

# Elfin-EE1X

## RS232/RS485 to Wi-Fi

### Operation Guide

V 1.1

 <p>Elfin-EE10 RS232 ↕ Ethernet Input: 5-18VDC@5W</p> <p>1.T+ 2.T- 3.R+ 4.R- 5.TXD 6.RXD 7.VCC 8.GND</p>	Elfin-EE10
 <p>Elfin-EE11 RS485 ↕ Ethernet Input: 5-18VDC@5W</p> <p>1.T+ 2.T- 3.R+ 4.R- 5.A+ 6.B- 7.VCC 8.GND</p>	Elfin-EE11

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# 1. ELFIN-EE1X EVK

Elfin-EE10 is RS232 interface and Elfin-EE11 is RS485 interface. The EVK include the following attachment.

- Elfin-EE1X product
- Screw driver
- RJ45 to Terminal Transformer (4PIN or 8PIN)



## 1.1. Elfin-EE10 8PIN Connector



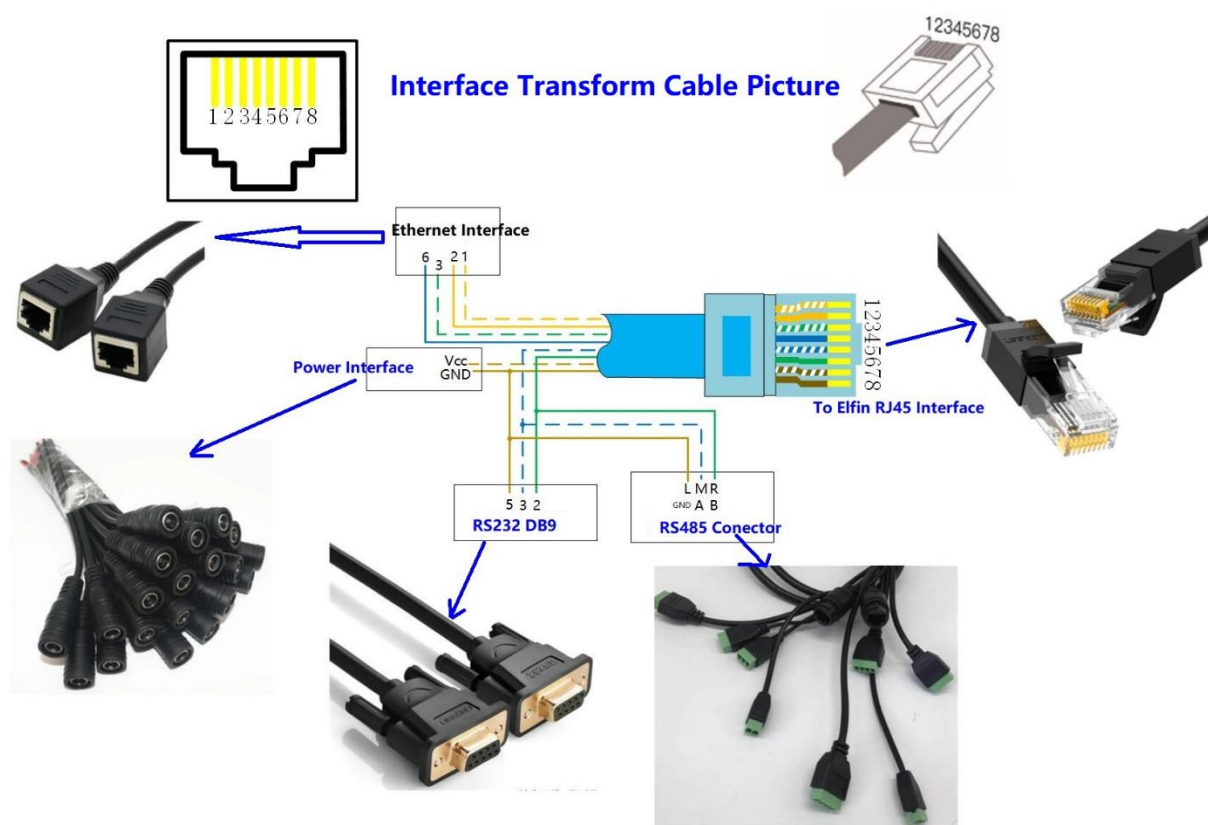
## 1.2. Elfin-EE11 8PIN Connector



## 1.3. EE10 Interface Conversion Cable



May also make cable according to the following picture.




## 1.4. EE11 Interface Conversion Cable

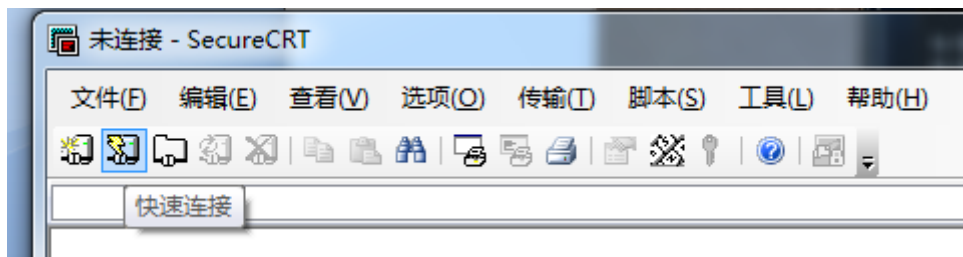


## 2. SERIAL SETTING

### 2.1. Serial Tool SecureCRT

Download address: [http://www.hi-flying.com/index.php?route=download/category&path=1\\_4](http://www.hi-flying.com/index.php?route=download/category&path=1_4)

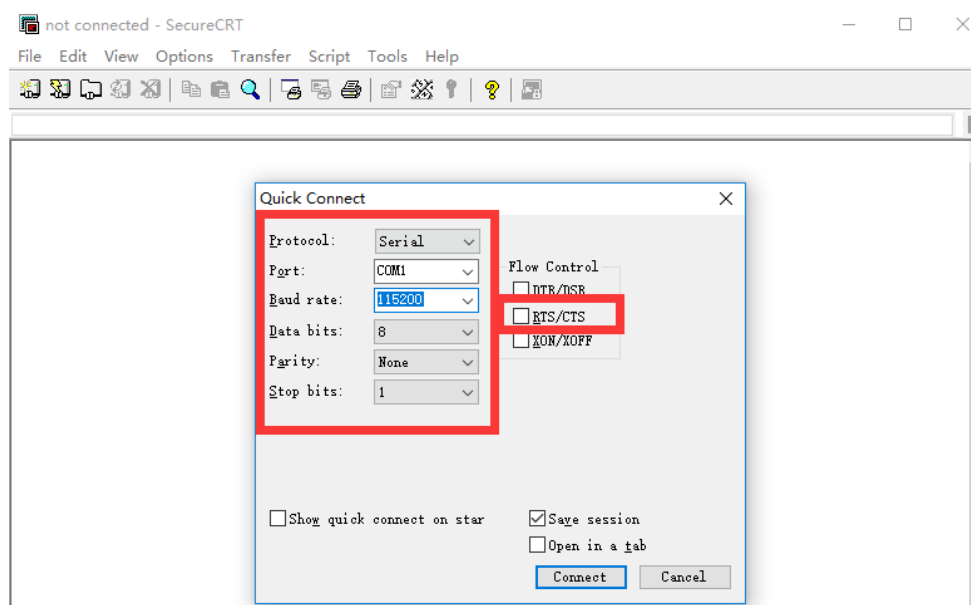
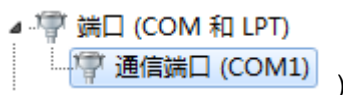
Decompress file and find executable program, then open. Click quick start button  to create connection.



### 2.2. Configure Serial Parameter

Protocol: Serial

Port: Actual connection port(search by "My PC"->"Device Manager"->"Port(COM and LPT)". As figure:



Notes: Elfin-EE1X the default serial data is as above and user can modify device working parameter by IOTService.

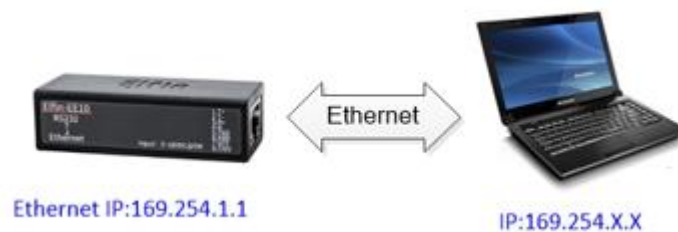


## 3. TEST EXAMPLE

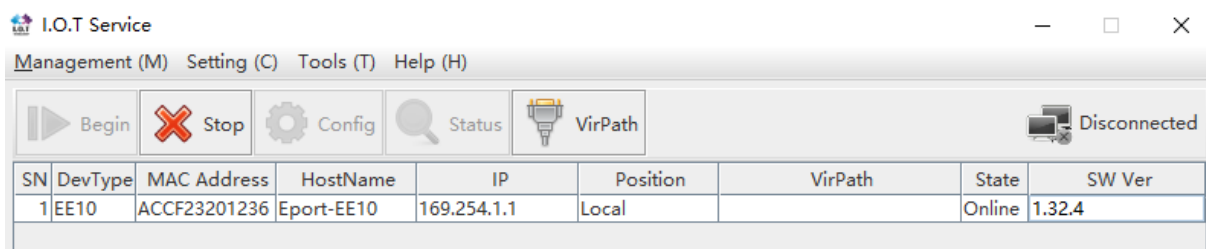
Elfin-EE1X use TCP/IP protocol for communication. There is two main parameters one for IP address and another for port number.

### 3.1. Ethernet Direct Connect Networking

Auto-IP is used for local area when there is no DHCP server exist, devices will use the Class B 169.254 for communication. Connect device Ethernet with PC, the device will use default auto IP(Elfin series use 169.254.1.1, others use 169.254.173.207). The PC may use this IP to config the device or transfer data. As the following example



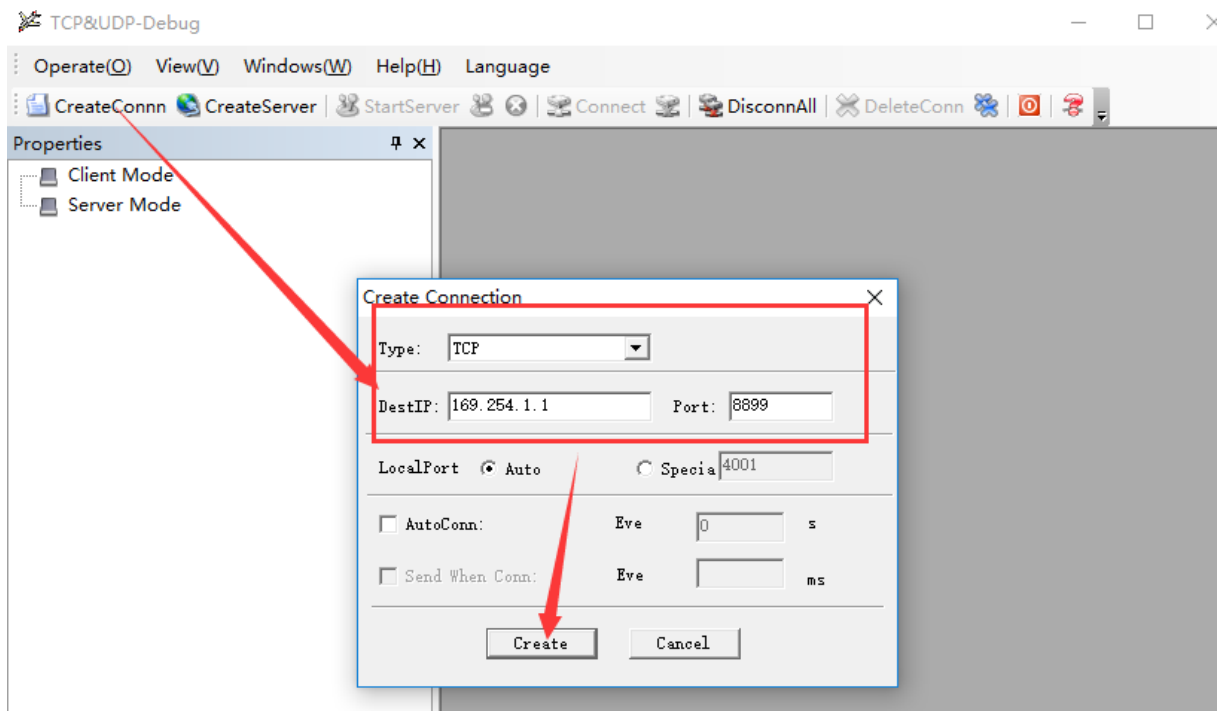
Step 1: Open IOTService and find the device.



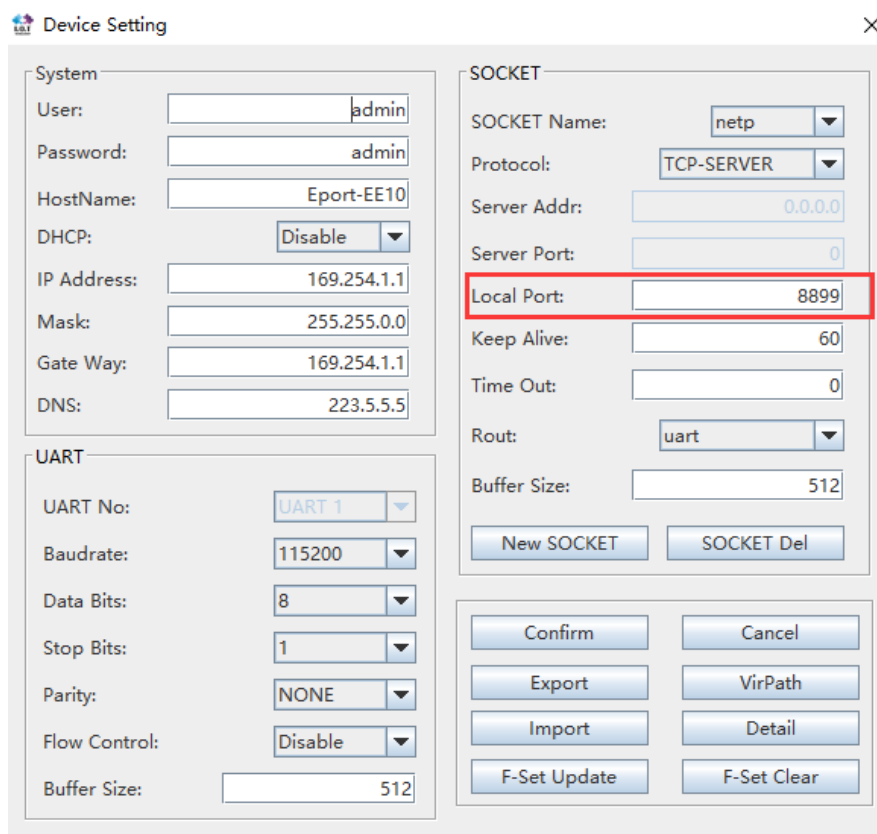
### 3.2. TCP Server Test in Auto IP Mode

Step 1: Open TCP&UDP test tool and generate TCP connection as following steps. Device has already created a TCP Server (port 8899) for use. TCP&UDP test tool can be downloaded from our website:

- DestIP: IP address of device which can be found by IOTService.
- Port: Port of TCP Server which can be found by IOTService or set by users own.

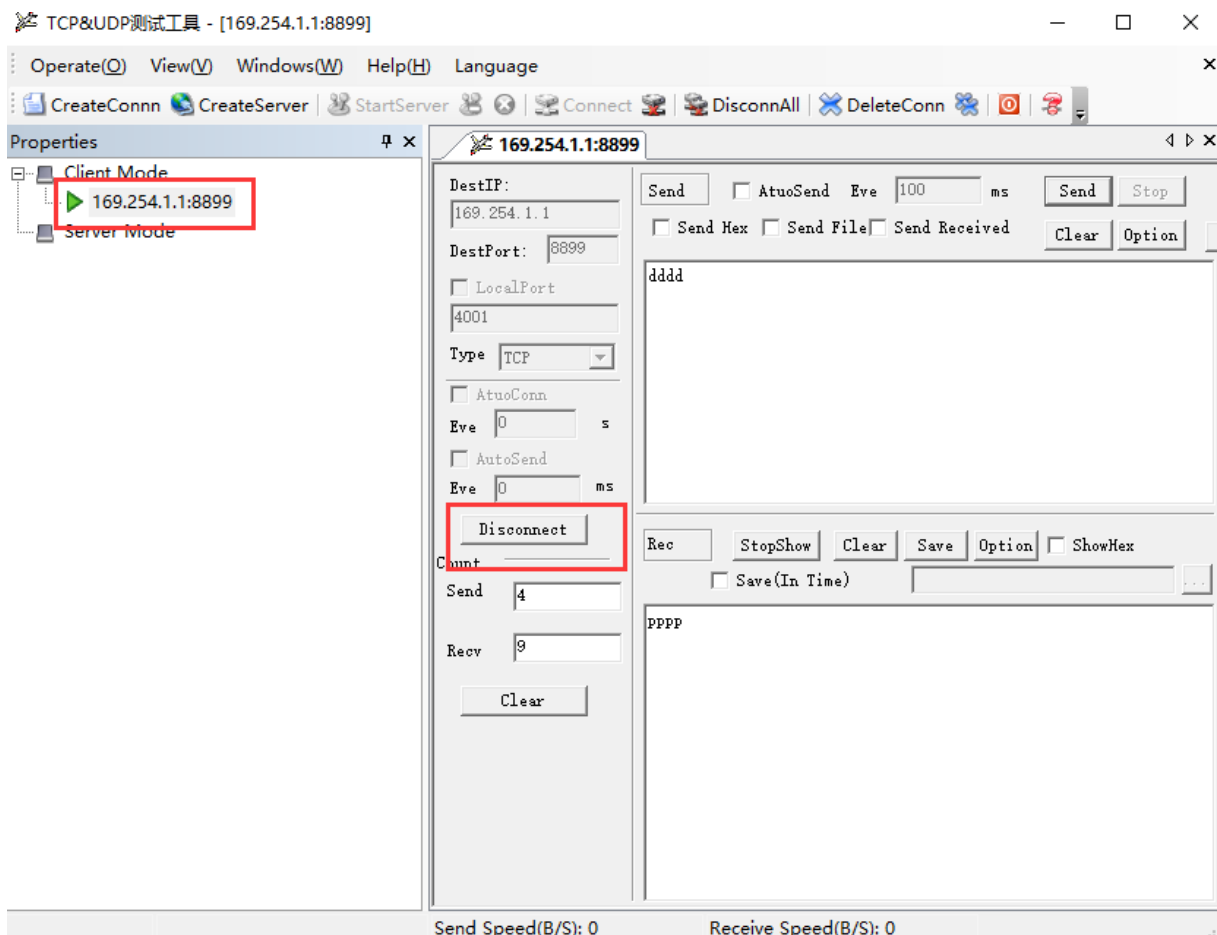


- The default socket used by product.

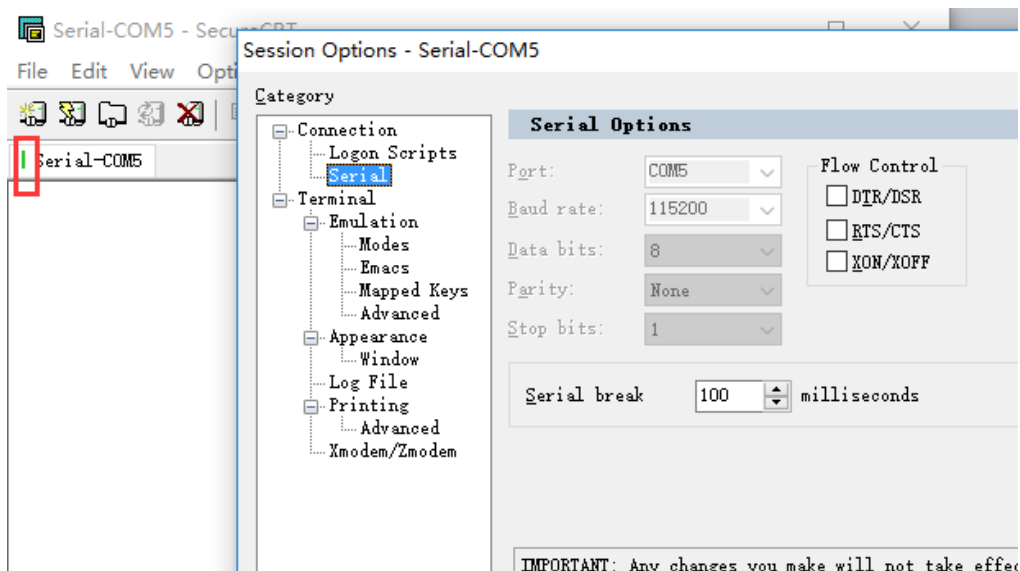


Step 2: Click Connection to generate TCP connection

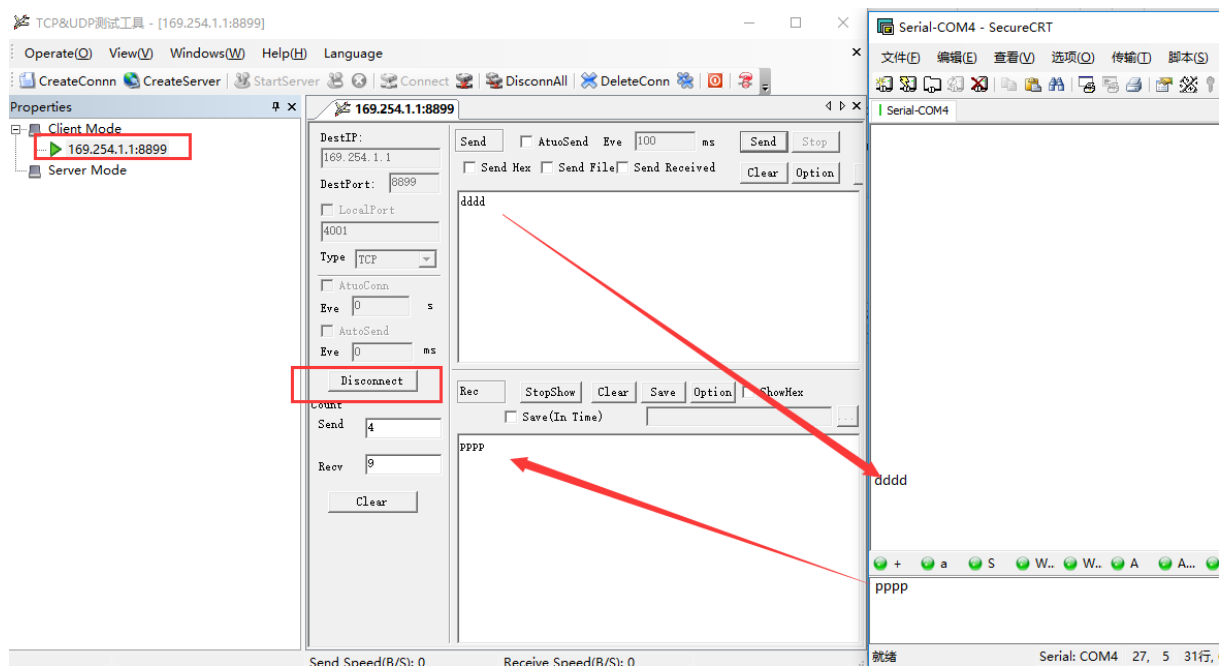
- After successful connection, the left turns to be green arrow, yellow if fails.



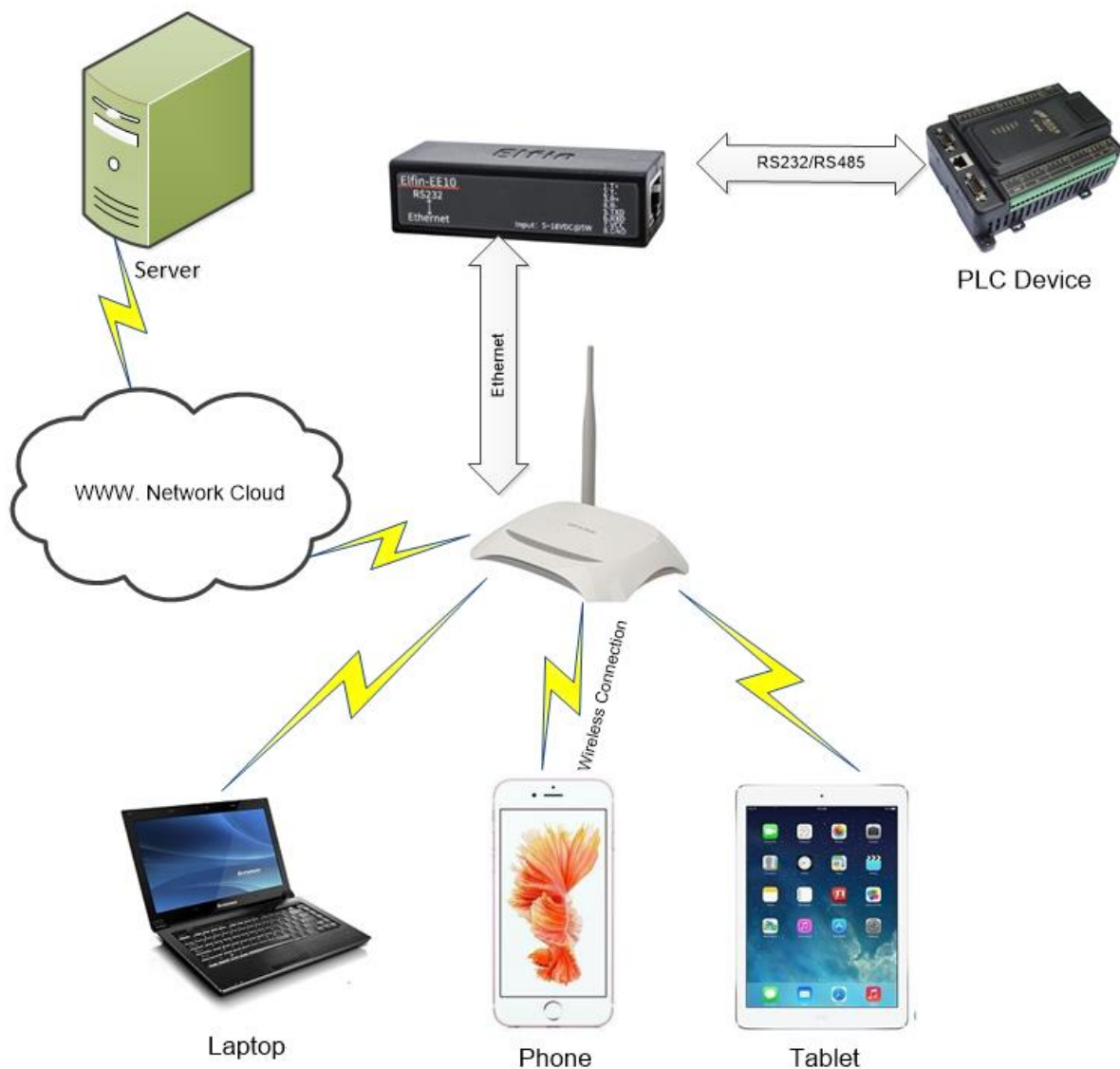
Step 3: Open serial tool according to following parameters (115200 baud rate as default)



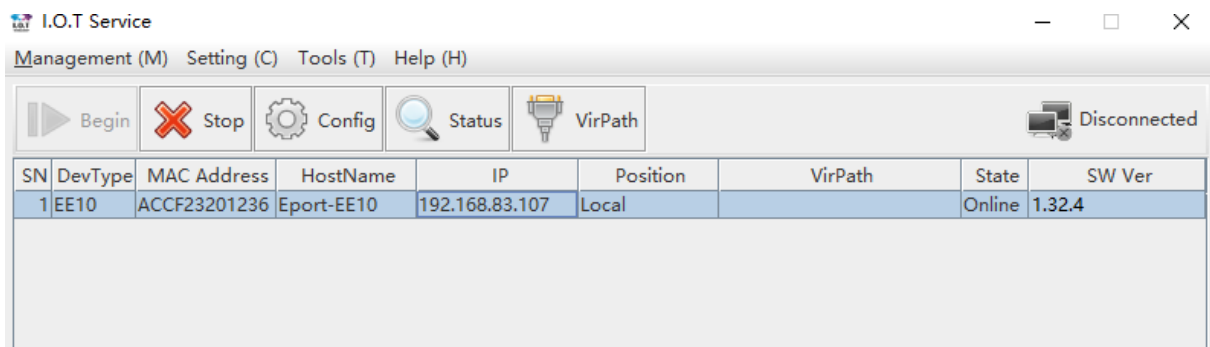
Step 4: Data transmission between TCP and UART is as following.



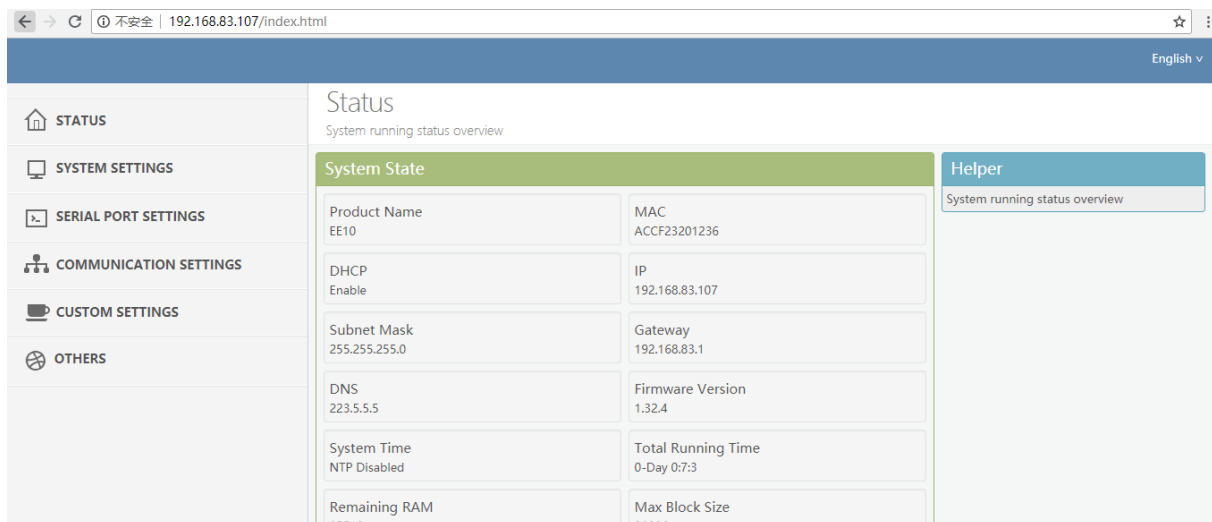
### 3.3. Router Networking



Step 1: Elfin-EE1X connect to router LAN and PC also connect to the same router. PC open IOTService tools and the device will show on the tools.



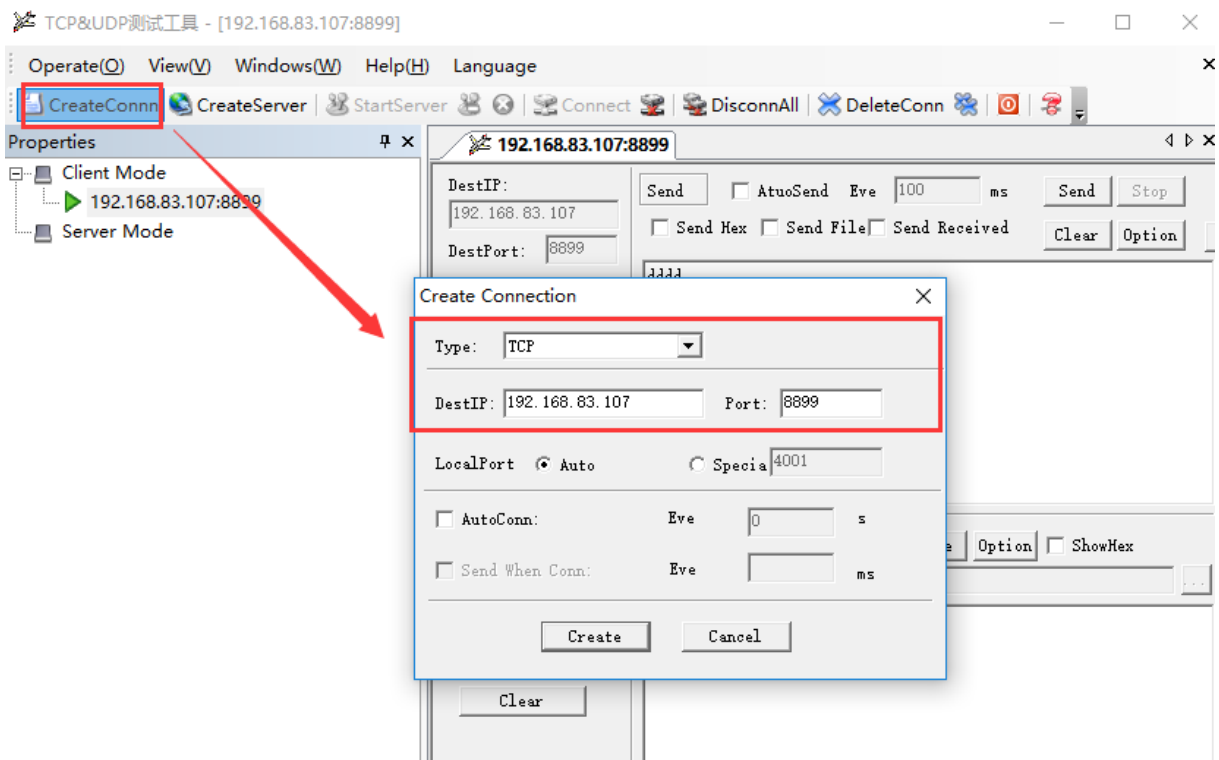
Can also use this IP to enter the device webpage(default login account is admin/admin)



### 3.4. TCP Server Test

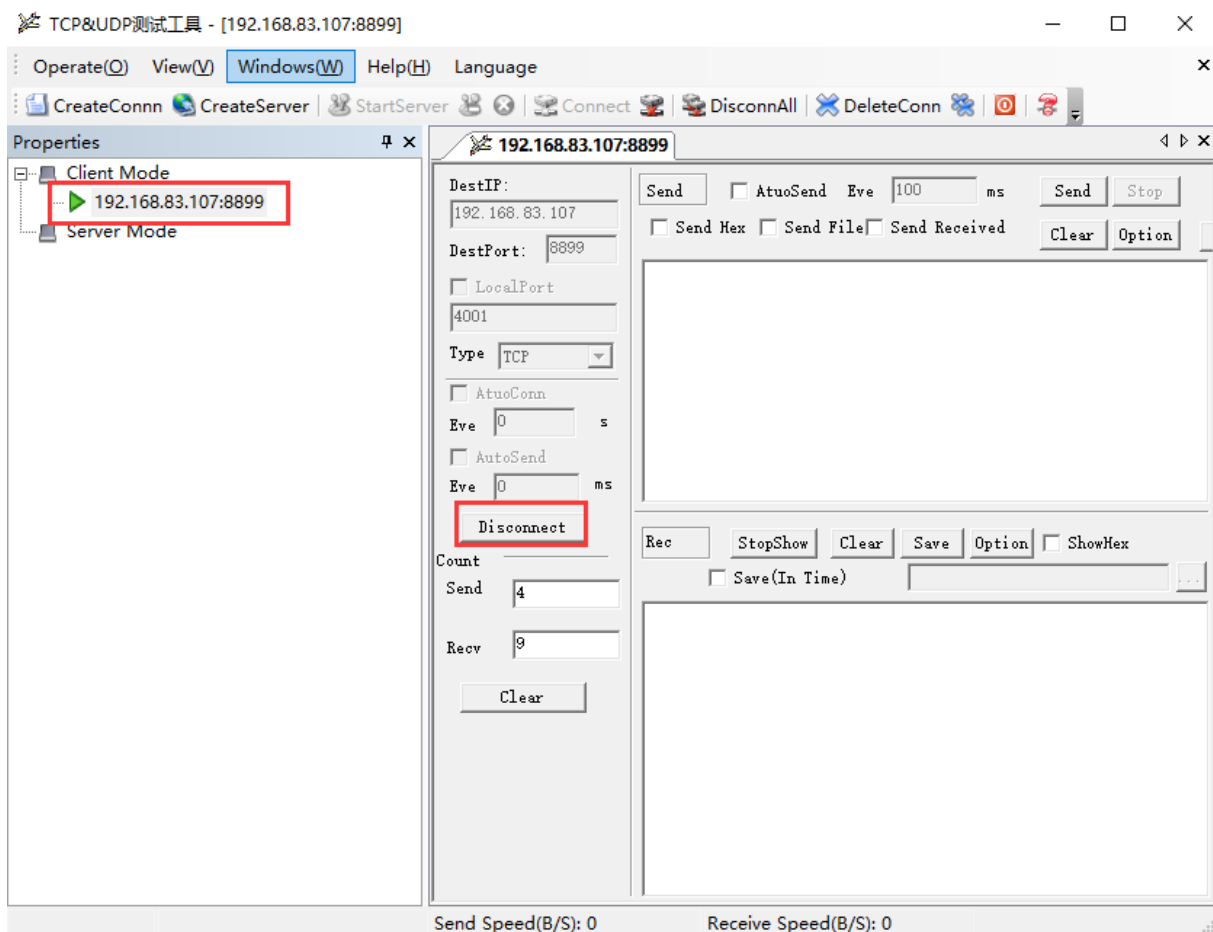
Step 1: Open TCP&UDP test tool and generate TCP connection as following steps. Device has already created a TCP Server(port 8899) for use. TCP&UDP test tool can be downloaded from the website:

- DestIP: Destination IP address.
- Port: Destination Port.

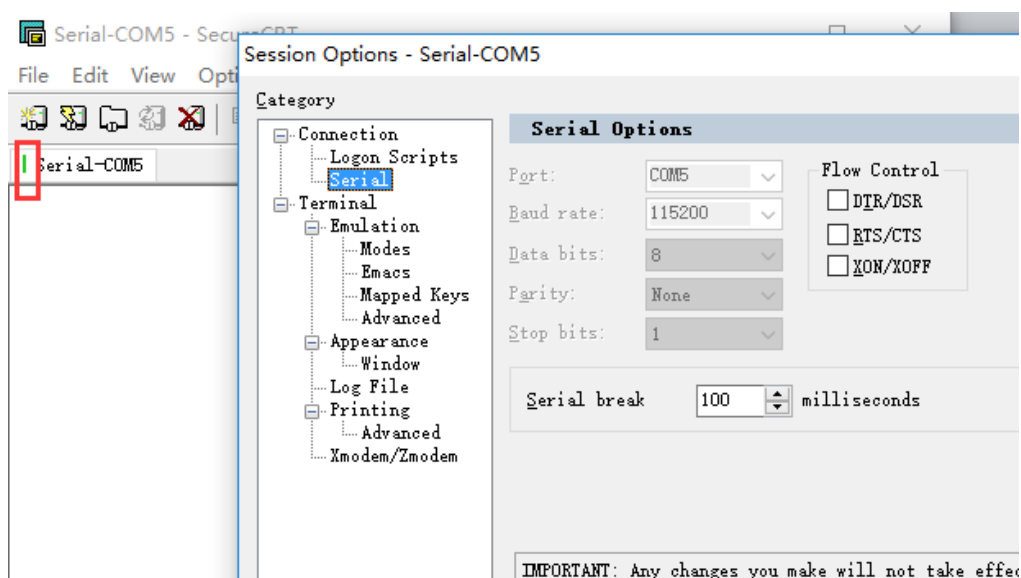


Step 2: Click Connect to create TCP connection

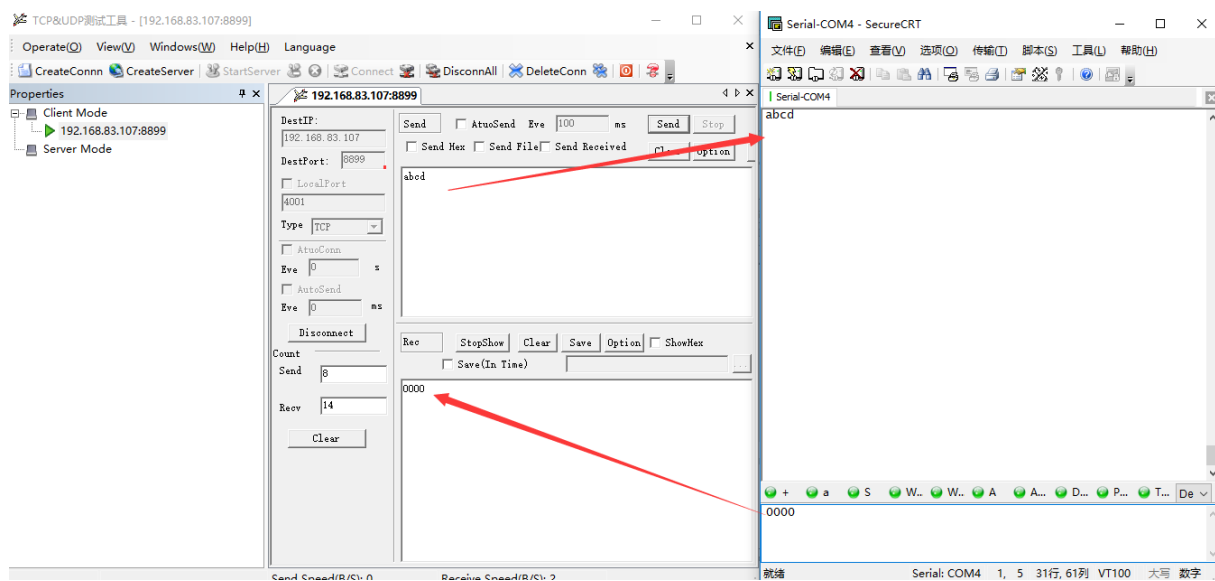
- After successful connection, the left turns to be green arrow.



Step 3: Open serial tool according to following parameters (115200 baud rate as default)



Step 4: Mutual data transmission between TCP and serial port.





# APPENDIX A:REFERENCES

## A.1. Test Tools

IOTService Configure Software:

[http://www.hi-flying.com/index.php?route=download/category&path=1\\_4](http://www.hi-flying.com/index.php?route=download/category&path=1_4)

## A.2. More Application

<http://www.hi-flying.com/download-center-1/application-notes-1/download-item-industry-products-application-manual-20180415>