TRP-C34X

32 Bit Ethernet to 1 RS232 and 1 RS422/485 Optical

Isolated Converter



User's Manual

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1. Introduction

TRP-C34X 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-C34X Serial Server also provides 3KV optical isolation and surge protection to protect system from ground loops and destructive.

By specifying the IP address and the TCP Port number, a host computer can access different Serial Devices such as Serial Thermometers, Magnetic CNC Controller, Elevator, 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-C34X 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-C34X supports different modes of operation allowing user to operate the system in different environments.

Real COM Mode.

TRP-C34X 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-C34X'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-C34X provides a unique IP: Port address on a TCP/IP network. TRP-C34X 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-C34X can actively establish a TCP connection to a pre-defined host computer when serial data arrives. After the data has been transferred, TRP-C34X 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 multi-cast 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.

When TRP-C34X 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.
- RS232/422/485 Built-in 3KV Optical-Isolation.
- Surge protection and over current and over voltage on RS-422/485 data lines.
- 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.
- Each Port maximum connection 4 host PC at TCP Server and TCP Client Mode.
- 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-C34X.
- Features Auto IP Address Report to periodically report the IP Address of TRP-C34X to the assigned Host on Network.
- Auto direction RS485 flow control by hardware.
- 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.
- Power/Link and 2 pair Serial RX/TX mode LED indicator.
- Support screw terminal and standard external DC power adapter.
- Din rail or panel mounts support.

1-2. Features. 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: TXD, RXD, RTS, CTS, ISO GND.
- RS-422: TX+, TX-, RX+, RX-, ISO GND.
- RS-485: Data +, Data –, ISO GND.
- 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.
- Power supply: Screw terminal, or standard external DC adapter.
- Serial interface: +/-15 KV ESD.
- RS422/485 interface: Surge, over current, over voltage protection.
- Power consumption: 12V/230 mA (without external device).
- Operating Temperature: 0 to 65 °C.
- Humidity: 0~90% Non-Condensing.
- Dimensions: 141(L)*78(W)*26.5(H) /mm.
- Weight: 450g (W/Packing).

Hardware Description.

2-1. Block Diagram.



2-2. Panel layout and Dimension.

mm/Unit.



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

2-2. LED indicators.

PWR LED: Blinking: Not Ready.

ON: TRP-C34X Ready .

LINK LED: Ethernet cable connection and data active.

TX/RX LED: COMA: RS422/485 Transiting/Receiving Indicator.

COMB: RS232 Transiting/Receiving Indicator.

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

2-3. Factory default.

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

Hardware Setting:

COMA: Auto Switching RS422/485. COMB: RS232.

Unlock Password: trycom. Model Name: TRP-C34H-2S. Basic configuration:

Modify Enable 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:	
,	
Modify	

IP setting:

isic Settings I	PSettings		Port Set	ings	Оре
Modify IP Address :	192	. 168	, 3	, 22	
Modify					
Net Mask :	255	. 255	, 255	, 0	
Gateway :	192	, 168	, 3	. 1	
IP Configuration :	Static				~
DNS Server1 :		(4)		7	
DNS Server2 :		11 <u>1</u>		-i	
Modify	🔽 Enabl	e SNMP			
Community Name :	public				
Location :	-				-
Contact :					
Modify				1.2	
Subnet 2 :	1. R	Gate	way 2 :		

Port Setting: COMA,COMB:115200,8,N,1. Operating Mode: Real Com Mode. Accessible IPs: None Setting. Auto Warning: None Setting. IP Address Report: None Setting. Password: Factory: trycom

2-4. Push Button.

If lost the password or wrong setting, user can keep push button till the PWR LED off and then reboot back factory setting.

3. Installing TRP-C34X Hardware.

STEP1: Connect the power source from DC-Jack or screw terminal, the PWR LED will blinking, wait till PWR LED ON.

STEP2: Connect TRP-C34X with Ethernet port by RJ45 cable.

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

*The TRP-C34X 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.

STEP3: Connect TRP-C34X to RS232 by AWG #12~30 wires.

Connect TRP-C34X to RS422/485 by AWG #12~30 twisted 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-C34X.

There are 3 ways to access the TRP-C34X.

a. Serial Server Admin Utility.

Serial Server Admin Utility	uu Help				_ 🗆 ×
	w Herb	Server	Manager - Found	1 Device(s)	
	No	Model	MAC Address	IP Address	Status
Server Manager	1	TRP_C34H2S	00-50-C2-1B-7F-FF	192.168.0.117	Locked
S					
Server Monitor					
<u>8</u>					
Port Monitor					
1 th					
🛨 🥎					
Port Mapping					
Auto IP Address					
Report	•				•
No Time		Description			
1 29-11-2011, 1	17:27:02	1 Devices Found			
Event Log Monitor Loa					
Ready				29	/11/2011 17:27:52

b. WEB Server.

🗿 Serial Server Web Console -	- Microsoft Internet Explorer		
File Edit View Favorites To	ols Help		2
🔇 Back 🔻 🕥 👻 😰 🔮	🏠 🔎 Search 👷 Favorites 🕢 🎯	l 🔁	
Address 1 http://192.168.3.22/	cgi-bin/script.cgi/session=18:filename=databas	e1&formno=1. 💽 Go Lini	KS ³⁹
Trycom	www.trycom.com.	tw	
□Main menu □Overview	Welcome to Seri	al Server's web console !	-
Basic Settings	Model Name	TRP_C34H2S	
	MAC Address	00:50:C2:1B:7F:FF	
Serial Settings	Serial No.	1	
⊕ Operating Settings	Firmware version	1.26_11MAY11	
Settings	Serial Server is a 2SP Devi This web console provides	ce the following function groups.	
Change Password Load Factory Default	Basic Settings Server name, real time clock, tim disable function.	e server IP address, and web console, Telnet console Enable,	
Dpgrade	Network Settings		
Save/restart	IP address, netmask, default gate	eway, static IP or dynamic IP, DNS, SNMP, IP location report.	
Logout	Baud rate parity data hits stop	hits flow control interface	
	Operating Settings	bits, now control, interface.	
	Operation mode, TCP alive chec	k, inactivity.	
	Accessible IP settings		
	"Accessible IP or Accessible IP	group".Disable to accept all IP's connection.	•
Done		👔 Internet	

c. Telnet.

👞 Telnet 192.168.3.22		
Model Name MAC Address Serial Number Firmware Version	:TRP_C34H2S :00:50:C2:1B:7F:FF :1 :1.26_11MAY11	
< <main menu="">> (1) Basic Setting (2) Network Setting (3) Serial Setting (4) Operating Set (5) Accessible II (6) Auto Warning (7) Monitor (8) Ping (9) Password Set (a) Load Factory (v) View Settings (s) Save/Restart (q) Quit Key in your selection</main>	gs ings ngs ttings P Settings Settings tings Defaults s	
		► //

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-C34X'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-C34X on the network.

Ga			Server Ma	anager - Found 1 De	vice(s)
N	0	Model	MAC Addre:	ss IP Address	Status
Vanager				Search Devices Add with IP Address Locate Unlock Configure WebConsole Upgrade Firmware Export Configuration Import Configuration Assign IP Address Load Factory Defaults	
Time 29-11-2011, 16:47:	.59	Description 1 Devices Foun	d		

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

This invokes the Server Manager Configuration Dialog as shown below.

Modify Server Name :	trycom	
Modify Enable	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 5	Sec(s

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

IP Setting:

IP Address :	192 . 1	168 , 3	, 22	
Modify	~			
Net Mask :	255 . 2	:55 , 255	· 0	
Gateway :	192 . 1	.68 , 3	. 1	
IP Configuration :	Static			
DNS Server1 :			7	
DNS Server2 :				
		120		
	M Enable SNN	4P		
Community Name :	public			
Location :				
Contact :				
Modify			10	
Subnet 2 :	G	ateway 2 :	6	d

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.

formation	Accessible IPs An Basic Settings IP	utoWarning Settings	IP Address Report Port Settings	Password Operating Mode
Model Name :	Modify IP Address :	192 . 10	68 . 2 . 35	
SerialServer16S	Modify			
MAC Address	Net Mask : Gateway :	255 . 25	55 . 255 . 0 58 . 2 . 1	
00:50:C2:18:70:40	IP Configuration :	Static Static		
Serial Number	DNS Server2 :	DHCP DHCP/BOOT BOOTP	P	
1	Modify	M Enable S	SNMP	
Firmware Version	Community Name Location : Contact :	public		
1.20_21Aug	Modify Subnet 2 :	G	ateway 2 :	

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-C34X 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:

				0
	Modify			
Port	Alias	Settings	TimeOut	
1 2		128000bps,8-bit,None,1-bit,Xon/Xoff,R 128000bps,8-bit,None,1-bit,Xon/Xoff,R		

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 Settings Port alias : Modify Time Out :					
Port alias : Modify Time Out :					
Modify Time Out :					
			× 0.5 m	5	
Baud rate [9600		Flow control	Xon/Xoff	×
Parity [None		Interface	RS-232	•
Data bits 🛛 🗍	8	-			
Stop bits	1	•			
Apply above	2 settings to a	ll selected po	rts		
				ок	Cancel

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

Information	Basic Settings	IP Setti	ngs Port Setti	ngs Operating Mo
Model Name :	Modify			
TRP_C34H2S	Port	Alias	OP Mode	
<u>k</u>	1 2		Real COM Mode Real COM Mode	
MAC Address				
00:50:C2:1B:7F:FF				
Serial Number				
1				
Firmware, Version				
1.26_11MAY11			View settings	Settings

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-C34X will restart automatically, after configuring the Operating Settings page. For all other pages, TRP-C34X 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-C34X automatically closes TCP connection if there is no TCP activity for the given time. After the connection is closed, TRP-C34X starts listening for another REAL COM driver's connection form another host.

Operating Mode	Real COM Mode	
Real COM	TCP Server Mode TCP Cliert Mode UDP Mode	
Micc (Optional) - TCP Alive Ch	ack Timeout	
	for country	

TCP Server Mode

- a. Local TCP Port: The TCP Port of TRP-C34X 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-C34X.
- 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			
ſ	- TCP Server Mode Settings		
	Local TCP Port : 4001		
	Max Connection : 1	•	
l I	– Misc (Optional) –		
	TCP Alive Check Timeout	_	
	/ Inactivitu Timeout	(U - 99 mm)	
	0	(0 - 65535 ms)	
ļ	9		

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-C34X to connect actively to the remote host whose address is set by this parameter.
- c. Similarly Destination IP addresses 2 / 3 / 4, allows TRP-C34X 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).

CP Clien	L				
- 10	? Client Mode	Setting			
	Conne	ct Mode	Start Up	•	
De	stination Host				Misc (Optional)
1	192 . 1	68 .	2.36	4001	TCP Alive check Timeout
2		10		4001	7 (0 - 99 min
3		- 15		4001	Inactivity Timeout
4		22	Ψ.	4001	0 (0 - 65535
	1				

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

	C.)perating Mod	e : UDP Mode		•	
UDP						
	⁹ Mode Setti Begin :	Local listen	Port : 4001		Port :	
2	192 . 1		36 192.1		4001	
3		2		20 K	4001	
4		2 3		5. E	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-C34X. Hosts that are included in this list can only access the TRP-C34X on the network.

nformation	Basic Settings Accessible IPs	Auto Warning	Port Settings IP Address Report	Operating Mode Password
Model Name :	🗹 Modify			
SerialServer16S	🗖 Enable			
	No	IP Address	Netmask	
MAC Address				
00:50:C2:1B:70:40	3			
Serial Number				
1				
50	10			
Firmware Version				
1.20_21Aug	H 12			
			Settin	gs

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-C34X.

Net Mask :	4	÷	4	

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

- Only one host of specific IP address can access the TRP-C34X. 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-C34X. Enter "IP address/255.255.255.0" (e.g., "192.168.2.0/255.255.255.0").
- Any host can access the TRP-C34X. Disable this function by unchecking the "Enable" Check Box.

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

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-C34X.

nformation	Basic Settings Accessible IPs	IP Settings Auto Warning	Port Settings IP Address Report	Operating Mode t Password
	E-Mail and SNMP Trap	Settings Event		
Model Name :	Modify			
SenalServer16S	Mail Server			
	From E-Mail Ac	ldress		
MAC Address	To E-Mail Add	ess 1		
00:50:C2:18:70:40	To E-Mail Add	ess 2		
Construction resources and and	To E-Mail Add	ess 3		
	To E-Mail Add	ess 4		
Serial Number				
1	Modify			
21	🔲 Mai Serve	r Authentication	secop	
Firmware Version	☐ Modify			
1.20_21Aug	Trap Server			
Provinsi and				
	-			

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.



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.

ormation	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			
	From E-Mail Ad	dress /		
MAC Address	To E-Mail Addr	ess 1		
00:50:C2:18:70:40	To E-Mail Addr	858 2		
	To E-Mail Addr	*** 3		
	To E-Mail Addr	nss 4		
Serial Number		,		
1	Modify		- Cours - 1	
	🗖 Mal Serve	Authentication	Secob	
Firmware Version				
1. 20. 21 400	Trap Server			_
1.20_21.009				

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.

nformation	Basic Settings Accessible IPs	IP Settings Auto Warning	Port Settings	Operating Mode t Password
Model Name :	E-Mail and SNMP Trap	Settings Event		
SerialServer16S	T Modij	ı		
MAC Address	0.00	м	ail Trap	
00:50:C2:1B:70:40		tan i Stant Γ		
	Auther	tication Failure		
1	IP Add	ress Changed 🛛 🗍	J	
0	Passw	ord Changed F	3	
Firmware Version				
1.20_21Aug				
,	olisis the "Medic" should be			1

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-C34X is forced into DHCP. Any IP changes due to DHCP in TRP-C34X are reported to the assigned Host on the Network.

nformation	Basic Settings Accessible IPs	IP Settings Auto Warning	Port Settings IP Address Report	Operating Mode Password
Model Name : SerialServer16S	Auto Report		40	02
MAC Address 00:50:C2:1B:70:40	Auto Report I	Period : 10	(0 - 99 sec)	
Serial Number				
Firmware Version				
1.20_21Aug				

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.

left-mether	Basic Settings Accessible IPs	IP Settings Auto Warning	Part Settings IP Address Report	Operating Mode Password
Model Nome : Seral Server165 MAC Address (0050) C218/17040 Seral Number [] Fromwere Version	Adb Report	0: 192.16	8 . 2 . 36 400	2
1.20_22409				

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-C34X 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-C34X support web console for remote configuration of the TRP-C34X 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".

Serial Server Web Console -	Microsoft Internet Explorer	
File Edit View Favorites Too	ols Help	
🔇 Back 🔻 🕥 👻 📓 🐔	🔓 🔎 Search 👷 Favorites 🕢 🎯	l 🔁
Address a http://192.168.3.22/c	gi-bin/script.cgi/session=1&filename=databas	≥1&formno=1 💽 🕤 Go Links »
Trycom	www.trycom.com.	tw
□Main menu □Overview	Welcome to Seri	al Server's web console !
Basic Settings	Model Name	TRP_C34H2S
■ ■ Network Settings	MAC Address	00:50:C2:1B:7F:FF
[⊛] ⊡Serial Settings	Serial No.	1
Operating Settings	Firmware version	1.26_11MAY11
Accessible IP Settings Change Password Load Factory Default Upgrade Save/restart Logout	Serial Server is a 2SP Devi This web console provides Basic Settings Server name, real time clock, tim disable function. Network Settings IP address, netmask, default gats Serial Settings Baud rate, parity, data bits, stop Operating Settings Operation mode, TCP alive check Accessible IP settings "Accessible IP or Accessible IP	ce the following function groups. e server IP address, and web console, Telnet console Enable, away, static IP or dynamic IP, DNS, SNMP, IP location report. bits, flow control, interface. k, inactivity. group".Disable to accept all IP's connection.
Done		🛛 📄 👘 Internet 🎢

4-3. Telnet.

TRP-C34X 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-C34X as shown below:



5. Application.

5-1. Real COM Mode.

TRP-C34X Basic 2 Real COM Port installs.



Host PC

Example:

Step1: Connect PC-----RJ45-----TRP-C34X-----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.

Information	Access Basic S	ible IPs Settings	Auto \ 1. IP Sett	Varning ings <mark>2</mark> . Po	IP Address Report Int Settings	Pa 3. Operating
information		17	- 20. 			1
Model Name :	Ŀ	Modify			/	
TRP_C34H2S		Port	Alias	OP Mode		
2		1 2		Real COM Mod Real COM Mod		
MAC Address						
00:50:C2:1B:7F:FF						
0						
Serial Number						
1						
E						
Firmwore Version						
1.26 11MAY11				View setting	Settings	
	224					
	Click the Unardifie	N eksel: ker	, ta madifi, th	- configuration	1	

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

🔰 Serial Server Admin Utility	1				_ 🗆 ×
File Function Port Mapping	View	Help			
all an		Po	rt Mapping - 0	Port(s)	
AT .	No	Model	IP Address	TCP Port	COM Number
Server Manager	-				
Server Monitor		Add Device	5.		
<u>a</u> 2		Remove Devi	ce 📃		
S		Enable			
Port Monitor		Disable			
B / 4.		To Port Settings			
Port Mapping		Apply Change			
		Discard Chanç	ge 🚽 🚽		
Auto ID Address		Export Port M	lapping		
Report	•	🐚 Import Port M	lapping		•
Ready	present en			1/1/2002 0	0:22:37

Step5: The Port Mapping will show below.

Function Port Mapping	VIEW F	Help							
18 m	Port Mapping - 2 Port(s)								
ATT	No	Model	IP Address	TCP Port	COM Number				
Server Manager	1	TRP_C34H2S	192.168.3.22	1234	COM5				
	2	TRP_C34H2S	192.168.3.22	1235	COM6				
<u>s</u>									
Server Monitor									
23	6.								
Port Monitor									
Auto IP Address									
Report									
	J								

Step7: Right Click select "Apply Change".

Function Port Mapping	J View	Help				
17.m	250	Po	ort Ma	pping - 2 F	Port(s)	
	No	Model	IP	Address	TCP Port	COM Numbe
Server Manager	1	TRP_C34H2S	192	2.168.3.22	1234	COM5
	2	TRP_C34H2S	192	2.168.3.22	1235	COM6
Server Monitor						
1			-	Add Davias		
<u>8</u>				Add Device		
Port Monitor				Remove De	vice	
M 14				Enable		
🛨 m/				Disable		
Port Mapping		7.	To	Port Setting	S	
				Apply Chan	je 🛛	
Auto IP Address				Discard Cha	nge	
Report	-		ent	Export Port	Mapping	

Step7: The TRP-C34X 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.

*How to Test TRP-C34X.

Trycom Technology Co.,Ltd offers test utility, this is utilities may help user to demo and test TRP-C06 fast and easily. User may find the utilities in Trycom support CD or download from Trycom web <u>www.trycom.com.tw</u>, direct to perform TRPCOM.exe from the directory.

STEP9: Run the "TRPCOM.EXE" utility.
CTED10. Click the "Cetting" to get the same next and have

STEP10: 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 Abou	ıt
Communication Configuration	
	ок
Communication Protocal	Default
ASCII Checksum Enable	Exit
Description TRPCOM utility is designed to test TRP-Series n In the settings menu, be sure to select the ASCII from the drop down menus and selecting "Check continuing.	nodules. 7 Modbus protocal, com port parameters (sum Selects" Enable or Disable before

*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	♥ersion:2013 Q3
Setting Termial Scan TCP/IP About	
Terminal Command Input Send Command ABCDEFGHIJKLMNOPQRSTUWXYZ1234567890 Response ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890	Instruction Send
- Loop Back Test	Clear Checksum
Enable 825 825	Command + Checksum
Description The Termial Function: 1.Test RS485:Send the command and get RS485 device 2.Test RS232/422:RS232(with hardware control) or RS422	response. ! loop back wiring.

Step 12. User also test RS422 loop back, Please same above step. *Demo setting "RTS/CTS" item need to Disable for test RS422.



5-2. TCP Server Mode.



Example:

Step1: Connect Host PC 1~8-----Ethernet-----TRP-C34X-----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.

	Accessible IPs	Auto Wa	uming	IP Address Re	part	Passer
Information	Basic Settings	1, IP Setting	18 2.	Port Settings	3.	Operating Mo
Model Name :	Modity					
TRP_C34H2S	Port	Alias	OP Mode	No.		
	1 2	<	TCP Server N TCP Server N	fode fode		
MAC Address						
00:50:C2:18:7F:FF						
				_		
ierial Number						_
irmware Version						
26_11MAY11			Viewset	nge Se	tings	
	1			264		- C-

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

all an		a	Server	Monito	r Stopped	
AT	No	Alive	IP Addre	55	Model	MAC Address
erver Manager	1	Not-Alive	192.10	5 td De Remove Load Co	vice e Device onfigured Ports	00:50:C2:1B:7.
	-			Settings		
85 W			6.	Go		
Port Monitor				Stop		
Port Mapping						
uto IP Address Report						

Step5. Connect PC COM Port link TRP-C34X COMA~COMB. 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	_ & ×
Action Settings COM1 Input : 00000000 Output : 00124920	89ABCDEFGHIJKLMNOPQRSTUVWXY 89ABCDEFGHIJKLMNOPQRSTUVWXY 89ABCDEFGHIJKLMNOPQRSTUVWXY 89ABCDEFGHIJKLMNOPQRSTUVWXY 89ABCDEFGHIJKLMNOPQRSTUVWXY	Yabcde0 Yabcde0 Yabcde0 Yabcde0 Yabcde0 Yabcde0 Yabcde0
COM5 Input : 00000000 Output: 00000000	89ABCDEFGHIJKLMNOPGRSTUUWXY 89ABCDEFGHIJKLMNOPGRSTUUWXY 89ABCDEFGHIJKLMNOPGRSTUUWXY 89ABCDEFGHIJKLMNOPGRSTUUWXY 89ABCDEFGHIJKLMNOPGRSTUUWXY 89ABCDEFGHIJKLMNOPGRSTUUWXY	Yabcde0 Yabcde0 Yabcde0 Yabcde0 Yabcde0 Yabcde0 Yabcde0 Yabcde0

5-3. Paired Mode.



Example:



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-C34X Client setting, Select "Operating Mode" and then double click Port1~Port2 item same below.

er Manager						X
nformation	Accessible Basic Setti	IPs ngs	Auto Warning IP Settings	IP Add Port Set	dress Report tings	Passwo Operating Mod
Model Name :		lodify				
SerialServer4S		Port Ali 1 2	as 0 TCP TCP	P Mode Client Mode Client Mode		
MAC Address		4	TCP	Client Mode Client Mode		
00:50:C2:1B:7F:02						
Serial Number						
3						
Firmware Version						
1.24_15NOV10				iew settings	Settings	
	LClick the "Modify" ch	neck box to mo	dify the configu	ration O	K CAN	ICEL

a. Port 1 Setting.

		Operating Mode :	TCP Client Mode	
TCP	Client			
C	TCP (Dest	Client Mode Settings Connect Mode Start Up ination Host 192 . 168 . 3 . 24	4001	Misc (Optional) TCP Alive check Timeout
	2 3 4		4001 4001 4001	(0 - 99 min) Inactivity Timeout 0 (0 - 65535 ms)

b. Port 2 Setting.

ating	моае			
		Operating Mode : T	CP Client Mode	×
	^{>} Client			
		Dient Mode Settings		— Misc (Optional) ————————————————————————————————————
	1	192 . 168 . 3 . 24	4002	TCP Alive check Timeout
000000	2	· · ·	4001	7 (0 - 99 min)
0000000	3		4001	Inactivity Timeout
00000000	4		4001	0 (0 - 65535 ms)
000000000				
00000000				
				OK Cancel

Step5: TRP-C34X Server setting, Select "Operating Mode" and then double click Port1~Port2 item same below.

	Acce	ssible IPs	Auto	Warning IPAc	ddress Report	Passv
Information	Basi	c Settings	IP Sett	ings Port Se	ettings (Operating Mi
Model Name :		🗌 Modify				
SerialServer4S		Dort	Alica	OR Mada		1
		1	Allas	TCP Server Mode		-
		2		TCP Server Mode		-
		3		TCP Server Mode		
MAC Address		4		TCP Server Mode		-
00:50:C2:1B:7F:22						
Serial Number						-
16						
Firmware Version						4
1.24_15NOV10				View settings	Settings	
1						1

a. Port 1 Setting.

Operating Mode				Þ
	Operating Mode :	CP Server Mode		
TCP Server				
Г	TCP Server Mode Settings]
	Local TCP Port :	4001		
	Max Connection :	1		
	Misc (Optional)]
	TCP Alive Check Time	eout	(0 - 99 min)	
	I Inactivity Timeout		j (0 33 mm)	
	D		(0 - 65535 ms)	
<u>8</u>			ОК	Cancel

b. Port 2 Setting.

ating Mode				
	Operating Mode :	TCP Server Mode		
TCP Server				
	TCP Server Mode Setting	gs		
<	Local TCP Port :	4002		
	Max Connection :	1		
	Misc (Optional)			
	TCP Alive Check Ti 7	imeout	(0 - 99 min)	
	Inactivity Timeout		(0 - 65535 ms)	
			OK	Cancel

Step6: Keep the TRP-C34X Server in LAN. Also keep the Client PC in LAN.

Step7: Power ON the TRP-C34X Server and wait till it completely boots PWR LED ON first.

Step8: Power ON the TRP-C34X Client and wait till it completely boots PWR LED ON.

Step9: Connect PC COM Port link TRP-C34X Client COMA~COMB by Cable.

Step10: Plug in TRP-C34X server COMA~COMB by 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	
COM2 9600 -	ок
8 V N 1 V RTS/CTS	
Communication Protocal	Default
ASCII Checksum Enable	Exit
Description	
TRPCOM utility is designed to test TRP-Series mo In the settings menu, be sure to select the ASCII / from the drop down menus and selecting "Checks continuing.	odules. ' Modbus protocal, com port parameters sum Selects'' Enable or Disable before

*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	I Test Utilit	ty				Version:2013 Q3	_ 🗆 ×
Setting	Termial	Scan	TCP/IP	About			
Termina Send C ABCI	I Comman Command DEFGHIJKL	d Input	- UWWXYZ123	34567890		-Instruction	
Respo	nse						
ABO	DEFGHIJI	KLMNOPQF	RSTUVWXY.	Z12345678	30 🔼	🗖 Auto 🛛 🗖 n	nS
					T	Clear	
Loop) Back Test -					Checksum	
	Enable	Counter —— 825	PAS 82	5	5	Command + Checksum	
Descrip The Te 1.Test 2.Test	tion rmial Func RS485:Se RS232/42	tion: nd the com 2:RS232(wit	mand and ge h hardware	et RS485 (control) or l	Jevice RS422	response. Lloop back wiring.	

6. TRP-C34X Application Diagram.



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

