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Overview

The Agilent Technologies N1231A is a PCI 3-Axis Board designed for use as part of an Agilent laser interferometry position measurement system. Installation of an Agilent Technologies N1231A Three-Axis Laser Board involves several steps:

- 1) Physical installation of the board into the PC.
- 2) Installation of the N1231A Driver and API software by the New Hardware Found wizard.
- 3) Optional installation of the N1231A Monitor Program.
- 4) Optional installation of the development files for the N1231A API Library.

The steps below supersede those presented in the **Getting Started** section of the "**N1231A User's Guide**". The following replaces the information provided in the User's Guide and includes information specific to each of the newer Windows Operating Systems (XP, Vista, and 7). Note that the information in the User's Guide still applies if using the older version of the API/Drivers/Monitor program (see the readme files in the \Archive\ directory on the software distribution media).

- The physical installation of the board in the PC is the same regardless of the specific operating system.
- For this version of the N1231A API software, the Driver and API software files are installed by the New Hardware Found wizard as directed by the .INF file, see the **N1231A Hardware Driver and API Installation Instructions**, below.
- The N1231A_v2.4.0.5.exe program installs an updated version of the Monitor Program for use under Win XP, Vista, and 7 (use the original Monitor program if running under an earlier operating system). The program works in both 32-bit and 64-bit versions of these operating systems.
- The installation of Program Development files for the N1231A API Library is an optional part of the Monitor Program installation. See **N1231A Software Installation Instructions**, below.

N1231A Hardware Driver and API Installation Instructions

For Microsoft Windows NT and 2000 Systems

Use the installation files in the /Archive/ directory on the software distribution media. For installation details, see the readme files in this directory along with the **Getting Started** section of the “**N1231A User’s Guide**”.

For Microsoft Windows XP, Vista, and 7 Systems (32 and 64-bit versions) – *Must use an account with Administrator privileges.*

- 1) When a Windows XP/Vista/7 system first boots up following installation of an N1231A card it should detect the new hardware and automatically run the "Found New Hardware Wizard." The N1231A may initially be listed as an "Other PCI Bridge Device", but will be placed into the “Agilent Laser System Board” device category by the steps that follow.
- 2) Insert the installation media into the PC and follow the following sequence in the wizard:
 - Click "Browse my computer for driver software"
 - Enter the path to the Drivers directory on the distribution media (or browse to it).
 - Click Next.
 - Allow wizard to complete (confirm installing if warned that the driver is not signed).
- 3) The wizard should report that software has been installed for "Agilent N1231A PCI Three-Axis Laser Board". If not, or to force a re-install of the required files, do the following instead of clicking Next:
 - Click "Let me pick from a list of device drivers on my computer"
 - Select “Show All Devices” and Click “Next”
 - Click “Have Disk”
 - Browse to the “Agilent N1231A.INF” file in the CD’s \Drivers\ directory and Click OK
 - Select the N1231A model number from the list and Click “Next”
 - Click “Install this driver software anyway” in the Windows Security dialog box.

If a driver has been previously installed (for example, if multiple N1231A/B boards are installed) the system may find and install the driver automatically. However, since multiple N1231A/B board types appear the same to the installer, the user may need to use the device manager to select the correct board type by following the sequence above from the “Update Driver Software...” context menu selection for the just installed board (look in the “Agilent Laser System Board” group within the Device Manager).

For OEM installation on end user systems under Microsoft Windows XP, Vista, and 7 (32 and 64-bit versions) – *Must be using an account with Administrator privileges.*

- 1) Install the board, drivers, API, Monitor program, and Development files on the development computer as described above and on the next page.
- 2) Use the Development files with the desired programming tool(s) to create a custom program to meet the system operating requirements.
- 3) Copy the entire contents of the \\${Install Directory}\User Files\OEM\ directory (optionally installed with the Development Files during software installation on the Development computer), along with any installation files required to install the custom program developed in step 2, to an OEM Install Disk. [Note that these files can also be extracted from the \Drivers\OEM\N1231A_OEM.zip file on the software distribution media]
- 4) Install the N1231A board in a computer for sale to end users.
- 5) When this system boots up it should detect the new hardware and automatically run the "Found New Hardware Wizard." The N1231A may initially be listed as an "Other PCI Bridge Device", but will be placed into the “Agilent Laser System Board” device category by the steps that follow.
- 6) Point the New Hardware Found wizard to the “N1231A_OEM.INF” file in the root directory of the OEM Install Disk from step 3.
- 7) Allow the wizard to complete.
- 8) The wizard should report that software has been installed for "Agilent N1231A OEM Laser Axis Board".

Repeat steps 4 through 8 for each end user system produced.

N1231A Software Installation Instructions

General Information:

This software is intended for use under the following operating systems:

- Microsoft Windows XP
- Microsoft Windows Vista
- Microsoft Windows 7

Description of setup program:

N1231A API Software Version 2.4.0.5:

- Installs the N1231A Monitor program which provides a graphical interface to the N1231A card.
- Installs files needed to develop custom software to access the N1231A board through the API.
- Copies hardware installation files useful for OEMs when installing the N1231A board in end user systems.

Note: This CD also contains earlier versions (1.0 and 1.1) of the API for use as described in the readme files within the \Archive\ directories.

To Install the N1231A Monitor program and the Program Development files from the CD:

- Exit from all applications and logon to an account with Administrative privileges.
- Insert the CD in an appropriate drive.
- Select "N1231A Software" from the list on the screen (assumes AutoRun is enabled for the CD drive)
- If no screen appears, then navigate to either A) the CD root directory and double click the HTML file there, or B) the "\Software\" directory and double click the "N1231A-v2.4.0.5.exe" file.
- Follow the instructions on the screen and select Complete or Personalized for the Setup Type.

To Install just the N1231A Monitor program from the CD:

- Exit from all applications and logon to an account with Administrative privileges.
- Insert the CD in an appropriate drive.
- Select "N1231A Software" from the list on the screen (assumes AutoRun is enabled for the CD drive)
- If no screen appears, then navigate to either A) the CD root directory and double click the HTML file there, or B) the "\Software\" directory and double click the "N1231A-v2.4.0.5.exe" file.
- Follow the instructions on the screen and select Minimal for setup type.

The N1231A Monitor program will run under Windows XP, Windows Vista, and Windows 7. Use the original version of the Monitor program found in the Archives sub-directory if using an earlier version of the operating system.