



3 x 10/100 Mbps LAN, 1 x 10/100 Mbps WAN with optional PoE/PD, 1 x GPS, 2 x SIM Card, 1* RS 485, 1* RS 232, 2 x DI, 1 x DO (Alarm +/-), 1* RS-232 Console

The IR-301X is a robust industrial grade 4G LTE router. It provides 3-port 10/100 Base-TX Ethernet interfaces and 1-port 10/100 Base-TX WAN with optional PoE/PD as well as GPS function to track the router location and display sync time for quickly managing existing devices. The IR-301X is integrated with LAN, WAN, dual SIM, VPN, Firewall, built-in DI/DO and Serial 232/485 port. The device can be administrated via web GUI, Telnet, SSH v2 and HTTP/HTTPS. It also provides software features, such as Modbus for SCADA system or M2M connectivity, and MQTT for M2M application. The critical VPN security supports IPSec, OpenVPN, and GRE, etc. to enhance encryption for authentication and transmission for Industrial Internet of Things (IIoT) and M2M(Machine-to-Machine) applications, such as remote control and monitoring, bus ticketing collection system, CCTV, SCADA, digital signage, kiosk and intelligent traffic systems. It supports up to -40 to +75°C and a flexible input voltage range of 10-32V DC.

Features

- Highly reliable and secure for mission-critical cellular communications
- Support multi-band connectivity with FDD LTE/ TDD LTE/ WCDMA/ GSM/ LTE Cat4
- Built-in dual SIM for network redundancy
- Integrated dual detachable antenna against radio interference
- Equipped with GPS for quickly and easily deploying your devices
- LED indicators for connection and data transmission status
- Industrial rated from -40 to +75°C for use in harsh environments
- Metal Housing with IP40 industrial grade protection
- IPv6/IPv4 dual stack and all applications are IPv6 ready
- Support various serial communication protocols for rich connectivity
- Enhance security and encryption for authentication and transmission

Specification

LTE Interface	<ul style="list-style-type: none">● FDD LTE: B1/B3/B5/B7/B8/B20● TDD LTE: B38/B40/B41● WCDMA: B1/B5/B8● GSM: 900/1800 MHz● LTE Cat4
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Port Interface	<ul style="list-style-type: none"> ● High performance 528 MHz CPU with 512 Mbytes of DDR3 memory ● 2 x SIM Card Slots ● 1 x WAN 10/100 Mbps Ethernet port(IR301N) or 1 x WAN 10/100 Mbps Ethernet port w/ PoE/PD(IR301P) ● 3 x LAN 10/100 Mbps Ethernet ports ● Reset Button ● Console: 1 x RS232 (9-pin Sub-D) ● 2 x SMA connectors for detachable LTE antenna ● 1 x GPS detachable antenna (Optional) ● 1 x RS485 (D+/D-) ● 1 x RS232 (TXD/RXD) ● 2 x DI, 1 x DO (Alarm +/-)
Software Features	<ul style="list-style-type: none"> ● Network Protocols: <ul style="list-style-type: none"> ■ IPv4, IPv6, IPv4/IPv6 dual stack, DHCP server and client, ■ PPPoE, Static IP, SNTP, GPS sync time, DNS Proxy, ■ Modbus, VRRP, OSPF, Message Queue Telemetry Transport (MQTT Broker), BGP ● Routing/Firewall: <ul style="list-style-type: none"> ■ NAT, Virtual Server, DMZ, MAC Filter, URL Filter, IP Filter, ■ VLAN, Static Routing and RIP-1/2 ● VPN: <ul style="list-style-type: none"> ■ OpenVPN, IPsec (3DES, AES128, AES196, AES256, MD5, SHA-1, SHA256), GRE, PPTP, L2TP ● Wireless Connectivity: <ul style="list-style-type: none"> ■ Two SIM for failover/ roaming over/ back up ■ Two SIM data usage control ■ Seamless multi WAN connections switch ● Others: <ul style="list-style-type: none"> ■ DDNS, QoS, Virtual COM, UPnP ● Alarm: <ul style="list-style-type: none"> ■ DI, DO, SMS, VPN/WAN Disconnect, SNMP Trap, E-mail
Management	<ul style="list-style-type: none"> ● Web GUI for remote and local management, CLI ● Dual Image firmware upgrade by Web GUI ● Syslog monitor ● SNMP, TR069 ● Remote management via SSH v2, HTTPS ● Local management via Telnet, SSH v2, HTTP/HTTPS
LED Display	<ul style="list-style-type: none"> ● 1 x System status LED (Green) ● 1 x VPN status LED (Green) ● 1 x SIM1 status LED (Green) ● 1 x SIM2 status LED (Green) ● Ethernet status LEDs (Green for LINK/ACT, Yellow for SPEED) ● 2 x Mobile connection strength LEDs (Green)
Mechanical	<ul style="list-style-type: none"> ● Enclosure : Metal Shell ● Housing : IP40 Protection ● Dimensions (W x H x D) : 60 x 110 x 106 mm ● Weight : 452 g (0.9965 lb) ● Installation : DIN Rail (Default) or Wall Mount (Optional)
Environment	<ul style="list-style-type: none"> ● Operating Temperature -40 ~ +75°C ● Storage Temperature -40 ~ +85°C ● Ambient Relative Humidity 10 ~ 95% (non-condensing) ● Humidity 0 ~ 95% (non-condensing)
LED Display	<ul style="list-style-type: none"> ● 1 x System status LED (Green) ● 1 x VPN status LED (Green) ● 1 x SIM1 status LED (Green) ● 1 x SIM2 status LED (Green) ● Ethernet status LEDs (Green for LINK/ACT, Yellow for SPEED) ● 2 x Mobile connection strength LEDs (Green)

Power Supply	<ul style="list-style-type: none"> ● Power Consumption 7 Watts(Max) ● Power Input 10 ~ 32V DC
MTBF (mean time between failures)	<ul style="list-style-type: none"> ● 148,930 hrs (MIL-HDBK-217-FN2)
Standards & Certifications	<ul style="list-style-type: none"> ● EMC : CE, FCC ● EMI : EN 55032 Class A, FCC Part 15 Subpart B Class A ● EMS : EN 55024 / EN 61000-4-2 (ESD) Level 3 / ● EN 61000-4-3 (RS) Level 3 / EN 61000-4-4 (EFT) Level 4 / ● EN 61000-4-5 (Surge) Level 3 / EN 61000-4-6 (CS) Level 3 / EN 61000-4-8 (PFMF) Level 4 / EN 61000-4-11 / ● EN 61000-6-2 (Industrial) / EN 61000-6-4 (Industrial) ● Rail Traffic : EN50121-4 ● Vibration : IEC60068-2-6 ● Safety : EN60950-1 ● Highly Accelerated Life Test (HALT)

Ordering Information

Model	Description
IR-301E	Industrial 4G LTE Router (1 x WAN, 3 x LANs, 1 x RS232, 1 x RS485, 2 x DI, 1 x DO, 2 x SIM Card Slots, 1 x GPS, 1 x RS-232 Console) -40 ~ +75°C
IR-301P	Industrial 4G LTE Router w PD/PoE (1 x WAN w/ PD/PoE, 3 x LANs, 1 x RS232, 1 x RS485, 2 x DI, 1 x DO, 2 x SIM Card Slots, 1 x GPS, 1 x RS-232 Console) -40 ~ +75°C

Dimension

