Agilent Technologies

Agilent N7300A1
WiMAX™ Test Software
for Beceem BCS 200

Installation Guide

Compiled on February 15, 2008 - Refer to http://www.agilent.com/find/N7300A for the latest revision.

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CAUTION

A CAUTION notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a CAUTION notice until the indicated conditions are fully understood and met.

WARNING

A WARNING notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood and met.

Installation

This document describes the installation steps for the N7300A1 WiMAX Test Software for Beceem BCS 200 devices.

From the Internet

To download and install the software from the Internet, do the following:

1. System Requirements
   Verify that the N8300A and PC meet the requirements.

2. Installing .NET Framework and USB hot-fix
   Download and install the .NET framework (version 1.1, service pack 1 or later) and USB hot-fix onto your PC.

3. Installing Agilent IO Libraries
   Download and install the Agilent IO Libraries (revision 14.1.8016.0) onto your PC.

4. Installing N7300A1 WiMAX Test Software
   Download and install the WiMAX Test Software.

5. Equipment Setup and Connection
   Determine the IO interface, configure the equipment and connect the PC.

6. Connection Test
   Check that the software communicates with the N8300A.

Step 1 - System Requirements

Hardware Requirements

Instruments	Requirements
N8300A Wireless Networking Test Set	License for N7300A-1FP N8300A-505 (75 MHz to 4.8 GHz frequency range, recommended)

PC Requirements
2.4 GHz Pentium ® 4 or higher (recommended) Minimum 512 MB memory or higher required (total virtual memory 768 MB required, 1.5 GB recommended) 1 GB free disk space at runtime Minimum 800 x 600 screen resolution (1024 x 768 recommended) Beceem BCS200 Calibration Release software package Windows ® XP Professional (service pack 2 or later): • Microsoft ® Internet Explorer (5.01 or later, 6.0 recommended) • Microsoft .NET Framework, version 1.1, service pack 1 or later (installed in Step 2) • Microsoft USB hot-fix (installed in Step 2) Agilent IO Libraries, revision 14.1.8016.0 (installed in Step 3) Installed USB interface, LAN interface or GPIB IO interface card. Adobe Reader version 7.0 or later

Supported Configurations

N7300A1 version	Beceem version	N8300A version
A.01.00	v1.1	A.01.02

Step 2 – Downloading and Installing the .NET Framework and XP SP2 USB hot-fix

NOTE	The N7300A application does not need the .NET Framework but it is necessary for the installation of the Agilent IO Libraries Suite.

Ensure you have Microsoft .NET Framework Version 1.1 (service pack 1 or later), installed on your PC. If it and the USB hot-fix are already installed, proceed to Installation Step 3. If it is not installed, do the following:

1. Go to: http://msdn2.microsoft.com/en-us/downloads/
2. Click **.NET Framework Version 1.1 Redistributable Package** to take you to the download page.
3. Click **Download**.
4. Install the .NET Framework.

Optional USB-hotfix - this fixes performance issues with USB and XP SP2.

1. Go to: http://www.microsoft.com/
2. Enter "USB hotfix 894618" into its Search window and start the search.
3. Click **You experience a delay when you transfer data over a USB port and CPU …**
4. Then follow the information on how to get the hot-fix.

If you get a security exception message when you try to open the software, you can adjust security permissions on your PC using the steps below. Consult your system administrator if this does not resolve the problem.

Security Settings for .NET Framework

To adjust the security setting:

1. From your PC's **Control Panel**, double-click **Administrative Tools**
2. Double-click the .NET Configuration you want to change.
3. In the tree view of the .NET Configuration window, expand the following selections by clicking the box:
   Runtime Security Policy > Machine > Code Groups > All_Code.
4. If the .NET Framework is installed on a shared network drive, click **LocalIntranet_Zone**.
   If the .NET Framework is installed on your C:\ drive click **My_Computer_Zone**.
5. In the Tasks box (property pane), click **Edit Code Group Properties**.
6. Select the **Permission Set** tab.
7. From the **Permission Set** drop-down list, select **Full Trust**.
8. Click **Apply > OK** and close the windows.

Step 3 - Downloading and Installing the Agilent IO Libraries Suite

Select the appropriate instructions, below:

1. Agilent IO Libraries Version 14.1.8016.0 Are Installed

If you already have Agilent IO Libraries Version 14.1.8016.0 installed on your PC, check that the IO libraries are properly configured for your IO interface connection. (Refer to the IO libraries online help for assistance.)

2. Agilent IO Libraries Are Not Installed

The Agilent IO libraries provide the function calls that enable the PC to properly communicate with instruments. The documentation provided with the IO libraries suite comes in two types: PDF files that you access through your **Start** menu and the online help.

NOTE	If you are using GPIB, this procedure assumes that you have installed and configured a GPIB card.

Download the Agilent IO Libraries Suite from the following Agilent website free of charge: Agilent IO Libraries Download Archive.

After installing the IO Libraries Suite, the Agilent Connection Expert utility should automatically start. In addition, the IO libraries install an Agilent IO Control icon in the Windows notification area on your PC screen.

The Agilent Connection Expert utility automatically detects most interfaces and instruments that are on, and assigns names and other default configuration settings that you can edit. If you need assistance with the connection expert or the I/O libraries installation, refer to the *Agilent IO Libraries Suite Getting Started* documentation.

## Step 4 - Downloading and Installing N7300A1 Software

NOTE	The software needs an N7300A-1FP license installed in the N8300A. To check if it is installed, on the N8300A front panel, press System key then the soft-keys Show>System> and see if N7300A-1FP is listed on the page.

If you have already purchased a license for the N8300A but not installed it then go to http://www.agilent.com/find/N8300A and click **Technical Support > Licensing** to get instructions on how to redeem and install the license.

If the N8300A is not licensed then go to http://www.agilent.com/find/N7300A and click **Technical Support > Licensing** to purchase a license.

To download the software onto your PC, you must have administrator status. If you receive an access denied message, consult your system administrator for the required permissions.

1. Go to: http://www.agilent.com/find/N7300A and click **Technical Support > Licensing** then Download N7300A1 software and save the N7300A1.msi file on you PC.

2. Double-click the N7300A1.msi file.

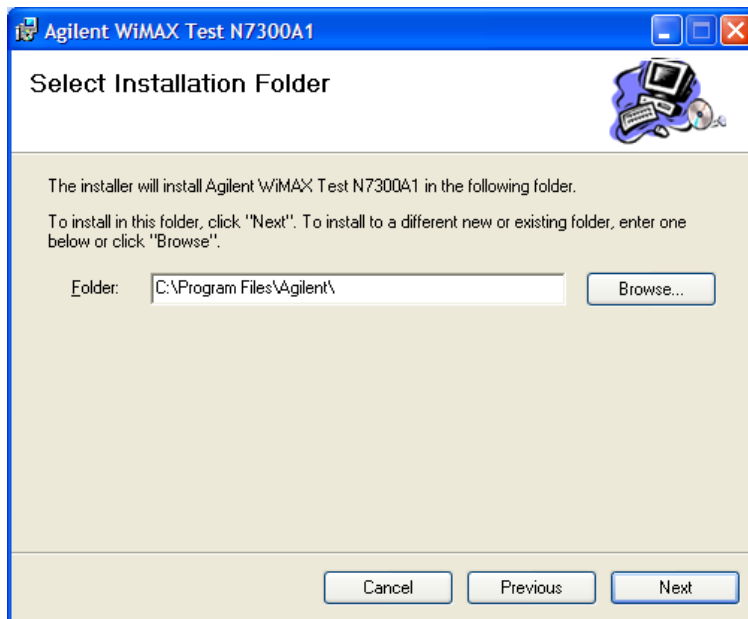3. On the Splash Screen click **Next** to continue.
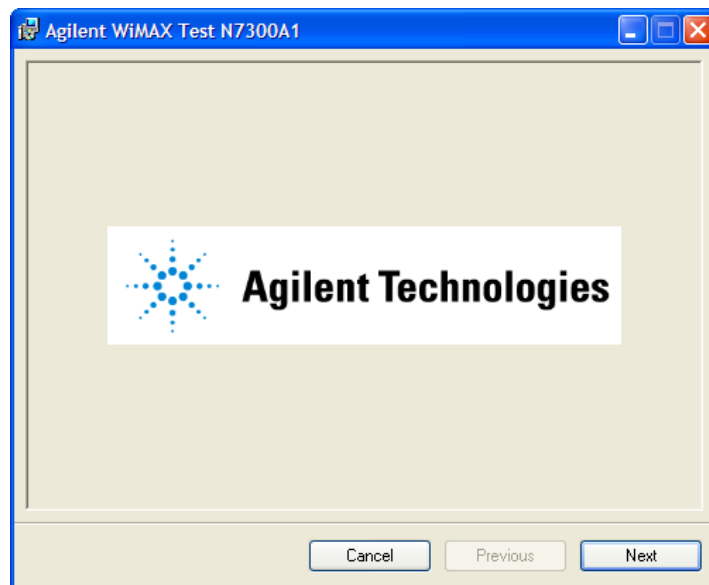
4. On the Welcome Screen read the notes and the warning then click **Next** to continue.
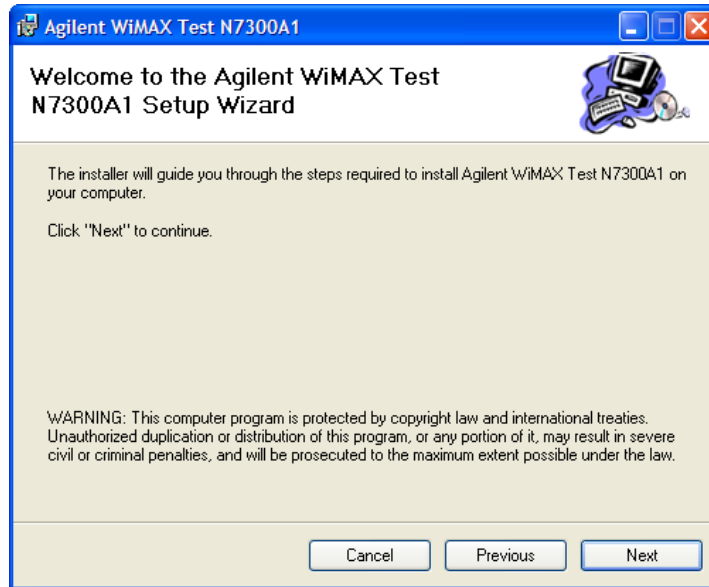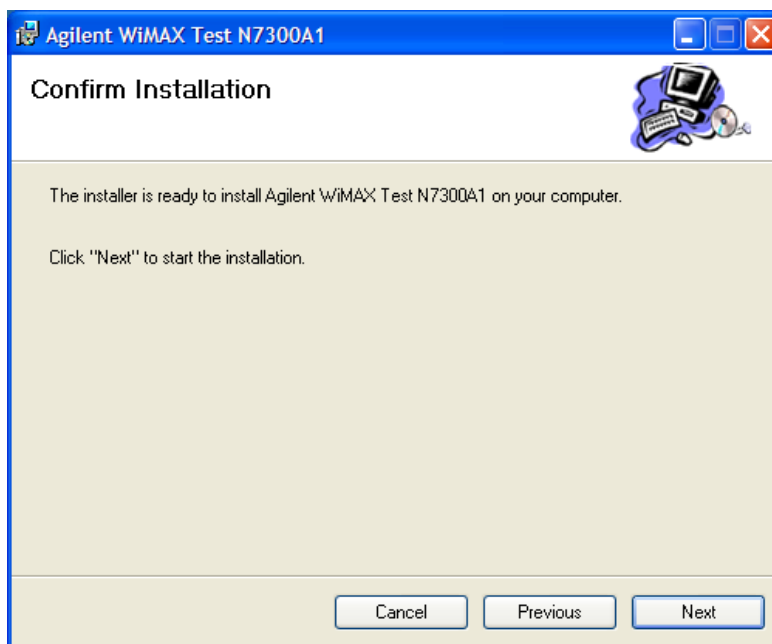
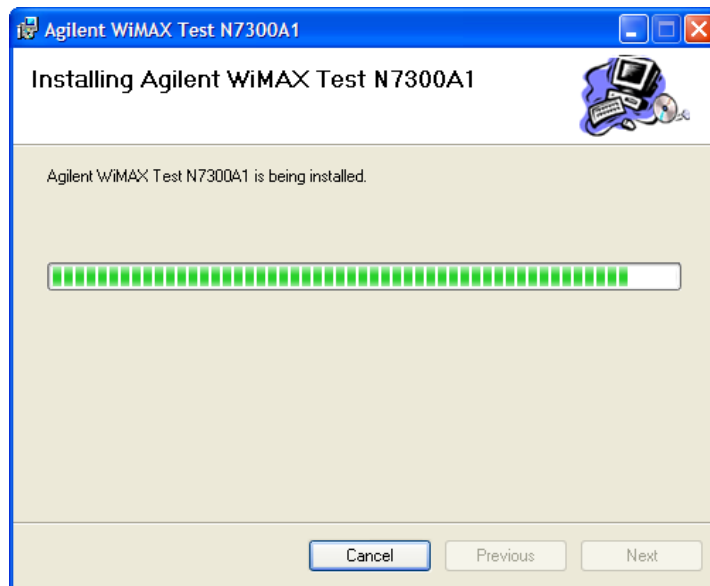5. Read the license agreement, then click **I Agree** then **Next** to continue.
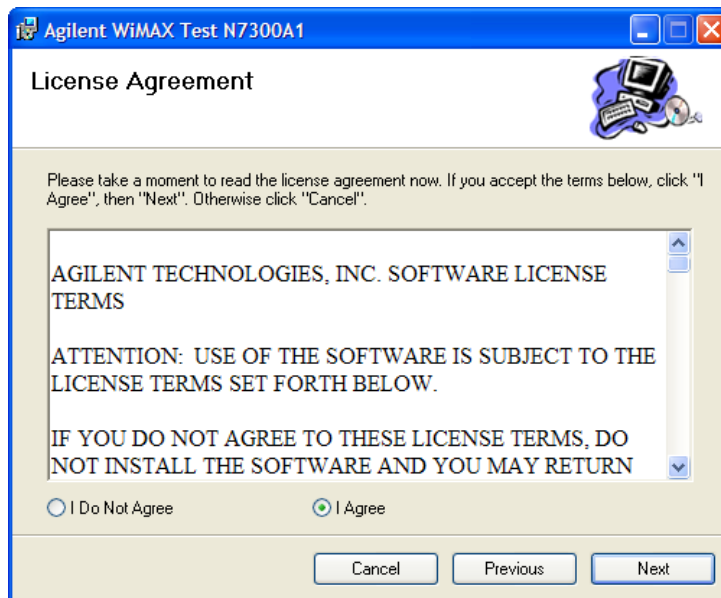
6. Select the installation folder, the default is C:\Program Files\Agilent\, then click **Next** to continue.
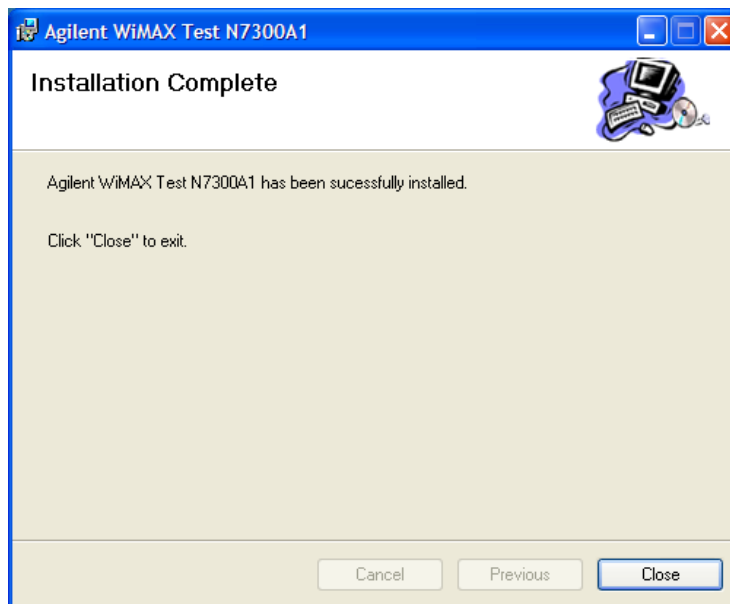
7. To confirm the installation click **Next** to start the installation or click **Cancel** to abort the installation.

8. A progress screen will be displayed:

9. Then on the Installation Complete Screen click **Close** to exit the installation process.

10. The software is now installed on your PC. Go to the Windows **Start** menu and the software appears under
    All Programs> Agilent WiMAX Test> N7300A1
    with shortcuts to:
    N7300A1 Installation Guide
    N7300A1 Reference Manual
    N7300A1 User's Guide
    N7300A1.exe

11. The documents are in PDF format and clicking on any of the shortcuts display them in your Adobe Reader.

12. Copy the following Beceem files from your Beceem Calibration Software package to the N7300A1 installation directory, the default was **C:\Program Files\Agilent\WiMAX Test\N7300A1**:
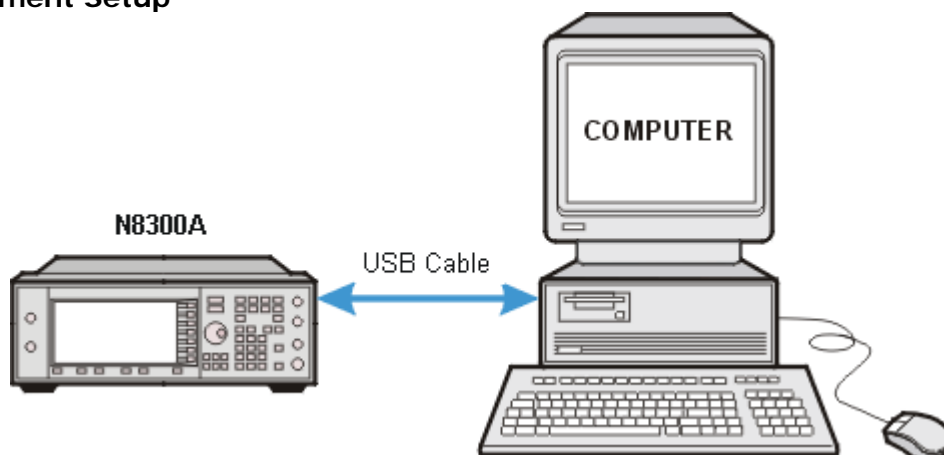   BeceemCalAPI.dll

LocalCalAPI.dll
macxvi_Golden 2.3-3.5.cfg
macxvt_Golden 2.5-3.5.cfg

Step 5 - Equipment Setup and Connection

Connect the N8300A to a computer using one of the following methods for instrument control:

USB
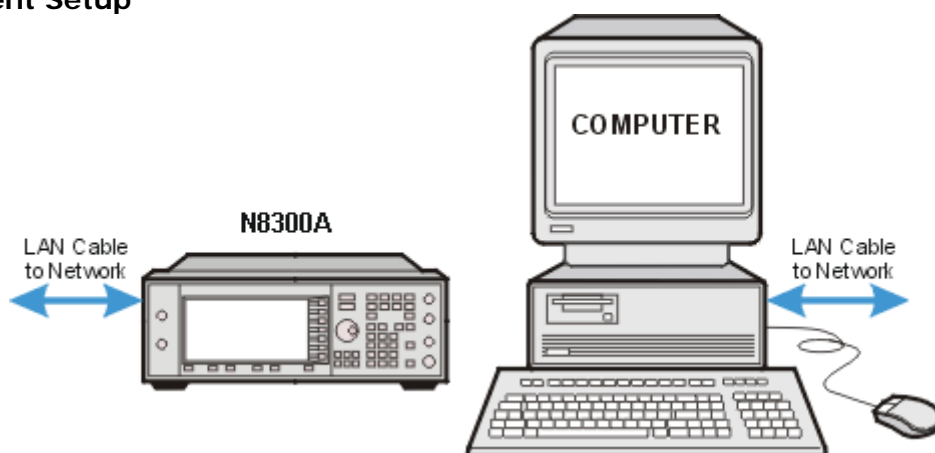
Equipment Setup

Equipment Required
- One USB cable to connect the PC to the N8300A.

LAN Network

Connect both the N8300A and the computer to an external LAN network using standard LAN cables.
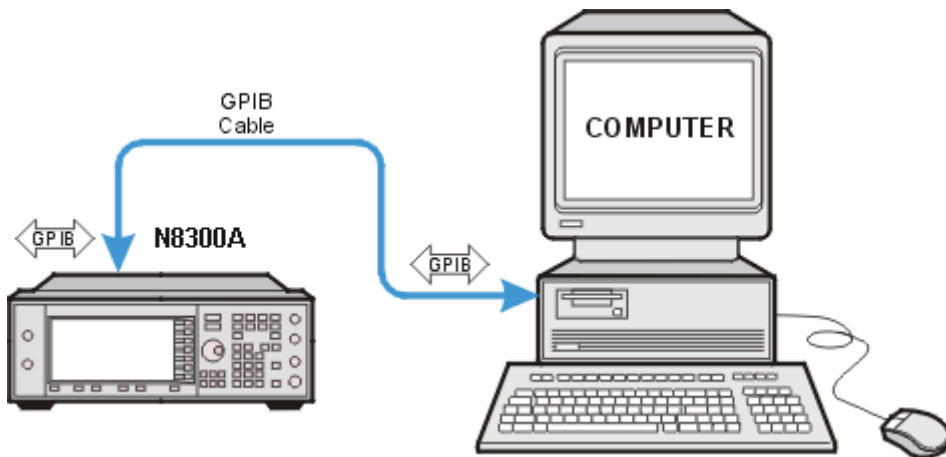
Equipment Setup

Equipment Required
- One 10Base-T cable for the PC and one for each instrument connected to a network LAN

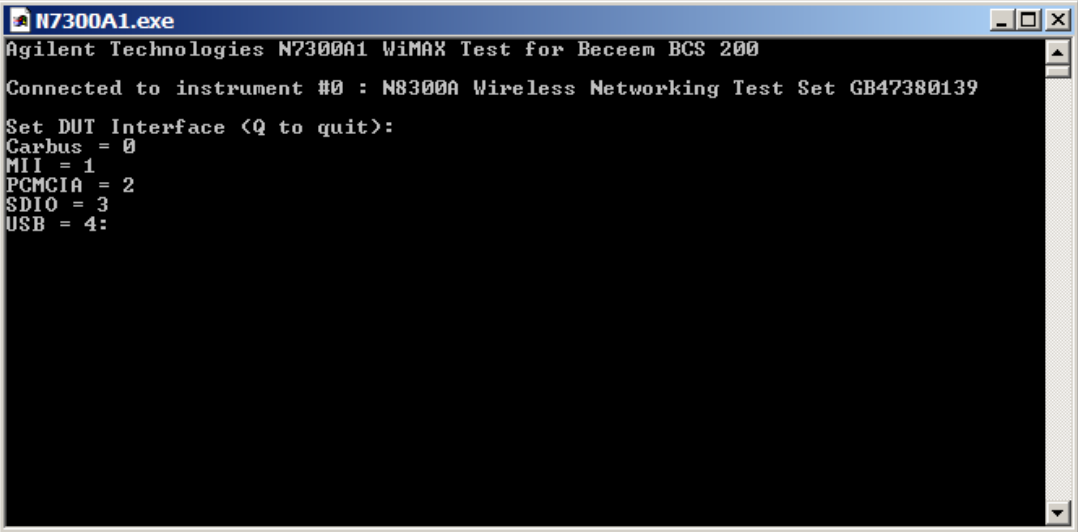### GPIB

Equipment Setup

Equipment Required

- GPIB cable between PC and N8300A.
- GPIB interface card in PC configured using the Agilent IO Libraries

Step 6 - Testing the Equipment Connections

1. Remove any Beceem DUT from your PC.

2. Turn on the N8300A and the computer.

3. If a USB connection is being used and this is the first time that the N8300A has been connected to the PC, then a New Hardware dialog will pop-up. Use the default selections to install the driver, and when asked for a VISA alias, enter "n8300a". If the N8300A is connected by LAN or GPIB then use the IO Libraries Agilent Connection Expert to find the N8300A and set its VISA alias to "n8300a".

4. Start the N7300A1 software from the Windows Start menu and a screen similar to the one below is displayed:

```
N7300A1.exe                                                    _ □ ×
Agilent Technologies N7300A1 WiMAX Test for Beceem BCS 200

Connected to instrument #0 : N8300A Wireless Networking Test Set GB47380139

Set DUT Interface (Q to quit):
Carbus = 0
MII = 1
PCMCIA = 2
SDIO = 3
USB = 4:
```

5. If the N8300A is not found, and reports a viOpen(N8300A) error, then check the address and VISA alias using the IO Libraries **Agilent Connection Expert.**

6. Plug in your Beceem DUT, select the interface type and test choices, then software will connect to the DUT and start the calibration.

| NOTE | This is just a check of the installation, the tests will fail unless the N8300A has been properly connected to the DUT and the system loss calibrated. |

```
N7300A1.exe                                                    _ □ X

PCMCIA = 2
SDIO = 3
USB = 4: 0

Calibrate Band 0? Y/N (Q to quit):
y

Calibrate Band 1? Y/N (Q to quit):
n

Calibrate Band 2? Y/N (Q to quit):
y

Override DUT MAC Address? (Y/N) or Q to quit: n

 DUT serial number (Q to quit): 1

Test Plan: Beceem BCS200

    Beceem BCS200 Setup
Test Station
Details: TestStation1

Calibration software N7300A1
Version: 0.0.24

N8300A
Serial Number: GB47380139
Firmware Version: A.01.00

DUT
PHY Firmware Version: 0xc2800362
MAC Firmware Version: 4.1.185
Driver Version: 4.1.22.0
Cal API Firmware Version: 0.9.2

Baseband Chip ID: 0xbece0200
RF Chip ID: 0x5a00

    Test Time =  1.109 s

    DownloadDefaultEeprom Setup
    Test Time =  0.000 s

1 . DownloadDefaultEeprom _____
    Test Time =  6.112 s

    DownloadDefaultEeprom Cleardown
    Test Time =  0.000 s

    CalibrationDownload Setup
    Test Time =  0.000 s

2 . CalibrationDownload _____
```
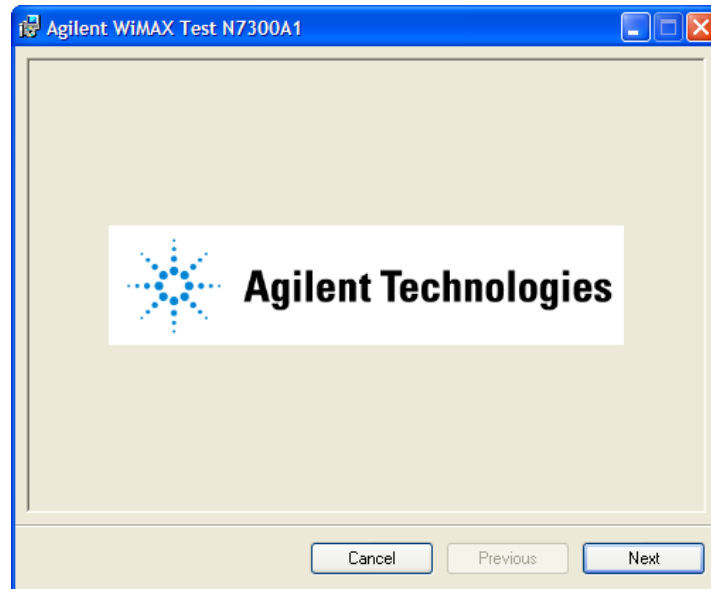
Now refer to the N7300A1 User's Guide for how to set-up the N8300A to the DUT and start testing devices.
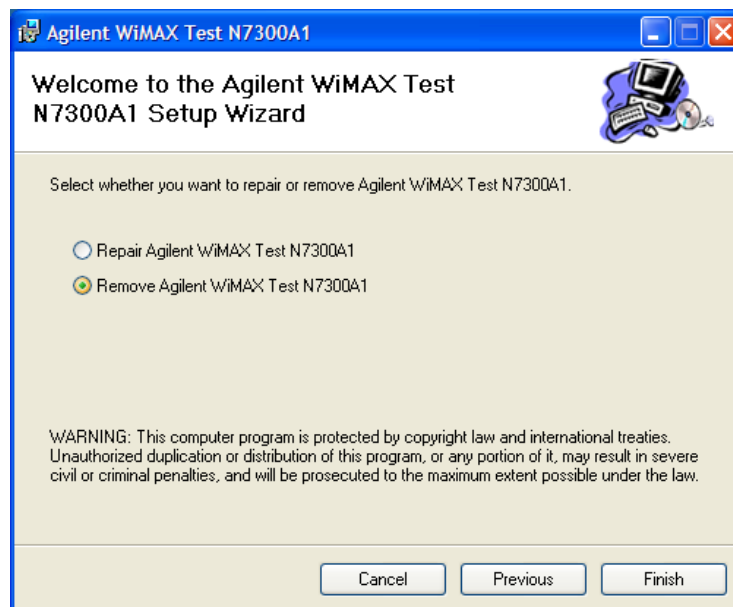
Removing the N7300A1 WiMAX Test Software

The software can be removed either by **Windows Add/Remove Programs** or by using the .msi file as follows:
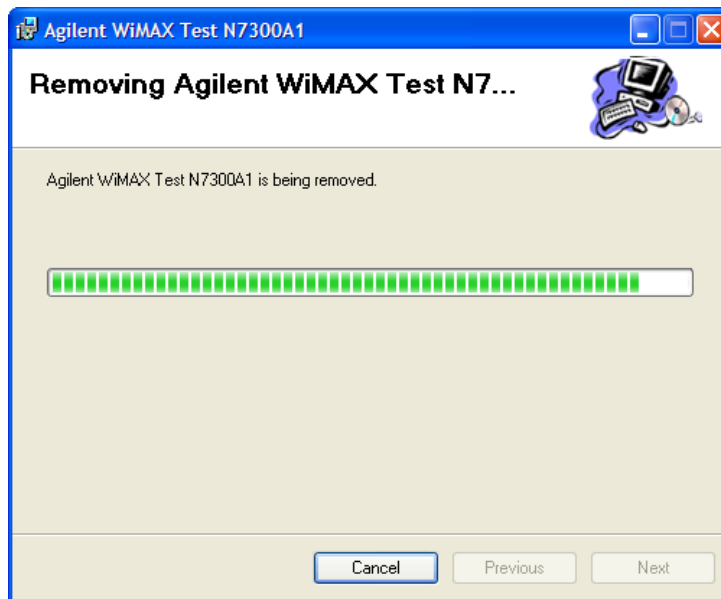
1. Double-click the N7300A1.msi file.

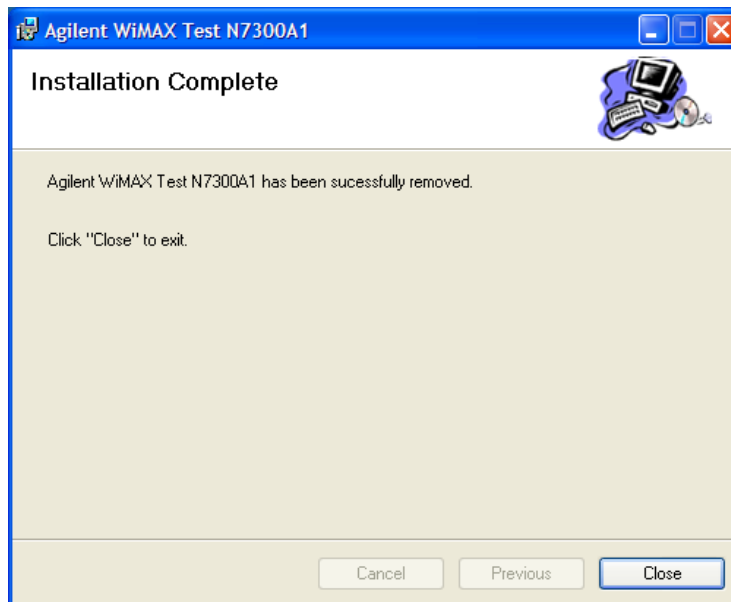2. On the Splash Screen click **Next** to continue.

3. On the Welcome Screen click Remove Agilent WiMAX Test N7300A1 then click **Finish** to remove the software.

4. A progress screen will be displayed:

5. Then on the Installation Complete click Close to exit the removal process.

6. The software has now been removed from your PC.

Working in Comfort

When using computing equipment, it is important that your work environment contribute to your comfort and productivity. To help you achieve the proper environment, we have developed recommendations for optimizing your workspace, seating, work surface and lighting arrangements.
For more information refer to "Working in Comfort" located at
http://www.agilent.com/quality/Working_In_Comfort.pdf.

Contact Information

To find information about technical support, equipment service and repair, and training, visit the following Agilent Technologies Web site:
http://www.agilent.com/find/contactus/
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(31 20) 547 9900

Canada
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