# IOT-R41
Mini Industrial Router

LINOVISION

LINOVISION mini industrial router IOT-R41 supports 4G connection, and also satisfies multi-type local data access requirements through rich industrial interfaces, including DI, DO, RS232 or RS485. IOT-R41 make it easy for forming a reliable, secure, and maintainable solution through its built-in watchdog and secure VPN tunnels, realizing stable data transmission and high-speed mobile connectivity.

With a compact size and industry-grade design, IOT-R41 is more flexible in a variety of installation and deployment scenarios. IOT-R41 adopts a power-saving design with both idle mode and standby mode for providing users with an energy-saving option. IOT-R41 could be managed and monitored remotely by LINOVISION DeviceHub, IOT-R41 could be applied in wide scenarios including vending machines, robots, industrial equipment, and other IoT applications with optimal cost and performance.

◆ Application Example
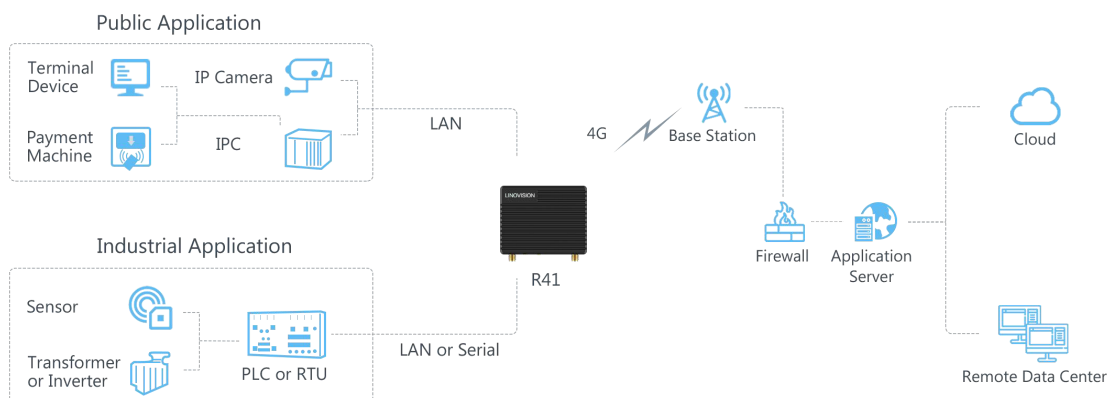
◆ Features

Highlight Features

- Compact size for suiting small embedded scenarios
- Global 4G LTE CAT4/3G network with multiple carrier networks
- Easy to connect with diverse wired devices through DI/DO/RS232/RS485 interfaces
- Power-saving design for both idle mode and standby mode for providing users with an energy-saving option

Industrial-Grade Design

- NXP industrial grade processor
- Rugged enclosure with IP30 protection
- Desk or wall mounting
- Wide operating temperature range from -40°C to 60°C/-40°F to +140°F

Security & Reliability

- Secure transmission with VPN tunnels like IPsec/OpenVPN/GRE/L2TP/PPTP /DMVPN
- Embeds hardware watchdog to automatically recover from various failures, ensuring highest level of availability
- Supports access control lists, DMZ, DDoS Protection, Filters, SPI firewalls
- Establishes a secured mechanism on centralized authentication and authorization of device accessed by supporting AAA (Radius, TACACS+, LDAP, local Authentication) and multiple levels of user authority

Easy Maintenance

- DeviceHub provides easy setup, mass configuration, and centralized management of remote devices
- The user-friendly web interface design and more than one option of upgrade help administrators to manage the device as easy as pie
- WEB GUI and CLI enable the admin to achieve simple management and quick configuration among a large quantity of devices
- Efficiently manage the remote routers on the existing platform through the industrial standard SNMP

◆ Specifications

Hardware System	
CPU	ARM Cortex-A7, 528 MHz
Memory	128 MB DDR3 RAM and 128 MB Flash
Cellular Interface	
Network	4G LTE (CAT 4)/WCDMA/GSM
Antenna Connector	1 × 50 Ω SMA Connector (Center PIN: SMA Female)
SIM Slot	1 (Nano SIM-4FF)
Ethernet Interface	
Numbers	1 × 10/100 Mbps LAN Port
Mode	Full or Half Duplex (Auto-Sensing)
GNSS	
Antenna Connector	1 × 50 Ω SMA Connector (Center PIN: SMA Female)
Technology	GPS/GLONASS/Beidou/Galileo/QZSS
Serial Interface	
Number	1 × RS232 or 1 x RS485 (Software Switchable)
Connector	3.5mm Terminal Block
Terminal Resistor	1 × 120 Ω Resister Switch (for RS485)
Baud Rate	300bps to 230400bps
DI/DO	
Numbers	1 × DI (dry contact) + 1 × DO (wet contact), Galvanic Isolation
Connector	3.5mm Terminal Block
Maximum V/A	0.3A@30VDC (DO)
Others	
Reset Button	1 × RESET
USB	1 × USB 2.0 (Type-C) for Power Supply, Network Supply and Debug
LED Indicators	1 × SYSTEM, 1 × SIM
Built-in	Watchdog, Timer
Software	
Network Protocols	IPv4/IPv6, PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QOS, SNTP, Telnet, SSH, etc.
VPN	DMVPN, IPsec, OpenVPN, PPTP, L2TP, GRE
Security	SPI Firewalls, Access Control (ACL), DMZ, Port Mapping, MAC Binding, DoS&DDoS Protection, Filtering(IP&Domain)

Management	Web, CLI, SMS, On-demand dial up, SNMP v1/v2/v3, DeviceHub, MilesightVPN
AAA	Radius, Tacacs+, LDAP, Local Authentication
Multilevel Authority	Multiple Levels of User Authority
Serial Port	Transparent(TCP Client/Server, UDP), Modbus Master/Slave, Modbus Gateway (Modbus RTU to Modbus TCP)

Power Supply and Consumption

| Power Connector	2-pin 3.5 mm Terminal Block
Power Input	1. 5-24 VDC, with Surge-Protection and Reverse Polarity Protection 2. 5V/1A by USB Type-C Port
Power Consumption	Idle: 78mA@12V Data link: 226mA (peak)@12V Standby mode: 6.3 mA@12V

Physical Characteristics

Ingress Protection	IP30
Housing & Color	Metal, Black
Weight	103g
Dimension	70 x 55 x 22 mm (2.76 x 2.17 x 0.87 in)
Installation	Desktop, Wall Mounting

Environmental

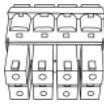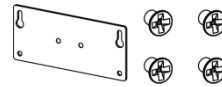| Operating Temperature	-40°C to +60°C (-40°F to +140°F)
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Ethernet Isolation	1.5 kV RMS
Relative Humidity	0% to 95% (Non-condensing)

◆ Dimensions(mm)
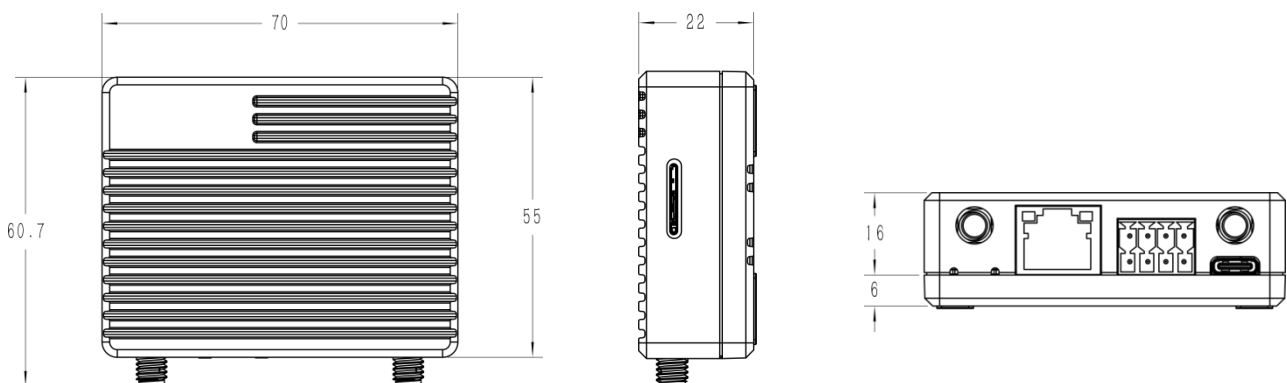
◆ Accessories

1 × Power Adapter

1 × 8-Pin Pluggable Terminal

1 x Wall Mounting Bracket with Screws

4 × Wall Mounting Kits

1 × SIM Card Ejector Tool

1 × Magnetic Cellular Antennas

1 × GPS Antenna

1 × 108mm Stubby Cellular Antenna **(Optional)**

1 × Mini Stubby Cellular Antenna **(Optional)**

1 × USB 2.0 Cable **(Optional)**

*Note: Contact us if you need any other special accessories or customized accessories.