3onedata

Reliable Connections



IRT5300-AW-5T2D-2LVI

DIN-Rail Mounting

Industrial-grade 4G Wireless Router

- Support 5 100M copper ports, 2 RS-232/485 serial ports, 2 WIFI antenna interfaces, 2 LTE antenna interfaces, 2 SIM card slots, etc.
- Support all 4G networks, cellular wireless network types include: LTE/WCDMA (HSPA+)/EDGE/ TD-SCDMA /GSM/CDMA/GPRS
- Support multiple serial port work modes: Realcom, TCP Server, TCP Client, UDP Server, UDP Client
- Support dual-SIM card redundancy backup to ensure the stable connection of wireless network
- Support IPsec, PPTP and L2TP and provide a powerful data security mechanism
- Support dual power supply redundancy, power supply has non-polarity protection, input voltage: 12~36VDC
- Support -40~75℃ wide operating temperature range



CONNECTING FOR A BETTER FUTURE

3onedata Co.,Ltd.

Introduction

IRT5300-AW-5T2D is industrial 4G wireless router. This product supports 5 100M copper ports, 2 serial ports, 4 antenna interfaces and 2 SIM card slots, etc. It adopts DIN-Rail mounting, which can meet the requirements of different application scenes.

Network management supports multiple software functions, like 3G/4G Cellular WAN, Ethernet WAN, ICMP Link Test, DHCP Setting, Dynamic Domain Name, Routing Table Setting, WLAN Setting, Port Forwarding, Port Redirection, DMZ Setting, Serial Port Application and Setting, Modbus Setting, UPnP Setting, VRRP, RIP, OSPF and Static DHCP, DHCP Client, etc. It also supports firewall functions, such as IP Filtering, MAC Filtering, URL Filtering and Keyword Filtering, etc. and VPN tunneling functions like IPSec, PPTP, L2TP, etc. Network management system could bring you great user experience through its friendly interface design and easy and convenient operation.

Adopt dual-SIM card redundancy to ensure the stable connection of wireless network. The input power supply is two independent power supply circuits which can ensure the normal operation of the device when one power supply fails. DIP switch can achieve one-key reboot and factory default recovery. When power supply or port has link failure, ALARM indicator would be bright and send alerts for quick troubleshooting on the scene. Hardware adopts fanless, low power consumption, wide range temperature and voltage design, which can adapt to all kinds of harsh industrial environment, and can be widely used in rail transportation, intelligent transportation, smart grid, environmental monitoring, fire monitoring, security monitoring, water conservancy, public security, industrial control, earthquake monitoring, weather monitoring, instrumentation and other industries.

Features and Benefits

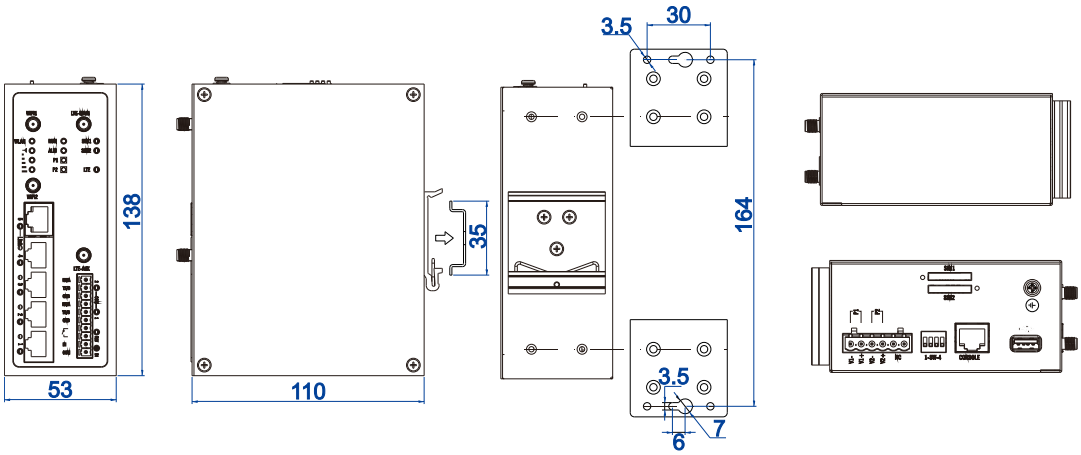
- Support dual SIM card redundancy backup and Cellular network. It's embedded with multiple 2G/3G/4G wireless communication modules
- Support backup switch between PPPOE, DHCP, static IP and 4G networks to fit different scenes
- Support network firewall, which can implement filtering and forwarding of IP, MAC, URL, keyword, etc.
- DHCP, DHCP server could be used to distribute IP address with different policies
- Support DDNS function, user can access server through domain names
- Support VPN encryption protocols like GRE, PPTP, L2TP and IPSEC, which can ensure the privacy and integrity of data and prevent replay attack
- Support multiple serial port operating modes like RealCom, TCP Server, TCP Client, UDP Server, UDP Client, etc.
- Support NAT, which can implement conversion between public address and private address. Functions like port mapping and port redirection are also supported.
- Support WPA/WPA2 wireless encryption method of both personal edition and

enterprise edition and TKIP/AES encryption algorithm

- Log management records the information of booting, operation and connection
- VRRP, RIP, OSPF could implement dynamic router configuration
- Support timing reboot and ICMP link test reboot
- Support hardware watchdog, which ensures the reliability of the system
- Ping Test, Traceroute, Router Tracing could achieve network diagnosis and troubleshooting

Dimension

Unit: mm



Specification

Standard & Protocol	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) 3GPP Rel-14 for 4G LTX 3GPP Rel-18 for 3G WCDMA IEEE802.11b/g/n for WLAN IEEE802.11i for wireless security IEEE802.11r for fast roaming
WAN Mode	Link backup (access to Internet by WAN network or 4G dialing, WAN supports DHCP/static IP/PPPoE dialing) WiFi & 4G roaming (wireless roaming or access to Internet by 4G dialing)
Cellular Network	3G/4G cellular network, network type LTE FDD/ LTE TDD/

	WCDMA
WLAN	WPA /WPA2/WPA3 personal/enterprise edition encryption mode, hidden wireless SSID, wireless user isolation, wireless transmission power adjustment, maximum user limit, short guard interval and RTS threshold, China/US wireless channel, WMM
Management	Mobile network detection, local area network (DHCP server), dynamic domain name, UPnP settings, static DHCP, QoS, log management, device alias, access settings, timed restart, backup and recovery, firmware upgrade, system log
Security Policy	IP Filtering, MAC Filtering, URL Filtering, Keyword Filtering, IP Address Black and White List, Port Forwarding, Port Redirection, DMZ Settings
VPN Tunnel	GRE, PPTP Client/Server, L2TP Client/Server, IPSec
Troubleshooting	Ping test, route tracing
Routing Technique	VRRP, RIP, OSPF, routing list settings
Time Management	NTP Client
WIFI Transmission Rate	802.11n: 6.5~300Mbps 802.11b: 11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps
WIFI RF	Channel: 2.412GHz~2.4835GHz RF power output: 23dBm Modulation methods: DBPSK, DQPSK, CCK, OFDM, 16-QAM, 64-QAM
WIFI Receiving Sensitivity	802.11n_HT40: -82dBm@MCS0, -64dBm@MCS7 802.11n_HT20: -85dBm@MCS0, -67dBm@MCS7 802.11g: -91dBm@6Mbps, -72dBm@54Mbps 802.11b: -93dBm@1Mbps, -87dBm@11Mbps
WIFI Transmission Power	802.11n_HT40: 23dBm@MCS0, 20dBm@MCS7 802.11n_HT20: 23dBm@MCS0, 20dBm@MCS7 802.11g: 23dBm@6Mbps, 20dBm@54Mbps 802.11b: 23dBm@1Mbps, 23dBm@11Mbps

LTE Operating Frequency Band	TDD-LTE: Band38/39/40/41 FDD-LTE: Band 1/3/5/7/8/20 WCDMA: Band1/5/8 TD-SCDMA: B34/39 EVDO/CDMA1X: BC0 GSM: Band 3/8
LTE Bandwidth (downstream, upstream)	TDD-LTE: Rel 9 Cat4 TDD-LTE 112Mbps/30Mbps FDD-LTE: Rel 9 Cat4 FDD-LTE 150Mbps/50Mbps DC-HSPA+: 42Mbps/5.76Mbps HSPA+: 21Mbps/5.76Mbps UMTS: 384kbps/384kbps EVDO RevA: 3.1Mbps/1.8Mbps EVDO Rev0: 2.4Mbps/153.6kbps TD-HSPA: 4.2Mbps/2.2Mbps TD- SCDMA: 2.8Mbps/2.2Mbps CDMA 1x: 153.6kbps/153.6kbps EDGE: 236.8kbps/236.8kbps GPRS: 85.6kbps/85.6kbps
LTE Sensitivity	GSM: <-108dBm WCDMA: <-109dBm TD-SCDMA: <-108dBm TDD-LTE: • Band38/39/40: <-100dBm@5MHz BW • Band41: <-98dBm@5MHz BW DD-LTE: • Band1: <-100dBm@5MHzBW • Band3/8: <-97dBm@5MHzBW • Band5: <-98dBm@5MHzBW CDMA: <-108dBm EVDO: <-108dBm
Maximum Transmission Power of LTE	LTE-FDD/TDD: 23 ±2dBm WCDMA: 24 +1/-3dBm TD-SCDMA: 24 +1/-3dBm EVDO/CDMA 1X: 24 ±1dBm GSM850/900: 33±2dBm GSM1800/1900: 30±2dBm
Interface	Copper port: 5 10/100Base-T(X) RJ45 ports, which could be configured to 5 LAN or 4 LAN+1 WAN Serial port: 2 RS-232 or 2 RS-485 I/O port: reserved SIM slot: 2 SIM slots, redundancy backup, support 1.8V/3V SIM card Antenna interface: • 2 LTE antenna interfaces, SMA-K (Female). Master antenna is used for sending/receiving information;

	slave antenna is used for receiving information • 2 WIFI antenna interfaces, RP-SMA-K(Female)
Indicator	WLAN indicator, LTE signal strength indicator, running indicator, alarm indicator, power supply indicator, SIM indicator, LTE indicator, copper port connection indicator, serial port connection indicator, RLY indicator, DI indicator
Serial Port Parameter	ESD protection: ±15KV Data bit: support 7, 8bits. 8 bits by default. Check bit: support ODD, EVE Check, No Check, Mark Check, Space Check Stop bit: 1, 2 bit Baud rate: 300bps-15200bps RS-232: TXD, RXD, GND RS-485: Data+(A), Data-(B), GND
Physical Characteristic	Housing: IP30 protection, metal Dimension (W x H x D): 53mm x 138mm x 110 mm(exclude antenna) Installation: DIN-Rail mounting Weight: 570g
Working Environment	Operating temperature: -40~75℃ Storage temperature: -40~75℃ Relative humidity: 5%~95% (no condensation)
Power Supply	Dual power supply redundancy, voltage range: 12～36VDC, support non-polarity, built-in overcurrent 2.0 protection
Power Consumption	No-load: 3.38W@24VDC Full-load: 7.15W@24VDC
Industrial Standard	IEC 61000-4-2 (ESD, electrostatic discharge), Level 3 • Air discharge:± 8kV • Contact discharge: ±6kV IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 3 • Power supply: ±2kV • Ethernet port: ±1kV • Relay: ±2kV IEC 61000-4-5 (Surge), Level 3

	• Power supply: common mode±2kV, differential mode±1kV • Ethernet interface: ±2kV • Relay: common mode ±2kV, differential mode±1kV Shock: IEC 60068-2-27 Free fall: IEC 60068-2-32 Vibration: IEC 60068-2-6
Authentication	CE, FCC, RoHS
Warranty	5 years

Ordering Information

Model	100M Copper Port	Serial Port	SIM Card Slot	WIFI Antenna Interface	LTE Antenna Interface	Power Supply
IRT5300-AW-5T2D-2LVI	5	2	2	2	2	12~36VDC

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