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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

3: TCP/IP Debugger tool setup

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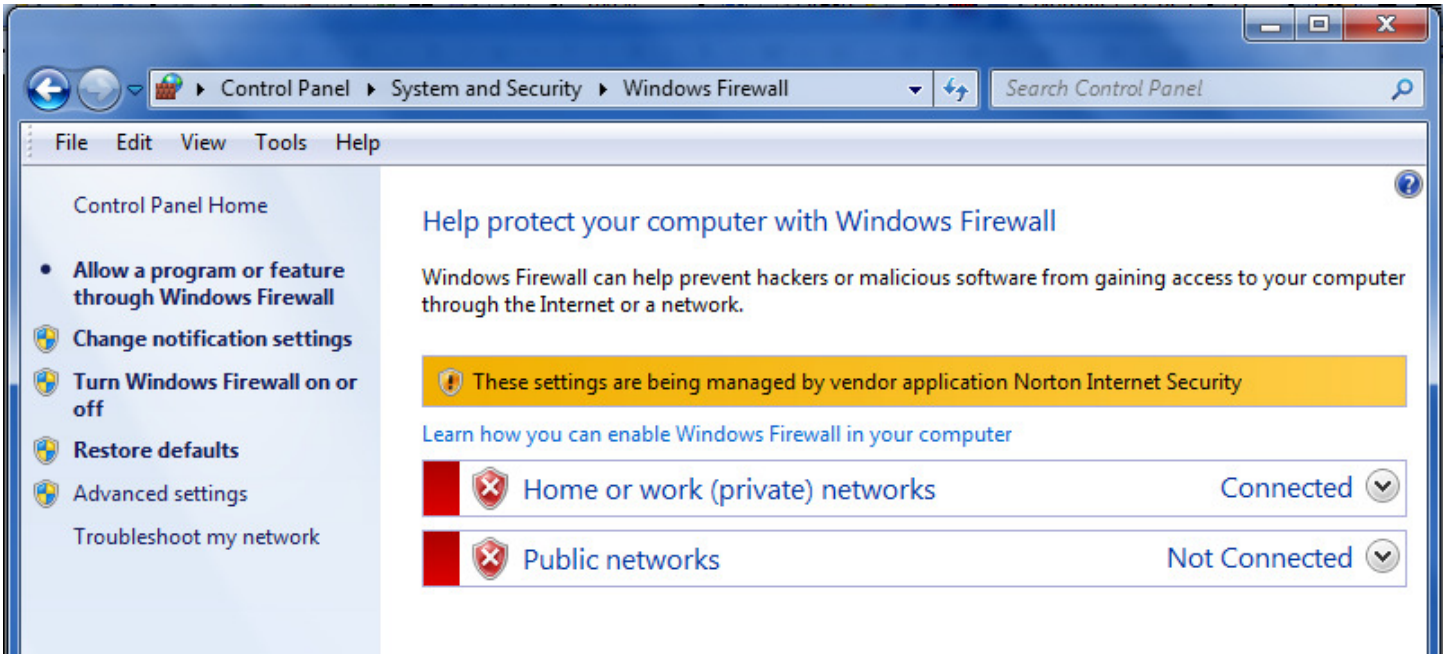
3.1 Open IP port:

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

First go into the Control Panel, then click System and Security, then click Windows Firewall, you can see the following figure:



You will find Advance settings at left side, click it go into the advanced setting:

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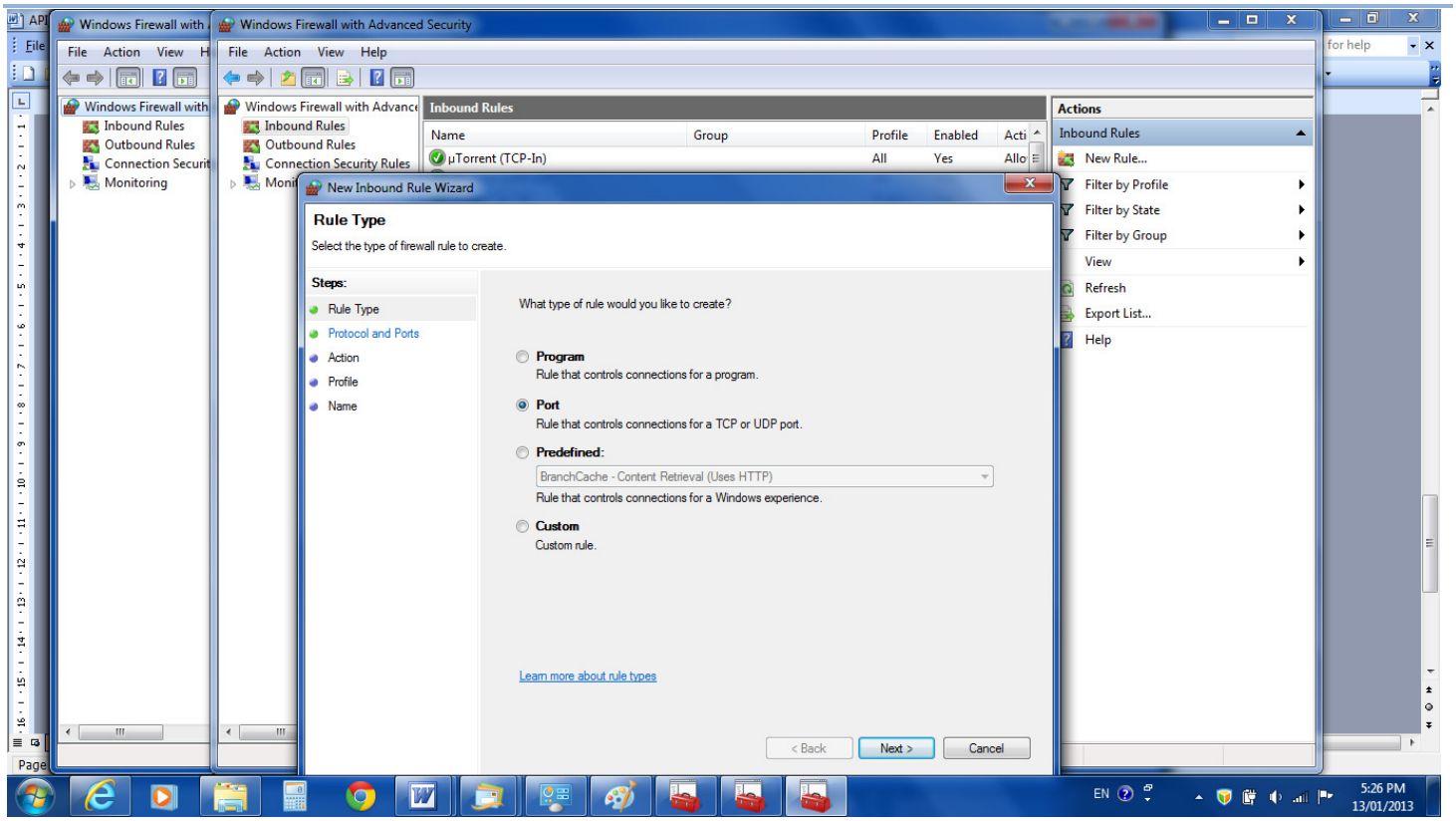

When you go into the advanced setting, you can find inbound rule and outbound rule at left side. Click inbound rule, go into the inbound rule setting.

You will see the New Rule at right side, click it to setup new IP port.

You shall select TCP, and input 6666 for new port number. Follow the instruction to finish all the setting.

After finished the inbound rule setting, you can setup outbound rule, the procedure will be same as the inbound rule, the port number is still 6666.

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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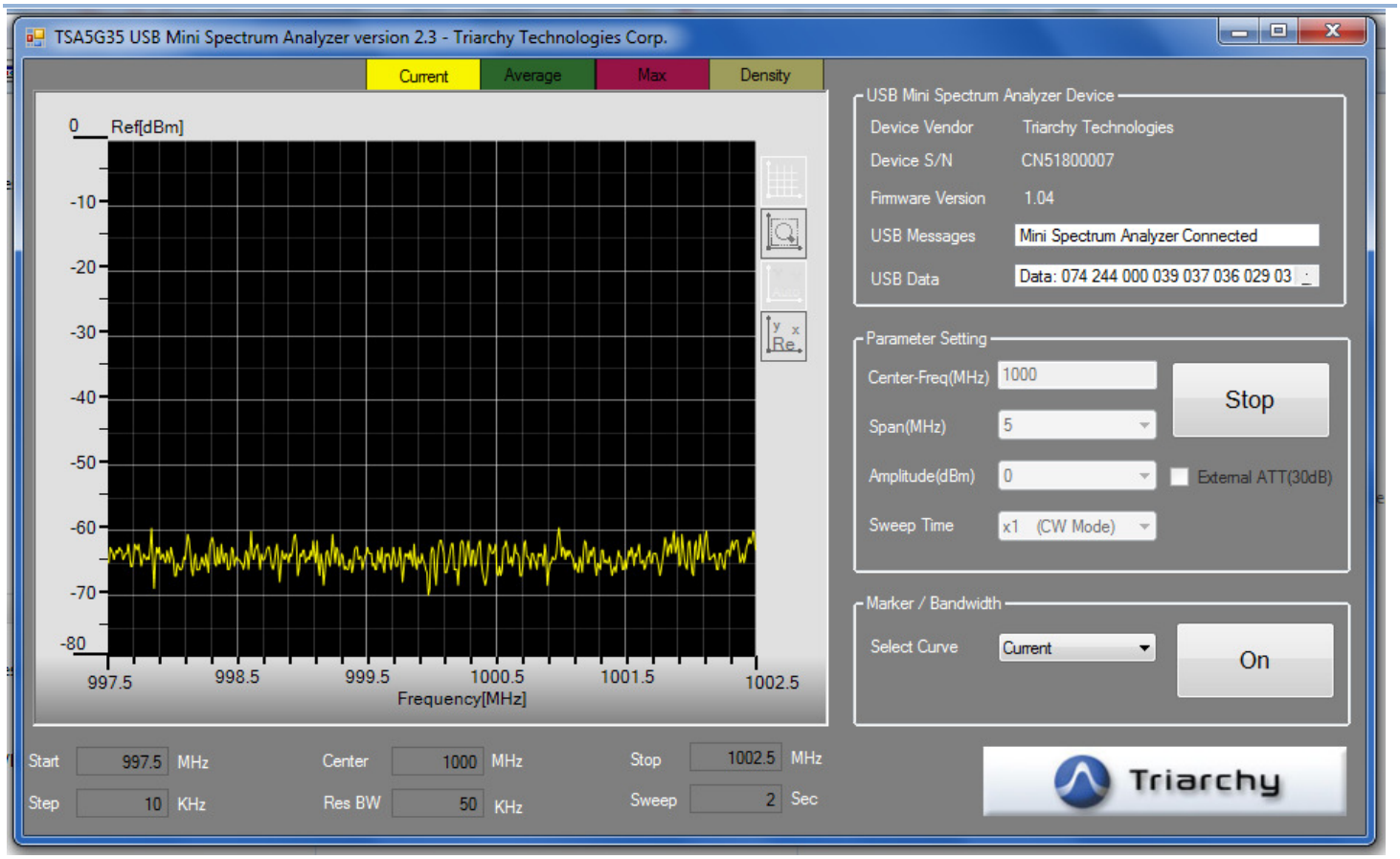

3.3 Setup TCP/IP monitor tool

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,

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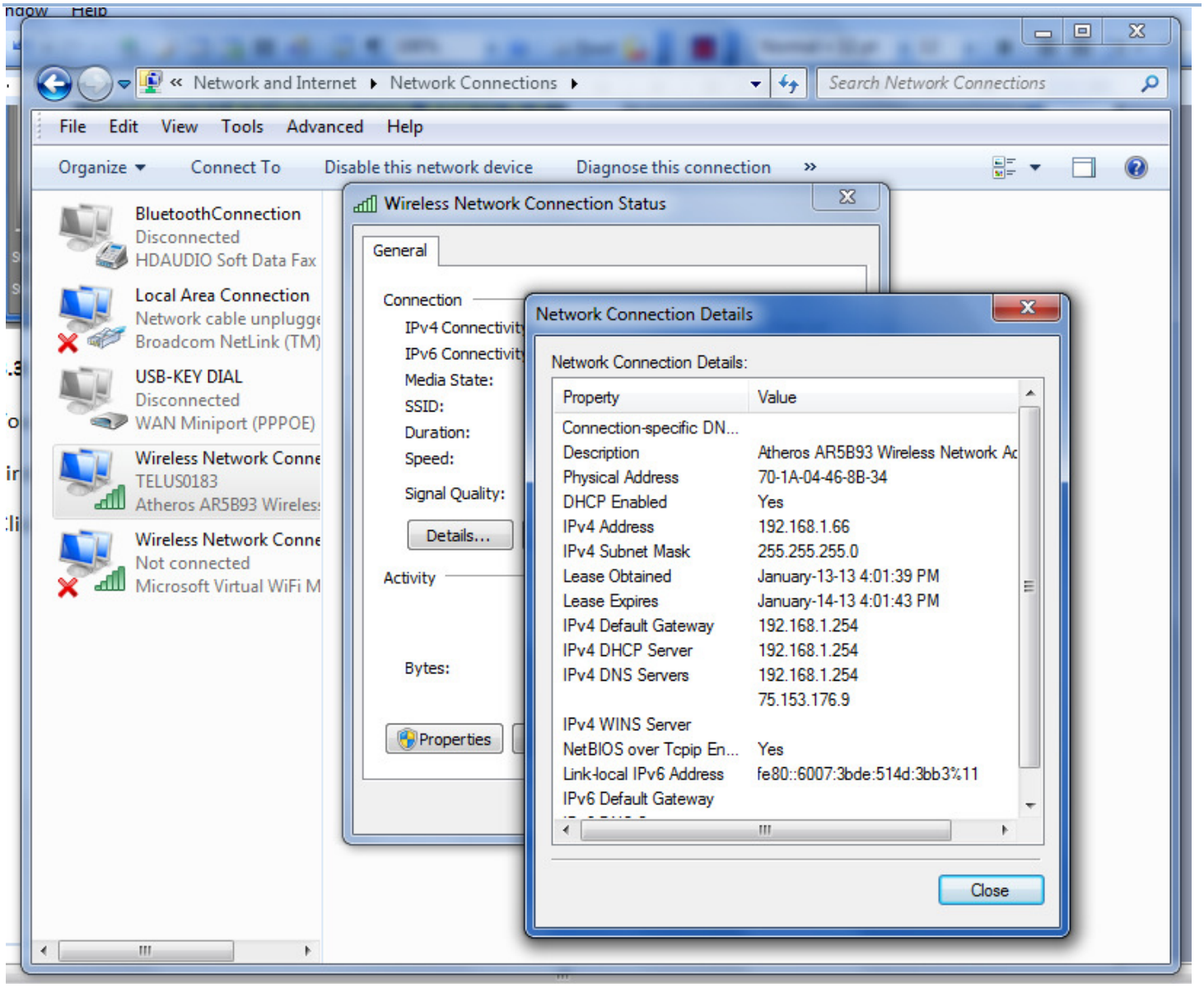

You will look for the wireless Network Connection Status, click detail, you can find IPv4 Address:

In this case, it is 192.168.1.66. it shall be different with different PC which will connect different network.

Then you click the USR-TCP232_Test.exe to turn on the TCP/IP monitor tool.

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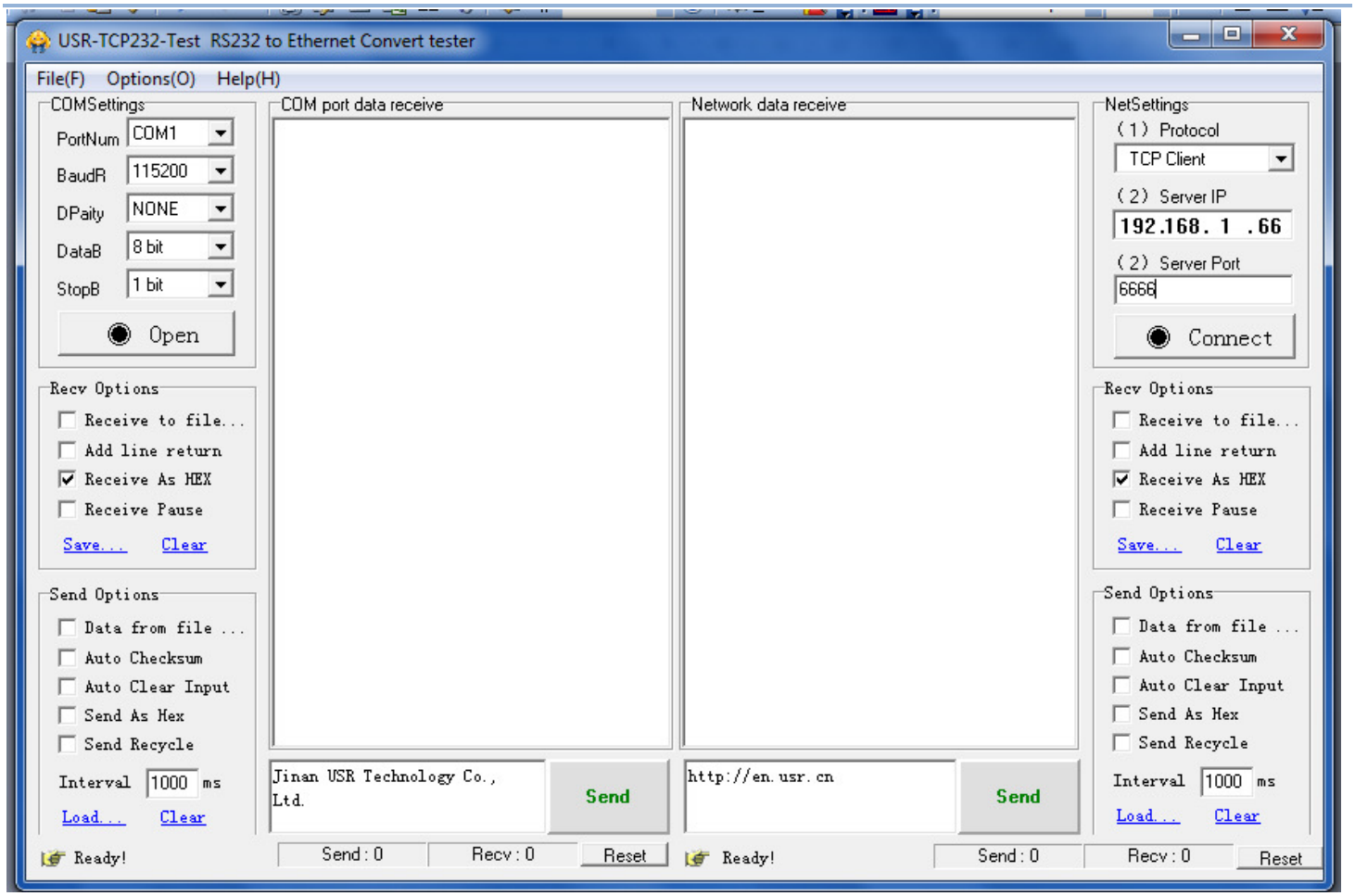

USR_TCP232 Tester has network monitor and Com port monitor (USR-TCP232-Test.exe). Only the network monitor will be used in this case. First, setup Network Settings: select “TCP Client” in (1)Protocol window, input IP address in (2) Server IP window, input 6666 in the (2) Server Port window.

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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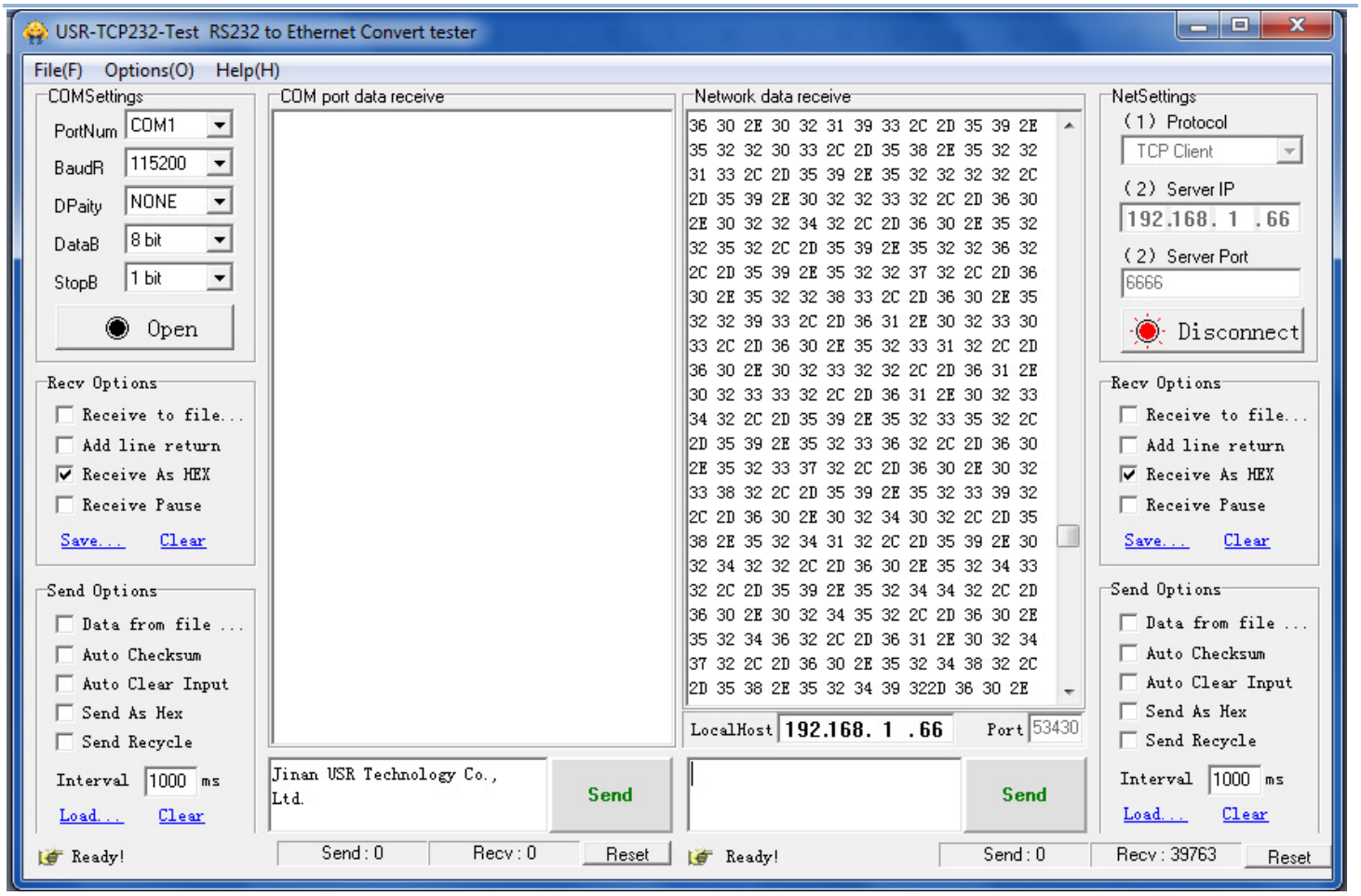

You can input $Stop, then click send data key. The UsbApp will execute command to stop the scan. You also can send Start command with different setting to implement measurement, the receive data window will show all the data of measurement.

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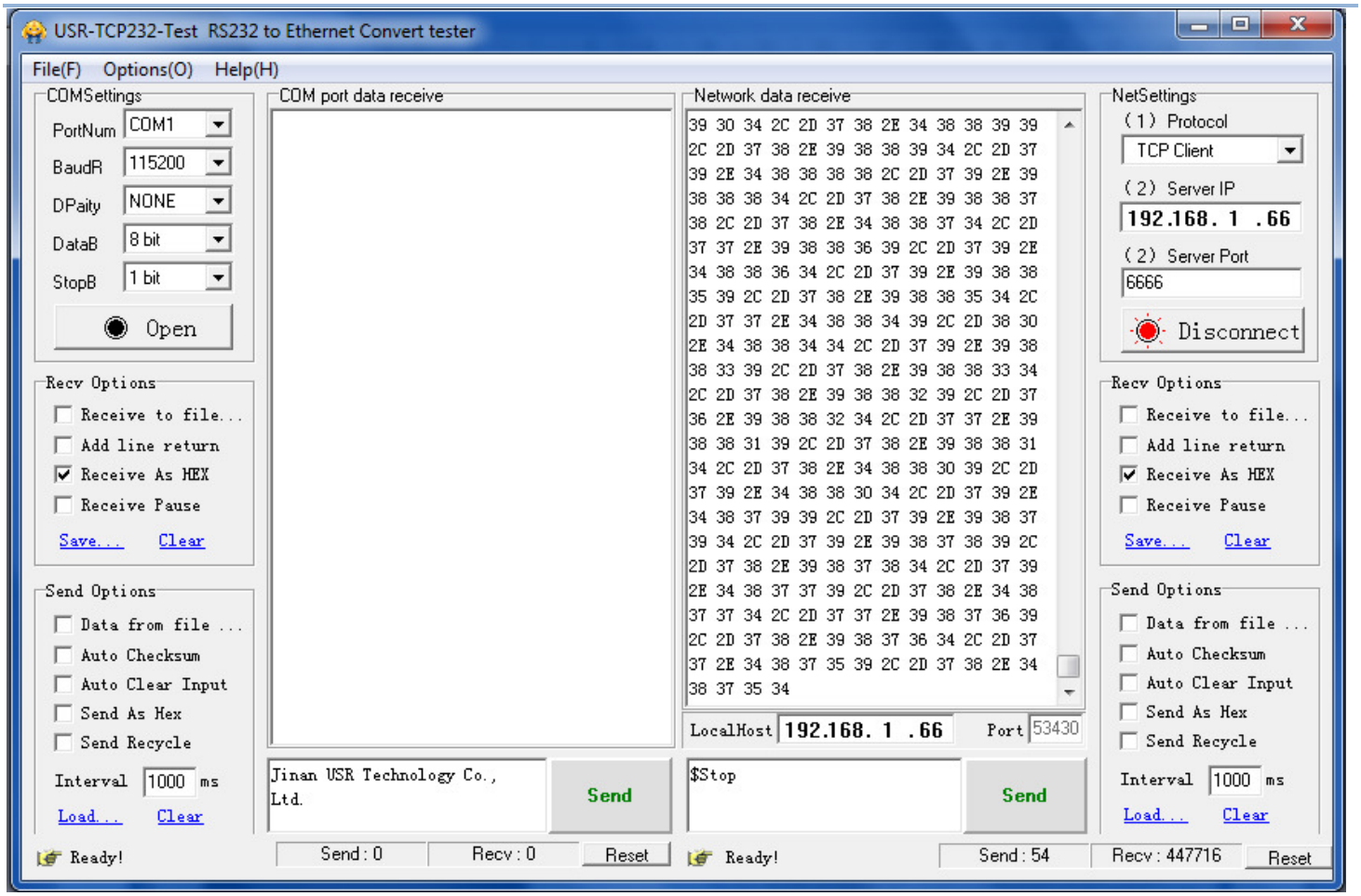

You also can setup another PC with the TCP/IP monitor tool (USR-TCP232-Test.exe), please note: the IP will be will be local PC which install TSA5G35 dongle. After you install it, you can implement remote control.

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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