TRP-C07
User's Manual

RS422/485 Optical Isolated Repeater



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1. Introduction

The TRP-C07 repeater boosts the RS-422/485 signals to extend the distance up to 4000 ft (1200M) and increase the maximum number of connected nodes up to 128. With data format auto detecting and baud rate auto switching function TRP-C07 is able to automatically detect the data flow and switch the direction of the data lines accordingly as well as to automatically configure RS-422/485 signals to any baud rate without external switch setting. The optical isolation provides 3000VDC of isolation to protect the host computer from ground loops and destructive voltage spikes on the RS422/485 data lines. The internal surge-protection on each data line protects the module from dangerous voltages.

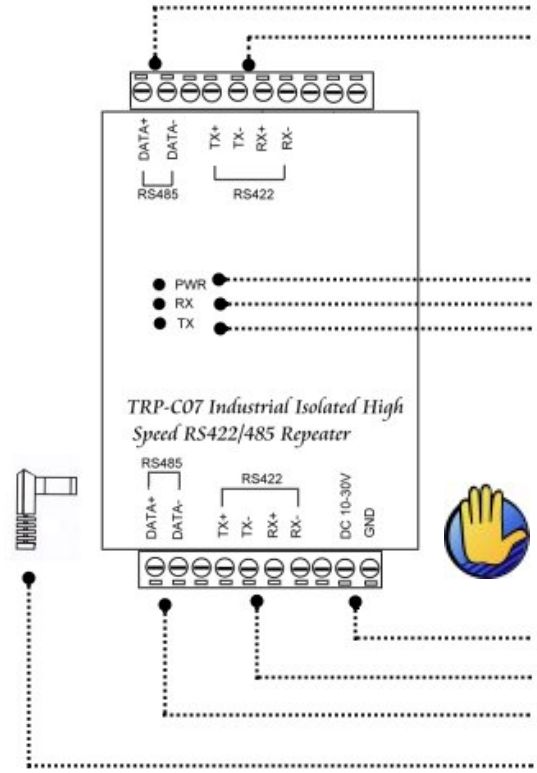
1-1. Features

- Automatic internal RS-422/485 bus supervision.
- Auto direction flow control on RS-485.
- Supported baud rate up to 115.2 Kbps.
- Support 3000 V DC isolation protection.
- Over current protection.
- All RS422/485 signals provide surge protection.
- Power/TX/RX mode LED indicator.
- Power supply :Support screw terminal and standard external DC adaptor.
- Power input requirement from DC +10V to +30V.

1-2. Specification.

- Power Input Voltage: DC +10V to +30V
- Input: RS422/485 protocol.
- Output: RS422 signal: Differential 4 full-duplex wires
- RS485 signal: Differential 2 half-duplex wires.
- Electromagnetic Compatibility: CE.
- Communication speed: form 1.2 to 115.2Kbps auto-switching.
- RS422/485 line protection: Against surge, short circuit, voltage peak.
- Distance: Extend RS422/485 signal up to 4000ft (1250M).
- Connection type: Screw terminal for maximum AWG 12 wire.
- Signal LED: Power on , TX , RX.
- Din-Rail mountable: Yes.
- Power supply: Screw terminal , or standard external DC adapter.
- Power consumption:1.2W..
- Isolation Voltage3000V DC.
- Operating environment:-20 to 65C.
- Storage temperature: -20 to 65C.
- Dimension:151mm X 111mm X 26mm.
- Weight: 375g.

2. TRP-C07 panel layout



RS485 Signal from host
RS422 Signal from the host

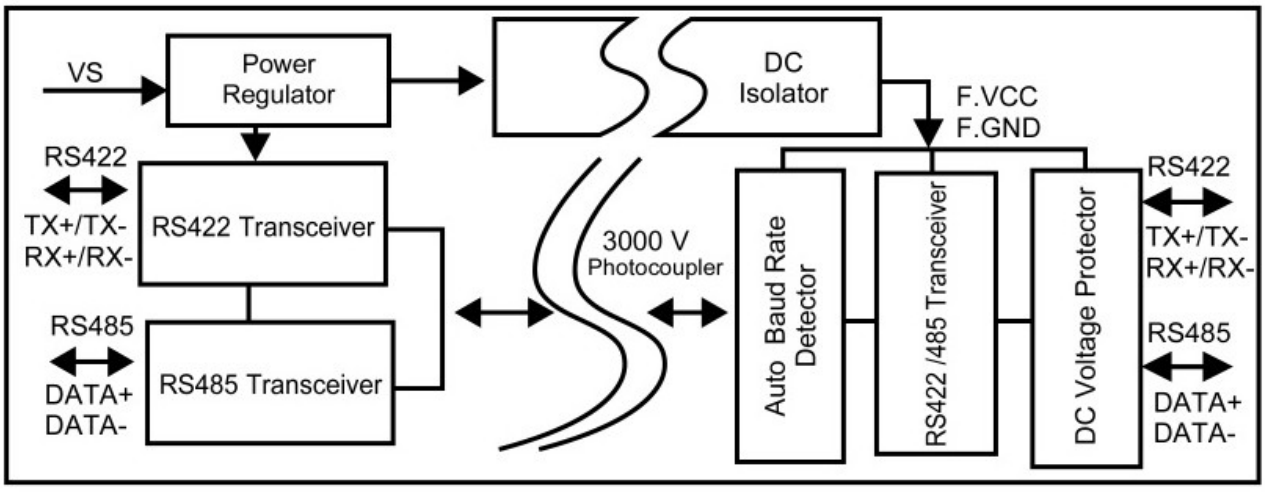
Power LED
RX LED(When the signal is receiving will flash)
TX LED(When the signal is transecting will flash)

Warning: Don't connect external DC-Jack and screw terminal DC input simultaneously.

Power DC input from +10V to+ 30V
RS422 Signal to target device
RS485 Signal to target device

DC Jack Input from +10V to +30V. (Pleas use the 5.5*2.1mm DC JACK)

3. TRP-C07 Hardware Structure



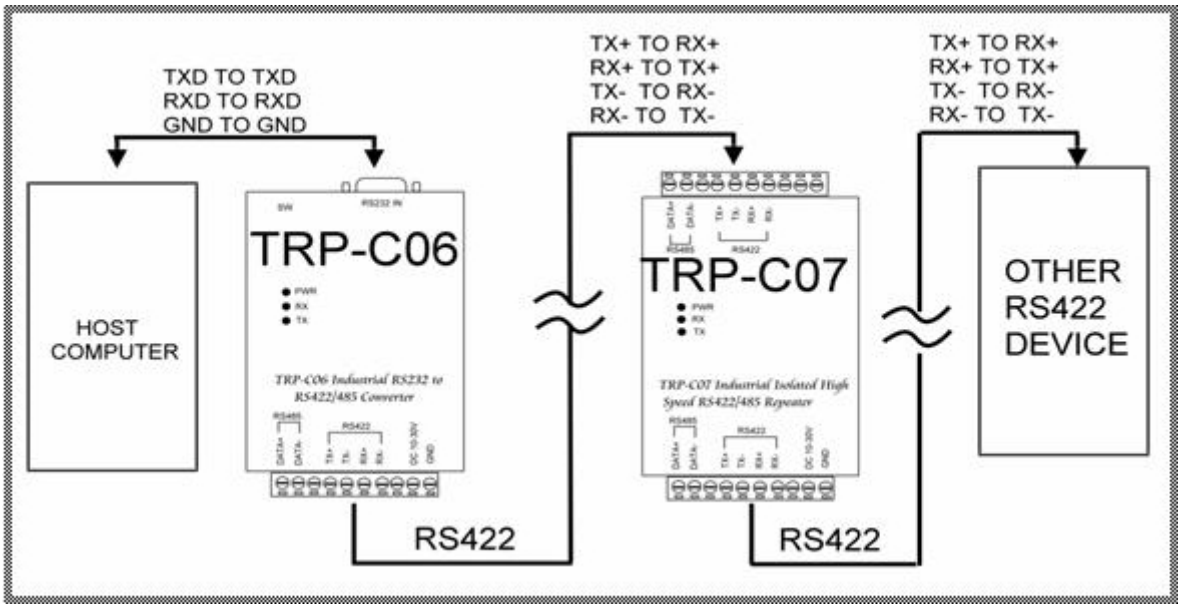
4. Install TRP-C07

4-1. Connect power source with TRP-C07.

Warning: User can only choose one of 2 power source
External DC-Jack or Screw terminal DC input
Do not use external DC-Jack and screw terminal DC input simultaneously.

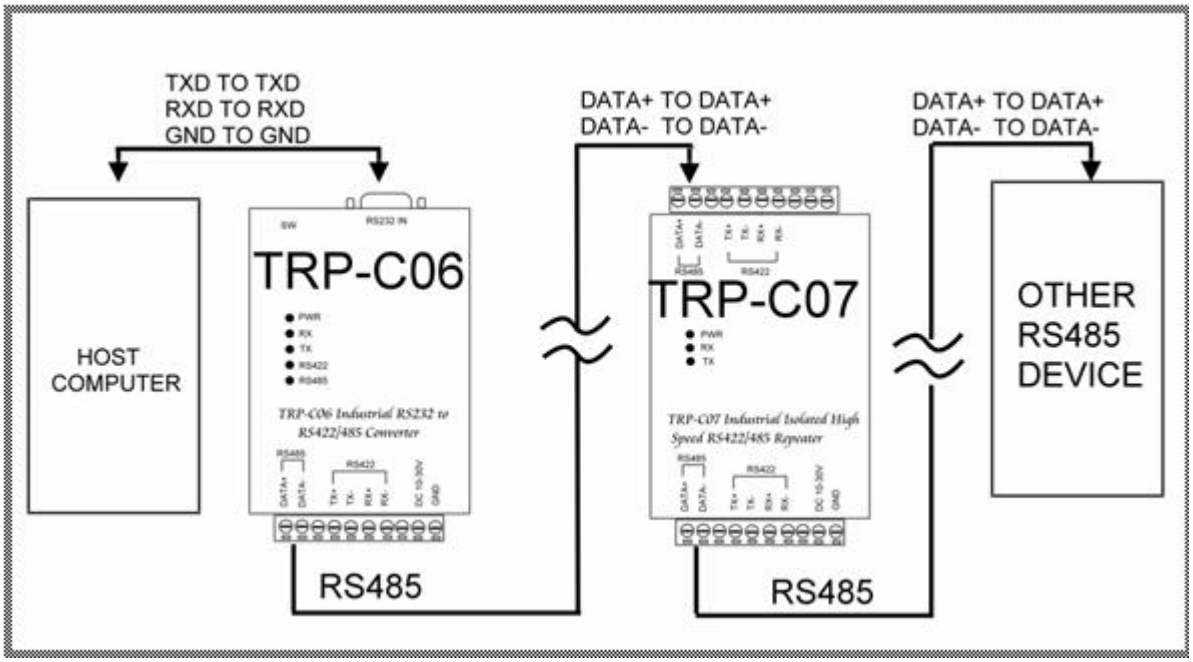
4-2. Connect TRP-C07 with RS422 or RS485 devices

4-2-1. RS422 wiring Connection



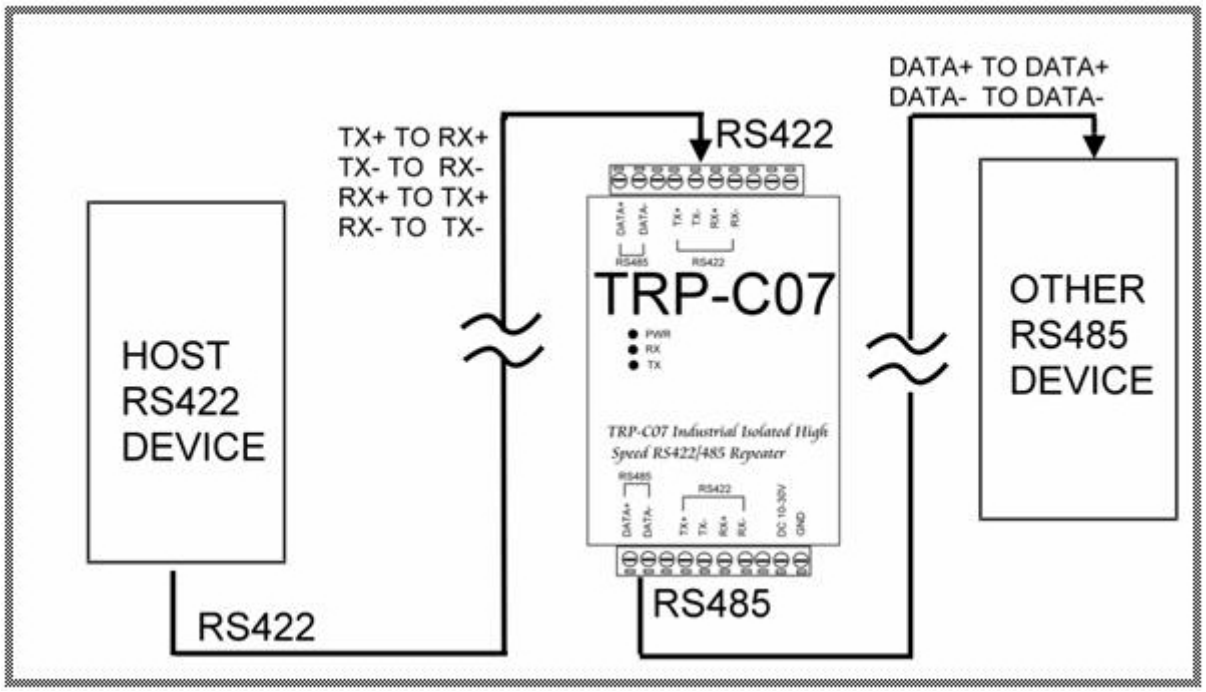
** TRP-C06 : RS232 to RS422/485 Isolated Conserver

4-2-2. RS485 wiring connection.



4-2-3. RS422 to RS485 wiring connection.

TRP-C07 may bi-directionally communicate between RS422 and RS485 devices



5. RS422 loop back test

Wiring connection.

