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Connecting. Converting. Leading !

SC10E Series

SC10E016G/032G/048G,

Serial Device Server

User's Manual V1.0

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Version Description

Manual version: V1.0

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Brief Introduction

This User Manual describes the SC10E Series Serial Device Server. Before you use our device for the first time, please read all the included materials carefully, and install and operate this series of products in keeping with items listed in the manual, so as to avoid damaging the device resulting from malpractice.

Thank you for choosing our products.

Environmental Protection

This product complies with the design requirements associated with environmental protection. The storage, use and disposal of the product should be conducted in accordance with related national laws and regulations.

We welcome you to put forward advice and suggestion to our work, which shall be viewed as the ultimate support to us.

Chapter 1 : Product Introduction

The following topics are covered in this chapter:

- Product Description
- Product Feature
- Physical Description
- Technical Specification

1.1 Product Description

The SC10E series Serial Device Server can be used to connect any serial device to an Ethernet network, and support various operating modes. In particular, the SC10E series Serial Device Server supports TCP Server, TCP Client, UDP and Virtual COM modes for security critical applications, such as Banking, Telecom, Access control, and Remote site management.

The SC10E series Serial Device Servers is based on FPGA, allowing the configuration of non-standard Baud rate, e.g. a 500 Kbps Baud rate may be required for some specific applications.

1.2 Product Feature

- Easy configuration for customized Baud rate.
- Data access modes including TCP Server, TCP Client, UDP, Virtual COM.
- Versatile socket operating modes including TCP Server, TCP Client, UDP, and Virtual COM driver.
- Support Subnet and Redundant Patterns.
- Support web-based configuration, Telnet and Console CLI.
- Support intelligent management of other equipments via two relay control interfaces with DC 24V/2A.
- LCD enables you to manage and check information immediately. Details of LCD & Keypad & 15 Character 2 Line LCD with Four buttons keypad for configuration. (Only in 16 Port)

- Built-in 15 KV ESD protection for all Serial ports.
- Redundancy Dual AC/DC power, wide input voltage range.

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SC10E 048G-2A

SC10E 048G-2D

SC10E 032G-2A

SC10E 016G-2A

SC10E 016G-AC DC

1.3 Technical Specification

Ethernet Interface

Number of Ports : 2
Speed : 10/100 / 1000 Mbps, Auto MDI/MDIX
Connector : 8-pin RJ45
Magnetic Isolation : 1.5 KV built in
Ethernet Line Protection : EN 61000-4-5 (Surge) Level 2

Serial Interface

Serial Standards: RS-232, RS-485, RS-422. Depending on models it can be only RS232 too
Number of Ports: SC10E 048G: 48
: SC10E 032G: 32
: SC10E 016G: 16

Serial Communication Parameters

Data Bits : 5, 6, 7, 8
Stop Bits : 1, 2
Parity : None, Even, Odd, Space, and Mark
Baud rate : 300 bps to 115.2 Kbps

Serial Signals

RS232: CTS/TXD/RXD/GND/RTS
RS422: T+/T-/R+/R-/GND
RS485: A+/B-/GND

Software

Network Protocols : TCP, IP, ICMP, UDP, HTTP, ARP, SNMP, DHCP, SMTP, DNS, NTP
Configuration Options : Web, Windows Search Utility, Telnet, LCD Display

Windows Virtual COM Drivers: Windows XP/2003/Vista/2008/7/8 x86/x64
Linux Virtual TTY Drivers : Linux kernel 2.6.x

Operation Modes

Standard : Virtual COM, TCP Server, TCP Client, UDP

Physical Characteristics

Housing : Metal
Weight : SC10E 048G: 3.4kg
: SC10E 032G: 3.34kg
: SC10E 016G: 2.6kg
Dimensions : SC10E 048G: 430 x 200 x 78mm
: SC10E 032G: 430 x 200 x 78mm
: SC10E 016G: 430 x 200 x 44.5mm

Environmental Limits

Operating Temperature : 0 to 50°C (32 to 122°F)
Storage Temperature : -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity : 5 to 95% (non-condensing)
Altitude : Up to 2000 m
Note: Please contact us if you require products guaranteed to function properly at higher altitudes.

Power Requirements

Input Voltage : 110V/220VAC or -48VDC, Redundant
: AC / DC Mix also possible
Power Consumption : <12Watts

Complies with Standards and Certifications

Safety : UL 60950-1, EN 60950-1
EMC : CE
EMI : EN 55022 Class A, FCC Part 15 Subpart B Class A
EMS :
EN 55024
EN 61000-4-2 (ESD) Level 4
EN 61000-4-4 (EFT) Level 3
EN 61000-4-5 (Surge) Level 4
Freefall & Vibration : IEC-68-2-6, IEC-68-2-34, IEC-68-2-32

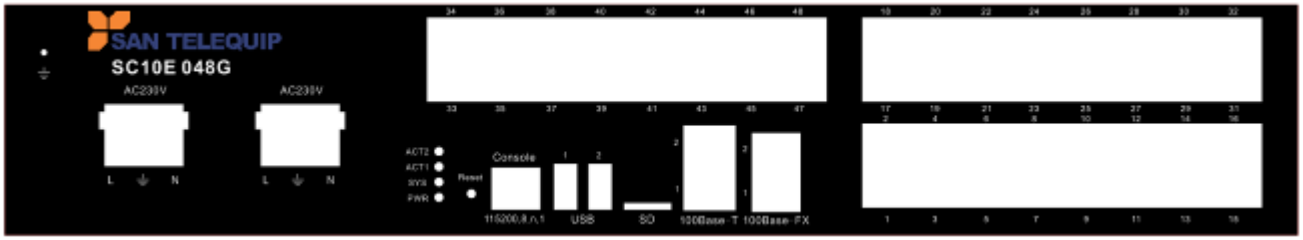
Chapter 2 Getting Started

This chapter covers the hardware installation. Software installation is covered in the next chapter.

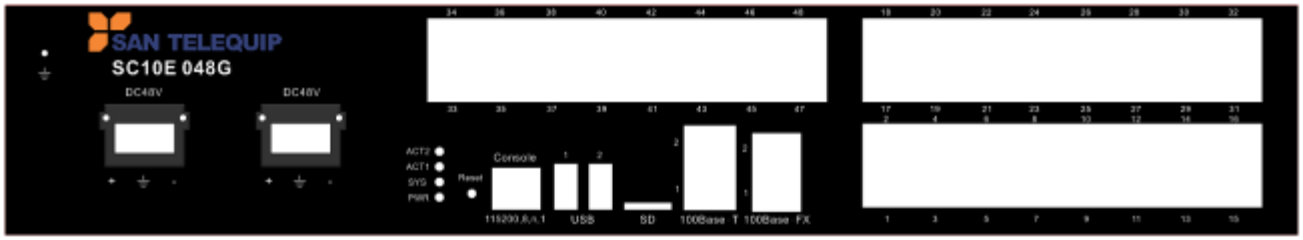
The following topics are covered in this chapter:

- Panel Layout
- Connecting the Hardware
  - Wiring Requirements
  - Connecting to a Serial Device
  - LED Indicators

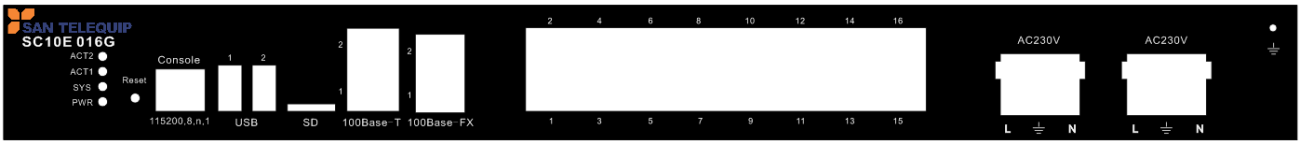
2.1 Panel Layout



SC10E 048G-2A Front Panel View



SC10E 048G-2D Front Panel View



SC10E 016G-2A Front Panel View

2.2 Connecting the Hardware

This section describes how to connect the SC10E to Serial devices for the first time.

2.2.1 Wiring Requirements

Note:

Disconnect the power before installing and wiring

Disconnect the power cord before installing and/or wiring your SC10E.

Do not exceed the maximum current for the wiring

If the current exceeds the maximum rating, the cables could overheat, causing serious damage to your equipment.

2.2.2 Connecting to a Serial Device

Connect the serial data cable between the SC10E and the serial device. Serial data cables are available as optional accessories

2.2.3 LED Indicators

The LED indicators on the panel of the SC10E are described in the following table.

LED Name	LED Color	LED Function
PWR	Green	On- Unit is powered
		Off- Unit is off
SYS	Yellow	Blinking- System is working normally
		Off- System is abnormal
DATA	Green	Blinking- Data receiving and transmitting
		Off- Dis-connected
RJ45	Green	On-1000M
		Off-10/100M
	Orange	Blinking- Data transmitting
		On- Connected
		Off- Disconnected
ACT A	Green	Blinking- Data transmitting
		On- Connected
		Off- Disconnected
ACT B	Green	Blinking- Data transmitting
		On- Connected
		Off- Disconnected

Chapter 3 Software Instructions

In this chapter, we explain how to configure the Virtual Serial port Manager.

The following topics are covered in this chapter:

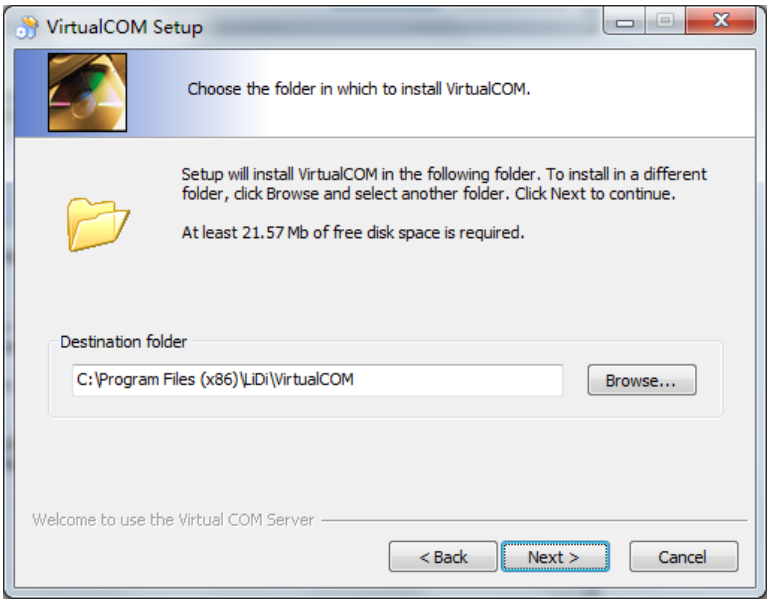
- Virtual Serial port Software Installation
- Virtual Serial port Software Description

3.1 Virtual Serial port Software Installation

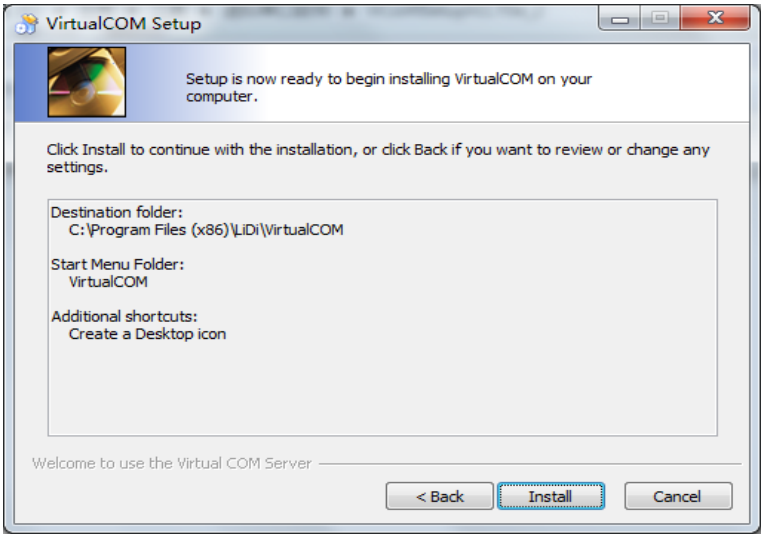
Users should follow these steps to install the application on a computer of the Windows platform.

Step 1 Double-click to run installation program 'VcomSetupV2.72e_no_tools.exe'.

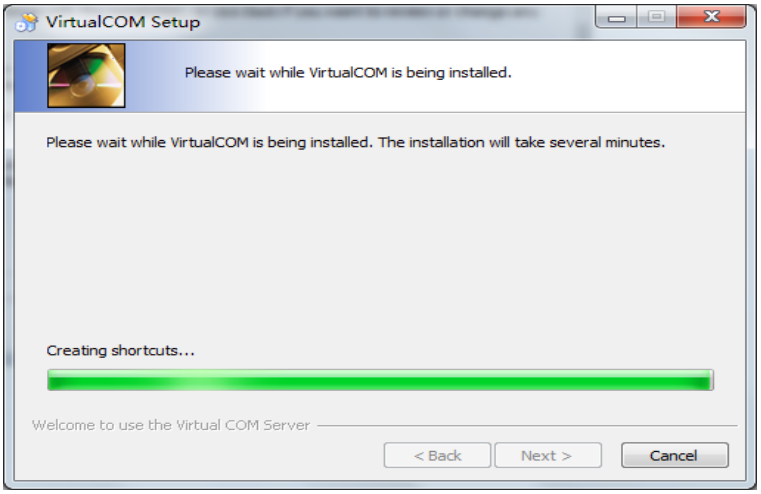
Step 2 Click "Next" in the welcome windows, and display the following screen. Here you can modify the installation folder.



Step 3 Click 'Install' to start the installation process.



The installation will take some time, please be patient!

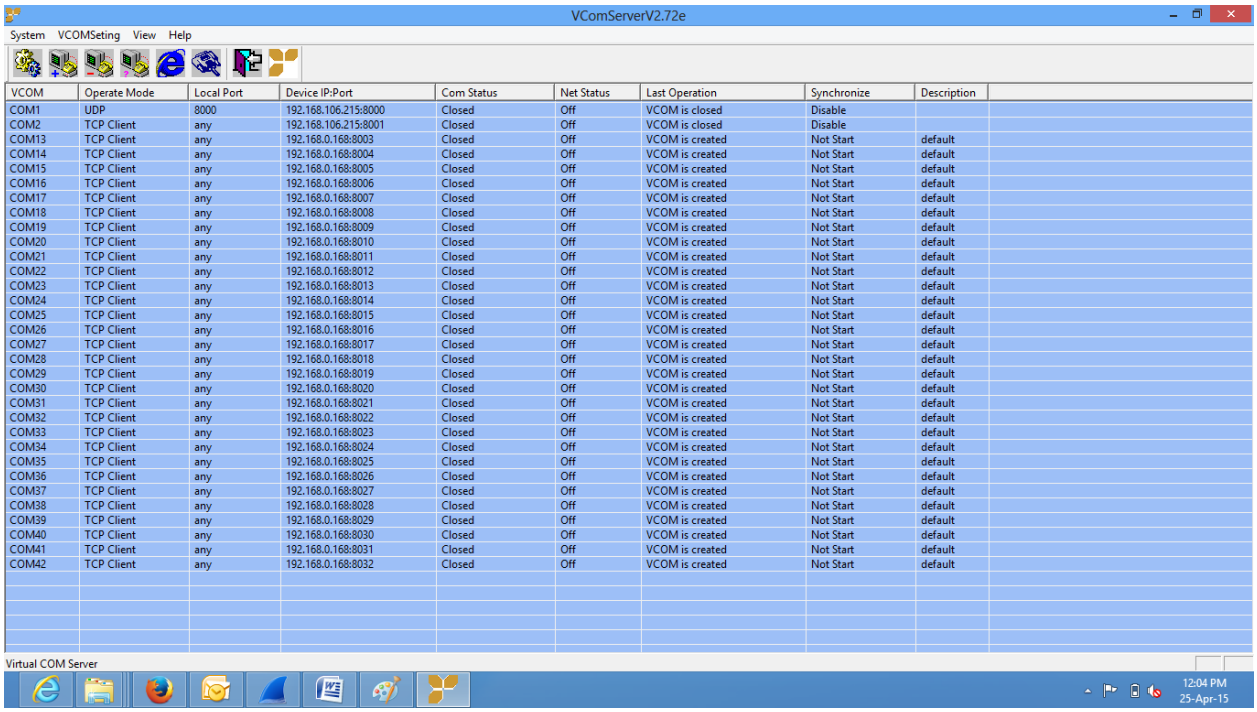


Step 4 Click 'Finish' to complete the installation process.

3.2 Virtual Serial port Software Description

Virtual serial port software is used to simulate the serial port of the field devices on the computer.

Virtual serial port software show ports as follows:



VCOM	Operate Mode	Local Port	Device IP:Port	Com Status	Net Status	Last Operation	Synchronize	Description
COM1	UDP	8000	192.168.106.215:8000	Closed	Off	VCOM is closed	Disable	
COM2	TCP Client	any	192.168.106.215:8001	Closed	Off	VCOM is closed	Disable	
COM13	TCP Client	any	192.168.0.168:8003	Closed	Off	VCOM is created	Not Start	default
COM14	TCP Client	any	192.168.0.168:8004	Closed	Off	VCOM is created	Not Start	default
COM15	TCP Client	any	192.168.0.168:8005	Closed	Off	VCOM is created	Not Start	default
COM16	TCP Client	any	192.168.0.168:8006	Closed	Off	VCOM is created	Not Start	default
COM17	TCP Client	any	192.168.0.168:8007	Closed	Off	VCOM is created	Not Start	default
COM18	TCP Client	any	192.168.0.168:8008	Closed	Off	VCOM is created	Not Start	default
COM19	TCP Client	any	192.168.0.168:8009	Closed	Off	VCOM is created	Not Start	default
COM20	TCP Client	any	192.168.0.168:8010	Closed	Off	VCOM is created	Not Start	default
COM21	TCP Client	any	192.168.0.168:8011	Closed	Off	VCOM is created	Not Start	default
COM22	TCP Client	any	192.168.0.168:8012	Closed	Off	VCOM is created	Not Start	default
COM23	TCP Client	any	192.168.0.168:8013	Closed	Off	VCOM is created	Not Start	default
COM24	TCP Client	any	192.168.0.168:8014	Closed	Off	VCOM is created	Not Start	default
COM25	TCP Client	any	192.168.0.168:8015	Closed	Off	VCOM is created	Not Start	default
COM26	TCP Client	any	192.168.0.168:8016	Closed	Off	VCOM is created	Not Start	default
COM27	TCP Client	any	192.168.0.168:8017	Closed	Off	VCOM is created	Not Start	default
COM28	TCP Client	any	192.168.0.168:8018	Closed	Off	VCOM is created	Not Start	default
COM29	TCP Client	any	192.168.0.168:8019	Closed	Off	VCOM is created	Not Start	default
COM30	TCP Client	any	192.168.0.168:8020	Closed	Off	VCOM is created	Not Start	default
COM31	TCP Client	any	192.168.0.168:8021	Closed	Off	VCOM is created	Not Start	default
COM32	TCP Client	any	192.168.0.168:8022	Closed	Off	VCOM is created	Not Start	default
COM33	TCP Client	any	192.168.0.168:8023	Closed	Off	VCOM is created	Not Start	default
COM34	TCP Client	any	192.168.0.168:8024	Closed	Off	VCOM is created	Not Start	default
COM35	TCP Client	any	192.168.0.168:8025	Closed	Off	VCOM is created	Not Start	default
COM36	TCP Client	any	192.168.0.168:8026	Closed	Off	VCOM is created	Not Start	default
COM37	TCP Client	any	192.168.0.168:8027	Closed	Off	VCOM is created	Not Start	default
COM38	TCP Client	any	192.168.0.168:8028	Closed	Off	VCOM is created	Not Start	default
COM39	TCP Client	any	192.168.0.168:8029	Closed	Off	VCOM is created	Not Start	default
COM40	TCP Client	any	192.168.0.168:8030	Closed	Off	VCOM is created	Not Start	default
COM41	TCP Client	any	192.168.0.168:8031	Closed	Off	VCOM is created	Not Start	default
COM42	TCP Client	any	192.168.0.168:8032	Closed	Off	VCOM is created	Not Start	default

Virtual Serial port Management

Add virtual serial port:

Click the icon to add serial ports, there will pop-up a dialog box. According to the mapping mode selected, it will show corresponding dialog box as follows:

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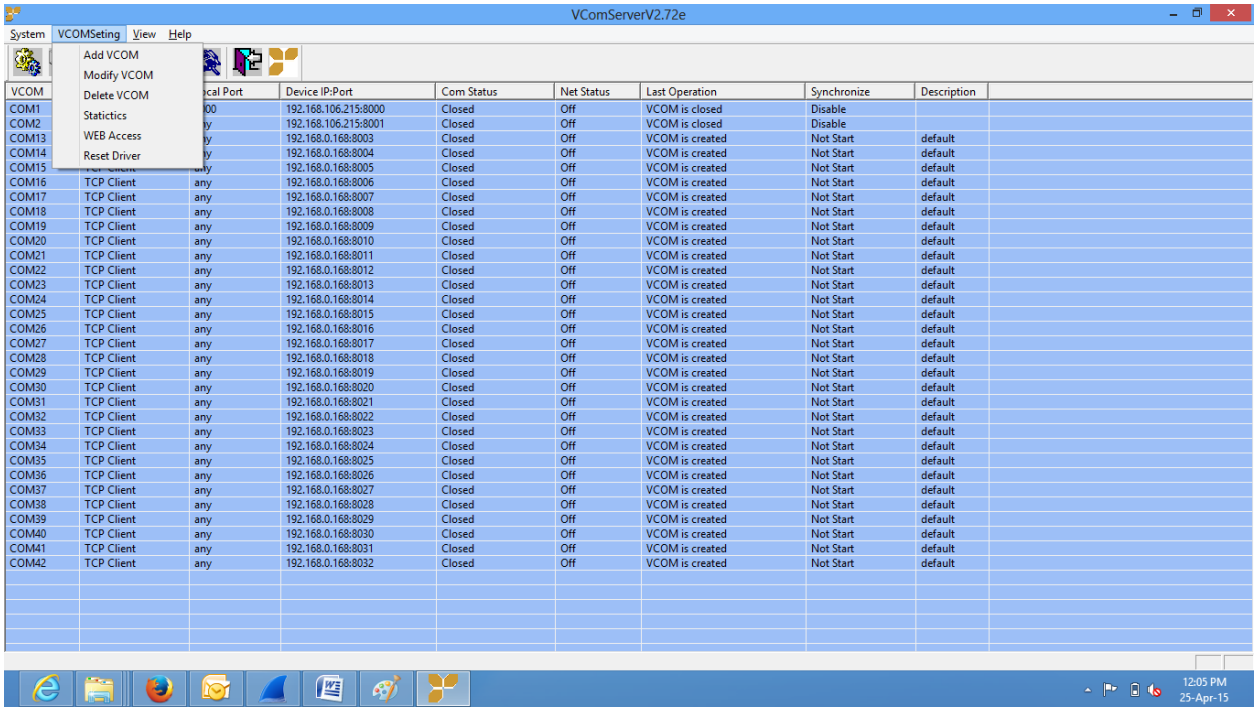

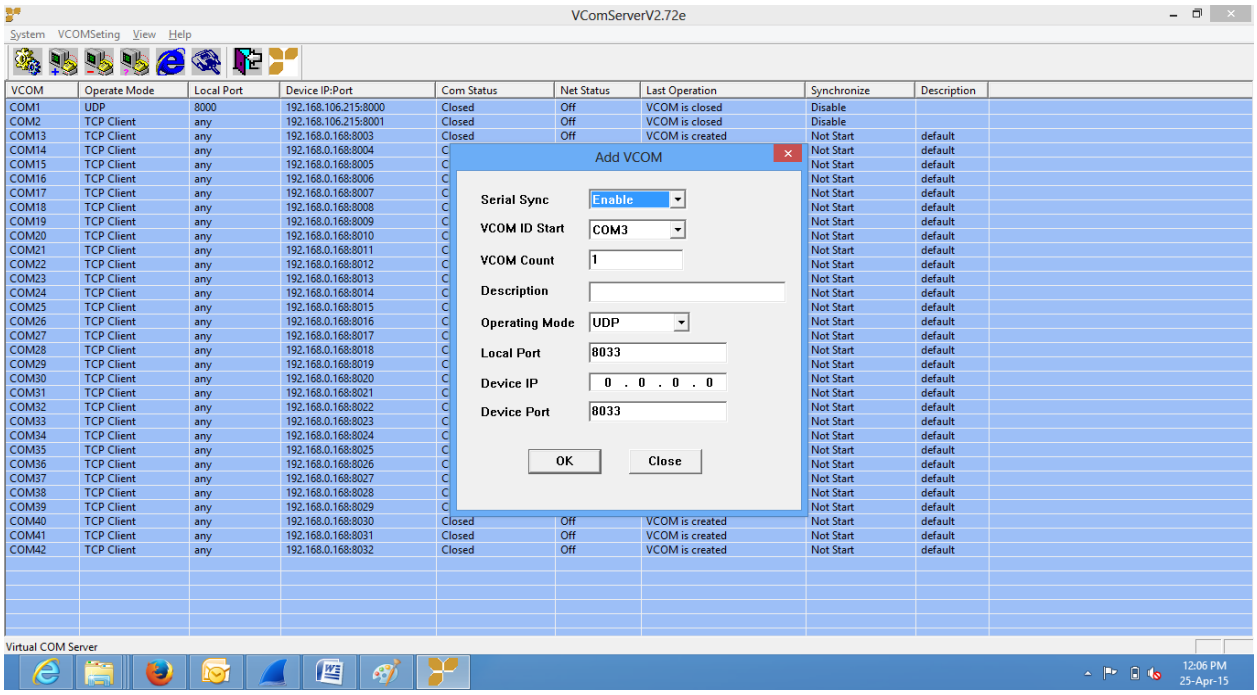

Parameter Description

Serial Sync : This device does not support synchronization

VCom ID Start : Select starting virtual serial port, COM2~COM512.

VCom Count : This device supports up to 32.

Description : Any Remarks / Information.

Deleting a virtual serial port:

Select the corresponding virtual serial port, click the VCOM Setting then Delete VCOM to

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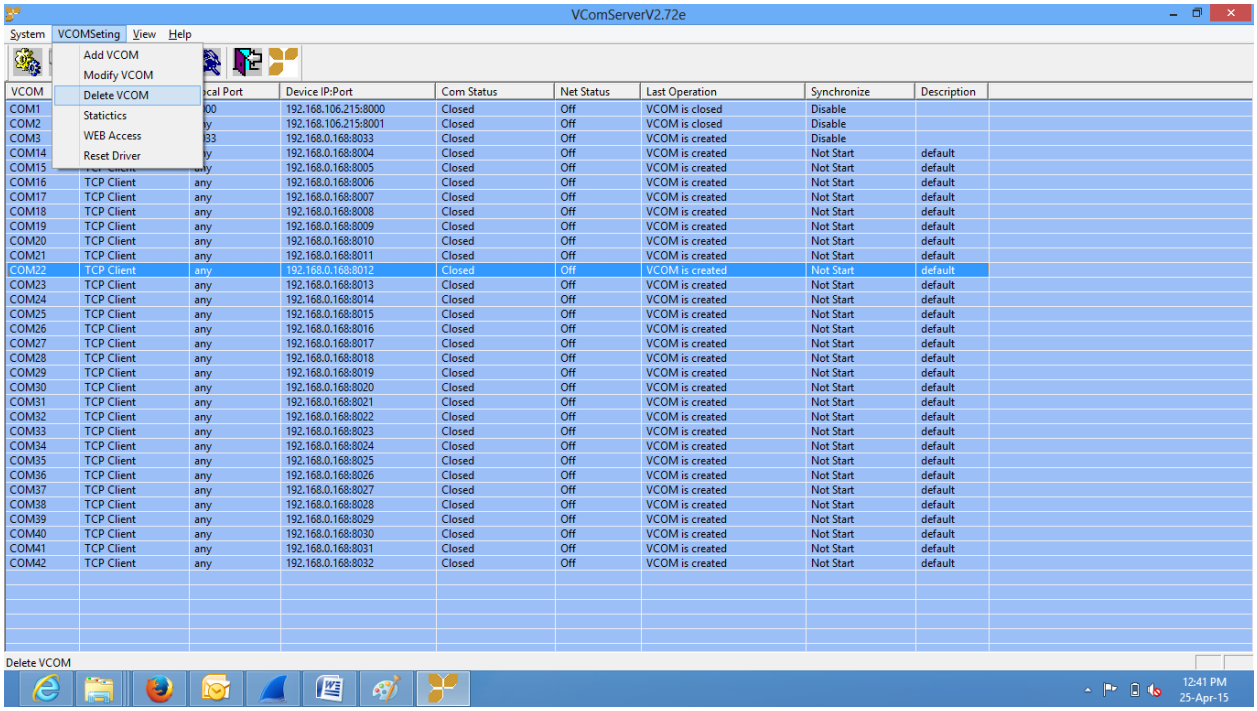
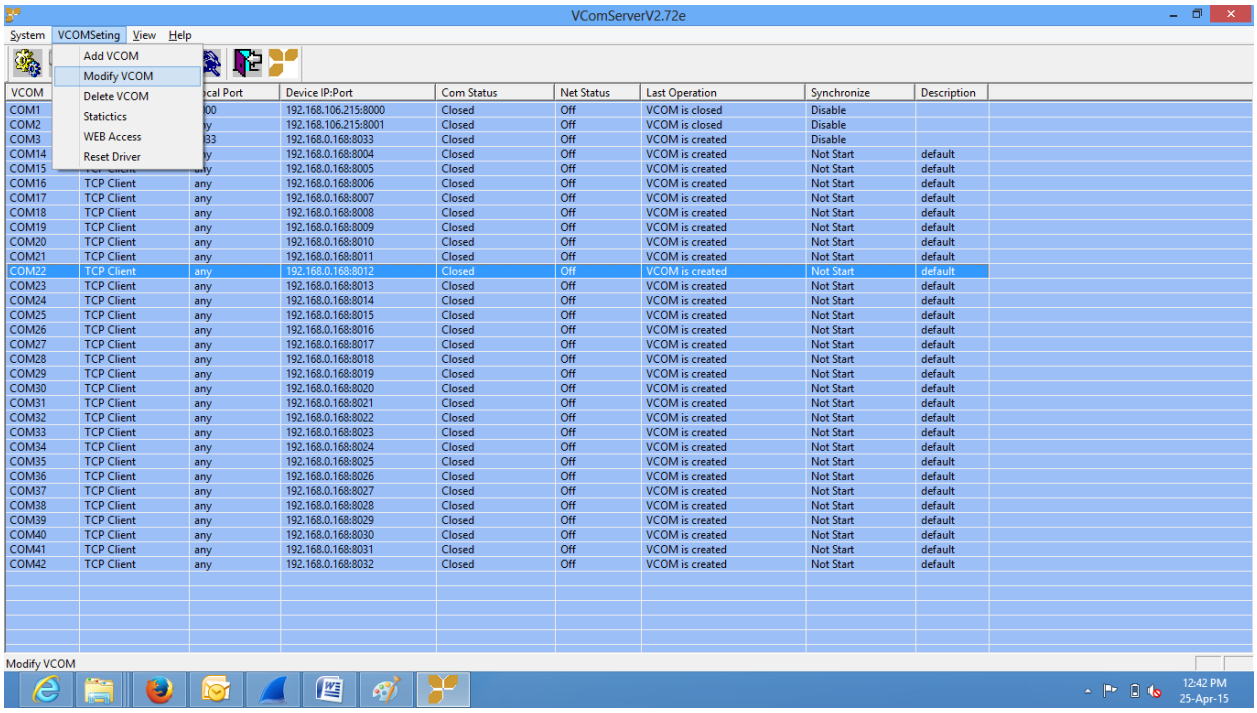
delete



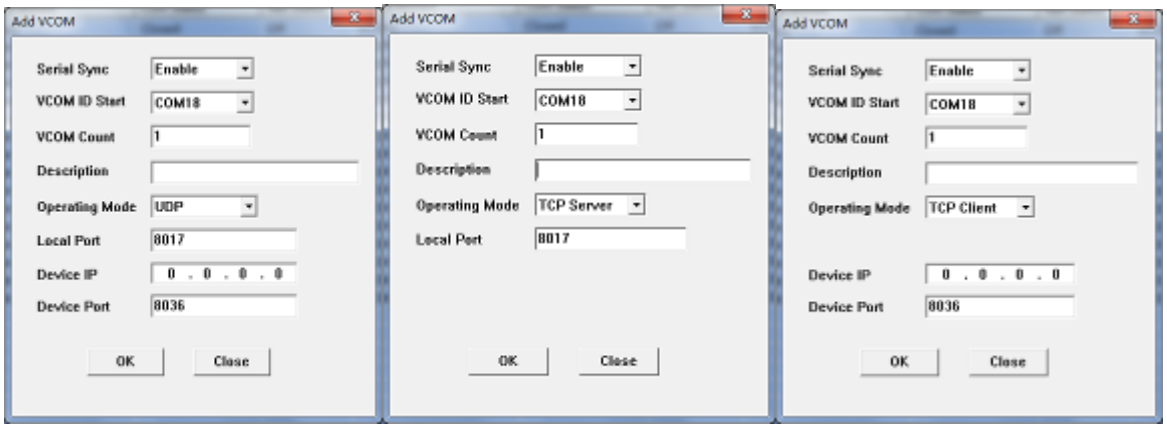
Modify the virtual serial port

Select the corresponding virtual serial port, click the VCOM Setting then Modify VCOM then to edit



According to Different Operating Mode, tick the Pop-up dialog boxes as shown below.

Operating mode: Select UDP, TCP client and TCP server



Operating Mode **:** Select UDP, TCP client and TCP server.

UDP mode:

The Local Port : Set the computer local port.

Device Address : Set the IP address corresponding to the remote serial device server.

Device Port : Set the port corresponding to the remote serial server.

TCP client mode:

Device Address : Set the IP address corresponding to the remote serial device server.

Device Port : Set the port corresponding to the remote serial server.

TCP Server mode:

The Local Port : Set the computer local port.

The following table lists the relevant parameters (also apply to socket communication mode):

Computer virtual serial port config (Assuming the computer's IP address: IP A, Port: Port A)	**Device Config (Assuming the computer's IP address: IP B, Port: Port B)**
Mapping Mode : TCP server The Local Port : Port A	Working Mode : TCP Client Listening Port : NA Server IP : IP A Server Port : Port A
Mapping Mode : TCP Client Device Address : IP B Device Port : Port B	Working Mode : TCP server Listening Port : Port B Server IP : NA Server Port : NA
Mapping Mode : UDP The Local Port : Port A Device Address : IP B Device Port : Port B	Working Mode : UDP Listening Port : Port B Server IP : IP A Server Port : Port A

Note：Make sure that all the firewalls including windows firewall should be closed during VirtualCOM software installation.

3.3 WEB Network Management Profile

3.3.1 Using Your Web Browser

Open your browser, enter the device IP, and then enter the user name and password as the following steps.

Default IP

IP address1:192.168.0.100

IP address2:192.168.1.100

User name and password:

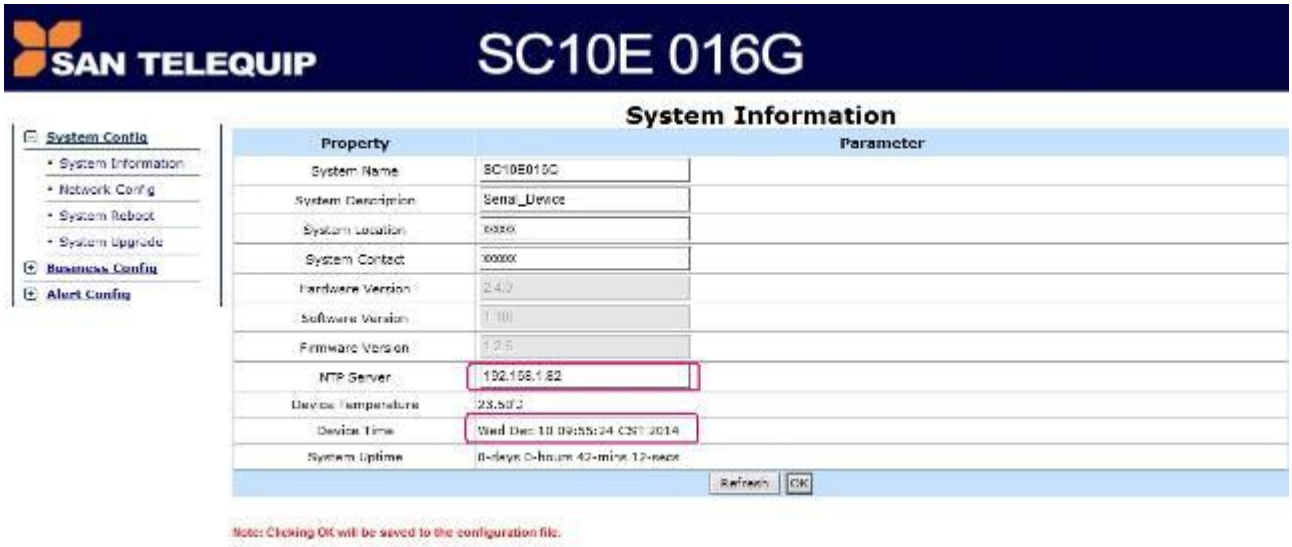
The default user and password are both "admin".

3.3.2 WEB Function Setting Description

System Config

System Info

This page is to set the System Name, System Description, System Location, Contact Information, Hardware Version, NTP Server and so on. Once configure the NTP Server IP and press “OK”, the device time will synchronize with the NTP Server.



NTP SERVER:

NTP can usually maintain time to within tens of milliseconds over the public Internet, and can achieve better than one millisecond accuracy in local area networks under ideal conditions. Asymmetric routes and network congestion can cause errors of 100 ms or more.

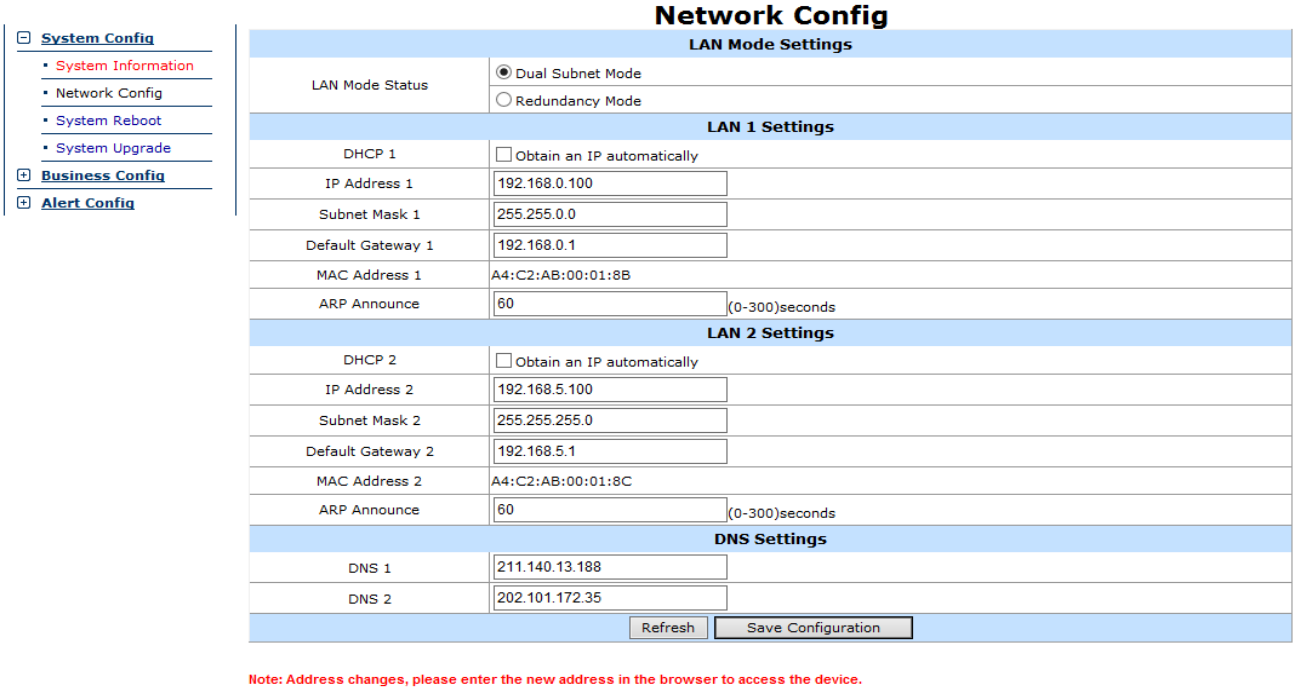
SYSTEM LOCATION & SYSTEM CONTACT: It is used for System Identification
Note: The Settings will be saved to the configuration file.

Network Config

This page is to set the Device IP, Subnet Mask, Gateway & MAC Addresses, DHCP, LAN Mode (Dual Subnet Mode or Redundancy Mode).

This device has 2 LAN ports. In Dual Subnet mask you can assign different IP addresses to the ports & both the ports can work in the Switch mode. In the Redundancy mode, same IP's can be assigned to both ports & if any port fails, we switch over to the other working port.

Dual Subnet Mode:

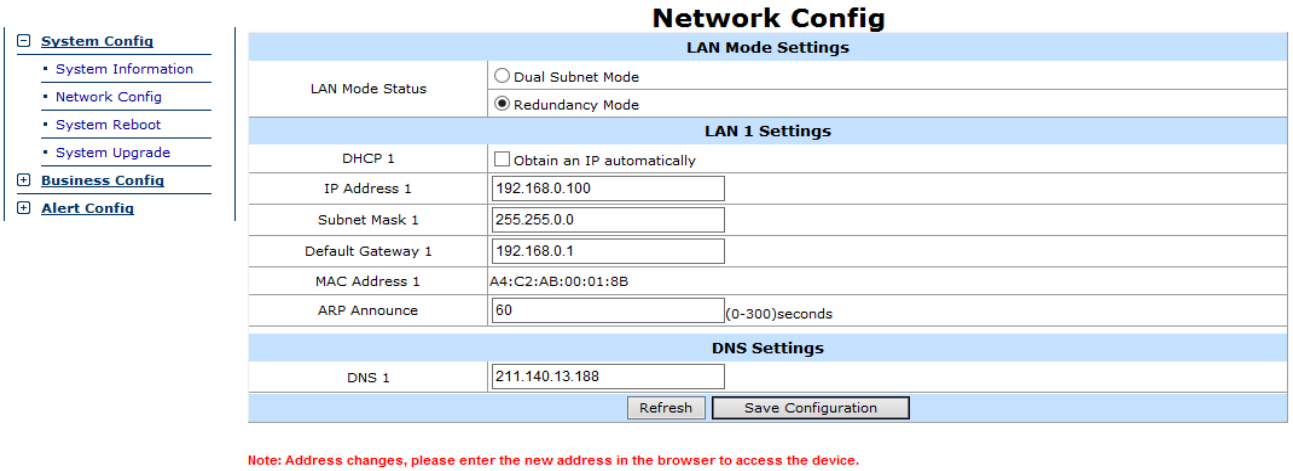


DNS 1, DNS 2: DNS SERVER:

The Domain Name System is the Internet's primary directory service.

Note: DNS Server IP will be provided by your Network Admin. Enter the new IP address

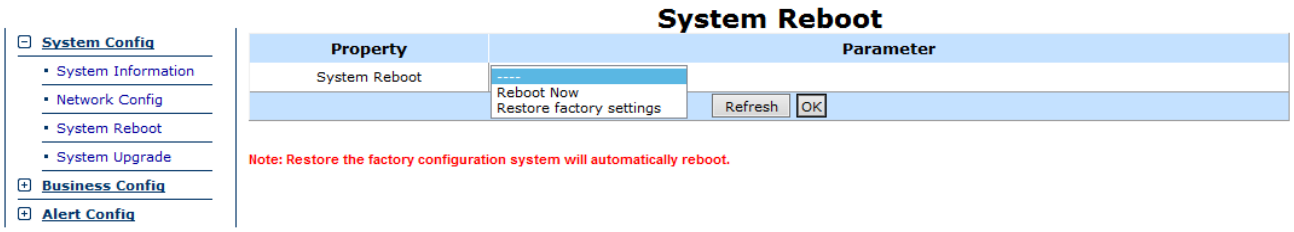
Redundancy Mode



Note: Once the IP address changes, please enter the new address in your browser.

System reboot

Reboot the device or restore factory settings.



Prompt: if restore factory settings, system will reboot automatically.

System Upgrade

This page can upgrade software, firmware, and configuration.

Upgrade Tips:

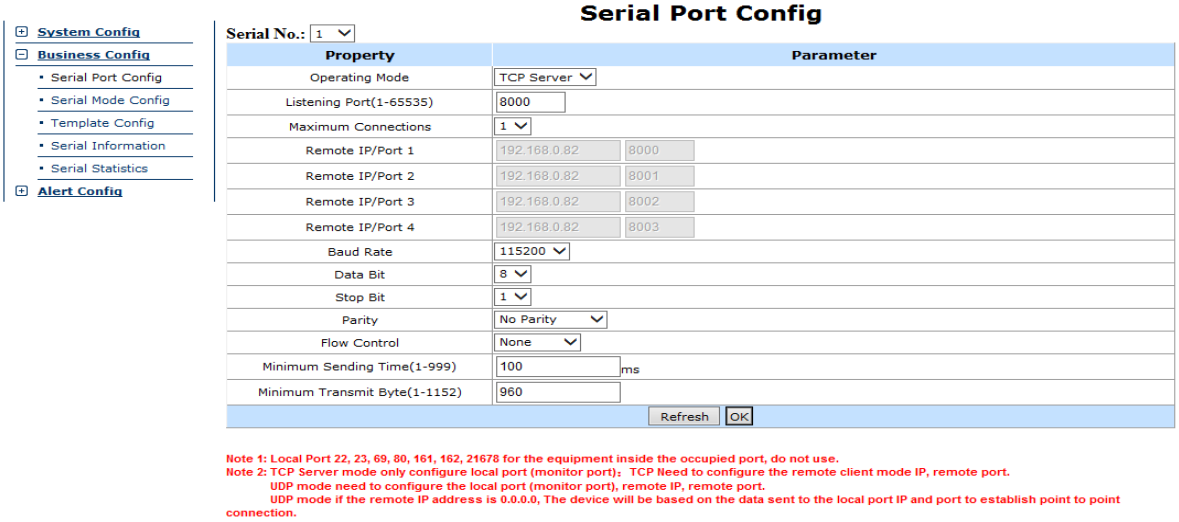
Step 1 : Upload the upgrade file.

Step 2 : Choose upgrade software, firmware or configuration file to upgrade.

Step 3 : Do a Manual Reboot.

Serial port Co nfig

This page is to set single serial port parameters, select the Serial No and then enter the details.



Serial Mode Config

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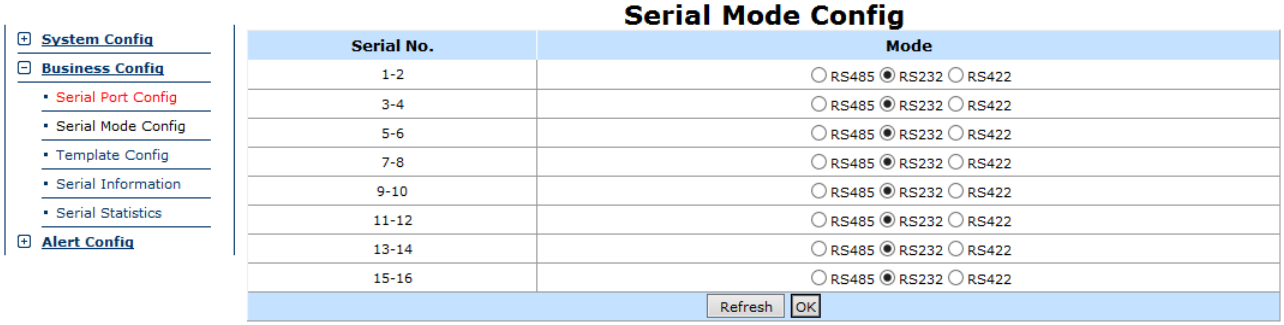
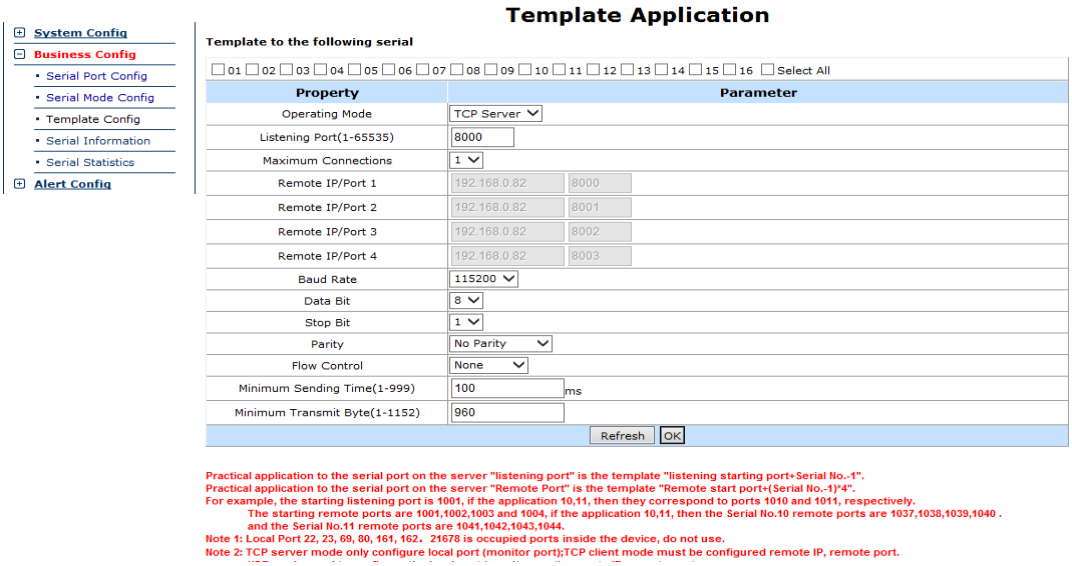
This page is to set serial mode. Three modes to select: RS232, RS422, RS485. At the moment, this device is only usable for RS232



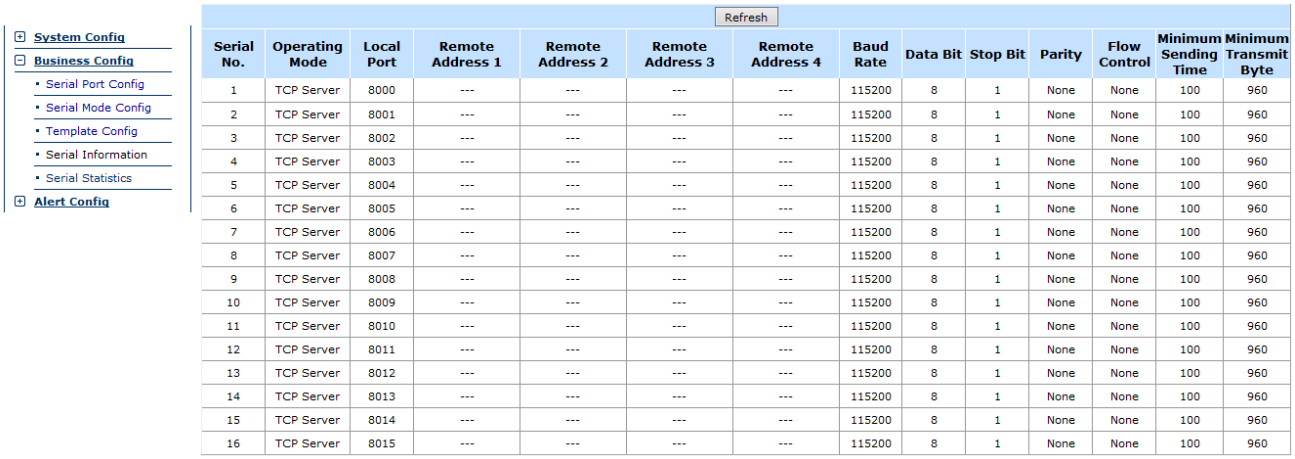
Template Config : This page is to set a batch of serial port parameters



Practical application to the serial port on the server "listening port" is the template "listening starting port+Serial No.-1".
Practical application to the serial port on the server "Remote Port" is the template "Remote start port+(Serial No.-1)*4".
For example, the starting listening port is 1001, if the application 10,11, then they correspond to ports 1010 and 1011, respectively.
The starting remote ports are 1001,1002,1003 and 1004, if the application 10,11, then the Serial No.10 remote ports are 1037,1038,1039,1040 .
and the Serial No.11 remote ports are 1041,1042,1043,1044.
Note 1: Local Port 22, 23, 69, 80, 161, 162, 21678 is occupied ports inside the device, do not use.
Note 2: TCP server mode only configure local port (monitor port);TCP client mode must be configured remote IP, remote port.

Serial Information

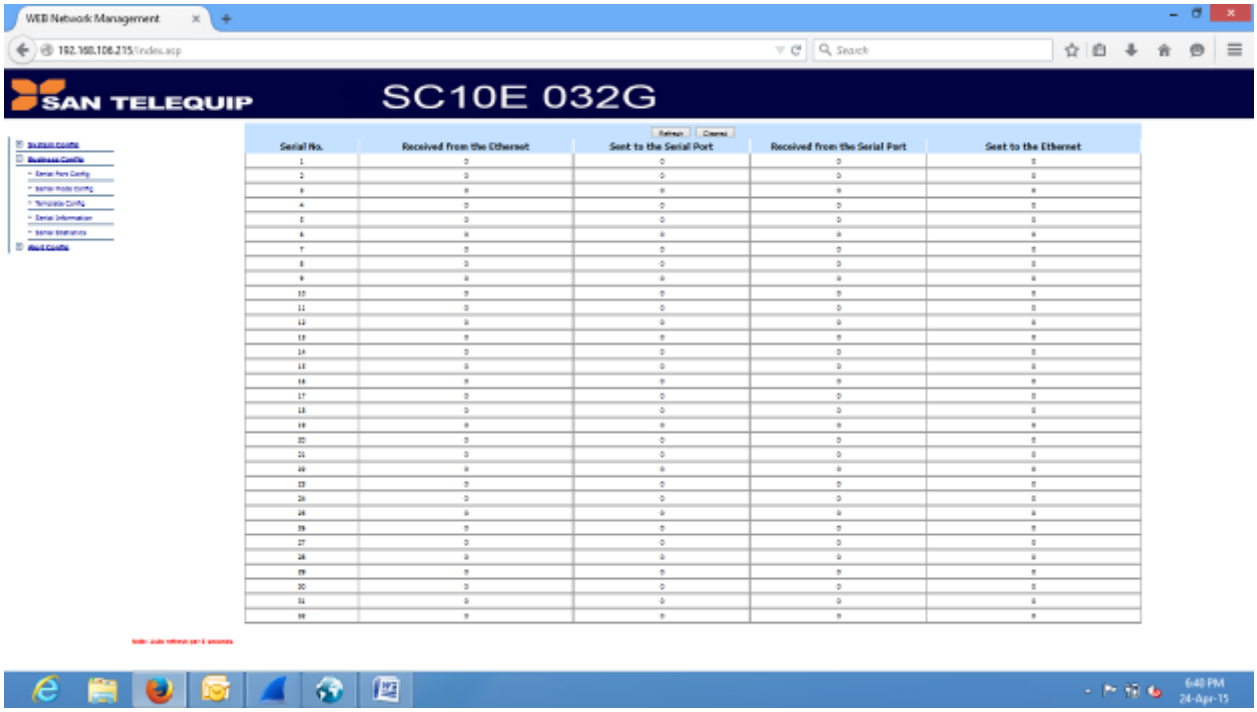
Display the current status information of all the serial ports.



Serial No.	Operating Mode	Local Port	Remote Address 1	Remote Address 2	Remote Address 3	Remote Address 4	Baud Rate	Data Bit	Stop Bit	Parity	Flow Control	Minimum Sending Time	Minimum Transmit Byte
1	TCP Server	8000	---	---	---	---	115200	8	1	None	None	100	960
2	TCP Server	8001	---	---	---	---	115200	8	1	None	None	100	960
3	TCP Server	8002	---	---	---	---	115200	8	1	None	None	100	960
4	TCP Server	8003	---	---	---	---	115200	8	1	None	None	100	960
5	TCP Server	8004	---	---	---	---	115200	8	1	None	None	100	960
6	TCP Server	8005	---	---	---	---	115200	8	1	None	None	100	960
7	TCP Server	8006	---	---	---	---	115200	8	1	None	None	100	960
8	TCP Server	8007	---	---	---	---	115200	8	1	None	None	100	960
9	TCP Server	8008	---	---	---	---	115200	8	1	None	None	100	960
10	TCP Server	8009	---	---	---	---	115200	8	1	None	None	100	960
11	TCP Server	8010	---	---	---	---	115200	8	1	None	None	100	960
12	TCP Server	8011	---	---	---	---	115200	8	1	None	None	100	960
13	TCP Server	8012	---	---	---	---	115200	8	1	None	None	100	960
14	TCP Server	8013	---	---	---	---	115200	8	1	None	None	100	960
15	TCP Server	8014	---	---	---	---	115200	8	1	None	None	100	960
16	TCP Server	8015	---	---	---	---	115200	8	1	None	None	100	960

Serial Statistics

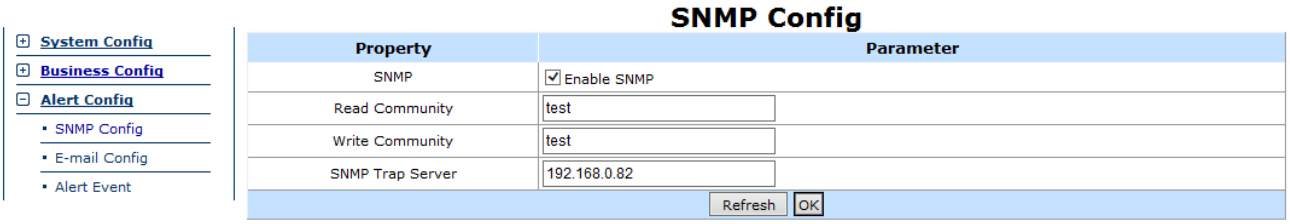
Check the detailed communication performance of each serial port.



Note: The statistics data refresh per 5 seconds.

SNMP Config

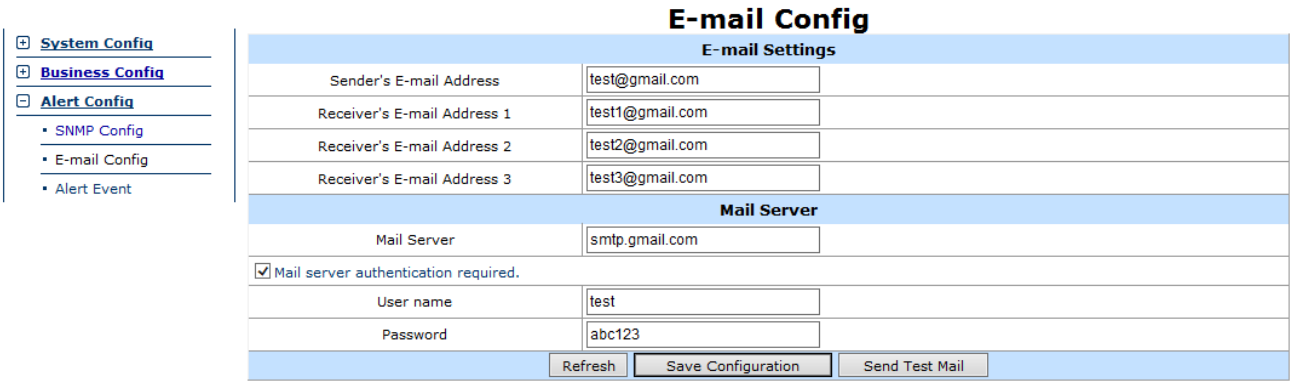
This page is to enable or disable SNMP.



Enter your PC's IP address as SNMP Trap Server

E-mail Config

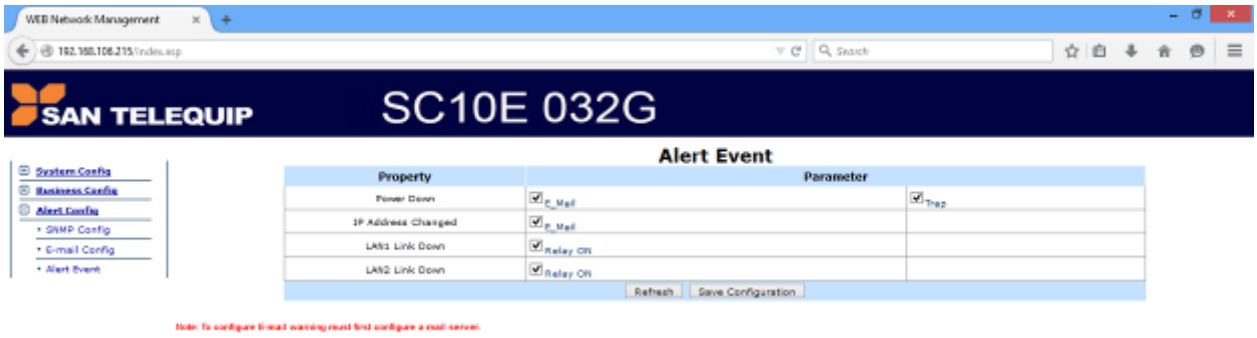
This page is to set Sender's E-mail Address, Receiver's E-mail Address, Mail Server.



After entering valid Senders & Receivers email addressees, Check with your Network Admin for the details about the Mail Server address & the User name & password of the Senders id. Ensure that these information is properly checked for before entering here because a valid Email Server & a valid email account is necessary for this feature

Alert Event

You can receive Alerts for Power Down, IP Address Changed, LAN1 Link Down, LAN 2 Link Down.



Note: Before configure the E-mail Alert function, you must set a mail server.

SNMP Setting:

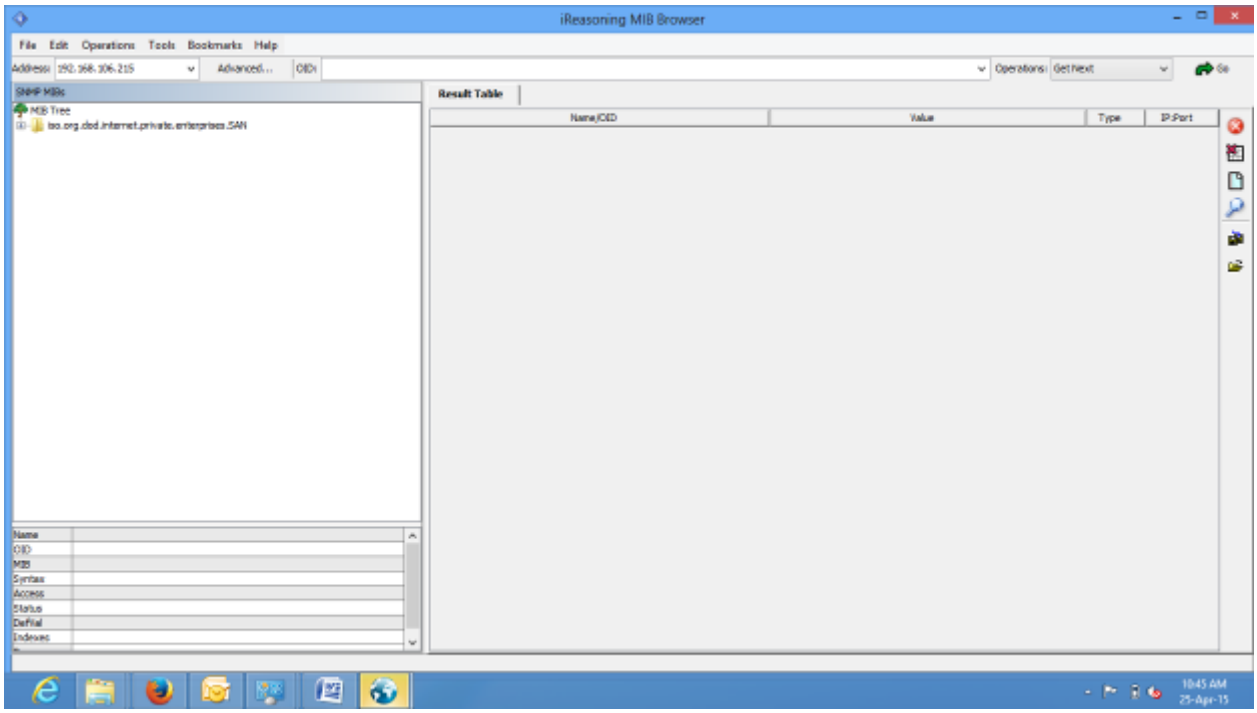
- Follow the Procedure to get SNMP Traps
- Do the SNMP Setting as the given above
- Select the check box in the Alert Config for Trap (Trap is generated only for 2 Power Input failures)
- Confirm that the SNMP Service as set in your Computer uses the correct User Datagram Protocol (UDP) ports. The SNMP service uses the default UDP port 161 for general SNMP messages
- The SNMP Service uses the default UDP port 162 for SNMP trap messages. The SNMP service sends SNMP trap packets to the SNMP trap host or manager by using UDP port 162

- If these ports are being used by another Service, you can change the settings by modifying the local services file on the Computer.

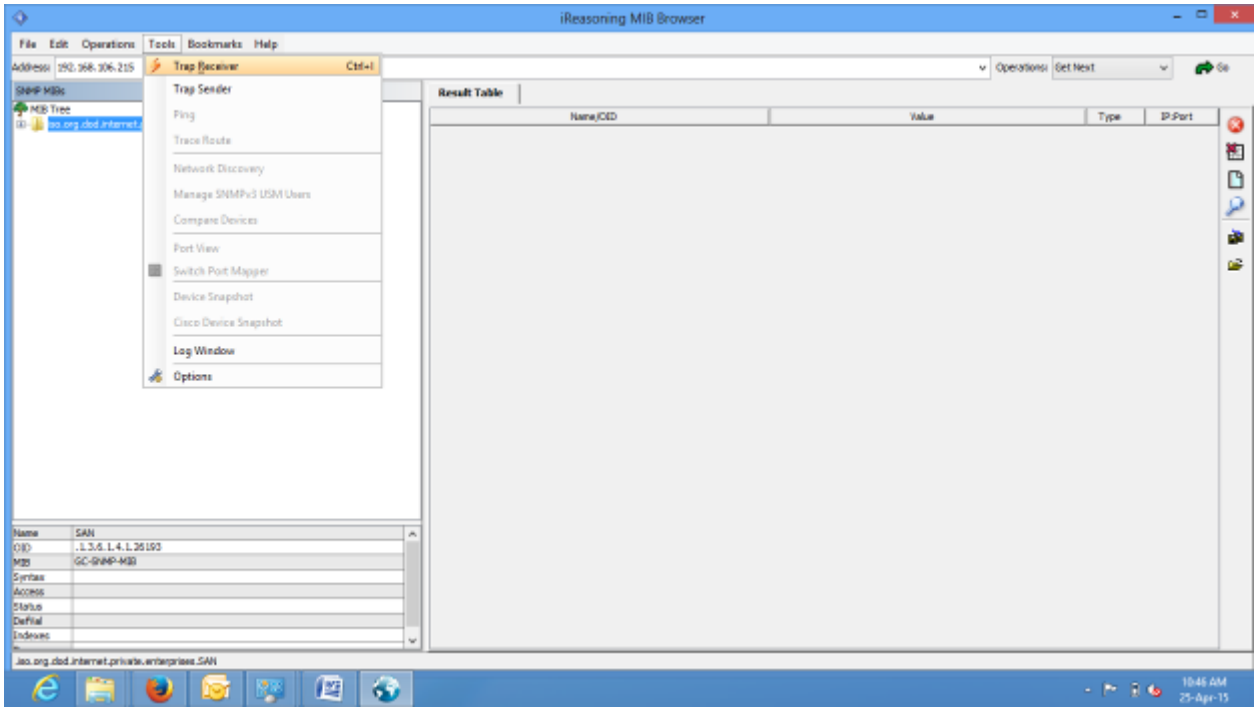
Note: To Run the SNMP Service on your System please, contact your System Admin

Once SNMP Setting gets completed then follow the procedure

- Install a MIB Browser
- Open MIB Browser
- Enter the IP Address of the Terminal Server in Address Window of MIB Browser

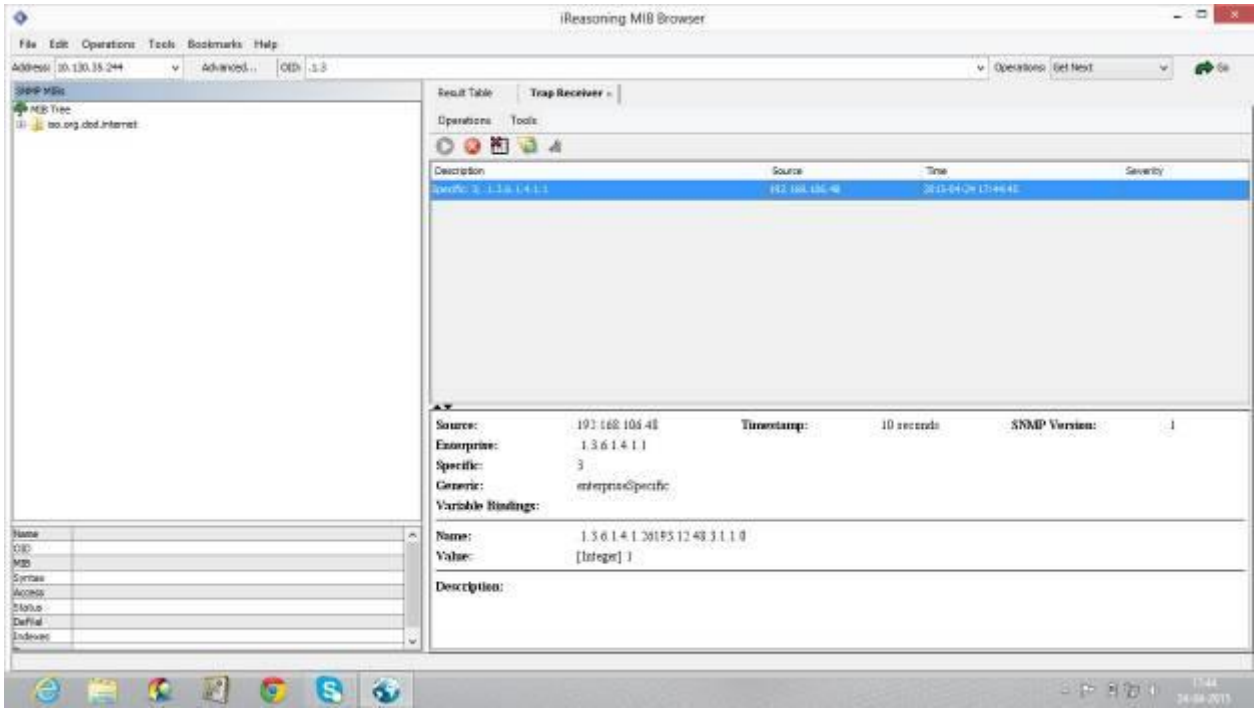


Click on Tools then Select Trap Receiver to receive the Trap



To receive the trap you have to switch off the Power 1 or Power 2 (At least One Power should be ON)
Following figure shows the Traps for Power 1 Down

Power 1 Down

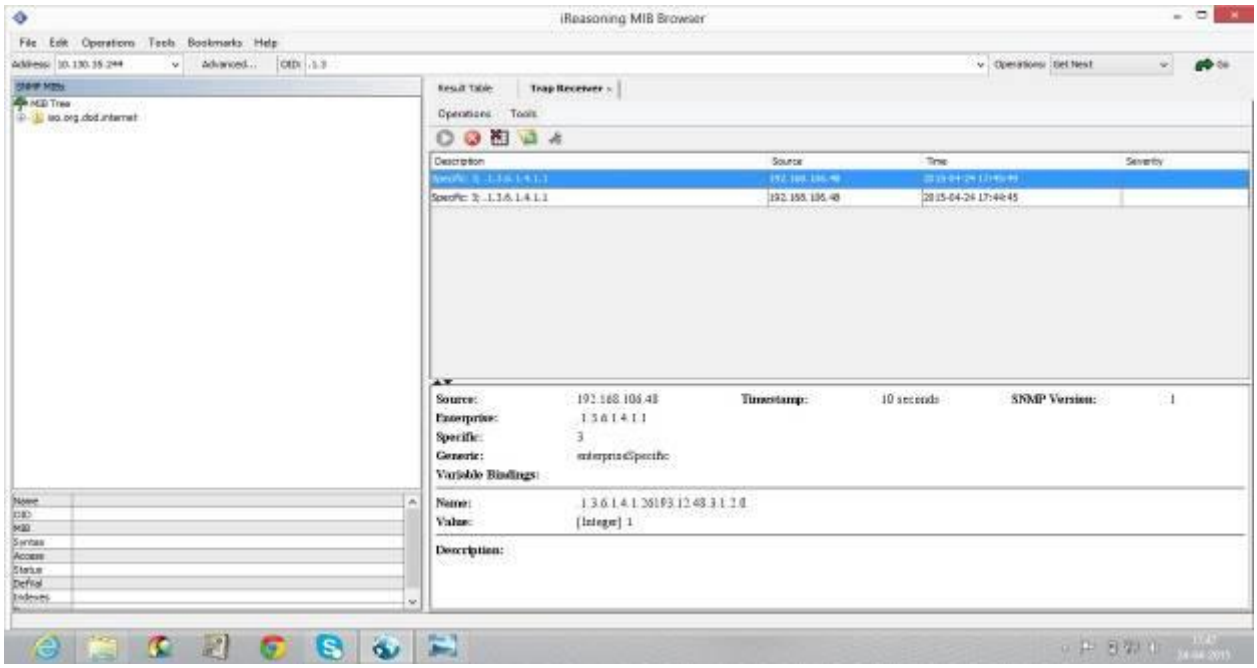


Following figure Shows the Traps for Power 2 Down

San Telequip Private Limited.
504 & 505 Deron Heights, Baner Road
Pune 411045, India
Phone : +91-20-27273455, 9764027070, 8390069393
email : info@santelequip.com

Connecting. Converting. Leading !

Power 2 Down



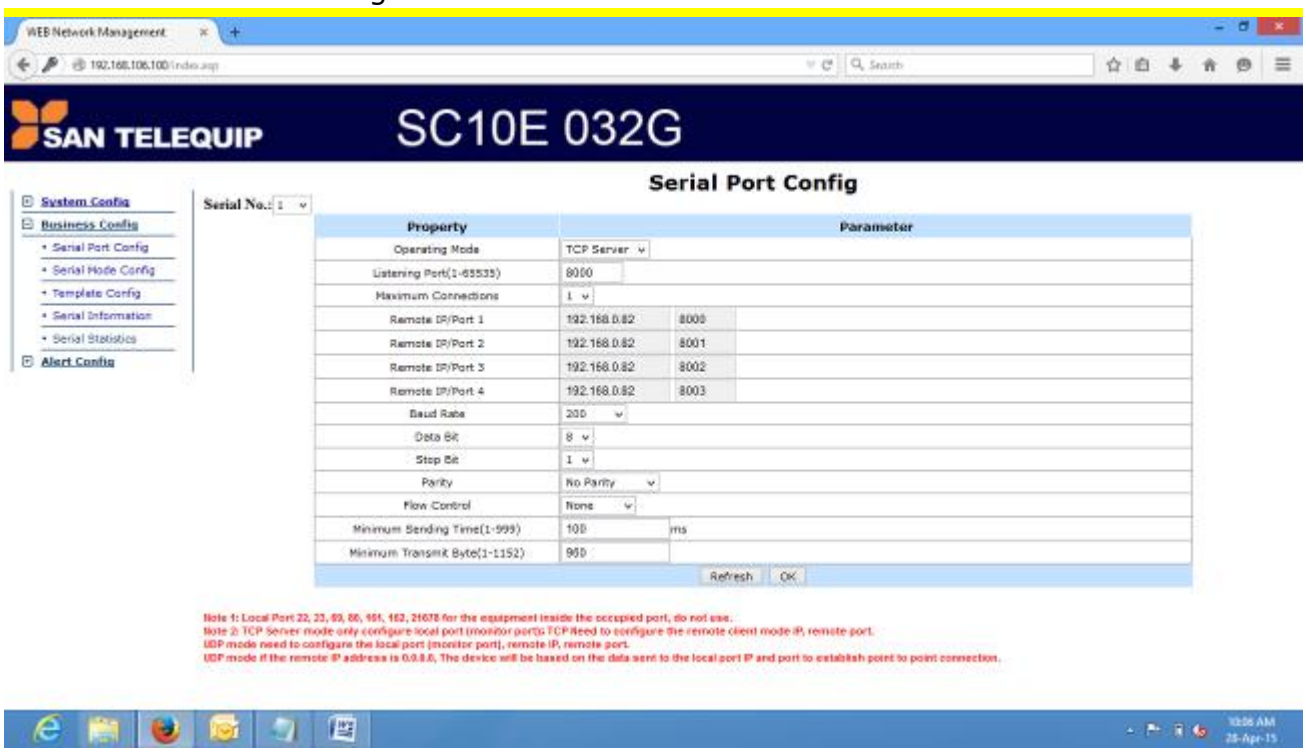
Serial Communication RS 232 for baud rate 110

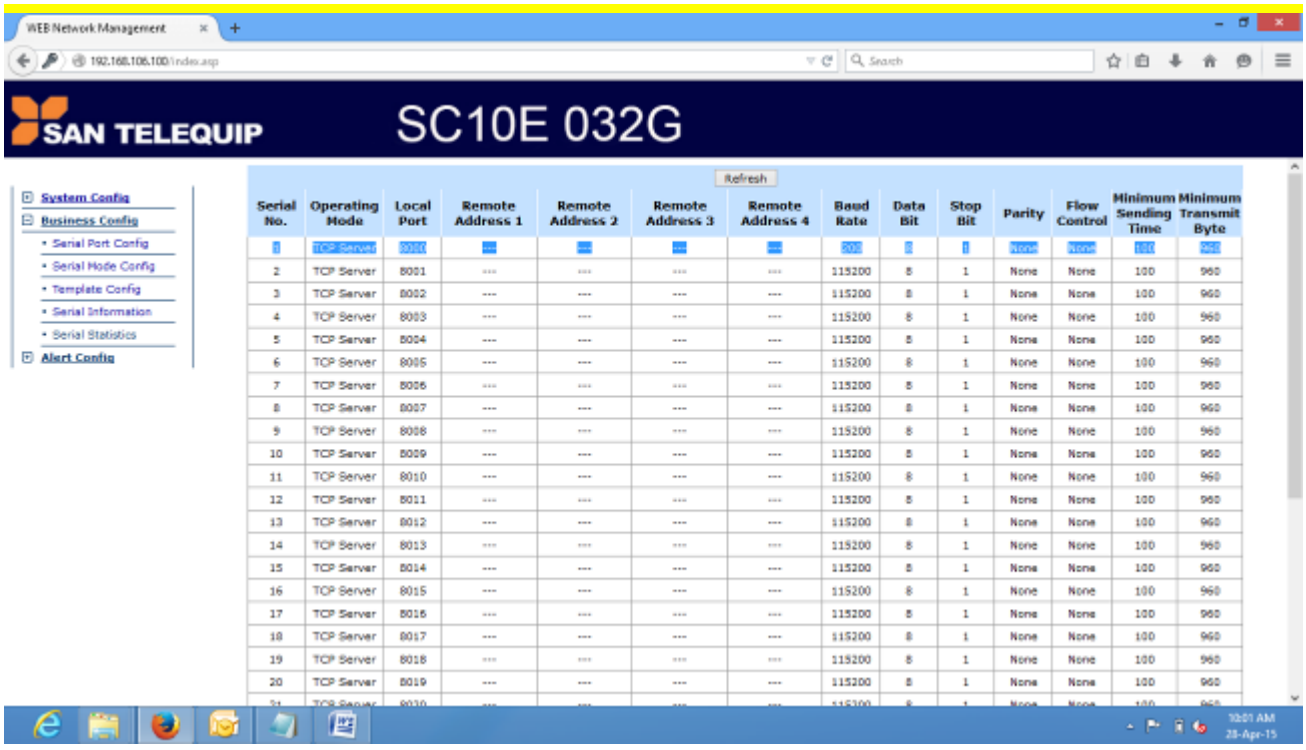
San Telequip Private Limited.
504 & 505 Deron Heights, Baner Road
Pune 411045, India
Phone : +91-20-27273455, 9764027070, 8390069393
email : info@santelequip.com

Connecting. Converting. Leading !

Do the setting as per below

Click on Serial Port Config Set the Baud rate as 200 in GUI





Check the VCOM Setting For Baud Rate110

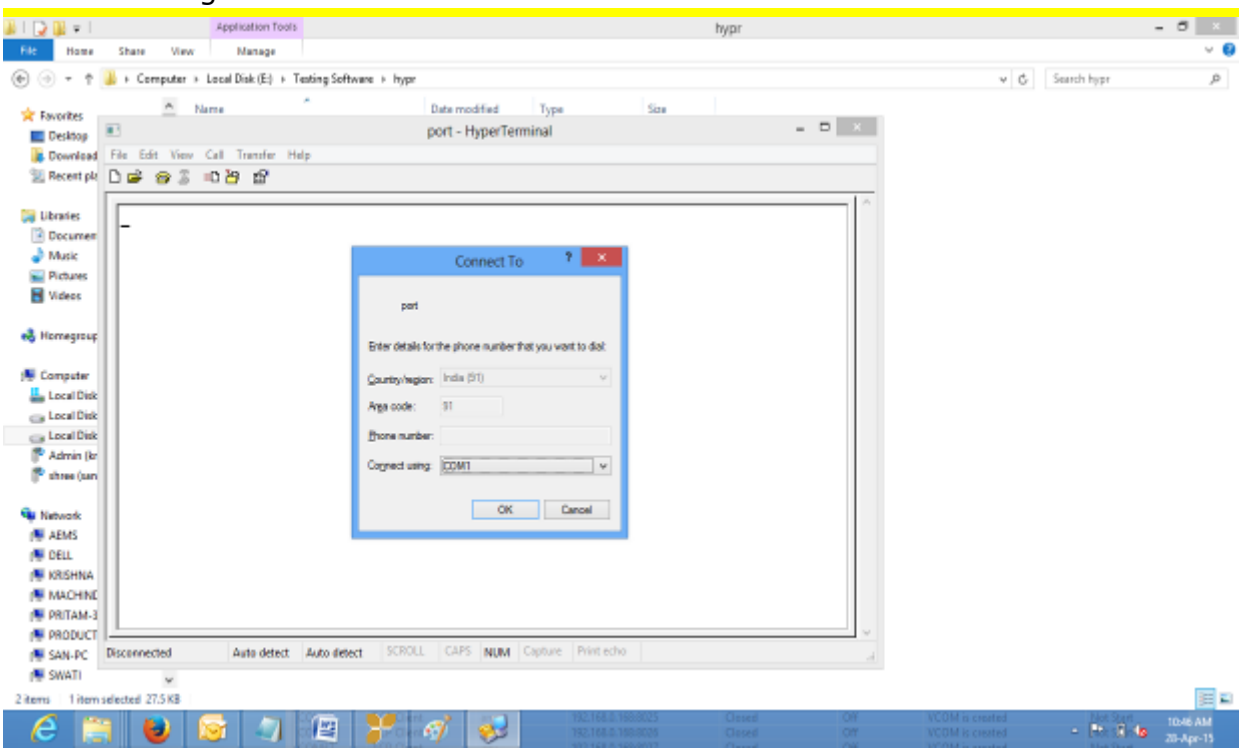
San Telequip Private Limited.
504 & 505 Deron Heights, Baner Road
Pune 411045, India
Phone : +91-20-27273455, 9764027070, 8390069393
email : info@santelequip.com

Connecting. Converting. Leading !

VCOM	Operate Mode	Local Port	Device IP:Port	Com Status	Net Status	Last Operation	Synchronize	De
COM2	TCP Client	any	192.168.0.100:8031	Closed	Off	VCOM is created	Disable	
COM3	TCP Server	8000	192.168.0.100:50970	Closed	On	VCOM is closed	Disable	
COM4	TCP Server	8001	any:any	Closed	Off	VCOM is created	Disable	
COM5	TCP Client	any	192.168.0.100:8002	110-8-N-1	On	Work OK	Disable	

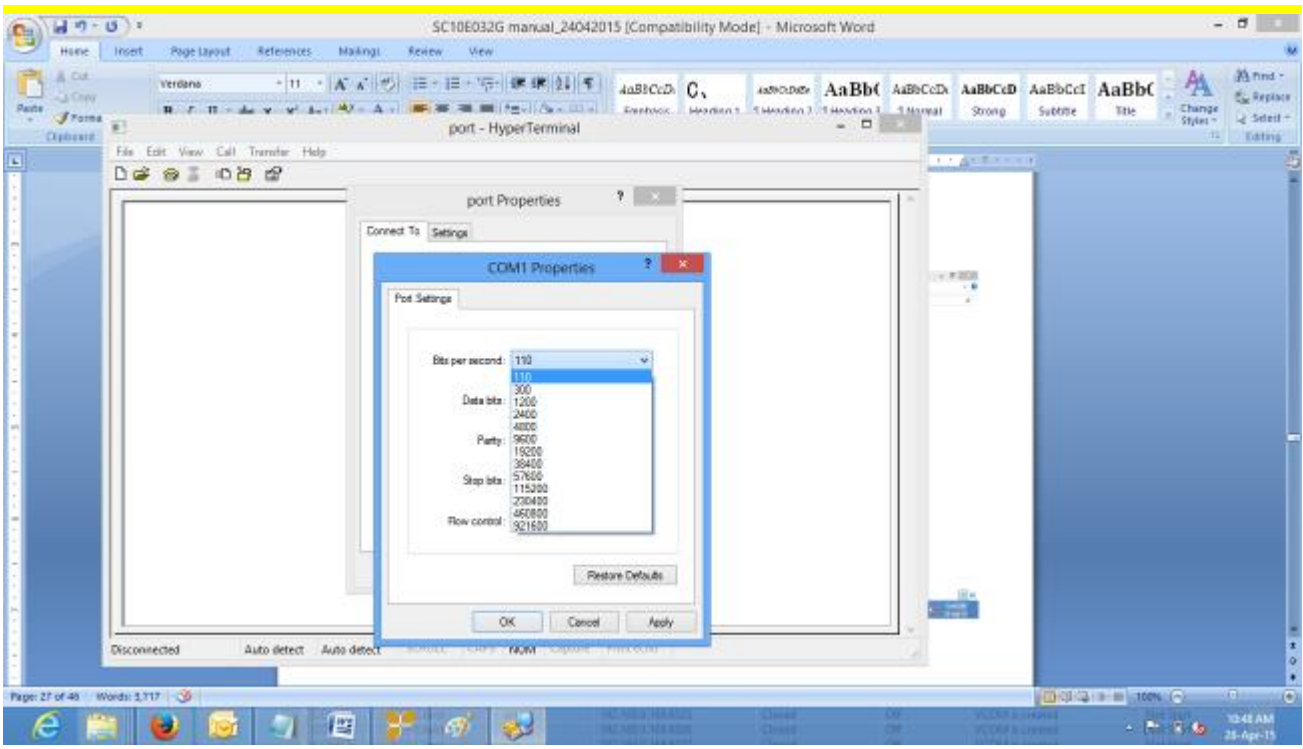
For checking the Communication

1. Doing Short TXD & RXD pin at RS 232
2. Connect the cable In Port 1 of Terminal Server
3. Do the Setting as per above in the GUI
4. Open the Hyper terminal
5. Do the Setting for Created VCOM

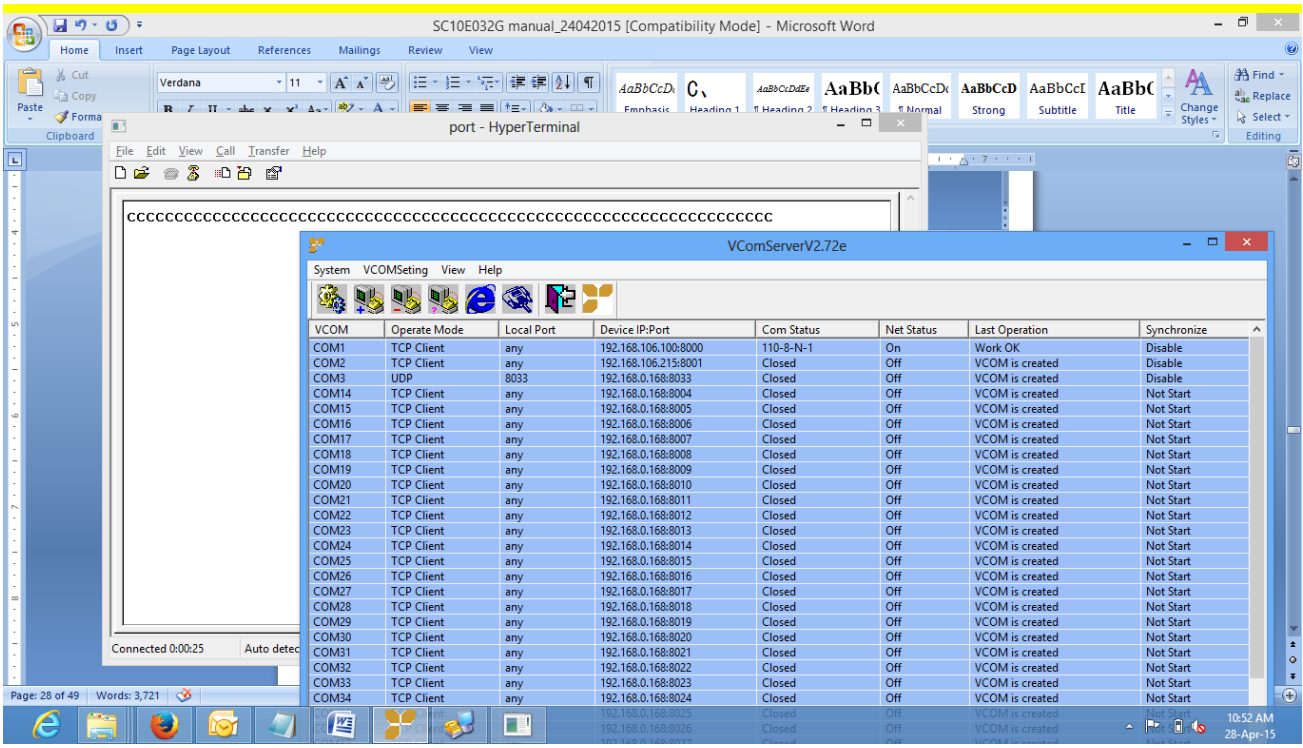


San Telequip Private Limited.
504 & 505 Deron Heights, Baner Road
Pune 411045, India
Phone : +91-20-27273455, 9764027070, 8390069393
email : info@santelequip.com

Connecting. Converting. Leading !



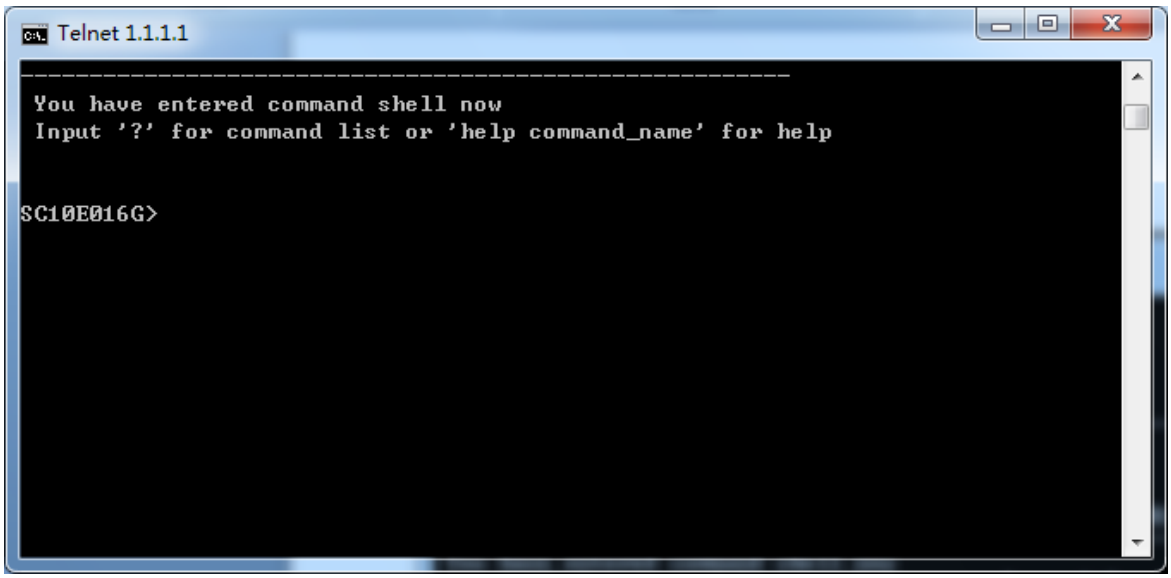
6. Click on OK
7. Below Screen shot Shows the Communication



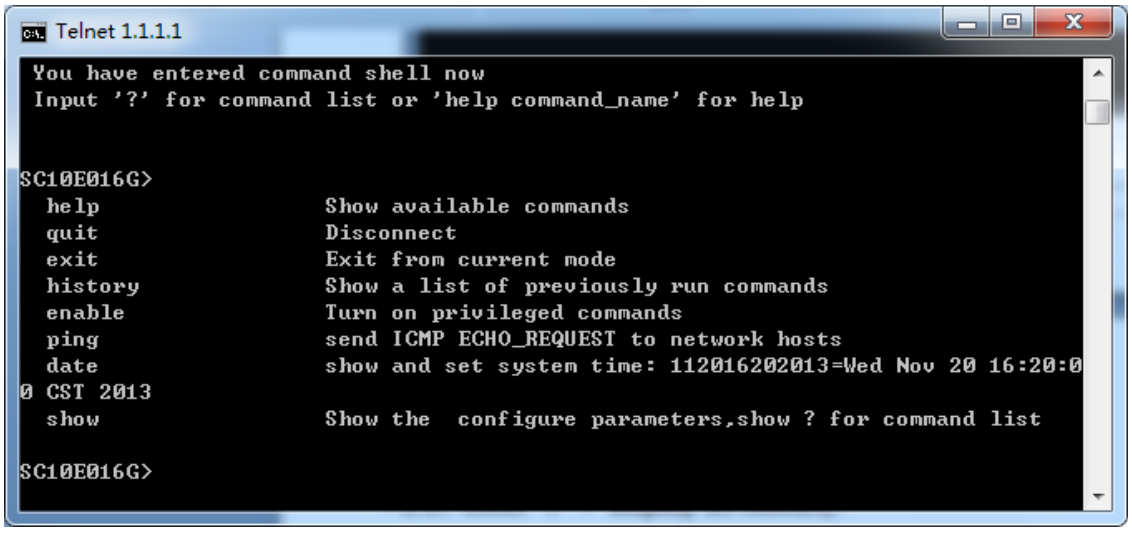
3.4 Telnet and Console configuration Command

1、User name and Password:

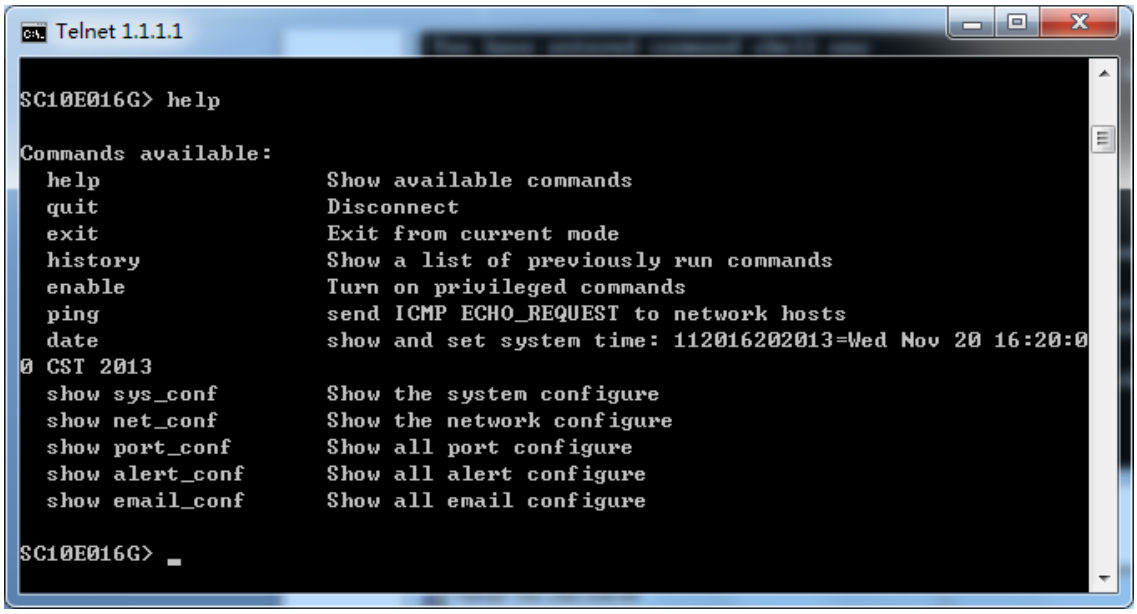
The default user and password are both "root".



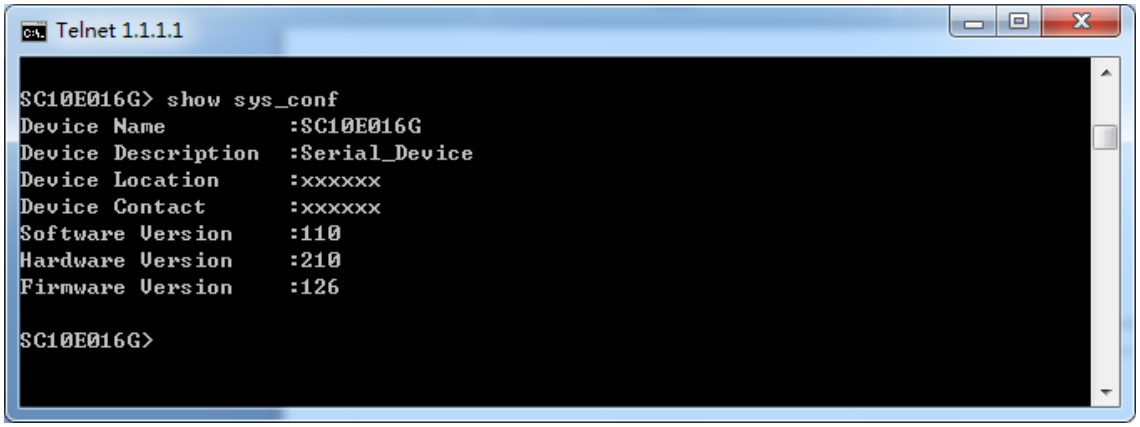
1.1、Enter'?' the screen displays as follows:



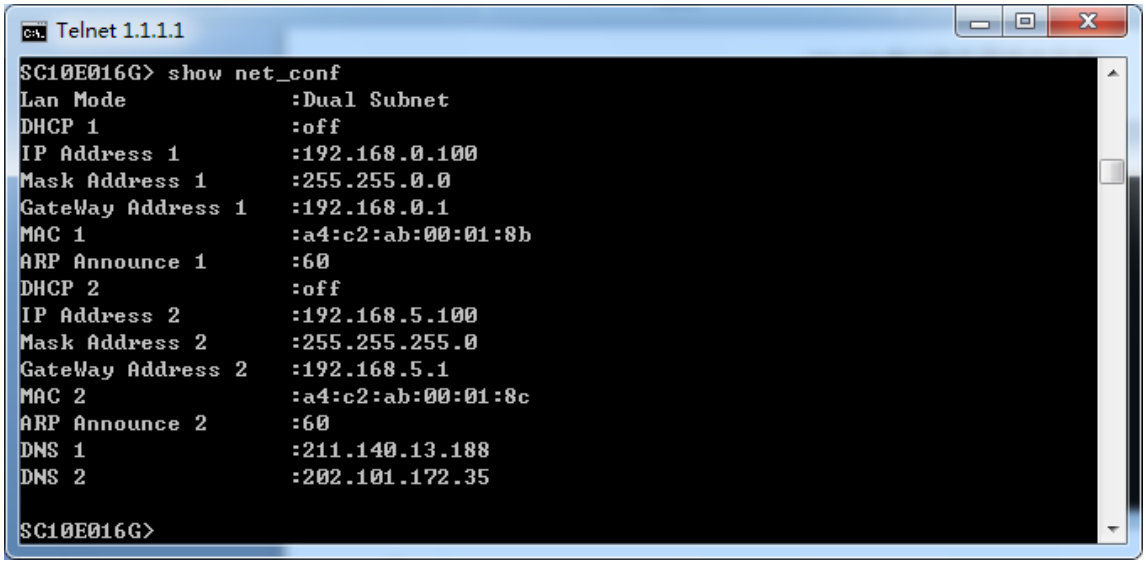
1.2、Enter "help", displays as follows:



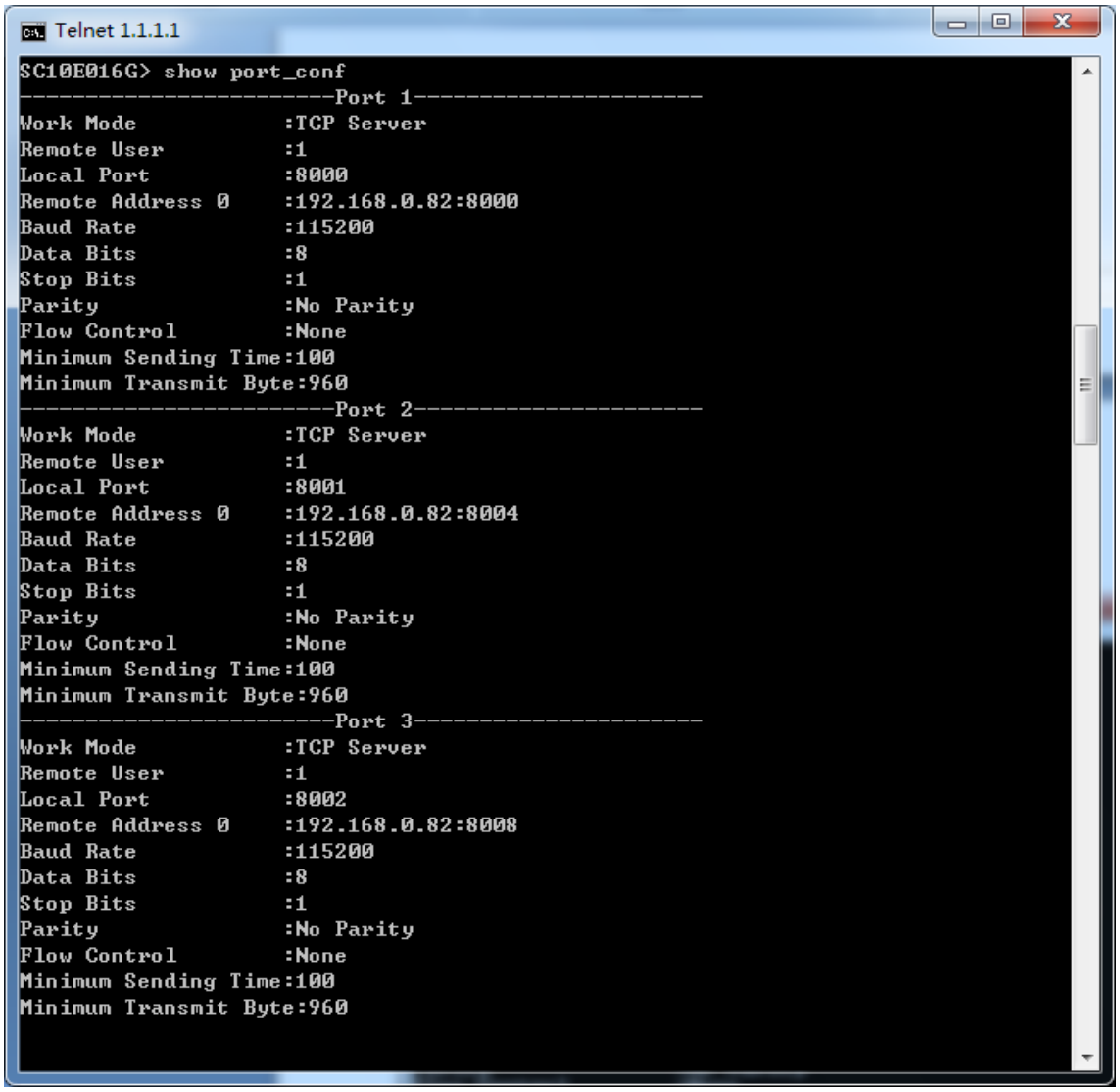
1.3、Enter"show sys_conf" to show the system configure.



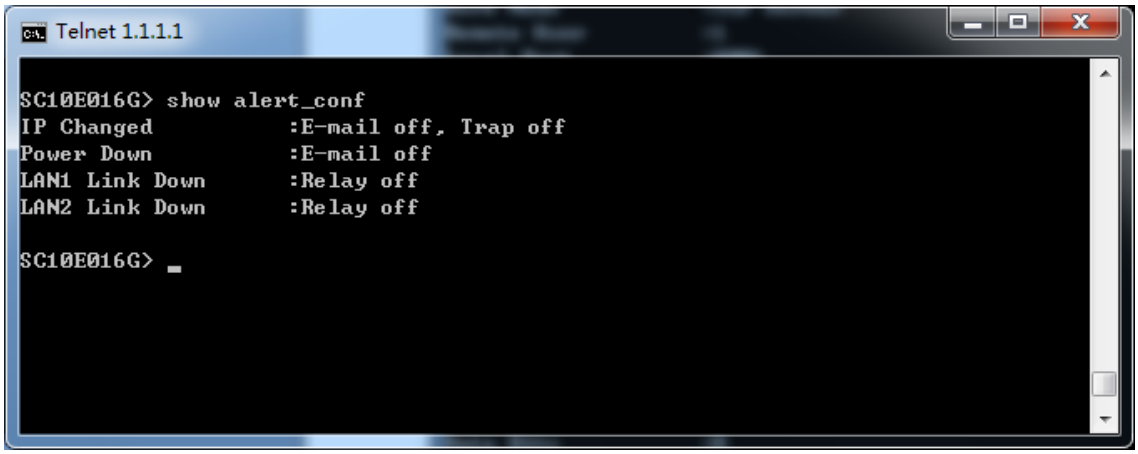
1.4、Enter"show net_conf" to show the network configure.



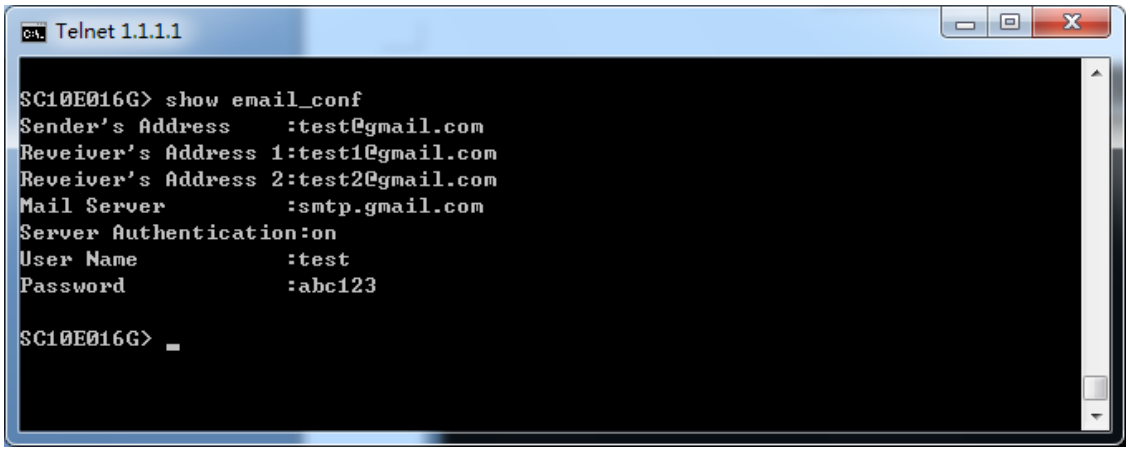
1.5 Enter "show port conf" to show all port configure.



1.6 Enter "show alert_conf" to show all alert configure.

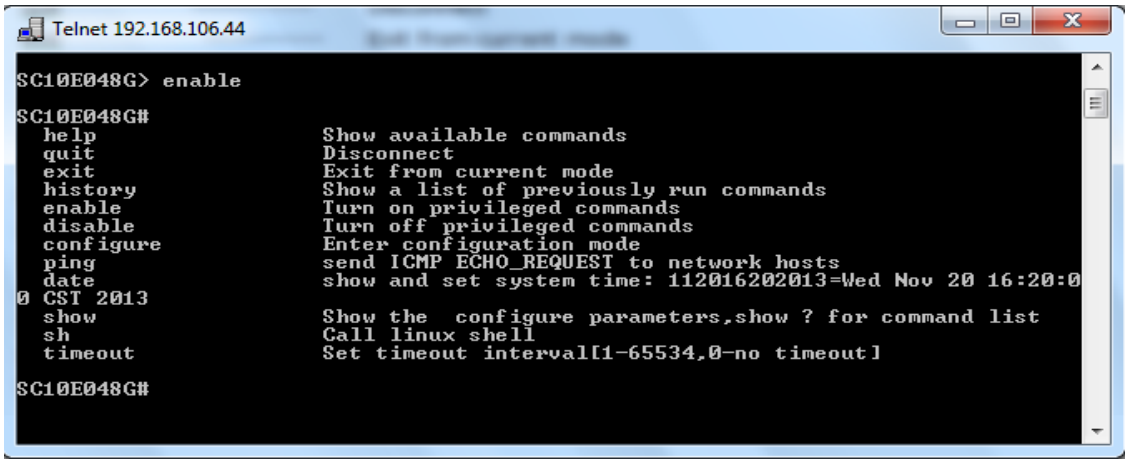


1.7 Enter "show email_conf" to show all email configure.



2 Enter the privileged commands: enable.

2.1 Input "help" or "?"



2.2 Enter "sh"---Call linux shell

Enter the Linux interface, like the previous version of the console, this is for our internal support.

2.3 timeout-------Set timeout interval

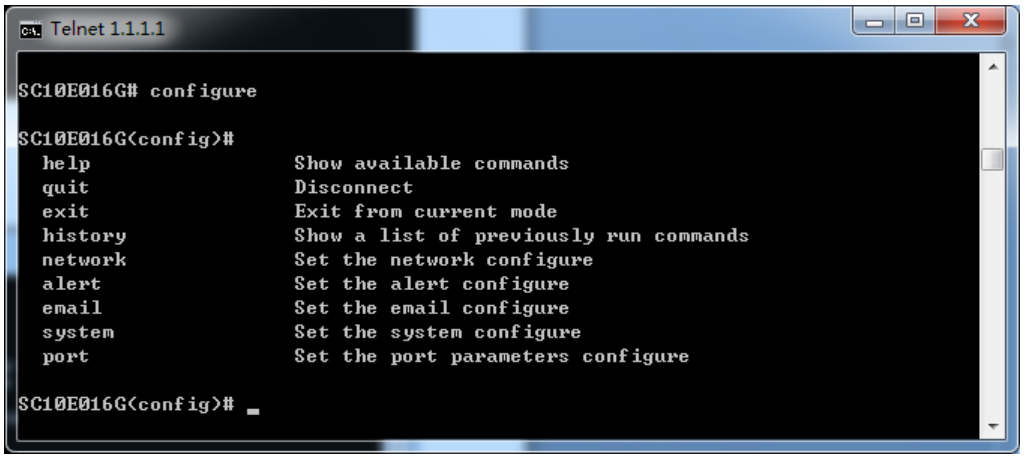
For example:

Input "timeout 30" which means that you cannot operate the system until the "30 seconds" expires.

If you use console to connect, it will display as follows:

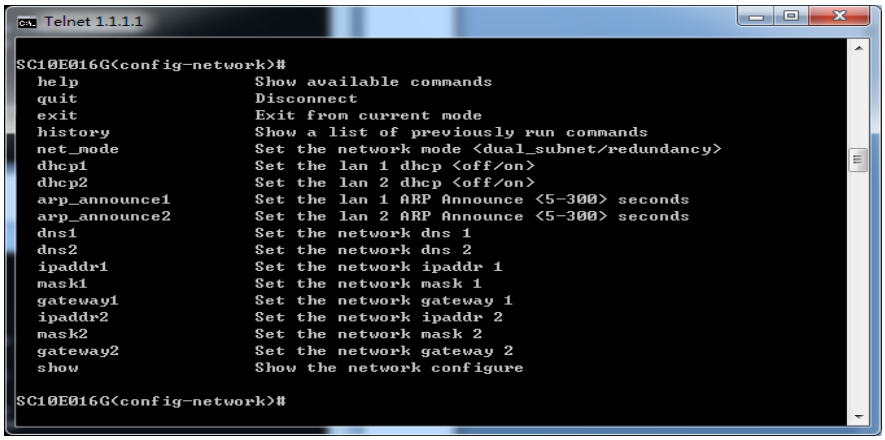
3、Configuration Interface (config):

Enter "configure", then "?" or "help".



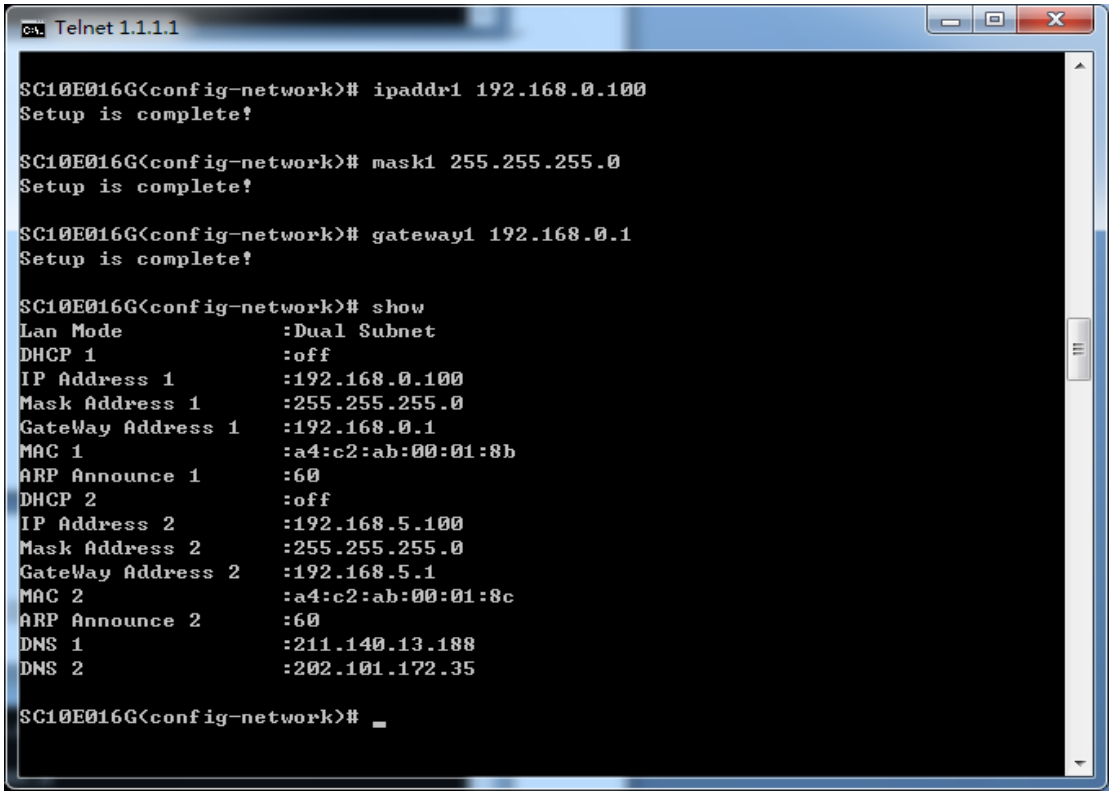
3.1 Network Information Settings page

Enter "network"

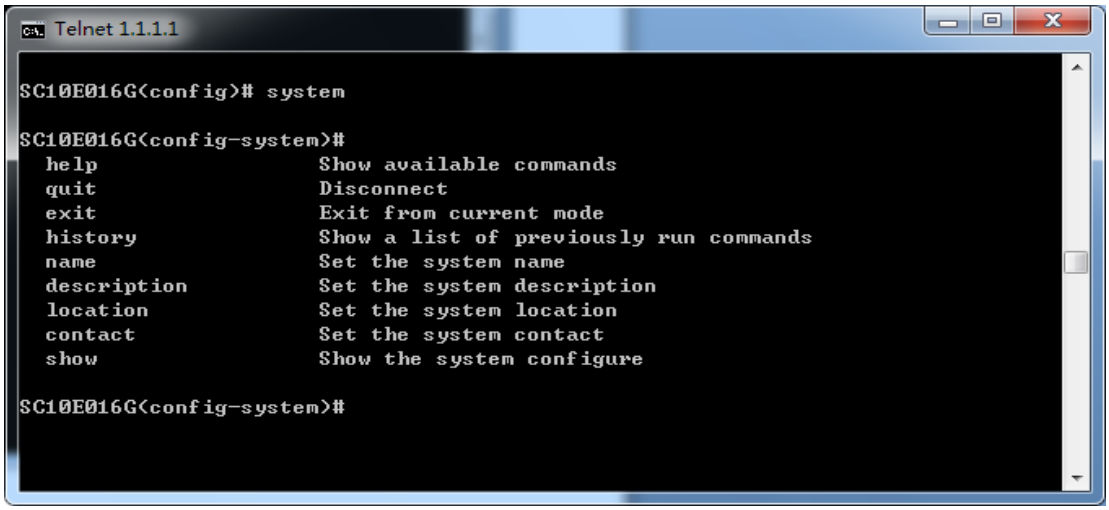


Usage : ipaddr1 xxx.xxx.xxx.xxx
Usage : mask1 xxx.xxx.xxx.xxx
Usage : gateway1 xxx.xxx.xxx.xxx

For example:

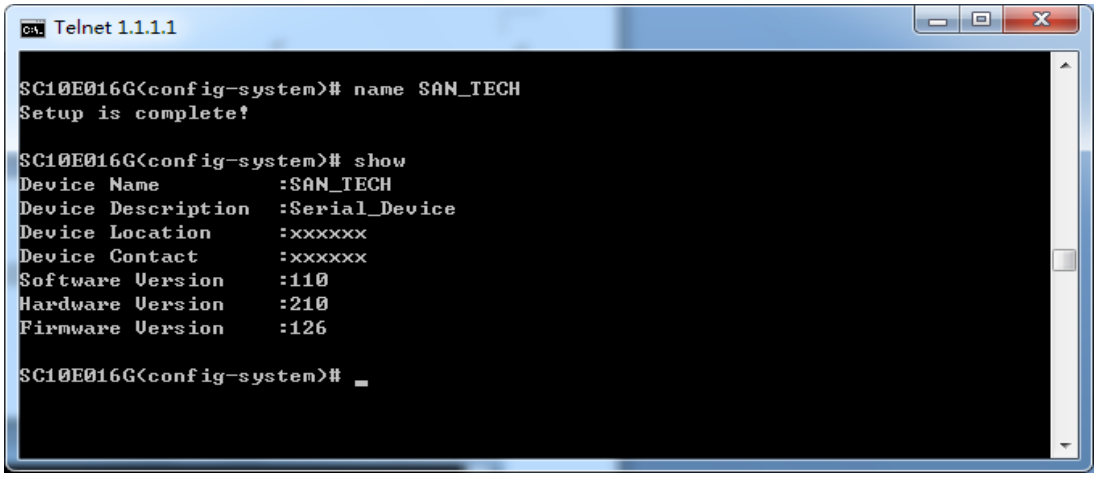


3.2 System Information Settings page



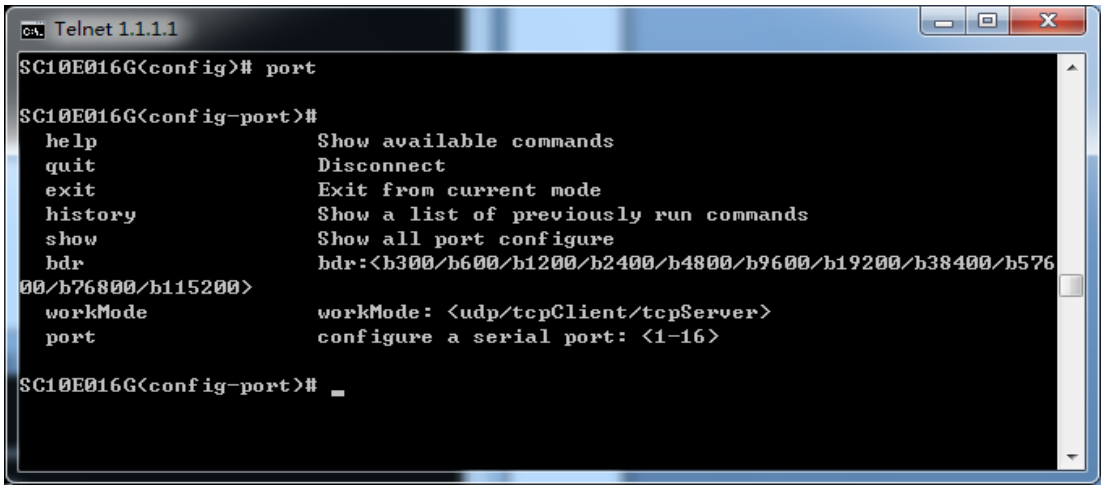
Usage : name [data]
Usage : description [data]
Usage : location [data]
Usage : contact [data]

For example:



The device name is changed to SC10E048G.
The default configuration is corresponding to the web page.

3.3 Port Information Settings page



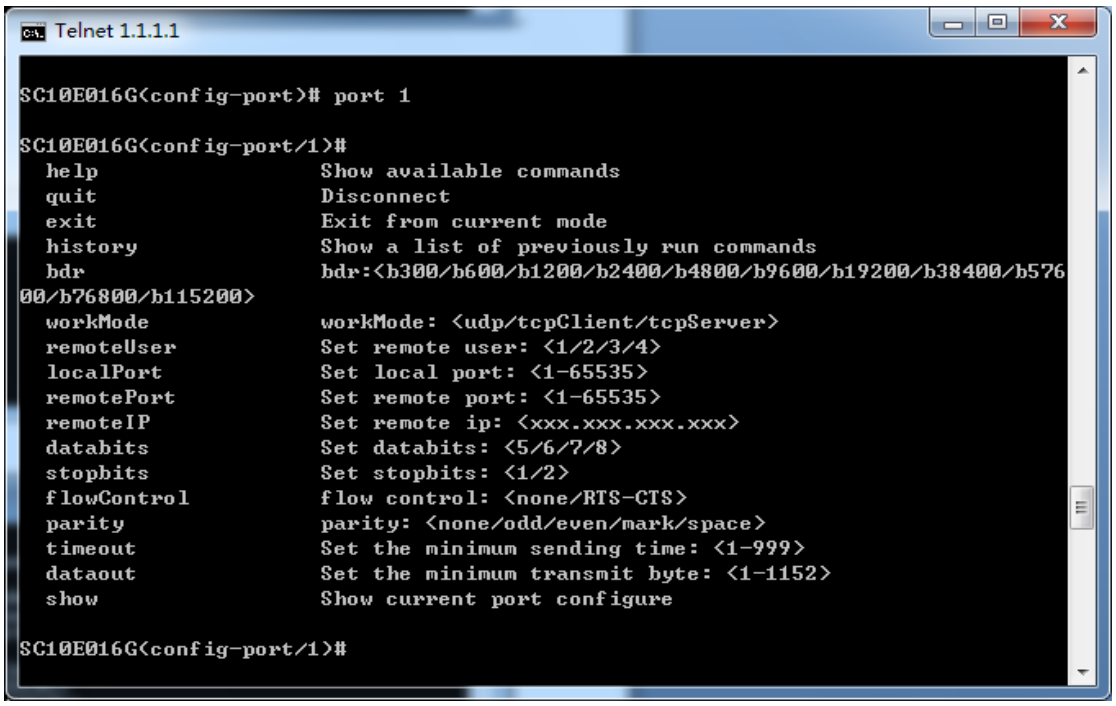
All the serial port Baud rate setting.

All the serial port work mode setting.

Single serial port setting.

Input :port x

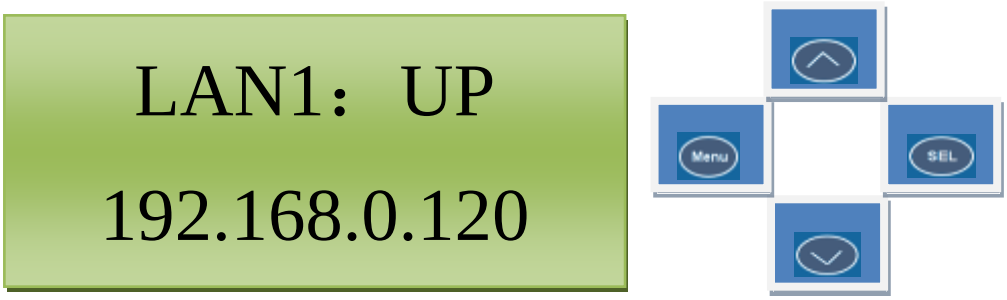
For example:



Chapter 4 LCM (Liquid Crystal Monitor) Instructions

15 Character 2 Line LCD with Four buttons keypad for configuration.(Only in 16 Port)

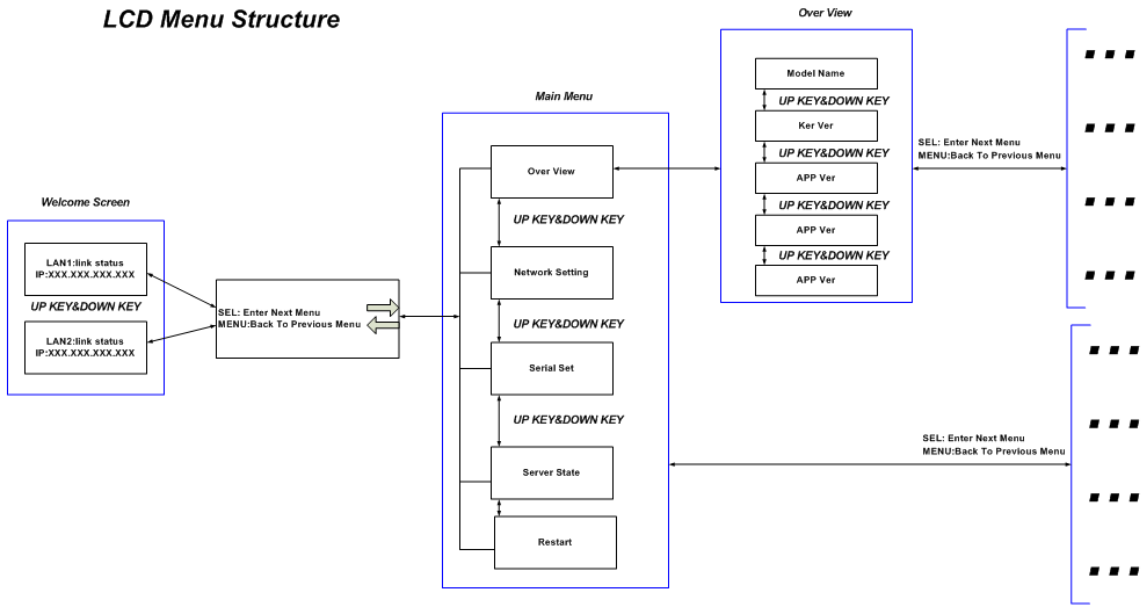
4.1 The Key Distribution



MENU : return to the previous menu.
SEL : enter the submenu. In the specific parameter setting, it functions as “confirm”.
UP & DOWN : Used for upward/downward scrolling between layers.

In the IP configuration interface, press "SEL" to enter the editing interface or move the cursor.
Note: The font and cursor on the LCD screen are both black.

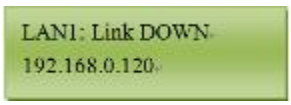
4.2 The Menu Structure



4.3 Detailed Description

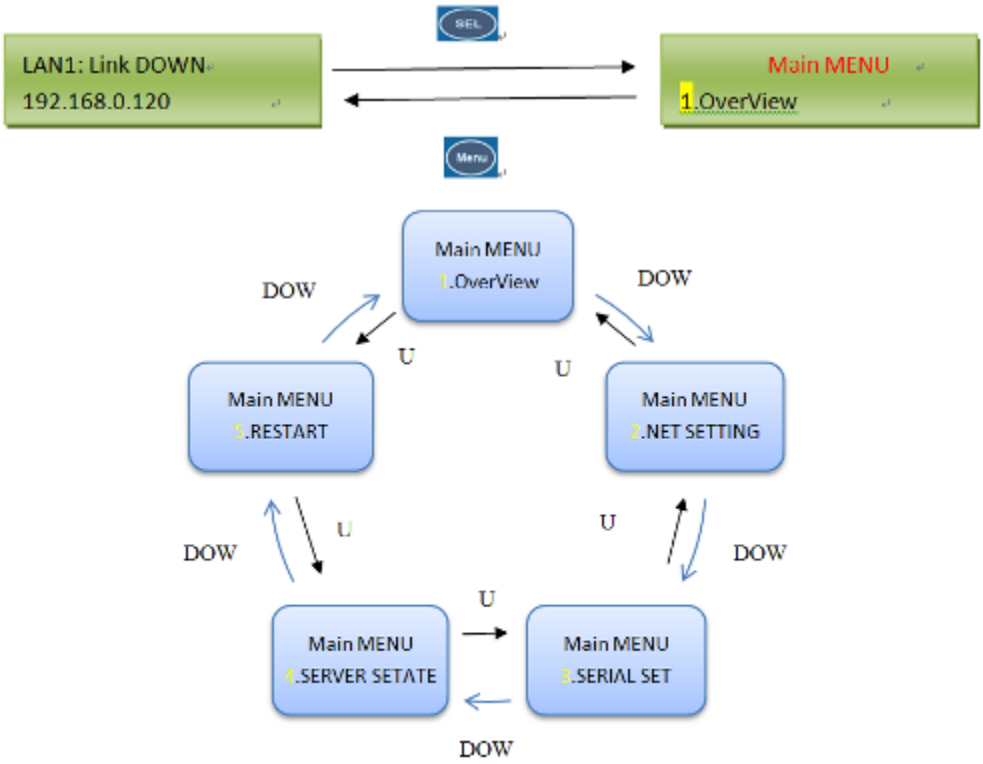
4.3.1 Welcome Screen

After powered on, the LCM shows status and IP of LAN1. Press  or  to show the status and IP of LAN2.
The display format is given as follows:

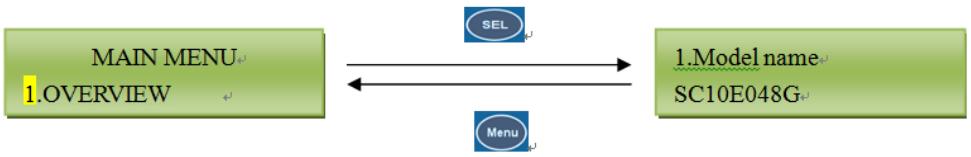


Press  to enter the main menu.

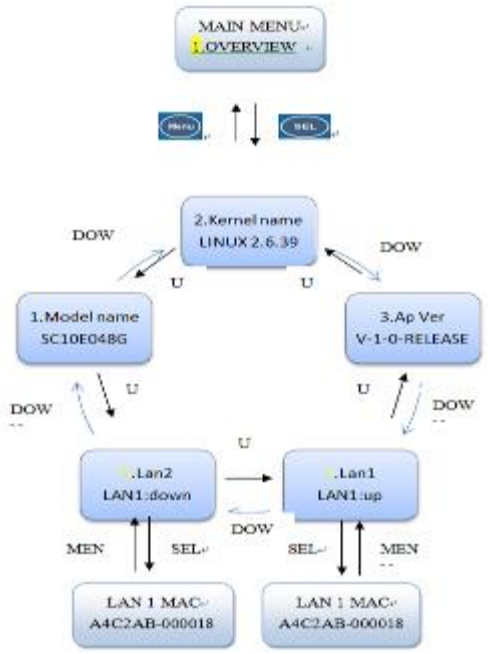
4.3.2 Main Menu Structure



4.3.3 Overview



The yellow '1' above will blink (actually blinking in black and white). Press Menu to return to previous menu, SEL to enter the submenu, and , to switch between the layers. If the cursor is blinking, you can enter the submenu or input the editing content. Simple flow chart works as follows:



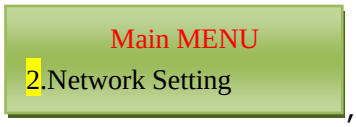
4.3.4 Network Settings

This option is to configure the network, including LAN Mode, IP, Net Mask...
On the page of LAN Mode, the Double Subnets Pattern and Redundant Pattern are available. In the Redundant Pattern, no need to configure LAN2.

The yellow '2' above will blink(actually blinking in black and white). Press Menu to return to previous menu, SEL to enter the submenu, and , to switch between the equative layers. When the cursor is blinking, you can enter the submenu or input the editing content.

Note:"2" means press two times."1" press once.

Steps to modify IP:

In 

, operate as above to enter 

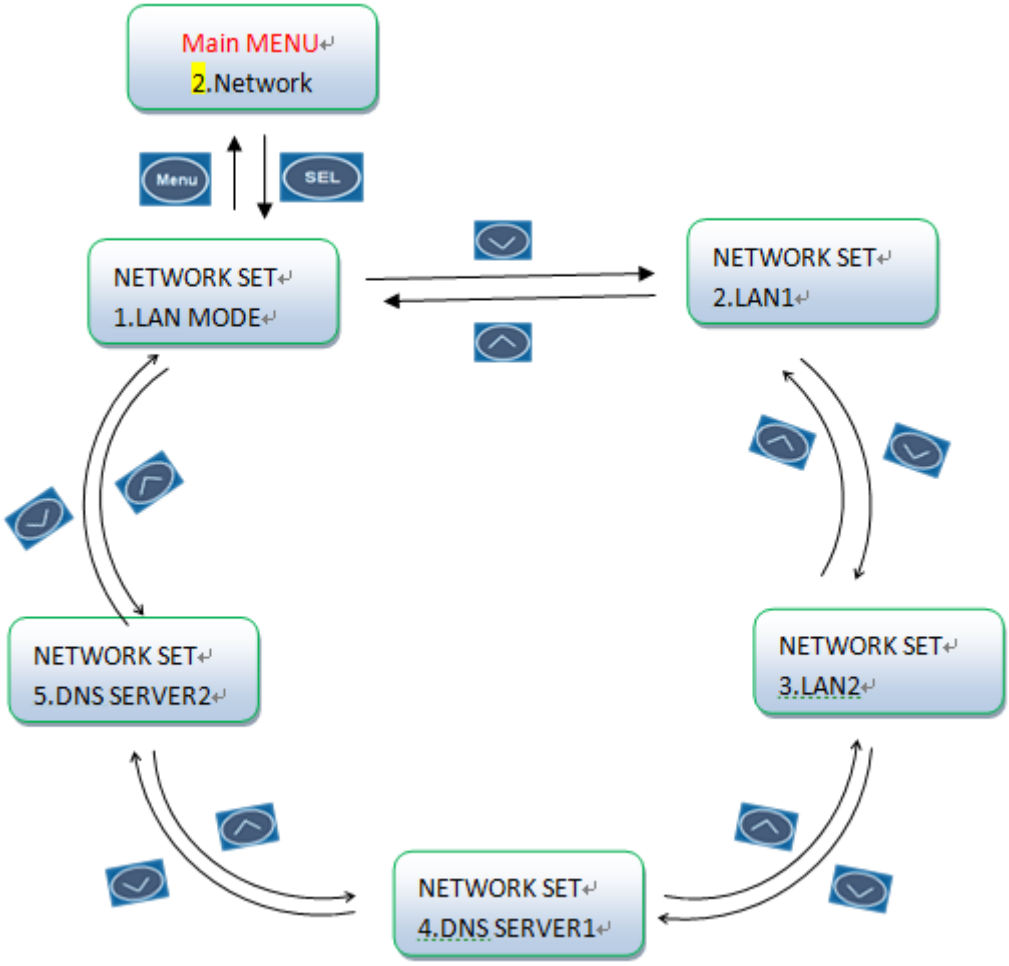
.Then press SEL to enter editing mode (the cursor will blink in the position of '1'). Press SEL to move back the cursor. Press ^ or v to modify IP. In this mode, you can press Menu to exit. If the data (IP) is changed, the following interface will display: 

Then operate according to the screen prompts.

If the data(IP) is not changed ,it will exit the edit mode without displaying the above content.

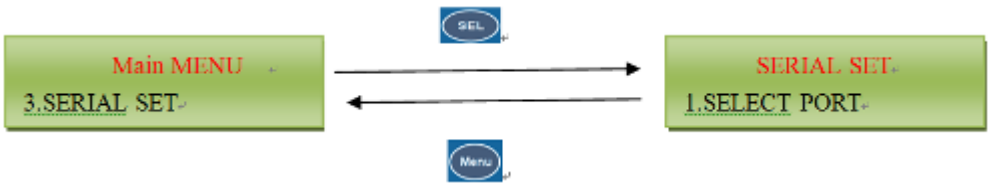
Note: Since the other (Net Mask, Gateway) operations are similar, procedure not repeated here.

Simple flow chart works as follows:

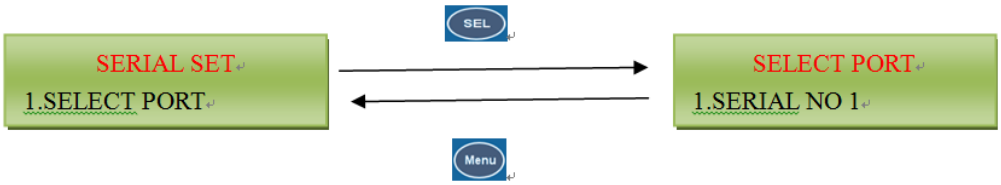


Note: The green border interface means that pressing "SEL" can enter the submenu. In the IP configuration interface, you can enter the editing interface or move the cursor by pressing "SEL". Pressing "MENU" to exit the edit mode or return to previous menu.

4.3.5 Serial Settings



This option is to set the serial port. After entering this menu, four submenus are available: SELECT PORT, Select Mode, Parameter Set, Link Mode;
Before each configuration, you'd better access the "SELECT PORT" interface to confirm the current port in case to set the wrong port. "Select Mode", "Parameter Set", "LINK Mode" interface display parameters of the port selected in the "SELECT PORT".
The operations of "SELECT PORT" show as follows:



After operating as the above to enter 

. Then press 

, the cursor will blink in the yellow position. And press  ,  to modify port number. Press 

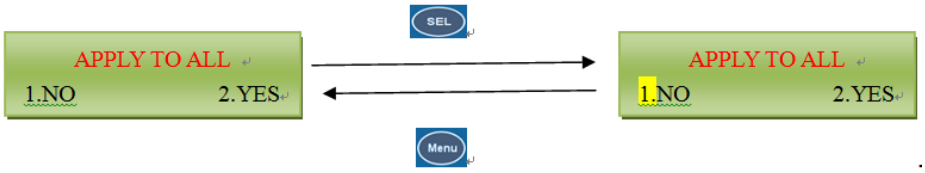
to exit.

If the port number is changed, the following interface will display: 

Then operate according to the screen prompts.
If the port number is not changed ,it will exit the editing interface without displaying the above content.
Since configuration of other parameters are similar, no need to repeat here.

During the configuration of other parameters the screen may display 

, which asks whether to apply the configuration to all ports or not.
The operation is shown as follows:



After pressing 

, the cursor will blink on "NO/YES". Then press  or  to switch between "NO" and "YES", select 

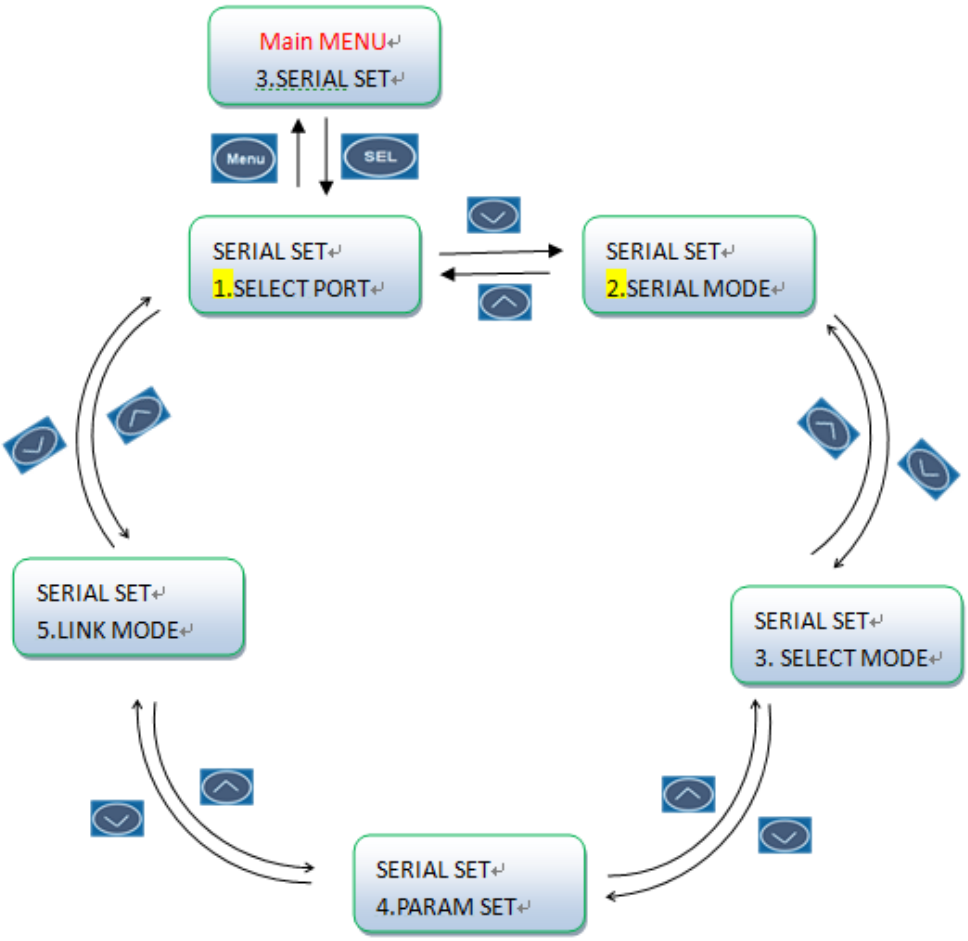
to confirm, and 

to exit.

Note: In the page of SERIAL MODE, RS422/RS485/RS232 are offered. Once RS422/RS485 selected, the "flow control" of corresponding port is set to "NONE" automatically, which can not be modified!

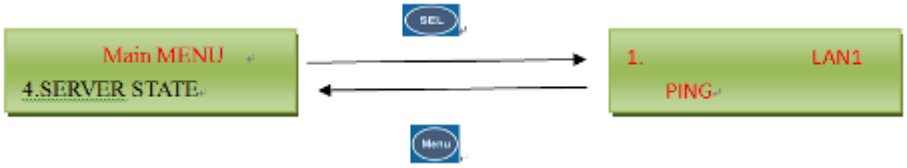
The Key Function refer to section "4.1 The key Distribution", the Parameter Set (IP , DEST PORTX , MAX CONNCT) refer to section "4.3.4 Network Settings".

Simple flow chart works as follows:

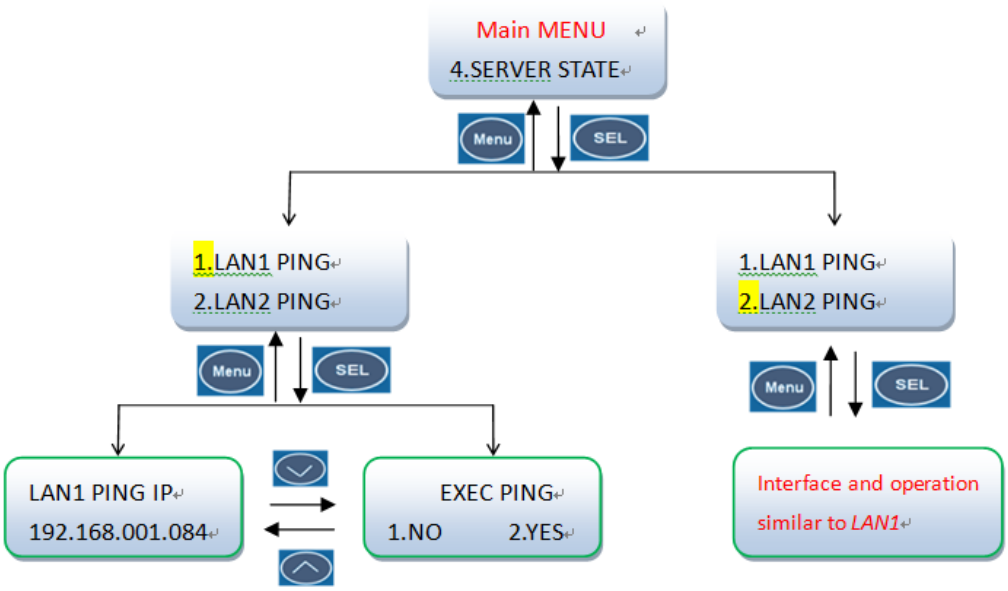


Note:The green border interface means that pressing "SEL" can enter the submenu. In the IP configuration interface, you can enter the editing interface or move the cursor by pressing "SEL". Pressing "MENU" to exit the edit status or return to previous menu.

4.3.6 Server State



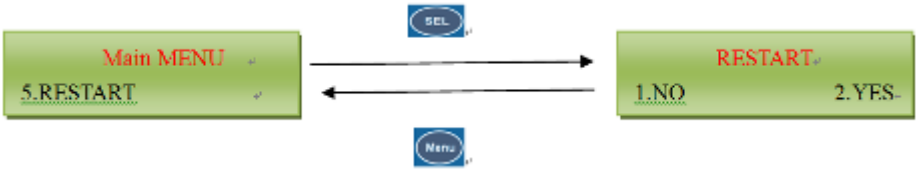
Simple flow chart works as follows:



The Key function refer to section "4.1 key distribution". The Modification of LAN1 PING IP refer to "4.3.4 Network Settings". EXEC PING refer to section "4.3.5 APPLY TO ALL" or "4.3.7 Restart"

As the functional similarity of LAN1 PING and LAN2 PING, here we only illustrate the operation of LAN1.

4.3.7 Restart



In this page, press SEL to enter the select status. Press ^ or v to switch between "NO" and "YES". If the cursor is blinking, press SEL to select operation. Press

to exit or return to previous menu.

Chapter 5 Accessories

This section describes how to:

- Making of Serial Port Connecting Cable
- Dimensions

5.1 Making of Serial ports Connecting Cable

RJ45: Each pin is defined as follows

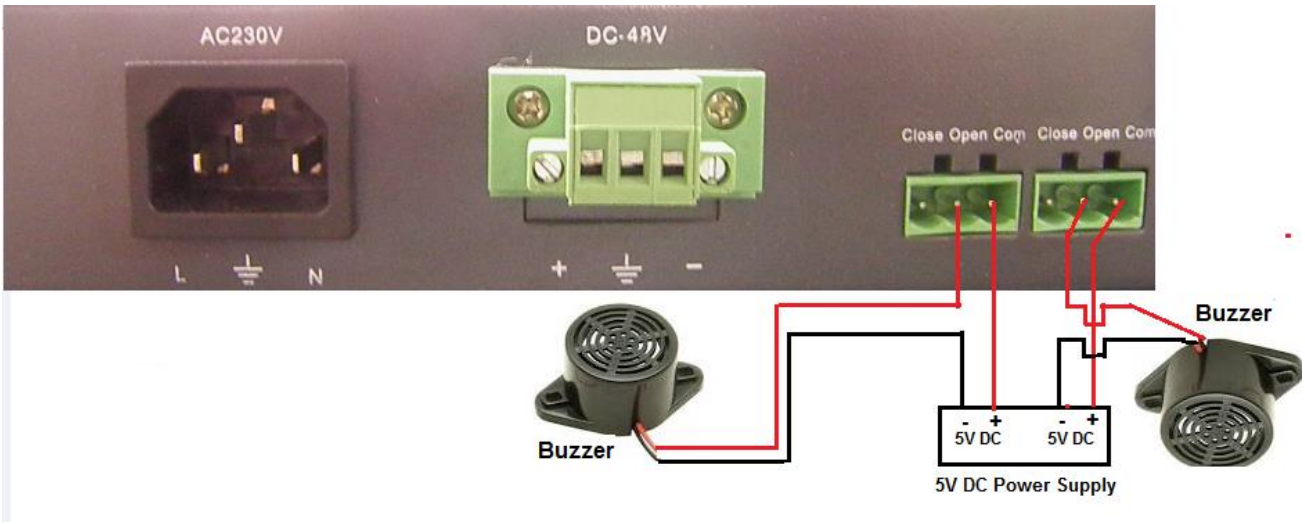
Pin No.	1	2	3	4	5	6	7	8
RS232	CTS		RXD	GND	GND	TXD		RTS
RS485				GND	GND	A+		B-
RS422	R-		R+	GND	GND	T+		T-

5.2 Making of Console Interface Connecting Cable

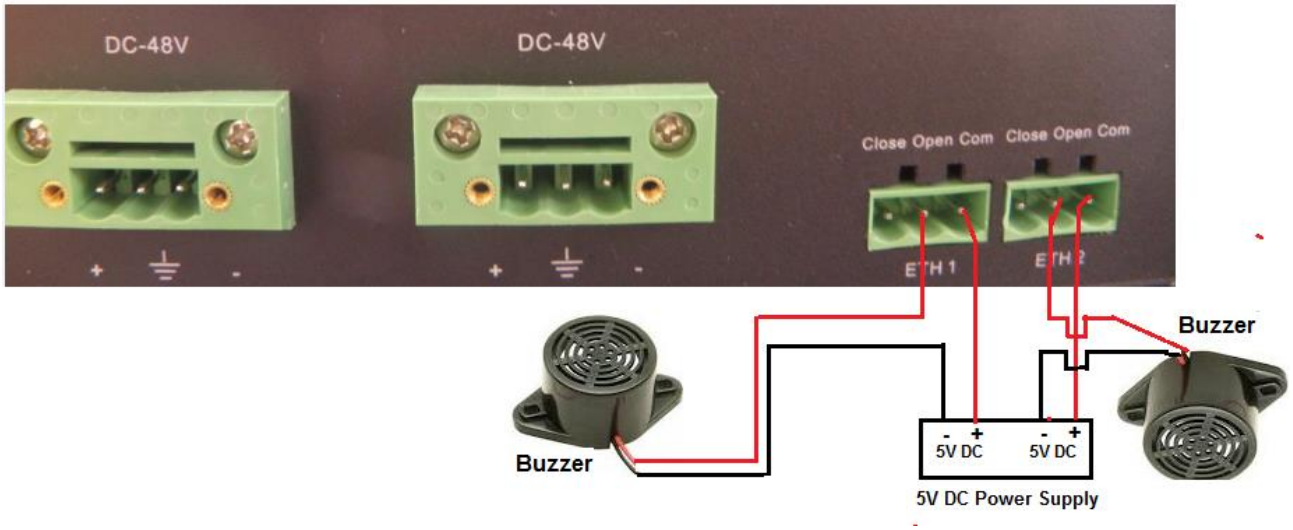
Pin3 is output pin (TXD)
Pin6 is input pin (RXD)
4, 5 pins are GND pins (GND)

POWER / Relay SUPPLY DETAILS
SC10E 016G-AC DC

Power: 230V AC
48V DC



SC10E 032G-2D
Power: 48V DC
48V DC



SC10E 048G-2D
Power: 48V DC
48V DC

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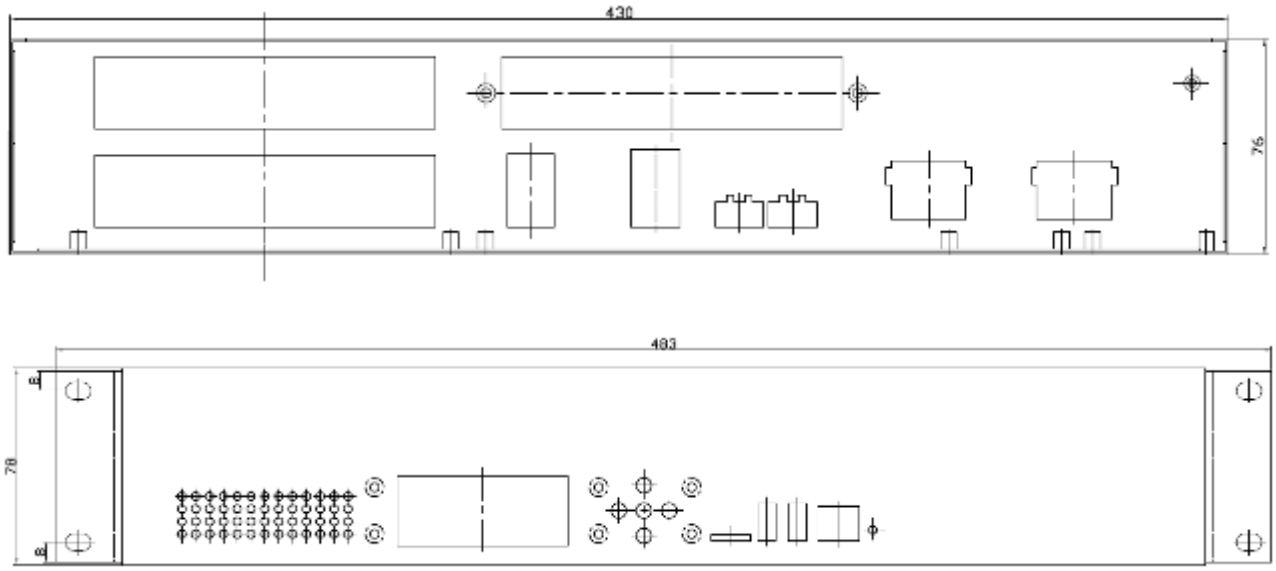
5.3 Dimensions

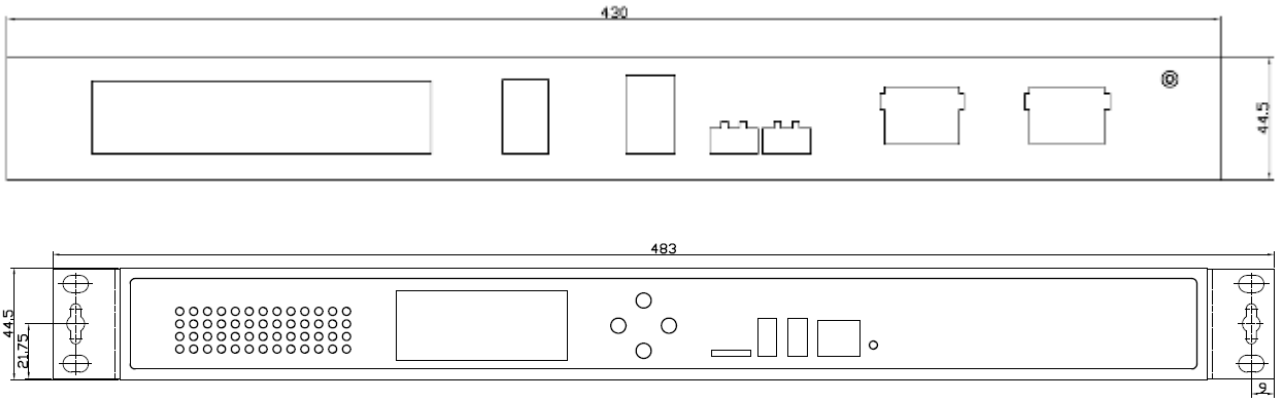
Unit: mm

SC10E 048G



SC10E 032G (Same to SC10E 048G)

SC10E 016G



SC10E

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