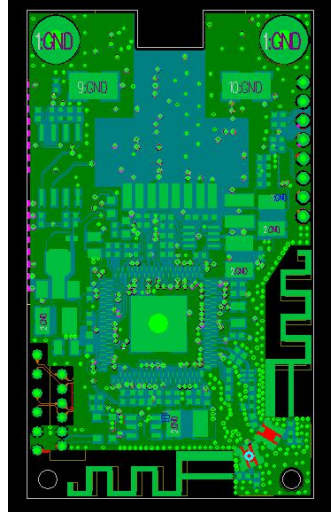


VM300-L and VM300-H Module Specifications

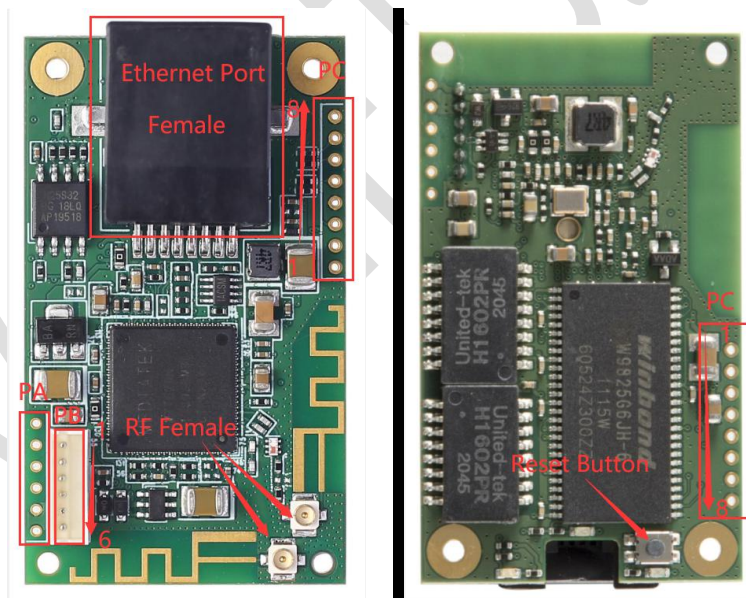
1. Features (PCB version: 4.0/5.0)

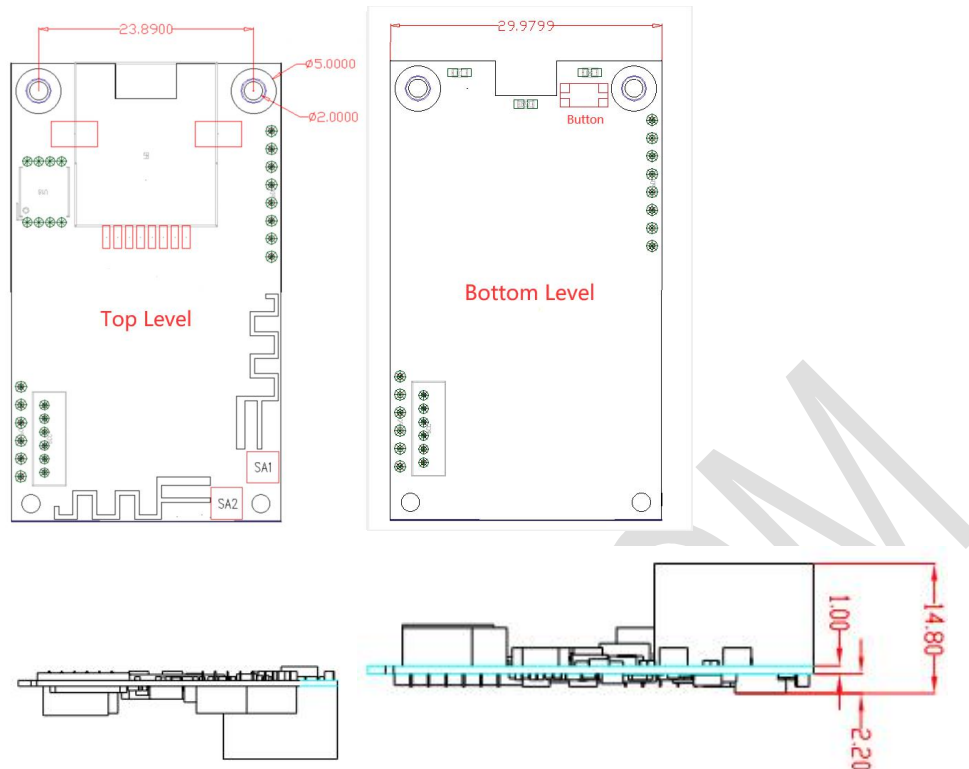
1.1 Hardware Features

- Top view screenshot:



- Module packaging:





- Two hardware versions: Internal PCBA Antenna (VM300-L) and external antenna (VM300-H)
- Two external antenna RF female sockets (VM300-H only)
- Comes with a button to restore factory parameters
- Wide power supply working voltage: DC5V--15V
- Support power input overvoltage protection function (power supply voltage exceeds 15.5V automatically power down)
- Main chip: MT7620N, 580MHz
- 32MB SDRAM, can be expanded to 64MB; 4MB SPI Flash, can be expanded to 16MB (Byte)
- WiFi working frequency band: 2.4GHz, 2T2R dual antenna, 300Mbps transmission rate
- Support 1--14 WiFi channels
- Rated average power consumption <2W
- Module RF output power 14.5dbm/16dbm (two levels of output power can be optional)
- Support temperature compensation and frequency stabilization technology (TAFC) to ensure the stability of WiFi signal.
- Support 802.11b/g/n protocol
- Working environment temperature: -25°C -- 55°C

1.2 Function Features

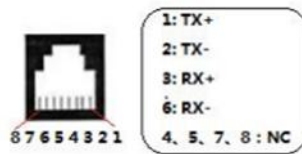
- Two software-controllable working modes: router mode, bridge + repeater mode
- Support intelligent transparent bridge mode, and support AP Client and AP Station at the same time
- Support VDNS technology, use domain name to log in to the configuration page in bridge mode
- The relevant parameters of the device can be configured through the WEB page configuration or the VCC mobile phone APP
- Software adjustable two-level WiFi RF output power (14.5dbm/16dbm)
- WiFi hotspot memory, maximum memory 100 hotspots;
- Support connecting more than 20pcs WiFi terminal at the same time;
- Support SSA 1.2 version signal strength remote center alarm protocol
- Support VONETS-Configuration Management Protocol V2.3 (confidential)
- Support transparent transmission of serial and network data (VONETS-UART_UDP or TCP data forwarding instructions 3.0)
- Online software upgrade
- The main functional interfaces are as follows:

| Female interface Subinterface | 6PIN female (PB) | 6PIN pin interface (PA) | 8PIN pin interface (PC) | RJ45 female | Description |
|--|------------------|-------------------------|-------------------------|-------------|---|
| VIN+ | √ | √ | | | DC5V--15V |
| WAN | | | | √ | Software control interchangeable |
| LAN | √ | √ | | | |
| WAN status indication | | | √ | | 1. MOS tube open circuit output, built-in 330Ω limit flow resistance 2. Output current: 10mA |
| WiFi bridge connection status indication | | | √ | | 1. MOS tube open circuit output, built-in 330Ω limit flow resistance 2. Output current: 10mA |
| Reset signal input | | | √ | | Restore factory parameters |
| UART | | | | | Used for transparent transmission between serial port and network data |

2. Hardware Interface Details

| Female interface Subinterface | Hardware pin definition (PIN) | | | Description |
|-----------------------------------|----------------------------------|----------------------------------|-----|---|
| | PA | PB | PC | |
| VIN+ | 6 | 6 | | DC5V--15V, the input voltage ripple is required to be less than 100mV, otherwise it will affect the WiFi transmission performance |
| GND | 5 | 5 | 8、4 | Module ground |
| LAN | 1:RX- 2:RX+ 3:TX- 4:TX+ | 1:RX- 2:RX+ 3:TX- 4:TX+ | | |
| LAN Port Status Indication Output | | | 3 | 1. MOS tube open circuit output, built-in 330Ω current limiting resistor 2. Output current: 10mA |
| WAN Port Status Indication Output | | | 2 | 1. MOS tube open circuit output, built-in 330Ω current limiting resistor 2. Output current: 10mA |
| WiFi Status Indication Output | | | 1 | 1. MOS tube open circuit output, built-in 330Ω current limiting resistor 2. Output current: 10mA |
| Reset Signal Input | | | 5 | After the module works normally, keep the low level for more than 3 seconds, the module will restore the factory parameters (less than 0.6V is the low level) |
| UART-TX | | | 6 | TX signal line of UART used for serial port transparent transmission, TTL level output |
| UART-RX | | | 7 | RX signal line of UART used for serial port transparent transmission, TTL level input |

Standard RJ45 female socket pin definition reference



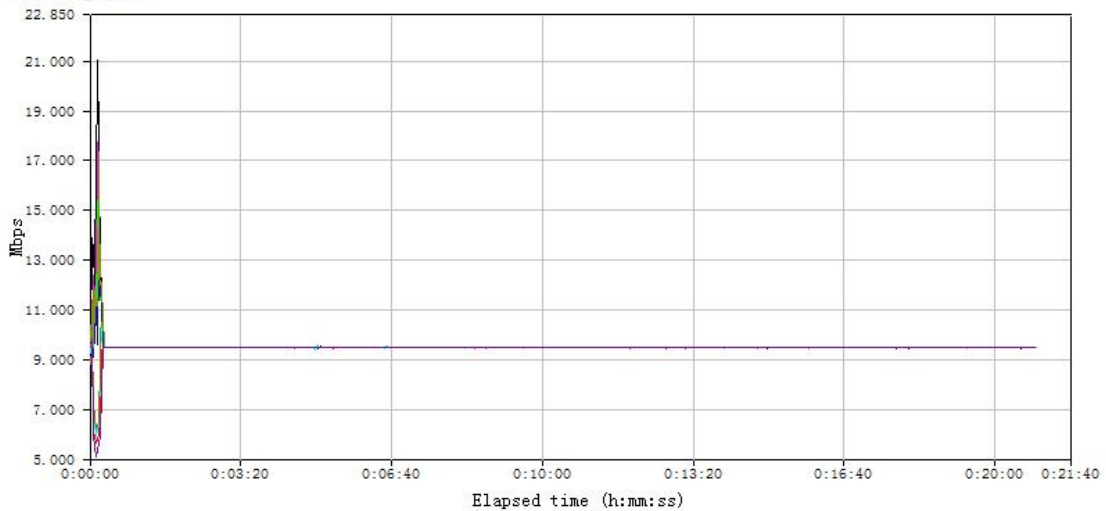
3. Electrical Performance Parameters

| 1. Power Supply Parameters | | | | |
|--|---------------|----------------------|----------------------------|--------------------------------|
| Supply voltage range | Input power | Typical power supply | Power ripple | Protection voltage upper limit |
| DC5-15V | ≥5W | 5V/1A | <100mV | 15.5V |
| 2. Measured table of performance parameters of working electrical appliances (aMBient temperature: 27°C) | | | | |
| Supply voltage | Work Stage | Working current (mA) | Main chip temperature (°C) | |
| 5V | Booting | 80-270 | 27-43 | |
| | Standby | 180-259 | 46 | |
| | transfer data | 450-580 | 70 | |

4. Network throughput test

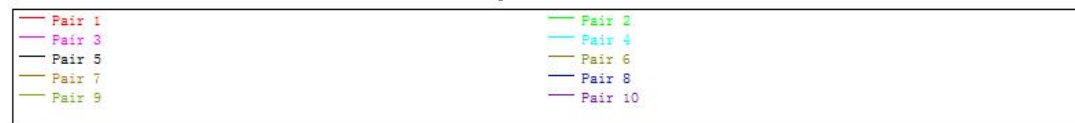
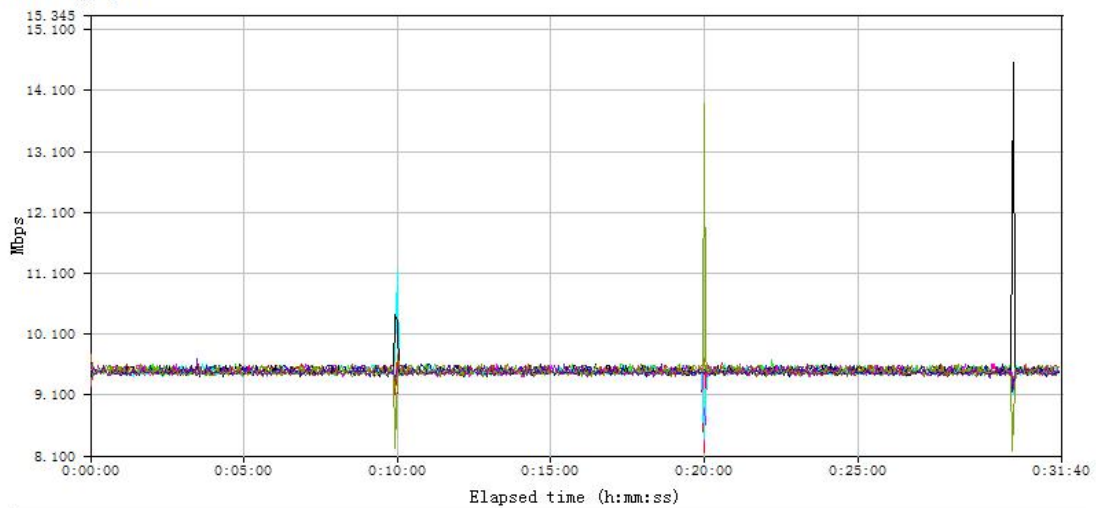
- VM300-L throughput test fluctuation graph:

Throughput



- VM300-H throughput test fluctuation graph:

Throughput



We belong to China, we also belong to the World.



5. Supplied accessories

- Two 3dBi external antennas of VM300-H with RF cable buckle



VONETS.COM

I' m a grain of sand on the beach, but I can be found in public...

[HTTP://WWW.VONETS.COM](http://www.vonets.com)