The GPRS Remote Terminal Unit

(USR-RTU-211)
(USR-RTU-411)

File version: V1.0

Content

1. Product Description

1.1. Instruction

USR-RTU series is a device used to monitor and control field devices through the mobile phone operator's network card relying, for data transfer using GPRS, the device will automatically connect to the control of the treasure of the server, can be Windows, Android, IOS, MAC four platforms control software for remote control.

1.2. Features

- Four frequency for all countries
- Easy to use, no need to configure
- Support GPRS/GSM network, do not support CDMA/EDEG/3G
- 4 channel relay outputs can control 220V or 380V devices
- With analog input detection, input range 0 ~ 10V
- With digital input monitoring if external device is connected
- Use MD251 industrial module
- Using single module embedded protocol stack, no external CPU, higher stability
- Embedded TCP/IP protocol stack and GPRS technology
- Support remote parameters settings, can change IP, port, ect. by SMS
- Support public and APN network access
- Through an account login, using a variety of software platforms casual observation and control, remote operation anywhere
- Matched sucker antenna, convenient for customers install and use inside the iron case

1.3. Parameters

- Working Voltage: DC:12V
- Working temperature: -40~80Celsius
- Storage temperature: -40~80Celsius
- Storage humidity: 5%~95%RH
- MAX transmit consumption: GSM900,GSM900 class4(2W)
  DCS1800,PCS1900 class1(1W)
- Working Frequency: 850/900/1800/1900MHZ

2. Install

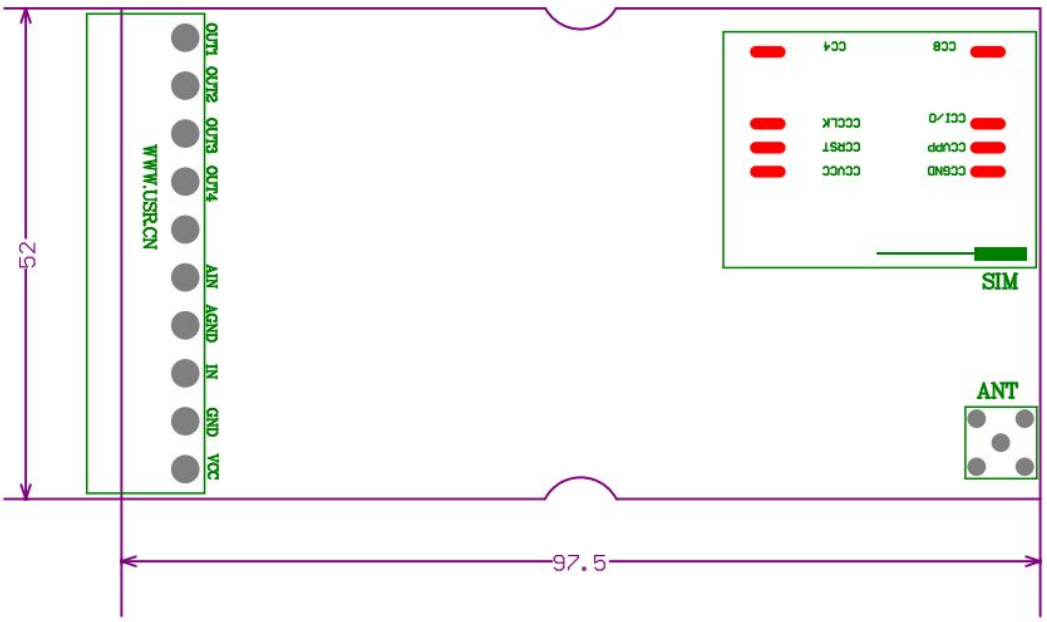
2.1. Packing list

- 1. USR-RTU-××× * 1 (with shell)
- 2. GPRS antenna (SMA Interface)
- 3. Power adapter * 1
- 4. User guide CD * 1

2.2. Size and Diagram

USR-RTU products packaged in plastic enclosure and can be used independently, housing has a mounting slot, user-friendly installation, specific dimensions see the following figure.

(Unit: mm)



2.3. Antenna and SIM Card Installation

The antenna use SMA female base. Revolve the SMA male head to RTU antenna base, and ensure it is tightened, not to affect the signal quality.

When install or take out SIM card, firstly use a spike to insert the little yellow point on the right side of SIM base, then SIM cutting ferrule is open. SIM card should be put into cutting ferrule in first while installing, ensure metal face outside.

2.4. Power Supply

RTU is widely used in complex external environment. To adapt to its application and improve working stability of system, it use advanced power technologies, users can use our 12V 1A power adapter directly.

2.5. Indicator Lamps

There are 3 indicators on RTU: “NET”, ”POW”, ”DATA”

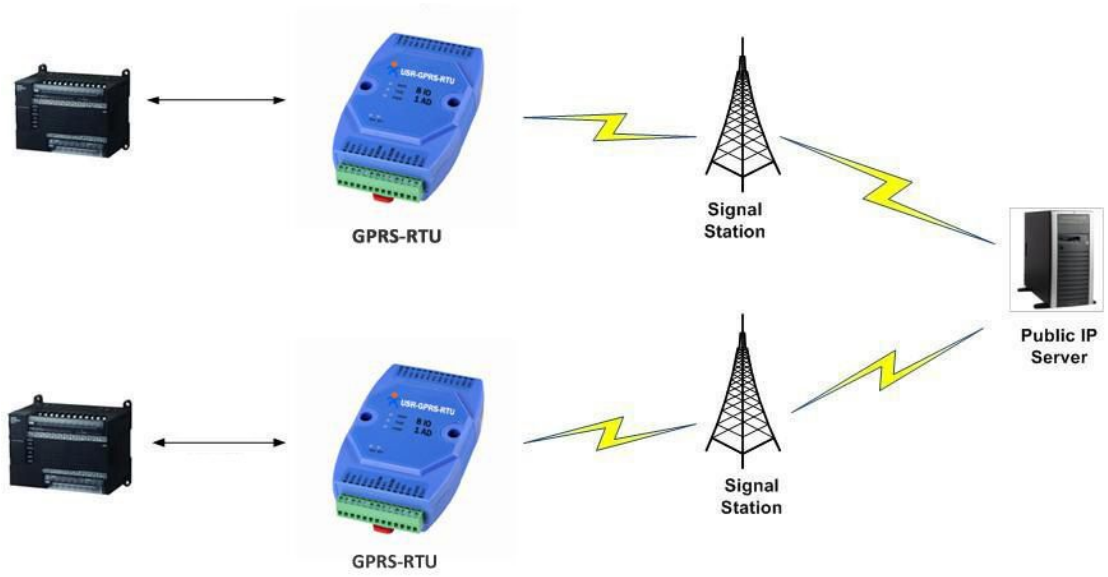
index	name	description
1	PWR	On once power is on
2	NET	State Module function: Off Module is not running; 64ms On/800ms Off Module does not find the network; 64ms On/3000ms Off Module find the network; 64ms On/300ms Off GPRS communication;
3	DATA	When TCP link is established, it will on

2.6. Device Interface

Indicia	description
IN,GND	Digital inputs for dry contacts access
4	
COM,OUT	Relay outputs connected control devices required Allows an external device parameters: -411 AC: 3A/220V, DC: 3A/30V -211 AC: 10A/220V, DC: 10A/30V

3. RTU Operation

USR-RTU easy to use for the convenience of users, customers do not need any configuration, use the device default configuration to access our public servers.



3.1. Hardware Connection

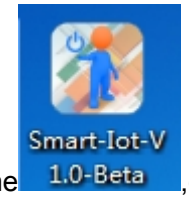
- DC12V power supply via terminal input signal
- Access through terminal input and output devices
- Installing the SIM card
- GPRS antenna installation

After power-up, POW, DATA indicator constants, NET flashes, indicating that the device enters the normal working condition

3.2. Software Operation

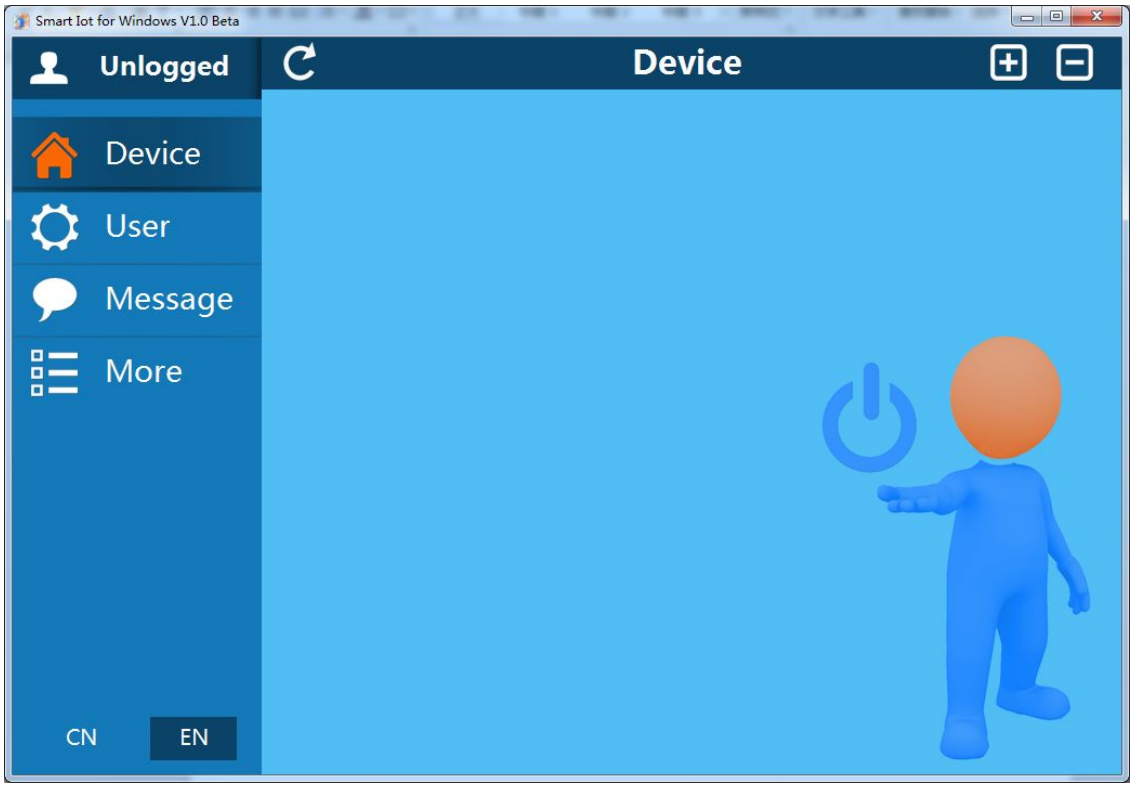
USR-RTU series after power through relying on mobile Unicom phone card operator's network, using GPRS for data transfer, the device will automatically connect to the control of the treasure of the server, can be Windows, Android, IOS, MAC control software of four platforms remote control.

Below WINDOWS platform, for example the use of a brief RTU:

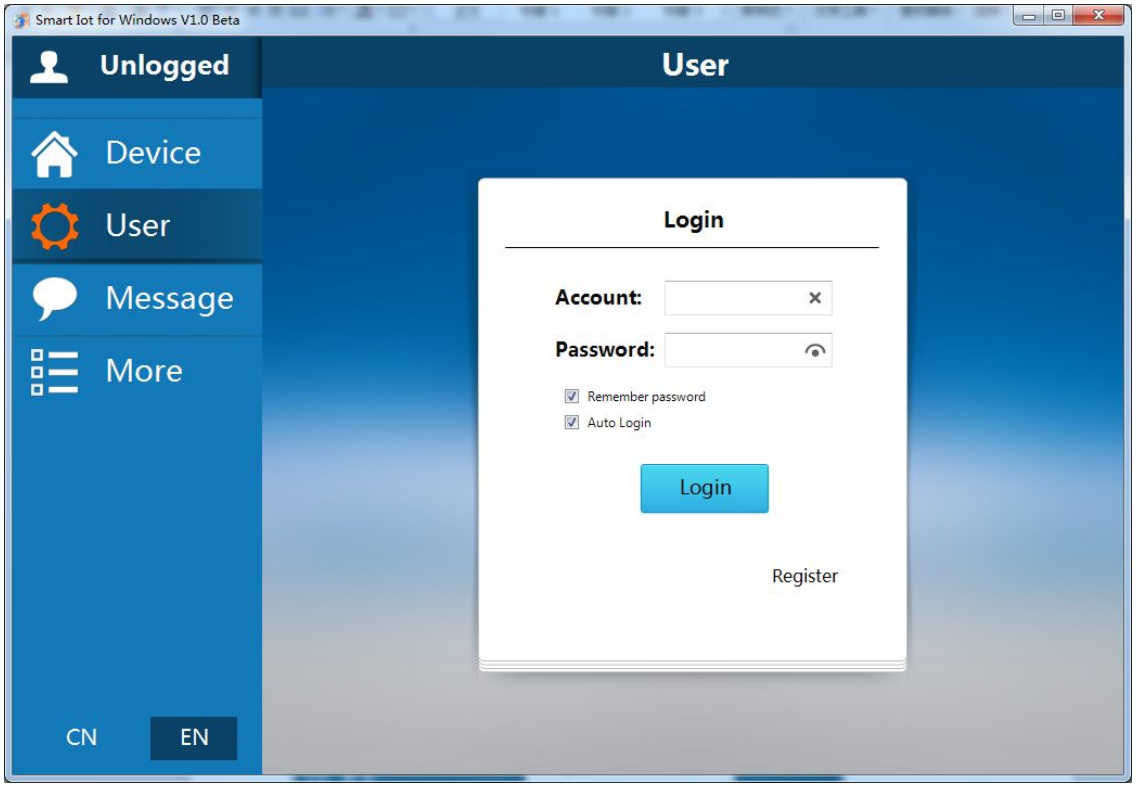
1.Double-click the 

,open IOT software.

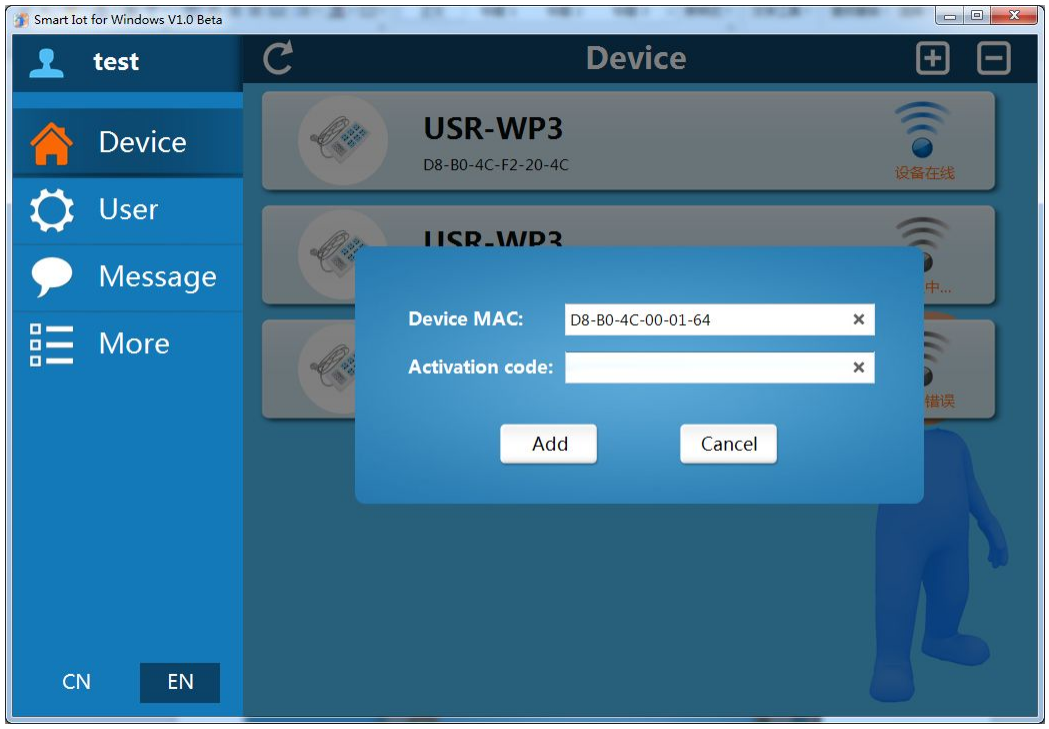
2.Run the software, the software interface as shown below:



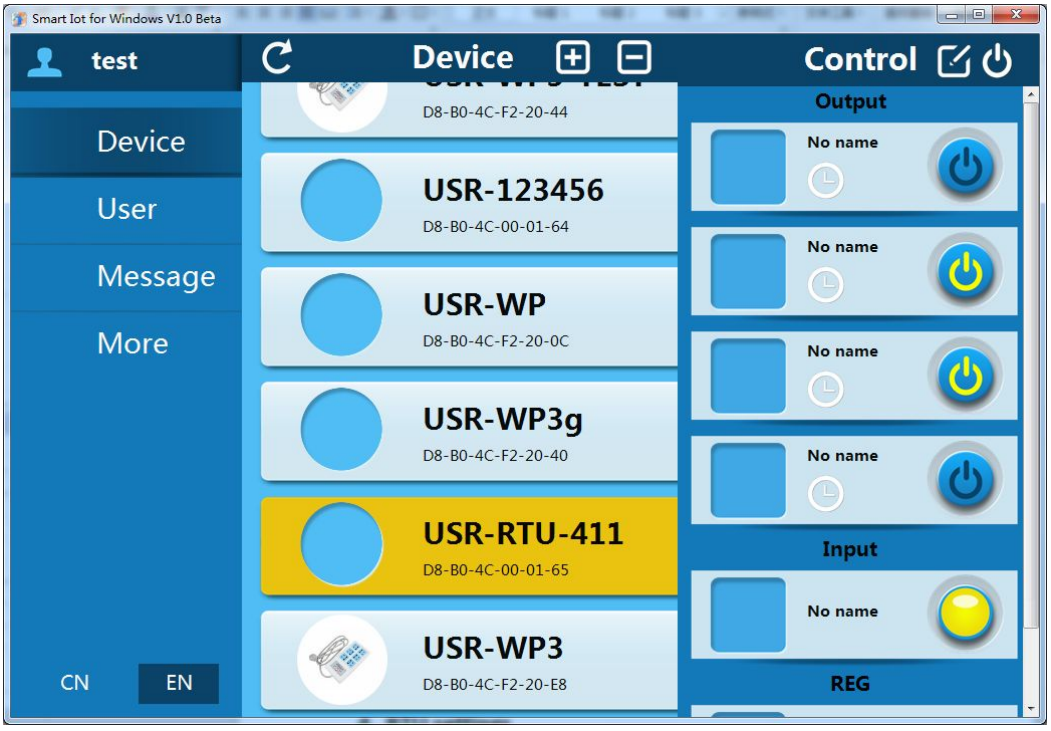
3.To register a first control Bao account, click on the "user" through the prompts to register.



4.Registered, login account, click on "Device", click Add, enter the device's MAC and the corresponding activation code (equipment enclosure label carries), add RTU devices to the server.



5.Click the  will appear added device, a display device name is USR-RTU-× × ×, device MAC address, as well as online situation, click the device name software will read detailed information and updates to the right, as shown below:



- The click on  will change the output io status
- When input status change, the  icon will display
- The click on  , you can modify the device attributes:

Software SMART IOT detailed instructions, see instructions for use.

4. Contact

Company: Jinan USR IOT Technology Limited

Address: 1-724~728, Huizhan Guoji Cheng, Gaoxin Qu, Jinan, Shandong, China

Tel: 86-531-55507297 86-531-88826739-803

Web: http://en.usr.cn Skype: lisausr

Email: sales@usr.cn tec@usr.cn

5. File history

V1.0 Create a document