Model: UT-9101

(Product Name:4G LTE Industrial Router)

Datasheet

1. Overview

UT-9101 is a DTU device based on Qualcomm MDM9X07 platform. Support 4G full Netcom, support Wi-Fi AP function, provide 10M/100M/1000M adaptive Ethernet interface, default IP address is automatically assigned, after plugging in the network cable, the PC can use the 4G network function brought by this device. The device provides RS232/485 interface, which can be used for DTU transparent data transmission. UT-9101 provides a web configuration interface, which supports switching between Chinese and English. Users can flexibly set the operating parameters of UT-9101 equipment. With industrial-grade high-standard and certain anti-interference and anti-surge capabilities design, it is widely used in various fields, such as industrial control, data communication systems and industrial automation.

2. Technical parameters

- Support 4G full Netcom network standard

- Support WIFI standard IEE 802.11 b/g/n

- Integrated 1-way RS-232/485 communication interface, support 1200bps-115200bps custom rate

- Integrated 1-way 10M/100M/1000M Ethernet interface

- Operating voltage: 12-36V DC

- Operating current: ≤ 300mA@12V

- Operating temperature: -40~+85℃

- Storage temperature: -40~+85℃

- Operating humidity: 5~95% (no condensation)

- Storage humidity: 5~95% (no condensation)

- Antenna impedance: 50 ohms (2M long suction cup antenna)

- Electrostatic protection: air 8kV, contact 6kV

- Electrical fast transient burst: 2kV

- Surge protection: power port: 1.2/50us common mode 2kV, differential mode 1kV network port: 10/700us common mode 2kV, differential mode 1kV serial port: 600W

3. Specifications

Hardware System

Item	Content
CPU	Qualcomm Cortex-A7 1.2GHz, ARMv7. Total 192 MIPS
FLASH	80MB
RAM	50MB

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Wireless parameter

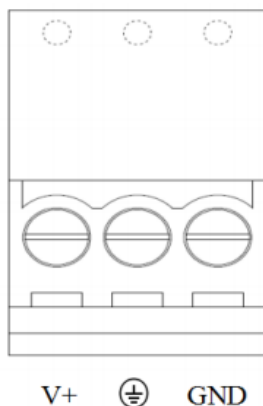| Item	Content
Wireless Module	Support the whole network: FDD-LTE, TDD-LTE, EVDO, WCDMA, TD-SCDMA CDMA1X, GPRS/EDGE
Standard and frequency band	Support the whole network: FDD-LTE, TDD-LTE, EVDO, WCDMA, TD-SCDMA CDMA1X, GPRS/EDGE
theoretical bandwidth	FDD-LTE: 150Mbps (downlink rate), 50Mbps (uplink rate) TDD-LTE: 135Mbps (downlink rate), 35Mbps (uplink rate) CDMA2000 1X EVDO RevA: 3.1Mbps (downlink rate), 1.8Mbps (uplink rate) WCDMA: 42Mbps (downlink rate), 5.76Mbps (uplink rate)
Transmission power	<23dBm
Receiver sensitivity	<-93dBm

4. Indicator light

Definition	Color	Name	Description
PWR	green	Power Indicator	Lights up when the power supply is normal.
RUN	green	System Operation Indicator	Flashes when the system is operating normally.
MODE	green	Network Mode Light	4G mode, always on; 3G mode, fast flashing; 2G mode, 1Hz slow flash.
SIGNA	green	Signal Strength Light	Strong signal, always on; weak signal, flashing; no signal, turn off.
ANT/S	green	wireless light	When there is a device connected to WIFI, the indicator light.
T/RX	green	Serial LED	When the serial port is sending and receiving data, the indicator light is on, and the sending and receiving are completed, turn off.

Note: When the device is a version with GPS, ANT/S stands for GPS signal indicator light.
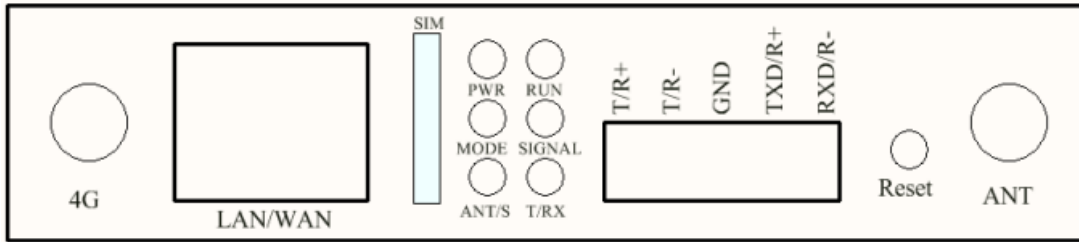
5. Pin definition

Reset: button, press for 1 second to reset the system, press for 3 seconds to restore the device to factory settings.

1. Power supply pin definition

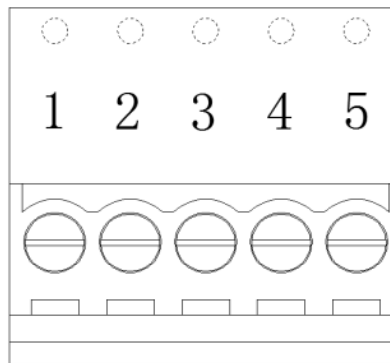| Pin No.	Function
V+	Transmit+
V-	Transmit-
GND	Ground

V+ ⏚ GND

2. Label screen printing

3. RJ45 network port definition

RJ45	Definition	Description
1	BI_DA+/TX+	Transmit+
2	BI_DA-/TX-	Transmit-
3	BI_DB+/RX+	Receive+
4	BI_DC+/-	BIDI data+
5	BI_DC-/-	BIDI data-
6	BI_DB-/RX-	Receive-
7	BI_DD+/-	BIDI data+
8	BI_DD-/-	BIDI data-

4. Terminal pin definition

3.81-5pin phoenix terminal block

Pin No.	Pin	Description (RS232/485)	Description(RS422)
1	T/R+	RS485-A	422 Transmit+
2	T/R-	RS485-B	422 Transmit-
3	GND	Signal ground	Signal ground
4	TXD/R+	RS232 Transmit	422 Receive+
5	RXD/R-	RS232 Receive	422 Receive-

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