

GAINSTRONG

RM03-4G_SPEC_EN

Specification Version 1.0.0

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Rev.	Date	Contents of Revision Change	Remark
1.0.0	2021-08-25	initial version	WSY

1.PRODUCT OVERVIEW

General Description

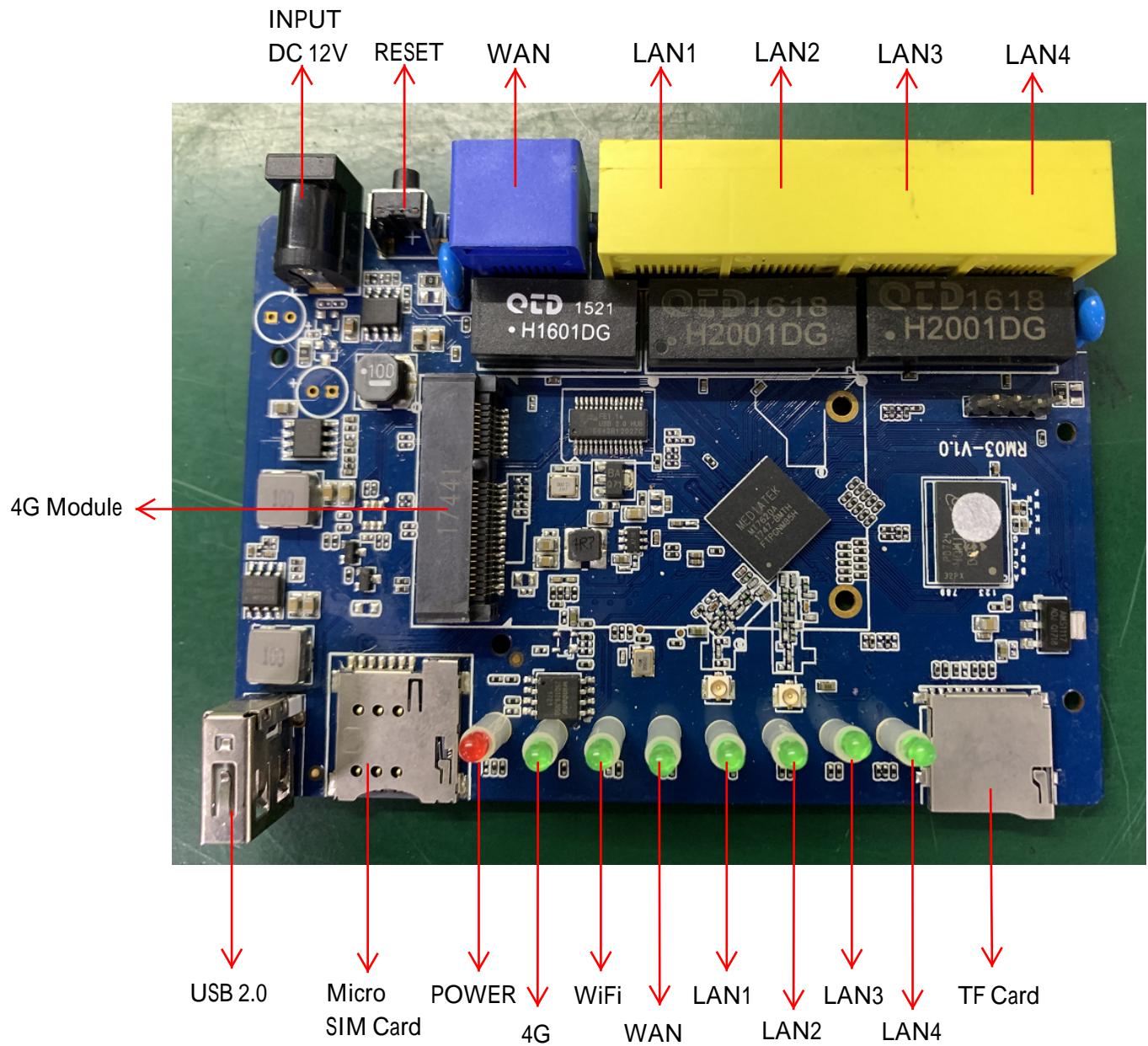
RM03-4G is exquisite portable and small wireless router that supports 802.11b/g/b 2x2 2.4GHz WIFI. It compatible 802.11 a/b/g/n maximum wireless rate can reach to 300Mbps. It is made up of base board and module.The base board use the MT7620A chip that is a highly integrated and feature-rich IEEE802.11 b/g/n 2x2 2.4 GHz System-on-a-Chip (SoC) for advanced WLAN platforms.

RM03-4G has 5 FE RJ45 ports which support both wired connection and wireless connection at the same time.it allowsusers not only able to share their internet by wired connection but also wireless connection.Its power consumption is very low.Motherboard also supports a USB2.0 interface, a TF card interface, user and expansion features

Features:

- CPU: 7620A Embedded MIPS24KEc (580 MHz) with 64 KB I-Cache and 32 KB D-Cache
- WiFi: 802.11 b/g/n 2*2 2.4GHz 300Mbps
- RAM: 64MB/128MB/256MB DDR2 RAM(Optional)
- Flash: 8MB/16MB/32MB/64MB SPI NOR Flash(Optional)
- Transmit power :11b 18dBm ±2dBm ,11g 15dBm ±2dBm ,11n 15dBm ±2dBm
- Power supply: DC 12V/2A
- NetPort: 1 WAN + 4 LAN (10M/100M Adaptive)
- Support TF Card
- Antenna: 2 * WiFi External antenna , 1*4G External antenna(Standard version no include 4G module)
- 1 * RESET Button
- 1 * UART console(In the housing)
- 1* 4G Mini-Pcie Card(Support plug Micro SIM card)
- Maximum power consumption <5W
- Support one-key reset function
- Support one-click web flashing
- Multiple wireless encryption methods to ensure data security

2.Interface

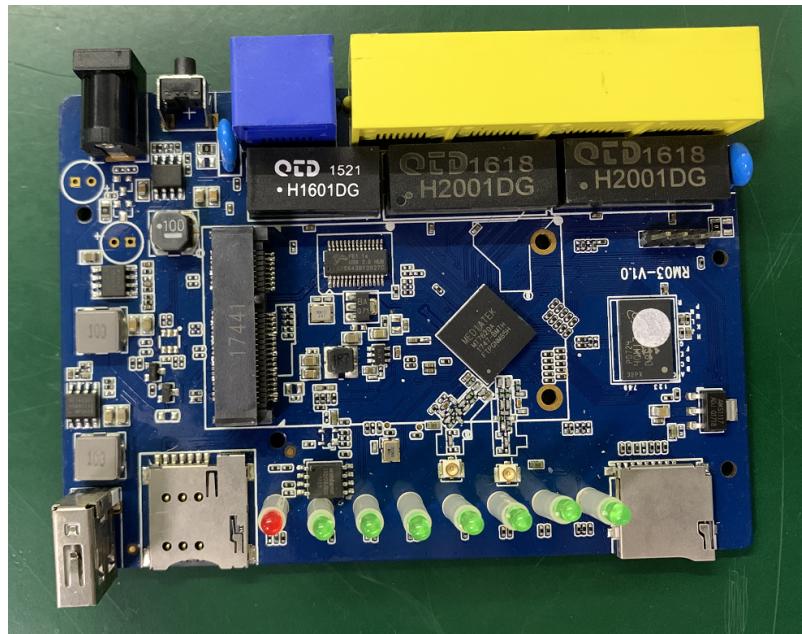


3. PRODUCT PICTURES(STANDARD VERSION)

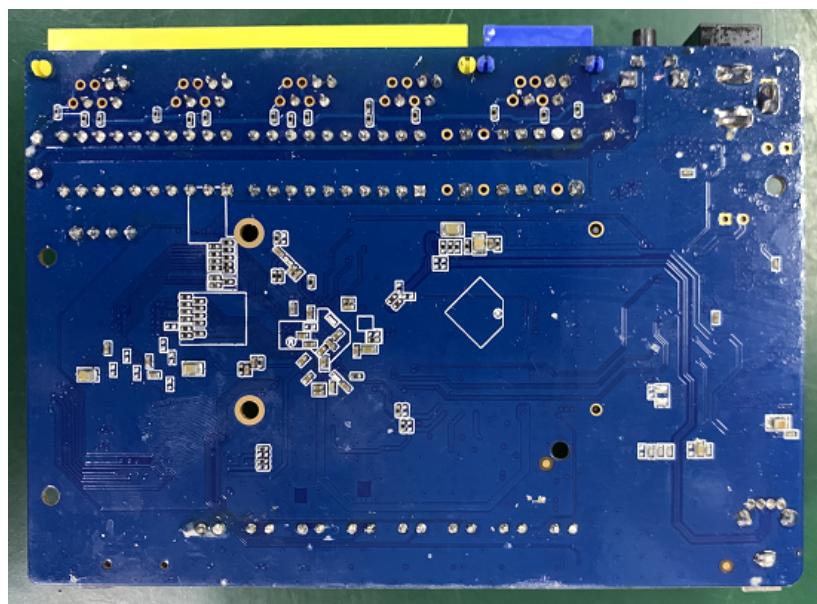


4. PCBA PICTURES

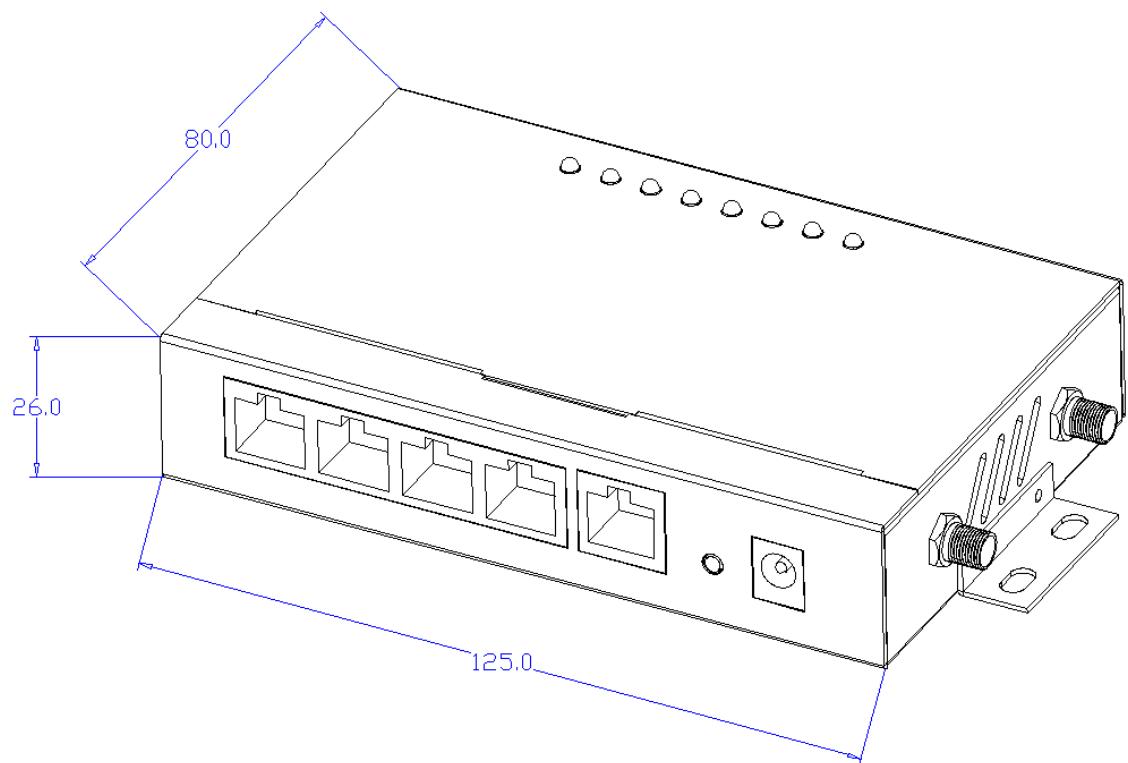
Top Side:



Bottom Side:



5.SIZE MARKING



6.RF SPECIFICATIONS

Chip	MTK7620A
Frequency	2.4G: 2.4000GHz~2.4835GHz
WIFI Standard	802.11b/g/n 2T2R
Modulation	802.11b: CCK(11, 5.5Mbps), QPSK(2Mbps), BPSK(1Mbps) 802.11g: OFDM 802.11n: MCS0-7
PHY Data rates	802.11b: 11,5.5,2,1 Mbps 802.11g: 54,48,36,24,18,12,9,6 Mbps 802.11n: 6.5~300Mbps
Transmit Output Power	802.11b@11Mbps 18±2dBm 802.11g@54Mbps 15±2dBm 802.11n@65Mbps 15±2dBm (MCS 0_HT20) 15±2dBm (MCS 7_HT20) 15±2dBm (MCS 0_HT40) 15±2dBm (MCS 7_HT40)
EVM	802.11b /11Mbps : EVM -27dB 802.11g /54Mbps : EVM -31dB 802.11n /MCS7 : EVM -30dB
Receiver Sensitivity Bandwidth: 20MHz	802.11b@8% PER 1Mbps≤ -88dBm 2Mbps≤ -87dBm 5.5Mbps≤ -85dBm 11Mbps≤ -82dBm
	802.11g@10% PER 6Mbps≤ -86dBm 9Mbps≤ -85dBm 12Mbps≤ -84dBm 18Mbps≤ -82dBm 24Mbps≤ -80dBm 36Mbps≤ -77dBm 48Mbps≤ -73dBm 54Mbps≤ -72dBm
	802.11n 2.4G @10% PER MCS 0≤ -83dBm MCS 1≤ -82dBm MCS 2≤ -80dBm MCS 3≤ -78dBm MCS 4≤ -75dBm MCS 5≤ -71dBm MCS 6≤ -69dBm MCS 7≤ -67dBm
Receiver Sensitivity Bandwidth: 40MHz	802.11n 2.4G @10% PER MCS 0 ≤-80dBm MCS 1 ≤-79dBm MCS 2 ≤-77dBm MCS 3 ≤-75dBm MCS 4 ≤-72dBm MCS 5 ≤-68dBm MCS 6 ≤-66dBm MCS 7 ≤-64dBm

7. ELECTRICAL SPECIFICATIONS

Model	RM03-4G		
Network	Wireless standard	IEEE 802.11n、IEEE 802.11g、IEEE 802.11b	
Standard	Wired standard	IEEE 802.3、IEEE 802.3u	
4G Band	4G module Optional	SIM Card Solt	Micro SIM Card
I 8D	() /M9(optional: 64Mbyte/128Mbyte/256Mbyte)		
= α_j _	(- M9e(optional: 8MByte/16Mbyte/32Mbyte/64Mbyte)		
Power*1 , 4G*1, N `!=!(WAN*1, C8E!4	BI kke e	'I eset	
Rate(WiFi)	300Mbps	Antenna) !N `= External AeKeeX 1*LTE External Antenna
Frequency	2.412-2.472GHz	Netport	1 *WAN port (LAN), 4 *LAN port
Coverage	Outdoor 100M	Power Supply	DC 12V/2A
Xxx Interface	(!L J 9#1*TF Card,(!L 8I K(Inner shell)		
Package	Power Adapter, Antenna		
Function parameter			
WPS function	Not supported	Web-based	browser configuration to simplify management
VPN support	Support	Firewall function	Built-in firewall
System support	Support for Windows XP, Vista, 7, MAC and Linux systems		
Wireless security	WiFi network security access (WPA), WPA2, 128-bit WEP encryption and support for MAC address filtering		
Features	Industrial-grade design, piano painted surface, metal base, full of luxury and honor Turbo mode is activated with one button, the ability to penetrate the wall is easily multiplied, and you can enjoy the speed of arrogance. Quick Link one-button setting, quick connection to the computer, easy encryption, safe and worry-free Support external antenna dual jack, you can switch internal antenna at any time or use your own external antenna		

8.ENVIRONAMENT

Power Supply	12V/2A
Operating Temperature	0°C ~ 50°C
Storage Temperature	-40°C ~ 70°C
Operating Humidity	10%~90% non-condensing
Storage Humidity	Storage Humidity: 5%~90% non-condensing