

# Power Trend (through LAN) / Sample Software V 1.0

Advantest

## 1. Install U3800 Power Trend sample software into PC.

Installer is in PackageForU3800 folder.

Source files are in the Source (STD) folder and refer from Visual Basic.

## 2. Set U3800 Series IP address.

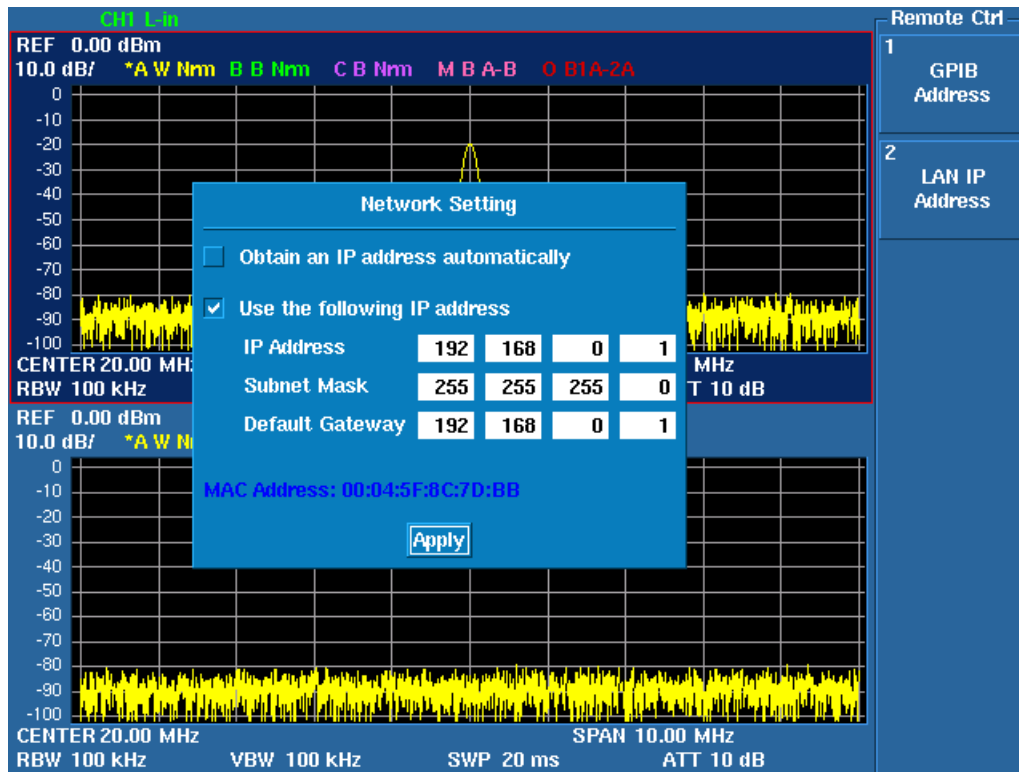
SYSTEM – Config.– Remote Control – LAN IP Address

The following figure shows direct input an IP address example.

You can use DHCP: check the Obtain an IP address automatically, and push Apply.

If you want to connect to fixed address, please ask IP address to network manager.

You get this Analyzer's IP address.



### 3. Set PC IP address.

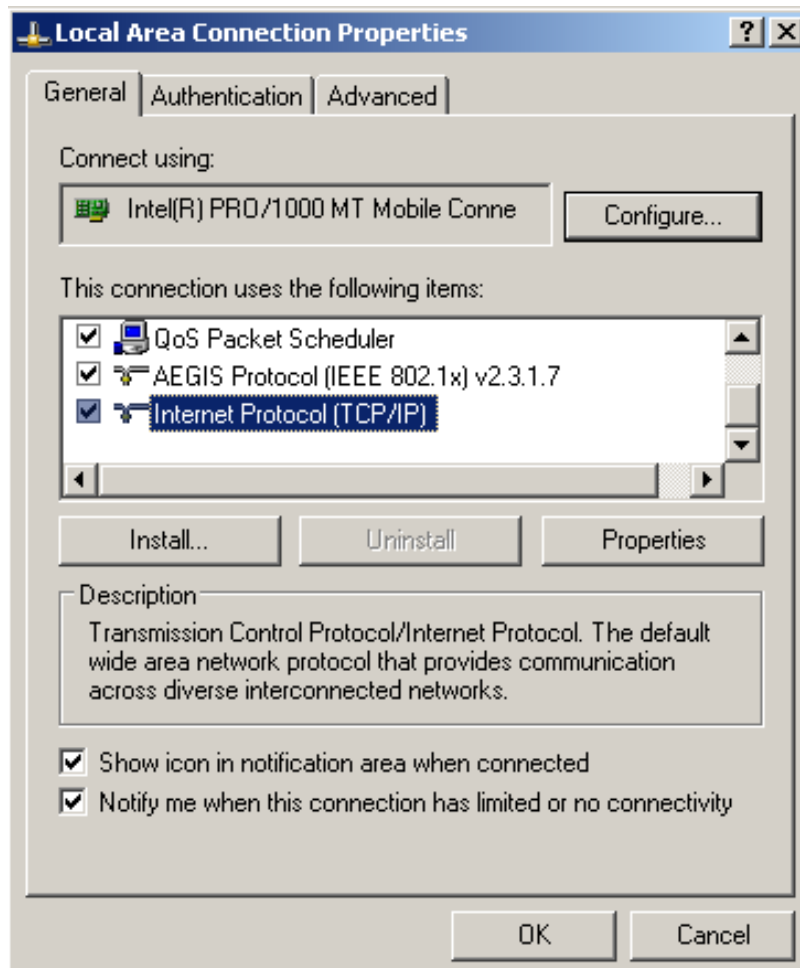
It is for direct connection. Not necessary for LAN network connection.

For WINDOW 2000

My network – Right click - Properties –

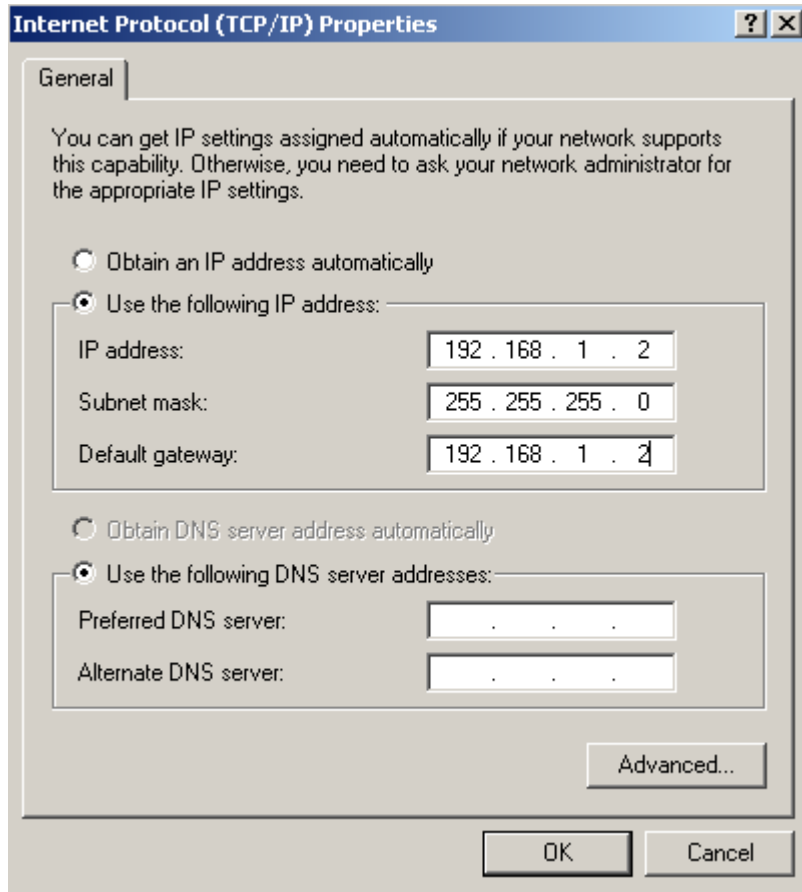
Local Area Connection - Right click - Properties –

Internet Protocol (TCP/IP) – Properties



## Set IP Address

This IP address must be set different than the U3800 Series



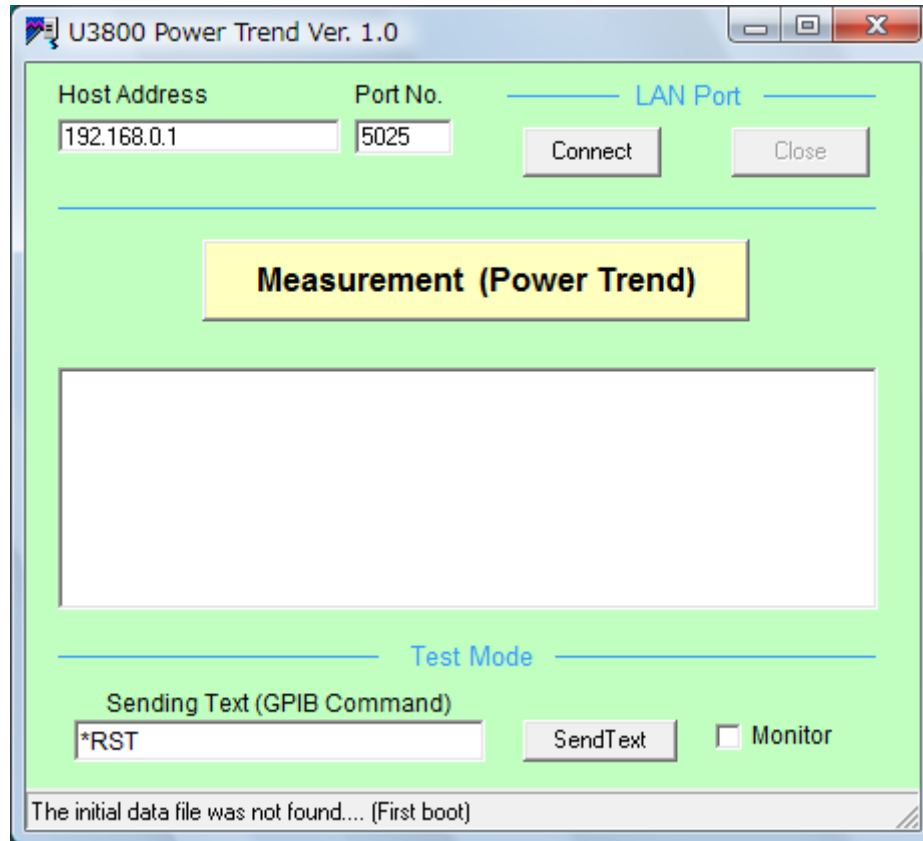
## 4. Connect LAN cable.

You will need a cross over Ethernet cable for a direct connection.

5. **Run the Sample software.**

START – PROGRAM – U3800 Power\_Trend - Power\_Trend

Set IP address of Spectrum Analyzer ( Port No. is 5025 )



6. **Push Connect.**

When the connection has been established, Connected will be displayed on message line located at the bottom part of window. If you have checked Monitor, the communication log will be displayed.

The parameters of the Spectrum analyzer can be controlled manually using the “Sending Text” command line. Type a GP-IB command in “Sending Text” and push “Send Text” key. The U3800 should respond accordingly.

Send a query command (e.g. CF?) and you can acquire data from the instrument that will appear in the monitor window. If you press SendText with the above mode( \* RST ), Spectrum Analyzer will be initialized.

Before executing **Measurement (Power Trend)**, uncheck the Monitor.

**7. Measurement (Power Trend).**

Press **Measurement (Power Trend)** and Trend measurement window will be displayed.

Measurement procedure

A. Set up spectrum analyzer parameters.

B. Press Setup SPA ( parameters will be sent to Spectrum Analyzer )

(If you would like to set parameters not available from the panel, set the Spectrum Analyzer to local and set up manually. )

C. Press START

D. Measurement will start and the measured data will be displayed. (Max 7 days)

E. When measurement time has finished, data is saved and the termination message will be displayed. (Time Interval 1 sec and 1day measurement: about 10Mbytes)

## Trend measurement screen

Set up: Center, Span, Reference level and Offset.

Select Units (common in MKR1 etc)

Select measurement mode (See below)

When Fixed or Zone Marker are selected, input measurement frequency.

Input total measurement time and measurement interval.

(The measurement time has some margin of error)

Measurement (Power Trend)

Center Freq.: 2145

Span Freq.: 5

Ref. Level: 10

Offset Level: 0 dB

Units: ☒ GHz ☒ MHz ☐ kHz ☒ dBm ☐ dBuV

Measurement Mode: ☐ Fixed Marker ☐ Zone Search ☐ Peak Search ☐ Max / Min\* ☒ CH Power

Marker Frequencies: MKR1: 2145, MKR2: 2143.08, MKR3: 2146.92

CH SP: 3.84

Directory: ☒ Auto Save  
C:\Program Files\U3800 Power\_Trend

Measurement Time: 60 min

Time Interval: 1 sec

Buttons: Setup SPA, START, STOP

Comment (One point) ☐

Close

Date,	Time,	MK1-F,	MK1-L, (L / Min*),	MK2-F,	MK2-L,	MK3-F,	MK3-L,	Comments

current setting parameters are saved on Close. (They are automatically loaded at start up)

You can add a comment. It will be saved with the measurement if the box is checked

**8. Measurement Modes.**

- A. Fixed Marker : acquires at specified frequency level (3 points)
- B. Zone Search : search the 1 Div range of specified frequency (3 points)
- C. Peak Search : search the whole display and finds the result of the largest point.  
(3 points: specifying F is not required )

Note: Max-Min can be used for ABC. The data is the Max data in the Time Interval measurement spacing. Only MKR1 can be get Min data

- D. CH Power : find the result of Channel power. Data is 1 point.  
(Channel width is input to CHSP )

**9. Save measurement data.**

At the end of measurement, the file named Data+MM+DD+HH+NN.dat will be created on the C: drive if Save is checked. (MM is month, DD is day, HH is time, NN is minute)

If you would like to save it to a different directory, first, you need to create the directory in Windows. Then type the path in the file box - C: ¥directory1¥directory2. The file Data + MM + DD + HH + NN.dat will be created in the directory.

## 10. Measurement Example.

Measurement (Power Trend)

Center Freq.  ☐ GHz ☒ MHz

Span Freq.  ☐ kHz ☒ dBm

Ref. Level  ☐ dBm ☐ dBuV

Offset Level  dB

☐ Fixed Marker ☒ Zone Search ☐ Peak Search ☐ Max / Min\*

☐ CH Power CH SP

MKR1  MKR2  MKR3

Directory: ☒ Auto Save

Measurement Time:  min

Time Interval:  sec

Start Measurement...

2012-01-11	11:34:15	16900000	-77.78	0.00	200				
2012-01-11	11:34:16	17140000	-78.39	0.00	200				
2012-01-11	11:34:17	17320000	-78.03	0.00	200				
2012-01-11	11:34:18	16780000	-79.36	0.00	200				
2012-01-11	11:34:19	16590000	-79.96	0.00	200				
2012-01-11	11:34:20	16800000	-80.01	0.00	200				
2012-01-11	11:34:21	17100000	-79.03	0.00	200				
2012-01-11	11:34:22	16800000	-79.61	0.00	200				
2012-01-11	11:34:23	16780000	-79.43	0.00	200				
2012-01-11	11:34:24	17040000	-80.94	0.00	200				
2012-01-11	11:34:25	16880000	-79.17	0.00	200				
2012-01-11	11:34:26	17440000	-79.09	0.00	200				
2012-01-11	11:34:27	17450000	-79.65	0.00	20000000	-19.98	22510000	-79.06	
2012-01-11	11:34:28	17120000	-80.66	0.00	20000000	-19.98	22600000	-80.02	
2012-01-11	11:34:29	16720000	-79.27	0.00	20000000	-19.97	22510000	-79.72	

The cursor can be displayed when the display line increases. You can select cursor mode.  
TOP: No Scroll  
Middle: Scroll and Stop  
Below: Scroll

Date,	Time,	MK1-F,	MK1-L, (L / Min*),	MK2-F,	MK2-L,	MK3-F,	MK3-L,	Comments
2012-01-11	11:35:23	17430000	-78.91	0.00	20000000	-19.98	22960000	-78.09

## 11. Exiting Program.

Complete measurement with CLOSE from measurement window.

Terminate LAN connection using CLOSE from initial screen.