

Product specification

PRODUCT SPECIFICATION

4G & 5G Industrial Wireless Router

Model: T310E

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Note: The contents of this document will be updated as necessary without prior notice due to product version upgrades or other reasons.

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Product introduction

T310 industrial wireless router is a wireless communication product with excellent performance developed by Shenzhen Libiton Technology Co., Ltd. based on 4G/5G network demand. It is mainly used in the data transmission business of industry users, supporting transparent data transmission, image transmission, equipment monitoring and wireless routing Internet access and other functions.



The T310 uses an embedded high-performance CPU to effortlessly handle advanced applications such as routing and security, and can be paired with a variety of 4G/5G industrial communication modules (TDD-LTE/FDD-LTE networks, 5G-SA/NSA). Provide 10/100M Ethernet port, WIFI wireless interface and serial port. A variety of terminal devices can be docked.

Support WEB configuration mode, convenient and simple management, and support remote cloud control.

Product features

- 1、 Ultra-small volume, length and width are only 97 mm × 78.2 mm × 25.1 mm;
- 2、 Industrial protection interface, easy to install;
- 3、 Adopt metal shell with protection grade of IP30;
- 4、 Wired + wireless router solution;
- 5、 Supports 802.11 B/G/n protocols up to 300Mbps;
- 6、 Wired support 1 WAN or 1 LAN, 10M/100M adaptive;
- 7、 Software and hardware watchdog anti-crash design, after the router is disconnected, it will automatically power off and restart to ensure stable and reliable operation of the equipment;

- 8、 Automatic detection of network disconnection, automatic restart of dialing failure, timing restart and other functions;
- 9、 Serial port transmission function, through the serial port can enter the command control mode, control the router and ancillary equipment;
- 10、 Port mapping, DMZ host and other functions;
- 11、 Support VPN (PPTP Client, L2TP Client);
- 12、 Optional GNSS positioning module, support RTK technology, support multiple satellite systems (GPS, GLONASS, Beidou, WAAS, EGNOS, MSAS, GAGAN) hybrid engine);

Software function

- 1、 **Internet access mode:** 4G/5G dial-up DHCP/Static IP/PPPoE;
- 2、 **Internet access mode:** 4G / 5G dial-up Internet access DHCP / Static IP / PPPoE;
- 3、 **Number of users supported:** wired: 253, wireless: 30;
- 4、 **Operating system requirements:** Windows XP/VISTA Linux 2.6 Windows 7 and above MAC OS: 10.3.7 and above;
- 5、 **Browser requirements:** IE: 6.0 and above Safari: 1.2.4 and above Firefox: 2.0.0.8 and above;
- 6、 **Safety management:**
 - Firewall:** to prevent the Internet from malicious attacks on computers in the LAN;
 - MAC filtering:** prohibit the added MAC address;
 - Access control:** control the access rights 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;
- 7、 **System Services:**

The virtual server is used for setting an internal server to provide Internet user 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 local area network accessing the Internet;
 - Serial port service:** realize serial port data transmission, AT command control and other functions;
- 8、 **Device management:** regional settings, NTP server settings, backup system setting

information, restore setting information from files, restore to factory settings, software upgrade, remote management, restart, and password modification;

- 9、WLAN security mode:** OpenSystem, WPA-PSK, WPA2-PSK, WPAPSKWPA2PSK (i.e. mixed mode of WPA-PSK and WPA2-PSK), WPA1WPA2 (i.e. mixed mode of WPA and WPA2);

Hardware param

- 1、 **Wireless interface:** IEEE802.11 B/G/n;
- 2、 **Wireless operating frequency band:** 2400-2483.5MHz;
- 3、 **WIFI transmission rate:** 300Mbps (maximum theoretical value);
- 4、 **External interface:** 2 (10/100M RJ45, Wan/lan switchable), 1 RS232/485 interface, 1 SIM card slot, antenna interface (1-4 (optional)), 4 indicator lights, 1 DC power supply interface, 1 reset key;
- 5、 **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;
- 6、 **Storage memory:** 8MB, 64MB;
- 7、 **Dimension:** length, width and height: 94.1 * 78.2 * 25.1mm (excluding antenna interface);
- 8、 **Power supply:** DC power supply: 12-24V/2A (optional 12/24V);
- 9、 **Power consumption (current):** 4G: less than 400 mA, 5G: less than 800 mA;
- 10、 **Working environment:**
 - Operating temperature:** -20 ° C ~ + 70 ° C;
 - Storage temperature:** -40 ° C ~ + 80 ° C;
 - Humidity:** 5% ~ 95%, non-condensing

Frequency band

Network	Frequency band	Applicable countries	Model
4G	FDD: B1/3/5/8 TDD: B38/39/40/41 WCDMA : B1/5/8	China/Korea	CN
4G	FDD:B1/B3/B5/B7/B8/B20/B28 TDD:B38/B40/B41 WCDMA:B1/B5/B8	Central Asia/Africa/Australia/New Zealand/Dubai/Southeast Asia/Iran	AU
4G	FDD-LTE B1/3/5/7/8/20 TDD-LTE B38/39/40/41 WCDMA:B1/B5/B8 GSM: B3/B8	European edition	EU
4G	FDD: 2/3/4/5/7/8/12/13/17/25/26/66 TDD: B41 WCDMA:B2/B5/B8 GSM: B20/B3/B5/B8	North American version	NA
4G	FDD:B1/3/8/18/19/26 TDD:41 WCDMA:B1/6/8/19	Japanese version	J
4G	FDD:B2/4/5/7/8/28 TDD:B40 WCDMA:B2/5/8 GSM:850/900/1800/1900	South America/Mexico/Brazil/Argentina/Chile/Peru/Colombia	SA
4G	FDD: B1/2/3/4/5/7/8/17/20/28 TDD: B38/39/40/41 WCDMA : B1/2/5/8 TD-SCDMA : B34/39 GSM: B20/B3/B5/B8	Global version	GL

Network	Frequency band	Applicable countries	Model
5G	5G NR NSA:N41/N78/N79 5G NR SA:N1/N8/N28/N41/N78/N79 LTE-FDD:B1/B3/B5/B8 LTE-TDD:B34/B38/B39/B40/B41 WCDMA:B1/B8 5G DL 4x4 MIMO:N41/N78/N79	Mainland China, Parts of Asia	CN
5G	5G SA&NSA: N1/N3/N5/N7/N8/N20/N28/N38/N40/ N41/N71/N77/N78/N79 LTE-FDD:B1/B3/B5/B7/B8/B18/B19/ B20/B28/B32 LTE-TDD:B34/B38/B39/B40/B41/B42 WCDMA:B1/B5/B8	Eurasia and Australia	EA
5G	5G NR SA: n1/n2/n3/n5/n7/n8/n12/20/n25/n28/ n38/n40/n41/n48*/66/n71/n77/n78/n79 5G NR NSA: n38/n41/n77/n78/n79 LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/ B17/B18/B19/B20/B25/B26/B28/B29/ B30/B32/B66/B71 LTE-TDD: B34/B38/B39/B40/B41/B42/B43/B48 LAA: B46 WCDMA: B1/B2/B3/B4/B5/B8/B19 GNSS: GPS/GLONASS/BeiDou(COMPASS)/ Galileo/QzSS	Global version (except US)	GL

Application scene



It has a wide range of applications

Electric power, petroleum, coal mine finance

Interface description



- 1、LAN1/LAN2: RJ45 interface; In standard router mode, LAN1 can be used as a WAN port.
- 2、**DC power interface:** 2.1mm round head power interface, positive inside and negative outside, voltage input 12 V-24 V.
- 3、**Indicator light:** LAN1/LAN2: Wired network access indicator light, which is always on when the connection is normal and flashes when there is data traffic.

SYS lamp: it is always on after power on, and it flashes slowly when the system is started normally. Flash when the reset key is pressed.

LINK light: In 4G/5G or WIFI bridging mode, it flashes when dialing (bridging AP), and it is always on after successful networking.

4、4G/5G/2.4G-WIFI antenna interface: SMA external rotation and internal hole interface.

5、R (reset) key: press this key for 5 seconds in the power-on state, the SYS lamp will flash, and then restart, and the reset is successful.

6、RS232/RS485 serial interface: 2.0m 4PIN connector.

7、SIM card slot: snap-in SIM card holder. To remove the SIM card, push the SIM card.

Schematic diagram

