

Waveform data acquisition (LAN) sample software V1.1

V 1.1

ADVANTEST

1. Install U3800 LAN GetTrace sample software into PC

Installer is in PackageForU3800 holder.

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

2. Set U3800 IP address

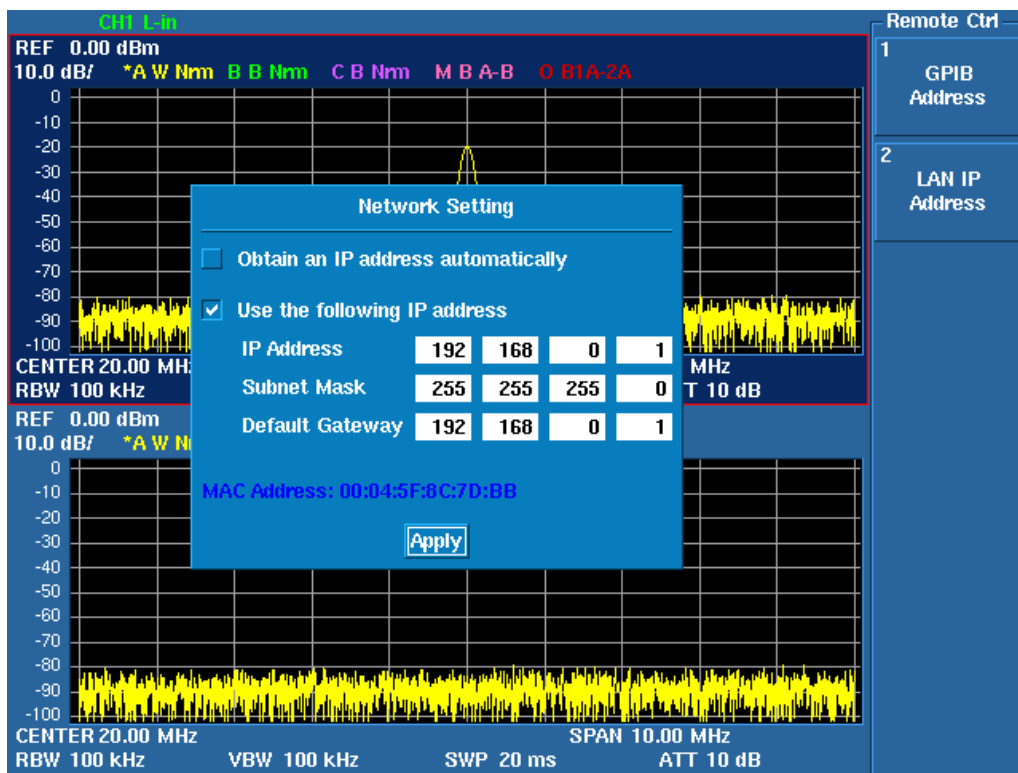
SYSTEM – Config.– Remote Control – LAN IP Address

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

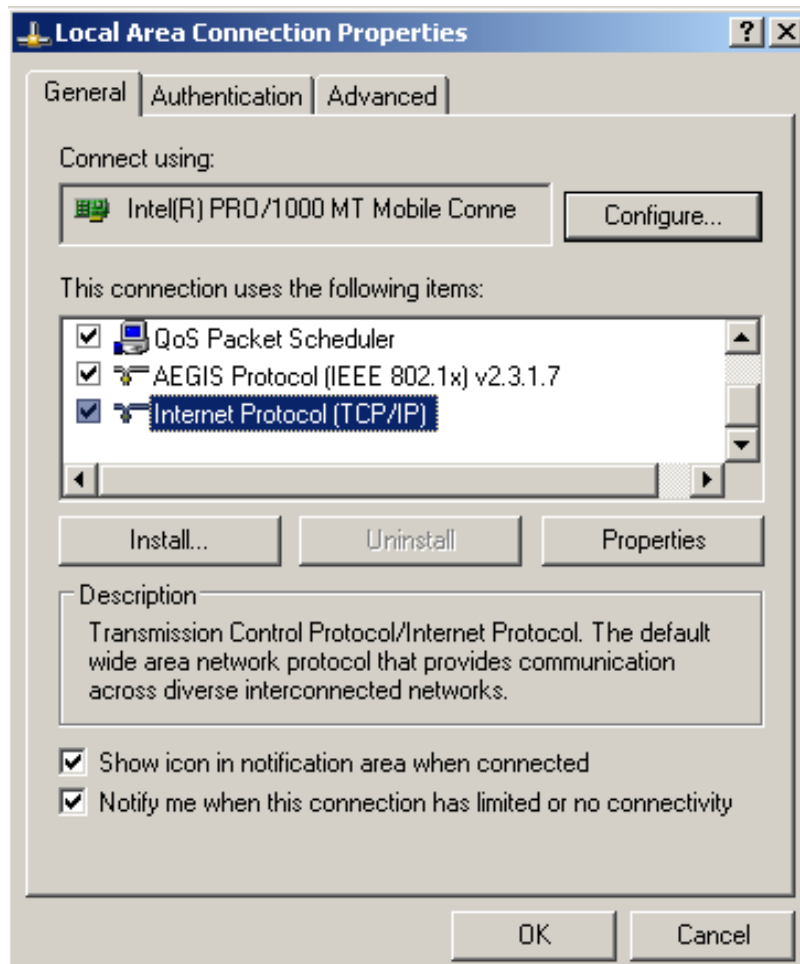
Just only for Point-to-Point connection. No necessary for LAN network connection.

For WIN2000

My network – Right click - Properties –

Local Area Connection - Right click - Properties –

Internet Protocol (TCP/IP) – Properties



Set IP Address

This IP address has to be set difference number from U3800

The screenshot shows the 'Internet Protocol (TCP/IP) Properties' dialog box with the 'General' tab selected. The dialog box contains instructions on how to obtain IP settings and two main configuration sections. The first section, 'Use the following IP address:', is selected with a radio button. It contains three text boxes: 'IP address' with the value '192 . 168 . 1 . 2', 'Subnet mask' with '255 . 255 . 255 . 0', and 'Default gateway' with '192 . 168 . 1 . 2'. The second section, 'Use the following DNS server addresses:', is also selected with a radio button. It contains two text boxes: 'Preferred DNS server' and 'Alternate DNS server', both with empty fields containing dots. An 'Advanced...' button is located at the bottom right of the dialog box. At the very bottom are 'OK' and 'Cancel' buttons.

Internet Protocol (TCP/IP) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address: 192 . 168 . 1 . 2

Subnet mask: 255 . 255 . 255 . 0

Default gateway: 192 . 168 . 1 . 2

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server: . . .

Alternate DNS server: . . .

Advanced...

OK Cancel

4. Connect LAN cable

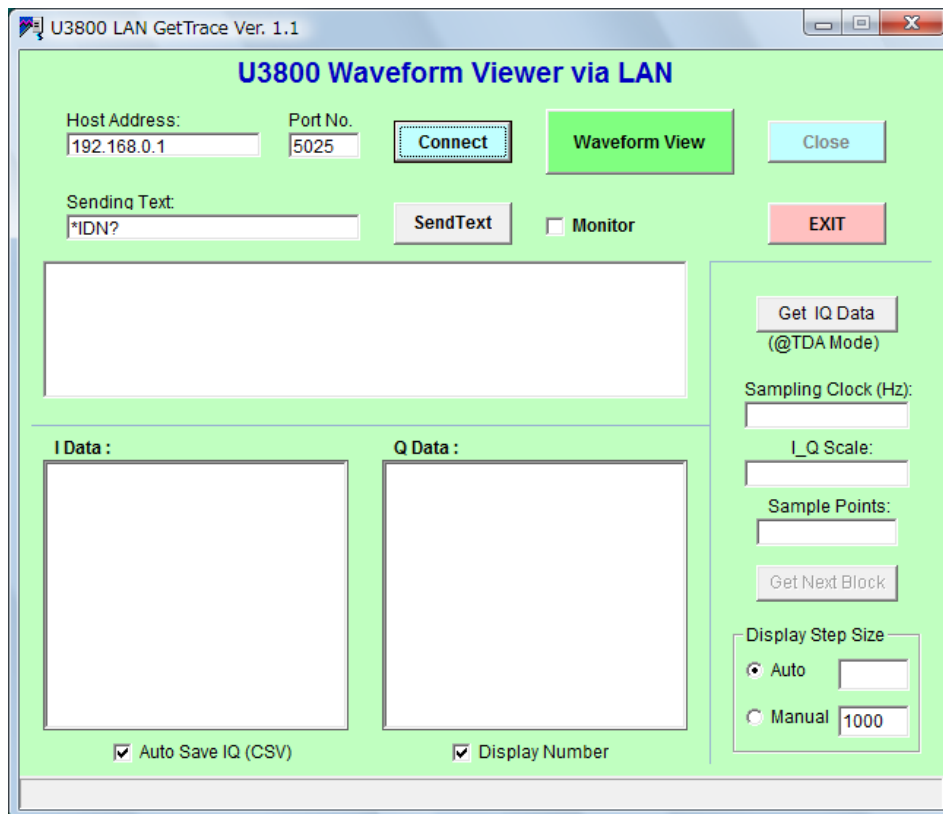
Have to use **CROSS CABLE** for Point-to-Point connection

5. Open sample software

START – Programs – U3800 LAN GetTrace – LAN GetTrace

Set U3800 IP address 192.168.0.1 and Port No 5025 (Default)

(This example using 10.77.151.115 IP Address for LAN)



6. Push Connect

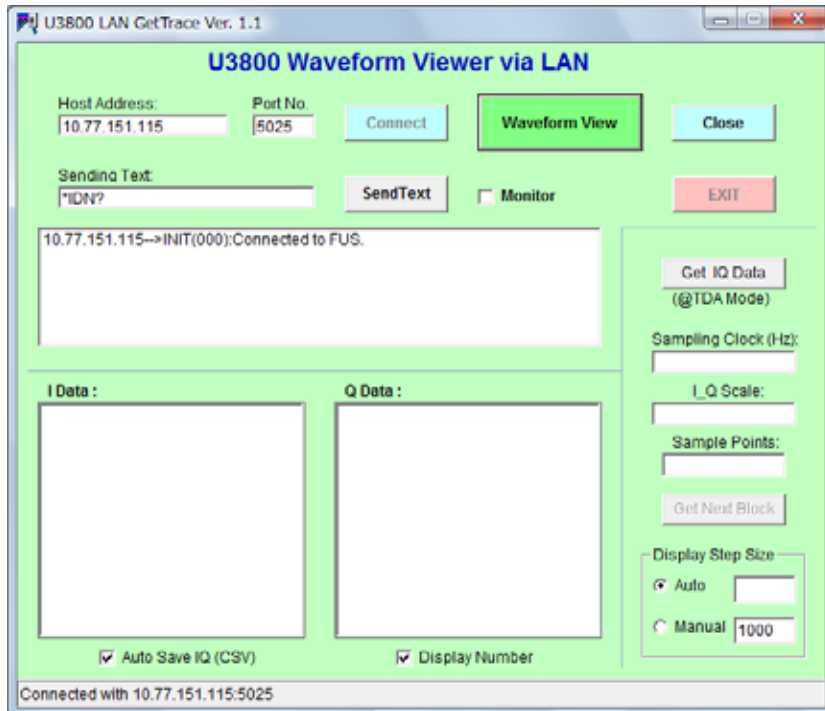
When the connection has connected, the message will be open as follow.

If you check the Monitor, the communication log will be displayed.

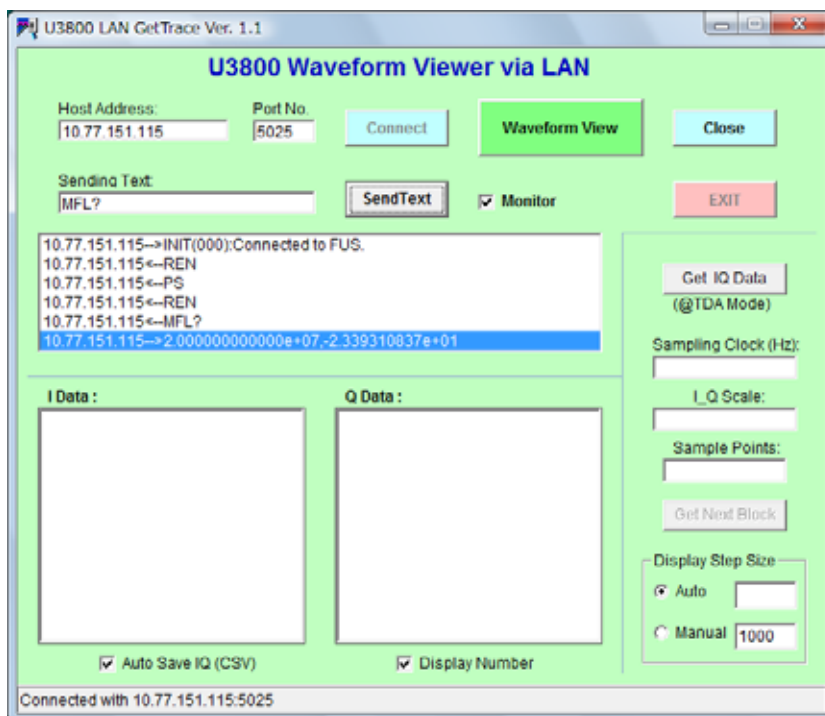
Write GP-IB command at Sending Text and push "Send Text" key

And then you can control U3800 series.

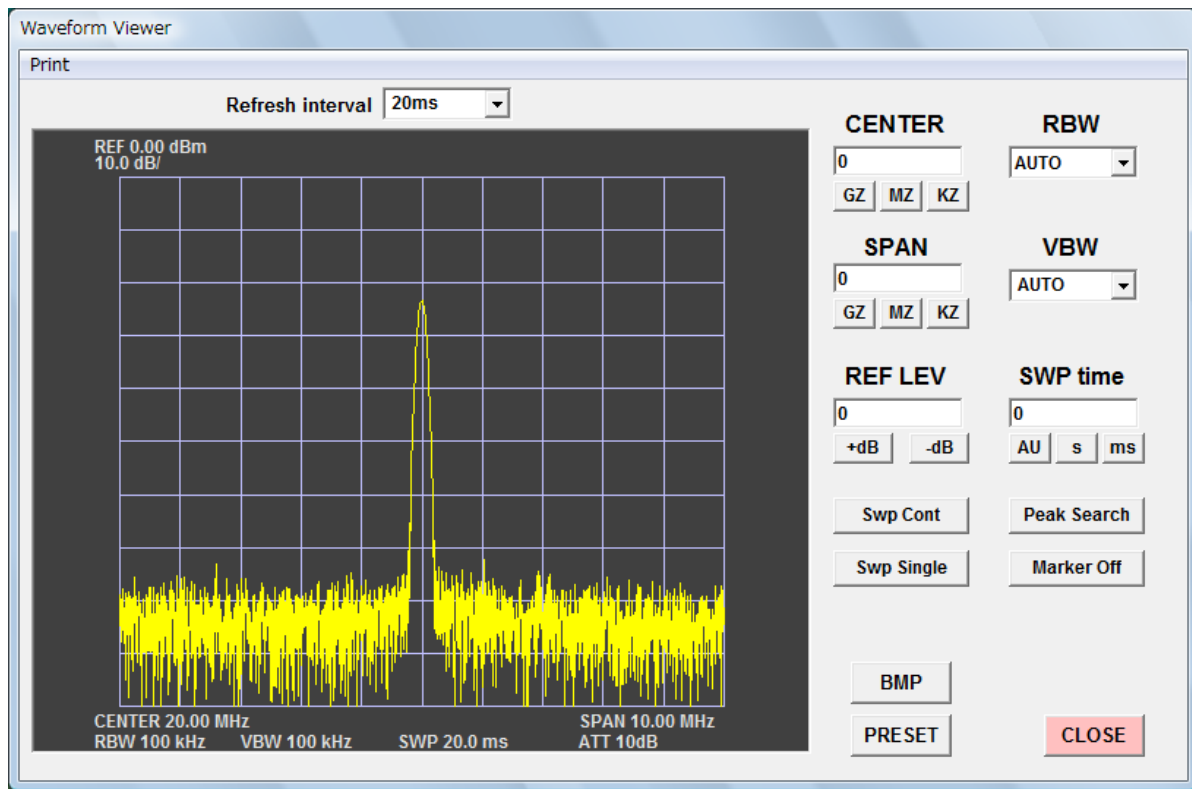
(Please set Monitor Off before select the Waveform View.)



Send query command and then the returned data will be displayed.



7. Push “Waveform View” key, the measurement screen will be displayed.



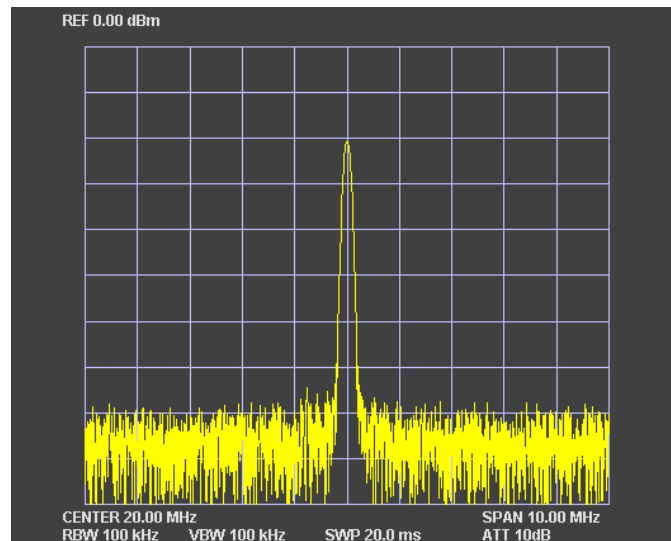
-There are basic parameter setting key and can change parameters.
(Center, Span, Ref, RBW, VBW, Sweep Time...)

-The “PRESET” key preset U3800 setting.

-The “CLOSE” key goes back to main menu.

-The “BMP” key saves Bit Map file into PC.

Example: Bit Map File



8. Getting IQ data (When U3800 is working in Time Domain mode)

If U3800 is in Time Domain Mode, you can get IQ data. * IQ data = Real (Single)

The IQ data is saved at the directory of this program.

U3800 LAN GetTrace Ver. 1.1

U3800 Waveform Viewer via LAN

Host Address: 10.77.151.115 Port No. 5025 Connect Waveform View Close

Sending Text: MFL? SendText Monitor EXIT

10.77.151.115<-MFL?
10.77.151.115->2.000000000000e+07,-2.341186142e+01
10.77.151.115->Get IQ Data (1st Block)
-----End of Getting Data, Coverting & Display
10.77.151.115->Get IQ Data (1st Block)
-----End of Getting Data, Coverting & Display

I Data :

78712 :	3.420855E-03
78720 :	3.332079E-03
78728 :	3.265643E-03
78736 :	3.390815E-03
78744 :	3.371088E-03
78752 :	3.41614E-03
78760 :	3.379348E-03
78768 :	3.392024E-03
78776 :	3.200636E-03
78784 :	3.317079E-03

Q Data :

78712 :	-3.654089E-03
78720 :	-3.742701E-03
78728 :	-3.814386E-03
78736 :	-3.726531E-03
78744 :	-3.71218E-03
78752 :	-3.666836E-03
78760 :	-3.700156E-03
78768 :	-3.704645E-03
78776 :	-3.872917E-03
78784 :	-3.77705E-03

Get IQ Data (@TDA Mode)

Sampling Clock (Hz): 3939393.75

I_Q Scale: 2.996753454208

Sample Points: 78788

Get Next Block

Display Step Size

☒ Auto 8

☐ Manual 1000

☒ Auto Save IQ (CSV) ☒ Display Number

End of Getting Data...

IQ Getting Button

Sampling Clock

IQ Scale

Sampling Points

Get 2nd Block Data

Display Mode

IQ Data file Save On/Off:

Number Display On/Off:

9. Shut down the program

First, back to Main Menu. (Push CLOSE)

The “Close” key stops the LAN connection.

The “EXIT” key shuts down this program.

The screenshot shows the 'U3800 Waveform Viewer via LAN' window. The title bar reads 'U3800 LAN GetTrace Ver. 1.1'. The main area has a light green background. At the top, there are input fields for 'Host Address:' (10.77.151.115) and 'Port No.' (5025), with 'Connect' and 'Waveform View' buttons. Below these are 'Sending Text:' (*IDN?), 'SendText', and 'Monitor' (unchecked) buttons. A 'Close' button is in the top right. A text box displays '10.77.151.115-->INIT(000):Connected to FUS.'. On the right, there are buttons for 'Get IQ Data (@TDA Mode)', 'Sampling Clock (Hz):', 'I_Q Scale:', 'Sample Points:', and 'Get Next Block'. At the bottom right, 'Display Step Size' is set to 'Auto' (selected) with a value of 1000, and 'Manual' is also an option. At the bottom left, there are checkboxes for 'Auto Save IQ (CSV)' and 'Display Number'. A status bar at the very bottom says 'Connected with 10.77.151.115:5025'.