

NJ-iot402

Product use manual of Solar street lamp  
Internet of Things controller

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# I. Product function and features

NJ-iot402 is a communication module that can adapt to the solar controller, the module has 4G-Cat.1 communication function, can be remotely connected to the server in the cloud, while the module has RS485 and RS232 serial port communication, can complete the parameters and status of the solar controller such as charge amount and discharge data display. Main performance characteristics of the controller:

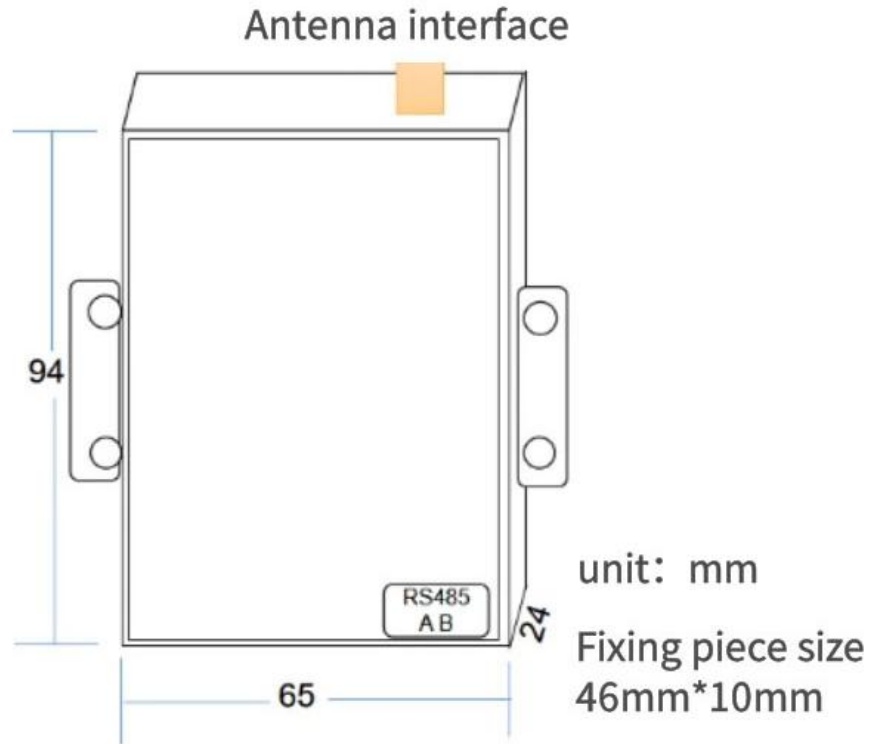
- Cat1. Wireless communication;
- Adapt to 12V / 24V two voltage input;
- Can control most of the domestic mainstream solar energy controllers through infrared communication;
- Computer end interface and mobile end of wechat small program remote control and information reading;
- Can remotely switch the load, adjust the power of the load;
- Read the voltage / current / power of the battery / load / solar panel inside the controller;
- Fault alarm, battery / sun panel / load fault alarm;

- Remote distribute and read parameters for multiple or single controllers;
- The module has the base station positioning function;
- Support for the remote upgrade of the firmware;

## II. Appearance size

Length, width and height =65mm \* 94mm \* 24mm





**Optional RS232 male**

9	5	GND
8	4	NC
7	3	TXD
6	2	RXD
5	1	NC

**Interface diagram**  
Applicable to 12V / 24V system

**Default sucker antenna**  
Rod antenna can be selected

**Default RJ12 interface**

Serial number	definition
1	VCC (DC:5V-45V)
2	NC
3	RS485 A
4	RS485 B
5	GND (Signal ground / power ground)
6	NC

**The indicator light indicates:**  
Green: 4G connection  
Yellow: online status  
Red: working status

**RJ45 interface**  
can be selected

Serial number	definition
1	VCC (DC:5V-45V)
2	D+ (RS485 A)
3	D- (RS485 B)
4	GND (Signal ground / power ground)
5	NC
6	NC
7	NC
8	NC

**DC\_IN:5V - 45V**  
Adapter input can be selected

**Nano SIM**  
The notch faces the upper left corner

### III. Technical parameter

open circuit losses	10mA(12V);6mA(24V)
service voltage	12V/24V
rated voltage	8~30V
communication mode	Cat.1
Carrier operator	Three netcom
working temperature	-35° C ~ 65° C
levels of protection	IP65
size (mm)	94mmx65mmx24mm

### IV. Status indication

pilot lamp	state	function declaration
Network indicator light (green)	Very slow (bright for 0.3s, dead for 5s)	No SIM cards were detected

Network indicator light (green)	Slow flash (bright 0.3s, out 2s)	Normal, boot
	Medium flash (bright 0.3s, out 1s)	Connecting the network
	Flash flash (bright 0.1s, out 0.1s)	The network is connected

## V. Mode of connection



For safety, follow the wiring order of load, battery and photo battery.

\* Antenna should be avoided from directly touching with metal (including shielded items) Raw, can not be placed in a completely closed iron container. In addition, installation should be firmly, and avoid line scratches and insulation damage.

a) connected load

At this time, the controller has not started working, and the controller does not react after the connection is completed.

b) Connect the battery

Before connecting the battery, ensure that the battery voltage is above 9V to start the controller. If the system is 24V, ensure that the battery voltage is not less than 18V. After the battery connection is complete, the manufacturer will start to work.

c) Connect the optical panel

The controller can be applied to 12V or 24V standard solar modules, or solar modules with open circuit voltage not exceeding the specified maximum input voltage. Solar energy the maximum power point voltage of the assembly should be lower than the battery voltage.

d) The controller and the module are connected through the RJ12 jumper to complete the communication and power supply without additional power supply.

e) Connection antenna

Attach the antenna to the housing and connect the machine through the antenna extension.

## VI. Technical support



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