

Keysight EXA and MXA Signal Analyzers

Option B40/BU1
40 MHz Information Bandwidth

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40 MHz Information Bandwidth Installation Kit

Products Affected:	EXA N9010A MXA N9020A
Serial Numbers:	All
To Be Performed By:	<input checked="" type="checkbox"/> Keysight Service Center <input checked="" type="checkbox"/> Personnel Qualified by Keysight <input type="checkbox"/> Customer
Estimated Installation Time:	0.5 Hours
Estimated Adjustment and Verification Time:	2.0 Hours (see Note 2)

Introduction

This kit contains all of the instructions required to install Option B40, 40 MHz Information Bandwidth on an Keysight EXA or MXA Signal Analyzer that already has either Option MPB, Microwave Preselector Bypass or Option DP2, Digital Signal Processing and 2 GB Capture Memory installed.

Option B40 enables both the 25 and 40 MHz Information BW paths.

Option BU1 is the ordering number for the retrofit kit that enables Option B40 on instruments with Option B25 previously installed.

IMPORTANT Do not install this kit unless either Option DP2 or Option MPB is already installed. To verify this, press **System, Show, System** and check the list of installed options.

NOTE

1. 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.

No factory test data is available for this option. If you require test data for this option then a full calibration is required after installation of this option. Arrangements regarding the level of calibration must be made with the calibration provider.

2. If this instrument has been adjusted as part of a repair or calibration during its first year, or if the instrument is more than one year old, additional adjustments and performance verification tests are required to ensure that this newly installed option is functioning properly. However, the completion of these tests does not guarantee that the instrument meets all warranted specifications.

3. The latest revision of the X-Series Signal Analyzer software may be downloaded from

http://www.keysight.com/find/xseries_software

4. This option is licensed for one instrument model/serial number combination. The license key will only install on the designated instrument.

Contents

Quantity	Description	Keysight Part Number
1	Installation Note	This note
1	Option Upgrade Entitlement Certificate	5964-5178

Tools Required

– Personal computer with internet access and USB port

If adjustments and performance testing is required:

- Keysight Calibration and Adjustment Software, N7814A
- Test equipment and computer supported by the X-Series Performance Tests and Adjustment Software.
- USB storage device with >2GB free memory

Optional tools:

- Instrument Service Guide
 - EXA: purchase as N9010AK-OBW or N9010-90032
 - MXA: purchase as N9020AK-OBW or N9020-90148

Installation Procedure over USB

1. Locate the Option Upgrade Entitlement Certificate (5964-5178) 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. Windows will detect the new hardware and may display the configuration menu shown in [Figure 1](#). This menu may be configured according to your preferences.

Figure 1 USB Storage Device Configuration Menu



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 as shown in **Figure 2**.

Figure 2 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(s) 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. Press **System, Show, Errors, Clear Error Queue**. This will remove out-of-date errors.
2. Press **System, Alignments, Align Now, All**.
3. Several alignments are performed on the optional functionality you just installed.
4. Watch for any errors during the instrument alignment.
5. Press **System, Show, Errors** to view the instrument error log.
6. Verify that there were no errors during the alignment.

Optional Information

Select the 25 MHz or 40 MHz bandwidth paths.

1. Press **Mode, I/Q Analyzer (Basic)**.
2. Press **Mode Setup**.
3. Press **IF Path**.
4. The various IF path selections appear on the softkeys.

Utilities, Adjustments, and Performance Verification Tests

Calibration Software and specified test equipment is required to perform the adjustments, and can be used to automate the performance verification testing. Information on how to obtain this software can be found at

<http://www.keysight.com/find/calibrationsoftware>

Utilities Required

None

Adjustments Required

If the instrument is more than one year old, or if this instrument has been adjusted as part of calibration during its first year, the following adjustments are the minimum set required to ensure that this newly installed option is functioning properly.

Adjustments

IF Frequency Response Adjustment
(only performed if Option MPB is also present)

Performance Testing Required

If the instrument is more than one year old, or if the instrument has been adjusted as part of a calibration during its first year, the following performance verification tests are the minimum set required to ensure that this newly installed option is functioning properly. Performing only these tests does not guarantee the instrument meets all specifications.

Performance Verification Tests

IF Frequency Response
Noise Density
Spurious Responses
Third Order Intermodulation Distortion

A full calibration is required to assure the instrument meets all specifications

The end user must ultimately determine whether they want a full calibration to be performed after the installation of this upgrade or not. If a full calibration is required, arrangements regarding the level of calibration must be made between the end user and the calibration provider.

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:

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

1-800-829-4444 (8 am - 8 pm ET, Monday - Friday)



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