



### Introduction

TRP-C37M is an industrial environmental Ethernet serial server with wide range power inputs and serial communication protection, built-in surge and over current protection ensuring long distance serial quality. The RS485 interface built-in hardware decoder ensures RS485 data without loss and fast direction switching. The hardware keeps on line RS485 device working fine; Built-In watchdog function will auto reset when system fail or power fails. External switch ensures loss of password or IP that can be easily reset back to factory settings.

The TRP-C37M operates in "Direct IP Mode", "Virtual COM Mode", and "Paired Mode", The Ethernet port supports Auto-MDIX and Auto-select 10/100MB. TRP-C37M also offers a Heart Beat feature to ensure a reliable communicating connection.

TRP-C37M also offers the maximum connection 16 host client to link the one serial server that is easy to operate in [Modscan32](#), [Modbus Poll](#), [CAS Modbus Scanner](#) and [SCADA](#) application uses TCP mode, Virtual-COM mode and Pair Mode.

TRP-C37M provides a watchdog timer function, The Watchdog timer allows the system to automatically recover from a system crash. When the TRP-C37M MCU stop working correctly, the watchdog timer waits for a preset period of time, and the performs a hardware reset.

When TRP-C37M working at industrial environment, if the voltage is unstable, The TRP-C37M built-in power detection circuit can prevent the power fail cause of the system boot fail.

### Features

- Wide input range DC power supply.
- Power Input detection circuit.
- External watchdog function prevents system or power fail.
- Support Auto-MDIX twisted pair crossover detection and Auto-Correction.

## TRP-C37M Modbus TCP to RTU/ASCII Gateway

- Maximum Connection 16 Client PC at Server Mode.
- Compatible with [Modscan32](#), [Modbus Poll](#), [CAS Modbus Scanner](#) and [SCADA](#) .. application.
- Auto fast direction RS485 flow control by hardware.
- Surge protection and over current and over voltage on RS-422/485 data lines.
- Support baud rate from 1200~921600Kbps.
- Auto switching RS-232/422/485 signal interface.
- Virtual COM drivers for Windows 98/WIN2000/WIN XP/Vista/WIN2003/WIN 7.
- Virtual Com Support Server, Client, UDP mode.
- Virtual Com Support Modscan32 or Modbus Poll utility.
- Fully compatible with Ethernet and TCP/IP protocol.
- Supports 10/100 Mbps Ethernet.
- Power/Link/UART RX/UART TX mode LED indicator.
- Heart Beat function ensures a reliable communicating connection.
- Auto reconnection when power or Ethernet fail.
- Back to factory configuration by external switch.
- Support configuration by serial console.
- Update the firmware from LAN.
- Dual power input select from screw terminal or DC-Jack.

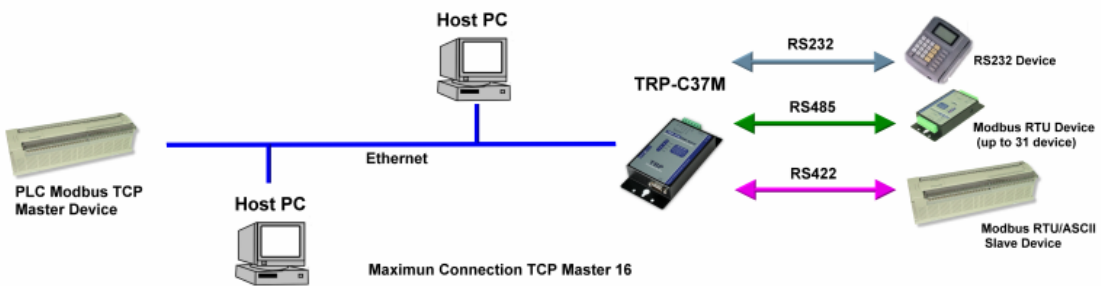
### Specifications

- Power Input Voltage: DC +10V to +30V.
- LAN: Auto-MDIX, 10/100 Mbps Auto-detecting.
- RS-232: TX, RX, RTS, CTS, DTR, DSR, DCD, GND.
- RS485 signal: differential 2 half-duplex wires (DATA+, DATA-).
- RS422 signal: differential 4 full-duplex wires.(TX+,RX+,TX-,RX-)
- Baud Rate:  
1200,2400,4800,9600,19200,38400,57600,115200,921600 K bps.
- Parity: none, even, odd.
- Data Bits: 5, 6, 7 or 8.
- Stop Bits: 1, 1.5 or 2.
- Protocol: TCP, IP, ARP, DHCP, Telnet, HTTP, UDP, ICMP.
- Modbus TCP Type: TCP Master to Serial Slave, TCP Slave to Serial Master.
- TCP Slave to Serial Master Mode: Maximum 8 TCP Port. UID Range:00~FF.
- External switch: OFF OFF : Directly IP mode, RTU protocol. .  
ON OFF: Virtual-Com and Paired mode .  
OFF ON: Directly IP mode, ASCII protocol  
ON ON: Back to Factory.
- Virtual-Com mode support RS232 TXD,RXD,GND.  
RS422 TX+,TX-,RX+,RX-.  
RS485 D+,D-.
- Power supply: Screw terminal, or DC jack.
- Serial interface: +/-15 KV ESD.
- RS422/485 interface: Surge, over current, over voltage protection.
- RS422/485 interface: Industrial plug-in screw terminal.
- Plug-in screw terminal wiring: Accepts AWG #12 ~30 wires.
- Power consumption: 12V/140mA.
- Operating Temperature: -10 to 65 °C.
- Humidity: 0~90% Non-Condensing.
- Dimensions: 151(L)\*75(W)\*26(H) mm.
- Weight: 395g with packing.

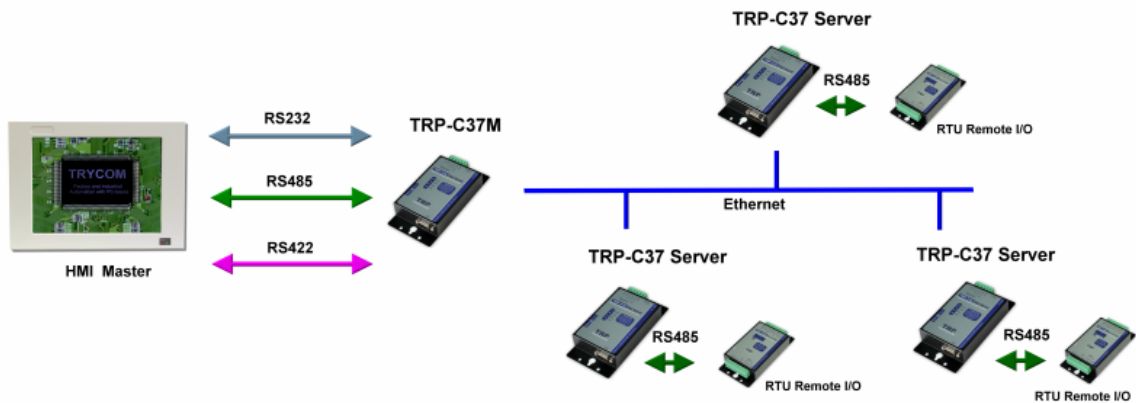
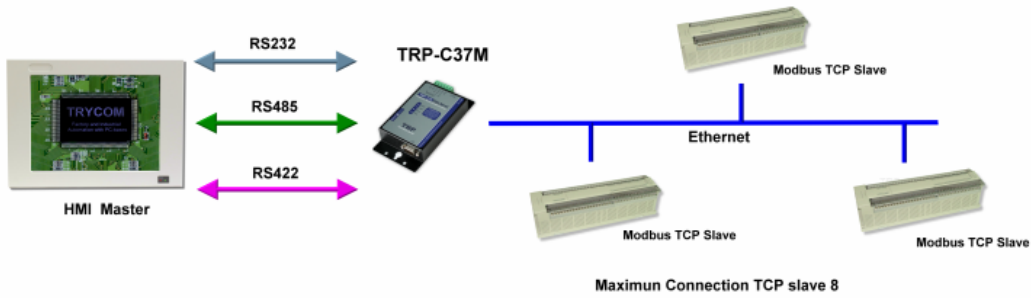
# TRP-C37M Ethernet to RS232/422/485 Converter

## Application Note

### Modbus TCP Master to Serial Slave Mode



### Modbus TCP Slave to Serial Master Mode



Bridge Mode Dip switch 1,2 ON,OFF

