

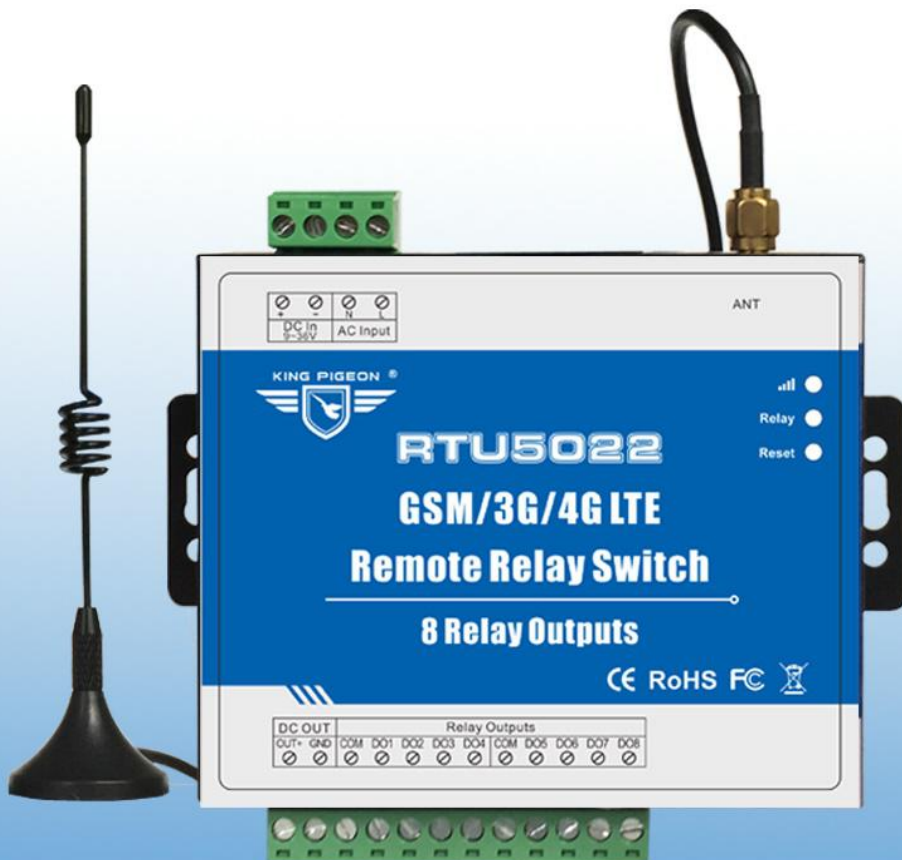
Remote Switch ON/OFF
Device with SMS!

2/4/8 Channel Relay Outputs

Schedule Switch ON/OFF
Device

Auto Report Status by SMS!

GSM/SMS/GPRS/3G/4G Remote Relay Switch



RTU5020/RTU5021/

RTU5022

Data Sheet

Ver 1.3

Date Issued: 2018-01-24

King Pigeon Hi-Tech. Co., Ltd.

www.GPRS-M2M.com



This handbook has been designed as a guide to the installation and operation of RTU5020,RTU5021,RTU5022 GSM SMS GPRS 3G 4G Remote Relay Switch.

Statements contained in the handbook are general guidelines only and in no way are designed to supersede the instructions contained with other products.

We recommend that the advice of a registered electrician be sought before any Installation work commences.

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King Pigeon Hi-Tech.Co., Ltd, its employees and distributors, accept no liability for GSM Network upgrading or SIMCard upgrading due to the technology specifications contained in this handbook.

【UPGRADE HISTORY】

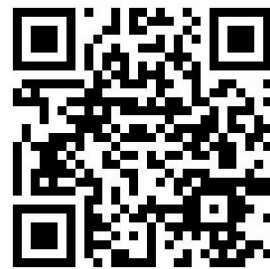
DATE	VERSION	FIRMWARE VERSION	DESCRIPTION
2017.9.15	V1.2	V1.1	1.Support New Cloud Network App 2.Revise the Timer Command 3.Supplement Modbus TCP Protocol
2018-1-12	V1.3	V1.3	1.Change Modbus TCP protocol to Modbus RTU protocol ;Revise Command of setting protocol 2.Add Command of access Modbus RTU Protocol to Cloud Platform

【Gentle Reminder】

Please scan the QR code below or search in Apple store to download the APP for easy setting.



Normal SMS App (Remote Relay Switch)



Cloud Control App (IoT RTU)

【Model List】

Model	GSM/GPRS/3G/4G	Relay Output	Rated Voltage	Rated Voltage
RTU5020	Optional	2	9~36VDC	Optional: 110~220VAC@50Hz
RTU5021	Optional	4		
RTU5022	Optional	8		
Notice	1. Default version is GSM; 2. DIN 35mm Rail installation bracket is optional; 3. For 3G WCDMA and 4G LTE version, please tell our sales where you would like to use them.			

1. Brief introduction

The GSM SMS GPRS 3G 4G Remote Relay Switch embedded GSM/GPRS/3G/4G module and high performance MCU to provide a useful remote control solution. It special for real-time remotely switch on/off equipments through wireless cellular network.

It provides 2/4/8 Relay outputs for schedules automatically switch ON/OFF devices or remote by SMS or GPRS/3G/4G networks.

It has been designed as a cost effective, low power, easy use, and reliable controller. It can be used in the worldwide through the wireless cellular network, operation in anywhere, no distance limitation.

Typically applications:

Street light, pump station, Server room, Warehouse, Transformer stations, BTS room, agriculture, Supervision and monitoring alarm systems, etc.

2.Safety Directions



Safe Startup

Do not use the unit when using GSM/3G/4G equipment is prohibited or might bring disturbance or danger.



Interference

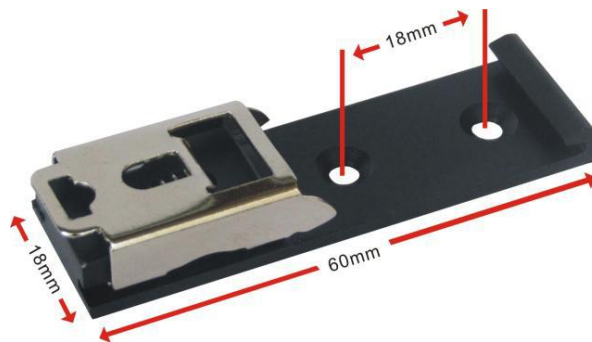
All wireless equipment might interfere network signals of the unit and influence its performance.

3. Standard Packing List

Remote Relay Switch X 1; Antenna X 1; AC/DC adaptor (12V1.5A) X1; User Manual (CD) X 1.

Note: The package does not include any SIM card.

Optional: 35mm Standard DIN rail fixed Bracket



35mm DIN Rail Fixed Bracket

4. Mainly Features

- Can be operated from anywhere, no distance limitation;
- Quad band 850/900/1800/1900Mhz GSM GPRS Module inside;
- 3G UMTS/HSDPA/4G Modules are optional;



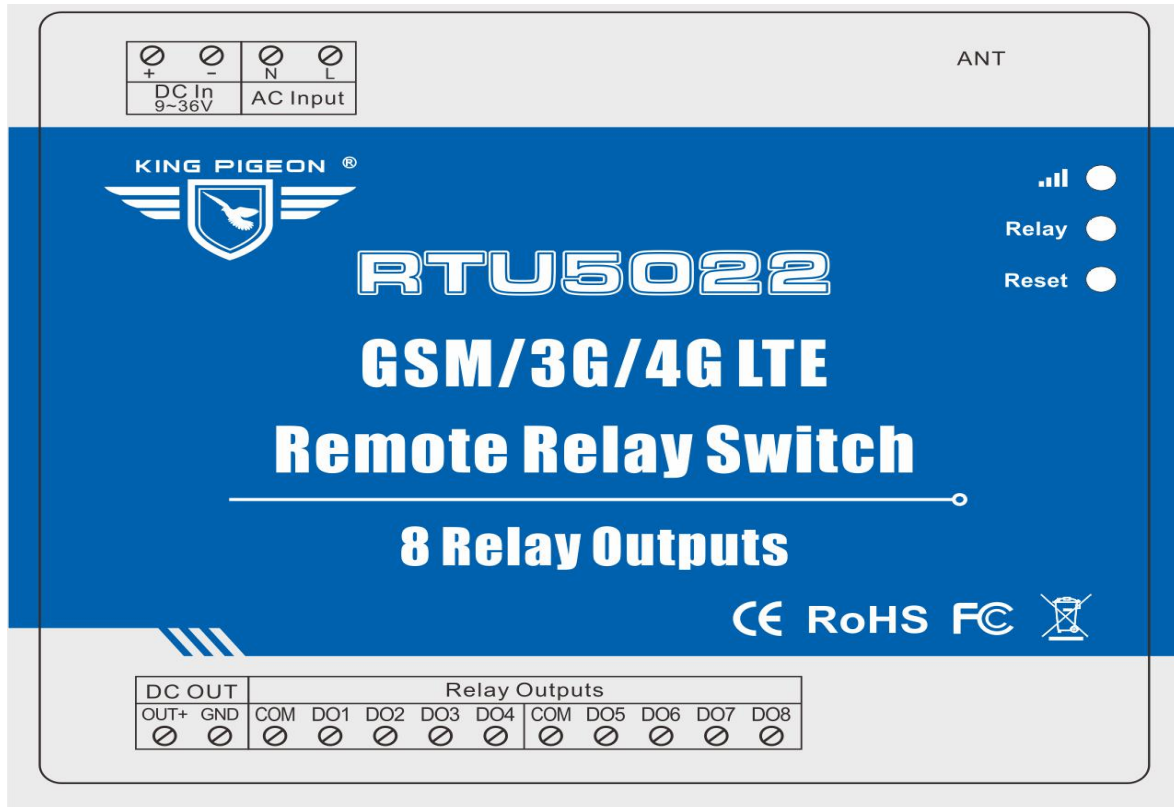
- 32 bit MCU, reliable performance with in-built watchdog;
- Support 2/4/8 relay outputs, 7A@125VAC, 5A@125VAC, 20A@14VDC;
- Supports 1 DNS or IP address as server, supports Modbus RTU, TCP/IP protocol over GPRS/3G/4G network;
- Automatically resend the data while communication failure, GPRS failure will alert by SMS text;
- Supports remotely restart the device, and configure it by SMS commands remotely;
- Up to 10 user's phone number to receive daily report SMS and relay status;
- Provides daily report, schedule upload, event upload by the GPRS/3G/4G to monitoring center or by SMS to the user mobile phone directly;
- Support Android/IOS APP, easily & friendly for use/config.
- Wall mount or 35mm standard DIN rail Design, convenient installation;
- Metallic cover, small size, exterior dimension is L105*W88*H30mm.



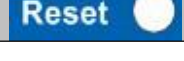
5. Technical specifications

Parameter item	Reference scope
DC Power supply	9~36VDC, recommend 12VDC1A, optional 110~220VAC @50Hz
Power consumption	12V input Max. 400mA/Average30mA, standby 20mA ;
Cellular Frequency	2G: 850/900/1800/1900Mhz 3G version Optional: (UMTS/HSDPA) W:900/2100@UMTS 900/1800@GSM; C:850/1900@UMTS 850/900/1800/1900@GSM; T:850/2100@UMTS 850/900/1800/1900@GSM; 4G LTE Version Optional
SIM Card	Supporting 3V SIM Card
GSM/3G/4G Antenna	50 Ω SMA Antenna interface
Relay Outputs	2 Relay Outputs 7A@125VAC 5A@125VAC 20A@14VDC
Temperature range	-40~+60 °C
Humidity range	Relative humidity 0~90% (condensation free)
Backup Battery	900mAH, last 8hours
Exterior dimension	L105mm*W88mm*H30mm
Installation	35mm standard DIN rail(Optional) Wall mount (Default)
Net Weight	500 g

6. Physical Layout and Installation Diagram

1) LED Indicator Instruction



LED Indicator Instruction	
	Cellular indicator, registering cellular Network flicks quickly, registered successful will 1 seconds flick once.
	Relay indicator, any one relay close, will turn on.
	Reset indicator, will turn on 5seconds while reset operation successful.

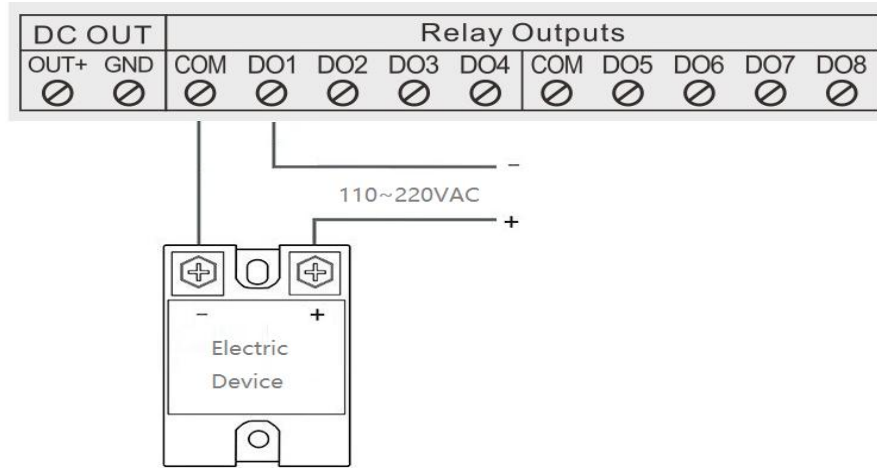
2) Interface Instruction

See below interface, please contact the correct wires.

Interface Instruction		
DC In 9~36V	+	DC9~36V positive input, 1.5A, for power on the Unit;
	-	DC9~36V negative input, 1.5A, for power on the Unit;
AC Input	N	Neutral wire, connect to 110~220VAC @50Hz alternating current, for power on the Unit;(Optional)
	L	Live wire, connect to 110~220VAC @50Hz alternating current, for power on the Unit; (Optional)
ANT	GSM/3G/4G antenna.	
DC OUT	OUT+	DC voltage output positive, the output voltage = DC Input voltage. Only when the device powered on by DC power, these ports will output DC voltage. If the device powered on by AC power, these ports will not output DC voltage.
	GND	DC voltage output negative input.
Relay Outputs	COM	Relay negative input.
	DO1	Relay 1 positive input.
	DO2~8	Relay 2~8 positive input.

The unit provides 2/4/8 relay outputs; it can be used for control different device according to requirements.

The connection diagram is below:



Any questions please help to contact us feel free.

[Http://www.GPRS-M2M.com](http://www.GPRS-M2M.com)

The End!