Technical Support
Knowledge Center Open

N8201A Frequently Asked Questions

KEYSIGHT TECHNOLOGIES

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Notices

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Contents

1. Q. [Instrument Drivers] How do I get Instrument Drivers for the Keysight N8201A performance downconverter?

A. Instrument drivers along with documentation are shipped on a CD with the instrument. You can also find instrument drivers on the Keysight Website under the Technical Support page for the instrument. https://www.keysight.com/find/synthetic

2. Q. [Microsoft .NET 1.1] During software installation, I get the error message, "Setup cannot install Microsoft .NET Framework because another version of the product is already installed."

A. This error message is displayed when you try to install Microsoft .NET 1.1 in Step 1 of the software and driver installation process. Microsoft .NET 1.1 is required by the module specific Keysight N82xxA User interfaces. These interfaces are installed in Step 7 of the software and driver installation process and if the Microsoft .NET 1.1 is not installed, you will not be able to use these interefaces. When you install Keysight I/O Libraries 15.0, Microsoft .NET 2.0 is installed. Microsoft .NET 2.0 is required by the Keysight N8201A Option H02 Spectrum Analyzer GUI; this is an optional GUI that can be installed in Step 8 of the software and driver installation process.

So, once the installation process is complete, the system should have both Microsoft .NET 1.1 and Microsoft .NET 2.0.

3. Q. [IVI Drivers] How do I access the source code for the IVI-C and IVI-COM drivers?

A. During the software installation process, select "Custom" configuration instead of "Typical". On the Custom Setup dialog, select the "Source Code" pull down menu and select ""Entire feature will be installed on local hard drive"; this will copy all of the source code for the IVI-C and IVI-COM drivers to your local hard drive.

4. Q. [IO Libraries] What version of Keysight IO Libraries Suite should I use?

A. Make sure you use the appropriate version of IO Libraries Suite, based on the operating system you are using.

- IO Libraries Suite 14.0 should be used with Windows® 98 and Me.
- IO Libraries Suite 15.0 or above should be used with 32-bit versions Windows 2000, XP, and Vista.

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5. Q. [Instrument Drivers] Do I need a firmware upgrade to use the Keysight N8201A Option H02 Spectrum Analyzer GUI 2.0.0?

A. During software installation, Step 7 allows you to install the Keysight N8201A Option H02 Spectrum Analyzer GUI 2.0.0. If you have an N8201A performance downconverter that was built before January 2007, you may need a firmware upgrade to at least Version 1.0.0.1 when using this GUI 2.0.0 version; the initial version of the firmware (1.0.0.0, Sep 2006) N8201A performance downconverter didn't have some of the port forwarding functionality fully implemented.

To determine the firmware version in your N8201A performance downconverter, refer to the N8201A User's Guide and read the section on "Open Webpage" under "How to Use the Synthetic Instrument Finder"; the firmware version of the N8201A performance downconverter is displayed on the Webpage.

6. Q. [LAN Reset] How do I use the LAN reset capability?

A. When the LAN reset capability is invoked, the Dynamic Host Configuration Protocol (DHCP) server automates the process of setting up the IP addresses on your network by default. When an N8201A module is turned on, it searches for a DHCP server on the network and selects a “dynamic IP address”. Each time the N8201A module is rebooted, it may get a different IP address. The IP address can be found by using the instrument hostname as the URL in a web browser. Depending on your network, it may take from 30 to 60 minutes for the hostname to be registered.

The instrument hostname is set to A-N8201A-NNNNN, where N8201A is the instrument model number (for example, N8201A) and NNNNN represents the last five digits of the instrument serial number. Without DHCP, the instrument will use Auto IP and acquire a 169.254.X.X address.

If no DHCP is present, but the instrument is set to use DHCP (the default), the instrument will wait two minutes for its DHCP request to time out. In this case, there is a time delay of approximately three minutes between when the instrument is powered on and when it is usable. To set the N8201A module to a static IP address, rather than allowing the DHCP server to select an IP address, refer to "*How do I set a static IP address*?".

7. Q. [IP Address] How do I set a static IP address?

A. Set the synthetic instrument module to a static IP address, rather than allowing the DHCP server to select an auto IP address.

If you have not done so, install the included Synthetic Instrument Finder application from the disk included with your order. Synthetic Instrument Finder is helpful in searching for synthetic instruments on a network.

The Dynamic Host Configuration Protocol (DHCP) server automates the process of setting up the IP addresses on your network by default. When the synthetic instrument module is turned on, it searches for a DHCP server on the network and selects a “dynamic IP address”. Each time the synthetic instrument module is rebooted, the synthetic instrument module may get a different IP address.

To set the synthetic instrument module to a static IP address:

1. Assign the synthetic instrument module an IP address that will work with your computer.

   For a company wide network, your system administrator will have to assign an IP address that is compatible with your PC. If you have a private LAN network or a direct connection from your PC to the instrument, you can assign the IP address.
2. Connect the synthetic instrument module in one of the two following configurations.

   a. Connect a LAN cable from the LAN connector on your PC to an empty connector on your internal local area network or LAN hub.

   b. Or connect a cross-over LAN cable from the LAN connector on your PC to the LAN connector on the rear panel of the synthetic instrument module.
3. Power your PC on.
4. Power the synthetic instrument module on and wait until the LAN LED turns solid green. This takes about 60 seconds.
5. From the Microsoft Windows Desktop, click **Start > All Programs > Keysight SI Tools > Synthetic Instrument Finder.**
6. Click the applicable instrument listed in the Keysight Synthetic Instrument Finder dialog box to access the synthetic instrument module web page. (You can also use the right-side of the Synthetic Instrument Finder to change the settings.)
7. Click **View & Modify LAN Config** in the left-pane of the Web Page.
8. Click **Modify Configuration** to access the Password dialog.
9. Click **Submit** (accept the default password). The default password is “agilent”.

   Tip: You can change the password from the View & Modify LAN Connections. (Scroll down the Parameter column until you locate the Change Password parameter.)
10. Change the DHCP and Auto IP radio-buttons to Off. Change the IP address, Subnet Mask, and Default Gateway values to meet your network requirements.
11. Click **Save** to save the new settings. Parameters marked with an asterisk (*) also require that you click "Renew LAN settings" before changes take effect.
12. Cycle the power of the synthetic instrument module and then cycle the power of the PC to activate the new settings.

8. Q. [Option B7J] Is Option B7J hardware required on an Keysight N8201A performance downconverter when using the Keysight 89601 Vector Signal Analysis software.

A. Yes, When using the Keysight 89601 Vector Signal Analysis software, the Keysight N8201A performance downconverter requires both Option B7J hardware along with Option H02; Option B7J adds digital demodulation hardware and Option H02 adds an internal digitizer and SCPI capability.

If you are using an external Keysight N8221A IF digitizer with the Keysight 89601 Vector Signal Analysis software, the N8201A performance downconverter does not require Option B7J, but does require Option H02.

9. Q. [Option V7L] How can I tell if my box has Option V7L?

A. If the front panel has IF LOG VIDEO 321.4 MHz In and Video Out connectors, the N8201A most likely is equipped with Option V7L. The SCPI command "*OPT?" does not return Option V7L. This is a feature of the firmware and works the same in PSA firmware; this SCPI command feature will be added in a future version of firmware.

10. Q. [Option HS1] How can I tell if my box has Option HS1?

A. Instruments with Option HS1 also require Option H02.

Option HS1 ships with a CD (N8201-90009) and manual (N8201-90011). When running the program, input the IP address and it runs and finishes in about 30 secs.

To prove that Option HS1 is installed, use the SCPI command "*SAV 1" and then write ":SYST:ERR?".

- If Option HS1 is installed, you will see error "+613,"File access permission;REG01.STA"" returned. (can not save anything)
- No license key is needed.
- After installing Option HS1, it does not show up after writing "*OPT?".

11. Q. [Rack Mounting] How do I rack mount my synthetic instruments?

A. Refer to the *Keysight N8200A Series Synthetic Instrument Modules, Rack Configuration Guide* (N8200-90003).

For additional solutions and rack mounting information that is not included in this rack configuration guide, which include the integration of third party instruments, contact your system integrator or refer to the Keysight Technologies Enclosures Solutions Product Catalog.

This information is subject to change without notice.

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