



# USR IOT

Network Communication Expert of Industrial IoT

[www.usriot.com](http://www.usriot.com)

# Marketing system

## Sales Channel

Headquarter: Jinan

Branch office: Shanghai

Distributor: Taiwan, America, Germany, Russia, Italy, Mexico, Brazil, Korea, Thailand, Iran, Macedonia, Israel, India, Pakistan and Singapore

## Place Online

 Alibaba.com	 www.aliexpress.com	 www.amazon.com	<b>OFFICIAL STORE</b> en.usr.cn	<b>USR IOT</b> www.usriot.com
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Jinan Information Technology Exposition



Las Vegas CES Show



HongKong Spring Electronics Fair



HongKong Autumn Electronics Fair



Mobile World Congress Americas 2017



2017 CeBIT



Hong Kong Spring Electronics Fair



The 25th Indian IoT exhibition in 2017

## USR SUPPORT

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www.usriot.com



Support



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# Communication expert of industrial IoT

## Company Introduction

Jinan USR IOT Technology Limited has been focusing on network communication for IoT since 2011. Our mission is to be the communication expert of industrial IoT that makes the network communication easier and more reliable.

USR IOT provides quality products - serial to ethernet module & converter, serial to wi-fi converter, cellular modem, 4G cellular router, IoT gateway, LoRa concentrator and NB-IoT module with CE, FCC, CCC, RoHS for industrial networking, which allows companies connect to the Internet - simply, quickly and reliably in more than 40 countries. We believe God rewards the diligent, and we are willing to grow together with our clients and make them successful.



### Why Choose USR IOT?

- More than 8 years of experience
- Full refund in case of bad quality or late delivery
- Professional online technical services



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## Cellular 4G LTE Router

Cellular Router are relying on 2G/3G/4G  
network for communication over internet  
by remote system

## Cellular Router



Low cost Cellular Router  
USR-G806



V2 Four Lan port LTE router  
USR-G800 V2



Dual SIM 4G Router  
USR-G808

**Industrial design:** 32-bit high speed processor, ESD electrostatic protection, anti-surge, power anti-reverse connection, watch dog circuit

**APN:** Supports APN modification

**VPN-Virtual Private Network:** Ensure the safety of data transmission, convenient for network accession

**Wireless connection:** 802.11b/g/n Wi-Fi communication

**More Functions:** Intelligent QOS control, firewall, Wi-Fi dog, automatically detect network disconnection

### Frequency Band:

		Operation Band			
Network Type		Asia	Europe	Australia	American (AT&T)
4G	FDD-LTE	1/3	1/3/5/7/8/20	1/3/4/5/6/7/8/28	2/4/12
	TDD-LTE	38/39/40/41	38/40/41	40	
3G	WCDMA/HSPA/UMTS	1/8	1/8	1/2/5/8	2/4/5
2G	GPRS/GSM/EDGE	3/8	3/8	2/3/5/8	



## USR-G806



### Feature:

- > Lan Port: 1 x WAN/LAN Port, 1x Lan port
- > Hardware/Software watchdog
- > Antenna: 1\*4G antenna, 1\*WIFI antenna
- > Supports APN/VPN, PPPoE
- > Industrial design, supports rail installation
- > Power: 5~36V

## USR-G808



Dual SIM Card

### Feature:

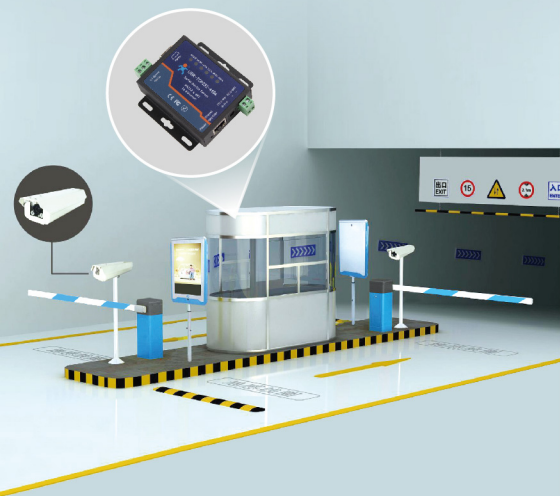
- > Supports Dual SIM cards
- > Power supply: 9V~36V
- > Network Port: 1\*WAN port, 4\*LAN Port
- > Circuit protection: Surge protection, ESD protection, hardware watchdog
- > Port forwarding, automatic disconnection monitoring
- Intelligent QOS flow control



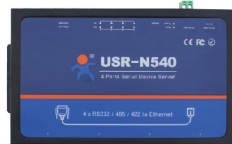
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## Industrial Serial to Ethernet

Those items are widely used in industrial application and designed to make serial device network-ready in an instant and communicate to multiple serial devices simultaneously across network



## TI M4 Serial Ethernet



■ 4 serial port Ethernet converter  
USR-N540

■ 2 serial port Ethernet converter  
USR-N520



■ RS232/RS485 Ethernet converter  
USR-TCP232-410s



■ RS232/RS485/RS422 Server  
USR-N510



■ 8 Serial port converter  
USR-N668



■ 3\* UART Module  
USR-TCP232-ED2



■ 2 \* UART Module  
USR-TCP232-E2

**Operating Temperature:** -40~85C

**Mod-Bus Gateway:** Modbus RTU to Modbus TCP, support Modbus Polling

**Web server:** Web Socket, which can be modified to web controller

**Follow control:** RTS/CTS hardware & XON/XOFF software flow control

## USR-TCP232-ED2



### Feature:

- > VCC 3.3V or VDD 5V
- > 3 UART ports can be work simultaneously
- > 2 network links, each serial supports sending data to two target servers

## USR-N540



### Feature:

- > 4 serial ports, each port can work as RS232, RS485 and RS422
- > Watchdog circuit, never crash
- > Supports network printing function
- > Protection: anti-reverse connection, anti-surge, anti-pulse



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## Low cost serial converter

This product ranges to allow almost any RS232/RS485 devices to be connected to a new or existing Ethernet and Internet. It realizes data transparent transmission between COM and TCP/IP network interface.

## Serial to Ethernet



■ RS232 Ethernet converter  
USR-TCP232-302



■ RS485 Ethernet converter  
USR-TCP232-304



■ RS232/RS485/RS422 serial converter  
USR-TCP232-306



■ SMT TTL UART module  
USR-TCP232-S2



■ Pin TTL UART module  
USR-TCP232-T2

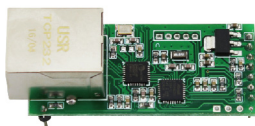
**Operating Temperature:** -25C ~75C

**Keep-alive:** Detect the inactive connection, rebuild the connection automatically

**Built-in Webpage:** Configure parameters by web page, supports customized webpage

**Work Mode:** TCP Client/Server, UDP Client/Server, HTTPD client

## USR-TCP232-T2



### Feature:

- > UART port, 3.3V VCC or 5V VDD
- > Cost-Effective
- > DHCP/DNS

## USR-TCP232-306



### Feature:

- > RS232, RS485, RS422 port, can not be used simultaneously
- > Client connection limits: 1 to 16 in TCP server mode ( Default: 4)
- > Wide power supply: 5~36V



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## Cellular Serial Modem

Use 2G/3G/4G to realize bi-directional transparent data transmission between industrial serial device and remote server under no internet environment.

## Cellular Modem



**Transparent Transmission:** Transparent transmission after simple configuration

**Configuration method:** Serial command or network command or SMS command

**APN modification:** Supports to modify APN to apply to different operators



## USR-GPRS-730



### Feature:

- > RS232/RS485 ports, not use simultaneously
- > Power supply: 9~36V
- > GSM/GPRS band: 850/900/1800/1900Mhz
- > Work Mode: TCP/UDP Client
- > SMS transmission mode, network transmission mode and HTTPD client mode
- > Can be remote configured via SMS

## USR-G781

### 4G LTE Modem



### Feature:

- > 2G/3G/4G LTE 4G serial data transmit unit
- > Power: 9~36V
- > Work Mode: TCP/UDP client, TCP server
- > ARM 9 core processor
- > Supports VPN Client, static routing
- > Integrated hardware and software watchdog timer
- > Support American AT&T /European/ Austrian version.



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## Wi-Fi Module Converter

The popularity of Wi-Fi is a testament primarily to their convenience, cost efficiency and ease of integration with network. It helps you collect data in time, facilitate remote monitoring, and reduce service cost.

## Wi-Fi Module & Converter



**Wi-Fi Standard:** 802.11b/g/n MHz, 2MB Flash, stable in quantity of data transmission

**Built-in Webpage:** configure parameters via web page

**HTTPD Client:** send serial data in HTTP format to HTTP server

**Working Mode:** Station / AP / AP+Station

## USR-W600



### Feature:

- > RS232/RS485 port, can not be used simultaneously
- > Low-cost version
- > Power supply: 5~36V
- > Flow control: CTS/RTS
- > Work Mode: TCP client/server, UDP client/server, HTTPD client / HTTPS client(SSL)

## USR-W610

RS232/RS485 to WIFI/  
Ethernet Converter



### Feature:

- > Ports: RS232, RS485, Ethernet
- > Supports Wi-Fi to Ethernet
- > Modbus RTU to Modbus TCP, Modbus Polling
- > Power: 5~36V
- > Watchdog circuit



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## NB-IoT Module&Modem

NB-IoT (Narrowband-Internet of Thing) is a standards-based on low power wide area (LPWA) technology that works virtually anywhere.



## NB-IoT

### ■ NB-IoT Module

WH-NB73

Feature:

- > UART interface module
- > Work mode: CoAP mode or UDP Mode with AT command
- > Ultra - low power consumption
- > Work Frequency: 824Mhz~849Mhz, 869Mhz~894Mhz

### ■ NB-IoT DTU (Modem)

USR-NB700

Feature:

- > Serial RS232 RS485 to NB-IoT
- > Transparent transmission based on UDP mode
- > Supports CoAP and UDC mode
- > Low Power mode: it is the key to ensure the use of battery-powered

# LoRa

## ■ LoRa Module

WH-L101



Feature:

- > Point to Point
- > Frequency: 803Mhz~930Mhz
- > Support fixed-point sending mode
- > Transmission distance: 2000Km
- > Built-in watchdog, never crash
- > Power supply: 1.8~3.6V

## ■ LoRa Gateway

USR-LG220



Feature:

- > Embedded USR private protocol to realize multi-node data transmission
- > Supports MQTT/Socket Cloud transmission protocol
- > Long communication distance with high receiving sensitivity
- > Work mode: Node active reporting/ Wake up polling mode / Transparent transmission mode



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## LoRa IoT Device

LoRa technology wireless solution to address increasing demands on end-devices for long range connectivity, low-power for operation and low infrastructure cost for volume development.





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IoT gateway device bridges the communication between IoT devices, sensors, systems and the cloud. It also operates as platforms for application that processes data and becomes an intelligent part of a device-enabled system.



## IoT Gateway

### ■ Modbus Gateway

USR-M511



#### Feature:

- > Query Modbus RTU/SACII slave and display data in the internal webpage
- > Work mode: Modbus\_RTU Slave/Master, Modbus\_ASCII Slave/Master
- > Hardware watchdog: Device will restart once disconnect
- > Pulse train: 1.5kv, 100Khz

### ■ IoT Gateway

USR-GW200



#### Feature:

- > Supports Wi-Fi, Bluetooth, Zigbee, LoRa, 433Mhz wireless transmission
- > Linux system based on Openwrt
- > Supports Socket Transparent transmission, HTTP, MQTT, SSL protocol
- > MOQ: 300Pcs



# Embedded Industrial Computer

## ■ USR-EPC500



### Feature:

- Android 4.3, 4-core cortex-A9 processor, which is compatible with Linux application
- Supports to switch between WAN/LAN interface and 4G routing function
- There are six serial ports, two of them can be switched among RS232/RS485/RS422
- Network: Dual Ethernet port and 2G 3G 4G Network
- OpenGL ES2.0 and OpenVG™1.1 hardware accelerator
- Supports 2D, 3D graphics acceleration.



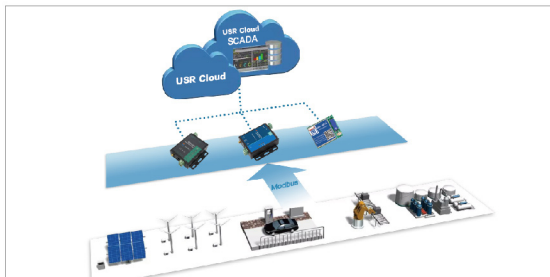
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USR-EPC500 is not only the industrial computer, but also the IoT network device which likes an android computer and industrial router to be designed together.



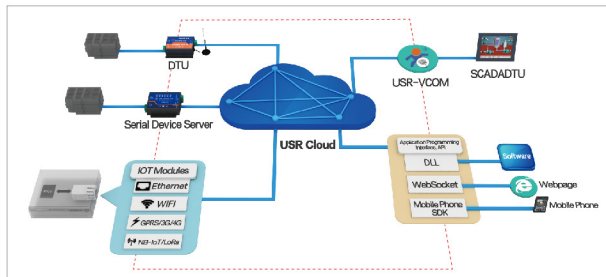
### IOT Cloud Configuration

Rapid Implementation of Remote Monitoring with NO Programming

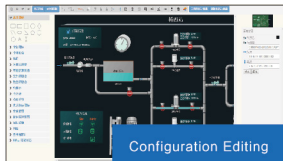
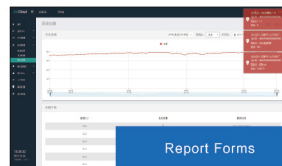
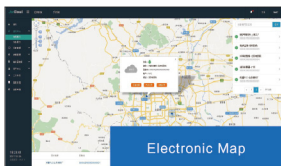
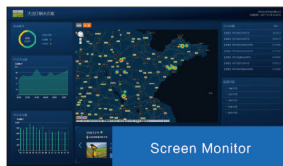


### How to access USR Cloud?

Perfectly Support Modbus Protocol --- Rapid Implementation of Remote Monitoring



### What USR Cloud can do?



# Solutions & Applications

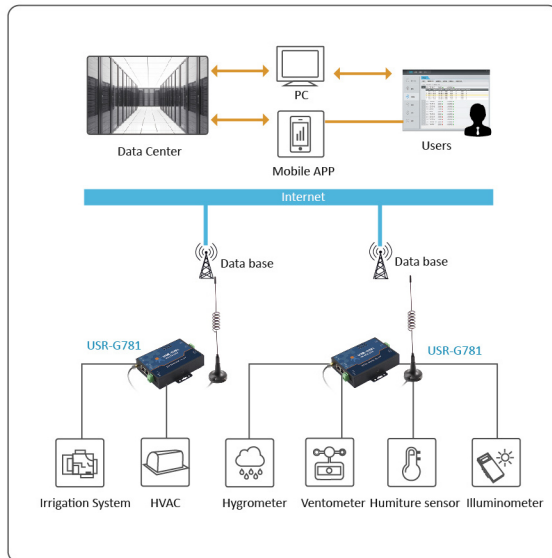


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## Precision agriculture:

**Precision agriculture: How does agriculture do the right thing at the right time?**

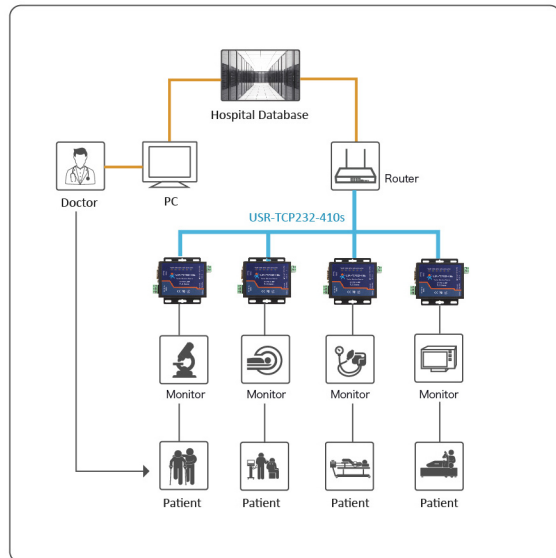
With Internet of Thing, farming can be precision and smart. This system is a closed-loop system. The sensors get the temperature, relative humidity, illumination intensity and other information. Then the sensors send these data to the data center by USR devices. The actuators receive the commands and operate the pump, light, air-conditioner and so on.



## Healthcare:

**How does a doctor to take care a hundred patients.**

In modern times, our healthcare industry is far away from what we needs. Nowadays, people are finding a way to increase the number of patients that one doctor manage. With IoT medical devices, the doctors can take care of more patients. The IoT devices decrease the cost, reduce the error and enhance patient experience in hospital.

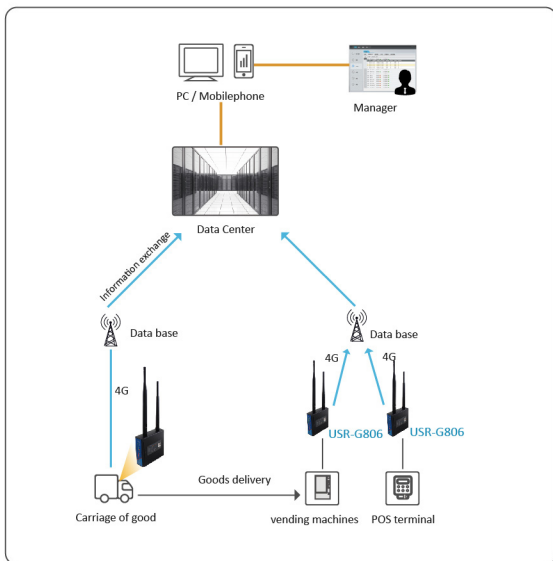


## Solutions & Applications

### Retail:

#### What is the most efficient method to handle a city of vending machines.

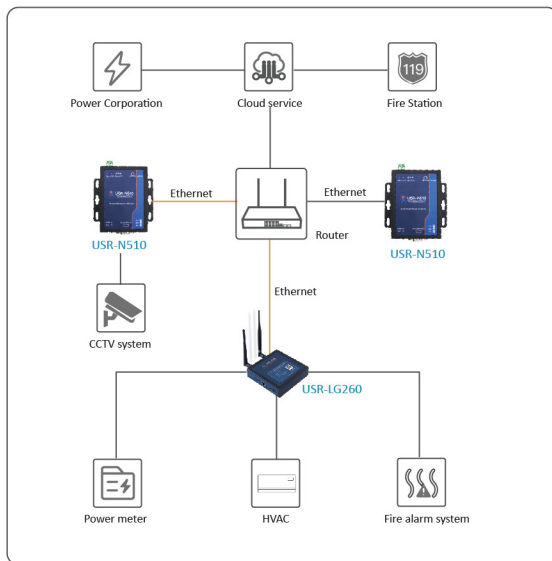
The vending machines are in every corner of the city. If you want to monitor every machines data and make the delivery on time, you need a IoT system to handle it. The USR devices will update real-time data to the data center. Managers are easy to schedule the trucks with this system.



### Building management system:

#### How can administrator get red alert in 5 seconds?

In modern times, buildings are bigger and bigger, the administrator is impossible to monitor a whole big building. We have to turn to IoT devices to monitor and manage our building system. Power corporations and fire stations can get real-time data from every home. If there was an emergency, related staffs can response at once.





## Applicable Industry

USR IoT products can be used in the following industries, welcome to contact our FAE for more details:



### BMS

- Security & CCTV system
- Fire alarm and safety system
- Access control
- Heating and Air-condition HVAC Solution

- Power & Smart Grid
- PV Inverter management
- Electric power control system
- Smart Charging-pile



### Energy





Industrial  
Automation

- Oil & Gas management
- Industrial weighing system
- Production line control
- PLC network management

- Remote wireless monitoring platform
- Remote patient Monitoring system
- Mothercare system
- Health Network



Healthcare



# Be honest, Do best !



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