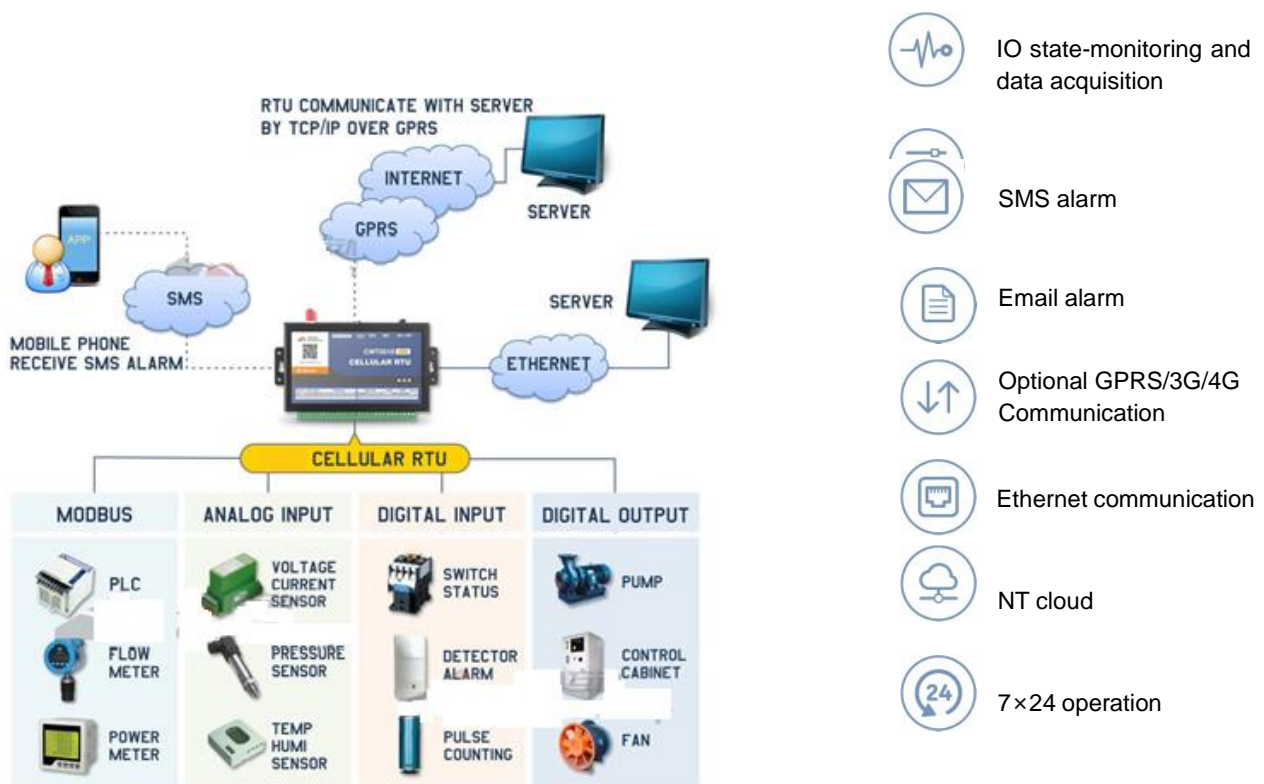




## □ PRODUCT PROFILE

NT-5018 cellular RTU with DI, DO, AI, RS232/RS485 standard electrical interface can connect various industrial equipment, such as PLC, meters, sensors, electrical switches. It monitors the industrial system real-time running status and data, as well as constructs the remote device to a proprietary central computer and mobile phones through the GSM/GPRS/Ethernet communication network. It efficiently acquires the remote equipment operating parameters and process management, can be widely used in industrial automatic control, base station / computer room monitoring, environmental monitoring, water conservancy project, power industries, agriculture, etc.



## □ INTERFACE FEATURE AND PARAMETERS

Interface	Numbers	Features	Parameters
I/O interface	DI (digital input)	4 <ul style="list-style-type: none"> <li>● Input status monitor</li> <li>● Can be configured as pulse counter input</li> </ul>	<ul style="list-style-type: none"> <li>● Dry contact (NO or NC) or 0~3.3V level trigger</li> <li>● Counting frequency: 10Hz</li> <li>● Support optoelectronic isolation, 15KV ESD protect</li> </ul>
	DO (relay output)	2 <ul style="list-style-type: none"> <li>● Remote or local event drive DO on/off/pulse</li> <li>● Remember status when power lost</li> </ul>	<ul style="list-style-type: none"> <li>● NO (Normal open)</li> <li>● Contact load : 2A / 125VAC, 220VDC</li> </ul>
	AI (analog input)	8 <ul style="list-style-type: none"> <li>● Receive 4-20mA (option: 0-5V) signal</li> <li>● Convert signal to actual measure value, support calibrate</li> <li>● Can set parameters for collect signal, alarm, data communication</li> <li>● Can detect connect or disconnect</li> </ul>	<ul style="list-style-type: none"> <li>● Dual digital filters for anti-noise</li> <li>● Sampling frequency: 33Hz</li> <li>● 10-bit precision</li> </ul>
Communication interface	RS485	1 <ul style="list-style-type: none"> <li>● Can be a modbus master monitor 32 registers from slaves</li> <li>● Support RS485 and TCP Two-way data transparent transmission</li> </ul>	<ul style="list-style-type: none"> <li>● Support isolation, 15KV ESD protect</li> </ul>
	RS232	1 <ul style="list-style-type: none"> <li>● Connect PC to configure</li> <li>● Support RS232 and TCP Two-way data transparent transmission</li> </ul>	<ul style="list-style-type: none"> <li>● RS-232C</li> <li>● Communication rate: 1200~115200</li> </ul>
	Ethernet	1 <ul style="list-style-type: none"> <li>● Support ARP, DHCP, TCP, UDP protocol</li> <li>● Can be configured as serial port server, TCP client, Modbus TCP server</li> </ul>	<ul style="list-style-type: none"> <li>● Communication rate: 10/100M</li> </ul>

## □ TECHNICAL CHARACTERISTIC

- Adopted highly integrated industrial 32-bit ARM MCU
- Inside cellular module, support sms, optional GPRS/CDMA/3G/4G communications.
- Reliable performance with built-in double watchdog, 24x7 operation
- Can set parameters for every channel to signal collection, alarm, data upload.
- Multiple signal filtering mechanisms to ensure immediacy and reliability of the system
- Network-reconnect and retransmission to ensure sms and data accurately transmit
- Update RTC automatically or manually, clock source support Sms, NTP, NT IO Server
- Can set multiple timers(second, minute, day, week, month) to execute actions, e.g. output, upload data, change setting
- Event-based linkage programming, e.g. alarm linkage output
- Inside temperature optional, can set high or low to alarm
- cellular module Intelligent sleep when power lost, support power lost sms alarm and recover sms

## □ COMMUNICATION FEATURE



### SMS communication

- Preset 10 phone numbers (support distribute authority to receive sms)
- Sms alarm when any IO channel triggered or out of preset normal range
- Editable alarm and recover sms with time stamp
- Query any IO channel's status or value via sms command
- Control output via sms command
- Sms report any IO channel's status or value on schedule
- Remote setting via sms commands
- Can query SIM card balance, sms forward



### GPRS/CDMA/3G/4G communication

- TCP/IP connect at most 4 servers(support Static IP address or domain)
- Communication protocol support NT\_IO, modbus TCP, http post
- Events(e.g. alarm, timer) trigger upload data, downlink control
- Support GPRS/CDMA/3G/4G-RS232 two-way data transparent transmission



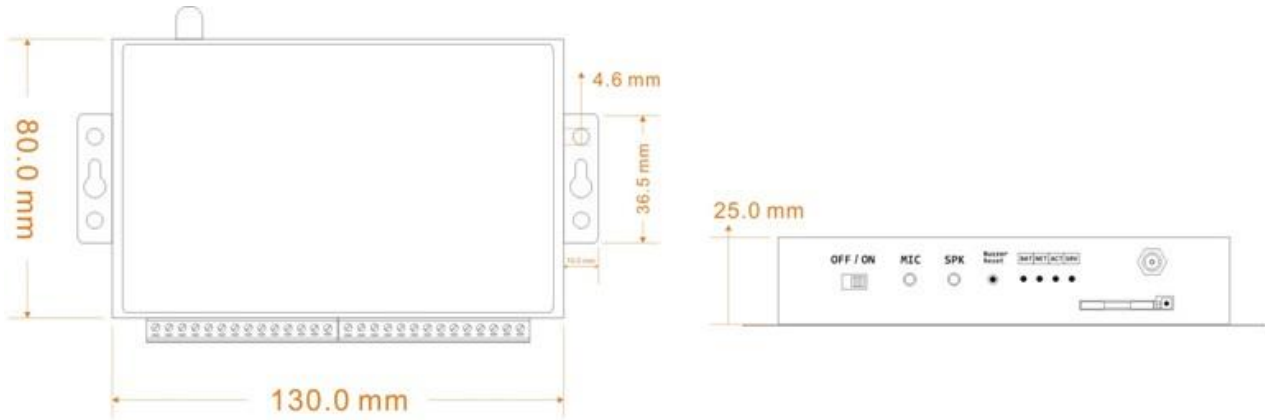
### Ethernet communication

- Can be configured as TCP client to connect servers, Communication support NT\_IO, modbus TCP, http post, Events(e.g. alarm, timer) trigger upload data, downlink control
- Can be configured as Modbus TCP Server(Modbus slave), can be read or write by Modbus master(e.g. SCADA, PLC, HMI)
- Can be configured as serial port server, support Ethernet-RS485 and Ethernet-RS232 two-way data transparent transmission
- Support GPRS/CDMA/3G/4G-Ethernet network bridge
- Inside HTTP server

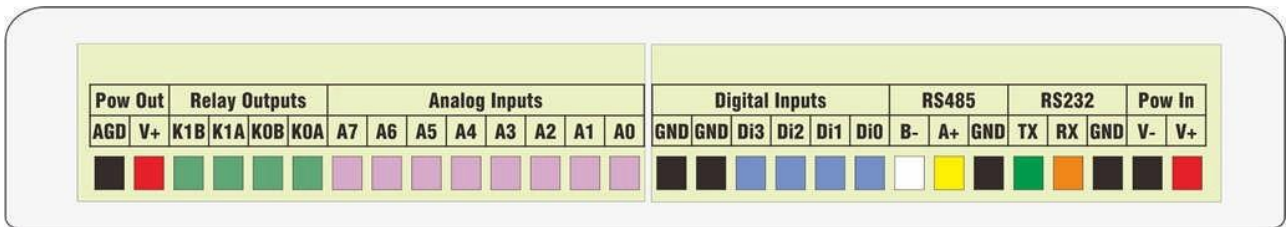
## □ DEVICE SPECIFICATIONS

MCU	Cortex M3 32-bit ARM		
Power supply	9-28V DC (Standard adapter: DC 12V/1.5A)		
Power consumption	12V input Max. 150mA/Average 50mA		
Cellular module	Default GSM (2G, 4 band 850/900/1800/1900Mhz) Option: WCDMA (3G), FDD LTE(4G) module		
SIM/UIM	Standard user card interface	Antenna	Standard SMA female interface (50Ω)
Working temperature	-30°C ~ +70°C	Working humidity	Relative humidity 95%
Dimension	130×80×25mm	Weight	390G
Housing	Iron, providing IP30 protection	Terminals	2×14pin 3.81mm spacing, pluggable

□ **SIZE DIAGRAM**



□ **TERMINALS FIGURE**



□ **PACKAGE LIST**

RTUx1, antennax1, Standard adapter: DC 12V/1.5Ax1, serial cablex1

□ **FREE CONFIGURE SOFTWARE**

- No programming! set parameter by visual interface
- Can save config file, one click finish config
- Over 100 parameters can be set, flexible!  
Meeting various industrial requirement

