
Keysight N9032B PXA Signal Analyzer

Option LNP Low Noise Path

Notices

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Option LNP, Low Noise Path Installation

Products Affected:	N9032B PXA Signal Analyzer
Serial Numbers:	All
To Be Performed By:	<input checked="" type="checkbox"/> Keysight Service Center <input checked="" type="checkbox"/> Advanced User <input type="checkbox"/> User
Estimated Installation Time:	0.5 Hours
Estimated Adjustment and Verification Time:	0.5 Hours

Introduction

When a new instrument is ordered from the factory, the instrument is assembled with hardware that supports Option LNP Low Noise Path.

Option LNP provides a switchable Low Noise Path for input frequencies 3.6 GHz and greater. This low noise path when activated allows enhanced DANL and SHI performance.

Option LNP, Low Noise Path Installation

Instrument Calibration

The validity of any existing calibration that the instrument being upgraded may have will not be affected by the installation of this upgrade. However, the adjustments and performance verification testing prescribed in the following procedure must be run in order to validate the portion on the instrument calibration associated with the performance option being installed.

NOTE

At the time of manufacture the hardware related to this option was fully adjusted and the option performance was verified to be within its warranted specifications. Within one year of the initial calibration date of the instrument this option is fully calibrated with no further adjustment or verification testing.

To determine the initial calibration date, locate the original calibration certificate that was shipped with the instrument at the time of purchase. The Date of Calibration is printed on the original calibration certificate.

Contents

Quantity	Description
1	Installation Note
1	Option Upgrade Entitlement Certificate

Tools Required

- Personal computer with internet access and USB port
- USB storage device

Installation Procedure over USB

1. Locate the Option Upgrade Entitlement Certificate from the kit.
2. Redeem the Option Upgrade Entitlement Certificate by following the instructions on the Certificate.
3. After redeeming your Option Upgrade Entitlement Certificate you will receive an email with an attached License File.
4. Locate a USB storage device. Perform a virus scan on this device before use.
5. Save the License File to the root directory of the USB storage device.
6. Connect the USB storage device to the signal analyzer USB port.
7. The signal analyzer will automatically consume the License File. (This may take a few minutes) When the License File is consumed the Keysight License Manager will display a “Successful License Installation” message similar to the one shown in [Figure 1](#).

Figure 1 Successful License Installation



Option LNP, Low Noise Path Installation

Alternate Installation Procedure

The License File can be manually installed over USB or LAN by placing the license file in the following folder on the signal analyzer

C:\Program Files\Agilent\licensing

Verify the Installation

1. Cycle the instrument power and allow the instrument to boot to the measurement screen.
2. Press **System** (the gear icon), **Show System** to display a list of installed options.
3. Verify that Option N9032B-LNP appears on the list.

Manual Option Verification

Assure the signal analyzer is in Spectrum Analyzer mode.

View the 4.8 GHz calibrator signal:

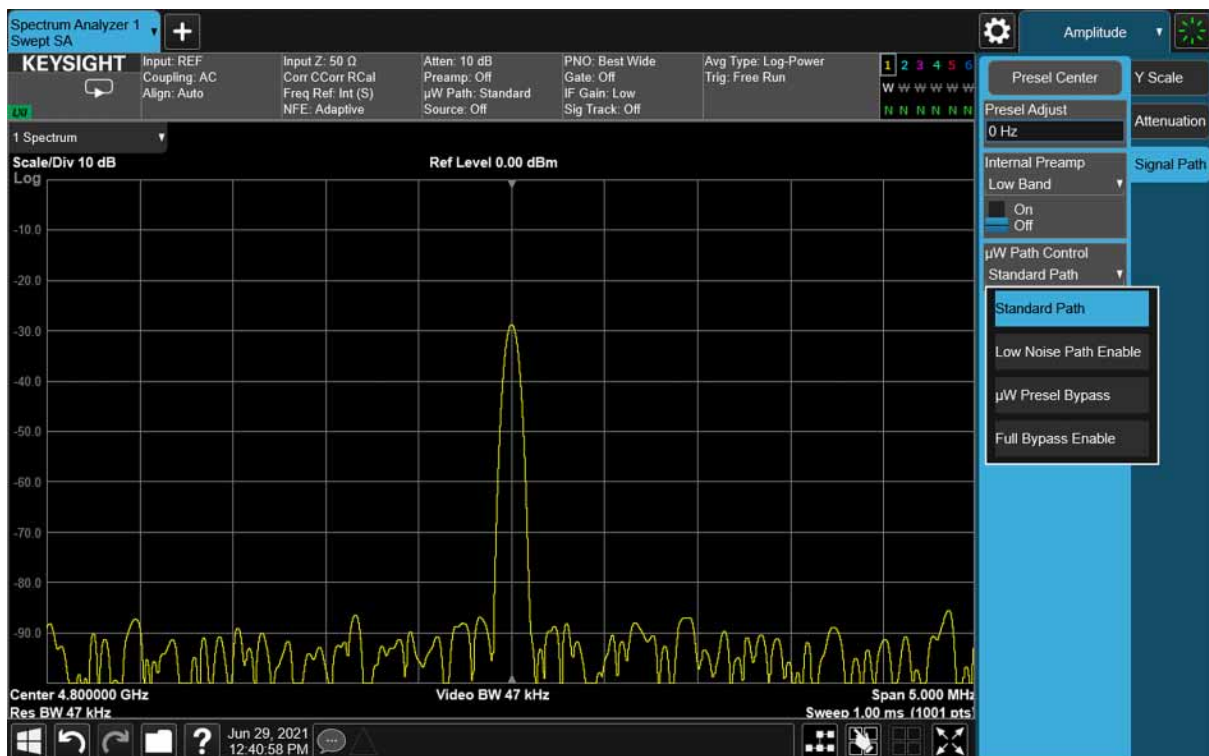
Preset the analyzer by pressing the green **Mode Preset** key.

Press **Input/Output, RF Calibrator** from the drop-down menu, and select **4.8 GHz**.

Press **FREQ, Center Frequency** and enter **4.8 GHz**. Press **Span**, enter **5 MHz**.

Record the signal amplitude _____ dBm.

Figure 2 Signal Amplitude Check



Enable the Low Noise Path:

Press **AMPTD, Signal Path, uW Path Ctrl.**

Verify that the selections appear labeled "Low Noise Path Enable" and "uW Presel Bypass".

Tap **Low Noise Path Enable**. You should hear a "click" because the mechanical LNP switch activated.

Note the signal amplitude and assure it did not change by more than 0.3 dB.

Option LNP, Low Noise Path Installation

Utilities, Adjustments, and Performance Verification Tests

Utilities Required

None

Adjustments Required

Adjustment Name
None required if the instrument is less than one year old.
If the instrument is more than one year old:
50 MHz Calibrator Amplitude
4800 MHz Calibrator Amplitude
Freq Resp Above 3.6 GHz LNP
Freq Resp Above 3.6 GHz LNA LNP

Performance Testing Required

Verification Test Name
None required if the instrument is less than one year old.
If the instrument is more than one year old:
Frequency Response Above 3.6 GHz Low Noise Path On

For assistance, contact your nearest Keysight Technologies Sales and Service Office. To find your local Keysight office access the following URL, or if in the United States, call the following telephone number:

<https://www.keysight.com/find/assist>

1-800-829-4444



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