.2 3.5mm Debug Port(AM3352).....	13
Tips	14

1 Foreword

1.1 Copyright Notice

While all information contained herein have been carefully checked to assure its accuracy in technical details and printing, Vantron assumes no responsibility resulting from any error or features of this manual, or from improper uses of this manual or the software. Please contact our technical department for relevant operation solutions if there is any problem that cannot be solved according to this manual.

Vantron reserves all rights of this manual, including the right to change the content, form, product features, and specifications contained herein at any time without prior notice. The latest version of this manual is at www.vantrontech.com.cn. Please contact Vantron for further information:

Vantron Technology (Vantron)



E-mail: sales@vantrontech.com

The trademarks and registered trademarks in this manual are properties of their respective owners. No part of this manual may be copied, reproduced, translated or sold. No changes or other purposes are permitted without the prior written consent of Vantron.

Vantron reserves the right of all publicly-released copies of this manual.

1.2 Notes

Applicable notes are listed in the following table:

Sign	Notice Type	Description
	Notice	Important information and regulations
	Caution	Caution for latent damage to system or harm to personnel

1.3 Statement

It is recommended to read and comply with this manual before operating VT-M2M-C335 which provides important guidance and helps decreasing the danger of injury, electric shock, fire, or any damage to the device.

1.4 Disclaimer

Vantron assumes no legal liability of accidents resulting from failure of

conforming to the safety instructions.

1.5 Limitation of Liability/Non-warranty

For direct or indirect damage to this device or other devices of Vantron caused by failure of conforming to this manual or the safety instructions on device label, Vantron assumes neither warranty nor legal liability even if the device is still under warranty.

The VT-M2M-C335 should be installed, debugged and maintained by professional people.

The outside antennas are not permitted to be installed or to be changed by non-professional people. To run the device normally, only specify antennas are approved to be assembled together by professional people.

Unit shall be used with indoor-use antenna only. No antenna for this unit can be installed outdoor.

1.6 Safety Instructions

- ✧ Keep and comply with all operation instructions, warnings, and information.
- ✧ Pay attention to warnings on this device.
- ✧ Read the following precautions so as to decrease the danger of injury, electric shock, fire, or any damage to the device.

1.7 Precautions

- ✧ Pay attention to the product labels/safety instructions printed on silk screens.
- ✧ Do not try repairing this product unless declared in this manual.
- ✧ Keep away from heat source, such as heater, heat dissipater, or engine casing.
- ✧ Do not insert other items into the slot (if any) of this device.
 - Keep the ventilation slot ventilated for cooling.
 - System fault may arise if other items are inserted into this device.
- ✧ Installation: ensure correct installation according to instructions from the manufacturer with recommended installation tools.
- ✧ Ensure ventilation and smoothness according to relevant ventilation standard.

1.8 Safety Instructions for Power Cables and Accessories



Proper power source only

Start only with power source that satisfies voltage label and the voltage necessary according to this manual. Please contact technical support personnel of Vantron for any uncertainty about the requirements of necessary power source.



Use tested power source

This product still contains a button lithium battery as a real-time clock after its external power source is removed and therefore should not be short-circuited during transportation or placed under high temperature.



Place cables properly:

Do not place cables at any place with extrusion danger.



Cleaning Instructions

- ✧ Please power off before cleaning the device.
- ✧ Do not use spray detergent.
- ✧ Clean with a damp cloth.
- ✧ Do not try cleaning exposed electronic components unless with a dust collector.
- ✧ Support for special fault: Power off and contact technical support personnel of Vantron in case of the following faults:
 - The device is damaged.
 - The temperature is excessively high.
 - Fault is still not solved after the operation according to the manual.

2 Overview

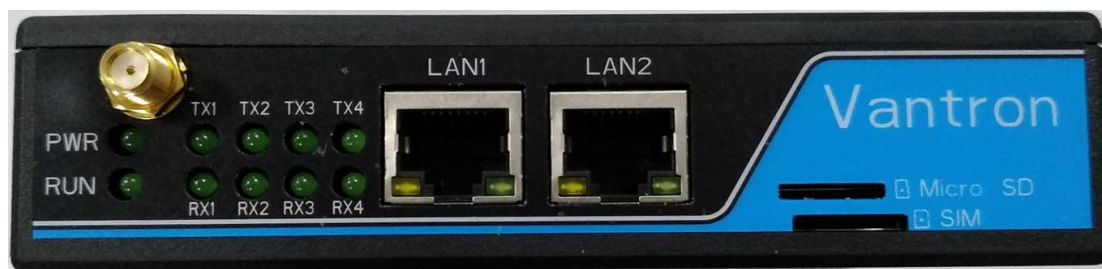
2.1 Introduction

Thank you for choosing Vantron. It is our commitment to provide our valued customers with the embedded devices equipped with the state-of-the-art technology and the best product services.

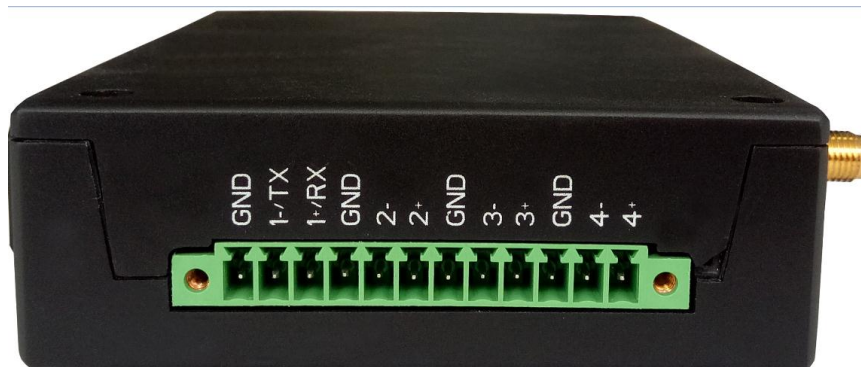
Vantron's M2M products are based on the most advanced ARM and Intel Atom processors and have low-power consumption and high integration. The products are designed for applications of M2M in industrials, medicals, financial, retail, vehicle, and transportations etc.

3 VT-M2M-C335 Hardware Instructions

3.1 Product Appearance



Front View



Left View



Right View

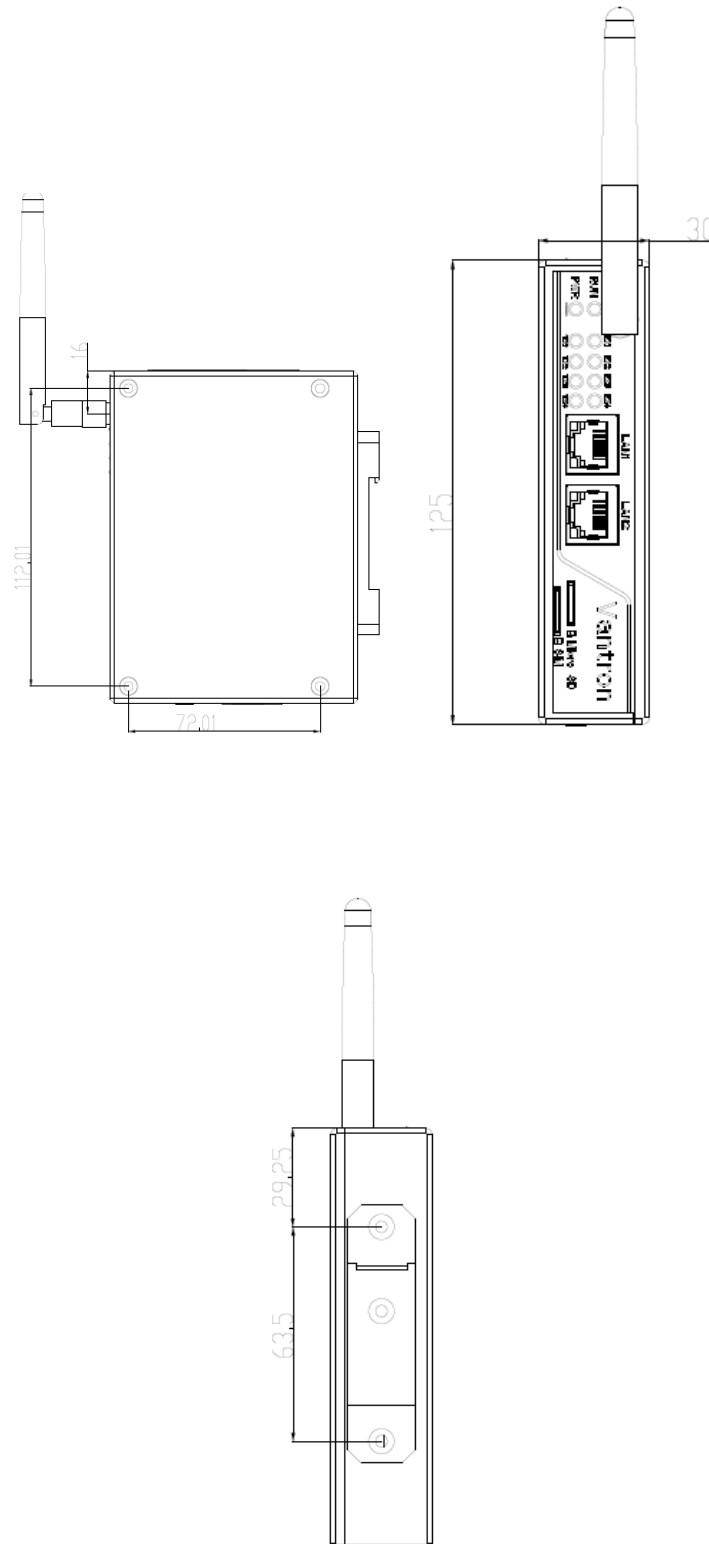
3.2 Specifications

Features	
■ CPU:	TI, AM335x Series, ARM Cortex-A8, 32-Bit RISC Microprocessor, Support wide operating frequency range from 275MHz to 1GHz
■ DDR3L	800MHz, 1GB, EMMC 4.5, 16GB
■ 1xMicro SD Card	
■ 2x100-BaseT Ethernet	
■ 4G Module with SIM slot,(or 3G Module with SIM slot)	
■ 1xRS232/RS485,3xRS485,1xdebug RS232	
■ GPIO:	4xGPIO
■ 1XCAN 2.0b,1xSPI,1xUSB	
■ Linux	
■ Rugged Design	
■ Power Input, Wide Range (12-48V), Terminal	

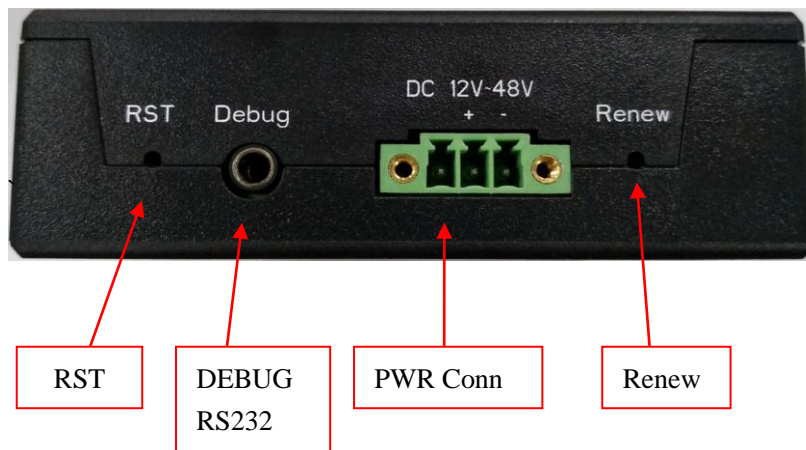
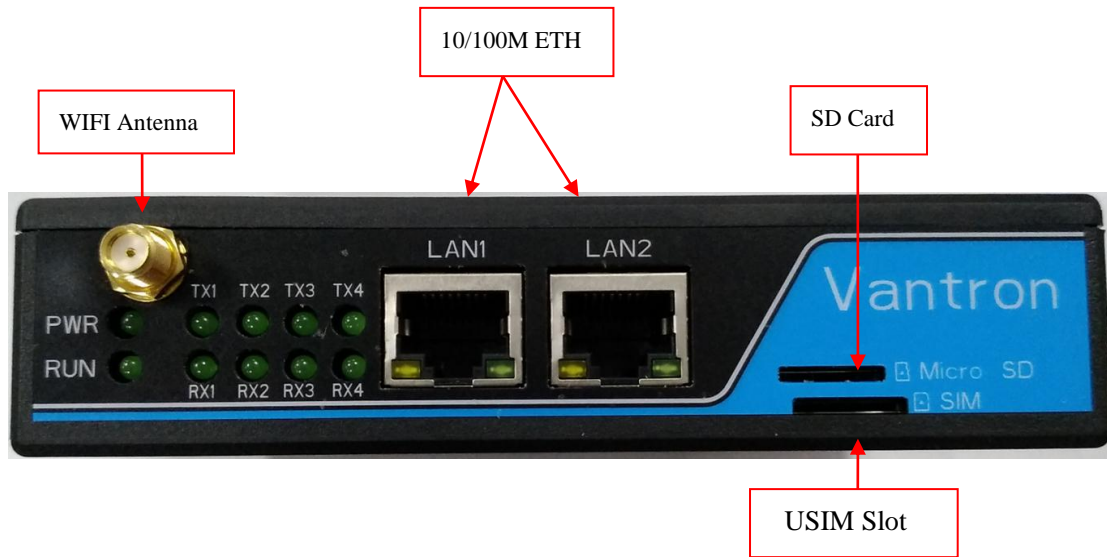
Specifications		
CPU	Processor	TI, AM3352, ARM Cortex-A8, 32-Bit, 1GHz Low Power Processor
	On Board RAM	DDR3L 800MHz, 1GB
Memory	EMMC5.1	16GB
	Wireless Communication	1x PCIe Slot for 4G(or 3G) Broad Band Module with SIM slot (USB Interface Indeed) Option for UART Interface Option for GPRS module internal in UART interface.
Peripheral Interfaces	Ethernet	2x100M
	SD card	1x Micro SD card
	COM Port	1xUART,for debug RS232 1xUART, RS232 or RS485(Isolate OPT) 3xUART,RS485(Isolate OPT)
	USB	1xUSB
	CAN	1xCAN 2.0b (optional on Terminal)
	GPIO	Optional: 2xGPIO
	RTC	Supported, separately RTC chip

Software	Control	Button of Restored to Default setting, Reset Button
	OS	Linux
	Applications	Provide SDK
Power	Input	Wide Range (12-48V), 3x3.81mm Green Terminal
	Consumption	1.8W Average (without 4G,GPS,LORA,WLAN,BT)
Mechanical	Dimensions	
	Install Brackets	
	Weight	0.95Kg (1.3Kg package Kit)
	Enclosure	Sheet Metal with Black Color
Environment Condition	Temperature	Operating: -20°C ~ +80°C
		Storage: -40°C ~ +105°C
	Humidity	5-95%RH at 25-35 (Non-Condensation)
	Approvals	RoHS Compliance UL, FCC Class B, and CE in processing.

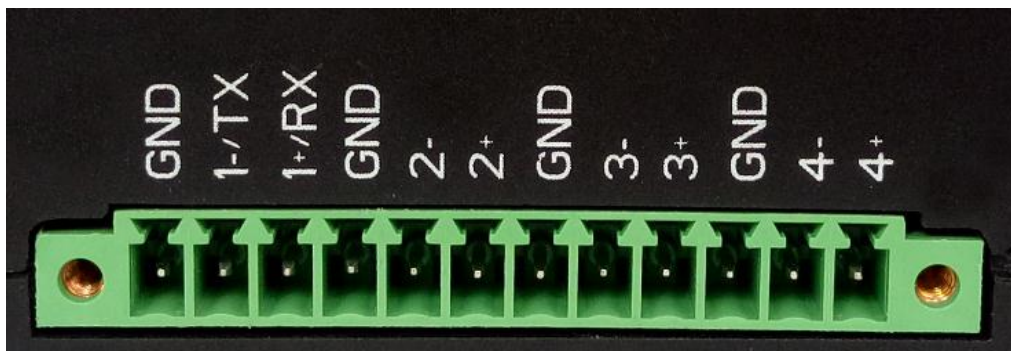
3.3 Dimension



3.4 Interface Description

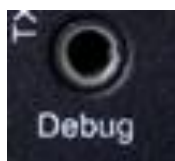


3.4.1 User Interface(RS485 Optional)



PIN1	PIN2	PIN3	PIN4	PIN5	PIN6	PIN7	PIN8	PIN9	PIN10	PIN11	PIN12
GND	485_1-/TX	485_1+/RX	GND	485_2-	485_2+	GND	485_3-	485_3+	GND	485_4-	485_4+

3.4.2 3.5mm Debug Port(AM3352)



Pin	Description
1	GND
2	TXD(232)
3	RXD(232)

Tips



Waste Disposal

It is recommended to disassemble the device before abandoning it in conformity with local regulations. Please ensure that the abandoned batteries are disposed according to local regulations on waste disposal. Do not throw batteries into fire (explosive) or put in common waste canister. Products or product packages with the sign of “explosive” should not be disposed like household waste but delivered to specialized electrical & electronic waste recycling/disposal center. Proper disposal of this sort of waste helps avoiding harm and adverse effect upon surroundings and people’s health. Please contact local organizations or recycling/disposal center for more recycling/disposal methods of related products.

Comply with the following safety tips:



Do not use in combustible and explosive environment

Keep away from combustible and explosive environment for fear of danger.

Keep away from all energized circuits.

Operators should not remove enclosure from the device. Only the group or person with factory certification is permitted to open the enclosure to adjust and replace the structure and components of the device. Do not change components unless the power cord is removed. In some cases, the device may still have residual voltage even if the power cord is removed. Therefore, it is a must to remove and fully discharge the device before contact so as to avoid injury.



Unauthorized changes to this product or its components are prohibited.

In the aim of avoiding accidents as far as possible, it is not allowed to replace the system or change components unless with permission and certification. Please contact the technical department of Vantron or local branches for help.



Pay attention to caution signs.

Caution signs in this manual remind of possible danger. Please comply with relevant safety tips below each sign. Meanwhile, you should strictly conform to all safety tips for operation environment.



Notice

Considering that reasonable efforts have been made to assure accuracy of this manual, Vantron assumes no responsibility of possible missing contents and information, errors in contents, citations, examples, and source programs.

Vantron reserves the right to make necessary changes to this manual without prior notice. No part of this manual may be reprinted or publicly released in for

Vantron

US Office: Vantron Technology, Inc.

Address: 440 Boulder Court, Suite 300

Pleasanton, CA 94566

Tel: 916-202-7042

Email: sales@vantrontech.com

China Office: Chengdu Vantron Technology, Ltd

Address: 6th floor, 1st building, No.9, 3rd WuKe East Street, WuHou District,
Chengdu, P.R. China 610045

Tel: 86-28-8512-3930/3931, 8515-7572/6320

Email: sales@vantrontech.com.cn