# CMM366-4G

# CLOUD MONITORING COMMUNICATION MODULE

# USER MANUAL



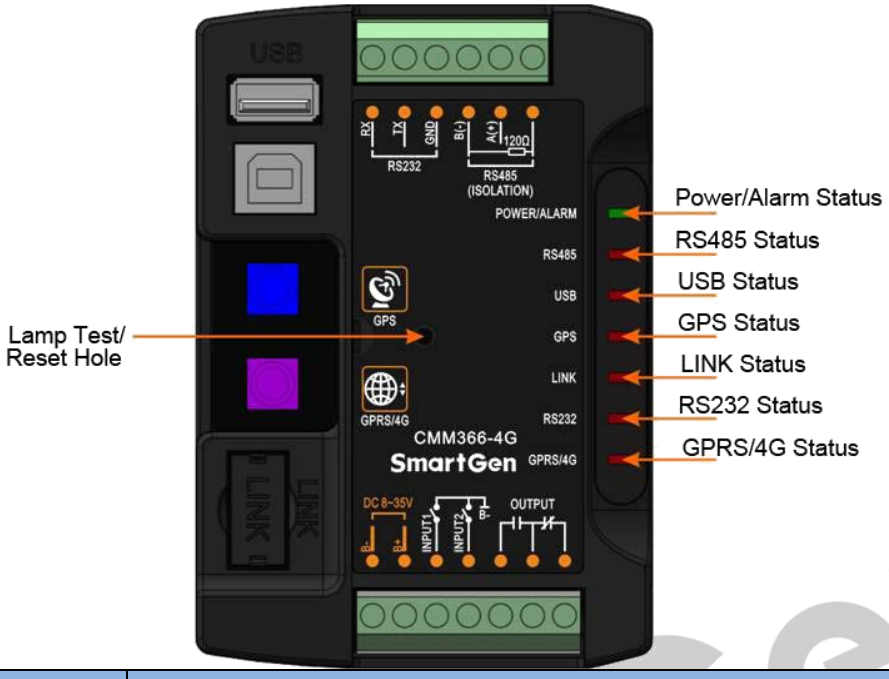

SMARTGEN (ZHENGZHOU) TECHNOLOGY CO., LTD.

## 3 SPECIFICATION

| Items | Contents |
|---|---|
| Operating Voltage | DC 8.0V~35.0V, continuous power supply. |
| Power Consumption | Standby: ≤2W<br>Working: ≤5W |
| Auxiliary Input | Digital Input, connect (B-) is active. |
| 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 mother port |
| GPRS Port | Standard SMA port (female), SMA port (male) for antenna. |
| GPS Port | Standard SMA port (female), SMA port (male) for antenna, active antenna. |
| Wireless Network | LTE-TDD/LTE-FDD/HSPA+/TD-SCDMA/EVDO<br>GSM/GPRS/EDGE |
| Case Dimensions | 73mmx105mmx33mm |
| Working Conditions | Temperature: (-25～+70)°C Humidity: (20～93)%RH |
| Storage Condition | Temperature: (-25～+70)°C |
| Weight | 0.15kg |

# 4 PANEL AND TERMINAL DESCRIPTION

## 4.1 PANEL INDICATOR AND BUTTONS




| Icon | Note |
|---|---|
| POWER/ALARM | GreenLED Light: Power supply normal indicator<br>RedLED Light: Common alarm indicator |
| RS485(Red) | Normally Extinguish: RS485 disabled<br>Normally Light: Communication fail<br>Blink: Communication normal |
| USB(Red) | Normally Extinguish: USB(Host) disabled<br>Normally Light: Communication fail<br>Blink: Communication normal |
| GPS(Red) | Normally Extinguish: GPS disabled<br>Normally Light: GPS not gained satellite signal<br>Blink: GPS gained satellite signal |
| LINK(Red) | Normally Extinguish: Disabled<br>Normally Light: Communication fail<br>Blink: Communication normal |
| RS232(Red) | Normally Extinguish: RS232 disabled<br>Normally Light: Communication fail<br>Blink: Communication normal |
| GPRS/4G(Red) | Extinguish: CMM366-4G login with server unsuccessfully<br>Light: Login with server successfully<br>Blink: Real-time communication normal |

Lamp test/Rest:

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

NOTE: After reset the module, set up the parameters via PC software is recommended. Please operate cautiously.

### 4.2 GPRS

Connect GPRS antenna to GPRS/4G port.

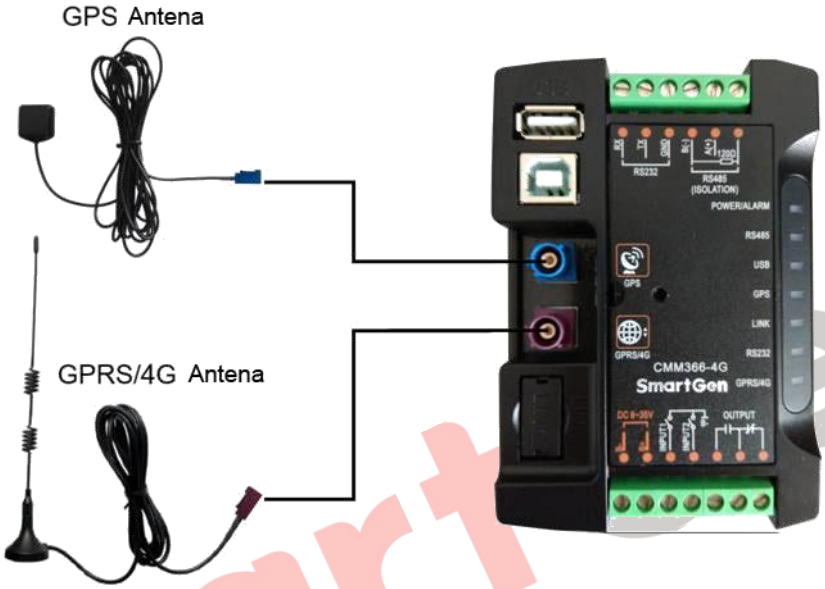
Antenna: 50Ω/SMA female.

### 4.3 GPS

GPS enabled, connect GPS antenna to CMM366-4G.

**NOTE: GPS antenna needs to be placed to open outdoors, otherwise location information may not accurate or cannot be gained.**

Antenna: 50Ω/SMA female, active antenna.



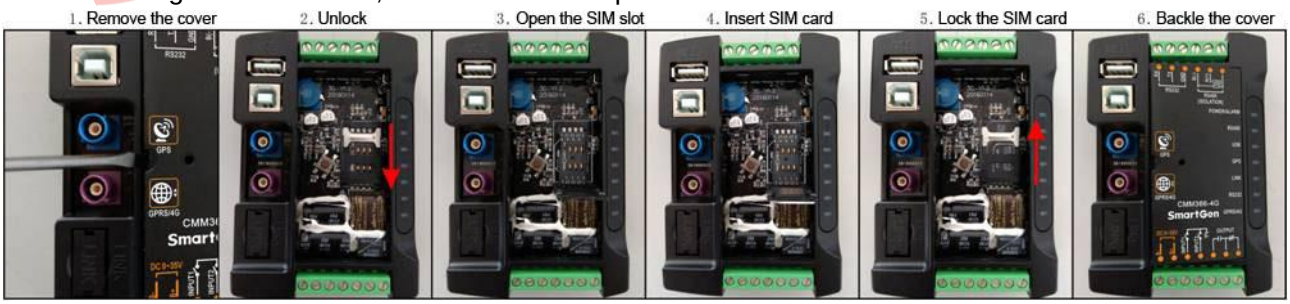

**NOTE: GPRS antenna and GPS antenna cannot be connected reversely.**

### 4.4 SIM INSTALLATION

Insert 4G, 3G or 2G SIM card. CMM366-4G will connect to servers via wireless mobile network.

**NOTE: All 4G wireless networks are supported. Use standard SIM card (25mmX15mm); if GPS indicator and GPRS indicator blink in the same time, which means SIM card hasn't been inserted or bad contacts.**

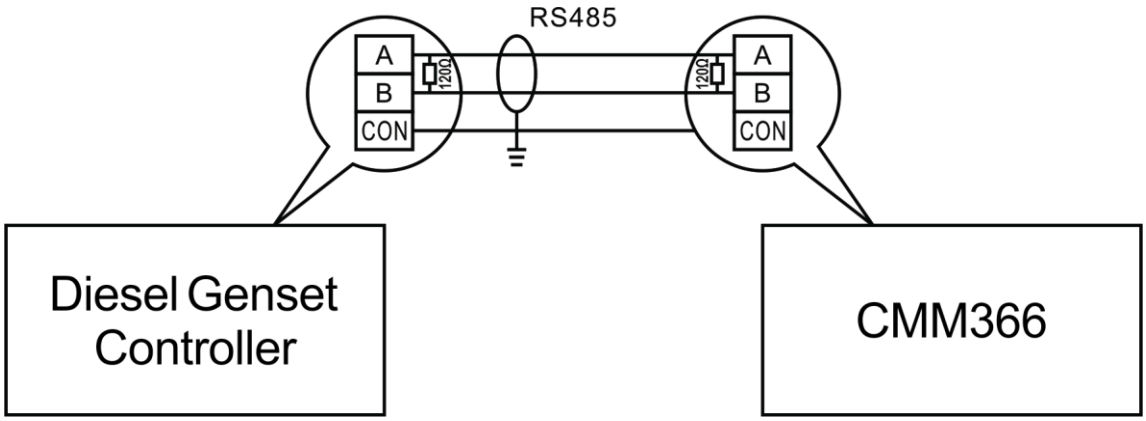
After removing the head cover, the installation steps are as below:



### 4.5 RS485

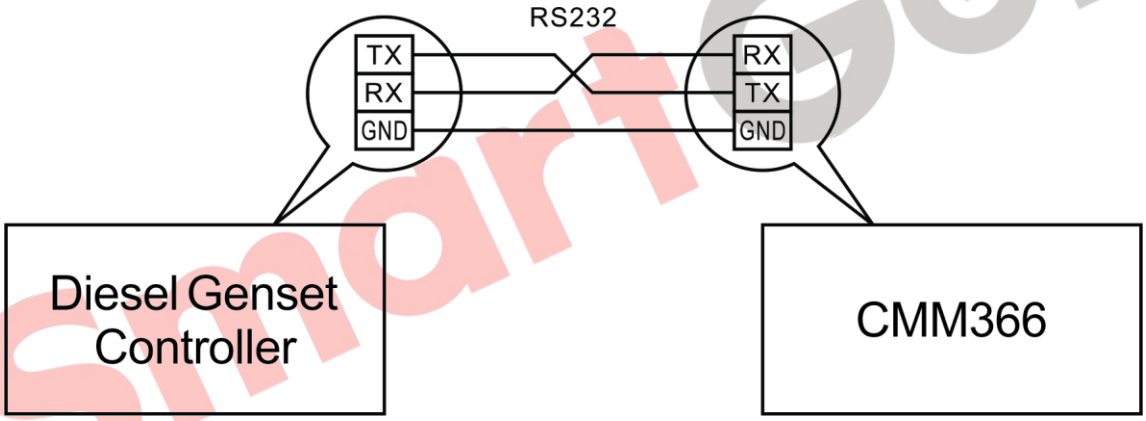
Receive gen-set data information by CMM366 RS485 port connecting with Gen-set Controller RS485 port.

If communication is abnormal, 120Ω terminal resistance is recommonded. One end of shield wire hangs in the air and the other one connects with SCR.



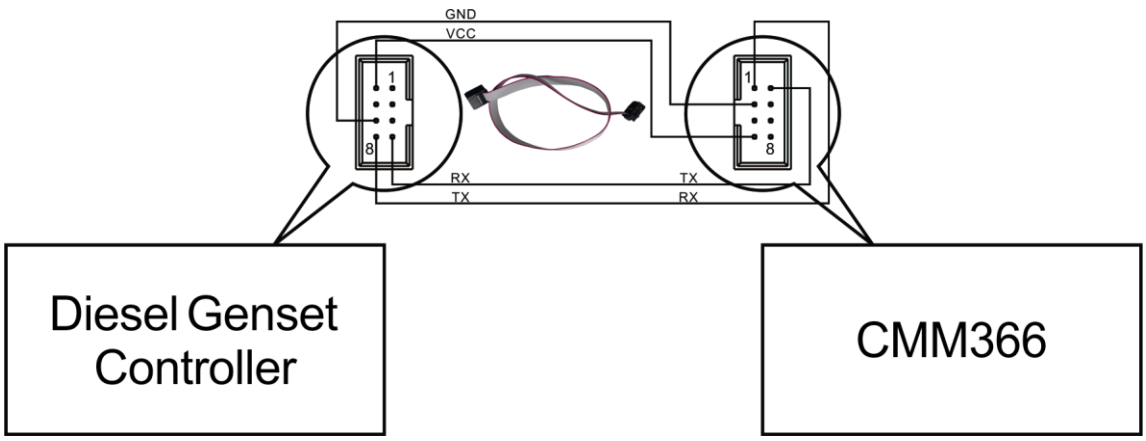

### 4.6 RS232

Receive genset data information by CMM366 RS232 port connecting with Gen-set Controller RS232 port.



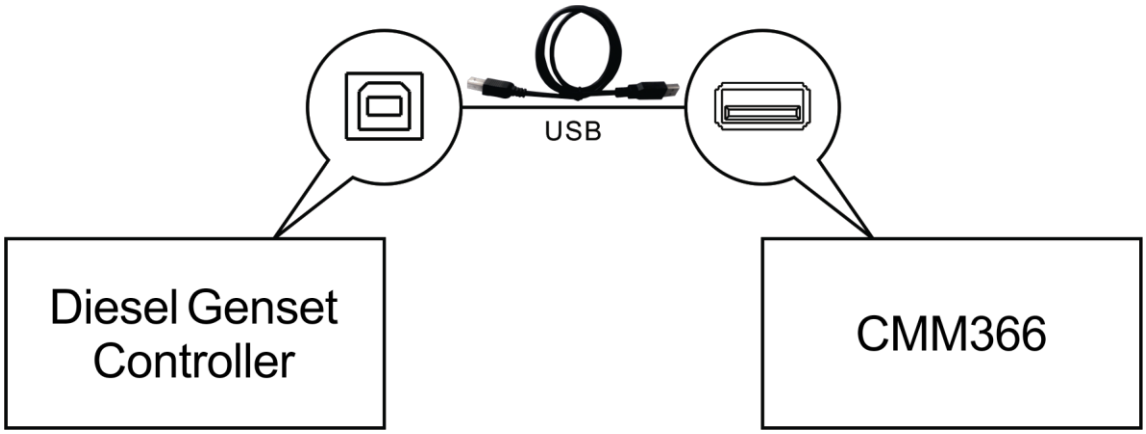

### 4.7 LINK

Receive genset data information by CMM366 LINK port connecting with Gen-set Controller LINK port.



### 4.8 USB HOST

Receive genset data information by CMM366 A-type USB mother port connecting with Genset Controller USB port.




### 4.9 USB DEVICE

Set up all the parameters and view CMM366-4G ID&Login password by CMM366 USB port connecting with PC USB disk port.

### 4.10 TERMINAL

| No. | Function | | Cable Size | Note |
|---|---|---|---|---|
| 1 | B- | | 1.0mm$^2$ | Connected with negative of starter battery. |
| 2 | B+ | | 1.0mm$^2$ | Connected with positive of starter battery. 3A fuse is recommended. |
| 3 | Aux. Input 1 | | 1.0mm$^2$ | Active when connect to B-. |
| 4 | Aux. Input 2 | | 1.0mm$^2$ | Active when connect to B-. |
| 5 | Aux. Output | Normally Open | 1.0mm$^2$ | Normally open outputs, rated 1A DC30V |
| 6 | | Common | 1.0mm$^2$ | |
| 7 | | Normally Close | 1.0mm$^2$ | |
| 8 | RS485 B(-) | | 0.5mm$^2$ | If 120Ω is used, please short connect A (+) with 120 Ω, shielding wire single end grounded. |
| 9 | RS485 A(+) | | 0.5mm$^2$ | |
| 10 | 120Ω | | 0.5mm$^2$ | |
| 11 | RS232 RX | | 0.5mm$^2$ | RS232 |
| 12 | RS232 TX | | 0.5mm$^2$ | |
| 13 | RS232 GND | | 0.5mm$^2$ | |

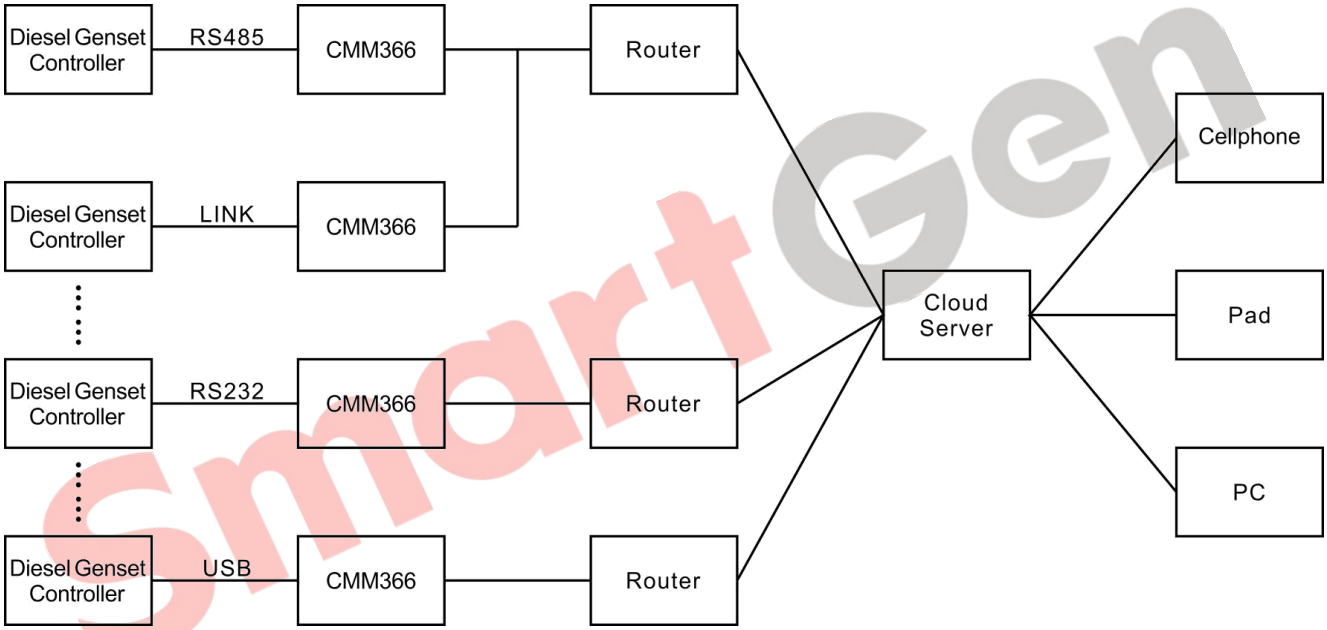
| No. | SMS Orders | Pass Back Information | Description |
|---|---|---|---|
| | MODE | | |
| 6 | SMS AUTO MODE | SMS AUTO MODE OK | Set as auto mode |
| 7 | SMS DETAIL | Pass back information can be set via controller software. | Gets details information of gen-set. |

**NOTE: When sending orders, users need to follow SMS orders in above form and all the letters must be capital.**

**NOTE: Pass back information from SMS DETAIL including: working mode, mains voltage, generator voltage, load current, mains frequency, generator frequency, active power, apparent power, power factor, battery voltage, D+ voltage, water temperature, oil pressure, oil level, engine speed, total running time, gen-set status, and alarm status.**

## 7 SYSTEM DIAGRAM

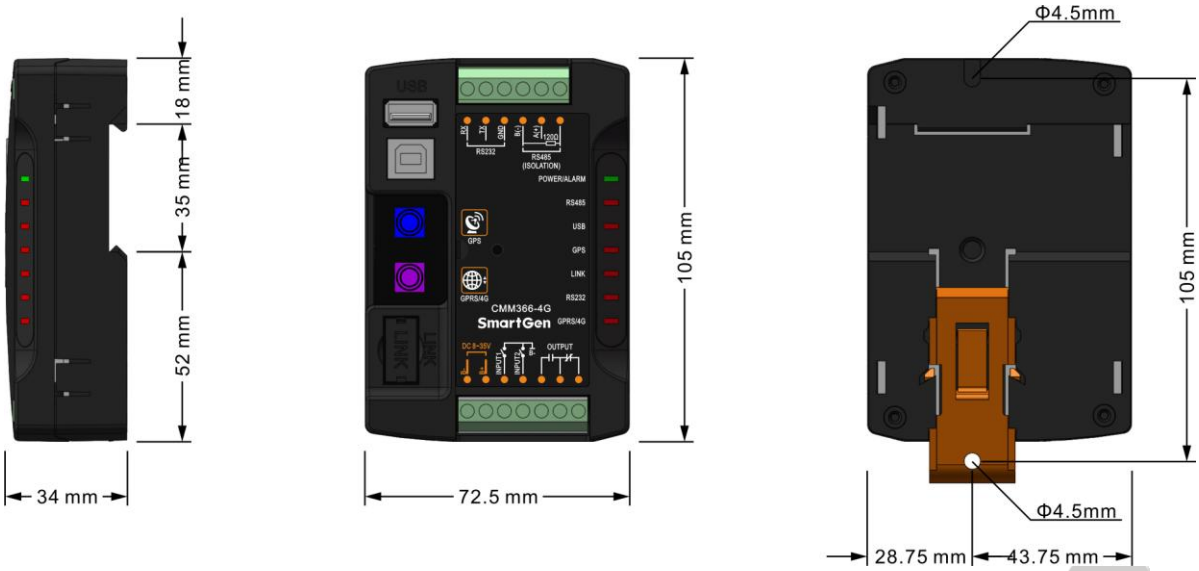
One CMM366-4G module connects with one gen-set monitor module. It can be connected via RS485 port, LINK port, RS232 port or USB port.



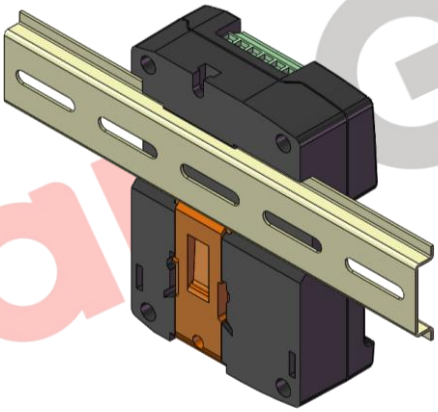

CMM366 System Diagram

## 8 CASE DIMENSION AND INSTALLATION

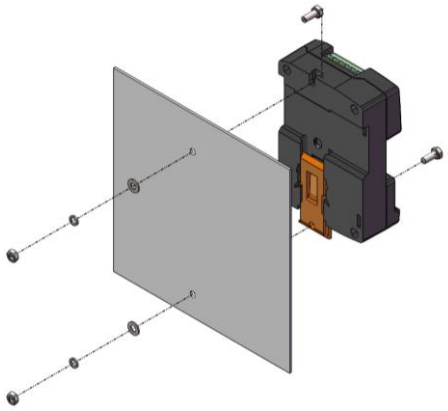
2 ways for installation: 35mm guide rail in box or screw (M4) installation as below:




CMM366-4G Case Dimension



CMM366-4G Guide Rail Installation



CMM366-4G Screw Installation