

H22Industrial 4G Router Spec

Description

H22 Industrial Grade 4G Router is a kind of internet of things wireless communication router with OpenWRT, use LTE-FDD/TDD 4G mobile broadband network type, to provide convenient and high speed network transmission function.

This series of products use high performance industrial 32 bit communication processor, use embedded real-time operation system as software support platform, to provide security, high-speed, stable 4G wireless network for clients. It's a wireless router with 2 Ethernet RJ45 ports and communication serial port.

It can be used in finance, postal, smart power grids, smart transportation, environment monitor, fire protection monitor, security, water conservancy, public safety, advertising release, industrial control, earth quake monitor, meteorological watch, instrument monitor etc.



Features

Industrial grade design

- Use high performance industrial wireless module
- Use high performance industrial 32bit processor
- Support low power consumption mode, customized
- Use plate metal CRS shell with good heat dissipation
- Power supply: +7.5V~+30V DC

Network characteristic

- Port flow detection
- Link real-time monitoring
- Multiple VPN protocol (PPTP、L2TP、IPSec、VPN...)
- Support serial port DTU function
- Support dialing as required (voice, SMS or data trigger)
- Support UPnP

Stability

- Use soft/hardware watchdog and multi-level link detection, with capability of fault automatic diagnosis, automatic recovery, ensure equipment working in stable and security way
- Multiple equipment self-checking mechanism, ensure smooth link and alarm
- ESD protection for each port, prevent static shock

Remote management

- Remote parameters configuration
- Remote parameters backup
- Remote restart and log query
- Remote equipment upgrading
- Equipment online monitoring

Details

Functions

- FDD-LTE, TDD-LTE, down compatible to HSPA+、EVDO、TD-Scdma、EDGE、GPRS network
- Support 1 x LAN and 1 x WAN (2 x LAN)
- Provide standard RS-232/485 serial port, support serial port DTU (data transmission terminal) function
- Support hardware WDT, provide anti-log off mechanism, ensure data terminal online forever
- Support multiple VPN protocol (PPTP, L2TP or GRE etc.)
- Support multiple functions (DHCP, DDNS, firewall, NAT, DMZ host etc.)
- Support wired and wireless mutual backup
- Support multiple network protocol (ICMP、TCP、UDP、Telnet、SSH、FTP、HTTP、HTTPS etc.)
- Support industrial SIM/UIM card design

Extend functions

- Support WAN port, wired and wireless mutual backup (optional)
- Support dual LAN port function (optional)
- Support 802.11n (optional)
- Support extend GPS (optional)
- Support SMS (optional)
- Support OpenVPN, OpenWRT(optional)

Wireless parameter

Wireless module:	Industrial grade wireless module
Band:	LTE (MIMO) : 2600MHz / 2100MHz / 1900MHz / 900MHz / 850MHz UMTS(WCDMA): 2100MHz / 1900MHz / 900MHz / 850MHz GSM/GPRS/EDGE: 1900MHz / 1800MHz / 900MHz / 850MHz
Theory bandwidth:	MAX DL: 100Mbps ; MAX UL:50Mbps (Category 3, MIMO)
Transmit power:	23dBm+/-1dB @25°C
Consumption:	Data mode <300mA/12V; Idle modem <45mA/12V
Receive sensitivity:	-97dBm @10MHz QPSK

Interface type

LAN:	1 Ethernet interface(RJ45), self-adaption MDI/MDIX, built-in electromagnetic isolation protection
WAN/LAN:	1 WAN/LAN port multiplex, suitable for wired dialing or used as LAN port hung on two terminals
Console:	Equipment monitoring port, standard RJ45 interface, support hardware flow control RS232 communication mode
Indicator:	Six indicator lights, 3 "Signal strength LED", "Power", "WLAN", "Error". 3 signal strength indicator lights (1: poor. 2: general. 3: good.)
Antenna interface:	1 Main antenna interface (3G/4G), characteristic impedance 50Ω; 1 Aux/GPS antenna interface, used as 3G/4G AUX antenna or GPS function active antenna; 1 WiFi 802.11n antenna interface
SIM/UIM interface:	SIM/UIM engineering card cover, protect the card from falling. 1.8V/3V automatic detection, support dual SIM card.
Power interface:	+7.5V~30V (standard DC 12V/1.5A), built-in power instantaneous over voltage protection and opposite connection protection
Reset:	Press this button, the parameters will return to factory setting

Power supply

- Standard power: DC 12V/1.5A

Appearance

- Housing: Metal
- Dimension: 102×100×42mm
- Weight: 450g

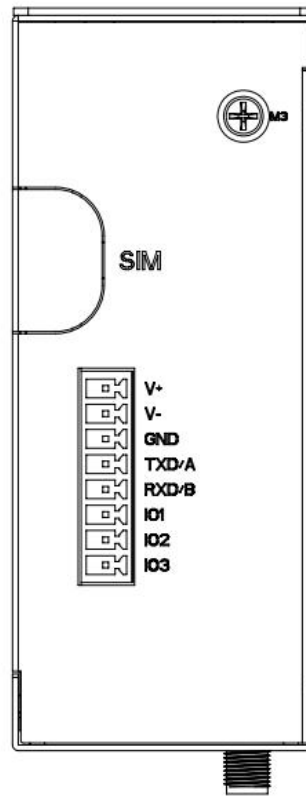
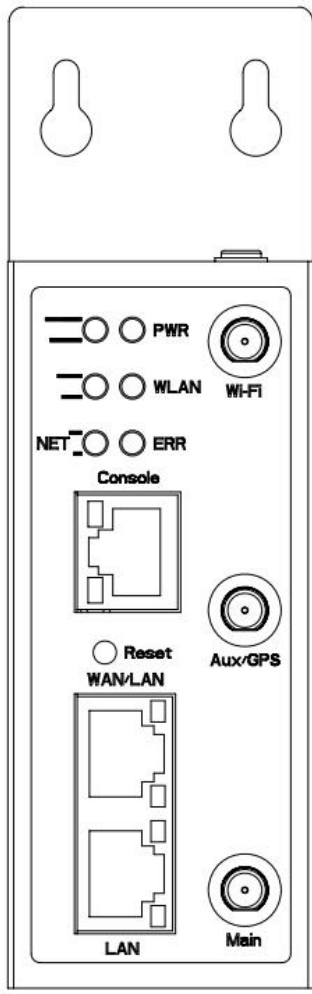
Other features

- CPU: MIPS32 74K Core. 333MHz/560DMIPs
- Flash/RAM: 64Mb / 512Mb
- Working temperature: -30 ~ +75°C (can be extended)
- Storage temperature: -40 ~ +85°C
- Relative humidity: <95% (No condensation)

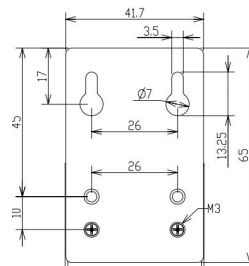
H22 serial interface drawing

Front panel:

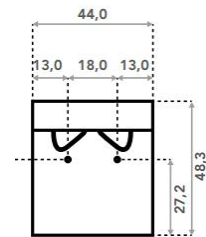
Top panel:



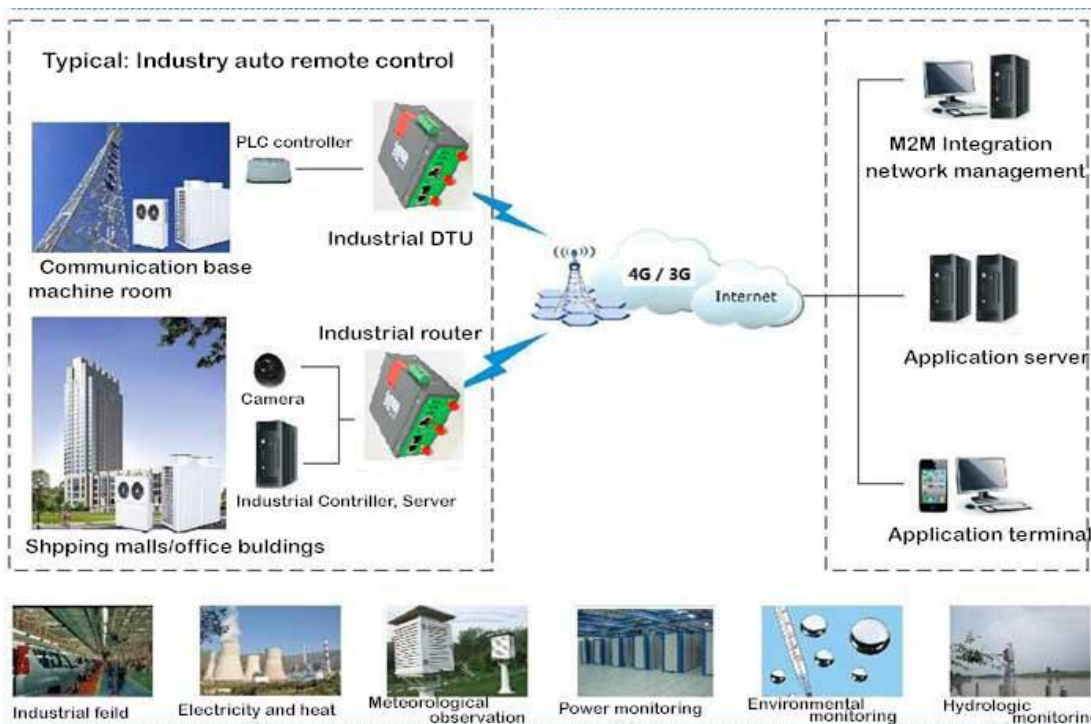
Parts:



A,



B(Din-rail),

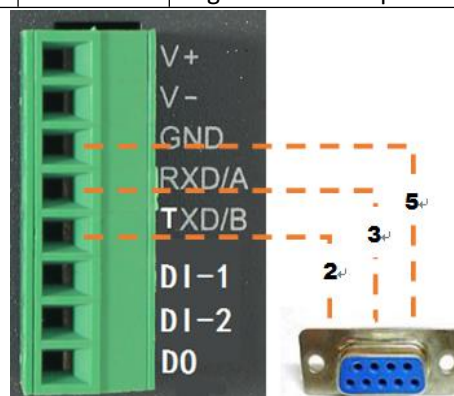


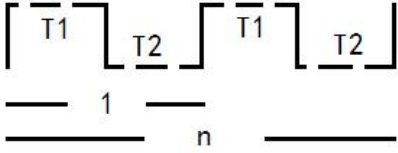
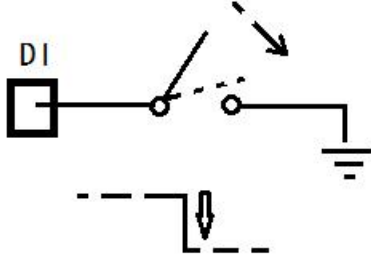
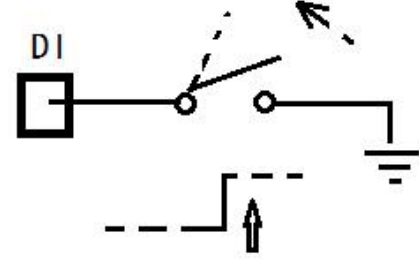
Product list

H22	WCDMA standard	EV-DO standard	TDD standard	FDD standard	Customized
LAN	●	●	●	●	○
WIFI-802.11n	●	●	●	●	○
WAN	●	●	●	●	○
MIMO antenna	●	●	●	●	○
HSPA+	●	-	-	-	○
EV-DO	-	●	-	-	○
TDD	-	-	●	-	○
FDD	-	-	-	●	○
GPS	○	○	○	○	○
RS232	●	●	●	●	○
RS485	○	○	○	○	○
Storage (8GB~64GB)					
Refer NO.:	H22-WA2T	H22-E12T	H22-TA2T	H22-FA2T	

Add: interface connection

RJ45 (Console)			Terminal Strip		
1	CTS	Input	1	V+	Power input +
2	RTS	Output	2	V-	Power output -
3	RXD	Input	3	GND	Signal ground
4	TXD	Output	4	RXD/A	RS232 input/485-A
5	GND	Signal ground	5	TXD/B	RS232 output/485-B
6	DSR	Input	6	DI-1	Digital switch input
7	DCD	Output	7	DI-2	Digital switch input
8	DTR	Output	8	DO 3	Digital switch output



<p>Digital output : (used to control and drive external equipment, such as relay switch)</p> <ul style="list-style-type: none"> • High level: +5V • Low level: 0V • Pulse (definable frequency) or status level 	<p>DO setting:</p> 
<p>Digital input : (used to detect signal status of external switch, to trigger the alarm etc.)</p> <ul style="list-style-type: none"> • 47KΩ ohm • NPN base, 4.7KΩ resistance +5V pull up • ON: +3.0V ~ +5.0V DC • OFF: 0 ~ 0.6V • Count mode • Share DC GND 	<p>(DI) OFF mode:</p> 
	<p>(DI) ON mode</p> 
	<p>(DI) Count mode Judge ON – OFF times</p>
<p>Isolation protection:</p> <ul style="list-style-type: none"> • 3K VDC or 2K Vrms 	