Keysight X-Series Signal Analyzer N9032B, N9042B

Option B12, B13 or B15 Analysis Bandwidth Upgrade Analysis Bandwidth to 1.5 and 2.0 GHz

KEYSIGHT

INSTALLATION NOTE

Notices

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Analysis Bandwidth Upgrade to 1.5 GHz or 2 GHz

Products Affected:	N9032B PXA Signal Analyzer N9042B UXA Signal Analyzer
Serial Numbers:	All
To Be Performed By:	(X) Keysight Service Center (X) Advanced User ( ) Use
Estimated Installation Time: Estimated Adjustment and Verification Time:	0.5 Hours 0 Hours (see Note 1)

Introduction

This kit contains the instructions required to install Option R15 or R20 on a N9042B or N9032B Signal Analyzer.

Option B12 is the upgrade ordering option that installs instrument Option R15 to increase analysis bandwidth from 1 GHz to 1.5 GHz.

Option B13 is the upgrade ordering option that installs instrument Option R20 to increase analysis bandwidth from 1 GHz to 2 GHz.

Option B15 is the upgrade ordering option that installs instrument Option R20 to increase analysis bandwidth from 1.5 GHz to 2 GHz.

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

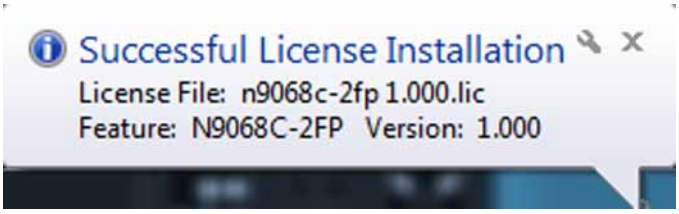
– Personal computer with internet access and USB port

– 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. 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



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 power on the signal analyzer.
2. Press **System**, **Show System** to display a list of installed options.
3. Verify that the newly installed option number appears on the list.

Functional Test

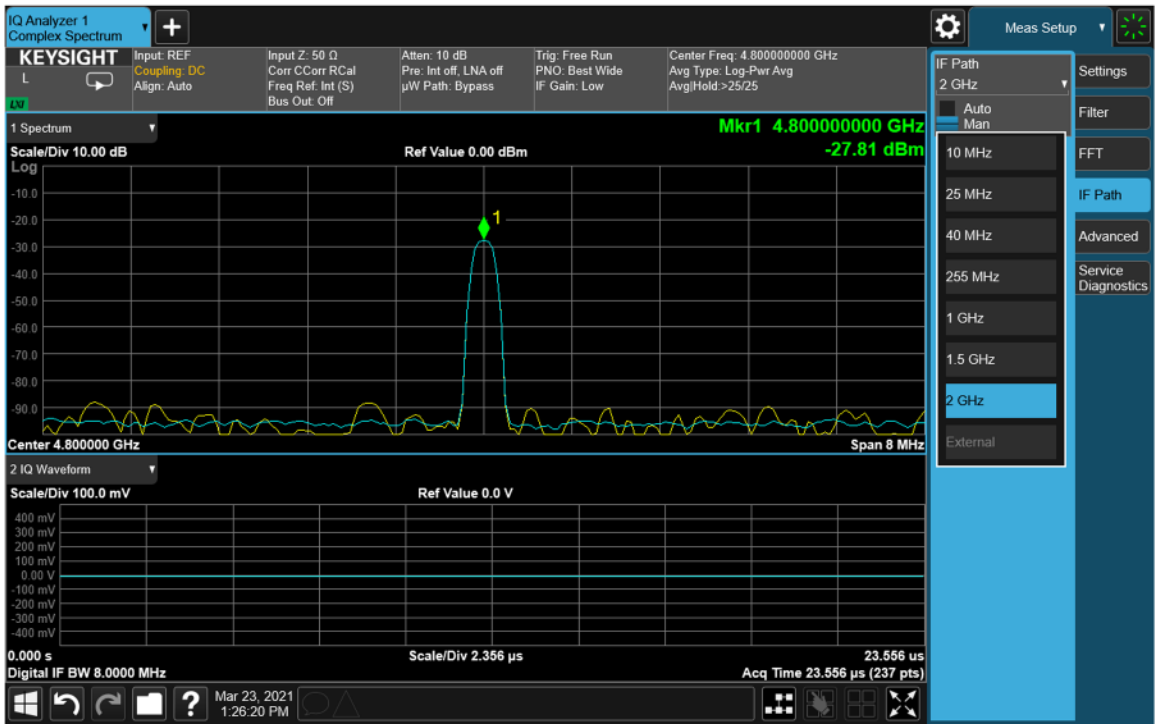
Within one year of the initial calibration date of the instrument this option is fully calibrated with no further adjustment or verification testing. To ensure that this newly installed option is functioning correctly and that there are no additional issues, the following functional test is recommended.

1. Tap the message balloon at the bottom of the main display. Tap **Clear Message Queue** if any messages are displayed. This will remove out-of-date errors. Tap **X** to close the error history window.
2. Press the Gear icon (System), **Alignments**, **Align Now, Align Now All.**
3. Watch for any errors during the instrument alignment.
4. Tap the message balloon at the bottom of the main display to view the instrument error log.
5. Verify that there were no errors during the alignment. Tap **X** to close the error history window.

Verify the New IF Path

1. Press **MODE/MEAS** and select **IQ Analyzer (Basic)**. Press **OK**.
2. Set **Center Frequency** to **4.8 GHz**.
3. Press **Input /Output** and select **RF Calibrator**, and select **4.8 GHz**.
4. View the 4.8 GHz calibrator signal at approximately -28 dBm.
5. Press **Meas Setup**.
6. Press **IF Path**, **IF Path 10 MHz**.
7. Refer to Figure 2. If Option B12 was installed, assure IF Path 1.5 GHz appears in the list. If Option B13 or B15 was installed assure both 1.5 GHz and 2 GHz appear in the list.
8. Select the newly installed IF Path and view the 4.8 GHz calibrator signal to assure the signal is still at the power level measured in step 4.

Figure 2 4.8 GHz



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
Wideband Calibrator Adjustment
Freq Resp Wideband MPB
Freq Resp Wideband FBP*
Freq Resp Wideband MPB Preamp On*
Freq Resp Wideband LNA FBP*
Freq Resp Wideband LNA MPB*
Freq Resp Wideband LNA MPB Preamp On*
IF Frequency Response UWBIF & Phase Linearity
* If additional required option(s) are present.

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:
Noise Density
IF Frequency Response
IF Amplitude Accuracy

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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