LINBLE 力必拓

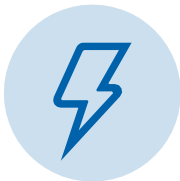# Mbedded 4G router module

LBT-T300-M400-D

Product specification

Product overview

     Multifunctional 4G industrial router module, which supports 2-port Ethernet (1 LAN, 1 WAN), WIFI LAN (802.11 B/G/n) communication, serial DTU, WAN 4G wireless communication function module, realize seamless connection between wireless LAN and wireless WAN, and provide users with high-speed, safe and reliable mobile broadband services. The module supports 4G access of China Mobile, China Unicom, China Mobile and China Telecom. The camera can be fixed to transmit images through the 4G network to provide a stable and reliable network channel for various devices that need to be connected to the Internet. The Ethernet port, RS232 port, RS485 port and WIFI are used to provide a variety of simple and easy-to-use network access modes for customer applications, which simplifies the network development needs to the greatest extent.

     Support WEB configuration mode, convenient and simple management, and support

remote cloud control.

Field of applicat

Electricity	Petroleum	Coal mine	Finance
Communication	Public security	Heat	Industrial Control
Weather	Water Conservancy	Traffic	Municipal

Product characte

1. Ultra-small size, only 74 X 42 X 12.5mm in length and width;

2. Support hundreds of 4G wireless modules, basically plug and play

3, intelligent anti-drop, support online detection, drop automatic redial, to ensure that the device is always online

4. Support 4G backup network, seamlessly switch to 4G network when cable is disconnected, and automatically detect cable recovery

5. Cloud remote background management, remote upgrade and remote configuration

6. Support serial port data serial port TCP/UDP transparent data transmission or AT command transmission

7. Support VPN security tunnel function, including PPTP and L2TP

8. Complete and robust router functions, supporting multiple Internet access modes: automatic IP allocation, designated IP, PPPoE

9. Support IPTABLES firewall and various network protocols

10. Support dynamic DDNS: support Peanut Shell, 88IP and dyndns domain name service providers

11. Support serial port local TFTP and web software upgrade

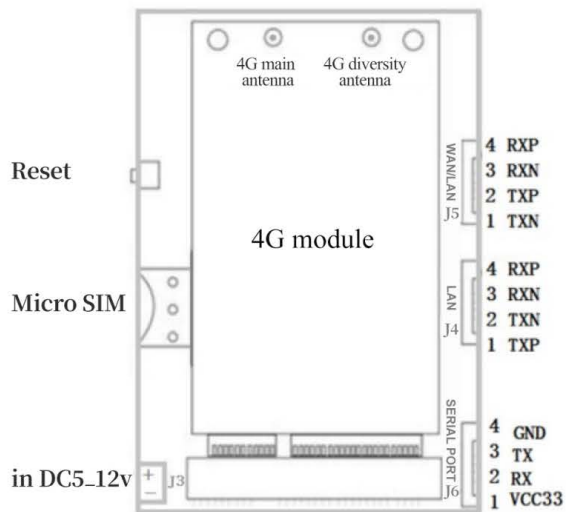# Functional overview

Software function

The way to surf the Internet	4G dial-up DHCP/Static IP/PPPoE
Number of users supported	Wired: 253, Wireless: 30
Operating system requirements	Windows XP/VISTA Linux 2.6 Windows 7 and above MAC OS: 10.3.7 and above
Browser requirements	IE: 6.0 and above Safari: 1.2.4 and above Firefox: 2.0.0.8 and above
Security management	Set up a firewall to prevent malicious attacks from the Internet on computers in the LAN. MAC filtering: prohibit MAC addresses that have been added. Access control: Control the access of computers in the LAN to the Internet. Port blocking: Block certain viruses from continuously initiating connections through a certain port to prevent Dos attacks
System Services	Virtual server: Set an internal server for Internet users to access DMZ: When the open port of the virtual server to be set is uncertain, it can be set as a DMZ host Port triggering: The wireless router can automatically open the inward service port according to the port of the LAN accessing the Internet. Serial port service: realize serial port data transmission, AT command control and other functions
Equipment management	Locale Software upgrade NTP server settings Remote management Back up system setup information Restart Recover Settings Information from File Change the password and restore to the factory settings
WLAN security mode	Open System WPA-PSKWPA2-PSK WPAPSK WPA2PSK (ie WPA-PSK and WPA2-PSK mixed mode) WPA1WPA2 (i.e. WPA and WPA2 mixed mode)

Hardware parameters

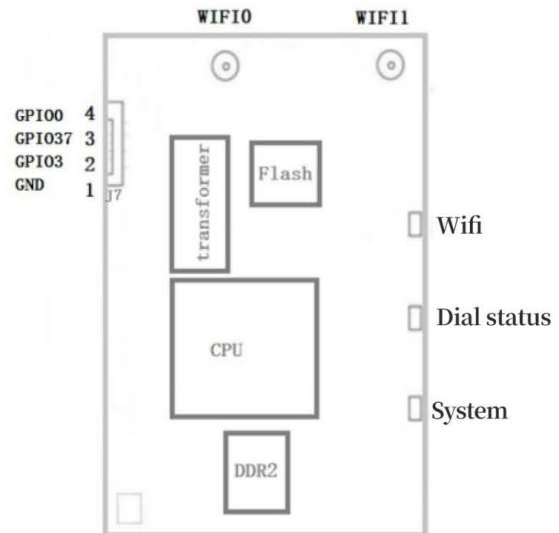|	
Wireless interface	IEEE802.11b/g/n
Operating frequency band	2400-2483.5MHz
Antenna	IPEX Generation Female
WIFI transmission rate	150-300Mbps（MAX）
External interface	LAN port: 2 (LAN1 is WAN/LAN adaptive) RS232/485 interface: 1 SIM card slot: 1 Antenna connector: 1-4 (optional) Indicator light: 3 Terminal power supply interface: 1 reset key: 1
WIFI data	802.11n: -66dBm at 300Mbps/HT40 MCS7 :+15.5dBm 802.11b: -86dBm at 11Mbps/CCK: +18 dBm 802.11g: -73dBm at 54Mbps/OFDM: +15.5dBm
Frequency band supported (optional)	GN (Domestic-Default): FDD-LTE B1/3/5/8 TDD-LTE B38/39/40/41 Europe FDD-LTE B1/3/5/7/8/20 TDD-LTE B38/39/40/41 North America (NA): FDD-LTE B2/3/4/5/7/8/12/13/17/25/26/66 TDD-LTE B41 Global FDD-LTE B1/2/3/4/5/7/8/17/20/28 TDD-LTE B38/39/40/41
Storage memory	Store 8 MB Memory 64MB
Overall dimensions	Length, width and height: 74 X 42 X 12.5 mm (fixed hole installation)
Power source	DC supply: 12 V/1A
Power consumption (current)	Less than 400mA
Work environment	Operating temperature: -30℃~+70℃ Storage temperature: -40℃~+85℃ Humidity:5%~95%, non-condensing

Interface description

A: Connector J7

Pin No	Signal name	Signal function
1	GPIO0	I/O
2	GPIO37	I/O
3	GPIO03	I/O
4	GND	Grounding

B: Connector J6 data serial port [232, 485]

Pin No	Signal name	Signal function
1	VCC	3.3V
2	RXD/B	Serial ports
3	TXD/A	Serial port output
4	GND	Grounding

C: Connector J4 Ethernet connection LAN

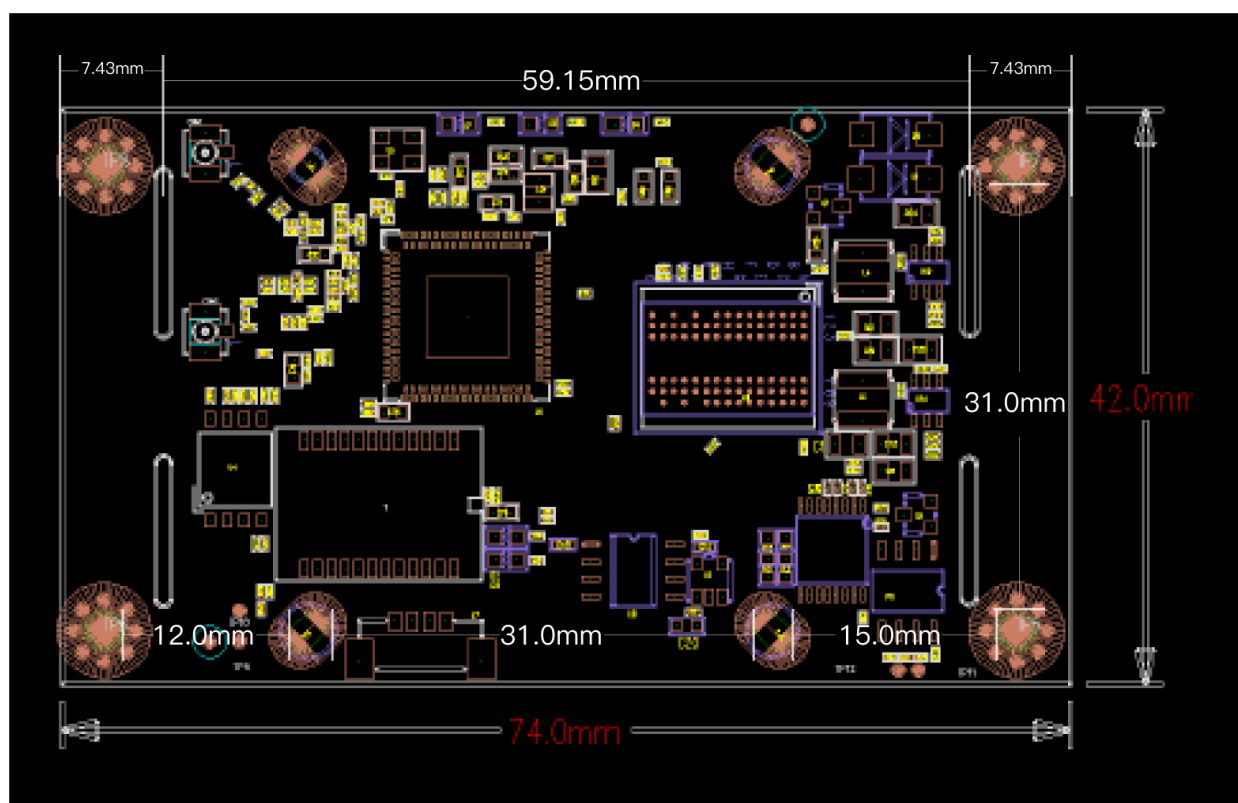| Pin No	Signal name	Signal function
1	TXP	Ethernet differential transmission negative terminal
2	TXN	Ethernet differential transmitting positive terminal
3	RXN	Ethernet differential receiving negative terminal
4	RXP	Ethernet differential receiving positive terminal

D: Connector J5 Ethernet connection WAN/LAN

Pin No	Signal name	Signal function
1	TXN	Ethernet differential transmitting positive terminal
2	TXP	Ethernet differential transmission negative terminal
3	RXN	Ethernet differential receiving negative terminal
4	RXP	Ethernet differential receiving positive terminal

E: Connector J3 power input

Pin No	Signal name	Signal function
1	VCC	DC12V +
2	GND	DC12V −

F: Connector J1Debug serial port

Pin No	Signal name	Signal function
1	VCC	Power Supply
2	RXD0	Receive TTL
3	TXD0	Send TTL
4	GND	Grounding

Schematic diagram of shell locating holes