TRP-C34H

Ethernet to 4 RS232/422/485 Converter



User's Manual

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1. Introduction

TRP-C34H 4 RS232/422/485 Serial Server provides a transparent way of connecting Serial devices over Ethernet. It can transmit data between the Serial and Ethernet interfaces bi-directionally. To establish automatic or remote data acquisition, TRP-C34H solution can easy to connect to 3 TRP-C08X which supports 16 Real-COM/ TCP Port by USB cable with only one IP address.

By specifying the IP address and the TCP Port number, a host computer can access different Serial Devices such as Serial Modems, Serial Thermometers, Magnetic Card Readers, Barcode Scanners, Data Acquisition Systems, POS Terminals, Industrial PCs etc., over the Network, you can centralize Serial Device management and distribute the management to different hosts at the same time. TRP-C34H makes possible to access distant Serial Devices over Network as if they were directly connected to the Standard COM Port of a Personal Computer.

TRP-C34H supports different modes of operation allowing user to operate the system in different environments.

Real COM Mode.

TRP-C34H comes equipped with COM drivers that work with Operating Systems WIN 32bit XP /Vista/2003Server/2008 Server (32-bit & 64-bit), 2000 Server OS, Win 7 (32-bit & 64-bit), The driver establishes a transparent connection between host and serial device by mapping the IP: Port Number of the TRP-C34H's Serial Port to a local COM Port on the host computer.

The important point is that Real COM Mode allows users to continue using RS-232/422/485 serial communications software like HyperTerminal and similar applications.

TCP Server Mode.

In TCP Server mode, TRP-C34H provides a unique IP: Port address on a TCP/IP network. TRP-C34H waits passively to be contacted by the host computer, allowing the host computer to establish a connection with and get data from the serial device. This operating mode supports up to 4 simultaneous connections, so that multiple hosts can collect data from the same serial device—at the same time.

TCP Client Mode.

In TCP Client mode, TRP-C34H can actively establish a TCP connection to a pre-defined host computer when serial data arrives. After the data has been transferred, TRP-C34H can automatically disconnect from the host computer by using the TCP alive check time or Inactivity time settings. This Operating Mode supports establishing the TCP connection up to 4 Destination Hosts.

UDP Mode.

Compared to TCP communication, UDP is faster and more efficient. In UDP mode, you can multicast data from the serial device to multiple host computers, and the serial device can also receive data from multiple host computers, making this mode ideal for message display applications.

TRP-C34H hardware supports wide range power input, the 4 RS422/485 interface with surge, over current, over voltage protection, the RS485 interface built-in hardware decoder ensure RS485 data without lost, Specify hardware can ensure on line RS485 device working fine.

The TRP-C34H has four synchronous D SUB 9 pin serial port for RS232 connection and 4 screw terminal block for RS422/485 and power connection. The Ethernet port support Auto-MDIX and Auto-select 10/100MB.

When TRP-C34H working at unstable voltage industrial environment, the hardware circuit detection can prevent the power fail cause of the boot fail and Re-Boot.

1-1. Features

- Wide input range DC power supply.
- Supports Socket operation modes like TCP Server, TCP Client, and UDP using TCP/IP and UDP protocols.
- Support Auto-MDIX twisted pair crossover detection and auto-correction.
- Low cost solution and easy to support 6/8/10/12/14/16 RS-232/422/485 Serial Ports.
- Each Port maximum connection 4 host PC at TCP Server and TCP Client Mode.
- External P1/P2/P3 USB port, each port can connect TRP-C08S/C08U/C08H/C08X/C29U.
- Maximum allowed bandwidth is 460 Kbps per Serial Port.
- Supports Web Console, Telnet Console.
- Runs in Stand Alone Mode.
- Built in Restore Factory default push button.
- Features Accessible Imps List to add or remove "legal" remote host IP Addresses to prevent unauthorized access to TRP-C34H.
- Features Auto IP Address Report to periodically report the IP Address of TRP-C34H to the assigned Host on Network.
- Auto direction RS485 flow control by hardware.
- Surge protection and over current and over voltage on RS-422/485 data lines.
- Virtual COM drivers for WIN 32bit XP /Vista/2003Server/2008 Server (32-bit & 64-bit), 2000 Server OS, Win 7 (32-bit & 64-bit).
- Fully compatible with Ethernet and TCP/IP protocol.
- Supports 10/100 Mbps Ethernet.
- Power/Link and 4 pair Serial RX/TX mode LED indicator.

- Support screw terminal and standard external DC power adaptor.
- Din rail or panel mounts support.

1.2. Specification.

- CPU:32 bit 170MHZ with MMU.
- SDRAM:32MB.
- FLASH:8MB.
- Power Input Voltage: DC +10V to +30V.
- LAN: Auto-MDIX, 10/100 Mbps Auto-detecting.
- RS-232: RI,TX, RX, RTS, CTS, DTR, DSR, DCD, GND.
- RS-422: TX+, TX-, RX+, RX-.
- RS-485: Data +, Data –.
- Data Rate: 75~921Kbps.
- Parity: none, even, odd.
- Data Bits: 5, 6, 7 or 8.
- Stop Bits: 1, 1.5 or 2.
- Configuration through Windows Admin Utility / Web Console / Telnet Console.
- Supports Real COM mode using RFC 2217 protocol.
- Protocol: ICMP, TCP/IP, UDP, DHCP, Boot, Telnet, DNS, SNMP, HTTP, SMTP, SNTP.
- External P1/P2/P3 Port, each port can be connecting item below.

TRP-C08S :USB to 1 RS232 and 1 RS422/485 Isolated Converter.

TRP-C08H :USB to 2 RS232 and 2 RS422/485 Isolated Converter.

TRP-C08U :USB to 4 RS232 Isolated Converter.

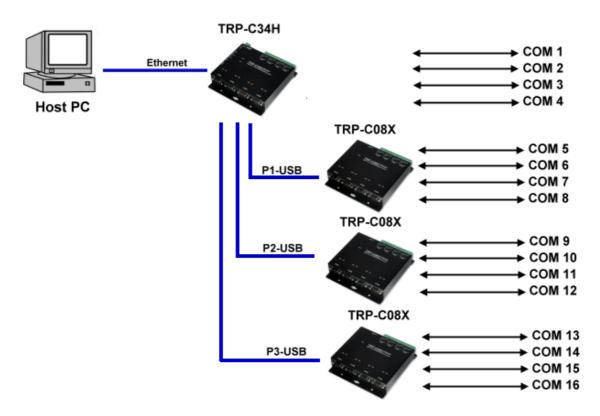
TRP-C08X :USB to 4 RS232/422/485 Converter.

TRP-C29U:USB to 8 Digital Input and 8 Digital Output Remote I/O.

- Power supply: Screw terminal, or standard external DC adapter.
- External P1, P2, P3 connector: USB A Type, support power consumption: 500mA/5V.
- Serial interface: +/-15 KV ESD.
- RS422/485 interface: Surge, over current, over voltage protection.
- Power consumption: 12V/450 mA (without external device).
- Operating Temperature: 0 to 65 °C.
- Humidity: 0~90% Non-Condensing.
- Dimensions: 145(L)*118(W)*26(H) /mm.
- Weight: 728g (W/Packing).

1-3. TRP-C34H Supports 3 TRP-C08X Diagram.

TRP-C34H is a system level solution with four RS232/422/485 serial ports connected to three TR-C08X to supports 16 serial port interfaces,TRP-C08X connected to any of the P1/P2/P3 Ports of TRP-C34H to supports 8/12/16 Serial Port interfaces. Each TRP-C08X can provide four RS232/RS422/RS485 Serial Ports.



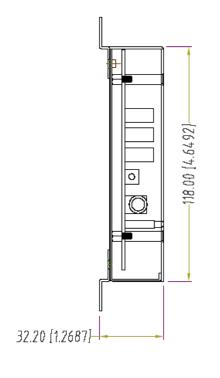
1-4. TRP-C34H Supports TRP-C08X/C08S/C08H/C08U/C29U Diagram.

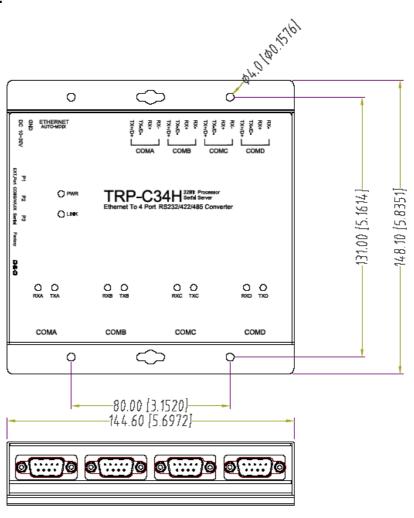
TRP-C08X/TRP-C08H/TRP-C08U/TR-C29U connected to any of the P1/P2/P3 USB Ports of TRP-C34H to supports 6/8/10/12/14/16 Serial Port interfaces or Maximum 24 Channel I/O with TRP-C29U.

TRP-C34H with TRP-C08X/TRP-C08S/TRP-C08H/TRP-C08U/TRP-C29U



- 2. Hardware Description.
- 2-1. Panel layout and Dimension.





mm/Unit.

<u>Please note: the Power Adaptor need to provide sufficient current and voltage, the proposed</u> <u>purchase of the original Power Switching 12V / 1A transformer, low current will cause</u> <u>unpredictable hardware error!</u>

12-2. LED indicators.

2PWR LED: Blinking: Not Ready.

3 ON: Stand By.

LINK LED: Ethernet cable connection and data active.

TX/RX LED: COMA~COMD RS232/422/485 Transiting/Receiving Indicator.

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

12-3. Factory default.

* Push the factory restore button till the PWR LED off and then reboot.

Hardware Setting: COMA~COMD: RS232.

Unlock Password: trycom.

Model Name: SerialServer 4S.

Basic configuration:

<u>.</u>			
Modify			
Server Name :	trycom		
Modify			
🔲 Enable	Inactivity Time :	(Seconds)	
Modify	0.5		
Time Zone :	(GMT+05:30) India		*
Local Date :	1/ 1/1970 Op	tion	~
Local Time :	8 Hr(s) 0	Min(s) 41	Sec(s
TimeServer:			
Modify			
🔽 Enable Wel	Console		

IP setting:

Modify IP Address :	192	- 50	168	1.1	3	1	22		
Modify									
Net Mask :	255	Ĵ.	255	1	255	1	0		
Gateway :	192	- 23	168	- 10	3	16	1		
IP Configuration :	Static							Y	
DNS Server1 :						10		_	
DNS Server2 :		14		-		4		_	
Modify	, Frab	le S	NMP			_		_	
Community Name :	public								
Location :								-	
Contact :									
Modify									

Port Setting:

Port 1~4:115200bps,8-bit,None,RS232

Operating Mode:

Real Com Mode.

Accessible IPs:

None Setting.

Auto Warning:

None Setting.

IP Address Report:

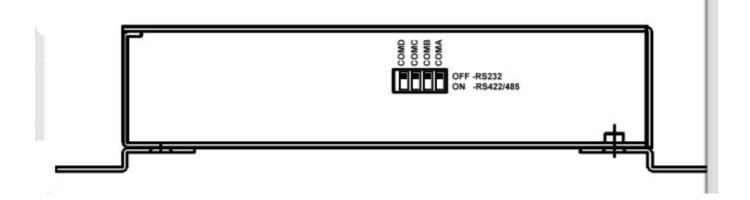
None Setting.

Password:

Factory: trycom

12-4. DIP Switches.

Steel side with a switch can be adjusted to each COM PORT RS232 or RS422/485.



*Please use screwdriver and then open back of metal, adjust the switch to select RS232 or RS422/485.

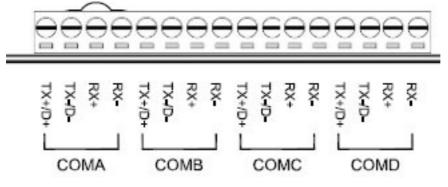
2-5. Push Button.

If lost the password or IP, user can keep push button for restore factory default till the PWR LED off and then reboot.

DCD(1) RXD(2) TXD(3) DTR(4) GND(5) DB-9 Male RI(9) CTS(8) RTS(7) DSR(6)

12-6. Four RS232 D-SUB male PIN assignments.

12-7. Four RS422/485 Screw Terminal assignments.



3. Installing TRP-C34H Hardware.

- **STEP1:** Please use screwdriver and then open back of metal, adjust the switch to select RS232 or RS422/485 function.
- **STEP2:** Connect the power source from DC-Jack or screw terminal, the PWR LED will blinking, wait till boots PWR LED ON.
- **STEP3:** Connect TRP-C34H with Ethernet port by RJ45 cable.

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

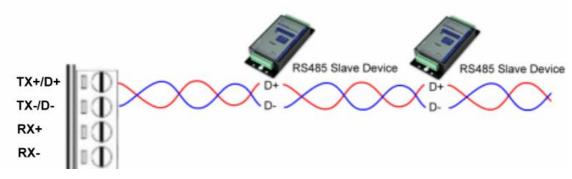
*The TRP-C34H Supports Auto-MDIX, A straight-through or crossover RJ45 cable can be used to make a connection directly to the HUB/Router/PC LAN port.

STEP4: Connect TRP-C34H to RS232 device by Null-Modem cable.

Connect TRP-C34H to RS422/485 by AWG #12~30 twisted pair wires.

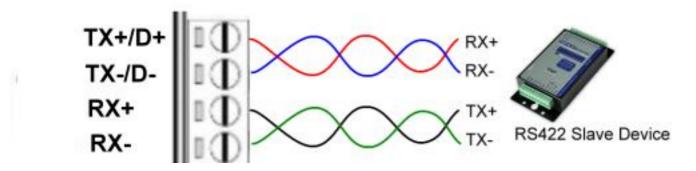
3-1. RS485 Wiring.

The RS-485 mode supports the Transmit and Receive channels use twisted pair wire half-duplex operation.



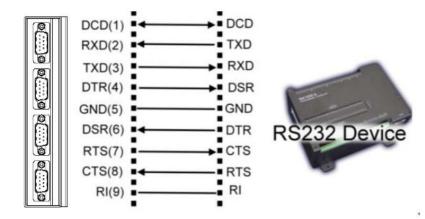
3-2. RS422 Wiring.

The RS-422 mode supports 4 channels with full duplex operation use dual twisted pair wire half-duplex operation.



3-3. RS232 Wiring.

Refer to the Pin out table for connections.



4. How to configure TRP-C34H.

There are 3 ways to access the TRP-C34H.

a. Serial Server Admin Utility.

215 or		Server	Manager - Found	1 Device(s)	
ATT.	No	Model	MAC Address	IP Address	Status
Server Manager	1	SerialServer4S	00-50-C2-1B-7	192.168.3.22	Locked
Server Monitor					
8					
Port Monitor					
🐨 🔗					
Port Mapping					
Auto IP Address Report					

1b. WEB Server.

File Edit	View Favorites Tools	Help
引 Back 🦄	• 🕥 • 💽 💈 🏠	🔎 Search 👷 Favorites 🕢 🎯 😨



□Main menu

Overview Basic Settings Detwork Settings E Serial Settings

www.trycom.com.tw

Welcome to Serial Server's web

Model Name	SerialServer4S
MAC Address	00:50:C2:1B:7F:01
Serial No.	16
Firmware version	1.24_15NOV10

□ Operating Settings □ Accessible IP Settings Serial Server is a 4SP Device This web console provides the following function groups Settings Change Password **Basic Settings** Load Factory Server name, real time clock, time server IP address, and web console, Default disable function. Dpgrade **Network Settings** □Save/restart IP address, netmask, default gateway, static IP or dynamic IP, DNS, St Logout Serial Settings Baud rate, parity, data bits, stop bits, flow control, interface. **Operating Settings** Operation mode, TCP alive check, inactivity. Accessible IP settings "Accessible IP or Accessible IP group".Disable to accept all IP's conne-Auto Warning Settings

c. Telnet.

👞 Telnet 192.168.3	22	
MAC Address Serial Number	:SerialServer4S :00:50:C2:1B:7F:01 :16 ion :1.24_15NOU10	
(6) Auto Wa (7) Monitor (8) Ping (9) Passwor	Settings Settings og Settings ole IP Settings rning Settings d Settings ctory Defaults ttings	
Key in your se	lection:	~

4-1. Installing Serial Server Admin Utility.

The "Serial Server Admin Utility" Support WIN XP/VISTA/2003 Server/2008 Server 32/64 bit, 2000 Server/Win 7.

Insert the TRP-Serial CD, find the TRP-C34H's folder"Utility" and run "PortSetup.exe"

When Installation is completed the wizard creates a Serial Server Admin Utility shortcut on the Desktop as shown below.



Double Click on the Serial Server Admin Utility then Right click on the main window or go to Server Manager in Menu Bar and select Search Devices to find the TRP-C34H on the network.

J Serial Server Admin Utility File Function Server Manag		elp			
			anager - Found 1	Device(s)	
	No	Model	MAC Address	IP Addre	ess Status
Server Manager Server Monitor Port Monitor Port Monitor Port Mapping Auto IP Address Report		SerialServer4S	00-50-C2-18-7	Add Loca Loca Loca Loca Loca Loca Loca Loca	rch Devices with IP Address ate
No Time		Description			
1 01-01-2002, 2 01-01-2002 Event Log Monitor Log	00:06:23	1 Devices Found	l IServer4S (00-50-C2-1	B-7F-01)	
Ready			1/	1/2002 00:08	3:27 <i>//</i>

By default all the devices searched are locked and can be seen under the status column of the Server Manager Window in order to protect from unauthorized configuration changes.

In order to configure the device, it has to be Unlocked first. Unlock password: trycom

After the device has been Unlocked, the device can be configured for all Network, Serial, Operating settings. Select the device to be configured, Right Click on the selected device and

click on configure to go to Configuration menu. (Double clicking on selected device can also open the Configuration menu).

File Function Server Manager View	Help								
35-	Server Manager - Found 1 Device(s)								
	No	Model	MAC Address	IP Address	Status				
Server Manager		Search Devices Add with IP Address Locate Unlock	0-50-c2-1b-70-40	192.168.2.35	Unlocked				

This invokes the Server Manager Configuration Dialog as shown below.

cessible IPs asic Settings	Auto Warning IP Address Report IP Settings Port Settings Ope
Modify Server Name :	trycom
Modify	Inactivity Time : (Seconds)
☐ Modify Time Zone :	(GMT+05:30) India
Local Date :	1/ 1/1970 Option
Local Time :	8 Hr(s) 0 Min(s) 41 Sec
TimeServer:	

On Basic page, check the Modify check Box to change any of the Configuration details.

IP Setting:

Modify IP Address :	192 .	168 .	3	, 22	-
Il Address i					
Modify					
Net Mask :	255 .	255 ,	255	, 0	
Gateway :	192 ,	168 .	3	. 1	
IP Configuration :	Static			1	~
DNS Server1 :				7	
DNS Server2 :		4	9	аў. П	-
Modify	🔽 Enable S	NMD			
Community Name :	public	2130205			_
Location :	Г				-
Contact :					_
Modify					- 55 AG
Subnet 2 :		Gateway			

On IP Settings Page, click the modify box first, you can modify all the Network parameter

- a. IP address
- b. Net Mask
- c. Gateway
- d. Click the IP Configuration drop-down box, to modify the parameter Static/DHCP/BOOTP.

×		utoWarning	IP Address Report	
formation	Basic Settings IP	Settings	Port Settings	Operating Mode
	Modify	-		
Model Name :	IP Address :	192 . 1	68 . 2 . 35	
SerialServer16S				
	🔽 Modify			2
	Net Mask :	255 . 2	55 . 255 . 0	
MAC Address	Gateway :	192 . 1	58.2.1	
00:50:C2:1B:70:40	IP Configuration :	Static	•	
5	DNS Server1 :	Static		
	DNS Server2 :	DHCP DHCP/BOOT	ъ	
Serial Number	DNS Server2 :	BOOTP	6	
	Modify	₩ Enable S		
1	1100 - 100 - 100 - 100 - 10		SNMP	0
	Community Name	public		
a 0 a	Location :			
Firmware Version	Contact :			2
1.20_21Aug				
2 2.00V	Modify			
	Subnet 2 :	· · · G	ateway 2 :	1. 1. 1.
	R			

- e. DNS Server 1: When the user wants to visit a particular website, the computer asks the Domain Name System (DNS) Server for the website's correct IP address, and the computer uses the response given by DNS Server to connect to the Web Server. DNS is the way that Internet Domain Names are identified and translated into IP address.
- f. DNS server 2: An optional alternative of DNS Server.
- g. Community Name: A community name is a plain-text password mechanism that is used to weekly authenticate queries to agents of managed network devices.
- h. Contact: The SNMP contact information usually includes an emergency contact name and telephone or pager or Mobile number.
- i. Location: This string is usually set to the street address where the TRP-C34H is physically located.

Port Settings Page

On the Port Settings page of the Server Manager dialog displays all the serial ports, present on the Serial Server model of the selected device. It also shows the corresponding serial settings in the settings column of the page

In order to see the current settings of any Serial port, select the port number in above window & then click on View settings.

To modify the serial settings check the modify box on the serial page. Then "View settings" tab would be converted into "Settings" tab as below:

-				
	Modify			
Port	Alias	Settings	TimeOut	
1		115200bps,8-bit,None,1-bit,None,RS-232		
2		115200bps,8-bit,None,1-bit,None,RS-232		
3		115200bps,8-bit,None,1-bit,None,RS-232		
4		115200bps,8-bit,None,1-bit,None,RS-232		
	-			

Select any Serial Port and click on the Settings tab which will show serial settings dialog where all parameters can be viewed in enabled state.

Port alias	Ports		
Modify	20		
Time Out :		× 0.5 m	5
Baud rate	460800	Flow control	None
Parity	None	 Interface 	RS-232
Data bits	8	•	
Stop bits	1		
Apply a	above settings to	all selected ports	

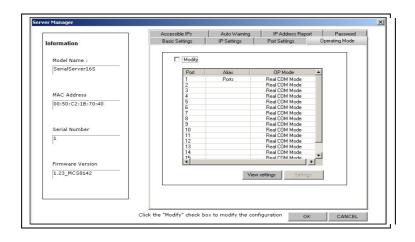
Click the checkbox "Apply Port Alias to all selected ports" to apply same port alias to all selected ports. Maximum length of Port alias is 5 characters.

Click the specific drop-down box or click the check box to modify the serial port settings viz., Baud Rate / Parity / Data Bits / Stop Bits / Flow control / Interface.

If Serial applications like Hyper Terminal opens a COM Port with any of above port Numbers in a Virtual PC then the serial settings of that particular port change as per the Hyper terminal session opened.

Operating mode

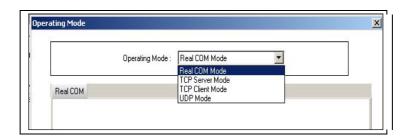
Click on Operating mode which opens the operating mode page as shown



Select any port and click on "View Settings" tab which shows the "Operating Mode" dialog Box as shown below. The default operating Mode is "Real Com" Mode.

Note. TRP-C34H will restart automatically, after configuring the Operating Settings page. For all other pages, TRP-C34H will not restart.

If modify check box is checked to activate the parameter, double click or highlight and click "Settings" tab of the specific port to modify the operating mode. Click the Operating Mode drop-down box to set the Real Com Mode / TCP Server Mode / TCP Client Mode / UDP Mode as shown below.



Real COM Mode

Key in the TCP Alive Check Timeout to set the timeout for TCP Alive time. The Default setting is 7 min. TRP-C34H automatically closes TCP connection if there is no TCP activity for the given time. After the connection is closed, TRP-C34H starts listening for another REAL COM driver's connection form another host.

Operating Mode :	Real COM Mode
Real COM	Real CDM Mode TCP Server Mode TCP Cierk Mode UDP Mode
Misc (Dptonal) TCP Aive Chec 7	k Timeoul (0 - 99 min)

TCP Server Mode

- a. Local TCP Port: The TCP Port of TRP-C34H that uses to listen to the requests coming from Host Computers on Network in order to establish connection. The Host Computers should contact this Port in order to establish connection with the TRP-C34H.
- b. Click the Max Connection drop-down box to set Max connection options to 1 / 2 / 3 / 4.
- c. TCP Alive Check Timeout (Default setting is 7 min).
- d. Inactivity Timeout (Default setting is 0 ==> Disabled).

	Operating Mode : TCP Server Mo	de 💌	
TCP Server			
	TCP Server Mode Settings	1	
	Local TCP Port : 4001		
	Max Connection : 1	•	
	– Misc (Optional) –		
	TCP Alive Check Timeout		
	7	(0 - 99 min)	
	Inactivity Timeout		
	0	(0 - 65535 ms)	
		18	

TCP Client Mode

- a. Click the Connect Mode drop-down box to set "Startup"/ "Any character".
- b. Setting Destination IP address 1 and Port Number, allows TRP-C34H to connect actively to the remote host whose address is set by this parameter.
- c. Similarly Destination IP addresses 2 / 3 / 4, allows TRP-C34H to connect actively to the remote hosts whose address is set by this parameter.
- d. TCP Alive Check Timeout (Default setting is 7 min)
- e. Inactivity Timeout (Default setting is 0 ==> Disabled).

TCP Client				
	ination Host :	Mode Start Up	4001 4001 4001 4001 4001	Misc (Optional) TCP Alive check Timeout 7(0 - 93 min) Inactivity Timeout 0(0 - 65535 ms)

UDP Mode

- a. Local Listen port: The UDP port that uses to listen to Data from multiple host computers and also to multicast data to multiple host computers.
- b. UDP Mode Setting Destination:
- c. Destination IP address 1 / 2 / 3 / 4

UDP				
UDP				
		Local listen	Port : 4001	
- 11	P Mode Set	ing Destination	· · · · · · · · · · · · · · · · · · ·	
	Begin :	ing Description	End:	Port :
1	192 . 1	68.2.3	36 192 . 168 . 2 . 36	4001
2	2	10 E.		4001
3	1	18 52		4001
12		a 16		4001

Accessible IP's Page

Accessible IP settings allow you to add or remove "legal" remote host IP address to prevent unauthorized access to TRP-C34H. Hosts that are included in this list can only access the TRP-C34H on the network.

	Basic Settings Accessible IPs	IP Settings Auto Warning	Port Settings IP Address Report	Operating Mode t Password
nformation			I Madress Hepor	
Model Name :	Modify			
SerialServer16S	🗖 Enable			
	No	IP Address	Netmask	
MAC Address				
00:50:C2:1B:70:40	3			
V.5.				
Serial Number	□ 6			
1				
	□ 9 □ 10			
Firmware Version	□ 11			
1.20_21Aug	12			<u>•</u>
1.20_21A0g			s	ettings

On "Accessible IP's" page, click the modify box to activate the parameter, Click on settings button to enter the IP Address and Net Mask of remote host that control the TRP-C34H.

IP Address :	×		18	
Net Mask : [12	18	12	_

You can allow one of the following cases by setting the parameter.

- Only one host of specific IP address can access the TRP-C34H. Enter "IP address/255.255.255.255" (e.g., "192.168.2.246/255.255.255.255").
- Hosts on the specific subnet can access the TRP-C34H. Enter "IP address/255.255.255.0" (e.g., "192.168.2.0/255.255.255.0").
- Any host can access the TRP-C34H. Disable this function by unchecking the "Enable" Check Box.

Refer the following table for more details about the configuration example.

0	o ,
Allowable Hosts	Input format
Any host	Disable
192.168.2.246	192.168.2.246 / 255.255.255.255
192.168.2.1 to 192.168.2.254	192.168.2.0 / 255.255.255.0
192.168.0.1 to 192.168.255.254	192.168.0.0 / 255.255.0.0
192.168.2.1 to 192.168.2.128	192.168.2.0 / 255.255.255.128
192.168.2.129 to 192.168.2.254	192.168.2.128 / 255.255.255.128

Auto Warning Page

Auto warning mechanism is a useful mechanism which sends the status messages to E-Mail id's and Trap Servers in order to warn or acknowledge the changes made to the TRP-C34H.

nformation	Basic Settings Accessible IPs	IP Settings Auto Warning	Port Settings IP Address Report	Operating Mode Password
	E-Mail and SNMP Trap	Settings Event		
Model Name :	Modify			
SerialServer16S	Mail Server			
24	From E-Mail Ac	ldress		
MAC Address	To E-Mail Add	ess 1		
00:50:C2:1B:70:40	To E-Mail Add	ess 2		
	To E-Mail Add	ess 3		
	To E-Mail Add	ess 4		
Serial Number				
1	Modify	Authentication	Setup	
Firmware Version	Modify	u.		
1.20_21Aug	Trap Server			
New York Contraction Contraction				

On Auto warning page under E-mail and SNMP Trap Setting Tab, click the modify box to activate the parameter.

a. On Mail server frame, input the IP Address or Domain Name of the Mail server.

b. Input the From E-mail Address.

c. Enter the email addresses in the To E-Mail address boxes (1, 2, 3, 4) to whom the acknowledgement has to be sent.

d. If the Mail Server has to be authenticated, check the Modify box and check the "Mail Server authentication check box", and then press Setup button

e. Input the User Name and Password to modify the Mail Server Authentication Setup.

User Name	<u> </u>		
Password			

f. To set or modify the Trap Server , check the Modify checkbox and enter the IP Address or Domain name of the Trap Server to which the Auto warning are to be sent.

nformation		ng Mode Password
	E-Mail and SNMP Trap Settings Event	
Model Name :	Modify	
SerialServer16S	Mail Server	-
A.	From E-Mail Address	-
MAC Address	To E-Mail Address 1	
00:50:C2:1B:70:40	To E-Mail Address 2	
Į.	To E-Mail Address 3	
	To E-Mail Address 4	-
Serial Number		
1	Modify Setup	
12.	Mail Server Authentication	
Firmware Version	Modify	
1.20_21Aug	Trap Server	

On Auto warning page, under Event Tab, click the Modify box to activate the parameter, and click the checkbox to set the Events for which Auto warnings are to be sent.

	Basic Settings	IP Settings	Port Settings	Operating Mode
Information	Accessible IPs	Auto Warning	IP Address Report	rt Password
Model Name :	E-Mail and SNMP Trap	Settings Event		
SerialServer16S	🗖 Modify	ı.		
		Ma	il Trap	
MAC Address	Cold S	tart 🗆		
00:50:C2:1B:70:40	Warm	Start 🗆		
	Auther	itication Failure		
Serial Number	IP Add	ress Changed		
L.	Passw	ord Changed		
Firmware Version				
1.20_21Aug				
~				
	Click the "Modify" check b		nfiguration Ok	CANCEL

To get Auto Warning E-Mails:

i) Give the Mail Server IP address & authentication if required.

ii) Give from ID & To ID

iii) Select on what event you want to be notified by mail in "Eventtype" page.

To get Auto Warning Trap Messages,

i) Key in the IP address of the Linux Machine Trap server option.

ii) In Network settings page enable SNMP and provide community name, contact, and location information.

iii) Run this command on Linux PC "snmptrapd -f -Le".

iv) Select the event type which you want to be notified.

v) On that event notice that some messages will get printed on the console where you are executing the above snmptrapd command.

IP Address Report Page

Network management becomes difficult when TRP-C34H is forced into DHCP. Any IP changes due to DHCP in TRP-C34H are reported to the assigned Host on the Network.

Basic Settings Accessible IPs	IP Settings Auto Warning	Port Settings IP Address Repo	Operating Mode ort Password
Auto Report	to :	a. 6.	4002
Auto Report	Period : 10	(0 - 99 sec)	
	Auto Report	Accessible IPs Auto Warning	Accessible IPs Auto Wanning IP Address Rep Modify Auto Report to :

On IP address Report, click the modify box to activate the parameter, and set the IP address, Port number and time period to Auto report to host.

	Basic Settings Accessible IPs	IP Settings Auto Warning	Port Settings IP Address Report	Operating Mode Password				
nformation	Accessible ins	Auto warning	Il Mudross Hepoli	FIGSSNIULU				
Model Name :								
SerialServer16S	I∕r Modity	₩ Modfy						
	Auto Report	o: 192 . 16	3 . 2 . 36 40	02				
MAC Address	Auto Report	Period : 10	(0					
00:50:C2:18:70:40			(0 - 99 sec)					
Serial Number								
1								
1								
Firmware Version								
Firmware Version								

The default Port number is 4002 and the default Auto Report Period is 10 s.

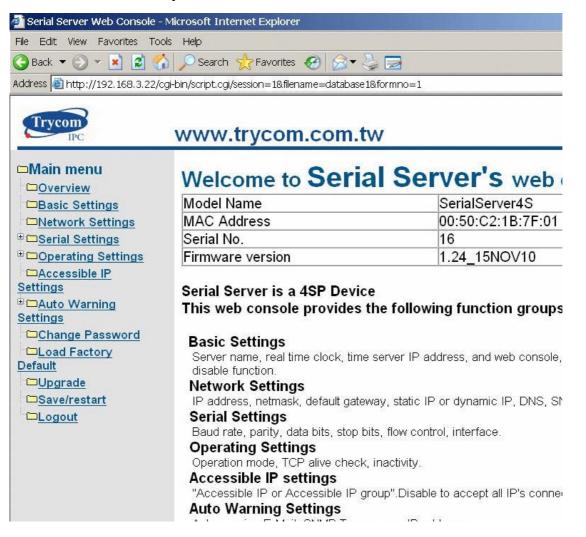
Password

Password can be set / modified & Disabled through this screen. Maximum length of 7 characters can be supported for TRP-C34H password. Alpha, Numeric & Alpha numeric type of passwords are supported.

Space is not allowed between any characters in password.

4-2. using the WEB Server mode.

TRP-C34H support web console for remote configuration of the TRP-C34H on the network To view the web console, open any web browser (eg., Internet Explorer) and type the IP address in the address bar of the browser. A login form prompting for password appears. Login to the web console by **entering** the correct password and click submit. Default Password is "trycom".

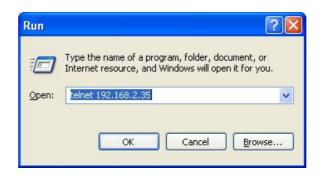


4-3. Telnet.

TRP-C34H implements a **Telnet Server** and can be invoked by making a Telnet from remote PC. In the "Basic Settings" page of "Windows Configuration Utility", if the '**Enable Telnet Console**' check box is enabled we can use the Telnet Console to modify the device parameters.

Go to Start Menu > Run

Run Telnet from remote pc with the IP address of TRP-C34H as shown below:



5. Application.

5-1. Real COM Mode.



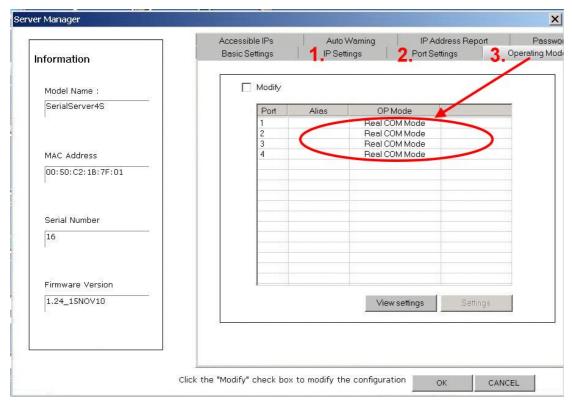


Example:

Step1: Connect PC-----RJ45-----TRP-C34H-----RS232/422/485 Device.

Step2: Run "Serial Server Admin Utility" and Right Click on the selected device and click on configure to go to Configuration menu.

Step3: Be sure "IP Setting"," Port Setting" and "Operating Mode" is correct.



Step4: Select "Port Mapping" then right clicks "Add Device".

e Function Port Mapping	View H	lelp					
1E-m		Port Mapping - 0 Port(s)					
ATT.	No	Model	IP Address	TCP Port	COM Number		
Server Manager							
Server Monitor		Add Device	5.				
		Remove Devic	ce 📃				
07 W		Enable					
Port Monitor		Disable					
B / 4.		To Port Settings					
Port Mapping		Apply Change	Contraction of the				
	-	Discard Chang	ge 🚽 🚽				
Auto IP Address		Export Port M	lapping.				
Report		🐚 Import Port M	lapping				

Step5: The Port Mapping will show below.

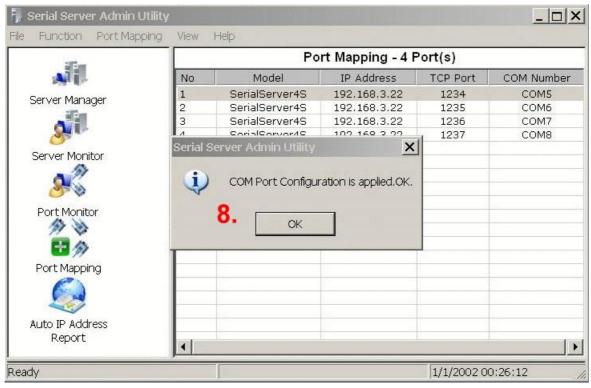
Function Port Mapping	View	Help			
and the second sec		Po	rt Mapping - 4 F	Port(s)	
ATT.	No	Model	IP Address	TCP Port	COM Number
Sarvar Managar	1	SerialServer4S	192.168.3.22	1234	COM5
Server Manager	² 6.	SerialServer4S	192.168.3.22	1235	COM6
	з О.	SerialServer4S	192.168.3.22	1236	COM7
No. of the second secon	4	SerialServer4S	192.168.3.22	1237	COM8
Server Monitor					
		-			
<u>~</u> *					
Port Monitor	-				
1 m					
Port Mapping				-	
Auto IP Address				-	
Report					
	•				

Step7: Right Click select "Apply Change".

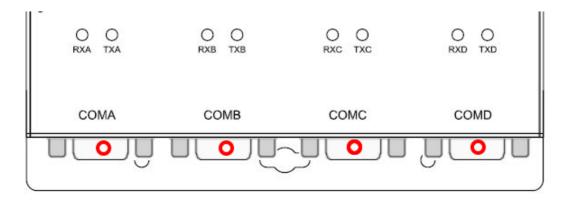
iller.		Port Mapping - 4 Port(s)						
ATT	No	Model	IP Address	TCP Port	COM Numbe			
Server Manager	1	SerialServer49		1234	COM5			
Sciver Hanager	2 3 4	SerialServer SerialServer SerialServer	 Add Device Remove Device 	235 236 237	COM6 COM7 COM8			
Server Monitor			Enable Disable					
85 Port Monitor		Т	Port Settings					
		7	Apply Change					
T			Discard Change	Subtra .				
Port Mapping			Export Port Mappin					
			Import Port Mappin	9				
Auto IP Address								

Step7: The TRP-C34H Real COM Mode setting OK.

*Notice: No matter how to change "Add device" or "Remove Device", its need to be run "Apply change" for save COM Port configuration.



Step8: plug in RS232 LOOP back connector.





Step9: Run the "TRPCOM.EXE" utility. Step10: Click the "Setting" to set the com port and baud rate then press OK .

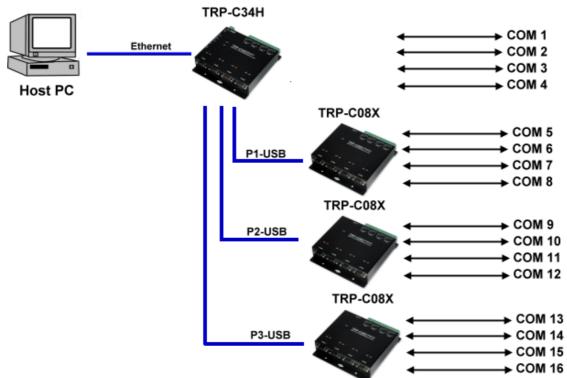
*Please note: "COM2" is an example of COM port number; the real COM number is assigned by user PC.

Step11:. Click the "Terminal" then select Loop back enable, the counter value and pass value will be synchronized counts.

🚀 TRPCOI	d Test Utilit	y .				Version:2013 Q3	<u>- 🗆 ×</u>
Setting	Termial	Scan	TCP/IP	About	Ì		
Send	al Command Command DEFGHIJKL	Input	UWWXYZ123	34567890	_	Instruction	
Respo		<lmnopqr< td=""><td></td><td>Z123456789</td><td>0 🔺</td><td>Send</td><td></td></lmnopqr<>		Z123456789	0 🔺	Send	
					-	Clear	
		Counter ————————————————————————————————————	PAS	-	5	Checksum Command + Checksum	
1.Test	ermial Func t RS485:Se	nd the comr		et RS485 di control) or R		response. ? loop back wiring.	

5-1-1.Appendix: Easy to support multi-ports.





1

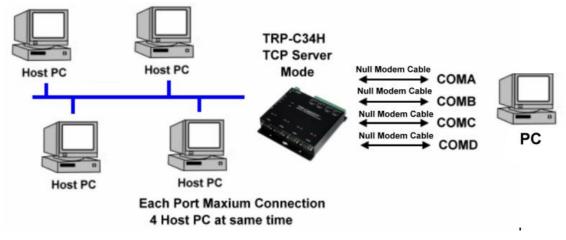
Step1: Power off the TRP-C34H and then connect TRP-C08X.

Step2: Power on the TRP-C34H will auto detection and configuration.

Step3: All operator steps same 5-1.

35.e		Port Mapping - 16 Port(s)						
	No	Model	IP Address	TCP Port	COM Number			
erver Manager	1	SerialServer16S	192.168.3.22	1234	COM5			
	2	SerialServer16S	192.168.3.22	1235	COM6			
	3	SerialServer16S	192.168.3.22	1236	COM7			
State of the second sec	4	SerialServer16S	192.168.3.22	1237	COM8			
Tana an Adaminan	5	SerialServer16S	192.168.3.22	1244	COM17			
Server Monitor	6	SerialServer16S	192.168.3.22	1245	COM18			
A 17	7	SerialServer16S	192.168.3.22	1246	COM22			
10 m	8	SerialServer16S	192.168.3.22	1247	COM23			
	9	SerialServer16S	192.168.3.22	1254	COM24			
Port Monitor	10	SerialServer16S	192.168.3.22	1255	COM25			
M 43	11	SerialServer16S	192.168.3.22	1256	COM26			
EB 43	12	SerialServer16S	192.168.3.22	1257	COM27			
	13	SerialServer16S	192.168.3.22	1264	COM28			
Port Mapping	14	SerialServer16S	192.168.3.22	1265	COM29			
	15	SerialServer16S	192.168.3.22	1266	COM30			
- Let 1	16	SerialServer16S	192.168.3.22	1267	COM31			
uto IP Address Report								
Report								

5-2. TCP Server Mode.

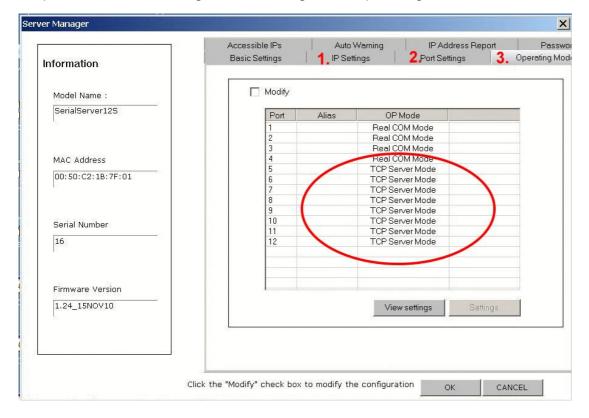


Example:

Step1: Connect Host PC 1~4 ----- Ethernet----- TRP-C34H-----PC .

Step2: Run "Serial Server Admin Utility" and Right Click on the selected device and click on configure to go to Configuration menu.

Step3: Be sure "IP Setting"," Port Setting" and "Operating Mode" is correct.



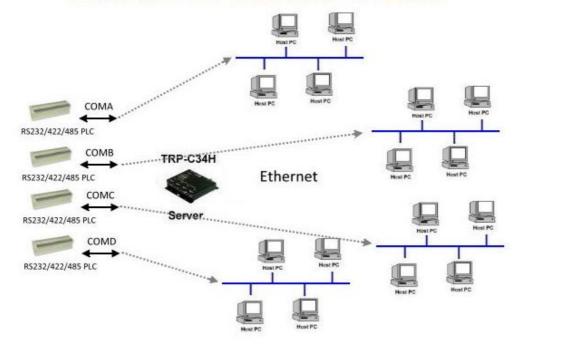
Step4: Select "Server Monitor" then right clicks "Add Device". Step5. Select "Go".

200 m		Server Monitor Stopped						
ATT	No	Alive	IP Address	Model	MAC Address			
Server Manager		-Not-Alive		ve Device	00;50:C2:18:7			
Server Monitor			Load Settin	Configured Ports Igs				
95 W			6. Go					
Port Monitor			Stop					
Port Mapping								
Auto IP Address Report								

Step5. Connect PC COM Port link TRP-C34H COMA~COMD by NULL-Modem Cable. Step6. RUN "Demo.exe" and select correct baud-rate and data format. Step7. RUN "Telnet.exe" and input IP and Port.

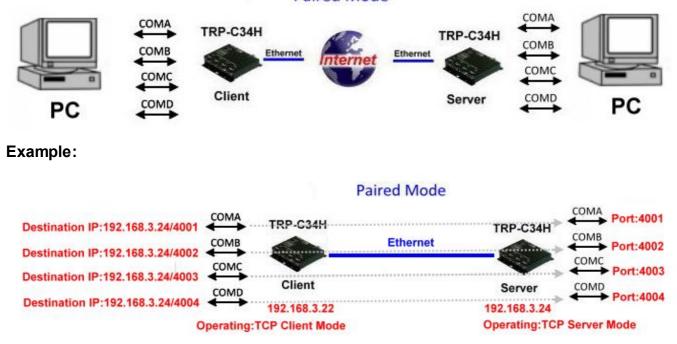
DEMO	🔤 Telnet 192.168.3.22	×
ction Settings	89ABCDEFGHIJKLMNOPQRSTUVWXYabcde0	
COM1	89ABCDEFGHIJKLMNOPQRSTUVWXYabcde@	COM4
Input : 00000000 Output: 00124920	89ABCDEFGHIJKLMNOPQRSTUVWXYabcde0 89ABCDEFGHIJKLMNOPQRSTUVWXYabcde0 89ABCDEFGHIJKLMNOPQRSTUVWXYabcde0	tput: 00000000
COM5 Input : 00000000 Output: 00000000	89ABCDEFGHIJKLMNOPQRSTUUWXYabcde@ 89ABCDEFGHIJKLMNOPQRSTUUWXYabcde@ 89ABCDEFGHIJKLMNOPQRSTUUWXYabcde@ 89ABCDEFGHIJKLMNOPQRSTUUWXYabcde@ 89ABCDEFGHIJKLMNOPQRSTUUWXYabcde@ 89ABCDEFGHIJKLMNOPQRSTUUWXYabcde@	COM8 ut : 00000000 tput: 00000000
	4	

1 Serial Device to 4 TCP Host PC at Same Time Broadcase



5-3. Paired Mode.

Paired Mode



Step1: Run "Serial Server Admin Utility" and Right Click on the selected device and click on configure to go to Configuration menu.

Step3: Be sure "IP Setting"," Port Setting" and "Operating Mode" is correct.

Step4: TRP-C34H Client setting, Select "Operating Mode" and then double click Port1~Port4 item same below.

er Manager	Accessi	bla IPa	Auto W	erning	IP Address R	anart	× Passwo
Information	Basic S		IP Settin		Port Settings		perating Mod
Model Name :	.	Modify					
SerialServer4S		Port ,	Alias	OP M TCP Clie			
MAC Address		2 3 4		TCP Clie TCP Clie TCP Clie	nt Mode nt Mode		
00:50:C2:1B:7F:02							
Serial Number							
6							
Firmware Version							
1.24_15NOV10				View	settings Se	ettings	
]
	Click the "Modify"	check box to r	nodify the	configurati	OK OK	CANCE	L

a. Port 1 Setting.

		Operating Mode :	TCP Client Mode	
TCF	Client			
		Xient Mode Settings]
		Connect Mode Start Up	▼	
	Desti	ination Host		Misc (Optional) ————
<	1	192 . 168 . 3 . 24	4001	TCP Alive check Timeout
	2		4001	7 (0 - 99 min)
	3		4001	Inactivity Timeout
	4		4001	0 (0 - 65535 ms)

b. Port 2 Setting.

perating Mod	de				2
		Operating Mode :	TCP Client Mode		
TCP Cli	ent				
	Destir	lient Mode Settings Connect Mode Start Up nation Host :		- Misc (Optional)	
00000	1 2	192 . 168 . 3 . 24 · · ·	4002 4001	TCP Alive check Timeout 7 (0 - 99 min)	
0.000	3	· · ·	4001 4001	Inactivity Timeout	
0.000.000.000					
100000000000000000000000000000000000000					
				OK Can	cel

c. Port 3 Setting.

ting Mode			
	Operating Mode :	TCP Client Mode	•
TCP Client			
	Client Mode Settings		
Des	tination Host :		Misc (Optional)
	192 . 168 . 3 . 24	4003	TCP Alive check Timeout
2		4001	7 (0 - 99 min)
3		4001	Inactivity Timeout
4		4001	0 (0 - 65535 ms)
L			
B			OK Cance

d. Port 4 Setting.

Connect Mode Start Up	
Connect Mode Start Up Destination Host : Misc (Optional)	
1 192 . 168 . 3 . 24 4004 TCP Alive check Timeout	
2 4001 7 (0-99)	min)
3 · · · · 4001 Inactivity Timeout	
4	i35 ms)

Step5: TRP-C34H Server setting, Select "Operating Mode" and then double click Port1~Port4 item same below.

	Accessible IPs Basic Settings	Auto	Warning	IP Address Rep Port Settings	oort Passwo Operating Mod
Information	Dusic Dewings	1 1 06	angs	r on beangs	operating mod
Model Name :	Modify				
SerialServer4S	Port	Alias	OP Mode		
	1		TCP Server M		
	2		TCP Server M		
	3		TCP Server M TCP Server M		
AC Address	4		TCF Server	ioue	
:50:C2:1B:7F:22					
rial Number					
mware Version					
5NOV10			View sett	ngs Sett	ings
	Click the "Modify" check bo	ox to modify th	ne configuration	ОК	CANCEL

a. Port 1 Setting.

Operating	g Mode	×
	Operating Mode : TCP Server Mode	
тс	CP Server	
	TCP Server Mode Settings	
	Local TCP Port: 4001	
	Max Connection : 1	
	Misc (Optional)	
	TCP Alive Check Timeout 7 (0 - 99 min)	
	Inactivity Timeout 0 (0 - 65535 ms)	
	OK Cance	

b. Port 2 Setting.

Opera	ting Mode	×
	Operating Mode : TCP Server Mode	
	TCP Server	
	TCP Server Mode Settings Local TCP Port : 4002 Max Connection : 1 Misc (Optional) TCP Alive Check Timeout 7 (0 - 99 min) Inactivity Timeout 0 (0 - 65535 ms)	
	OK Car	ncel

c. Port 3 Settings.

rating Mode		
	Operating Mode : TCP Server Mode	
TCP Server		
Г	TCP Server Mode Settings	
	Local TCP Port : 4003	
	Max Connection : 1	
Г	Misc (Optional)	
	TCP Alive Check Timeout 7 (0 - 99 min)	
	Inactivity Timeout 0 (0 - 65535 ms)	
	Ca	ancel

c. Port 4 Setting.

	Operating Mode : T	CP Server Mode	×	
TCP Server				
Γ	- TCP Server Mode Settings			7
•	Local TCP Port :	4004		>
	Max Connection :	1		
ſ	- Misc (Optional) ————			
	TCP Alive Check Tim	eout	(0.00.i)	
	/ Inactivity Timeout		(0 - 99 min)	
			(0 - 65535 ms)	
L				

Step6: Keep the TRP-C34H Server in LAN. Also keep the Client PC in LAN.

Step7: **Power ON the TRP-C34H Server and wait till it completely boots PWR LED ON first.** Step8: Power ON the TRP-C34H Client and wait till it completely boots PWR LED ON. Step9: Connect PC COM Port link TRP-C34H Client COMA~COMD by NULL-Modem Cable.

Step10: Plug in TRP-C34H server COMA~COMD by DB-9 loop back connector.

Step11: Run the "TRPCOM.EXE" utility. Step12: Click the "Setting" to set the com port and baud rate then press OK.

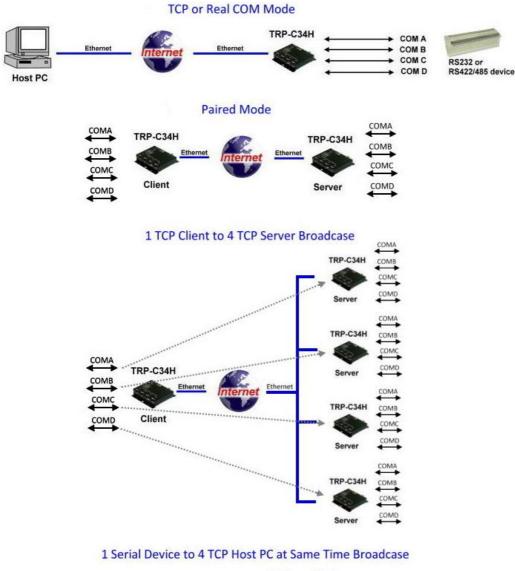
TRPCOM 2013 Test Utility	¥ersion:1020928
Setting Termial Scan TCP/IP About	
Communication Configuration	
Initial Setting	
COM2 9600 -	ок
8 V NV 1 V RTS/CTS	
Communication Protocal	Default
ASCII Modbus RTU	
ASCII Checksum Enable	Exit
Description TRPCOM utility is designed to test TRP-Series m In the settings menu, be sure to select the ASCII from the drop down menus and selecting "Checks continuing.	/ Modbus protocal, com port parameters

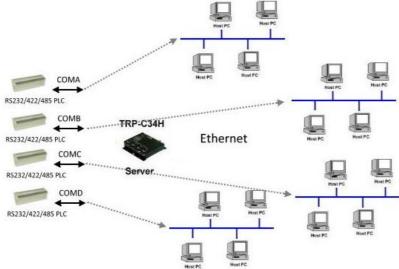
*Please note: "COM2" is an example of COM port number; the real COM number is assigned by user PC.

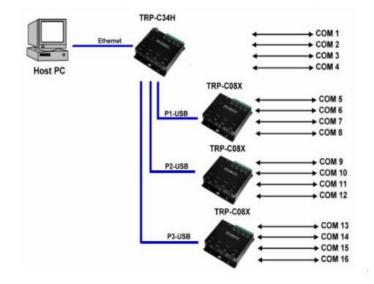
Step11:. Click the "Terminal" then select Loop back enable, the counter value and pass value will be synchronized counts.

TRPCOM Test Utility	Version:2013 Q3	
Setting Termial Scan TCP/IP About		
Terminal Command Input Send Command ABCDEFGHIJKLMNOPQRSTUWXYZ1234567890 Response ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890	Instruction Send C Auto 80 mS	
► Enable 825	Clear Checksum Command + Checksum	
Description The Termial Function: 1.Test RS485:Send the command and get RS485 device i 2.Test RS232/422:RS232(with hardware control) or RS422		

6. TRP-C34H Application Diagram.







TRP-C34H up to 16 Real COM or 16 TCP Port (only one IP)

TRP-C34H with TRP-C08X/TRP-C08S/TRP-C08H/TRP-C08U/TRP-C29U



APPENDIX

The factory default value for <u>TCP Alive check time</u> = 7 minutes.

- If you configure this option to "0 min", the TCP connection will not be closed due to an idle TCP connection.
- If you set this option with any value in between "1 to 99 mins", Serial Server automatically closes the TCP connection if there is no TCP activity for the given amount of time. After the connection is closed, Serial Server starts listening for the TCP connection from another host.

- ✓ Likewise, the factory default value for **Inactivity time** = **0 ms**.
- ✓ If the Inactivity time = 0 ms, the TCP connection will not be closed due to an idle serial line.
- ✓ If you set this option with any value in between "0-65535 ms", Serial Server automatically closes the TCP connection if there is no serial data activity for the given amount of time. After the connection is closed, Serial Server starts listening for the TCP connection from another host.