



antaira STM-601C Series Industrial Modbus TCP Installation Guide

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antaira STM-601C Series Industrial Modbus TCP



STM 601C Series

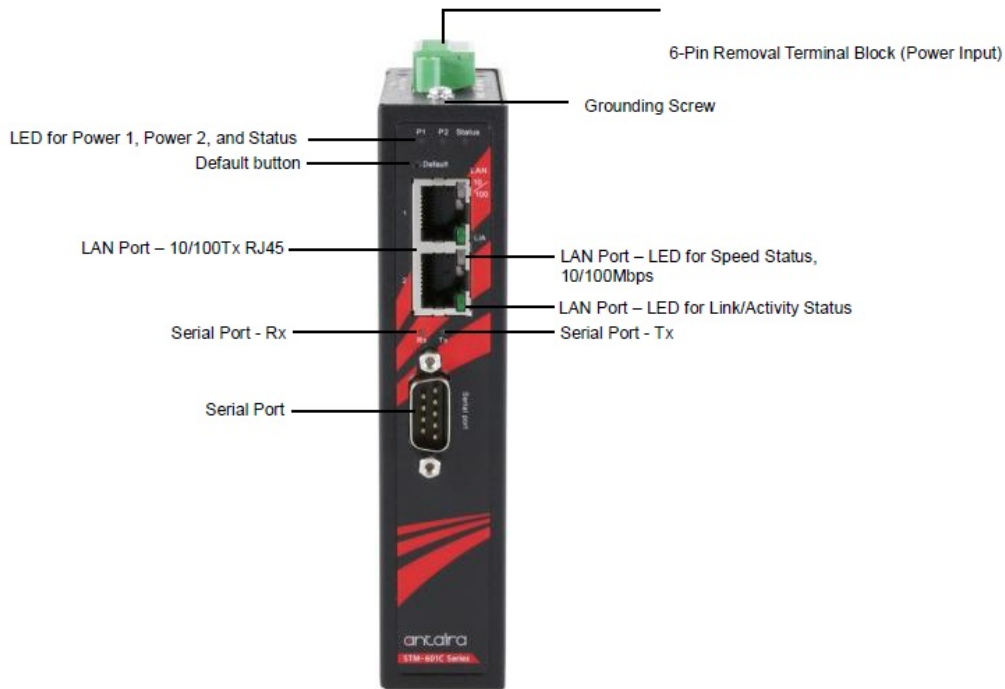
Industrial Modbus TCP (two Ethernet ports) to one Serial (232,422,485) RTU/ASCII Gateway.

Package Check List

The package contains the following items

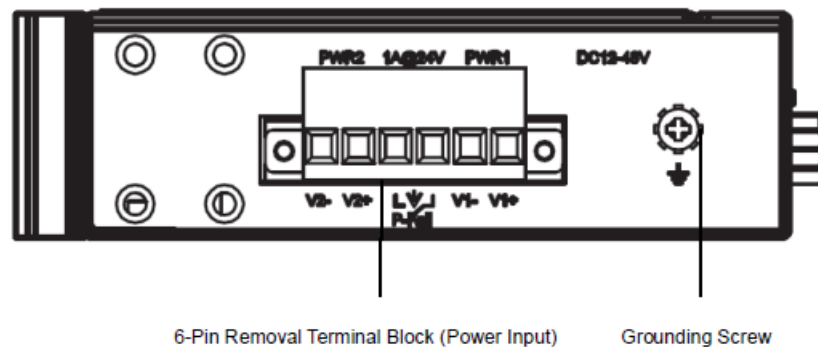
- 1 Quick installation guide
- 1 STM 601C(T)
- 1 DIN Rail and wall mounting bracket set with screws

Front Panel Layout



Top Panel View

STM-601C Series' top panel is equipped with one 6-pin removal terminal block connector for dual DC power inputs (1248VDC).



Product Overview

System Interface/Performance

- Provides 2*10/100 Mbps Ethernet ports for LAN redundancy, and 1*DB9 Serial port
- Integration of Modbus TCP and Modbus RTU/ASCII networks
- Supports up to 921.6 kbps, and any baud rate setting
- Supports up to 16 connections on each serial port under Modbus Master mode and 32 sessions under Modbus Slave mode.
- Software selectable RS-232/422/485 communication
- Built-in 15 KV ESD protection for all serial signals
- Automatic RS-485 data flow control
- Supports surge protection for D.C. power ports with line-to-line 2kV, and line-to-earth 4kV; for signal ports with 4kV.

Power Input & Connection

- DC 12 to 48V redundant power, with a 6-pin removal terminal block
- It is recommended to use a UL listed industrial power supply

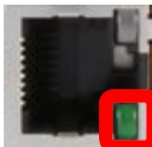

Operating Temperature

- Standard operating temperature model: -10°C to 60°C
- Extended operating temperature model: -40°C to 70°C

Case/Installation

- IP30 protection
- DIN-Rail and wall mount design

LED Indicators

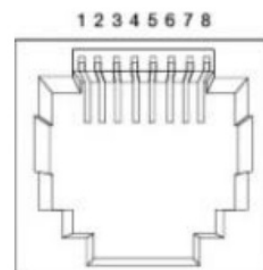
| LED | Color | Description | |
|-----------------------------|---|-------------|---|
| P1 | Green | On | Power input 1 is active |
| | | Off | Power input 1 is inactive, or power error condition exists |
| P2 | Green | On | Power input 2 is active |
| | | Off | Power input 2 is inactive, or power error condition exists |
| Status | Amber | On | The device server has been located by utility's location function |
| | | Flashing | System is ready (1 cycle/sec.) |
| | | Off | System is not working |
| LAN Port 1-2 (Lower LED) |  Green | On | Link Up |
| | | Flashing | Data Transfer |
| | | Off | No Link |
| LAN Port 1-2 (Upper LED) |  Orange | On | 100Mbps |
| | | Off | 10Mbps |
| Rx | Orange | On | Rx Data Transfer |
| | | Off | No Data |
| Tx | Green | On | Tx Data Transfer |
| | | Off | No Data |

Quick Installation

Ethernet Ports

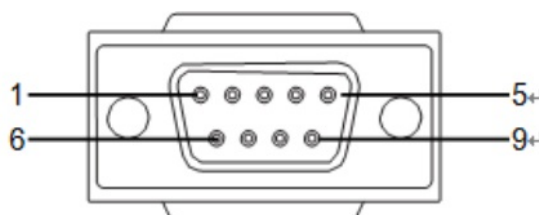
RJ45 Ports (Auto MDI/MDI-X) All RJ 45 port s are auto sensing for 10Base T or 100Base TX device connections. Please follow the wiring pin assignment table below for Ethernet port installation.

| RJ45 Ethernet Port Pin Outs | | | | |
|-----------------------------|---------------------|---------------------|-------------------------|---------------|
| Pins | T568A Color | T568B Color | 10Base-T, 100Base-TX | 1000Base-T(X) |
| Pin 1 | white/green stripe | white/orange stripe | Rx+ | TP0+ |
| Pin 2 | green solid | orange solid | Rx- | TP0- |
| Pin 3 | white/orange stripe | white/green stripe | Tx+ | TP1+ |
| Pin 4 | blue solid | blue solid | unused | TP2+ |
| Pin 5 | white/blue stripe | white/blue stripe | unused | TP2- |
| Pin 6 | orange solid | green solid | Tx- | TP1- |
| Pin 7 | white/brown stripe | white/brown stripe | unused | TP3+ |
| Pin 8 | brown solid | brown solid | unused | TP3- |



DB9 Ports

- The pin assignment of RS-232/422/485 as below.



| Pin | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------|-------|----|----|-------|-----|-----|-----|-----|-----|
| RS-232 | DCD | RX | TX | DTR | GND | DSR | RTS | CTS | RI |
| RS-422 | TX- | | | TX+ | GND | | RX+ | | RX- |
| RS-485 | DATA- | | | DATA+ | GND | | | | |

Power Input Wiring

Please follow the steps below to insert the power wire:

1. Insert the positive and negative wires into the PWR1 (V1+, V1-) and PWR2 (V2+, V2-) contacts on the terminal block connector as shown below in Figure 1.
2. Tighten the wire-clamp screws to prevent the wires from loosening, as shown below in Figure 2.

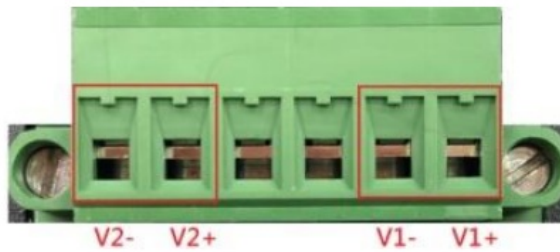


Figure 1



Figure 2

Industrial Switch Mounting

DIN-Rail Mounting

Please refer to Figure 3 for a DIN-Rail bracket installation reference. Follow the steps below for installing the industrial Modbus gateway on the DIN-Rail track:

1. Insert the top of the DIN-Rail on to the track as shown in Figure 4.
2. Lightly pull down the bracket on to the rail as shown in Figure 5.

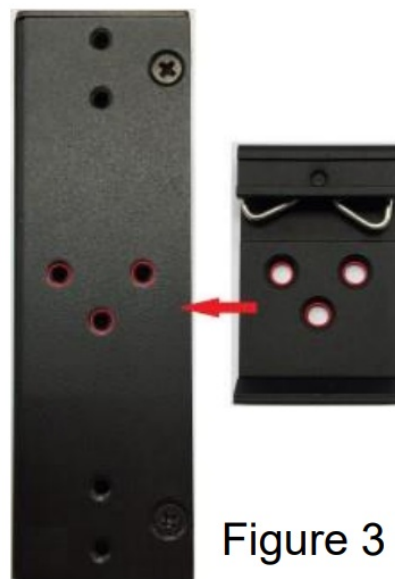


Figure 3

1. Check if the bracket is mounted tightly on the rail.
2. To remove the industrial Modbus gateway from the rail, do the opposite from the steps above.



Figure 4

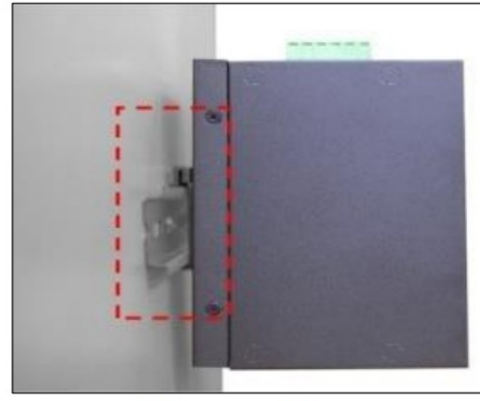


Figure 5

Wall Mounting

Follow the steps below to mount the industrial Modbus gateway using the wall mounting bracket as shown below in Figure 6.

1. Remove the DIN-Rail bracket from the industrial Modbus gateway by loosening the screws.
2. Place the wall mounting brackets on the top and bottom of the industrial Modbus gateway.
3. Use the screws to screw the wall mounting bracket on the industrial Modbus gateway.
4. Use the hook holes at the corners of the wall mounting bracket to hang the industrial Modbus gateway on the wall.
5. To remove the wall mount bracket, do the opposite from the steps above.

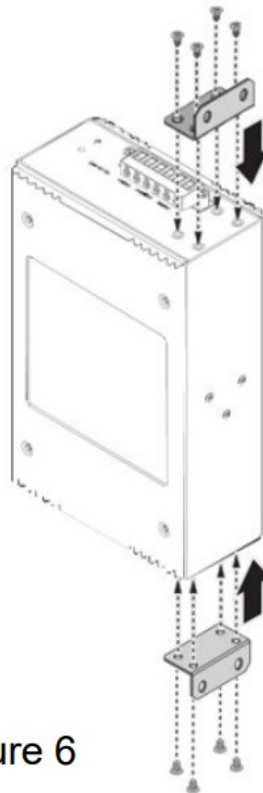


Figure 6

Software Utility

- Please download the utility from Antaira website (www.antaira.com) to configure your Modbus gateway.

Field Maintenance and Service

- If the device requires servicing of any kind, the user is required to disconnect and remove it from its mounting. The initial installation should be done in a way that makes this as convenient as possible.
- Voltage/power lines should be properly insulated as well as other cables. Be careful when handling them so as to not trip over.
- Do not under any circumstance insert foreign objects of any kind into the heat dissipation holes located in the different faces of the device. This may not only harm the internal layout, but might cause harm to user as well.
- Do not under any circumstance open the device for any reason. Please contact your dealer for any repair needed or follow the instructions within the manual.

Warranty Policy

Warranty Conditions

Products supplied by Antaira Technologies are covered in this warranty for sub-standard performance or defective workmanship. The warranty is not, however, extended to goods damaged in the following circumstances:

- Excessive forces or impacts
- War or an Act of God: wind storm, fire, flood, electric shock, earthquake
- Use of unqualified power supply, connectors, or unauthorized parts/kits
- Replacement with unauthorized parts

RMA and Shipping Costs Reimbursement

Customers shall always obtain an authorized “RMA” number from Antaira before shipping the goods for repair or replacement.

- Within the warranty period (based on the invoice date), all parts and labor are free of charge to the customers.
- Customers are responsible for the cost of parts and labor, if the products are out of warranty.
- For RMA service, customers are responsible for the shipping expense for shipping the RMA unit(s) to Antaira. Antaira is responsible for the shipping expense via a ground service for the return repair/replace unit(s) back to customers.

Limited Liability

Antaira would not be held responsible for any consequential losses from using Antaira's product.

Warranty Period

- 5-Year Warranty

Antaira's Customer Service and Support

Antaira's Technical Service & Support Centers

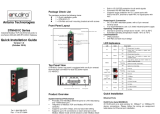
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- + 48 48-22 -862862-88 -81 (Antaira Europe Office)
- + 886 886-2-22182218-9733 (Antaira Asia Office)

Antaira's Web Sites & Repair/Support Emails


- www.antaira.com
- support@antaira.com
- www.antaira.eu
- info@antaira.eu
- www.antaira.com.tw
- info@antaira.com.tw

Any changes will be announced on the Antaira website

Documents / Resources

| | |
|---|---|
|  | antaira STM-601C Series Industrial Modbus TCP [pdf] Installation Guide STM-601C Series Industrial Modbus TCP, STM-601C Series, Industrial Modbus TCP, Modbus |
|---|---|

References

-  [Antaira Technologies | Industrial Networking Solutions](#)
-  [Antaira Technologies Asia | Industrial Networking Product Solutions](#)
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