



Universal Wireless Test Set

MT8870A



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1. Introduction

This startup guide provides basic information on how to set up the MT8870A.

When using MT8872A, read MT8870A as MT8872A.

1.1. Checking Attachments

When unpacking, check that none of the products listed in the attached component list are missing.

1.2. Requirements for Setting-up MT8870A

	Details
PC	PC with Windows® 7 or Windows® 10 installed (details in section 2.1)
Ethernet cable	Category 5, 5e, or 6 UTP cable Both straight and cross cables supported
DVD MT8870A Universal Wireless Test Set	Supplied accessory

Useful if you have

RF Cable	RF cable with N-type connector (both ends) Used in Chapter 3 Checking Operations.
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1.3. Terms

The terms used in this guide are listed below.

Term	Description
MT8870A	Main unit Up to four modules can be installed in the front of the unit. The MT8872A can accommodate up to two modules. This also refers to the whole unit including modules.
MU88700xA	Module installed in MT8870A. This transmits and measures RF signals.
Chassis	This refers to the MT8870A main frame and is used when it needs to be distinguished from a module, such as on a menu screen.

2. Initial Configuration

Perform initial configuration for the MT8870A using the Utility Tool software.

The Utility Tool software is on the accessory DVD supplied with the MT8870A.

2.1. Hardware and Software Requirements

The following PC environment is required to run the Utility Tool.

- Microsoft® Windows® 7 Enterprise Service Pack 1 Japanese/English 32- or 64-bit versions

Microsoft® Windows® 10 Japanese/English 64-bit versions

- Optical drive to read DVD-R

- Memory 1 GB or more

- HDD Free Space 200 MB or more

- Display resolution of 1024 × 768 pixels or better

- PDF Viewer

- Interface*1 Ethernet or GPIB

*1: An Ethernet connection is recommended for initial configuration of the MT8870A using this software.

2.2. Installing Run Time

To use the Utility Tool, the following software is required. Download and install from the Web sites.

- NET Framework 4.5 or higher version for Microsoft Windows® 7

Note: Requires full setup version, not Client Profile version

Site: <http://www.microsoft.com/en-us/download/details.aspx?id=17851>

- NI-VISA™

Note: Requires NI-VISA 5.4 or newer

Site: <http://www.ni.com/downloads/>

2.3. Installing MT8870A Configuration Software (Utility Tool)

The Utility Tool installer and the operation manual are included on the DVD labeled MT8870A Universal Wireless Test Set. Load this DVD into the optical drive of the PC.

Run setup.exe in the path /MT8870A/Installer/MT8870A Utility Tool/setup.exe on the DVD.

Follow the on-screen instructions to select the Utility Tool installation directory.

If the MU887000A/01A TRX module is installed in the MT8870A, Utility Tool v01.01.17 or newer (released in August 2013) is required. Requires Utility Tool v02.00.04 (released in July 2021) or newer when using MU887002A. If the version on the DVD is older, obtain a newer version from the Anritsu web site. Get the latest Utility Tool from the Anritsu Web site as described in Chapter 4.

2.4. Changing PC Network Configuration

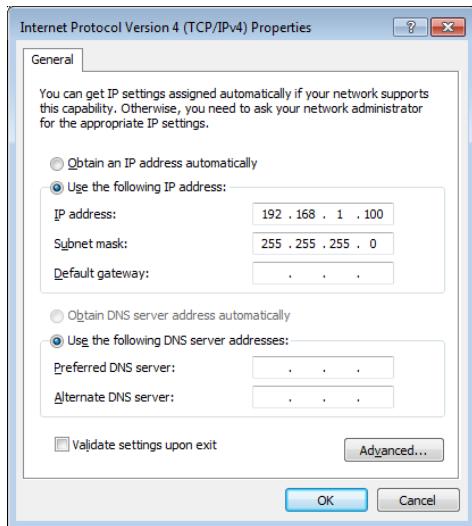
The Utility Tool can control the MT8870A via both GPIB and Ethernet, but functions requiring file transfer, such as updating firmware or installing waveform files can be used only with an Ethernet connection. It is best to use an Ethernet connection when performing initial configuration even when using GPIB control for system operation.

To control the MT8870A via Ethernet connection using the Utility Tool, the PC network configuration must match the MT8870A network configuration.

If the PC is connected to a company network, disconnect the Ethernet cable from the PC.

To set IP address:

Click **Control Panel > Network and Sharing Center > Change adapter settings > Local Area Connection > Properties > Internet Protocol Version 4(TCP/IPv4)**, and click **Properties** at the Internet Protocol Version 4(TCP/IPv4) window.



Since the MT8870A IP factory default is 192.168.1.x (where x is 1 to 4), change the IP address to 192.168.1.100 to match the network configuration.

Note: In this description, the PC IP address is set to 192.168.1.100, but any IP address in the range of 192.168.1.5 to 192.168.1.254 can be set.

2.5. Starting Instrument

Connect the power cable to the MT8870A and press the **Power** button.

Connect the PC and MT8870A Ethernet connectors using an Ethernet cable.

The MT8870A has Ethernet connectors at front and back. Use either one.

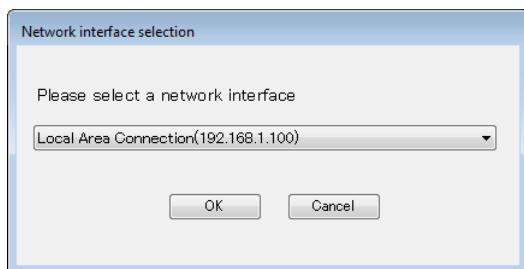
2.6. Starting Utility Tool



Double-click the Utility Tool icon on the PC desktop.



Click **IPv4** to display the Network interface selection screen showing the IP address configured in section 2.4.



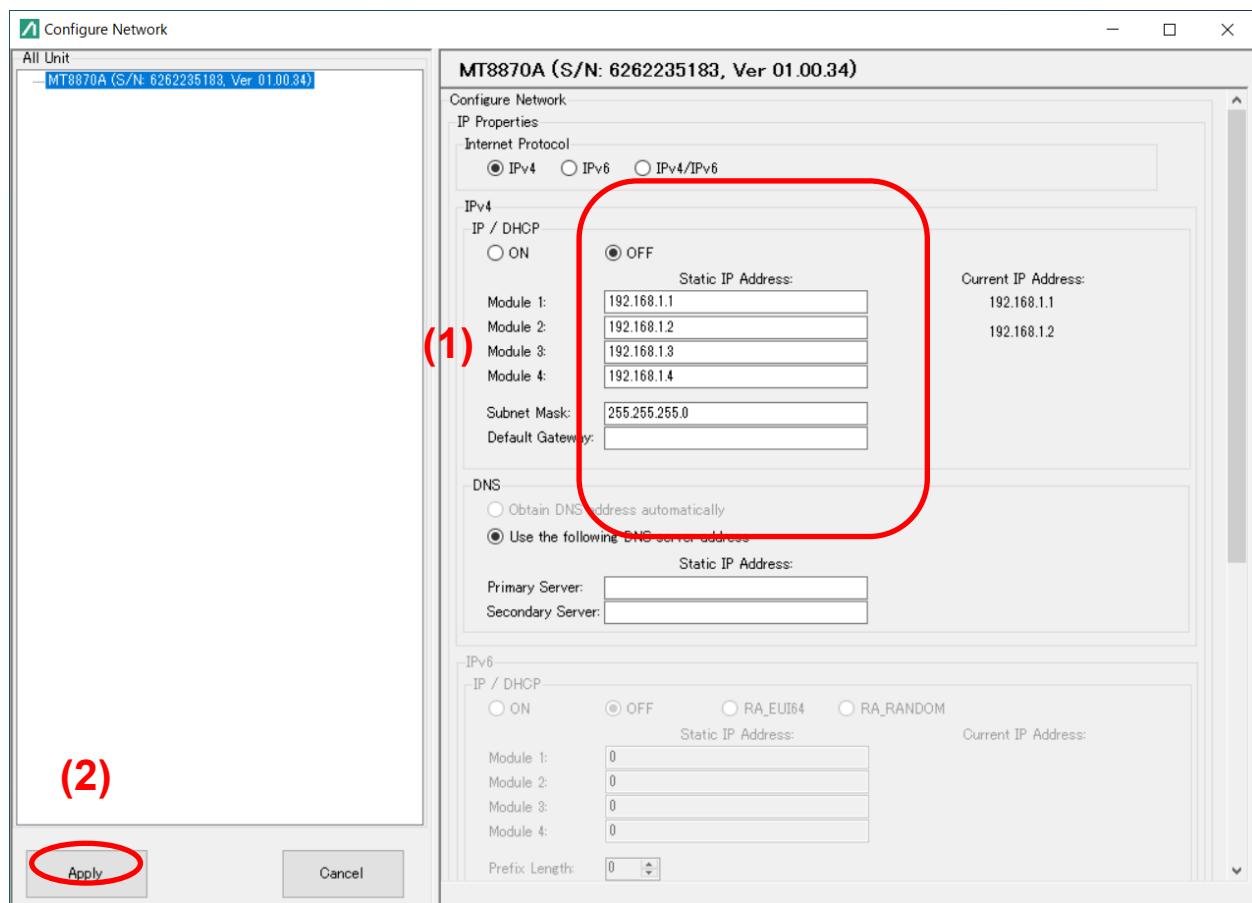
If the PC has two or more network interfaces, select the interface connected to the MT8870A.

2.7. Changing Network Settings

To change the IP address to match the network environment, configure the settings as described below.



Click **Configure Network** at the Select Interface Function Tree.

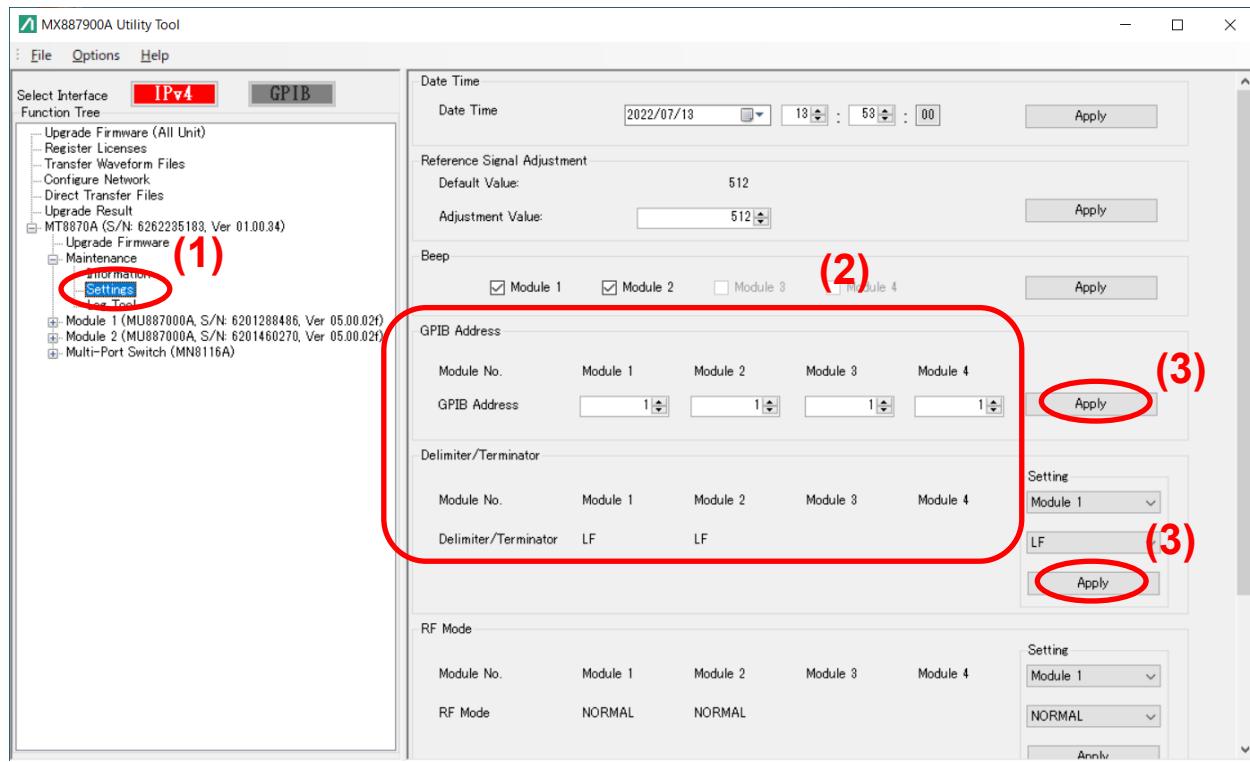


- (1) Change the settings to match the network environment.
- (2) Click **Apply** to set the new network settings at the MT8870A and restart it.

Quit the Utility Tool and change the PC network configuration to match the new MT8870A settings.

2.8. Changing GPIB settings

Configure the settings as described below to control the MT8870A over GPIB.

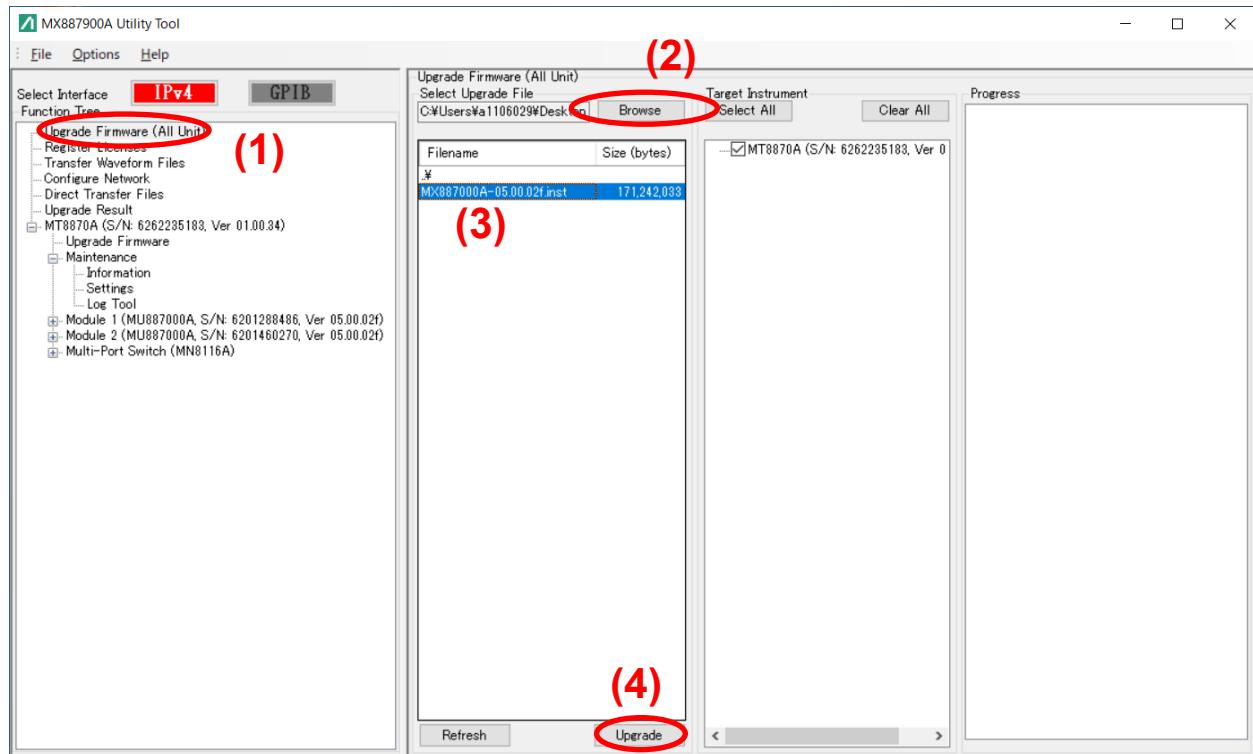


- (1) Select the chassis from the Select Interface Function Tree, and click **Maintenance - Settings**.
- (2) Set the GPIB address and Delimiter/Terminator for each module.
- (3) Click **Apply** to set the new GPIB settings at the MT8870A and restart it.

2.9. Upgrading Firmware

To use a different firmware version from the shipped version, upgrade the firmware as described below.

Note: See Chapter 4 for a description of how to get the new firmware.

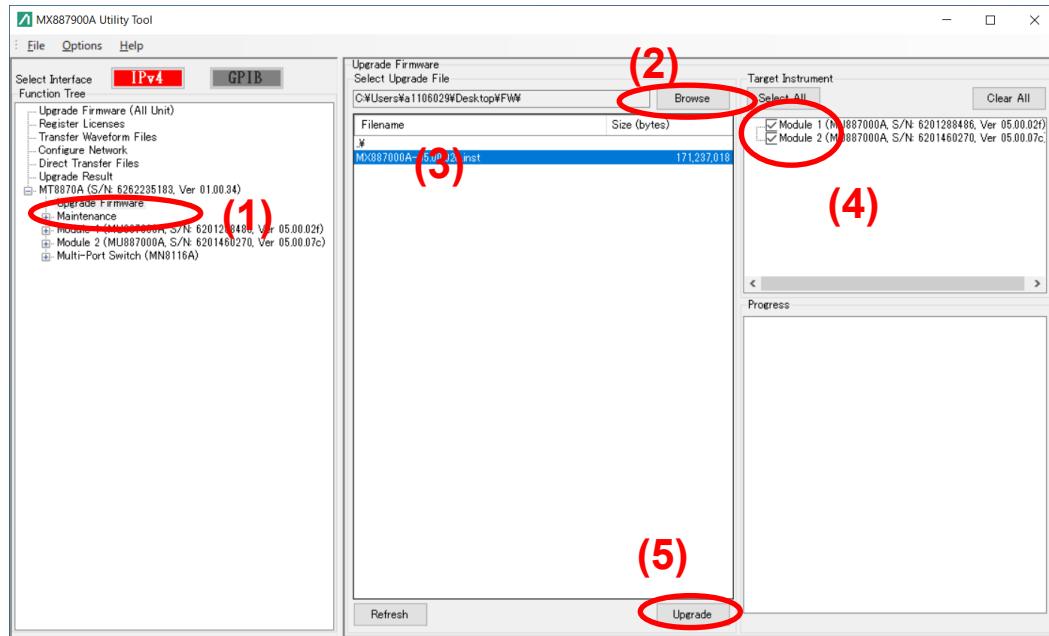


At the Select Interface Function Tree,

- (1) Select **Upgrade Firmware (All Unit)**.
- (2) Click **Browse** to select the directory containing the new firmware.
- (3) Select the firmware file.
- (4) Click **Upgrade**.
- (5) The Progress screen displays the upgrade execution status. MU887000A status indicator lamps 1 to 6 blink during the upgrade.
- (6) The MT8870A restarts after the upgrade is completed. Restarting requires some time.
- (7) When the MT8870A restarts, the completion result is displayed on the Progress screen. [Click "OK" to close the Progress screen.]

The firmware of all modules (MU887000A) installed in the MT8870A is upgraded.

To upgrade the firmware for specific modules:

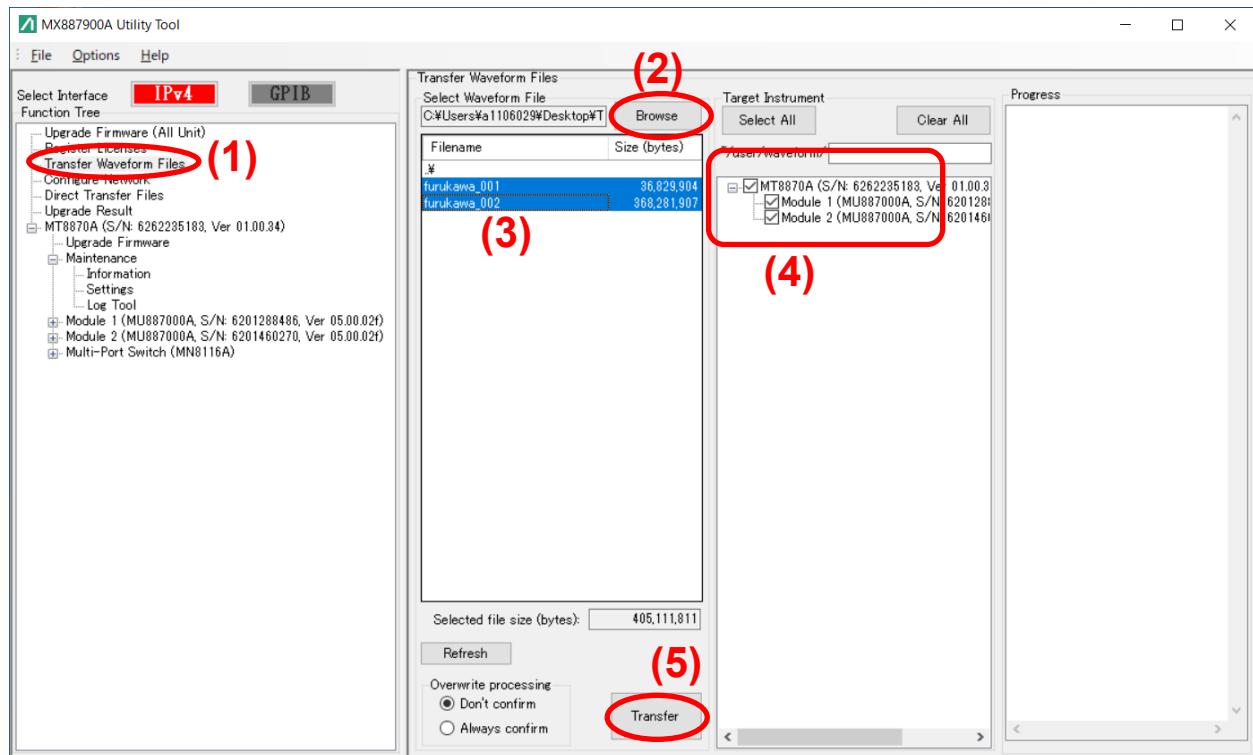


- (1) Select the chassis and click **Upgrade Firmware**.
- (2) Click **Browse** to select the directory containing the new firmware.
- (3) Select the firmware file.
- (4) Check/un-check the module(s) for firmware upgrading.
- (5) Click **Upgrade**.

2.10. Installing Waveform File

A waveform file matching the purchased waveform license is installed in each module at factory shipment.

Follow the steps below to install a waveform file not installed at factory shipment.



- (1) Select **Transfer Waveform Files**.
- (2) Click **Browse** to select the directory containing the waveform file.
- (3) Select the waveform file.
- (4) Select the destination module.
- (5) Click **Transfer**.

Note: The waveform file installed at factory shipment is included on the accessory DVD labeled Waveform.

2.11. Restoring PC Network Configuration

The initial configuration is now complete.

After finishing control of the MT8870A, restore the PC network configuration to the original settings.

3. Checking Operation

The MT8870A can be operated only by the remote commands described in the operation manual.

Remote commands related to analysis are described in each operation manual.

This section explains how to perform a simple operation check using the MT8870A control software (CombiView) on the attached DVD.

3.1. Installing MT8870A Measurement Control Software (CombiView)

Run the installers in the folder MT8870A/Installer/CombiView/ on the accessory DVD. See Chapter 2 in the PDF document mx880052a_opm_e_xxx.pdf in the folder /MT8870A/Manual/English for the installation instructions.

Install using this manual as a guide.

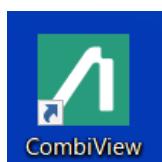
3.2. Checking Operation

Check the RF input and output by:

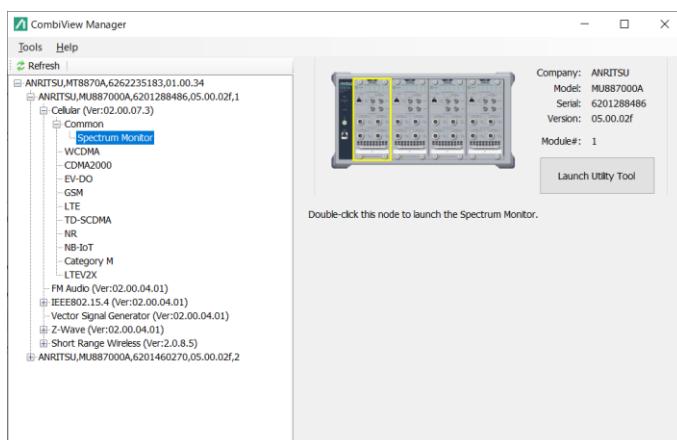
- Outputting a CW signal using the Vector Signal Generator function.
- Receiving the signal using the spectrum monitor function.

Connect an RF cable with N-type connector to Port3 and Port4 of the module.

3.2.1. Starting CombiView



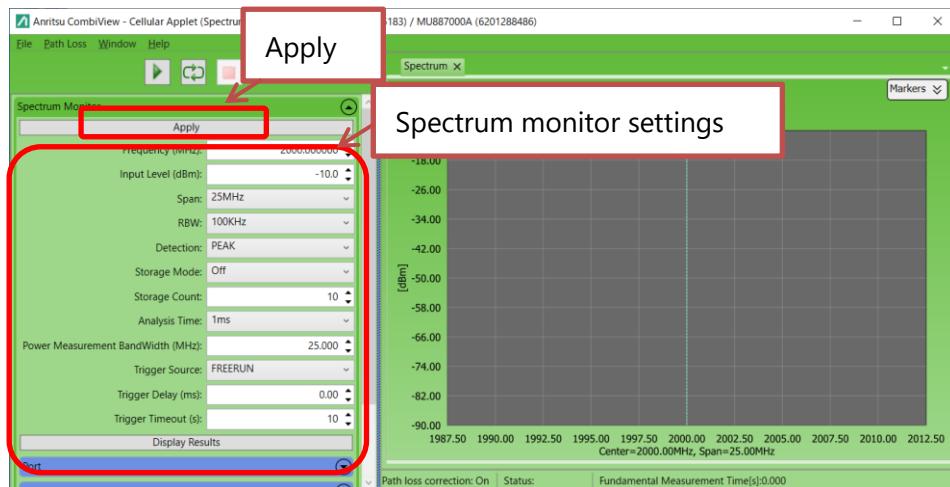
Double-click the **CombiView** icon on the PC desktop to start CombiView.



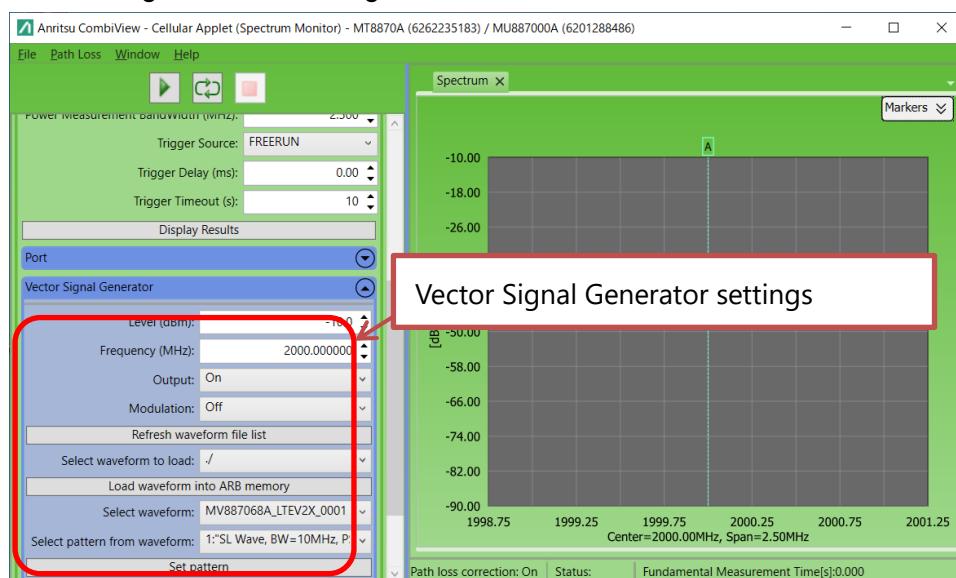
3.2.2. Checking Operation with Cellular Analysis License

The procedure for checking the MT8870A when using the registered Cellular analysis software is described below.

- 1) At the software selection screen, double-click **Cellular - Common - Spectrum Monitor** to display the Spectrum Monitor screen.
- 2) Set the parameters shown below.



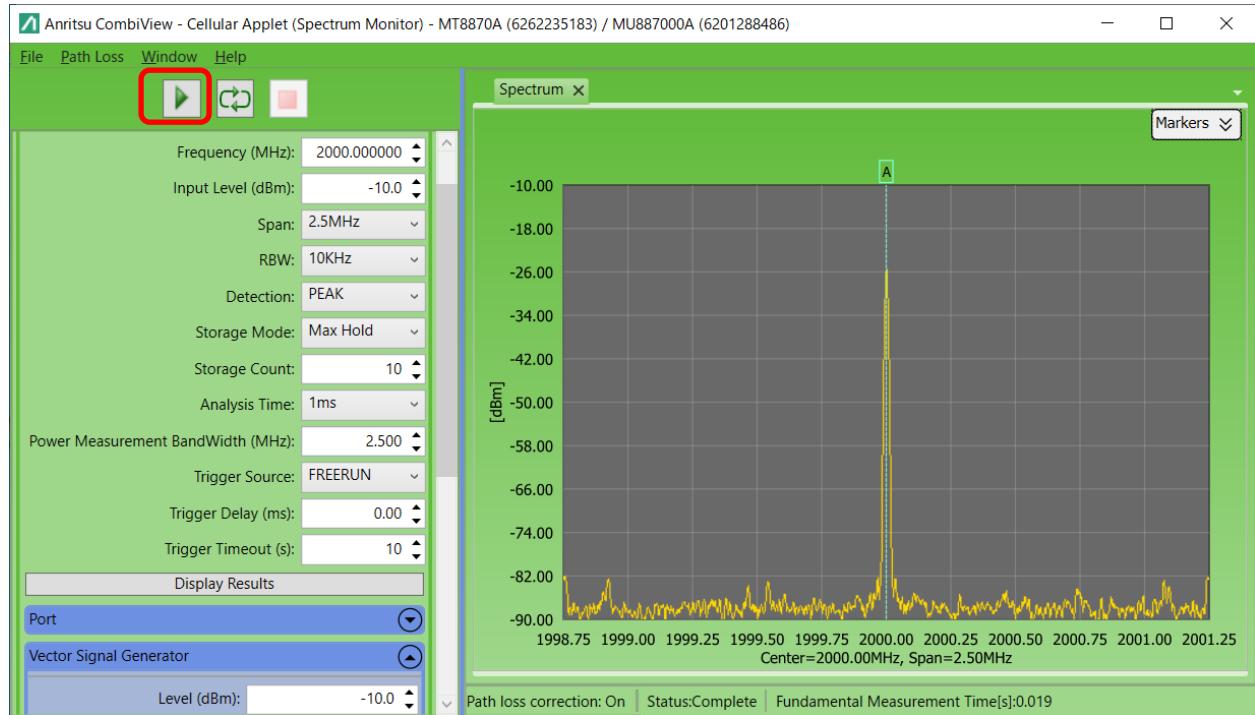
Next, configure the Vector Signal Generator.



Click **Apply** after configuring the Vector Signal Generator.

- 3) Click the measurement execution button (triangle symbol) at the top of the screen to perform measurement.

Check the displayed graph and confirm that the waveform has a peak.



This confirms RF signal output and measurement.

If the waveform does not have a peak, check the following:

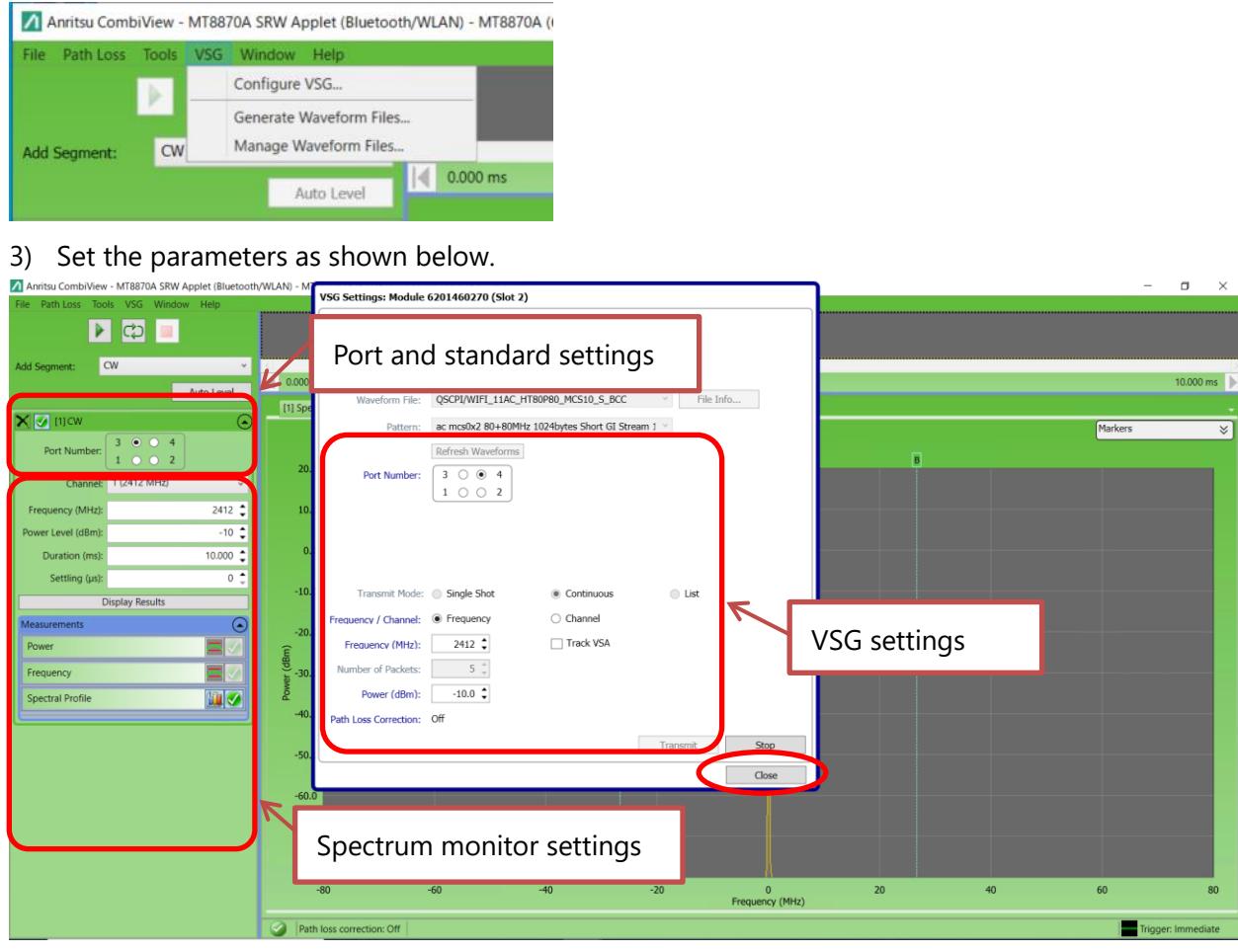
- RF cables connected to correct port set at Input Port/Output Port at Spectrum Monitor screen
- Level and Frequency settings of Spectrum Monitor match settings of Vector Signal Generator
- Modulation of Vector Signal Generator set to Off
- Output of Vector Signal Generator set to On

The method for checking performance is described in Chapter 7 of the PDF document labeled mu887000a_opm_e_xxx.pdf.

3.2.3. Checking Operation with Short Range Wireless Analysis License

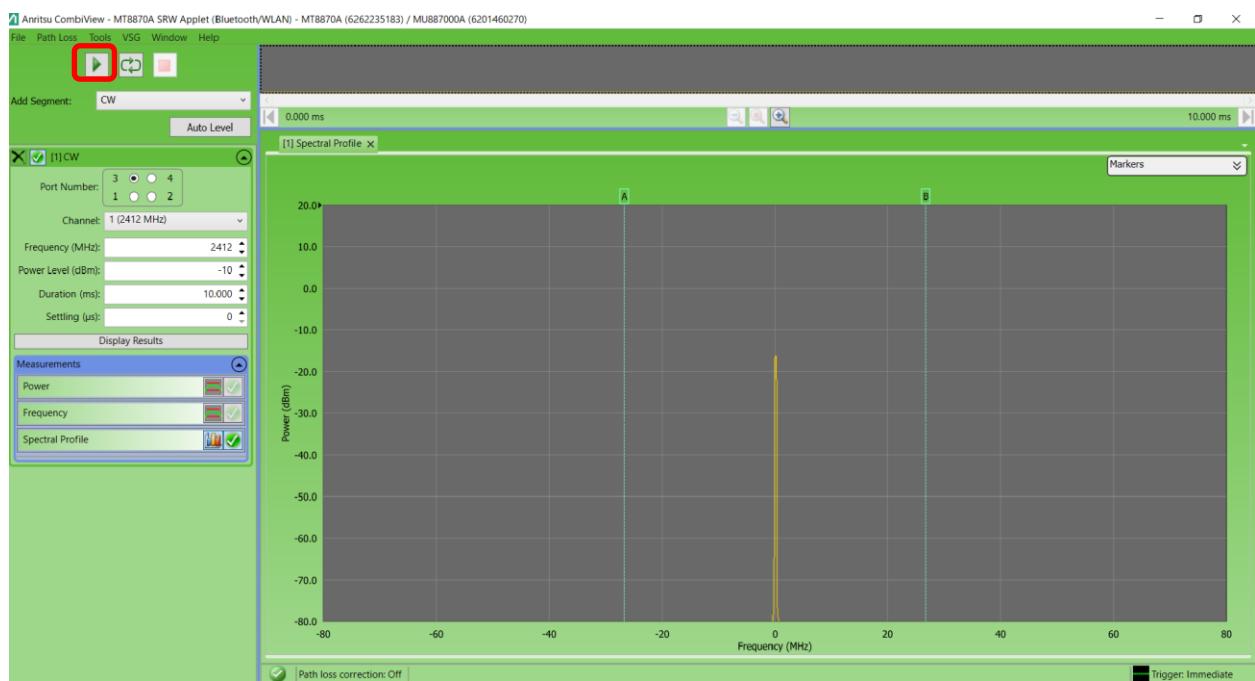
The procedure for checking the MT8870A with the registered Short Range Wireless analysis software license is described below.

- 1) At the software selection screen, double-click **Short Range Wireless - Bluetooth/WLAN** to start the SRW Applet screen.
- 2) Select **Configure VSG** from the menu bar to display the Configure VSG screen.



If the VSG configuration cannot be changed, click **Stop**.

After changing the VSG configuration, click **Transmit**, and then click **Close** to close the configuration window.



- 4) Click the measurement execution button (triangle symbol) at the top of the screen to perform measurement.

Check the displayed graph and confirm that the waveform has a peak.

This confirms RF signal output and measurement.

If the waveform does not have a peak, check the following:

- RF cables connected to correct port set at VSA/VSG Port in SRW Applet screen
- Power and Frequency settings of CW Analysis match VSG settings
- Modulation of VSG set to CW
- RF signal output started (Click **Transmit** at the VSG screen to check this.)

The method for checking performance is described in Chapter 7 of the PDF document labeled mu887000a_opm_e_xxx.pdf.

4. Information about Product Registration

Download the latest versions of various software and operation manuals by registering the user and product at the Anritsu Web site. A notification email is sent when software and operation manuals are updated.

4.1. If You Do Not Have Anritsu ID

First, register the user to obtain an Anritsu ID.

- 1) Visit

<http://www.anritsu.com/>

and Click icon "My Anritsu".



- 2) Click **Create Account**.



- 3) Input the required information and click **NEXT**.



Create Anritsu ID

My Information

First Name :*

Last Name :*

Email :*

Confirm Email :*

Login Name :

I confirm this is an individual email address.

I confirm this is a company group email address. All receiving members are named company employees.

Company Information

Anritsu Advancing beyond

Postal Code :*

City :*

I agree to the [Terms of Use](#) and [Privacy Policy](#)

Periodically Anritsu sends information to subscribing customers via e-mail

I wish to receive these messages

HVRW

Enter the code shown:

NEXT **CANCEL**

Sitemap Privacy Policy Terms of Use

Anritsu
Copyright 2022

4) Input the 6-digit confirmation code sent to your email address and click "Submit".



Email Verification

Due to the privacy data security enhancement, your current email address needs to be verified periodically to protect your information.

We sent you a verification code. Enter it below to verify
[REDACTED].com.

If you can not find the email please check your junk mail folder or contact us for support.

Verification Code

VERIFY

- > Resend Verification Code?
- > Need Help?

4.2. Registering Product Information

Log-in to the Anritsu Web site using the Anritsu ID and register the product information. If you do not have an Anritsu ID, register for an Anritsu ID as described in section 4.1.

Go to <http://www.anritsu.com/> and follow the steps listed below to register the purchased MT8870A.

Log-in to "My Anritsu" and Select Register My Product

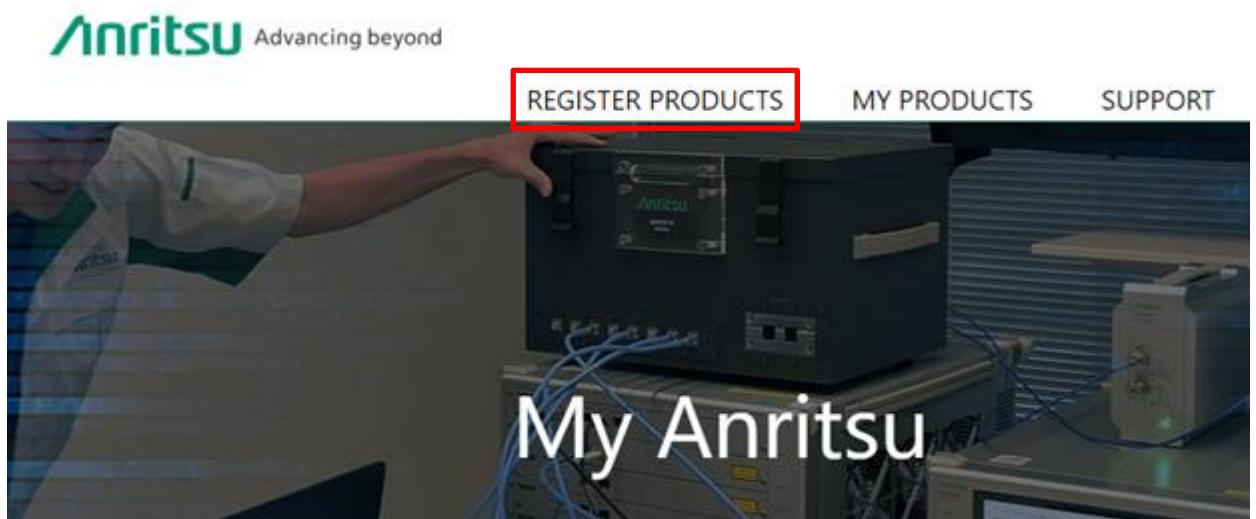
Input the Model Number and Serial Number.

1) Visit

<http://www.anritsu.com/>

2) Log-in to "My Anritsu"

3) Click "REGISTER PRODUCT"



4) Input the model name "MT8870A" and click "FIND MODEL".

From the search results, click "Register" for MT8870A.

Product Registration - Model Number

The image shows a screenshot of the "Product Registration - Model Number" page. At the top, there is a search bar with the placeholder text "Search for your product model number. Only purchased equipment can be registered." Below the search bar is a text input field containing "MT8870A". To the left of the input field is a button labeled "FIND MODEL". In the bottom right corner of the input field, there is a red box with the number "(1)". Below the input field, there is a note: "Enter your model number." To the left of the "FIND MODEL" button, there is a red box with the number "(2)". At the bottom of the page, there is a table with two rows. The first row has a "Model" column containing "MT8870A" and a "Register" column containing a blue "Register" button. The second row is empty. To the right of the "Register" button in the first row, there is a red box with the number "(3)".

Model	Register
MT8870A	

- 5) Enter the serial number of the MT8870A you purchased and click "ADD". Once the serial number is confirmed, click "Submit" to complete registration.

Product Registration - Serial Number

ENTER YOUR SERIAL NUMBER(S)

Model Number:**MT8870A**

Enter your serial number:
(1)

Add one serial number at a time.

(2) **ADD**

Serial Numbers (1)
6201628563 ✓

Verify your company information below
Inaccurate information may delay registration.

Anritsu ID : [Edit Information](#)

Full Name:

Team Name:

Company Name:

Company Address:

Bulk upload serial numbers
 選択されていません **UPLOAD**

Requirements:

- .csv, .xls, .xlsx files only.
- Maximum 300 rows.
- No column header, first column.

(3) **SUBMIT**

REGISTRATION SUBMITTED

Thank you for registering your **MT8870A**.

Select My Products below to find the Downloads and Support for all your registered products.

REGISTER ANOTHER PRODUCT **MY PRODUCTS**

4.3. Downloading

The latest versions of software and operation manuals are available from the Anritsu Web site.

Navigate to the software download page shown below.

- 1) Visit

<http://www.anritsu.com/>

- 2) Log-in to "My Anritsu".
- 3) Select MY PRODUCTS
- 4) Select "MT8870A" as the filter condition and click "Update".

The screenshot shows the Anritsu My Products interface. At the top, there is a navigation bar with the Anritsu logo, a search bar, and links for REGISTER PRODUCTS, MY PRODUCTS (which is highlighted with a red box and labeled (1)), SUPPORT, and user profile icons. Below the navigation bar, the URL 'My Anritsu > My Products' is visible. The main title is 'My Products'. Underneath, there is a 'Filter By' section with a dropdown menu set to 'MT8870A' (labeled (2)), a 'Select Function' dropdown, a 'Select Option' button, a blue 'Update' button (labeled (3)), and a 'Clear' button. A message 'Selected Filter : MT8870A' is displayed. Below the filter section, a product card for 'MT8870A - Universal Wireless Test Set' is shown, featuring an image of the equipment and its name. At the bottom of the page, there are links for Sitemap, Privacy Policy, Terms of Use, and the Anritsu logo with the text 'Copyright 2022'.

- 5) Click "MT8870A" in the device name column.
- 6) Select the required file from "Public Product Information" and click "Download".

My Anritsu > My Products > Product Support

Product Support

Universal Wireless Test Set (MT8870A)

Serial Number:

Product Information Registration Status: **Active**

Product Quote

Public Resources

Drivers, Software Downloads Documentation

▼ MT8870A	MU887000A Platform Installer Release Date: 4/5/2022	DOWNLOAD File Size: 163.4 MB
	zero output waveform for MU887002A VSWR inspection Release Date: 3/2/2022	DOWNLOAD File Size: 2.4 KB
	MU887000A Platform Installer Release Date: 3/2/2022	DOWNLOAD File Size: 163.3 MB

You must register the product the first time you use it. Please refer to "4.2 Product Registration" for details.

Product registration may take a few days to confirm the details.

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NI-VISA™ is a trademark of National instruments Corporation.

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