

# H10series Industrial 4G Router Spec

## Description

H10series Industrial Grade 4G Router is a kind of internet of things wireless communication router. It uses FDD-LTE and TDD-LTE 4G mobile broadband network type to provide convenient and high speed network transmission function. It supports 5 models, 13 frequency bands.

This series of products use high performance industrial 32 bit communication processor and 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 1 Ethernet RJ45 port 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 and 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 ~ +32V 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

### Functions

- Down compatible to WCDMA, TD-Scdma and GPRS network
- Support 1 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 protocols (PPTP, L2TP or GRE etc.)
- Support multiple functions (DHCP, DDNS, firewall, NAT, DMZ host etc.)
- Support multiple network protocols (ICMP, TCP, UDP, Telnet, SSH, FTP, HTTP, HTTPS etc.)
- Support industrial SIM/UIM card design
- Support base station auxiliary positioning function

### Extend functions

- Support extend high precision independent GPS orientation function (optional)

## Details

### Wireless parameters

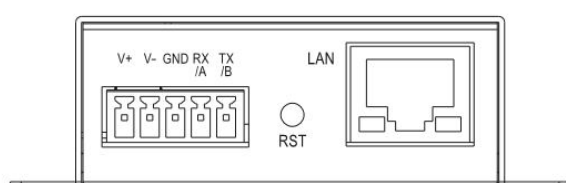
Wireless module:	Industrial grade wireless module
Cellular bands:	FDD-LTE: FDD-Band 1 / 2 / 3 / 5 / 7 / 8 / 20 / 28 (Band 1 / 2 / 4 / 5 / 7 / 8 / 12 / 13 / 17 / 25 / 26)  TDD-LTE: Band38/39/40/41 UMTS(WCDMA): 2100/1900/900/850MHz
Theory bandwidth:	FDD-LTE: MAX DL/100Mbps ; MAX UL/50Mbps TDD-LTE: MAX DL/61Mbps ; MAX UL/18Mbps
Transmit Power:	23dBm+/-Db@25°C
Power consumption:	Data mode <240mA/12V; Idle modem <45mA/12V
Receive sensitivity:	-97dBm @10MHz QPSK

### Interface type

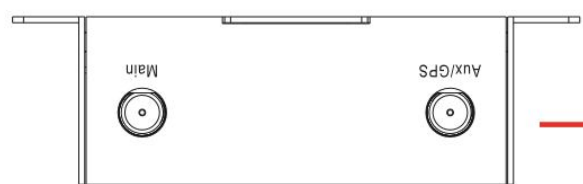
LAN:	1 Ethernet interface (RJ45), self-adaption MDI/MDIX, built-in electromagnetic isolation protection
Serial:	1 Terminal interface (RS232/RS485), used for the acquisition equipments which have RS232/RS485 port
Indicator:	3 indicator lights, "NET", "LAN", "PWR". 3 color of "NET" (Red: poor; Yellow: general; Green: 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
SIM/UIM interface:	SIM/UIM engineering card cover, protect the card from falling. 1.8V/3V automatic detection
Power interface:	+7.5V ~ 32V (standard DC 12V/1.5A), built-in power instantaneous overvoltage protection and opposite connection protection
Reset:	Press this button, the parameters will return to factory setting

### H10 serial interface drawing

Front panel



Top panel



**Power supply**

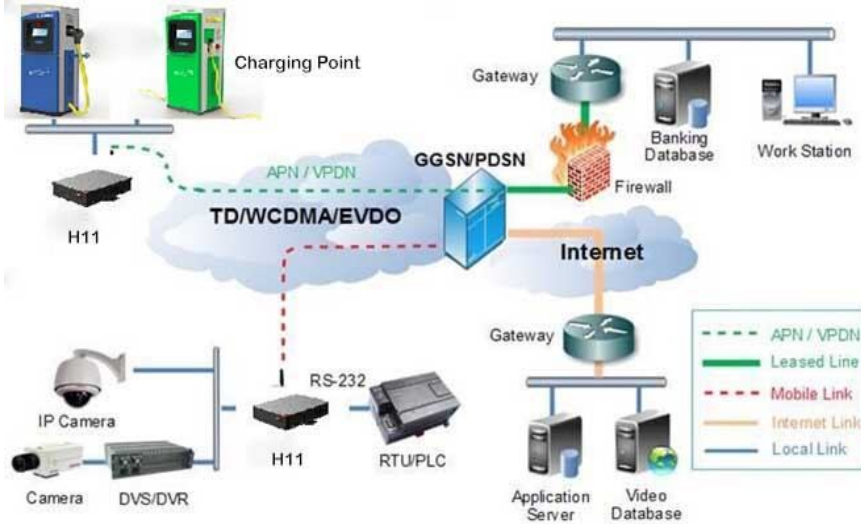
- Standard power: DC 12V/1.5A

**Appearance**

- Housing: Metal
- Dimension: 78.5×59×23.5mm
- Weight: 150g

**Other features**

- CPU: MIPS32 74K Core. 333MHz/560DMIPs
- Flash/RAM: 64Mb / 256Mb
- Working temperature: -30 ~ +75°C (can be extended)
- Storage temperature: -40 ~ +85°C
- Relative humidity: <95% ( No condensation )



**Product list**

H10	WCDMA standard	EV-DO standard	TD standard	4G standard	Customized
LAN	●	●	●	●	○
HSPA+	●	-	-	-	○
EV-DO	-	●	-	-	○
TD-Scdma	-	-	●	-	○
FDD-LTE	-	-	-	●	○
TDD-LTE	-	-	-	●	○
GPS	○	○	○	○	○
RS232	●	●	●	●	○
RS485	○	○	○	○	○
<b>Refer NO.:</b>	<b>H10-WA2T</b>	<b>H10-E12T</b>	<b>H10-T12T</b>	<b>H10-FA2T</b>	

**Add: Terminal interface**

5Pin Terminal			V+ V- GND RX TX /A /B
1	V+	Power input and output, non-polarity	
2	V-		
3	GND	Signal ground	
4	RX/A	Serial input / RS485-A	
5	TX/B	Serial output /RS485-B	

The diagram shows a 5-pin terminal connector with the following pin assignments: Pin 1 is V+, Pin 2 is V-, Pin 3 is GND, Pin 4 is RX/A, and Pin 5 is TX/B. The terminal is shown in a perspective view with the labels above it.