San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

SERIAL TO Ethernet CONVERTER

SC10EK2 MT
User Manual

San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

Table of Contents

San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

Introduction

SC10EK2 MT Serial to Ethernet Interface Converter providing the ways of connecting serial devices to both Ethernet It is designed to operate serial ports through Ethernet (10/100Mbps) over TCP/IP network. As the data is transmitted via TCP/IP protocol, therefore data acquisition and controlling is available to go through Intranet and Internet. There are two serial ports as one is a RS-232 and other one is RS-422/485 Configuration is easy to operate via web page setup.

SC10EK2 MT Serial to Ethernet Converter is a high performance design composed with carefully selecting qualified components from reliable and certified sources. This operation manual will guide you to configure functions step by step.

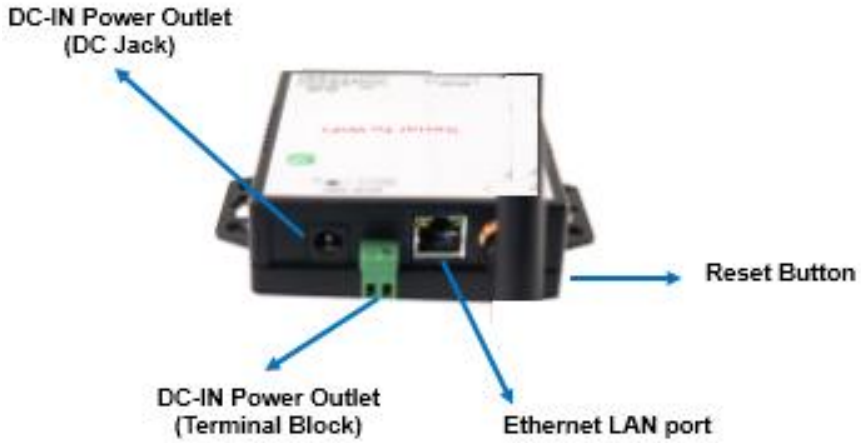
Overview

SC10EK2 MT Serial to Ethernet Converter provides a perfect solution to make your industrial Serial devices connect to Internet instantly via Ethernet LAN. This device embedded with MT7688AN MIPS chipset makes it become the ideal device for transmitting the data from your RS-232 or RS-422/485 Serial interface devices, such as PLCs, Meters or Sensors to an IP-based Ethernet and making it possible for your software to access Serial interface devices anywhere and anytime.

SC10EK2 MT providing TCP Server Mode, TCP Client Mode, and UDP Mode for selection. It also supports manual configuration via web browser and support various protocols including HTTP, DHCP, ICMP, and ARP. These are the best solution to coordinate your Serial interface devices.

San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

Product Views



Serial Interface Side

San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

Outlined Components

Ethernet Port

The connector for network is the usual RJ45. Simply connect it to your network switch or Hub. When the connection is made, the green color LED of Ethernet port will blink. When data traffic (Rx/Tx) occurs on the network, yellow color LED will blink during data transferring.

DC-IN Power Outlet

The Device is powered by a 12V DC (Inner positive, outer negative) , 1.0A power supply. Plugging the power adaptor to the AC power socket and put the DC Jack plug into the outlet of the Device. The “SYS” green color LED will be ON when power is properly supplied. Terminal Block 2 wires power supply is an option.

Reset Button

1)Press reset key after 9 seconds until SYS LED flash then release the key will reset network default IP and gateway IP back to default. The other parameters keep same as last confirmation.
2)Press reset key after 9 seconds until both SYS LED and Wi-Fi LED flash then release the key will make all parameters back to factory default.
3) Press reset key within 9 seconds without LED flash will reboot the equipment. Last configuration no change.

Serial Port of RS-232/RS-422/RS-485

Connect the Serial data cable between the device and the Serial interface device. Follow the procedure of web page configuration to set up parameters.

LED Indicators

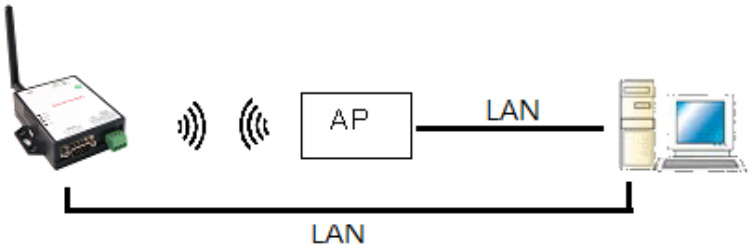
SYS (Green) : Power indicator. When the power is on, the LED will be on and blink per second.
Wi-Fi (Red) : Wi-Fi indicator. When the Wi-Fi is working, this LED will be blinking.
Tx (Green) : Data sending indicator. When data sending to the device from LAN or Wi-Fi, this LED will blink.
Rx (Red) : Data received indicator. When data sending to the device from Serial ports, this LED will blink.

San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

Wiring Architecture

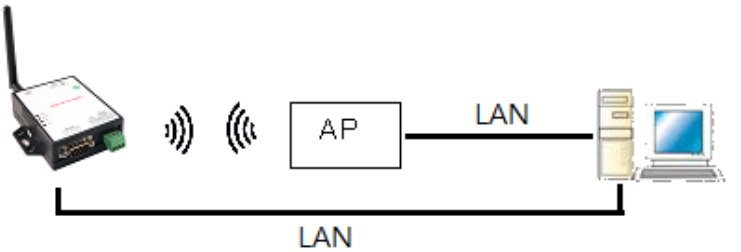
1. RS-232

RS-232 Wiring
Serial Device
DB 9 —— DB 9

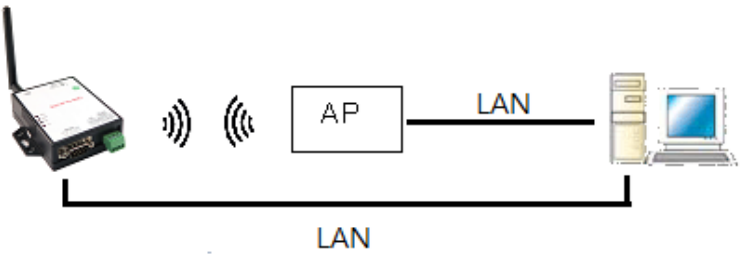


2. RS-422/RS-485

RS-422 Wiring
Serial Device
T - —— R -
T + —— R +
R - —— T -
R + —— T+



RS-485 Wiring
Serial Device
D + —— D +
D - —— D -



When you finish the steps mentioned above and the LED indicators are as shown, the converter is installed correctly. You can check the Software Setup CD to find SC10EKConfig1.2.0 Utility. To proceed with the parameters setup, please use a web browser (IE or Chrome) to continue the detailed settings.

San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

Configuration

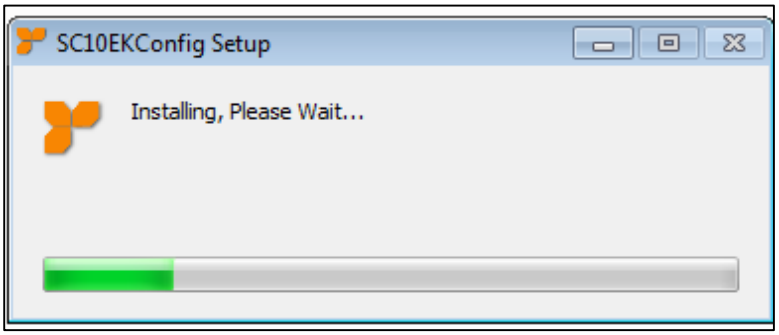
When setting up your converter for the first time, the first thing you should do is to configure the IP address.

The following topics are covered in this chapter:

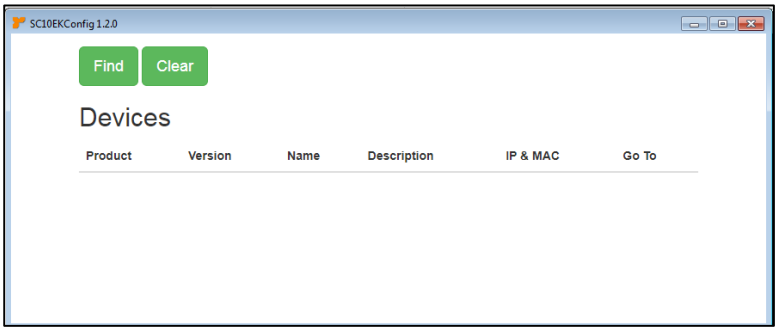
- SC10EK Config 1.2.0, IP Search Utility Setup
- Configuration through Web

IP Search Utility Setup

1. Copy SC10EKConfig 1.2.0 "SC10EK Config 1.2.0 Setup.exe" from CD ROM or Web site to your host computer.
2. "SC10EK Config 1.2.0" is a self-extract-install program. Double click it to install this Wi-Fi IP Searching tool into host computer.

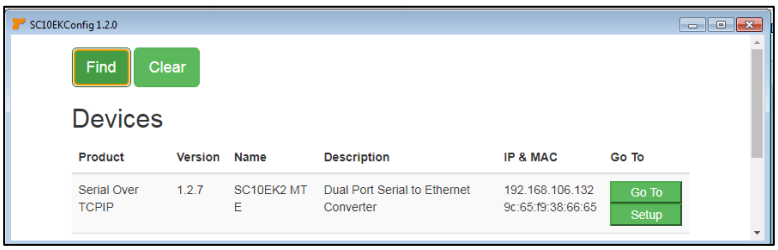


3. SC10EK Config 1.2.0 Finder will pop up on the screen after installation or you may double click the icon on desk top of host computer to open this tool.

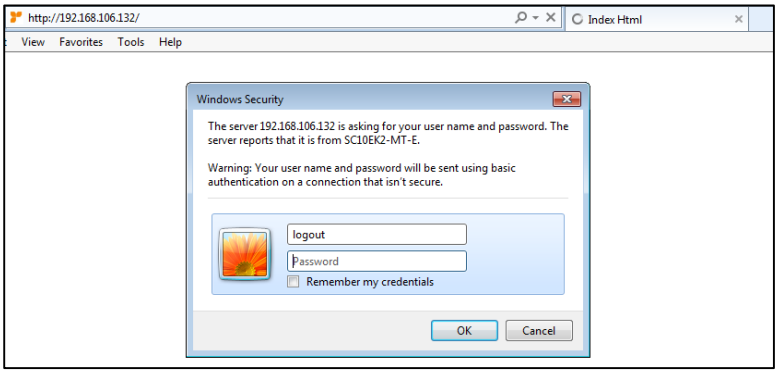


San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

4. Click on “**Find**” button. It will scan the network and show up the IP of Converter.

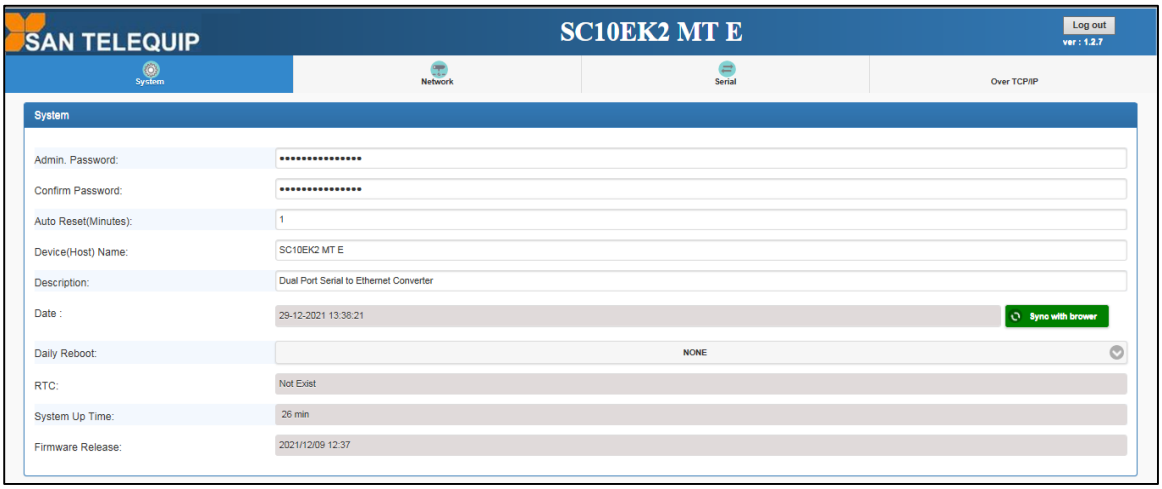


5. Click “Goto” button will open a web page of configuration.
(default ID: admin; password: admin).



6. Click “Setup” button will pop up a window. You may change Name, Description, IP, Netmask of device. Click “Setup” to save setup. The device’s IP must be same subnet with host PC/LAPTOP enable to use web browser open configuration page.

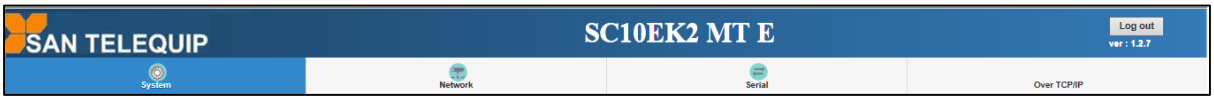
7. Follow #5 step, now you have successfully connected to the Converter.



San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

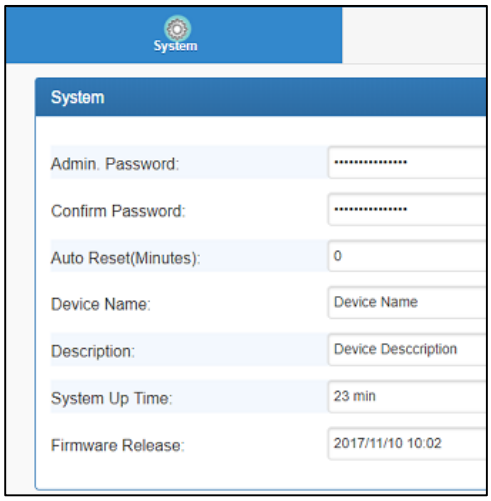
Configuration sections

There are 4 pages as per “System”, “Network”, “Serial” and “Over TCP/IP”.

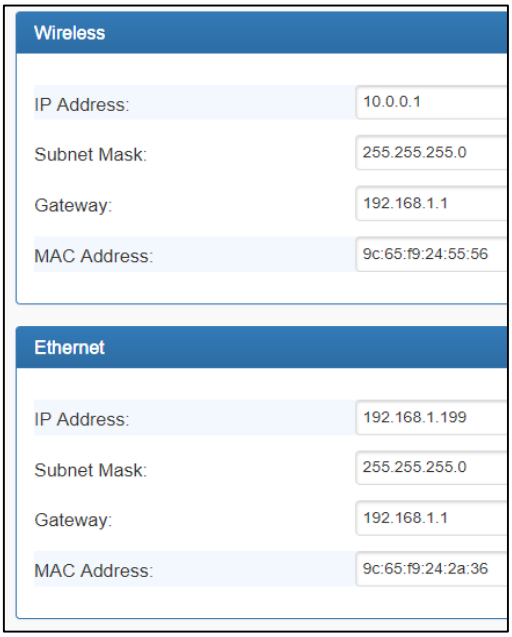


1. System Setup

1.1 System: where you can change Password, set up Auto Reset time and modify Device Name, Description of device.

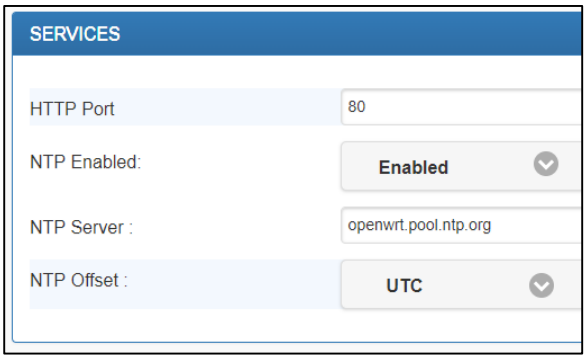


1.2 Appearance of Wireless and Ethernet setup.

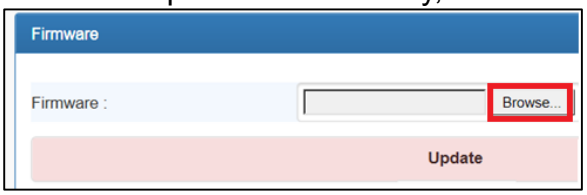


San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

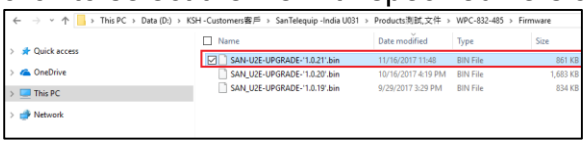
1.3 NTP: Enable / Disable NTP function; Set up NTP server and Time Zone.



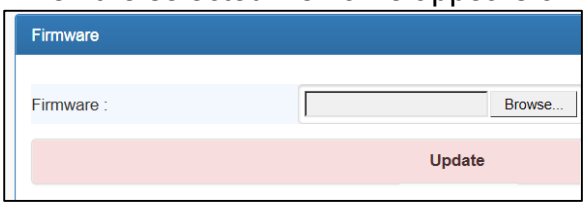
1.4 Firmware update: If necessary, click “Browse” to open file manager.



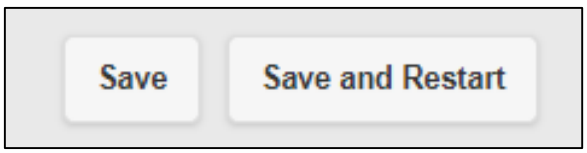
click to select the file with specified version and click “Confirm” button.



When the selected file name appears on the input column, click “Update” button.

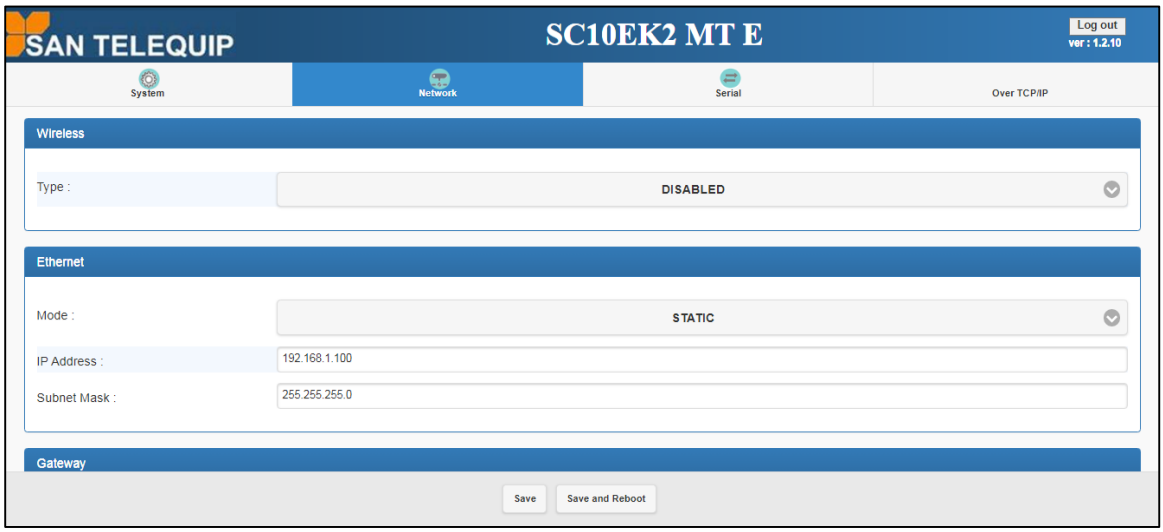


1.5 Up to now, Setup is successfully configured. Please click “Save” this page before “Save and Restart” for permanent web pages.



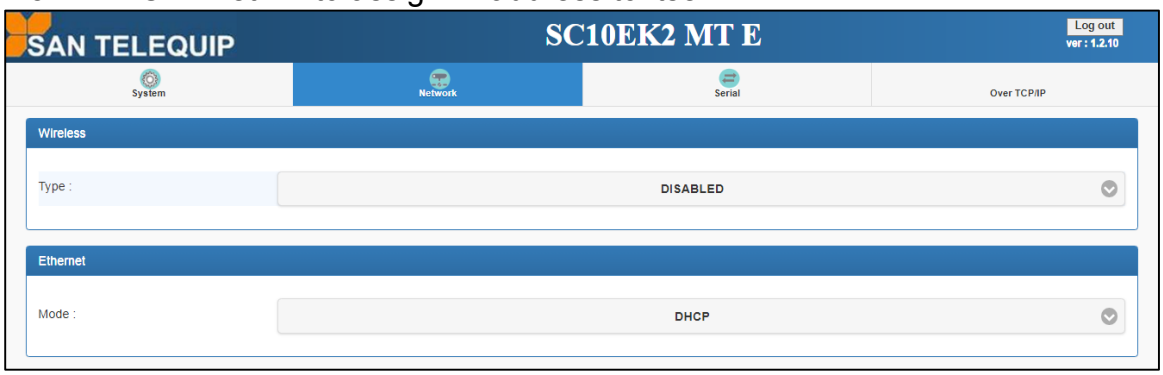
San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

2. Network setup

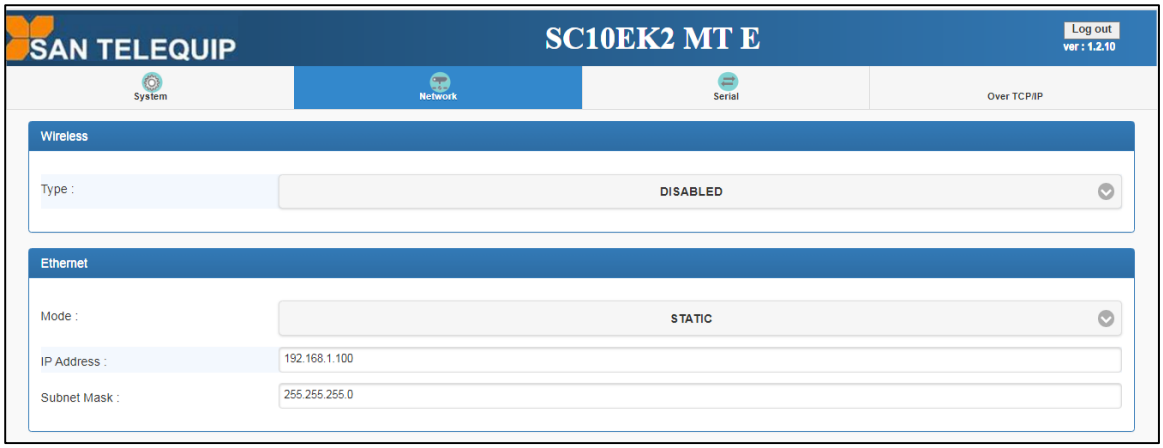


2.5 Mode: IP Address

2.5.1 “DHCP”: Let AP to assign IP address to itself.

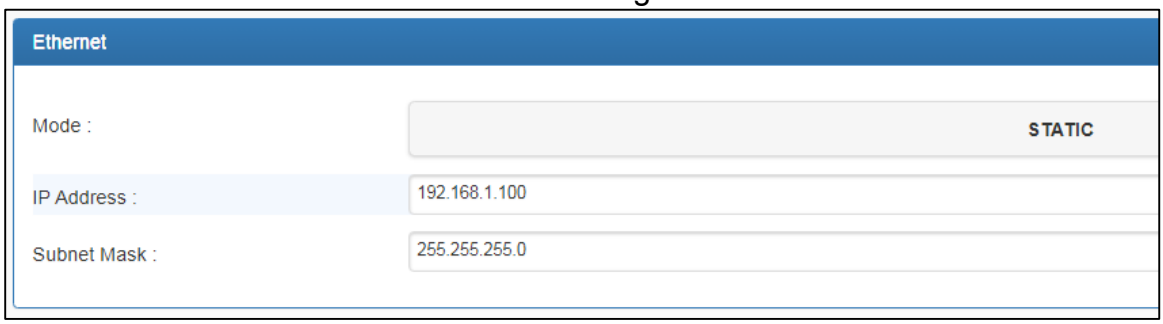


2.5.2 “STATIC”: To input assigned IP address, Subnet Mask.

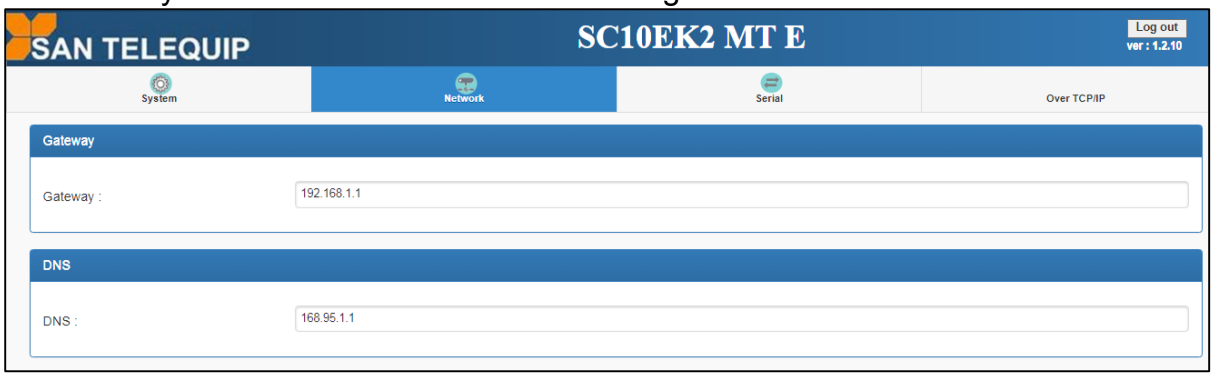


San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

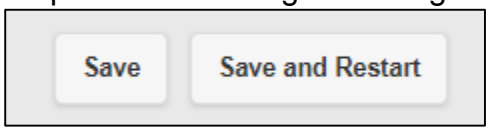
2.6 Ethernet: select STATIC or DHCP to assign IP address.



2.7 Gateway and DNS: To check with MIS for right IP address.

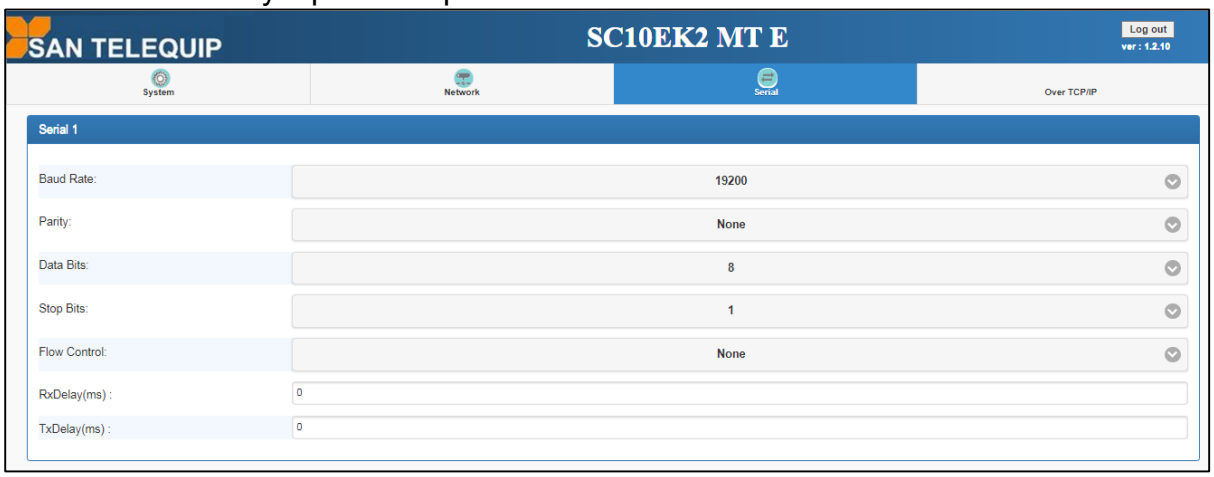


2.8 Up to now, Setup is successfully configured. Please click “Save” this page before permanent change of configuration.



3. Serial port settings

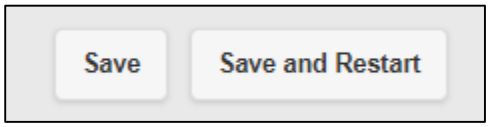
Please correctly input each parameter to match with the remote terminal units.



San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

3.1 Baud Rate
3.2 Parity
3.3 Data Bits
3.4 Stop Bits
3.5 Flow Control
3.6 RxDelay(ms)
3.7 TxDelay(ms)

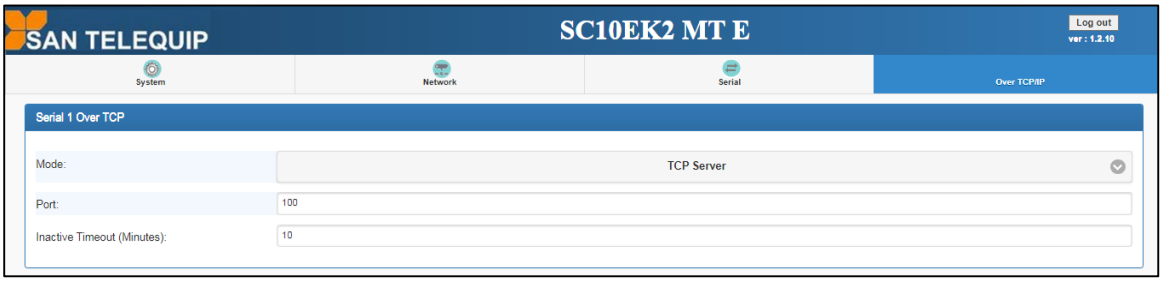
3.8 When setup is configured. Please click “Save” this page before permanent pages.

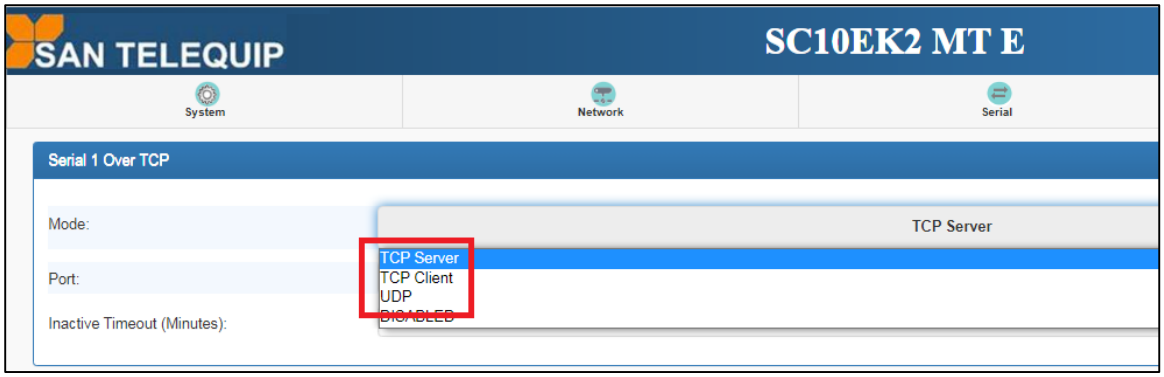


San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com

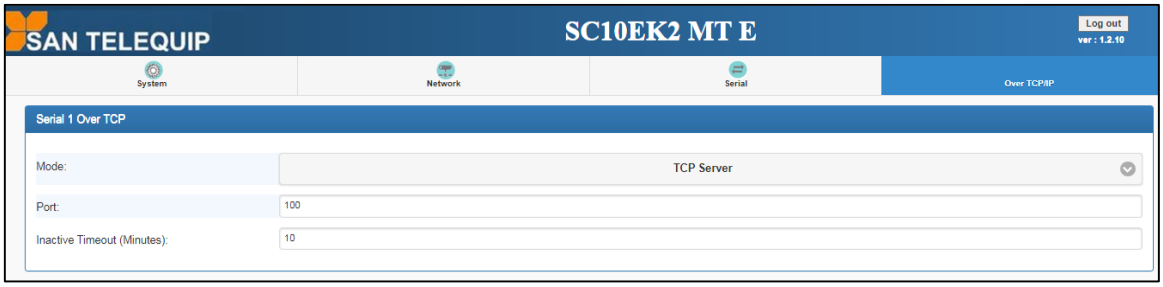
4. Serial port over TCP/IP

4.1 There are TCP modes for selection: TCP Server / TCP Client / UDP



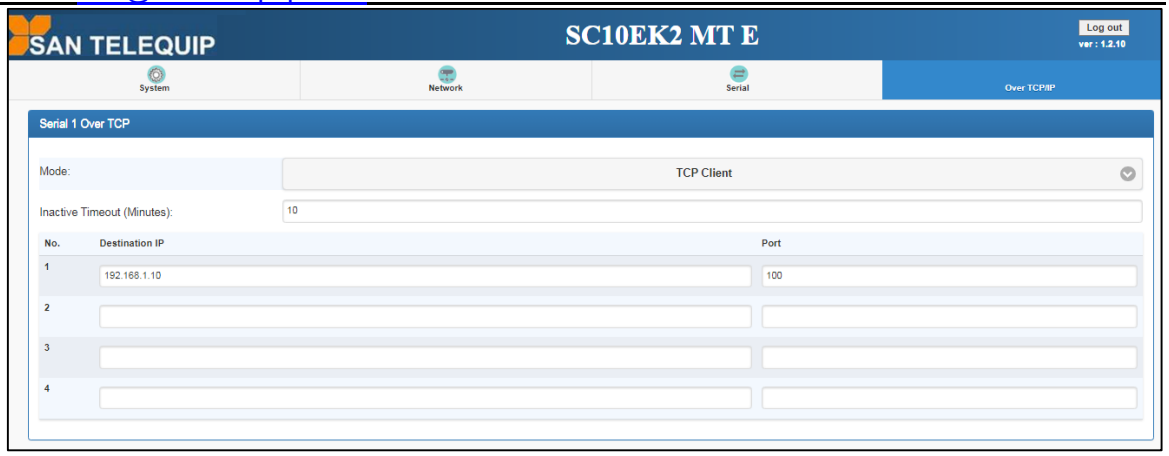


4.2 TCP Server: Configure TCP server port number and message time out period. At this mode, this device will wait for client connection.



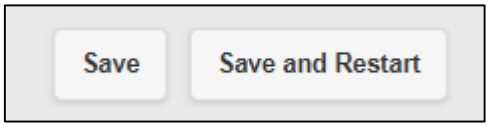
4.3 TCP Client: Allow to configure 4 remote destination host IP address, port number. At TCP client mode, THIS DEVICE establishes a connection with remote host and sending data to remote host actively.

San Telequip (P) Ltd.,
504, 505 Deron Heights, Baner Road,
Pune 411 045, India
Phone : +91-20-27293455, 9764027070, 8390069393
email : info@santelequip.com



4.4 UDP: Picture as above TCP client mode. Allow to configure 4 remote destination host IP address, port number. At UDP mode, this Device establishes a connection with remote host and sending data to remote host actively.

4.5 When setup is configured. Please click “Save” this page before permanent pages.



4.6 After configued all parameters, click “Save and Restart” to reboot system.