



robustOS

# Installation and Configuration Quick Guide

## TPH6700 IP67 PC/ABS Housing

For R2000/R2000 D/R3000/R3000 LG/R3000Q/R1520



## Introduction

### About This Document

This document provides hardware information of the Robustel TPH6700 Housing, including introduction and installation.

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### Technical Support

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Email: support@robustel.com

Web: www.robustel.com

## Package Contents

Before installing your TPH6700 housing, please verify the kit contents as following.

- 1 x Robustel TPH6700 IP67 PC/ABS Housing



- 3G/4G antenna  
Frequency range: 800-2700 MHz  
Impedance: 50 ohm  
Weight: 0.2 kg



- Wi-Fi antenna  
Frequency range: 2400-2483/5725-5850 MHz  
Impedance: 50 ohm  
Weight: 0.2 kg



- Power supply cable (3/5 pin)  
Transmission rate: 100 Mbps  
Length: 2 m



- Ethernet cable (8 pin)  
Transmission rate: 100 Mbps  
Length: 2 m



- Wall mounting kit  
Material: Aluminum  
Dimensions: 185 x 180 x 30 mm



- Serial port cable (8 pin)  
Transmission rate: 100 Mbps  
Length: 2 m



- Pole mounting kit  
Material: Stainless steel  
Width: 12 mm

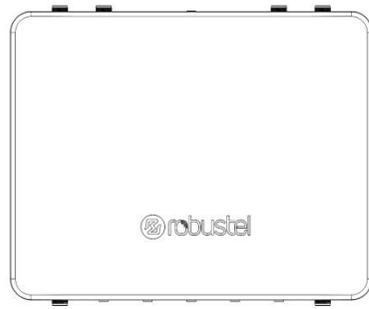


**\*If any of the above items is missing or damaged, please contact your Robustel sales representative.**

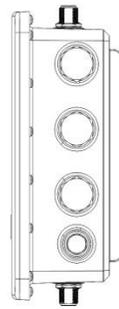
## Product Overview



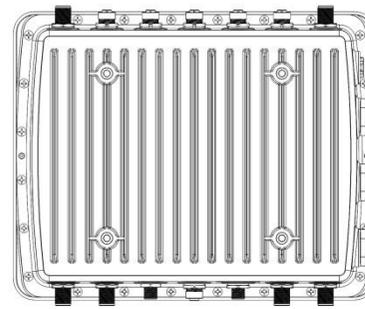
Left View



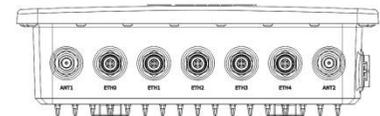
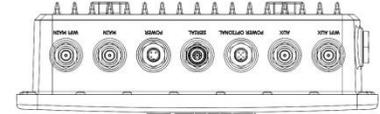
Front View



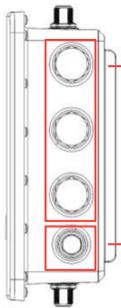
Right View



Rear View



Top & Bottom View



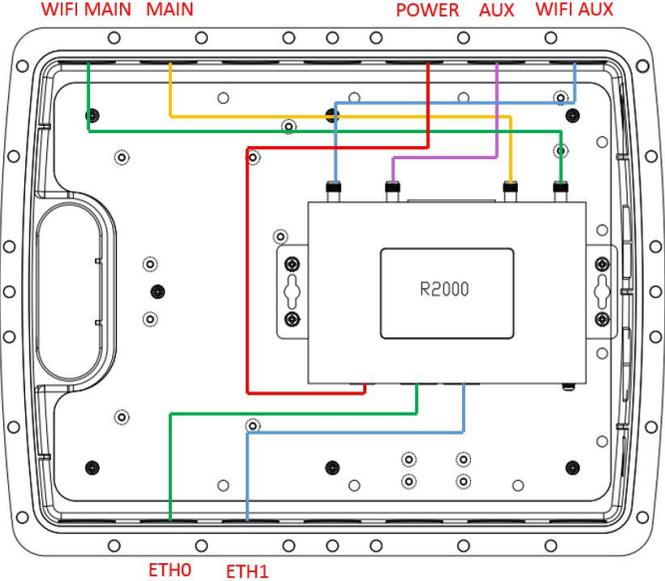
→ **Core plug**—seal up these unneeded interfaces for protecting

→ **Vent plug**—applied to balance differential pressure, protect from dust and water, and ventilate the enclosure

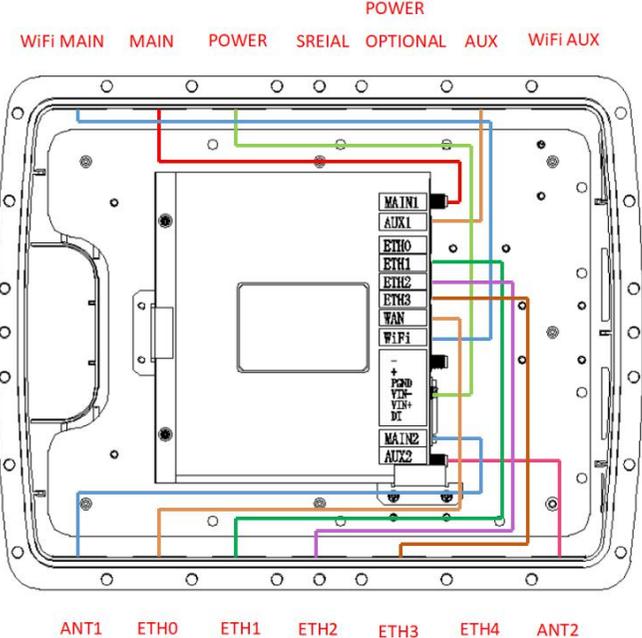
Item	Description
Metal	PC/ABS
Weight	1010 g
Dimensions	310 x 245 x 93.4 mm
Ingress protection	IP67
Standards for the housing	Fully detachable Performance requirement for high and low temperature Aging-resistance level (UL746C) Flame-retardant level (grade 2 of UL746C) Standard requirement for environment protection

The interface of each housing model is slightly different. For more details in each model, see the following views.

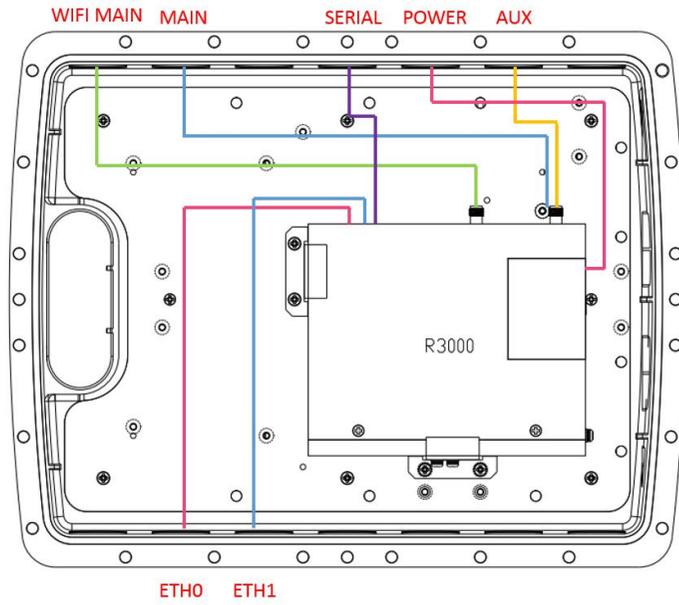
**TPH6700-R2000:**



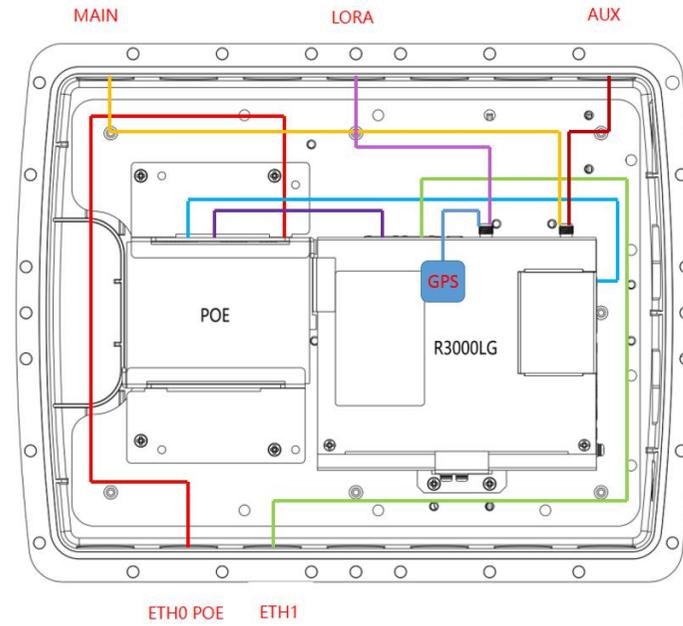
**TPH6700-R2000D:**



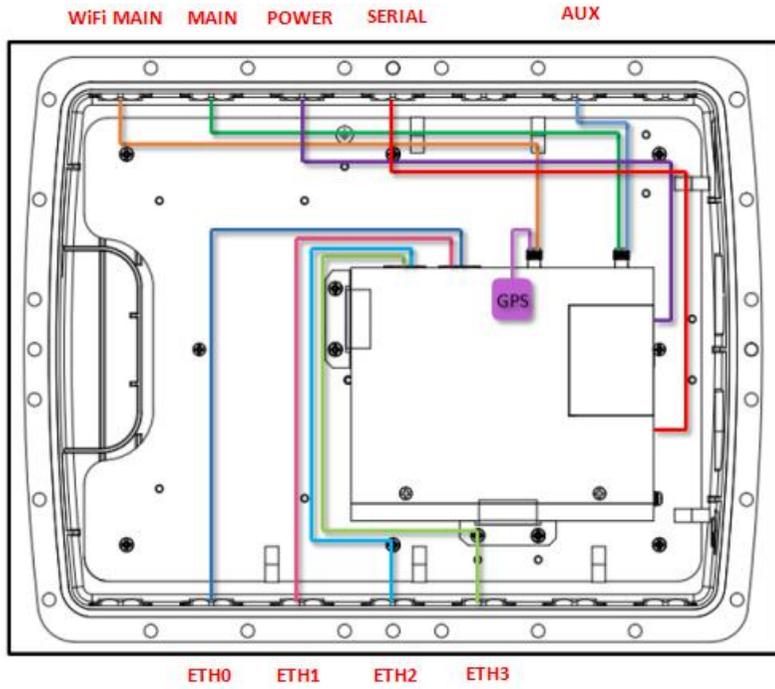
**TPH6700-R3000:**



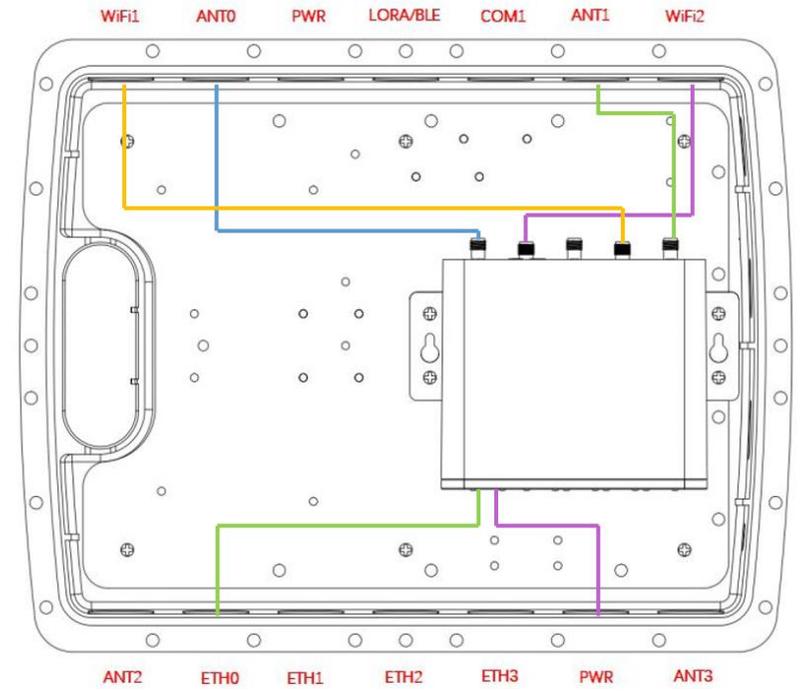
**R3000LG-OG:**



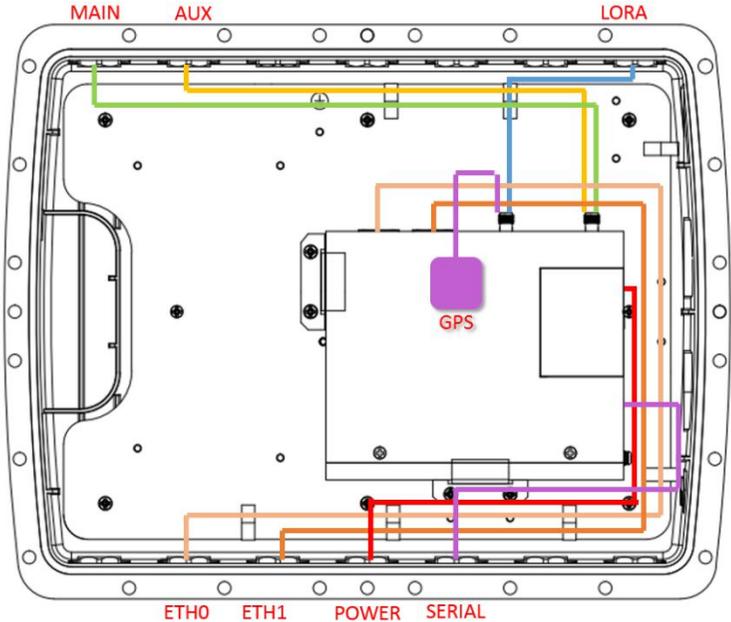
TPH6700-R3000Q:



TPH\_R1520:



**TPH-R3000LG:**

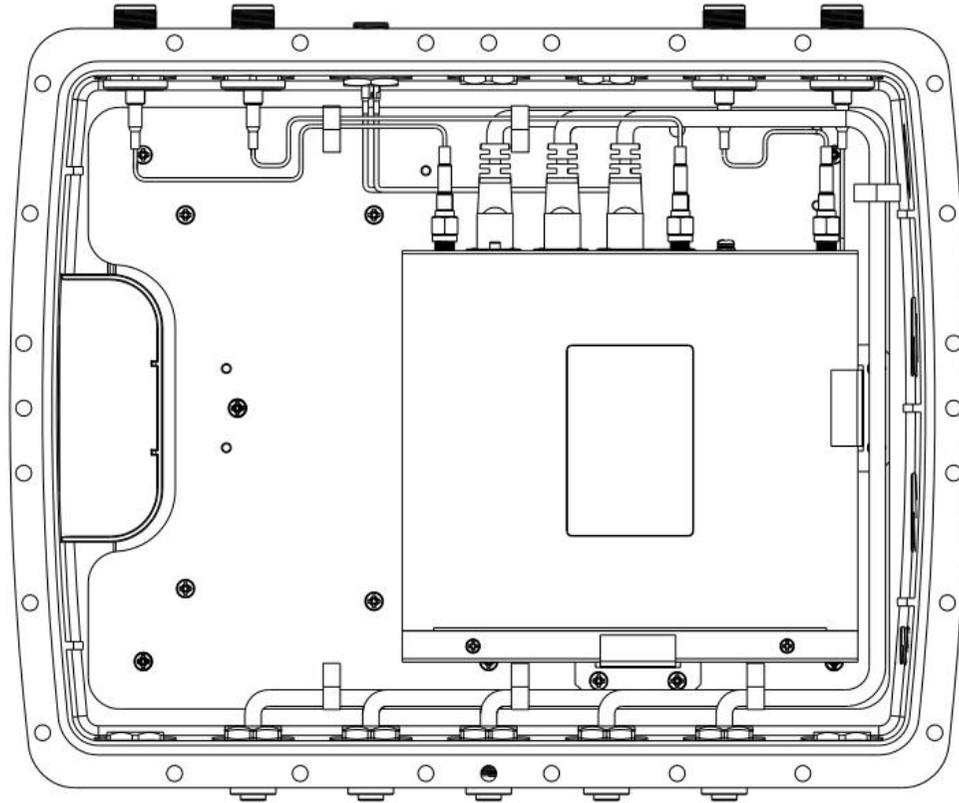


## SIM Card Installation

When installing the SIM card of the wiring device inside the TPH6700, You need to remove the installed device when you install.

1. Remove the detachable cover of TPH6700 housing with a screwdriver.

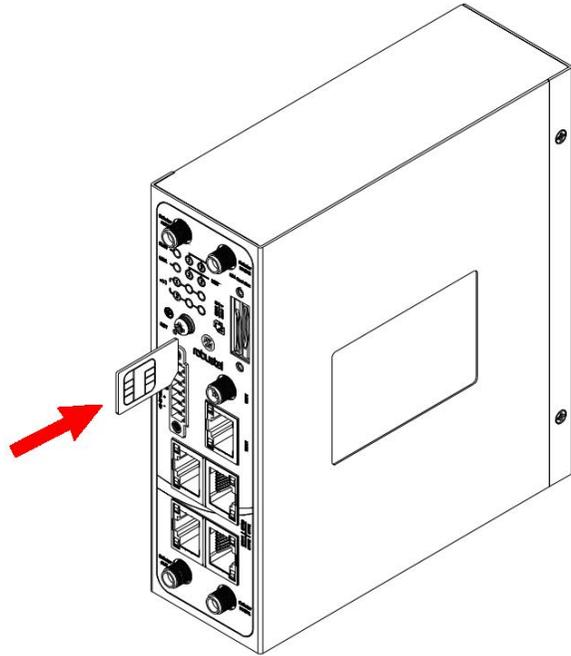
**Note:** Your device has been installed into the enclosure before delivery.



2. Disconnect all cables or wires of the router and take it out.

3. Make sure the router is powered off. Find the SIM slot, insert the SIM card correctly, and press the card with finger until you hear a click. If you need to remove the card push inward again and the card will pop out.

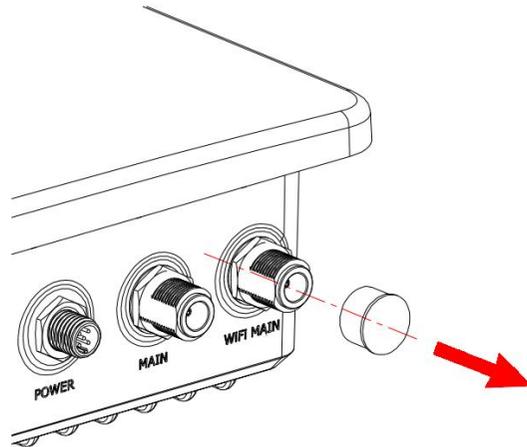
**Note:** For more details about inserting or removing SIM card, please contact your Robustel sales representative for relevant user guide.



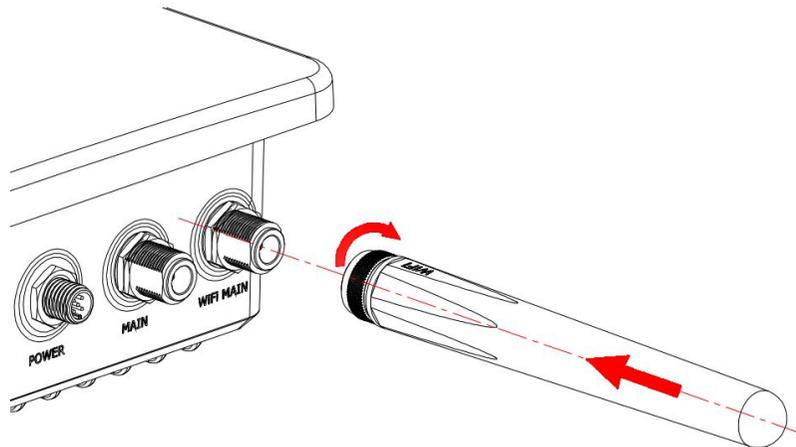
4. Put back the router and reconnect its cables or wires according to the original way.
5. Place the detachable cover back on and tighten its screws to ensure it is protected from water and dust.

## Antenna Installation

1. Remove the protective caps from the cellular and Wi-Fi connectors. Here take Wi-Fi connector as an installation example.

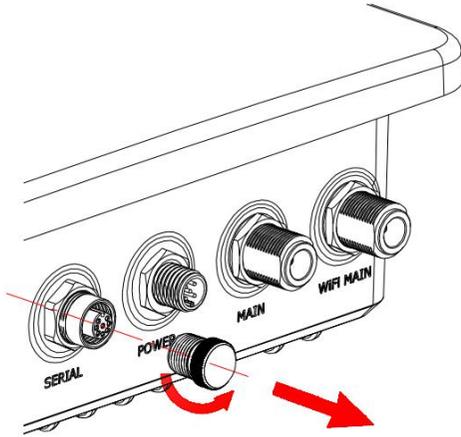


2. Connect the antenna to the corresponding antenna connector by holding onto the metal part of the antenna and rotating it clockwise.  
**Note:** Each antenna is labeled as 3G, 4G or WiFi for easy installation.

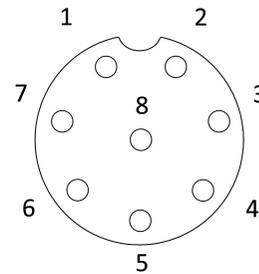
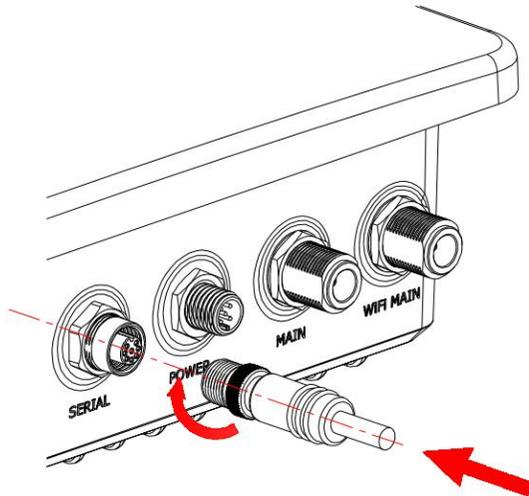


## Serial Port Connection

1. Remove the protective cap from the serial port connector labeled SERIAL.



2. Connect a serial port cable to the serial connector at the top of the enclosure, and rotate it clockwise.



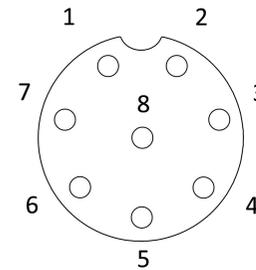
3. Connect the other end of the cable to your serial device.

Note: There are differences between the serial port combinations and definitions of different types of devices, as follows:

R3000S:

When the serial port is RS232+RS485, the pins are defined as follows:

PIN	Description
1	CTS
2	RTS
3	RXD
4	TXD
5	GND
6	A
7	B
8	NC



When the serial port is RS232+ RS232, the pins are defined as follows:

PIN	Description
1	CTS
2	RTS
3	RXD
4	TXD
5	GND
6	TX
7	RX
8	NC

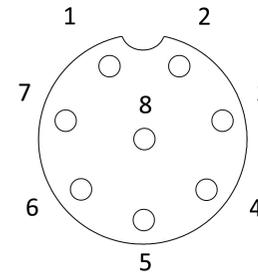
When the serial port is RS485+RS485, the pins are defined as follows:

PIN	Description
1	
2	
3	B1
4	A1
5	GND
6	A2
7	B2
8	NC

R3000Q:

When the serial port is RS232, the pins are defined as follows:

PIN	Description
1	CTS
2	RTS
3	RXD
4	TXD
5	GND
6	
7	
8	NC



When the serial port is RS485, the pins are defined as follows:

PIN	Description
1	
2	
3	B
4	A
5	GND
6	
7	
8	NC

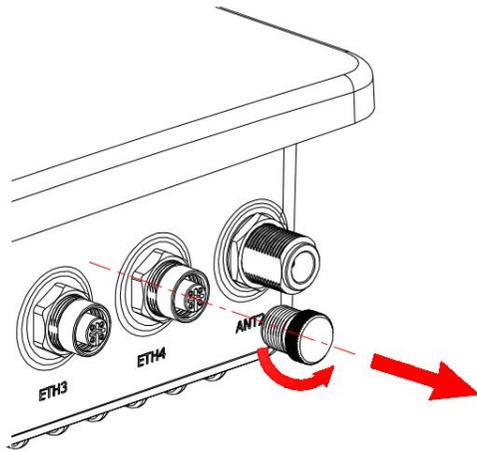
R3000LG:

When the serial port is RS232, the pins are defined as follows:

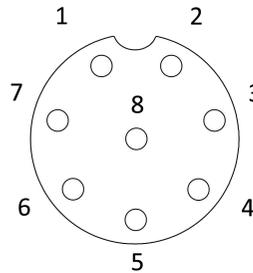
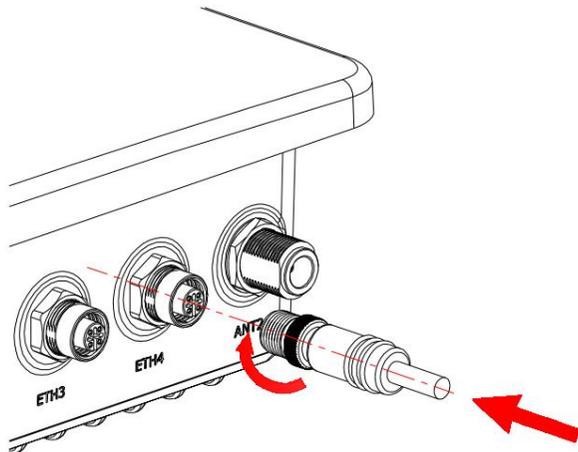
PIN	Description
-----	-------------

## Ethernet Connection

1. Remove the protective cap from the Ethernet connector (ETH0~ETH4).



2. Connect an Ethernet cable to any port marked ETH0~ETH4 at the bottom of the enclosure, and rotate it clockwise.



PIN	Description
1	TX+
2	TX-
3	RX+
4	POE+
5	POE+
6	RX-
7	POE-
8	POE-

3. Connect the other end of the cable to your network interface, such as a personal computer.

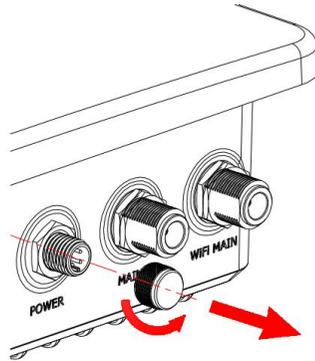
## Power Options

The TPH6700 can be powered via DC power supply. The enclosure provides devices with a waterproof power connector allowing it to be powered by a specific input voltage which depending on the specific device inside.

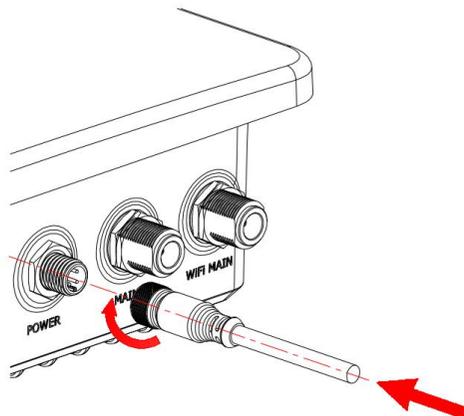
**Note:** For more details about power voltage, please contact your Robustel sales representative for relevant data sheet.

### DC Power

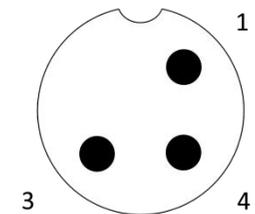
1. Locate the power port marked POWER on the top of the enclosure and remove the protective cap to find the connection pins.



2. Connect a power supply cable to the power port, and rotate it clockwise.



3. Connect the other end of the cable to your specific power supply source.



PIN	Description
1	L (VIN+)
3	PGND
4	N (VIN-)

## Mountings

The TPH6700 can be mounted to a wall or a pole.

### Wall Mounting

Make sure you have mounting bracket, bracket mounting screws, wall plugs, wall mounting screws and other required tools.

1. Before you start, make sure your SIM card has been inserted, your antennas have been attached and that all cables have been disconnected from your enclosure.
2. Align the mounting bracket horizontally to the desired position on the wall, use a marker pen (or a pencil) to mark four mounting holes on the wall, and then remove the mounting bracket from the wall.

**Note:** The connecting lines of adjacent points are at right angles.

3. Drill the four holes with a depth of 60 mm by using your drill with an 8 mm drill bit on the positions you marked previously in the wall.
4. Insert four wall plugs into the holes respectively, and make sure the exposed part is about 20 mm (Figure BG-1).

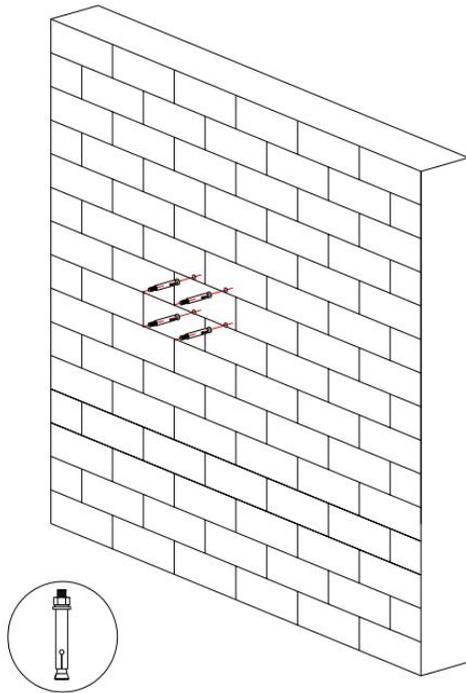


Figure BG-1

5. Mount the mounting bracket horizontally to the wall by fixing the wall mounting screws into the wall plugs (Figure BG-2).

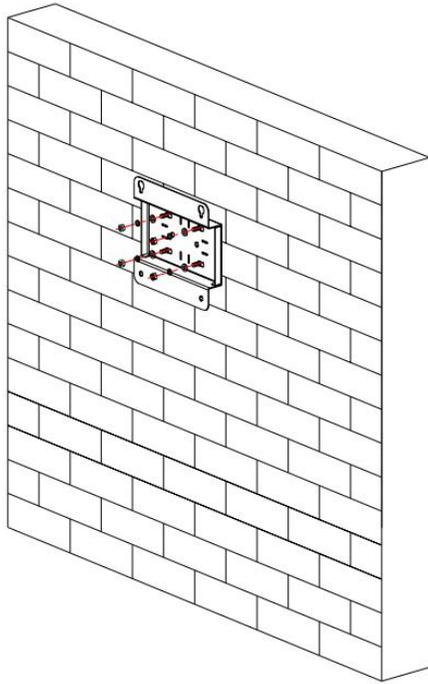


Figure BG-2

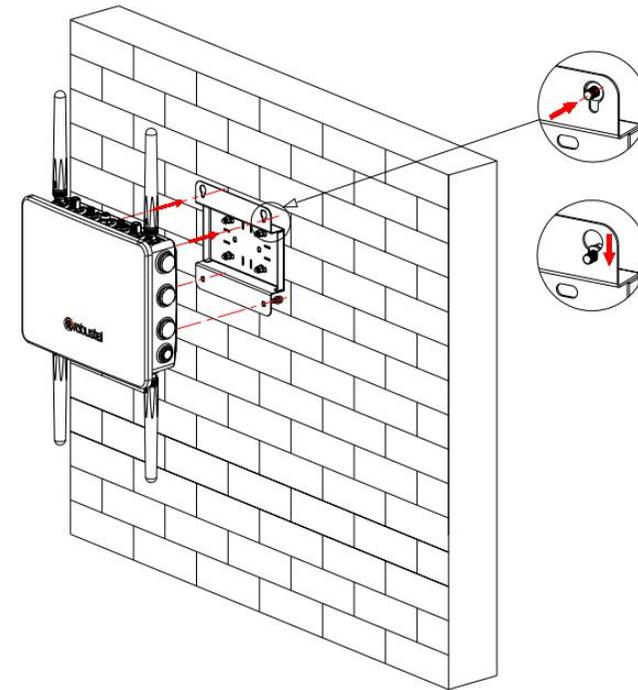
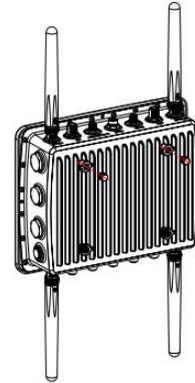


Figure BG-3

6. Mount the enclosure to the mounting bracket with the bracket mounting screws (Figure BG-3).  
**Note:** Place the Ethernet port side down when installing.
7. Reconnect the cables to your TP6700.

### Pole Mounting

Make sure you have mounting bracket, bracket mounting screws, hose clamp and other required tools.

1. Before you start, make sure your SIM card has been inserted, your antennas have been attached and that all cables have been disconnected from your enclosure.
2. Mount the mounting bracket vertically to the back of the enclosure with the bracket mounting screws.

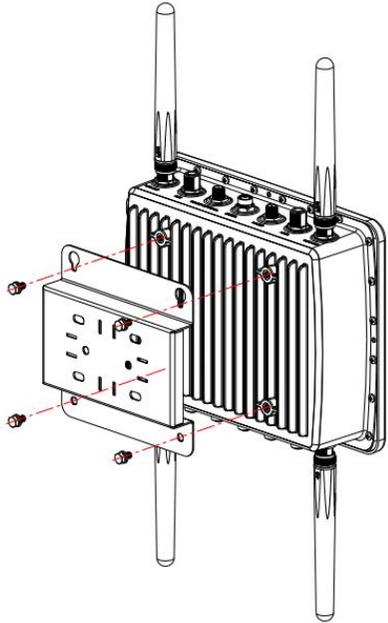


Figure BG-4

3. Loosen the hose clamp by turning the locking mechanism counter-clockwise.

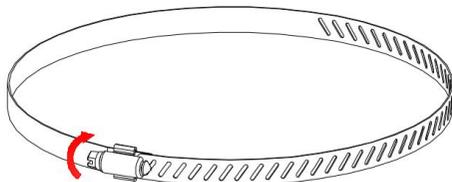


Figure BG-5

4. Straighten out the hose clamp and slide it through the rectangular holes in the mounting bracket (Figure BG-6).

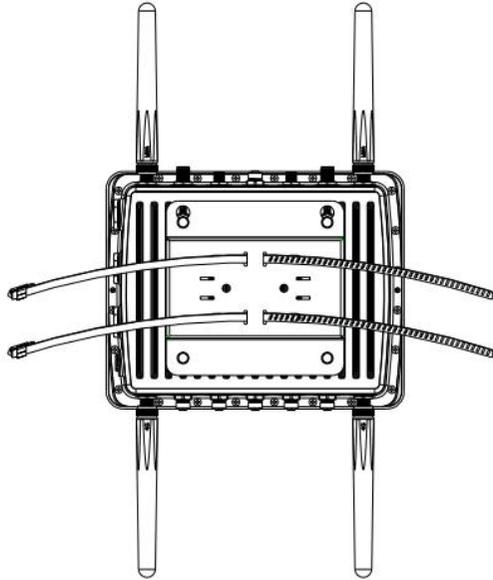


Figure BG-6

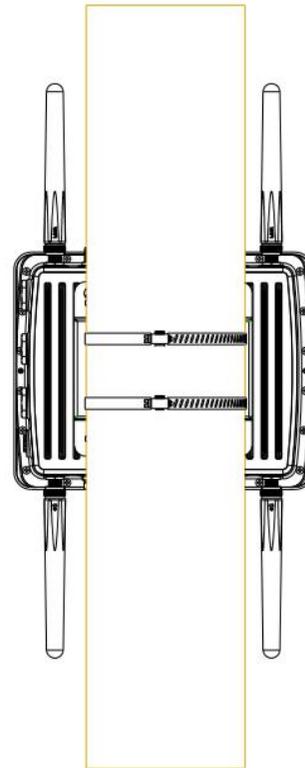


Figure BG-7

5. Wrap the hose clamp around the pole (Figure BG-7).
6. Use a screwdriver to tighten the locking mechanism by turning it clockwise.
7. Reconnect the cables to your TPH6700.

## Guangzhou Robustel Co., Ltd.

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