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TSA5G35 API setup procedure

1: Introduce:

TSA5G35 API will be TCP/IP interface. Local PC or remote PC will control the TSA5G35 via TCP/IP channel.

UsbApp shall be update to the V2.3 which will have API function. USB dongle firmware is still work at V1.04.

2: Command format:

2.1 Start command:

Format: $Start||Freq,Span,Att,Amp,Swp

Freq: 1~5350, if Frequency set to 1500MHz, Freq will be 1500.

Span: 0=1MHz

1=5MHz

2=10MHz

3=20MHz

4=50MHz

5=100MHz

6=500MHz

7=1000MHz

Att: 0=30dB Att is not marked, 1=30dB Att is marked.

Amp: If 30 dB Att is not marked:

0=-60dBm

1=-50dBm

2=-40dBm

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3=-30dBm

4=-20dBm

5=-10dBm

6=0dBm

If 30 dB Att is marked:

0=-30dBm

1=-20dBm

2=-10dBm

3=0dBm

4=10dBm

5=20dBm

6=30dBm

Swp: 0=x1 (CW Mode)

1=x1.5 (Burst Mode)

2=x2 (Burst Mode)

3=x4 (Burst Mode)

4=x8 (Burst Mode)

5=x16 (Burst Mode)

6=x32 (Burst Mode)

For example: $Start||1800,1,2,0,1 it means click the start key with setting of freq=1800MHz, span=5MHz,amp=-40dB,Att_off, Swp=x1.5(Burst Mode)

2.2 Stop commend

Format: $Stop

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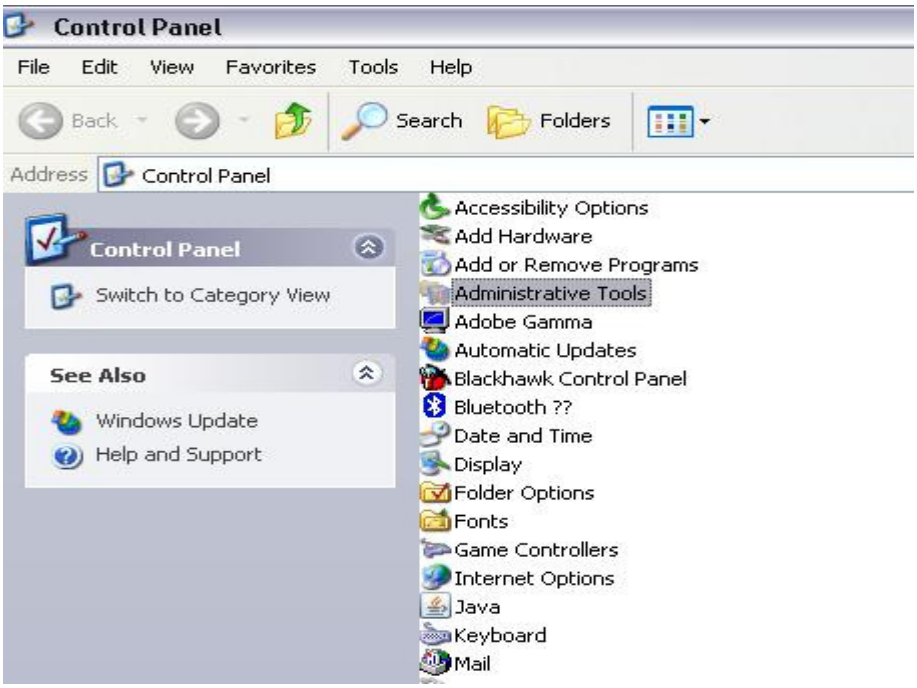
3: TCP/IP Debugger tool setup

3.1 Open IP port:

Setup IP port 6666 at your windows firewall for both inbound and outbound.

First go into the Control Panel, then click Administrative tool, you can see the following figure:



Then click local security policy Shortcut, you can see the following figure:

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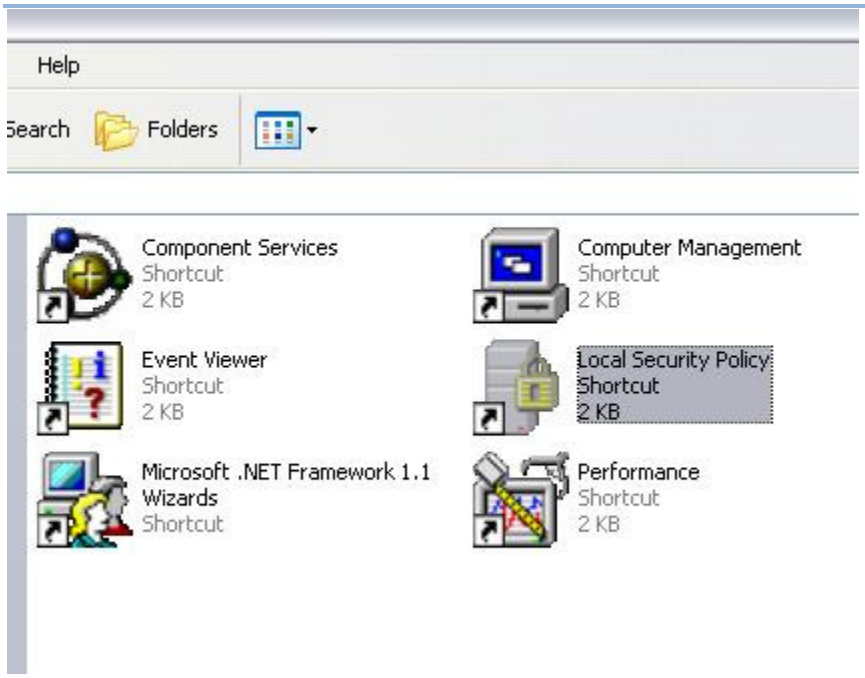
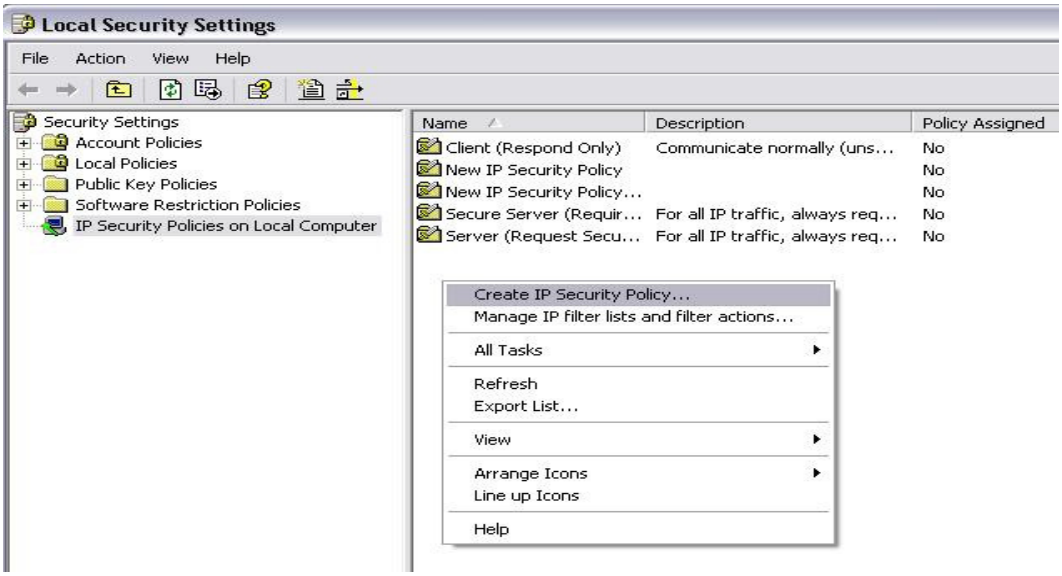


You will find local Security settings Wizard, move the mouse curser to right window and right click, the pop menu will be shown. Click “Create IP Security Policy…”



Click next

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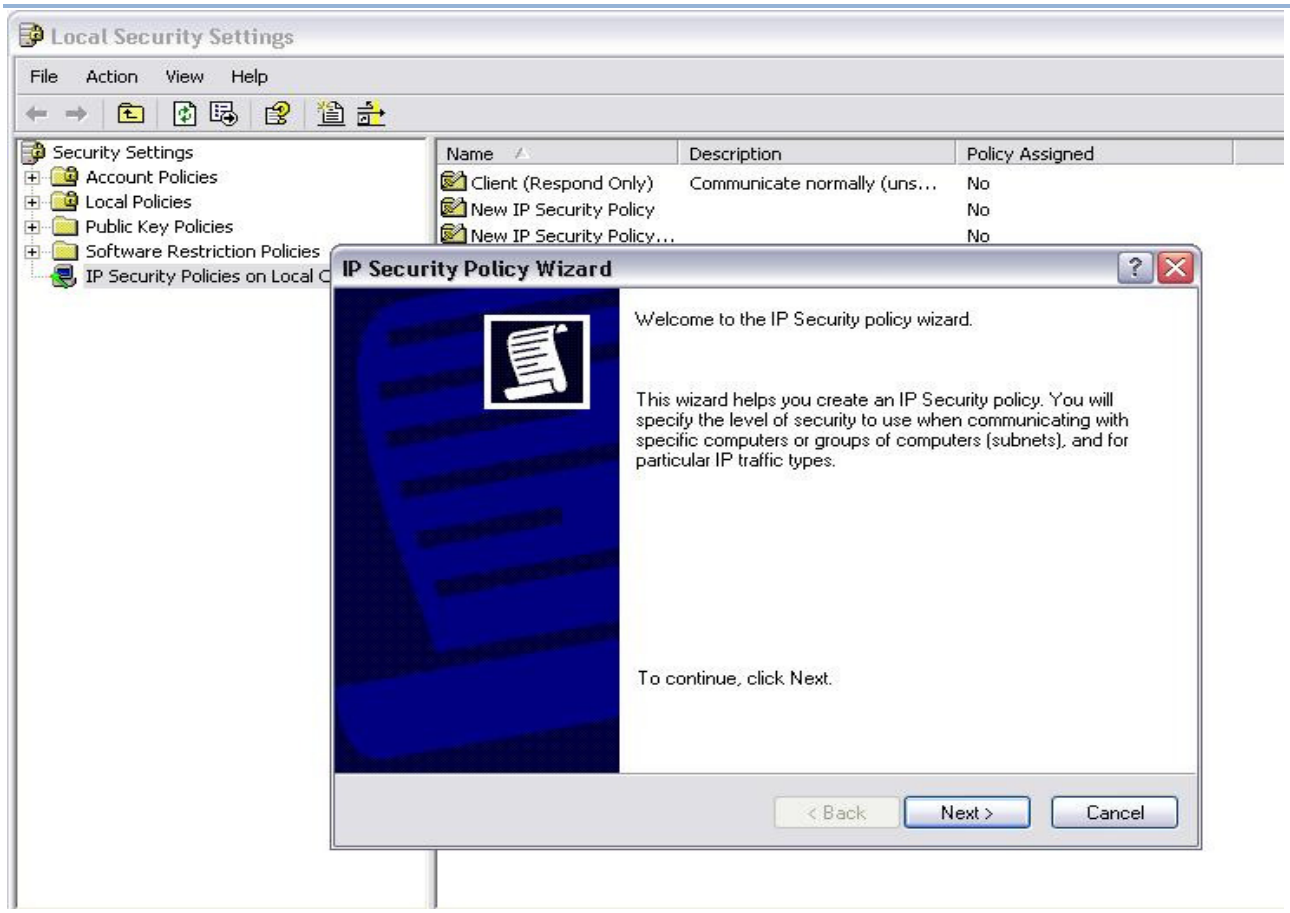

Type TSA5G35 in name box. Then click next:

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Remove the mark on Activate the default response rule. Then click the next.

Click finish

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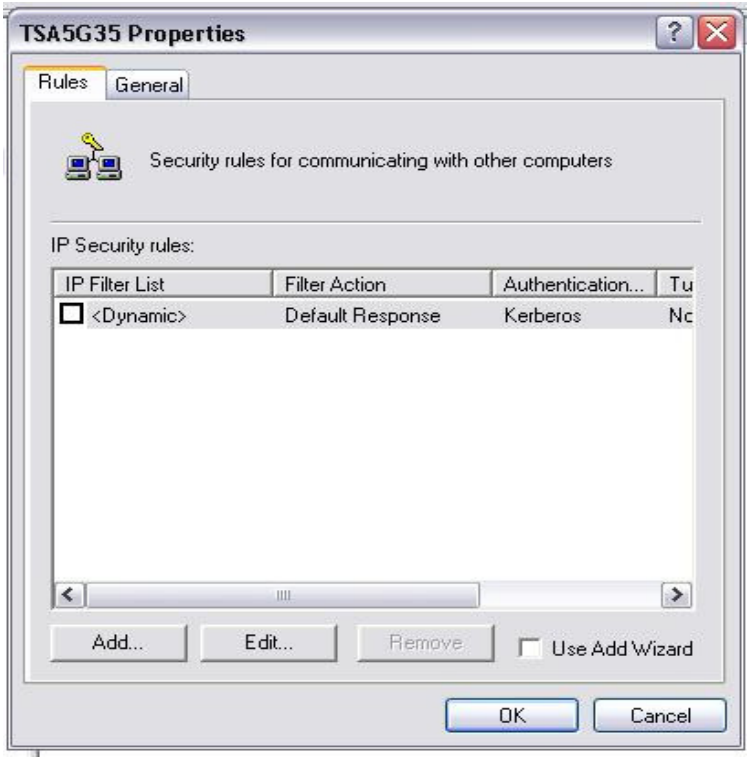
TSAG35 properties will be shown. Remove the mark on Default Response. Then click the Add key:



Click the Add key:

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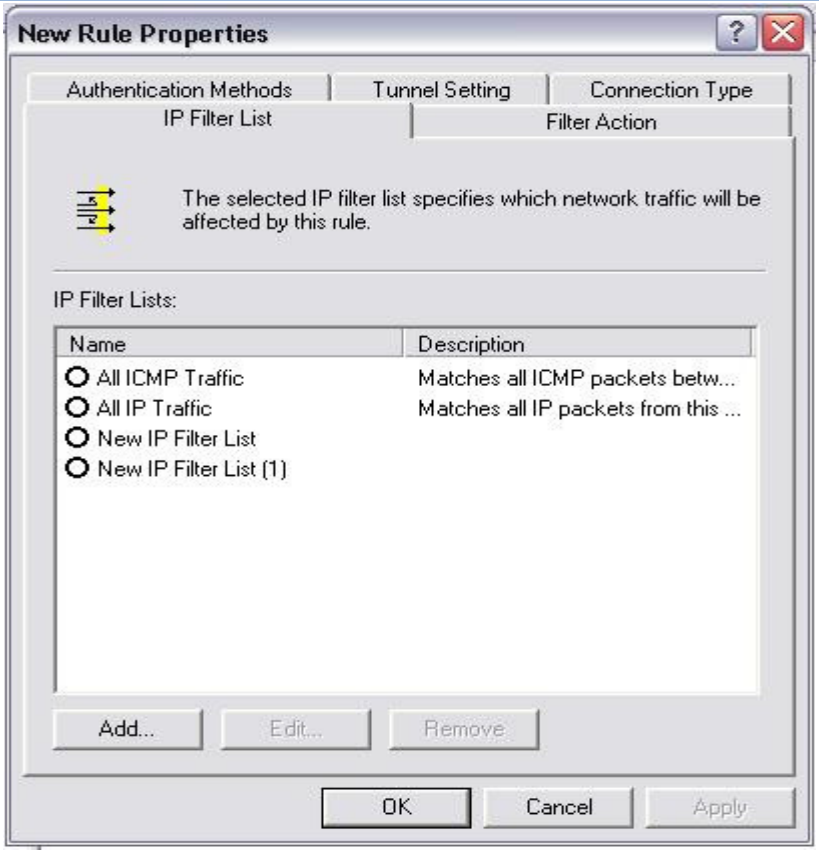
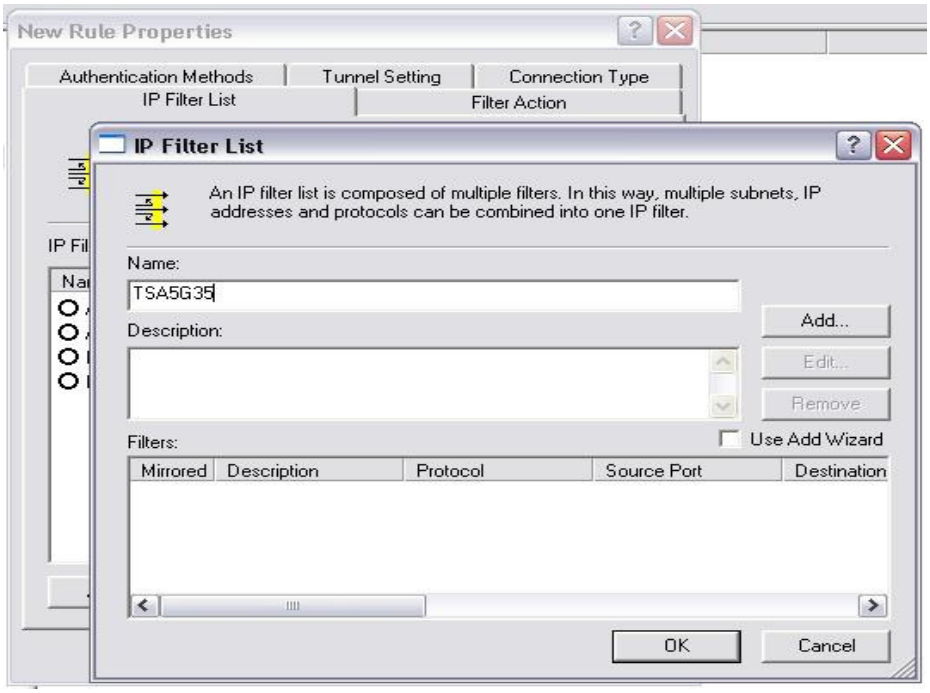


Type name with TSA5G35, click Add key:



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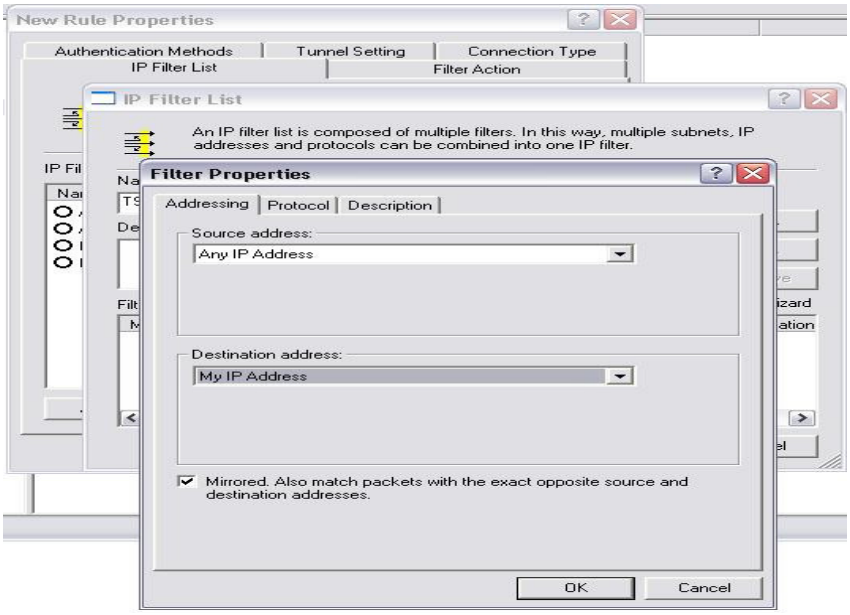
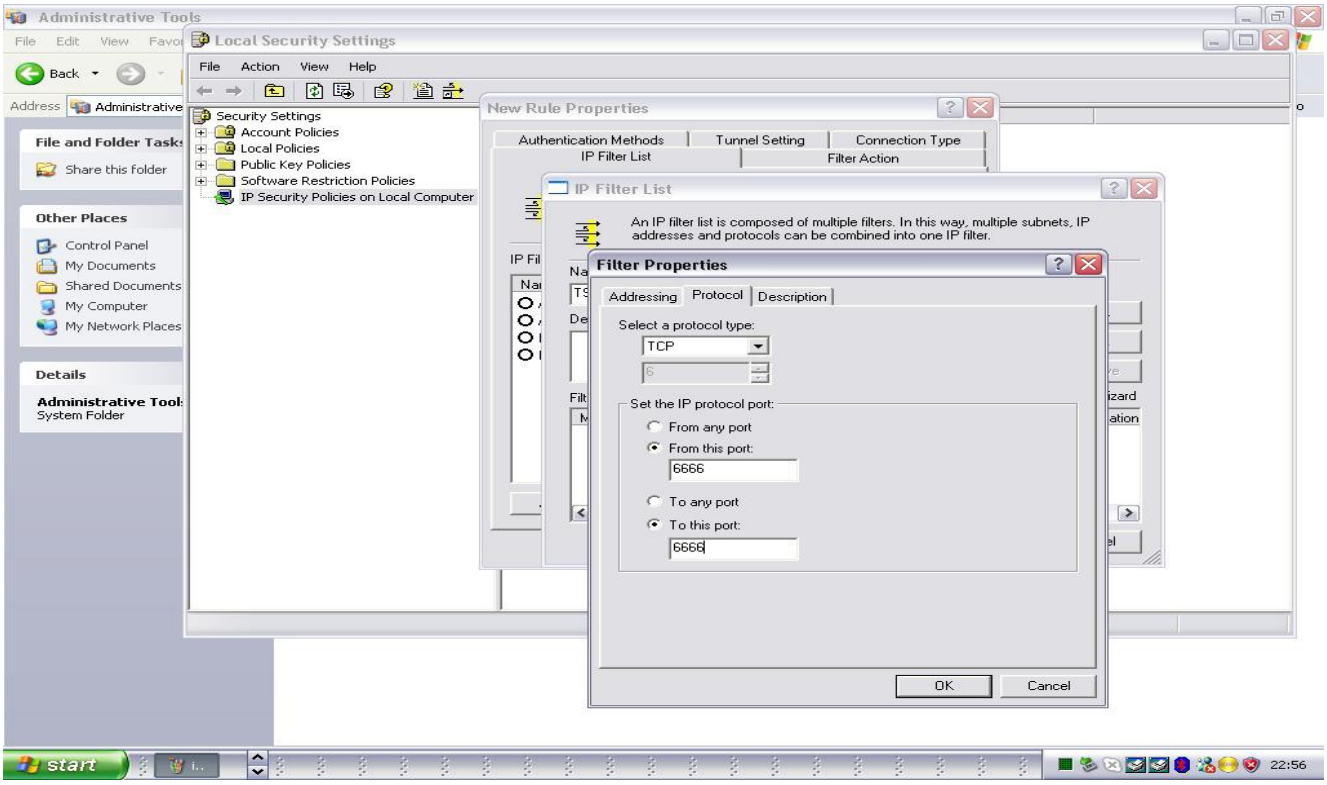
In the Filter properties and Address item, Select Any IP Address in the Source address box. Select My IP Address in the Destination address box.



In the Filter properties and protocol item, mark From this port and input 6666 (inbound) , mark the To this port and input 6666 (outbound), click OK key after setting.



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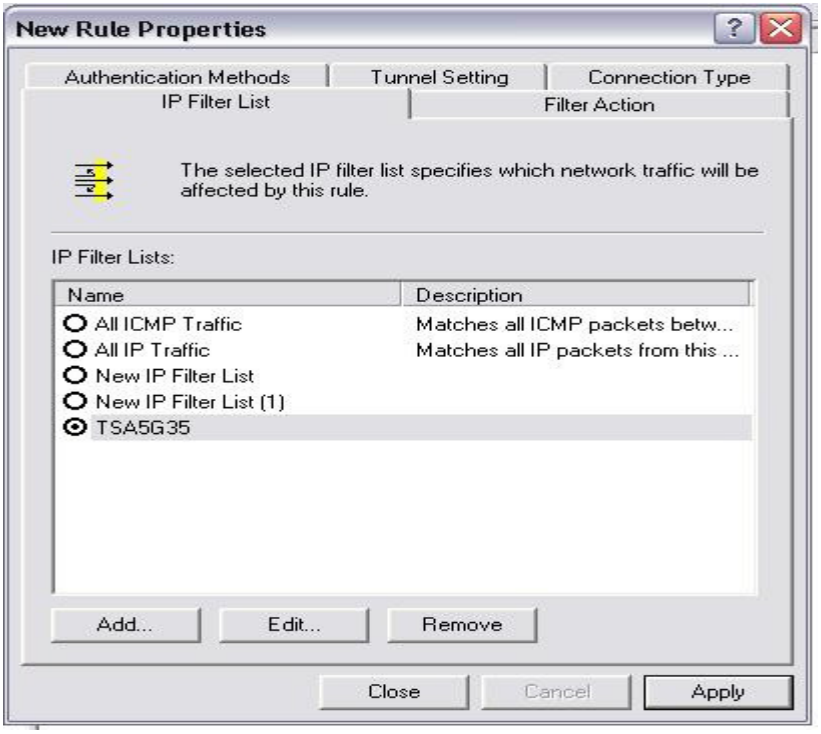
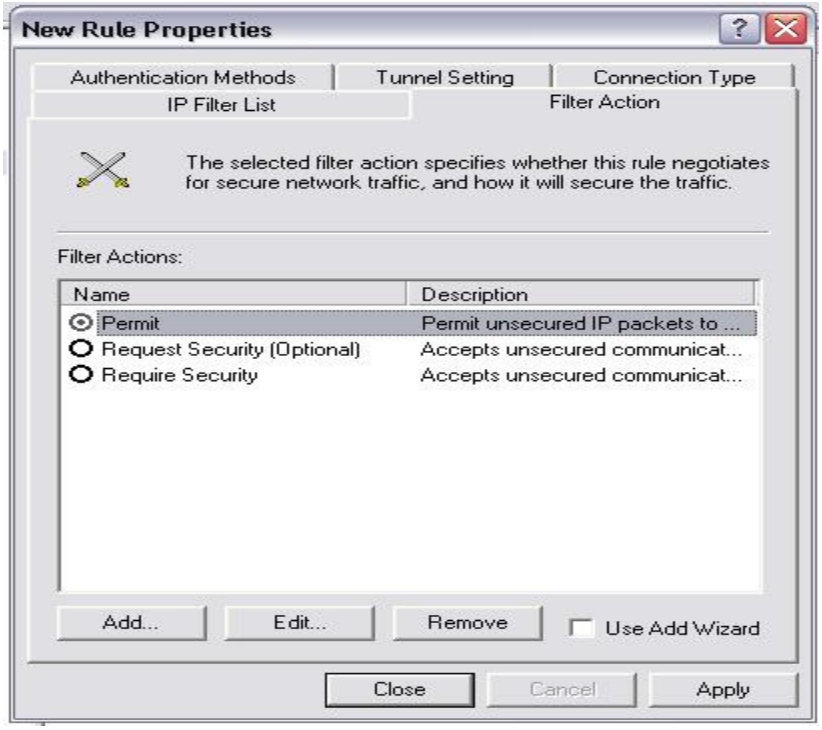
High light TSA5G35, Select Filter Action item



Mark the Permit and click the Apply key:



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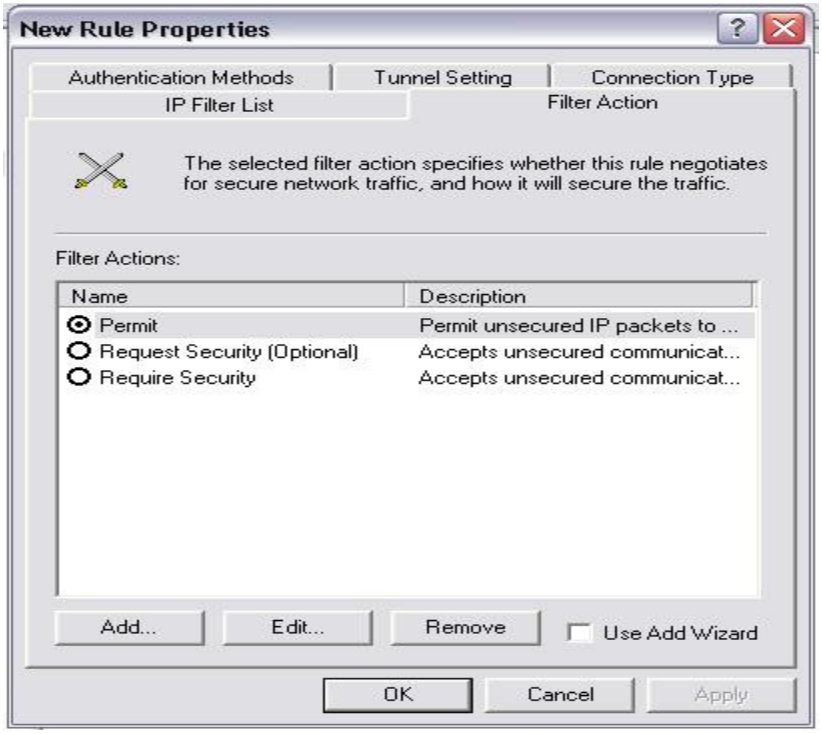
Click the OK key



Click close key

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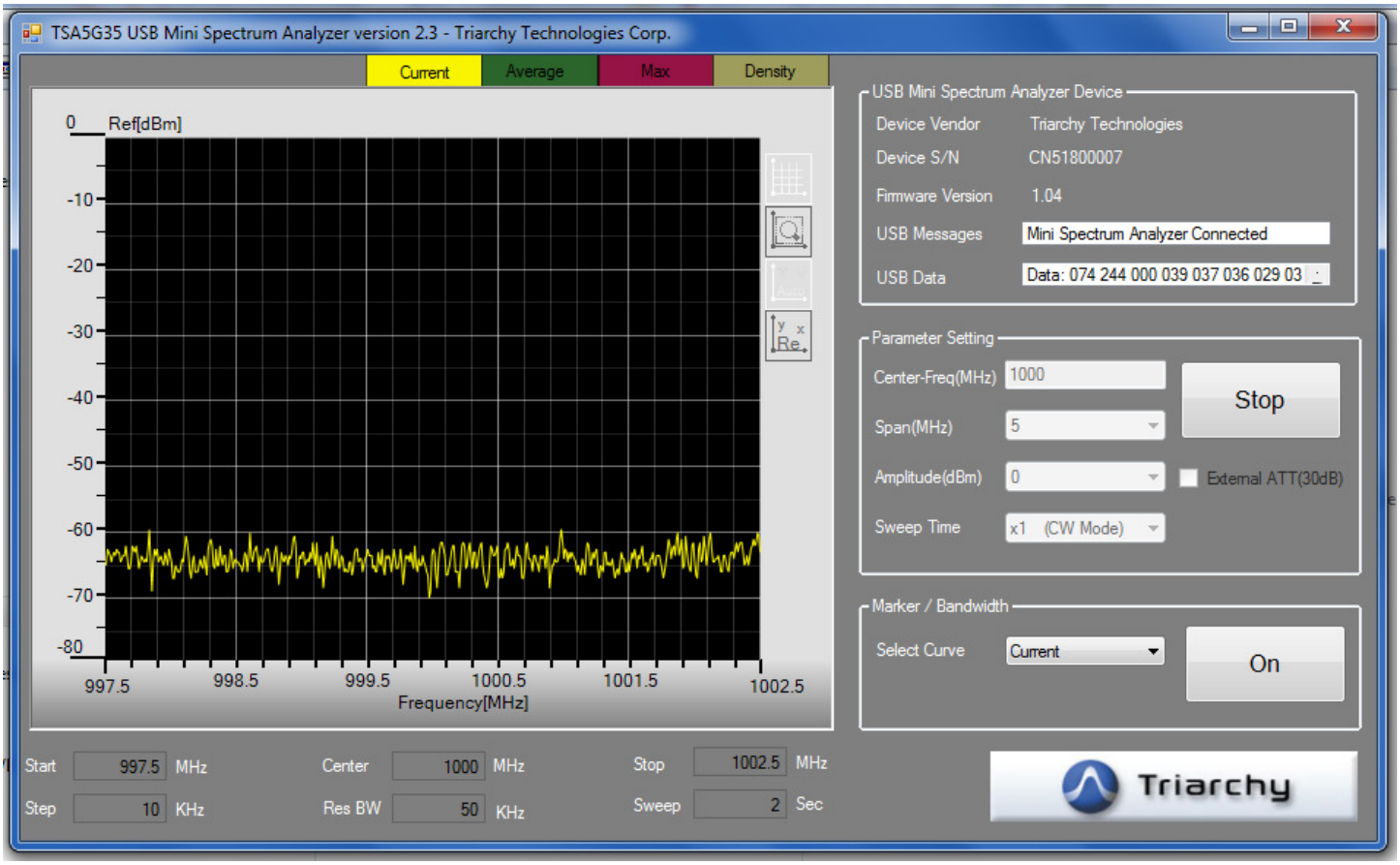
3.2 Setup UsbApp

All the procedure for the UsbApp setup is same as before, it is update UsbApp version to the V2.3, you must use this Version or update version to setup TSA5G35 API.

Please don't forget to add two license files in to program folder.



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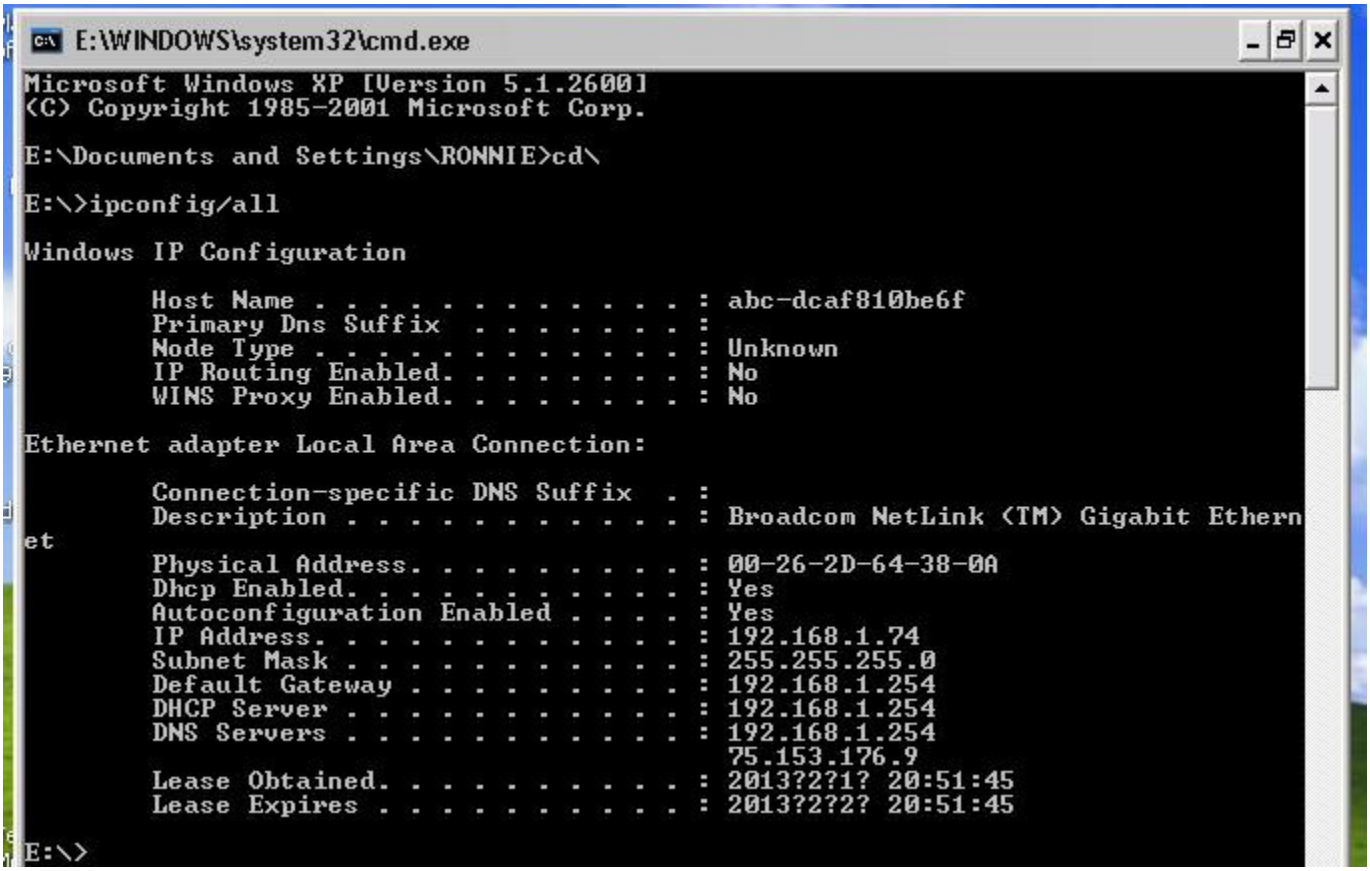
3.3 Setup TCP/IP monitor tool

TCP/IP monitor tool will be used to demo the API function. USR-TCP232_Test.exe is one of TCP/IP monitor tool, Any other TCP/IP monitor tool is still working, TCP/IP monitor is only for demo purpose, customer will write code to control to TSA5G35 based in this API.

First you shall find IP address of PC which install the UsbApp, type ipconfig/all in the DOS window



You will find IP Address, this computer IP is 192.168.1.74.

IP address shall be different with different PC which will connect different network. TCP/IP monitor will work on the computer which IP address is 192.168.1.66.

Click the USR-TCP232_Test.exe to turn on the TCP/IP monitor tool.

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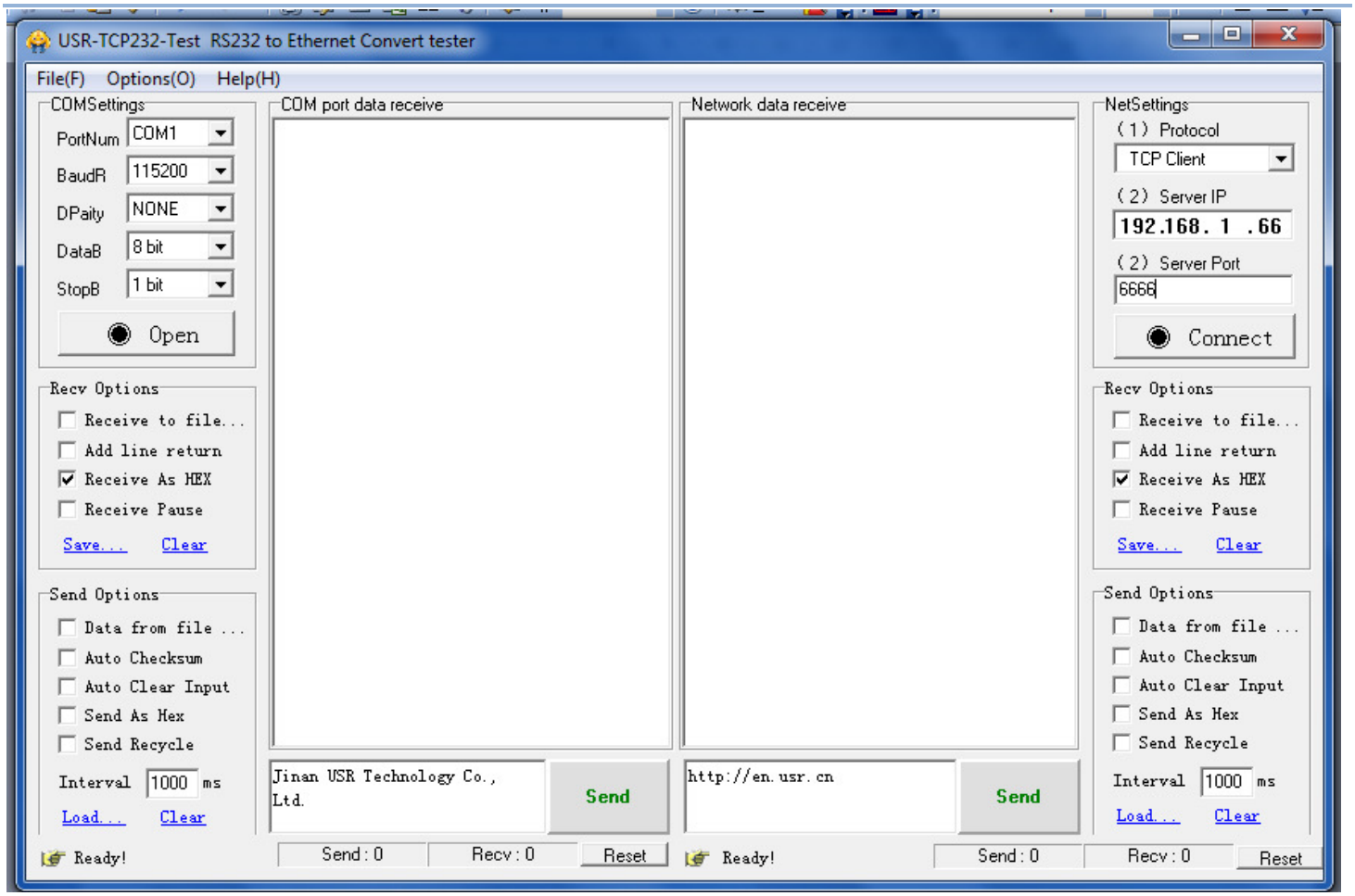

USR_TCP232 Tester has network monitor and Com port monitor (USR-TCP232-Test.exe). Only the network monitor will be used in this case. First, setup Network Settings: select “TCP Client” in (1)Protocol window, input IP address in (2) Server IP window, input 6666 in the (2) Server Port window.

Then click “Connect” key to setup connection. If the TSA5G35 is working, you will see the spectrum data from the receive data window.

Or you can send Start command to start to TSA5G35 measuring.

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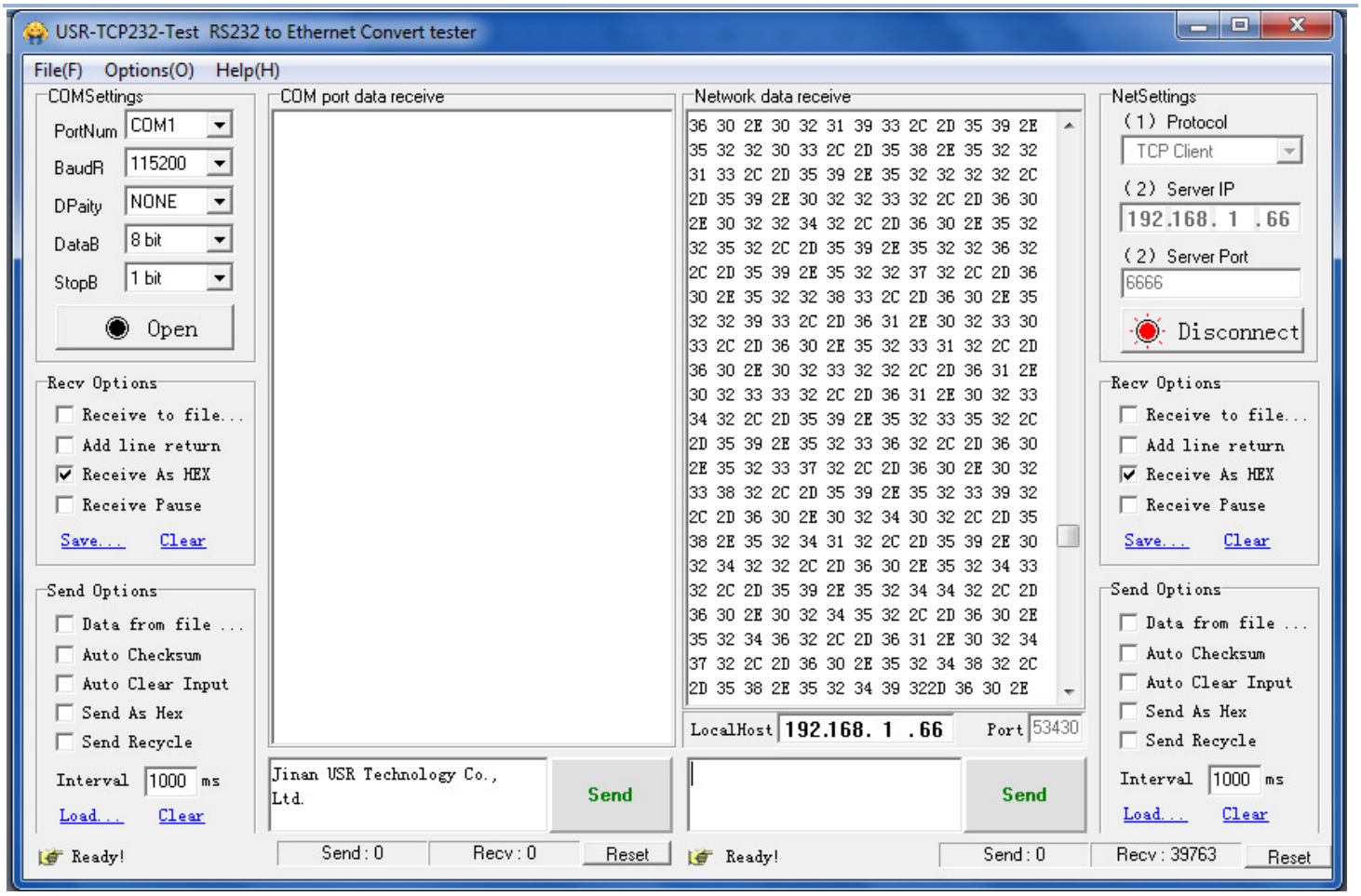

You can input $Stop, then click send data key. The UsbApp will execute command to stop the scan, you also can send Start command with different setting to implement measurement, the receive data window will show all the data of measurement.

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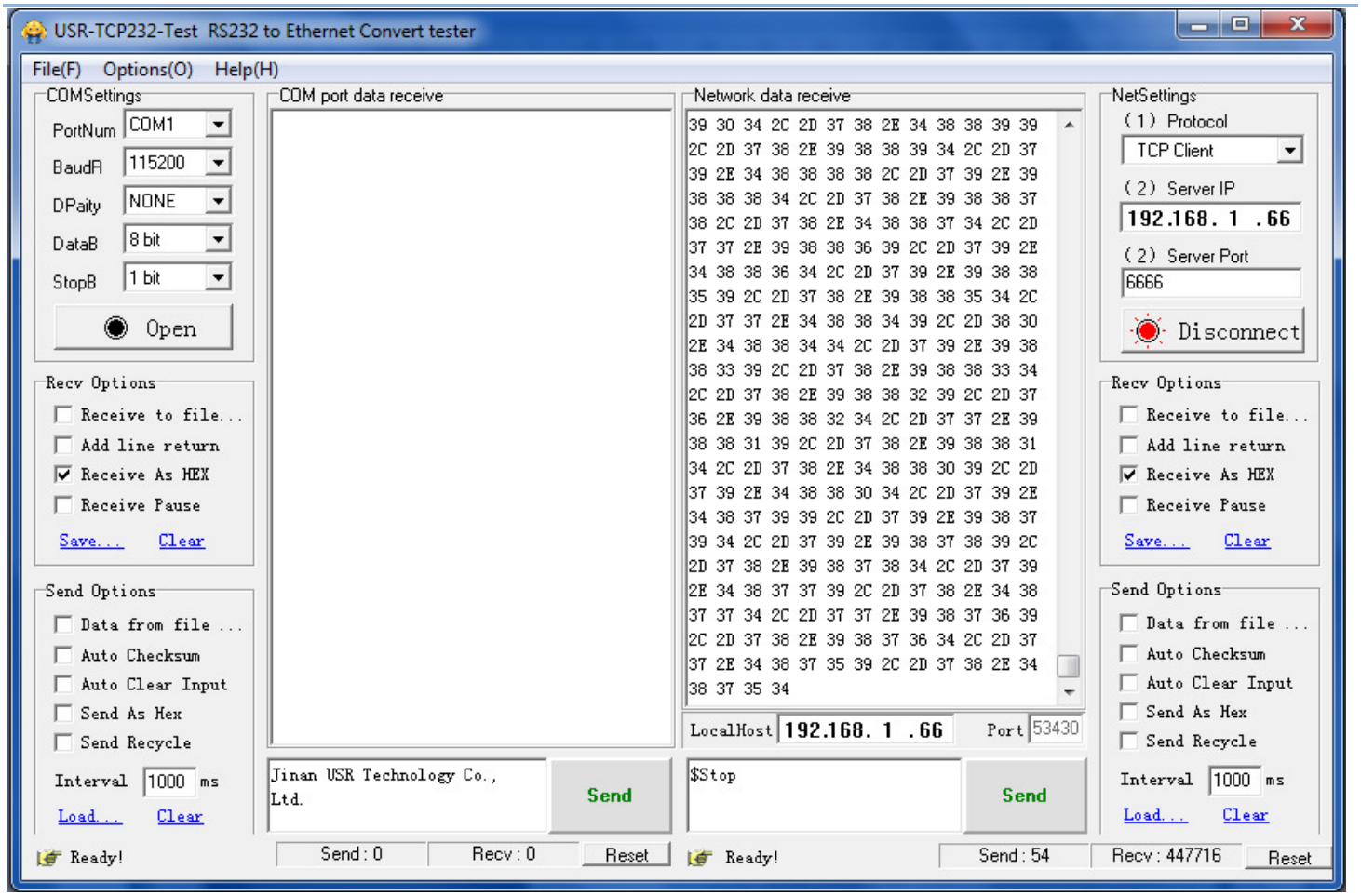

You also can setup another PC with the TCP/IP monitor tool (USR-TCP232-Test.exe), please note: the IP will be will be local PC which install TSA5G35 dongle. After you install it, you can implement remote control.

The remote PC IP address is 192.168.1.170, the IP address which install the TSA5G35 is 192.186.1.66, input the IP address into (2) Server IP window.

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