TRP-C37

Ethernet to RS232/422/485 Converter



User's Manual

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Trycom Technology Co., Ltd 1F, No.2-11, Sihu street, Yingge Township, Taipei, Taiwan ROC Tel: 886-2-86781191, Fax: 886-2-86781172 Web: www.trycom.com.tw

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1. Introduction

TRP-C37 is suitable industrial environment Ethernet serial server, wide range power input and serial communicate protection, Built-in surge, over current ,over voltage ensure RS422/485 serial communication quality ; Increase watchdog function will auto reset when Ethernet serial server or power fail, if careless lost password or wrong setting value that can fast back to factory by external switch.

TRP-C37 support 3 operates mode, "Direct IP Mode", "Virtual COM Mode", and "Paired Mode", RS232 interface has one D-SUB 9pin connector and screw terminal block for RS422/485. The Ethernet port support Auto-MDIX and Auto-select 10/100MB.

TRP-C37 offers maximum connection 16 host clients to link the one serial server, it is easy to operate in Modscan32 and Modbus Poll many application uses Virtual-COM mode and Pair Mode.

TRP-C37 provides a watchdog timer function, The Watchdog timer allows the system to automatically recover from a system crash. When the TRP-C37 MCU stop working correctly, the watchdog timer waits for a preset period of time, and performs a hardware reset. When TRP-C37 working at unstable voltage industrial environment, the power detection circuit can prevent the power fail cause of the boot fail then auto re-boot.

1-1 Features

- Wide range DC input power supply.
- Support watchdog function prevents system fail.
- Support Auto-MDIX twisted pair crossover detection and Auto-Correction.
- Maximum Connection 16 Client PC at Server Mode.
- Auto fast Bi-direction RS485 hardware.
- Surge protection and over current and over voltage on RS-422/485 data lines.
- Support baud rate from1200~921600Kbps.
- Auto switching RS-232/422/485 signal.
- Virtual COM drivers for Windows 98/WIN2000/WIN XP/Vista/WIN2003/WIN 7.
- Virtual Com Support Server, Client, UDP mode.
- Fully compatible with Ethernet and TCP/IP protocol.
- Supports 10/100 Mbps Ethernet.
- Power/Link/RX/TX mode LED indicator.
- Heart Beat function ensures a reliable communicating connection.
- Auto Pair-mode when power or Ethernet fail.
- Back to factory by external switch.
- Support configuration by serial console.
- Update the firmware from Ethernet.
- Dual power input select from screw terminal or DC-jack.

1-2 Specification.

- 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-)
- Data 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
- External switch: OFF OFF :TCP and VSP mode.
 - ON OFF : Option .
 - OFF ON :Option.
 - ON ON :Back to Factory.
- Virtual-Com mode support RS232 TXD,RXD,GND.

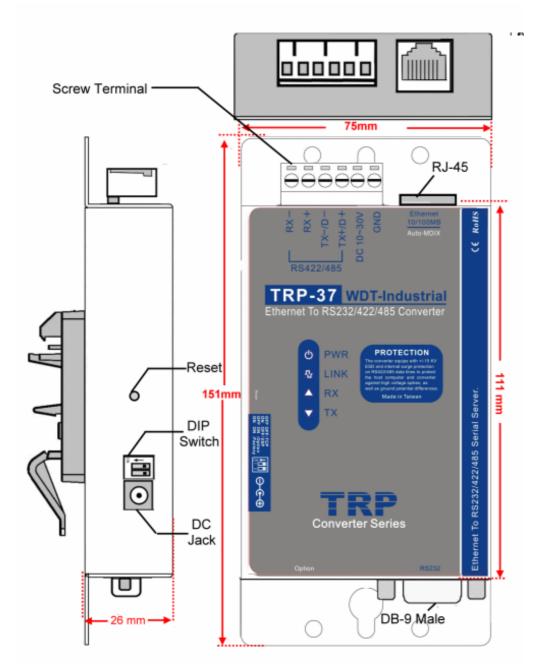
RS422 TX+,TX-,RX+,RX-.

RS485 DATA+, DATA-.

- Power supply: Screw terminal or DC jack.
- Serial interface: +/-15 KV ESD.
- RS422/485 interface: Surge, over current, over voltage protection.
- 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.

2. Hardware Description

2-1. Panel layout



Notice: User can only choose either external DC-Jack or Screw terminal DC input. Do not use external DC-Jack and screw terminal DC input simultaneously.

2-2. LED indicator

- PWR LED: System is ready.(Blinking)
- LINK LED: Ethernet cable connection and data active.

TX/RX LED: UART Transiting/Receiving Indicator.

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

2-3. Reset Button

Push the reset button will Re-Boot.

2-4. DIP Switches

A double DIP switch allows the TRP-C37 to be placed into TCP/Option/Factory Mode.

OFF OFF: Normal mode. ON OFF: Option. OFF ON: Option. ON ON: Back to factory.

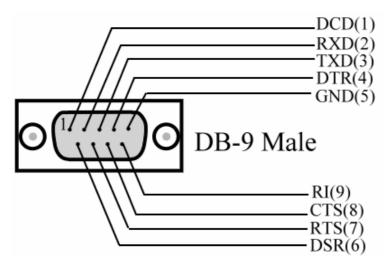
2-5.Factory Setting

Factory Setting: *Adjust the external switch to ON ON will back to factory.

Device	Name		TRP-C37		Module Name	TRP-C37
MACA	ddress		00-0E-C6-00-02-15		Netmask	255.255.255.0
DHCP			Enable	•	Gateway	192.168.1.3
 Serv List 	er/Mas ening II		192.168.1.1		DNS Server	168.95.1.1
Dat	a listen	ing po	ort 4000		Transmit Timer (ms)	10
O Clier U	nt/Slave ID Ran		, Client/Slave IP Addra	ess Port	Heart Beat	Disable 💌
0	То	0	192.168.1.2	4000	Maximun Connection	1
0	То	0	0.0.0.0	0	TCP Keep Alive Timer	7 💌
0	То	0	0.0.0.0	0	New Password	Jobolek
0	То	0	0.0.0.0	0	Firmware Version	355
0	То	0	0.0.0.0	0	, _ Data Packet Type —	
0	То	0	0.0.0.0	0	UDP	✓ Broadcast
0	То	0	0.0.0.0	0	after reboot	Multicast
0	То	0	0.0.0.0	0		

Network Setting	Serial Port Setting
Baud rate	9600
Data bits	8
Parity	None
Stop bits	1
Flow Control	None

2-6. D-sub 9 Pin male Configuration



3. Install TRP-C37 Hardware

STEP1: Connect power source with TRP-C37, the PWR LED will blinking.

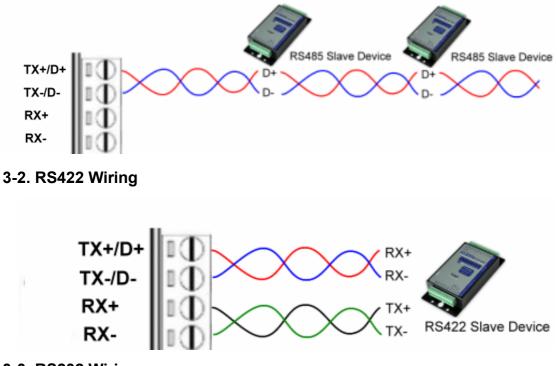
STEP2: Connect TRP-C37 with LAN port by RJ45 cable.

If the cable is properly connected the "LINK" LED will light up.

*The TRP-C37 Support Auto-MDIX, A straight-through or crossover RJ45 cable can be used to make a connection directly to the HUB/Router/PC LAN port.

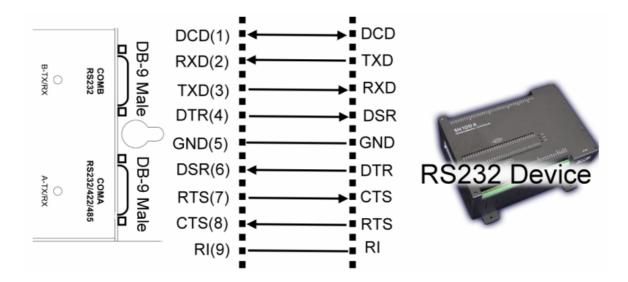
STEP3: Connect TRP-C37 to RS232 device by Null-Modem cable (Maximum 15M). Connect TRP-C37 to RS422/485 by AWG #12~30 wires (Maximum 1.2KM).

3-1. RS485 Wiring



3-3. RS232 Wiring

Refer to the Pin out table for connections.



4. How to configure TRP-C37

There are 3 ways to access the TRP-C37.

a. TRP-C37X DSM Software.

TRYCOM TRP-C37>	(DSM 3.5							
Trycom	Tauga and Ta		I					
DSM Setting Setting	Device Status List	MAC Address	DH	IP	Port	Мо	Status	
Setting	1 TRP-C37	00-0E-C6-0	Disa		4000		Idle	
DSM Function Search								
IP Search								
Device Setup								
Web Browser								
Restore								
Reboot								
Upgrade				DSM Status Progress:	s: Idl	.e		

b. WEB Server

	http://www.trycom.com.tw
TRP-C37 WDT-Inside	Ethernet to RS232/422/485 Serial Server
Serial Settings	
Data Baud Rate	9600 🔍
Data Bits	8 🗸
Data Paritiy	None
Stop Bits	1
Flow Control	None
Network Settings	
	Enable DHCP
Static IP Address	192.168.1.1
Static Subnet Mask	255.255.255.0
Static Default Gateway	192.168.1.3
Static DNS Server	168.95.1.1
Connection Type	TCP -
Transmit Timer	10
Server/Client	Server 🔽
Server:	
Server Listening Port	4000
Client:	J
Destination IP	192.168.1.2
Destination Port	4000
New Password	•••• Enable Reboot
	Apply Reset

c. Serial Console.

		Firmware Verson	: 1126		
Device Name	:	TRP-C37	Netmask		255.255.255.0
		00-0E-C6-00-01-B7			
DHCP		Enable	DNS		168.95.1.1
		Enable			
Listening IP		192.168.1.1	Heart Beat		Disable
Listening Port		4000	Maximun Connecti		
Client		Disable	TCP Keep Alive		1
Destination IP		192.168.1.2	New Password		XXXX
Dectination Por	+ -	4000	Serial Port S	etti	ing
JDP		Disable	Baud Rate		9600
Auto Connect		Disable	Data Bits		8
ТСР		Enable	Parity		NONE
Broadcast		Enable	Stop Bits		
Muticast		Disable	Flow Control		NONE

4-1. Using TRP-C37X DSM Utility.

The "TRP-C37X DSM utility" software performs several functions:

- A: Searching for TRP-C37 connected to the network.
- B: Displaying and changing the configuration of TRP-C37.
- C: Upgrading the TRP-C37 firmware.
- *Refer the Firmware upgrade help file.
- D: Saving and Loading Configuration from external log File or EEPROM.

4-2. Searching LAN for TRP-C37

Once TRP-C37 is connected to the LAN the **TRP-C37X DSM** software will search it and display it in a window by name, IP address, Mac....Information.

TRYCOM Device Se	rver M	lanage	r 3.01						
) 7	rpp_(C 3X DS	M				
Tryco	-								
	IPC		Trycom	Technolog	У				
DSM Setting	Devi	ice Stat	us List						
Setting		NO.	Device Name	MAC Address	DHCP	IP	Port	Mode	Status
I		1	TRP-C37	00-0E-C6-00-01-AC	Enable	192.168.1.13	4000	Server	Idle
DSM Function									
Search									
IP Search									
Device Setup									
Web Browser									
Restore									
Reboot									
Upgrade					DSM Status:	Idle			
					Progress:				
Console									

4-3.Configuring Server Properties

Select the "NO." item and Double click to open the Server configuration, after setting then click "Submit" will save the configuration to EEPROM.

Device Name	TRP-C37	Module Name	TRP-C37
MAC Address	00-0E-C6-00-02-15	Netmask	255.255.255.0
DHCP	Enable 🔹	Gateway	192.168.1.3
 Server/Master Listening IP 	192.168.1.1	DNS Server	168.95.1.1
Data listening port	4000	Transmit Timer (ms)	10
Client/Slave UID Range	, Client/Slave IP Address Port	Heart Beat	Disable 💌
0 то 0	192.168.1.2	Maximun Connection	1
0 то 0	0.0.0.0	TCP Keep Alive Timer	7
Ο Το Ο	0.0.0.0	New Password	-
0 То 0	0.0.0.0	Firmware Version	355
0 To 0	0.0.0.0	_ _ Data Packet Type ——	
Ο Το Ο	0.0.0.0	UDP	Broadcast
0 то О	0.0.0.0	after reboot	Multicast
0 To 0	0.0.0.0		

Device Name

Device server name, Maximum 10 chars.

Model Name:

TRP-C37.

MAC Address

The Device server MAC address.

DHCP

If DHCP is disabled, it allows user setting the IP address, Subnet mask, Gateway.

If DHCP is enabled ,the IP address, Subnet mask, Gateway address will be dynamically configuration by DHCP server such router.

When "DHCP" is enabled ,but the DHCP server is not available on the network, the TRP-C37 will timeout then back to factory setting IP=192.168.1.1.

Server Listening IP

The TRP-C37 IP address.

Server Data listening port

RS232/422/485 port address.

Client Destination IP

When user using the paired mode, the client setting need to input Server IP and PORT which one need to connect.

Client Destination port

RS232/422/485 port address.

Port: 16 bit number. (1 ~ 65535)

Netmask

The default LAN Netmask is configured for a Class C address. This maybe reconfigured by the user.

Gateway

Input the gateway IP address that can be allows users to access the serial server from internet. **DNS**

Short for Domain Name System, an Internet service that translates domain names into IP addresses. Because domain names are alphabetic, they're easier to remember. The Internet however, is really based on IP addresses. Every time you use a domain name, therefore, a DNS service must translate the name into the corresponding IP address.

Transmit timer:1~500 ms/Unit

Time interval to send out serial data char packet.

*The function main support serial data input to TRP-C37 RS232/422/485 port, if serial data is a mass of serial data over 1K Byte ,Trying to adjust the Timer to 200ms.

Hear Beat: Disable /Enable

When Hear Beat enable, the TRP-C37 allows user open a TCP 5300 port, 10 sec interval to send out data char packet that provides a easy way to ensure the communications between Host PC Client and server devices.

Maximum Connection: 1~16

The function allows the user to configure the TRP-C37 in Server mode adjust 1~16 TCP client host connections.

TCP Keep Alive: 1~7 /Minute

When TRP-C37 in Server mode, the TRP-C37 without data over the 1~7 Min setting value, The TRP-C37 will be disconnect TCP.

When TRP-C37 in Client mode, the TRP-C37 without data over the 1~7 Min setting value, The TRP-C37 will be reconnecting TCP.

New Password: 1234

It only accepts value from1000~9999 integer, if input the wrong password over 5 times, the WEB-Page will lock until the TRP-C37 re-boot.

Firmware Version: ABC

AB: Suitable DSM utility version

C: Release Version

Example: If the firmware version is 351.

Please run the DSM utility is Version:3.5

Serial Port setting

Baud Rate: UART Speed from 1200,2400,4800,9600,19200,38400,57600,115200,921600 K bps Data Bit: 5,6,7,8

Parity: Odd, Even, None

Stop Bits: 1, 1.5,2.

Flow Control: Xon/Xoff, Hardware, None

Submit

Save the setting value to EEPROM.

Save

Save the setting value to external log file.

Load

Load the setting value to external log file.

Upgrade

Upgrade the TRP-C37 firmware

*Wrong way the upgrade firmware will cause the TRP-C37 system fail.

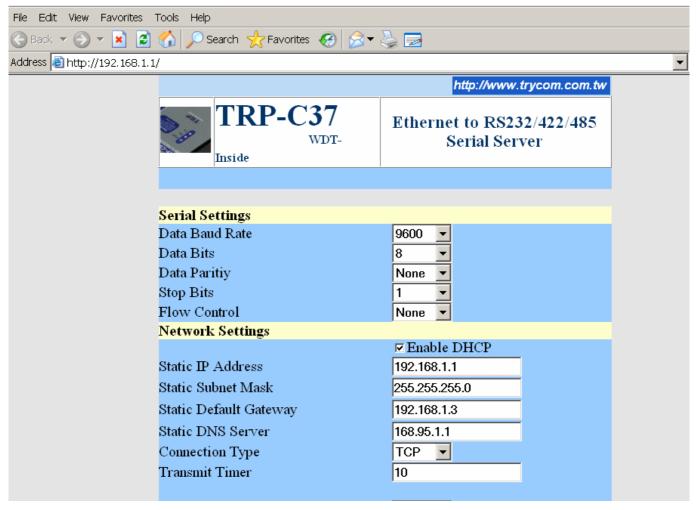
4-4 using the WEB Server mode

The Web Server can be used to configure the TRP-C37 Serial Server from any web browser software (such as I.E).

In Internet Explorer type the IP Address of the Serial Server into the address field and press the **Enter** key. The following window will appear:

Example:

If TRP-C37 IP is 192.168.1.1 Please Input the 192.168.1.1 then enter at web address, the web-page will appear..... See diagram below.



4-5 Using the serial console mode

The serial console can be used to configure the TRP-C37 Serial Server from DB-9 connector link

the HOST PC by null modem cable.

COM PORT		RS232 Port
	Null-MODEM CABLE	
	PIN2PIN3	1-1
Host PC	PIN3PIN2 PIN5PIN5	

Insert the TRP-Serial CD then find the CONSOLE.exe, The CONSOLE file support all windows O.S include MS-DOS, Run the CONSOLE file and **Re-boot** the TRP-C37 then select correct host COM port number and data format.

	<u>.</u>	Trycom Technology TRP-C3X Console			
		Firmware Verson	: 1126		
Device Name	:	TRP-C37	Netmask		255.255.255.0
MAC Address	:	00-0E-C6-00-01-B7	Gatway		192.168.1.3
DHCP		Enable	DNS		168.95.1.1
Server		Enable	Transmit Timer		10
Listening IP		192.168.1.1	Heart Beat		Disable
Listening Port				on :	1
Client		Disable	TCP Keep Alive		1
Destination IP		192.168.1.2	New Password		XXXX
Destination Por	t:	4000 Disable	Serial Port S	ett	ing
UDP		Disable	Baud Rate		9600
Auto Connect		Disable	Data Bits		8
TCP		Enable	Parity		NONE
Broadcast		Enable	Stop Bits		1
Muticast		Disable	Flow Control		NONE
e :					

5. Install the Virtual-COM

The Virtual-COM utility support TCP/IP \ UDP data mapping to the HOST PC virtual-com, it can creative Maximum 512~1024 virtual-com port, Support Server \ Client \ UDP mode, Support all Windows O.S include Win98/Win2000/WinXP/Vista/Win2003/WIN7,Support Multi-virtual com at different PC to one serial server; Support Ethernet and Internet , If TRP-C37 off line or power fail, The Virtual-Com utility will try to Reconnection.

Step 1. Adjust the switch to "OFF, OFF"... The switch position at Normal-mode.

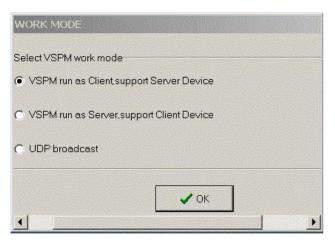
Step 2. Insert the TRP-Serial CD and find the TRP-C37 folder.

Step 3.Click "Vcomm.exe" icon then install Virtual-COM utility.

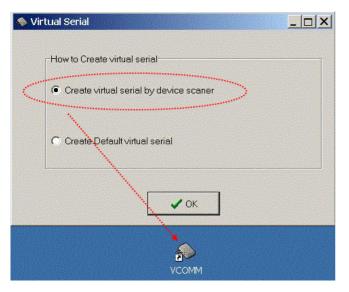
*The Virtual COM utility support multi-language, please select which language do you need.



Step4. Click "OK" button and select "VSP run as Client support Server Device".



Step5. Select "Create virtual serial by device scanner", then press "OK"



Step6. Run VCOMM.exe then click right button select "New Virtual COM"

Virtual COM	Config Minimize VSPM About	State		COM->Network(Byte)	NetWork->COM(Byte)
			Scan and Ap New Virtual C Edit Virtual C Delete Virtua	COM OM	
▲ _			Minimize VSP	М	tandard Mode
			Config		
			UpdateState	F5	
			Exit		

Step7. Select "Select Serial Port" and input TRP-C37 IP and port then press "OK".

Manager C	onfig Minimize VSPM About Exit			
Virtual COM	Remote Server IP and PORT State	COM-:	Network(Byte)	NetWork->COM(Byte
	Virtual Serial Info			×
	TCP/IP virtual serial param			
∢	Serial:	COM5	•	
	Remote Server IP:	192.168.1.1	•	
	Remote Server PORT:	4000	*	
	Map mode:	Client		
	Note:			
		Г		
	✓ ОК		X Cancel	

Step8. If Virtual-Com setting success, the display will appear bellow.

Step9. Run TRPCOM utility then select virtual-com port make a TRP-C37 loop test.

/irtual COM	Remote Server IP and PORT	State)M->Network(Byte)	NetWork->COM(B)
OM5	192.168.1.1:4000	Open,9600,N.8,	1 10.	48	986
	Setting Termial	Scan C511		us RTU Support	
	123456789ABCD Response 123456789ABC			Auto	Send 80 mS Clear
		command and get 1		se. If your module's	d + Checksum checksum end command statu

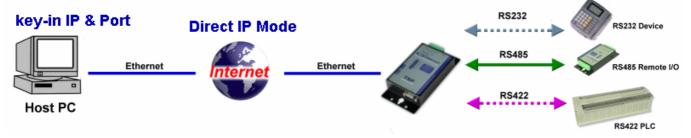
*If in VCOMM's configuration select "Boot with windows", the virtual-com will Auto-connection when windows start.

Setup	×
Baseconfig Networkconfig Workconfig	
Boot with windows	
Init VSP when Start	
Clear VSP when Start	
Ignore used VSP when exit	
Eanbled Device Scaner	
Process priority: Normal	
Thread priority: Normal	
GUI default mode: Normal	
Data refresh interval: 2	
Cancel	

6. Application

6-1 Direct IP Mode

*Keep DIP switch to the OFF, OFF Position.



Example:

Step1: Connect PC-----Ethernet-----TRP-C37-----RS485---TRP-C28 (RS485 ID=01) Step2.Run TRPCOM utility and input IP/Port, click "Link" button, then Send Command , The Response will appear TRP-C28 I/O Status.

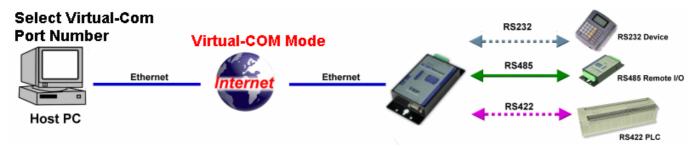
TRPCOM Test Utility	2010 Pro Version	_ 🗆 ×
Setting Termial Scan TCP/IP	Help	
TRP-C3X Ethernet Serial Server Setting	Network Status	
Port 4000 Link	Response	
Send the ASCII command	101000F	
\$016		Ŧ
Send Command Clear	Loop Adjust	
Release IP Loop Test	Fast _	▶ Slow
- Description		
The function allow TRP-C3X to connect with 1 test . or send command to TRP-DIO and AIC N,8,1 please check TRP-C3X ethemet serve) to get the response . Notic:TRP-AIO,I	

Step3.Send Command "#010003", The Response will enable TRP-C28 Relay1 and Relay2 enable.

TRPCOM Test Utility	2010 Pro Version	_ 🗆 ×
Setting Termial Scan TCP/IP	Help	
TRP-C3X Ethernet Serial Server Setting	Network Status	
Port 4000 Link	Response	
Send the ASCII command	>	
#010003		T
Send Command Clear	Loop Adjust	
Release IP Loop Test	Fast _	▶ Slow
Description		
The function allow TRP-C3X to connect with test . or send command to TRP-DIO and AIC N,8,1 please check TRP-C3X ethernet serve) to get the response . Notic:TRP-AIO,D	

6-2 Virtual COM Mode

*Keep DIP switch to the OFF, OFF Position.



Example:

Step1. Connect PC-----Ethernet-----TRP-C37-----RS485---TRP-C28 (RS485 ID=01).

Step2. Run Virtual-COM utility and make a virtual-COM port, Run TRPCOM utility and input com port number, press "OK".

/irtual COM COM8	Remote Server IP and PORT State C 192.168.1.1:4000 Open,9600,N.8,1 C	COM->Network(Byte)	NetWork->COM(Byte) 0	Last State TCP/IP Connected	Note
	TRPCOM Test Utility ietting Termial Scan TCP/IP Help	2010 Pro Version			
	Communication Configuration				
	Initial Setting	01	<u> </u>		
	COM8 9600 V		<u>`</u>	andard Mode	
	ASCII Modbus RTU				
		Defa	ault		
	ASCII Checksum Enable				
		Ex	it	15.5	<u></u>
	Description				
	In the settings menu, be sure to select the ASCII/M baud-rate from the drop down menus and selecting				-
anna an	Disable before continuing.				

Step3.Select "Terminal" and send command, the response will appear TRP-C28 channel 2 counter value.

🔗 TRPCOM Test Util	ity	201	l Pro Version	>
Setting Termia	al Scan TCP/IP	Help		
Terminal Comm Send Comman #012 Response 10100000		×	Instruction Send Auto 80 r Clear Checksum Command + Checksum	nS
			. If your module's checksur rill show you the send com	

6-3 Paired Mode

*Keep DIP switch to the OFF, OFF Position.



Example:

Step1. Connect PC---RS232---TRP-C37----Ethernet-----TRP-C37----RS422 (loop back TX+ \rightarrow RX+,TX- \rightarrow RX-).

	_
Network Setting Serial Port Setting	
Device Name TRP-C37 Module Name TRP-C37	
MAC Address 00-0E-C6-00-04-0F 255.255.255.0	
DHCP Disable Gateway 192.168.1.3	
Server/Master Listening IP 192.168.1.1 DNS Server 168.95.1.1	
Data listening port 4000 Transmit Timer (ms) 10	
Client/Slave Heart Beat Disable	
To 0 192.168.1.2 4000 Maximun Connection 1 💌	
0 To 0 0.0.0.0 0 TCP Keep Alive Timer 7	
0 To 0 0.0.0.0 0 New Password	
0 To 0 0.0.0.0 0 Firmware Version 356	
To 0 0.0.0.0 0 Data Packet Type Management Packet Type	
0 To 0 0.0.0 0 UDP Strong Broadcast	
0 To 0 0.0.0 0 □ after reboot □ Multicast	
Submit Save Load	

Step2.Run DSM set up TRP-C37 Client, Input destination IP and Port.

Step3.Run DSM set up *TRP-C37 Server* and be sure the IP and port as same as client setting. **Adjust Maximum Connection to 16.*

Device Setup			×
Network Setting Serial	Port Setting		
Device Name	TRP-C37	Module Name	TRP-C37
MAC Address	00-0E-C6-00-04-17	Netmask	255.255.255.0
DHCP	Disable	Gateway	192.168.1.3
 Server/Master Listening IP 	192.168.1.2	DNS Server	168.95.1.1
Data listening por	t 4000	Pransmit Timer (ms)	10
Client/Slave UID Range	Client/Slave IP Address Port	Heart Beat	Disable 💌
0 то 0	192.168.1.2	Maximun Connection	16 💌
0 то 0	0.0.0.0	TCP Keep Alive Timer	7 💌
Ο Το Ο	0.0.0.0	- New Password	Jobick
Ο Το Ο	0.0.0.0	- Firmware Version	356
Ο Το Ο	0.0.0.0	_ _ Data Packet Type	, Management Packet Type
Ο Το Ο	0.0.0.0	UDP	✓ Broadcast
0 To 0	0.0.0.0	after reboot	Multicast
0 То 0	0.0.0.0		
		Submit Save	Load

Step4. Run the windows utility "hyper Terminal" and select com port number, and press "OK". Step5. Key-in some chars the hyper terminal will show loop back.

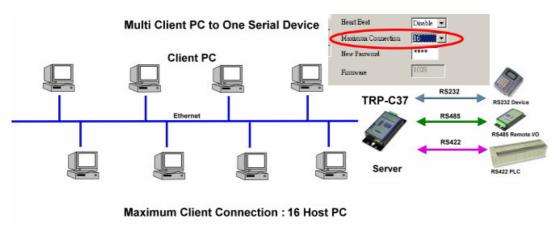
*Try to disconnect power or RJ45 cable, the TRP-C37 will Auto Re-connection.

🌄 t5 - HyperTermin	al							
File Edit View Call	Transfer H	lelp						
02 🖉 🖉) 🖻							
1 1 6 1 2 9 1		0000	FEOUTI		ODOTU		100/5/	1000 -
abcdefghijklm	nopqrstuv	/wxyzABCC	EFGHIJ	KLMNO	PQRSTU	VWXYZ	1234567	7890_=
abcdefghijkl⊯	nopqrstuv	vwxyzABCC	EFGHIJ	KLMNOF	PQRSTU	VWXYZ	1234567	7890_=
abcdefghijklm	nopqrstuv	vwxyzABCC	EFGHIJ	KLMNOF	PQRSTU	VWXYZ	1234567	/890_=

6-4 Multi-Client PC to 1 TRP-C37 Server

*Keep DIP switch to the OFF, OFF Position.

*The function main support serial data input to TRP-C37 RS232/422/485 port, if serial data is a mass of serial data over 1K Byte ,Trying to adjust the" Transmit Timer" to 200ms.



Example:

*Running at Multi-Direct IP Mode

Step1.Connect Multi-PC ---Ethernet----TRP-C37 Server----TRP-C28 (RS485 ID=1)

Step2.Run DSM Set up TRP-C37 Maximum connection=8.

Step3.All host PC run TRPCOM and input IP, Port, click "Link" button, then Send Command, The Response will appear TRP-C28 I/O Status.

TRPCOM Test Utility	2010 Pro Version
Setting Termial Scan TCP/IP +	lelp
TRP-C3X Ethernet Serial Server Setting IP 192.168.1.1 Port 4000 Link Send the ASCII command \$016	Network Status
Send Command Clear	Loop Adjust
Release IP Loop Test	Fast Slow
Description The function allow TRP-C3X to connect with net test . or send command to TRP-DIO and AlO t N,8,1 please check TRP-C3X ethernet server's	o get the response . Notic:TRP-AIO DIO using

*Running at Multi-Virtual COM Mode

Step1. All PC run Virtual com utility and make a self virtual-COM port, Run TRPCOM utility and select com port number, and press "OK".

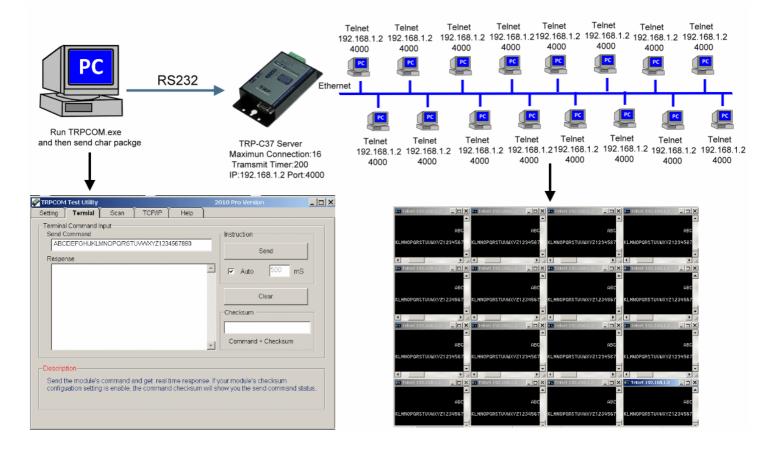
OM8	192.168.1.1:4000 Open,9600,N,8,1	0 0	TCP/IP Connected
	TRPCOM Test Utility Setting Termial Scan TCP/IP Hel	2010 Pro Yersion p	
	Communication Configuration		
	Initial Setting	ОК	
	Communication Protocal		andard Mode
	ASCII Modbus RTU	Default	
	ASCII Checksum Enable		
		Exit	1
	Description In the settings menu, be sure to select the ASCI	I/Modbus protocal . com port number a	and
	baud-rate from the drop down menus and selecti Disable before continuing.		

Step3.Select "Terminal" and send command, the response will appear TRP-C28 channel 2 counter value.

🔗 TRPCOM Test Utility	2010 Pro Version	
Setting Termial Scan TCP/IP Help		
Terminal Command Input Send Command #012	Instruction	
Response	Send	
10100000	Auto 80 mS	
	Clear	
	Checksum	
	Command + Checksum	
Description Send the module's command and get real time respo configuation setting is enable, the command checksu status.		nd

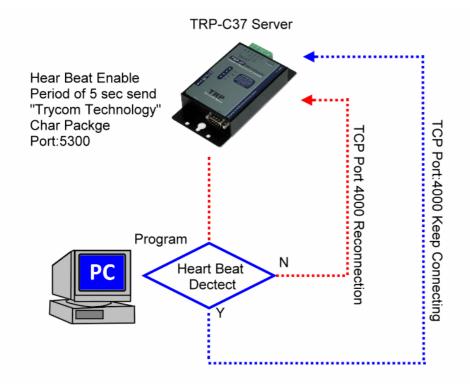
6-5 Broadcast Mode

*The function main support serial data input to TRP-C37 RS232/422/485 port, if serial data is a mass of serial data over 1K Byte , Trying to adjust the" Transmit Timer" to 200ms.



6-6 Heart Beat

The heart Beat function help customer detection the TRP-C37 LAN on–line or off-line, User can open one 5300 port, if TRP-C37 on line, the 5300 port will send a char package period of 5 sec.



Step1: Run TRP-C37X DSM.exe to set up the heart beat enable.

Network Setting Serial	Port Setting		
Device Name	TRP-C31SA	Netmask	255.255.255.0
MAC Address	00-0E-C6-00-01-71	Gateway	192.168.1.3
DHCP	Enable	DNS	168.95.1.1
Server Listening IP	192.168.1.18	Transmit Timer	10
Data listening port	4000	UART Transmit	5
C Client	<u> </u>	Heart Beat	Enable
Destination IP	192.168.1.2	Maximun Connection	8 💌
Destination Port	4000	New Password	****
– Data Packet Type —			

Step2: RUN TRPCOM then click "Link" button Wait until the Response screen appear the message

STRPCOM Test Utility	2010 Pro Version 📃 🗖 🗙		
Setting Termial Scan TCP/IP	Help		
TRP-C3X Ethernet Serial Server Setting	Network Status Network On line!		
Port 5300 Link	Response Trycom TechnologyTrycom		
Send the ASCII command	TechnologyTrycom Technology		
Send Command Clear	Loop Adjust		
Release IP Loop Test	Fast Slow		
- Description			
The function allow TRP-C3X to connect with network, and RS232/422 wire connection for loop test . or send command to TRP-DIO and AIO to get the response . Notic:TRP-AIO,DIO using N,8,1 please check TRP-C3X ethernet server's setting as same as that.			

7. Using TRPCOM Utility test TRP-C37.

TRP-Serial Test Utility is demo utility which may help to test direct IP Mode .User may find the utility in the TRP-C37 support CD. Double click "TRPCOM Utility", the installShield Wizard will guide you complete installation.

User can directly link TRP-C37 to TRP-Serial Remote IO Modules by RS485, The basic wiring connect.

RS485 Test



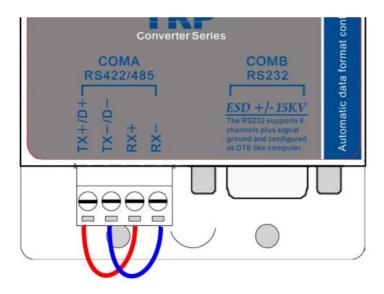
Run TRPCOM and send command "\$01M" and get response.

TRPCOM Test Utility	ASCII/M	lodbus RTU Support 💶 🗆 🗙
Setting Termial Scan	С51Н ТС	P/IP Help
TRP-C3X Ethernet Serial Server Sett	ing	Network Status
IP 192.168.1.1		Network On line!
Port 4000 Li	ink	Response
Condition & COll assumed		101TRPC28
Send the ASCII command		
\$01M		
Auto 100 Ms	Clear	Loop Adjust
Send Command	Loop Test	Fast Slow
Description		
The function allow TRP-C3X to connect with network, and RS232/422 wire connection for loop test . or send command to TRP-DIO and AIO to get the response . Notic:TRP-AIO,DIO using N,8,1 please check TRP-C3X ethernet server's setting as same as that.		

RS422 Loop Test

Hardware wiring connection for RS422 loop test.

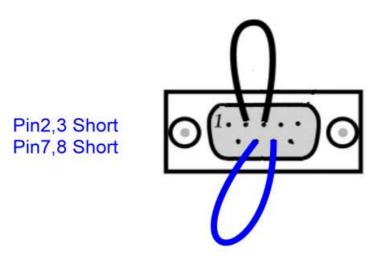
TX+ to RX+, TX- to RX-



RS232 Loop Back Test

Hardware wiring connection for RS232 Loop Test.

TXD to RXD, RTS to CTS.



RUN TRPCOM test utility then connect correct IP and Port then click the "Loop Test" button"

TRPCOM Test Utility	2010 Pro Version 📃 🗖 🕽	
Setting Termial Scan TCP/IP	Help	
IP 192.168.1.18	Network Status Network On line!	
Port 4000 Link	Response	
Send the ASCII command		
ABCDEFGHIJKLMNOPQRSTUVWXYZ		
Send Command Clear	Loop Adjust	
Release IP Stop Loop	Fast Slow	
C Description		
The function allow TRP-C3X to connect with network, and RS232/422 wire connection for loop test . or send command to TRP-DIO and AIO to get the response . Notic:TRP-AIO,DIO using N,8,1 please check TRP-C3X ethernet server's setting as same as that.		

8. Application

