3onedata
Make network communication more reliable

IRT5300-AW-5T2D

DIN-Rail Mounting
Industrial-grade 4G Router

- Support 5 100M copper ports (one of them supports PoE power receiving), 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 WLAN wireless hotspot function
- Support dual power supply, input voltage: 12~48VDC
- PoE port supports 48VDC power supply input
- Support -40～75℃ wide operating temperature range

WiFi RS-232 RPS

Introduction

IRT5300-AW-5T2D is industrial-grade 4G router. Its PoE power supply conforms to IEEE802.3af/at protocol standard. This product supports 5 100M copper ports (one of them supports PoE power receiving), 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 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, UPnP Setting, VRRP, RIP, OSPF and Static DHCP, 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 could bring you great user experience though its friendly designed system interface and easy and convenient operation.

The power supply input consists of two independent power supply circuits, which can ensure device's normal operation when one fails. The design of DIP switch could implement device reboot and factory setting 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 temperature and voltage design. It can be widely used in railway transportation, intelligent transportation, smart grid, environmental monitoring, fire monitoring, security monitoring, hydrological monitoring, public safety, industrial control, earthquake monitoring, meteorological monitoring, instrument monitoring and other industries.

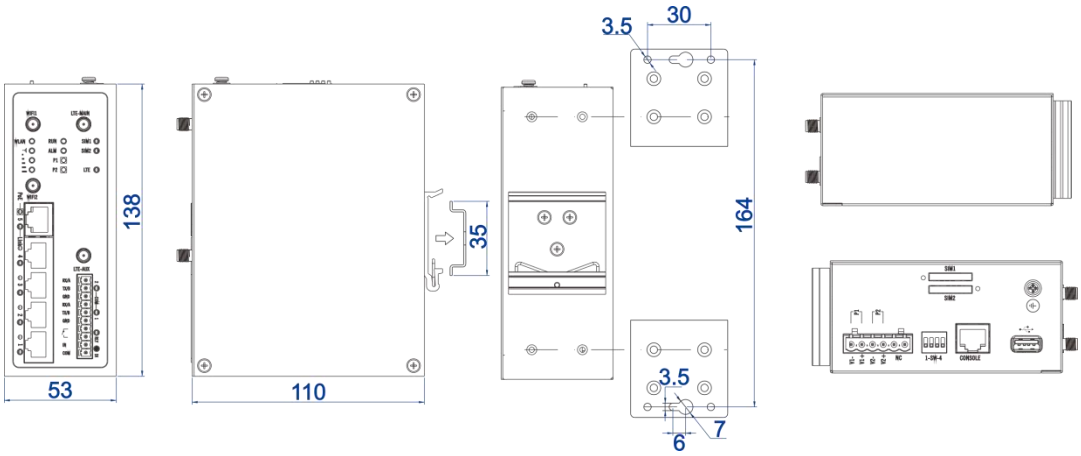
Features and Benefits

- 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.

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

Dimension

Unit:mm



Specification

Standard & Protocol	IEEE802.11b/g/n for WLAN IEEE802.11i for wireless security IEEE802.11r for fast roaming IEEE802.3af/at for PoE IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X)
Security	SSID Broadcast Switch, MAC Filtering, IP Filtering, URL Filtering, Keyword Filtering, WPA2-PASK and WEP SHARED Encryption, NAT, Port Mapping, Virtual Server, GRE, PPTP Client, PPTP Server, L2TP Client, L2TP Server and IPSEC VPN Encryption, DMZ
Reliability	Floating Route RIP, VRRP, Multi WAN Port and Wire/Wireless Interface Backup, Link Online Test,

	Embedded Watchdog
Troubleshooting	Ping, Traceroute, Port Loopback
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 scheme: 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 (downward, upward)	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

	FDD-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 female. Master antenna is used for sending/receiving information; slave antenna is used for receiving information • 2 WIFI antenna interfaces, SMA female
Indicator	WLAN indicator, LTE signal strength indicator, running indicator, alarm indicator, power supply indicator, SIM indicator, LTE indicator, PoE 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 No Check, Odd Check, Even 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
Environmental Limit	Operating temperature: -40~75℃

	Storage temperature: -40~75℃ Relative humidity: 5%~95% (no condensation)
Power Requirement	Dual power supply redundancy, voltage range: 12 ~ 48VDC, support non-polarity, reverse polarity protection, built-in overcurrent 2.0 protection support standard 48V PoE power supply, which conforms to 802.3af/802.3at standard(100m max)
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), 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 port: ±2kV ● Relay: common mode±2kV, differential mode±1kV Shock: IEC 60068-2-27 Free fall: IEC 60068-2-32 Vibration: IEC 60068-2-6
Certification	CE, FCC, RoHS

Ordering Information

Available Models	100m Copper Port	Serial Port	Antenna Interface	SIM Slot	Power Supply
IRT5300-AW-5T2D-2P12_48	5	2	4	2	12~48VDC or 48VDC PoE

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