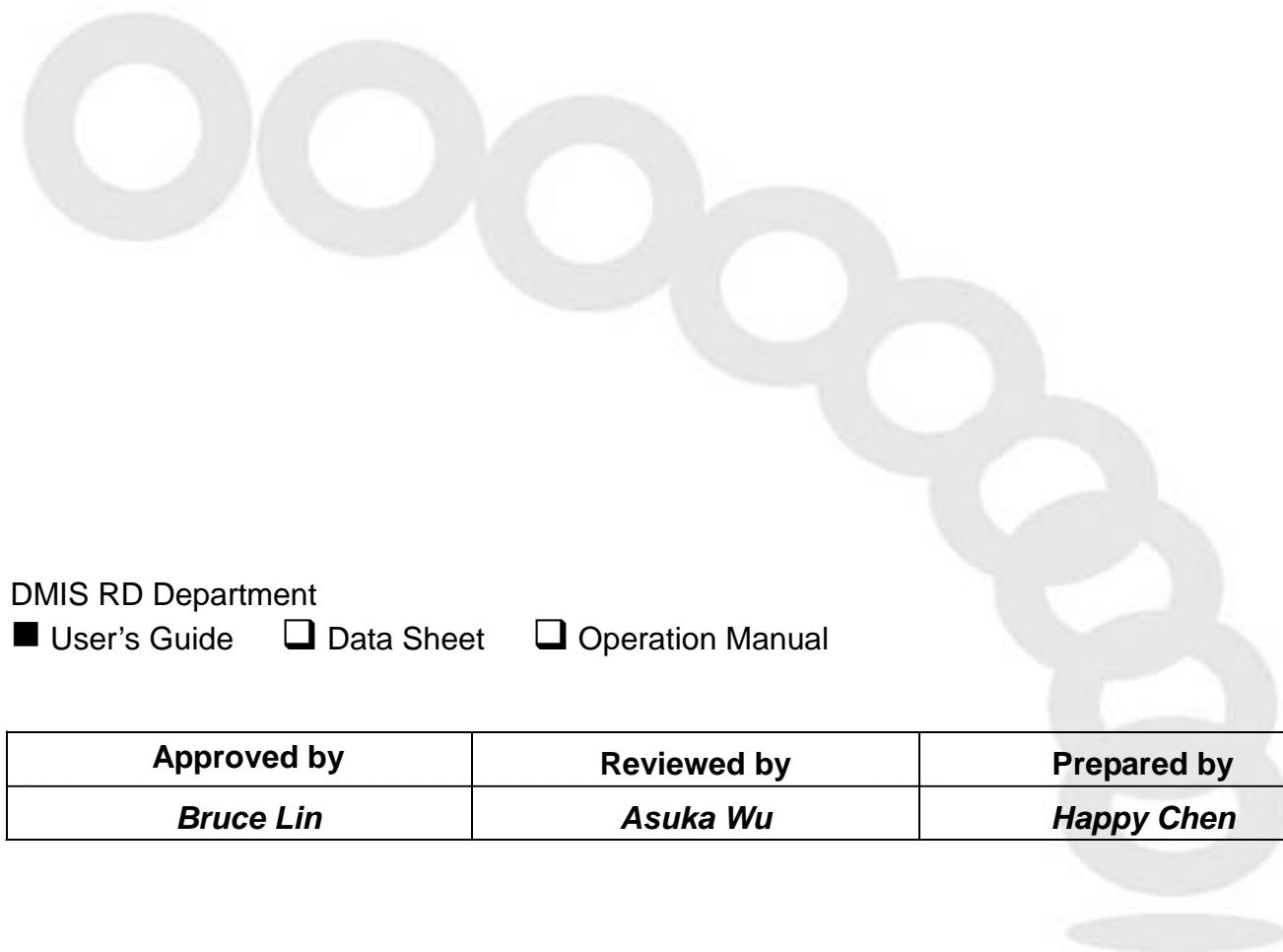


SG-70 Solar Gateway

User's Quick Start Guide

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DMIS RD Department

User's Guide Data Sheet Operation Manual

Approved by	Reviewed by	Prepared by
<i>Bruce Lin</i>	<i>Asuka Wu</i>	<i>Happy Chen</i>

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1. Introduction.

This Quick Start Guide is designed to guide you through the installation and setup of this product.

2. Package contents.

1	2	3	4	5
SG-70 Solar Gateway 1pcs	5 dBi Dipole Antenna 1pcs	Waterproof connector 1set	M4-0.7-12 Brss screw 4pcs	Clamp core for Ethernet cable 1pcs
				

3. Hardware overview.



Status LEDs

 Power	When the device is connected to a power source. The LED is steady red light.
 Database activity	When the device has data transmit to far-end database system, The LED is steady blue light.
 Wireless activity	When the device wireless interface is link to the solar sensor device, The LED is steady blue light.
Antenna connector	Install the 2.4GHz Antenna, in the package contents item2 5dBi Antenna.
Reset button	This button is resets the Solar Gateway back to factory defaults.
Ethernet port	This Ethernet port is connect to the "POE "port at the POE adapter, the POE "LAN" port connector to your network router or connector to PC or NB can set-up DHCP.

4. Solar Gateway installation.

Installation Checklist

- SG-70 Solar gateway: 1 pcs (In the Solar gateway package).
- POE adapter : 1 pcs (without attach, the device need to check installation status).
- Antenna: 1 pcs (In the Solar gateway package).
- Clamp core: 1 pcs (In the Solar gateway package).
- Waterproof connector kits: 1 pcs(In the Solar gateway package).
- LAN cable: 2 pcs, The one for LAN port and others for WAN port used (without attach, the cable length, according to the real environment decision).
- M4-0.7x12 screw: 4 pcs(In the Solar gateway package).

4.1 Indoor installation.

- ⚠ **WARING: This device is not for outdoor application. Please the installation conditions must have at indoors or inside the outdoor control box!**
- ⚠ **WARING: Service should be provided only by a qualified service technician!**

The LAN port used Ethernet cable assembly with waterproof connector; the kits have 4 parts.

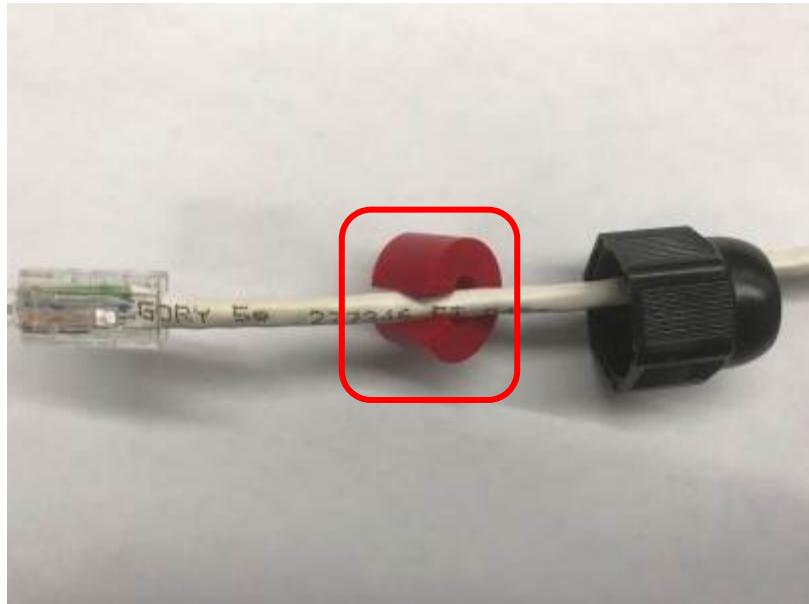
*Please do not discard the waterproof washer! It will be used later!



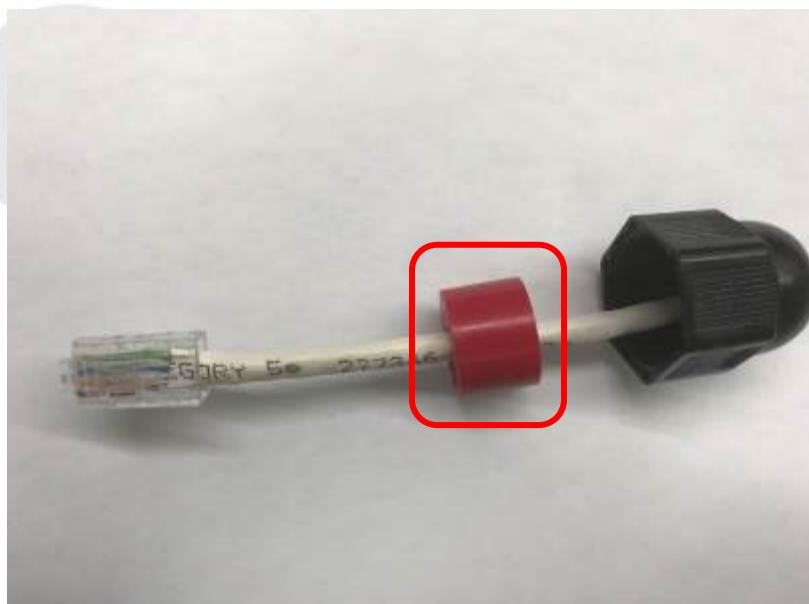
(Step1). The LAN cable through the part 1.



(Step2). The LAN cable through the part 2.



(Step3). The LAN cable through the part 2.



(Step4). The L part 3 through the part 2.



(Step5). The part 1 Spin pre-installation and lock into the part 3, assembly complete.

***Please don't lock it**



(Step6). The waterproof connector kits part 4 waterproof washer, set on the Ethernet port at the Solar gateway.



(Step7). Connect the Ethernet cable to the Ethernet port at the Solar gateway.



(Step8). First lock the waterproof connector part 3 until to locked, then until locked the part1.



(Step9). The Second LAN cable for WAN port used, after the RJ45 connector front end 12cm, the Ethernet cable around 1 circle on the clamp core.



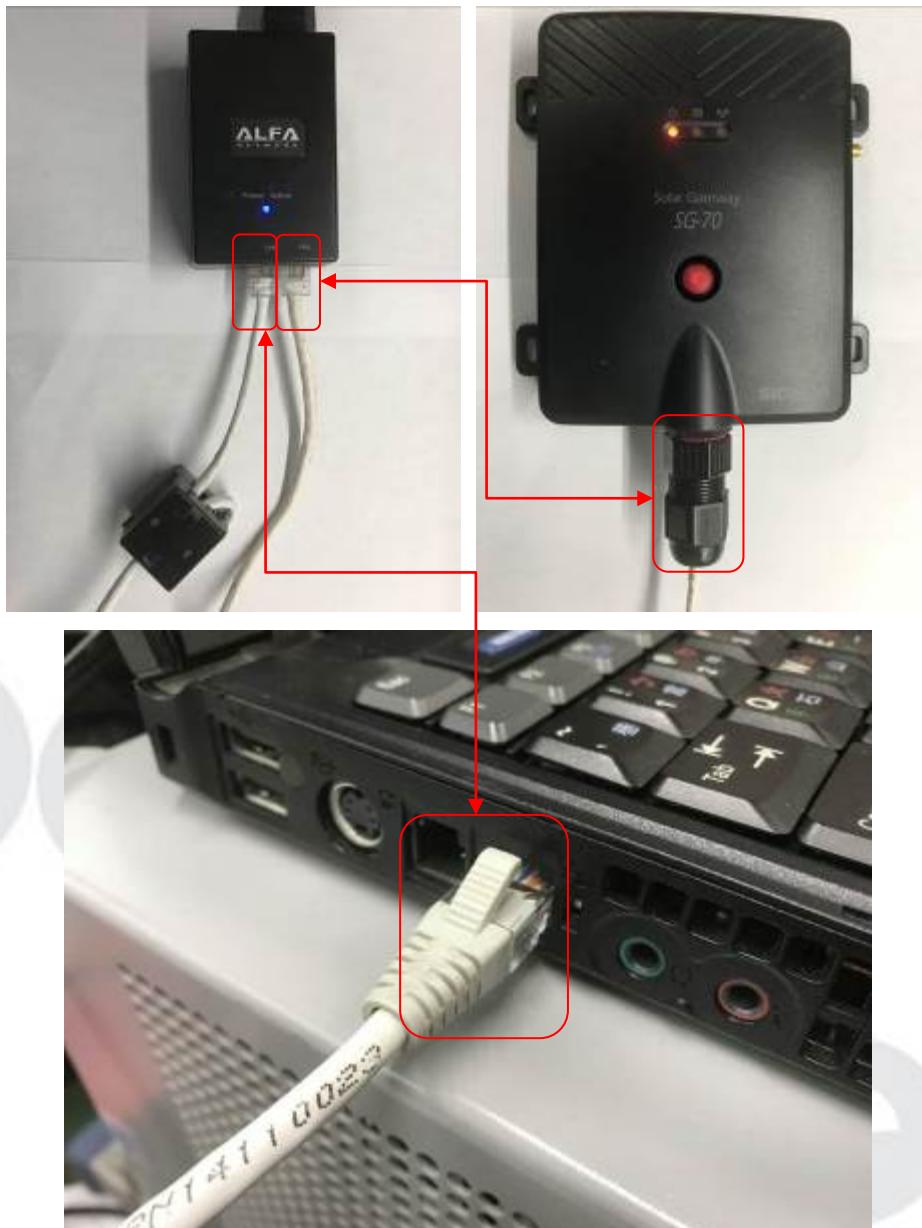
(Step10). Connect the POE Adapter power cord to AC power 100 ~ 240V, 50 ~ 60Hz, after connecting the blue light LED is fixed light.



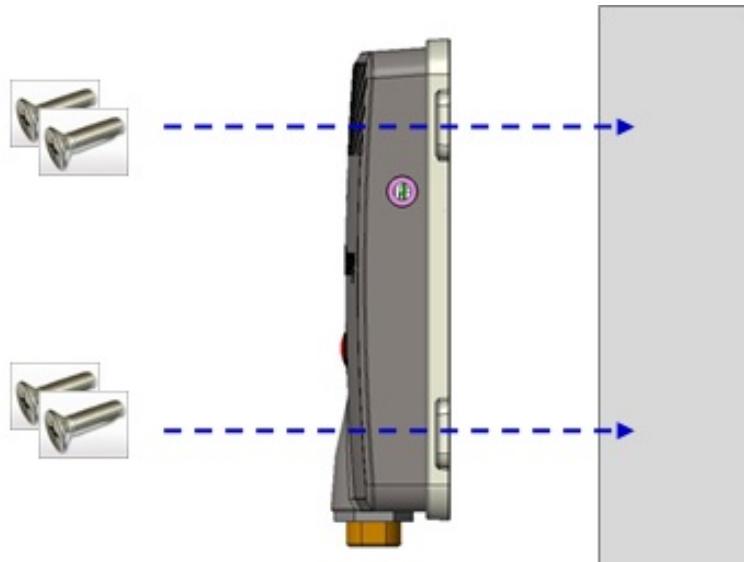
(Step11). The LAN ports Ethernet cable is connect with the “POE port” at the POE adapter.



(Step12). The WAN port Ethernet cable is connect with the “LAN port” at the POE adapter and others side connect to the PC or NB.



(Step13). Use screws locked the Solar gateway on the wall. (Pure wall hanging type & box hanging type).



(Step14). Install the antenna on the Solar gateway antenna connector.



(Step15). Final checks the Solar gateway installation.

- Antenna, confirm the locked.
- Waterproof connector, confirm the locked.
- POE adapter 2 LAN cable, confirm the connected.
- POE adapter power cord, confirm the connected.
- Solar gateway power LED is light.

***Database activity and Wireless activity LEDS, after complete all system setting, will be function, in the stage no light is right!**

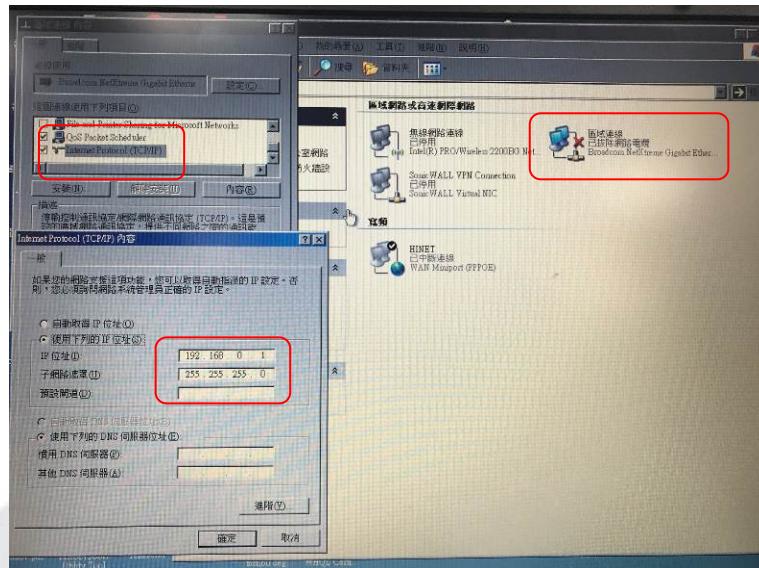
5. The Solar gateway basic local network configuration.

⚠ WARING: Service should be provided only by a qualified service technician!

5.1 Fixed IP address mode set-up steps.

(Step1). Change the Router local network TCP/IP address, please enter to the same area as Gateway.

E.g: IP address: 192.168.0.1

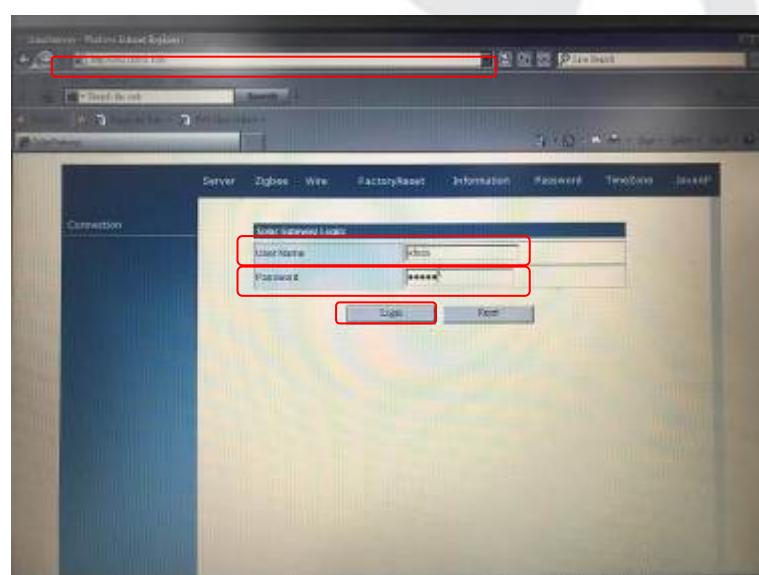


(Step2) Open browser, key in the URL <http://192.168.0.100/> after complete press enter.

- In the login page, enter the following information, complete press Login

User Name: admin

Password: admin

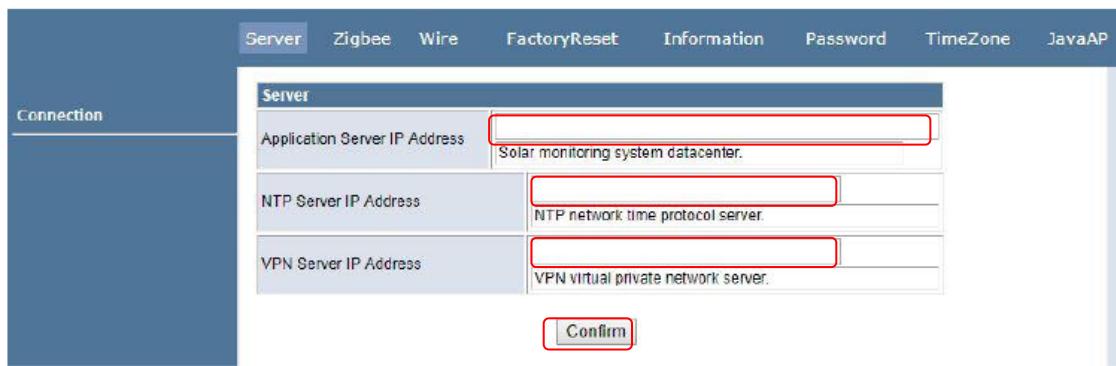


(Step3). In the server page to setup, enter the Application Server IP Address & NTP Server IP Address finish and Enter Confirm.

- Application Server IP Address: Enter the URL for the Solar database.
E.g:solarmsm.sinbon.com/(ProjectName)
- NTP Server IP Address: Enter a URL that can compare to time.
E.g:pool.ntp.org
- VPN Server IP Address: Enter the URL for the VPN(option)

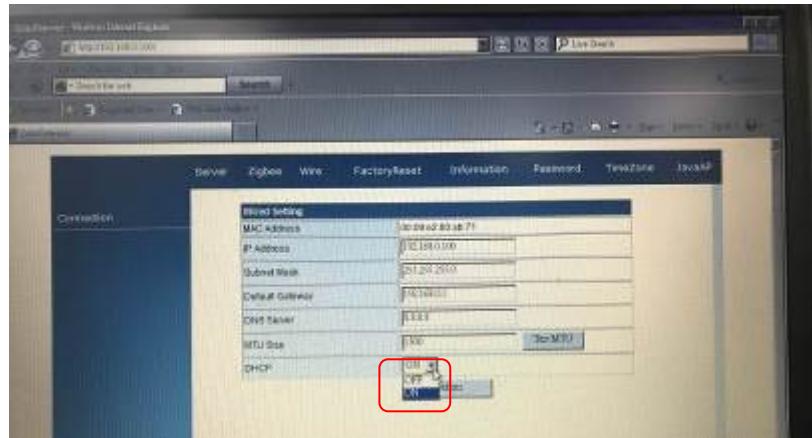
Confirm: finish to setup, enter confirm.

- Automatically link to the new URL: <http://192.168.0.100/>.
- In the login page, enter the following information, complete press Login
User Name: admin
Password: admin



(Step4). In the wire page, the local networks default setting as follows. Change DHCP setup to ON, finish enter the Confirm

- IP Address : 192.168.0.100
- Subnet Mask : 255.250.250.0
- Default Gateway : 192.168.0.1
- DHCP : ON



(Step5). After the completion of the configuration can be in the router rights administrator page, find assigned to the Gateway IP address, then if change the setting the Gateway information, need to use the IP address.

6. LED Status descriptions.

Power LED	Fixed light: Input power is success.
	Fixed off: Input power have problem need to check.
Status LED	Fixed light: The device transmits data to database is completed.
	Fixed off: The device no connect with database.
	Light blinks: The device data is transmitting to database.
Wireless LED	Fixed light: The device is connect with sensor and transmits data to far-end database.
	Fixed off: No connect with sensor or no data transmits to far-end database.

7. Reset to the factory default setup instruction.

(Step1). At the system turn on mode, press and hold the SG-70 the reset button.

(Step2). After the Power LED is flash 3 time and waiting 10 seconds the system will be restart the system completed.

***The function only at system turn on used!**

⚠ WARNING: Service should be provided only by a qualified service technician!

8. Troubleshooting

Power LED off	Check the POE adapter power.
Status LED off	Check the Gateway and Solar sensor device setting. Open the browser, and check the Gateway network setting. Check the Ethernet cable.
Wireless LED off	Check the Gateway and Solar sensor device setting. Open the Router administrator page, and check the Gateway status.

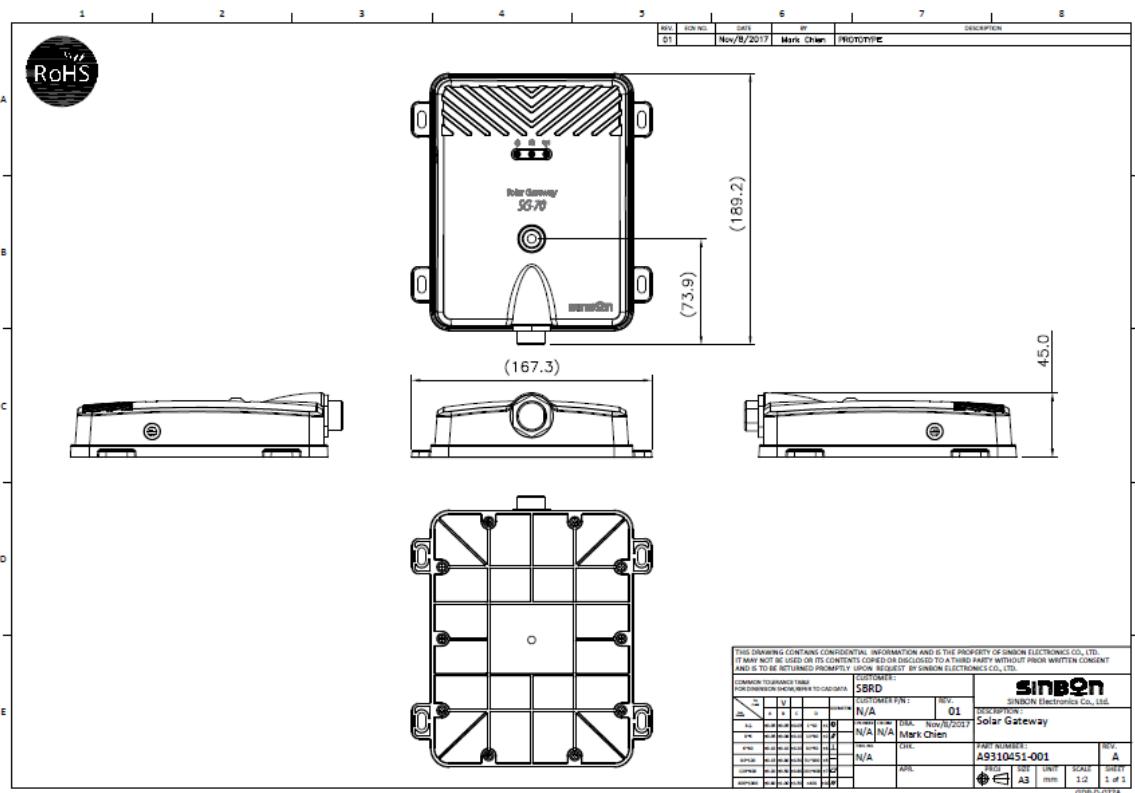
9. Product specifications.

SG-70 Solar gateway specifications	
Dimensions	L x W x H : 185 x 167 x 45 mm, without cable and antenna length
Weight	0.373 kg
Processor	NXP i.MX6 Solo 1GHz
Memory	DDR3L 1GB
Storage	NAND Flash 8GB
Ethernet	100Mbps RJ45 Ethernet port
Wireless	IEEE802.15.4
LEDs	3 LEDS: Power, Database connectivity & Wireless connectivity
Button	Reset button
Max power	6W(Max)
Power supply	AC 100~240V/50~60Hz
Temperature	Operating : -20°C to 65°C Storage: -30°C to 70°C
Humidity	0 % to 95% non-condensing
Ingress Protection Rating	IP65
Certifications	FCC only

10. Label

Item	Description
1.	<p>Label location</p>  <p>A9310451-001(SG-7 0) Label location_201</p>
2.	<p>Certification label</p>  <p>A9310451-001(SG-7 0) Reg label_201712C</p>

11. Dimension



12. Safety Notices.

- (1). Follow these instructions.
- (2). Heed all warning.

- ⚠ WARING: The installation and repair service should be provided only by a qualified service technician!**
- ⚠ WARING: The device is not direct for outdoor application. Please the installation conditions must have at indoors or inside the outdoor control box!**
- ⚠ WARNING: Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning!**
- ⚠ WARING: Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed!**

13. FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution!

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's

authority to operate the equipment.

