



## SmartGen CMM366A-WIFI Cloud Monitoring Communication Module User Manual

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**SmartGen** English trademark  
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**Table 1 – Software Version**

Date	Version	Note
2017-12-20	1.0	Original release.
2022-08-22	1.1	Update company logo and manual format.

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## OVERVIEW

**CMM366A-WIFI** Cloud Monitoring Communication Module is WIFI wireless network communication protocol switch module which can achieve genset (with SCI) connect to Internet. After logging into cloud server, module will receive corresponding genset controller communication protocol from cloud server. And module gains genset data via RS485 port, USB port, LINK port or RS232 port then send the data to corresponding cloud server through WIFI wireless network for achieving user's real-time monitoring to running status and searching of running records via APP (IOS or Android) and PC terminal devices.

**CMM366A-WIFI** module not only can achieve genset monitoring but also can insert some digital alarm input/output signal to achieve monitoring of generator room entrance guard, guard against theft and fire facilities.

## PERFORMANCE AND CHARACTERISTICS

- Connect to cloud server via WIFI wireless network, one to one monitoring; Multiple ports for communication

with genset control module: RS485, RS232, LINK and USB (Host); can

- monitor great majority genset control modules of international first-class brands;
- Widely power supply: DC (8~35)V, can direct use genset built-in battery;
- With ARM-based 32-bit SCM, high integration of hardware and strong programming ability;
- Include with GPS locate function to achieve location information and locate genset;
- Take JSON network data communication protocol, upload real-time data variation and take compression algorithm to vastly reduce network flow at the same time;
- Users can upload monitoring data to the server for analyzing based on the user-defined “historydata upload interval”;
- When alarm occurs it can upload data to server immediately;
- 2 auxiliary digital input ports which can receive external alarm signal;
- 1 auxiliary relay output ports which can output various alarm signals;
- Perpetual calendar and clock functions;
- Power and multiple communication status indicators on front panel that working status is clear at a glance;
- Lamp test function;
- Parameter adjust function: users can adjust parameters via USB port;
- Take standard  $\pi$ -type 35mm guide-rail installation or screw-fixed installation that the module can be installed in the genset control box;
- Modular design, self extinguishing ABS plastic shell, light weight, compact structure with easy installation.

## SPECIFICATION

Items	Contents
Operating Voltage	DC 8.0V~35.0V, continuous power supply
Overall Power Consumption	Standby: $\leq 2W$ Working: $\leq 5W$
Auxiliary Input	Volts free digital Input
Auxiliary Output	1A DC30V Volts free output
USB Host	A-type USB female port
RS485	Isolated type
RS232	General type
LINK	SmartGen exclusive port
USB Device	B-type USB female port
WIFI	IPX AntennaSupport 802.11b/g/n standard
Case Dimensions	72.5mmx105mmx34mm
Working Temperature	(-25~+70)°C
Working Humidity	(20~93)%RH
Storage Temperature	(-25~+70)°C
Weight	0.15kg

PANEL AND TERMINAL DESCRIPTION

PANEL INDICATOR AND BUTTONS

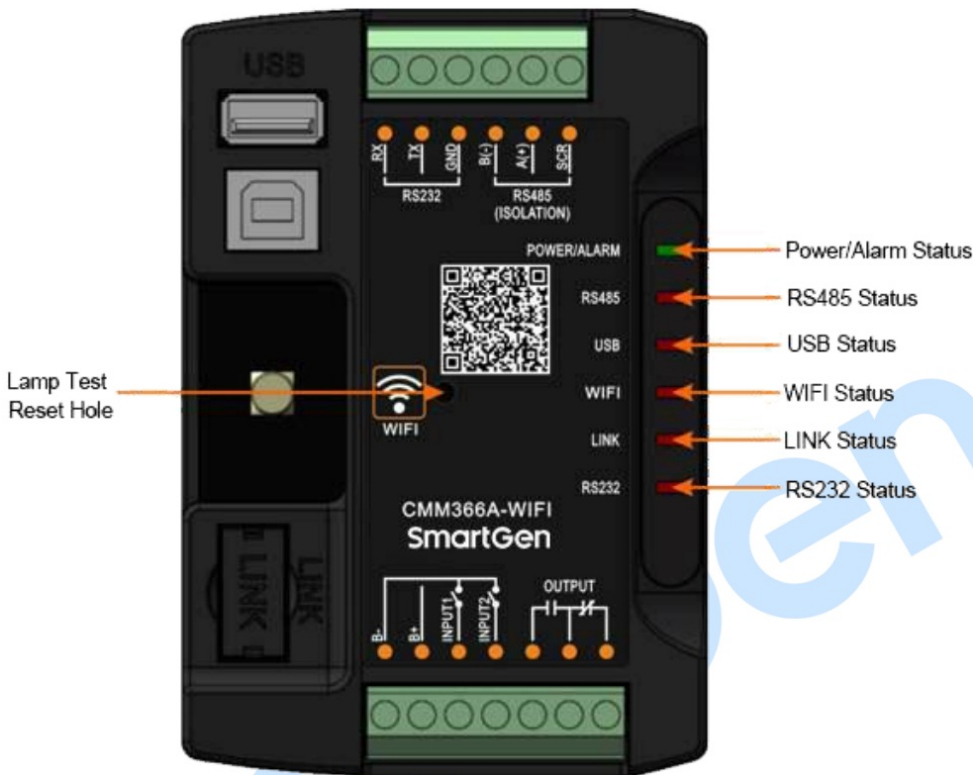


Fig.1 – Panel Indicators  
Table 3 – Indicators Description

Icon	Note
POWER/ALARM	Green LED Light: Power supply normal; connect with cloud server success; Red LED Light: Common alarm indicator.
RS485(Red)	Normally Extinguish: RS485 disabled; Normally Light: Communication fail; Blink: Communication normal.
USB(Red)	Normally Extinguish: USB(Host) disabled; Normally Light: Communication fail; Blink: Communication normal.
WIFI(Red)	Extinguish: CMM366A-WIFI login with server unsuccessfully; Normally Light: Communication fail; Blink: Communication normal.
LINK(Red)	Normally Extinguish: Disabled; Normally Light: Communication fail; Blink: Communication normal.
RS232(Red)	Normally Extinguish: RS232 disabled; Normally Light: Communication fail; Blink: Communication normal.

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Internal lamp test/reset key:

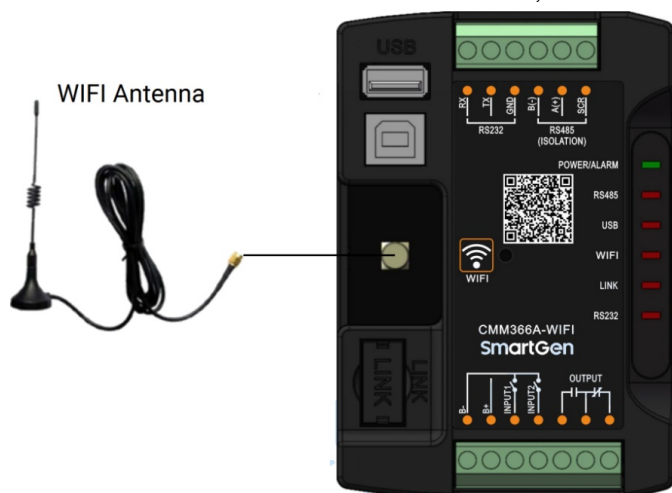
Press it for 1s, all the LEDs are illuminated; press it for 10s, reset the module to default and all the LEDs blink for 3 times.



**NOTE:** After reset the module, parameters need to be re-configured via PC software. Please operate cautiously.

### WIFI ANTENNA INTERFACE

Connect WIFI antenna with module antenna, which is showing as below,



**Fig.2 – WIFI Antenna Connection Diagram**

### RS485 INTERFACE

Connect RS485 port with genset control module RS485 port to achieve genset data information. If communication fails, recommend adding a 120Ω terminal resistor. One end of shielding wire connects with SCR, the other end hangs in the air.

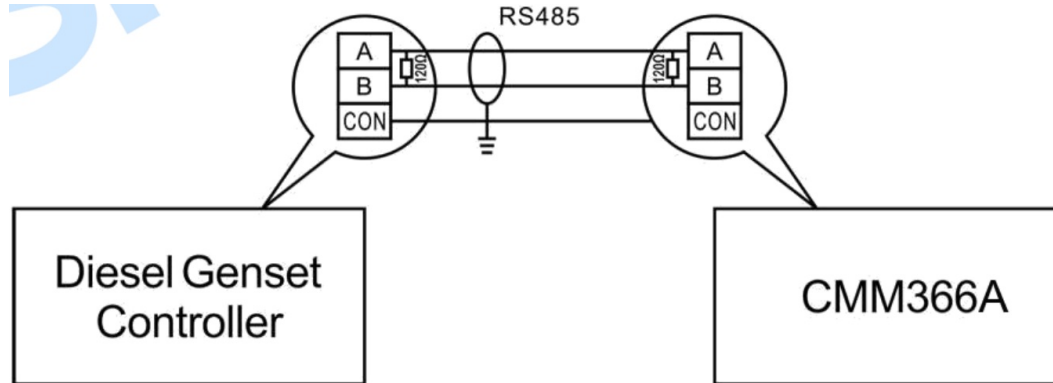


Fig.4 – RS232 Connection Diagram

### RS232 INTERFACE

Connect RS232 port with genset control module RS232 port to achieve genset data information.

### LINK INTERFACE

Connect RS232 port with genset control module RS232 port to achieve genset data information

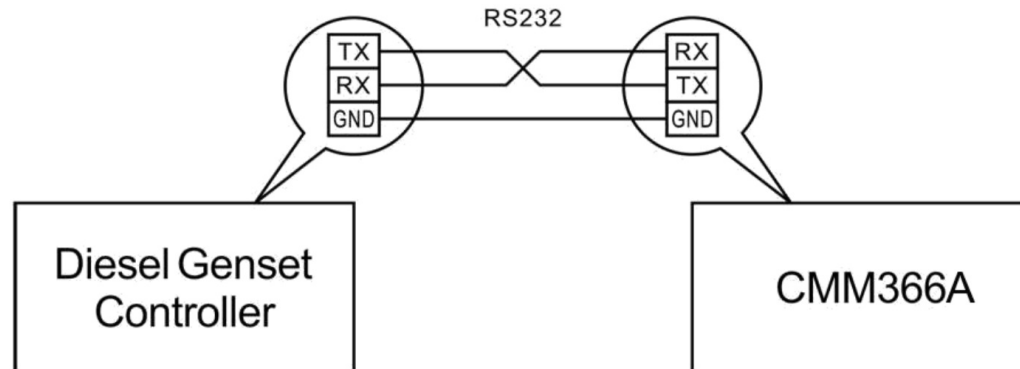


Fig.4 – RS232 Connection Diagram

### LINK INTERFACE

Connect LINK port with genset control module LINK port to achieve genset data information.

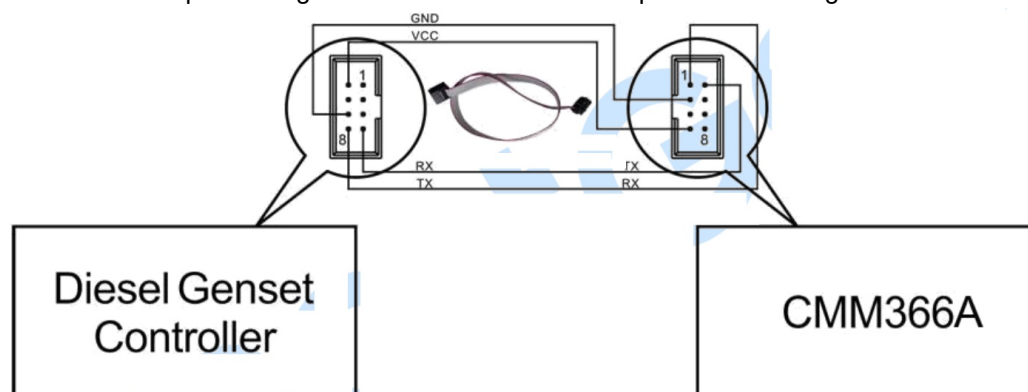
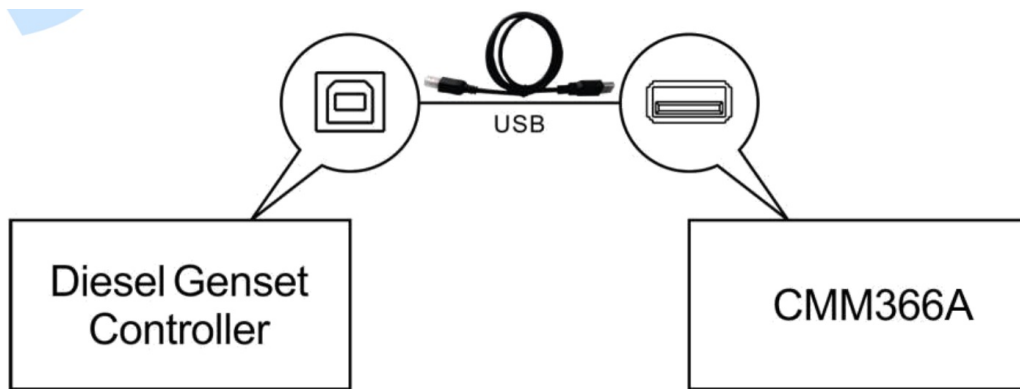


Fig.5 – LINK Connection Diagram

### USB HOST INTERFACE

Connect A-type USB port with genset control module USB port to achieve genset data information.



**Fig.6 – USB HOST Connection Diagram**

#### **USB DEVICE INTERFACE**

All the parameters can be configured and view CMM366A-WIFI ID &Login password by connecting USB port with USB disk of PC software.



**Fig.7 – USB Connect PC Device**

#### **TERMINAL**

**Table 4 – Terminals Description**

No.	Function		Cable Size	Note
1	B-		1.0mm2	Connected with negative of starter battery.
2	B+		1.0mm2	Connected with positive of starter battery. 3A fuse is recommended.
3	Aux. Input 1		1.0mm2	Active when connect to B-.
4	Aux. Input 2		1.0mm2	Active when connect to B-.
5	Aux. Output	Normally Open	1.0mm2	Normally open output 1A DC30V
6		Common	1.0mm2	
7		Normally Close	1.0mm2	
8	RS485 B(-)		0.5mm2	Impedance-120Ω shielding wire is recommended, its single-end earthed.
9	RS485 A(+)		0.5mm2	
10	SCR		0.5mm2	
11	RS232 RX		0.5mm2	RS232
12	RS232 TX		0.5mm2	
13	RS232 GND		0.5mm2	

## PROGRAMMABLE PARAMETERS

### CONTENTS AND SCOPES OF PARAMETERS

**Table 5 – Parameter Content & Scope**

No.	Items	Parameters	Defaults	Description
WIFI				
1	DHCP Enable	(0-1)	1	0: Disabled; 1: Enabled, autoobtain IP address.
2	IP Address	(0-255)	192.168.0.101	All changes of Ethernet (like IP address, Subnet address) are active after module rebooting.
3	Subnet Mask	(0-255)	255.255.255.0	
4	Default Gateway	(0-255)	192.168.0.2	
5	DNS Address	(0-255)	211.138.24.66	
6	MAC Address	(0-255)	E.g. 00.08.DC.01.02.03	
7	SSID	(0-65535)	32 characters	
8	Password	(0-65535)	64 characters	
Gateway				



1	Site Name	(0-65535)	20 Chinese characters, letters or numbers	
2	Server URL	(0-65535)	<a href="http://www.monitoryun.com">www.monitoryun.com</a>	40 characters
3	Server Port	(0-65535)	91	
4	Security Code	(0-65535)	123456	16 characters
GPS				
1	Location Info	(0-1)	0	0: Disabled1: Manually Input
2	Longitude	((-180)-180)°	0.000000	GPS location, altitude information
3	Latitude	((-90)-90)°	0.000000	
4	Altitude	((-9999.9)-9999.9)m	100.0	
Input Port				
Input 1				
1	Setting	(0-9)	0	Default: Not used
2	Type	(0-1)	0	0: Close to Activate 1: Open to ActivateSee: <a href="#">Table 6 – Digital Input Ports Content</a>
3	Delay	(0-20.0)	0.0	Action delay
Input 2				
1	Setting	(0-9)	1	Default: Lamp test
2	Type	(0-1)	0	0: Close to Activate 1: Open to ActivateSee: <a href="#">Table 6 – Digital Input Ports Content</a>
3	Delay	(0-20.0)	0.0	Action delay
Output				
1	Setting	(0-14)	0	Default: Not used

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No.	Items	Parameters	Defaults	Description
				See: <a href="#">Table 7 – Relay Output Ports Content</a>



**NOTE:** Configuration of monitoring genset controller model, communication port, communication baud rate, and communication ID need to be set on the platform, and monitoring module needs to reboot after setting. **Table 6 – Digital Input Ports Content**

No.	Item	Description
0	Not Used	Not used.
1	Lamp Test	All the indicators are illuminated when input is active.
2	Remote Control Inhibited	Cloud start/stop control is prohibited when input is active.
3	Access Alarm Input	Access alarm is uploaded to server when input is active.
4	Fire Alarm Input	Fire alarm is uploaded to server when input is active.
5	Alarm Input	External alarm is uploaded to server when input is active.
6	Reserved	
7	Reserved	
8	Reserved	
9	Factory Test Mode	It is only used for factory hardware port test when active.

**Table 7 – Relay Output Ports Content**

No.	Item	Description
0	Not Used	Output port won't output when this item is selected.
1	Digital Input 1 Active	Output when auxiliary input 1 is active.
2	Digital Input 2 Active	Output when auxiliary input 2 is active.
3	RS485 Communication Failure	Output when RS485 communication fails.
4	Network Communication Failure	Output when Network communication fails.
5	LINK Communication Failure	Output when LINK communication fails.
6	RS232 Communication Failure	Output when RS232 communication fails.
7	Common Alarm	Output when there is an alarm.
8	Remote Control Output	Send remote control commands via cloud platform with fixed output delay 20s.
9	Reserved	
10	Reserved	
11	Reserved	
12	Reserved	
13	Reserved	
14	Reserved	

## PC CONFIGURATION INTERFACE

Connecting the USB port of CMM366A-WIFI communication module with PC USB port to configure the parameters.

## IP

☒ Obtain an IP address automatically

☐ Use the following IP address

IP Address

Subnet Mask

Default Gateway

DNS Address

MAC Address

## WiFi



WiFi

Password

zsywifi	
CMCC	
.	
STAR8800_13121201	
smartgen	
smartgen	
zzcwf	
smartgen	

Fig.8 – WIFI Configuration

## Gateway

Site Name

Server Url

Server Port  (0-65535)

Security Code

Fig.9 – Gateway Configuration

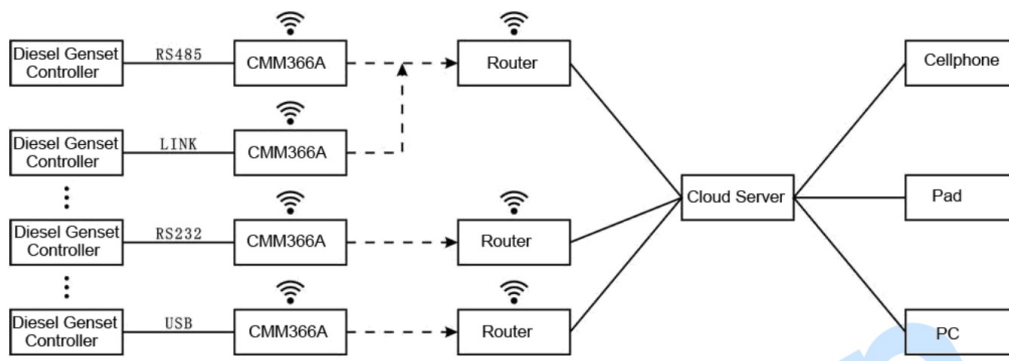
## Monitoring

Longitude	0.000000	Altitude	0
Latitude	0.000000	Hardware Ver.	V 1.2
Input 1		Software Ver.	V 1.0
Input 2		Issue Date	2017-12-20
Output 1		Module Time	2018-03-06 (2) 16:52:52
Module ID	<input type="text" value="383033313334510900560037"/>	<input type="button" value="Print"/>	<input type="button" value="Print Setup"/>
	<input type="text"/>		

Fig.10 – Module Monitoring Screen

## SYSTEM DIAGRAM

One CMM366A-WIFI module connects with one genset monitor module. It can be connected via RS485 port, LINK port, RS232 port or USB port.



## CASE DIMENSION AND INSTALLATION

2 ways for installation: 35mm guide rail in box or screw (M4) installation as below:

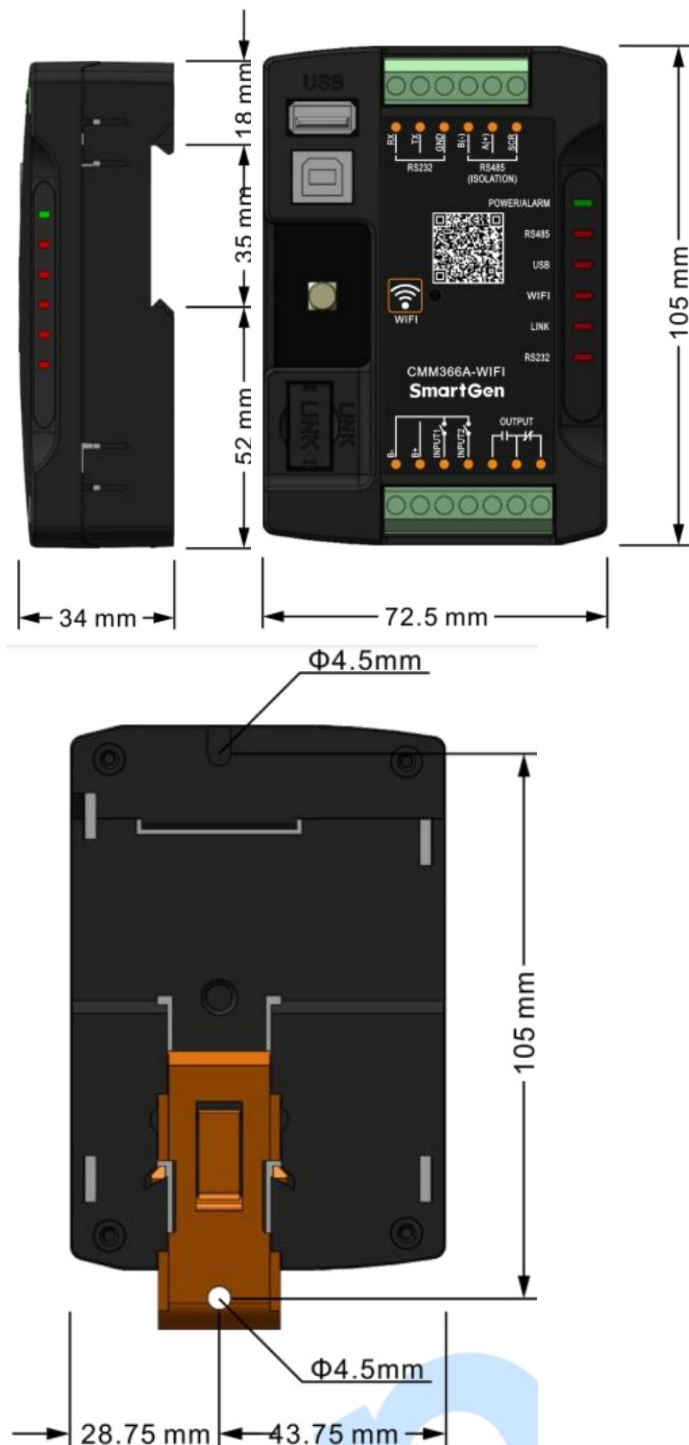
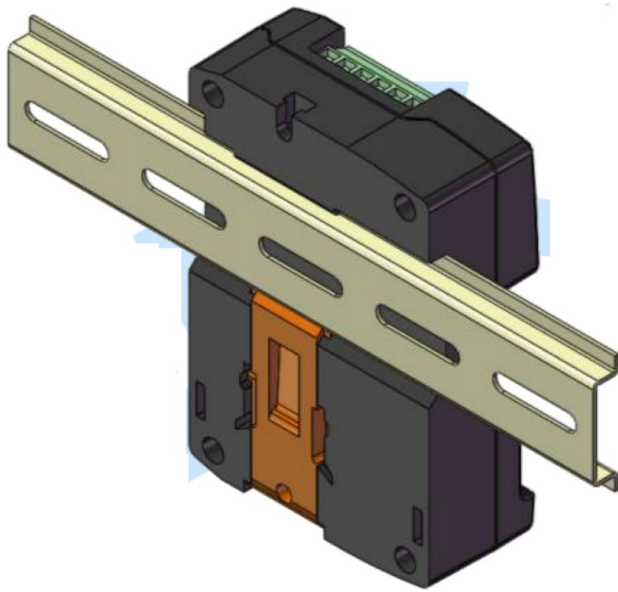
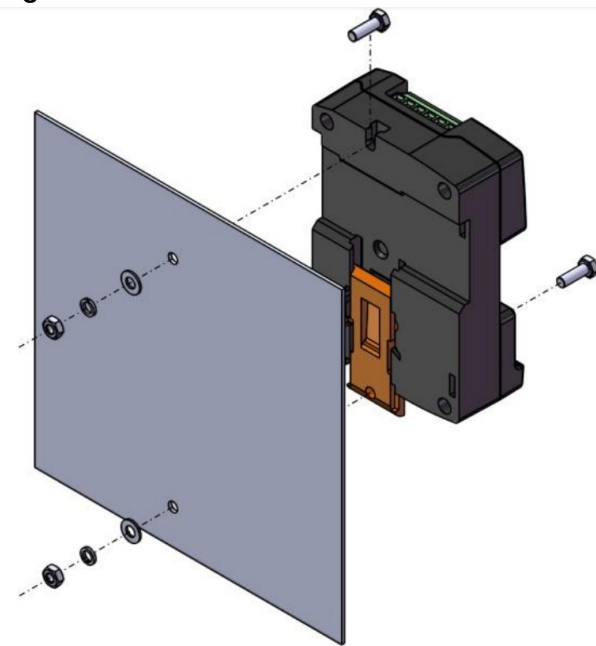


Fig. 12 – CMM366A-WIFI Case Dimension



**Fig. 13 – CMM366A-WIFI Guide Rail Installation**



## **TROUBLESHOOTING**

**Table 8 – Troubleshooting**

Symptoms	Possible Solutions
Controller no response with power	Check power voltage;Check controller connection wirings.
Network indicator not light	Check Ethernet parameters are correct or not; Check Network socket i ndicator is light or not;Check cable is normal or not.
RS485 communication abnormal	Check connections;Check RS485 port is enabled or not;Check settings of genset ID and baud rate are correct or not. Check RS485's connections of A and B is reverse connect or not.
RS232 communication abnormal	Check connections;Check RS232 port is enabled or not;Check settings of genset ID and baud rate are correct or not.
LINK communication abnormal	Check connections;Check LINK port is enabled or not;Check settings of genset ID and baud rate are correct or not.

PACKING LIST

Table 9 – Packing List

No.	Name	Quantity	Remark
1	CMM366A-WIFI	1	
2	Osculum type WIFI antenna	1	
3	120Ω matched resistor	2	
4	User manual	1	

Documents / Resources

	<a href="#">SmartGen CMM366A-WIFI Cloud Monitoring Communication Module</a> [pdf] User Manual CMM366A-WIFI Cloud Monitoring Communication Module, CMM366A-WIFI, Cloud Monitoring Communication Module, Monitoring Communication Module, Communication Module, Module
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References

- [众智](#)
- [众智](#)