# Keysight Licensed Functionality Upgrade Kit

For ALL License-Enabled Options, for ALL N522xA and N524xA Microwave Network Analyzers, and for ALL N5264A Microwave Receivers



NOTICE: This document contains references to Agilent Technologies. Agilent's former Test and Measurement business has become Keysight Technologies. For more information, go to **www.keysight.com.** 



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## **Getting Assistance from Keysight**

By internet or phone, get assistance with all your test and measurement needs.

#### **Contacting Keysight**

Assistance with test and measurements needs and information on finding a local Keysight office are available on the Web at:

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

If you do not have access to the Internet, please contact your Keysight field engineer.

In any correspondence or telephone conversation, refer to the Keysight product by its model number and full serial number. With this information, the Keysight representative can determine whether your product is still within its warranty period.

## **About Installing the Upgrade**

Products affected	. All N522xA and N524xA microwave network analyzers and all N5264A microwave receivers
Installation to be performed by	. Keysight service center, personnel qualified by Keysight, or customer
Estimated installation time	. 5 minutes
Estimated verification time	. 5 minutes

## Items Included in the Upgrade Kit

Check the contents of your kit against the following list. If any of these items is missing, contact Keysight Technologies. Refer to "Getting Assistance from Keysight" on page 3.

#### Table 1 Contents of Upgrade Kit

Quantity	Description	Part Number
1	Installation Note (this document)	N5242-90006
1	Option Entitlement Certificate	5964-5145

## **List of Upgrades to Which This Installation Note Applies**

This installation note applies to all of the upgrades in the following list. Do not be alarmed if your upgrade does not appear in the list. Additional upgrades may have been introduced since this document was printed.

If your upgrade kit contains only a Option Entitlement Certificate and this installation note, the instructions contained here will allow you to install your upgrade.

- 007 Add automatic fixture removal
- 008 Add pulsed-RF measurements
- 010 Add time domain operation
- 015 Add dynamic uncertainty for S-parameter measurements
- 020 Add IF inputs for antenna and mm-wave
- 021 Add pulse modulator to internal 1st source
- 022 Add pulse modulator to internal 2nd source
- 025 Add four internal pulse generators
- 028 Add noise figure measurements using standard receivers
- 080 Add frequency offset
- 082 Add scalar-calibrated converter measurements
- 083 Add frequency converter measurements
- 084 Add embedded LO application
- 086 Add gain compression application
- 087 Add intermodulation distortion application
- 088 Add source phase control
- 089 Add differential and I/Q devices application
- 090 Add spectrum analyzer application
- 095 Add vector spectrum analyzer application
- 118 Add fast CW mode
- 301 Add application for use with standard CalPods
- 302 Add application for use with temperature-characterized CalPods
- 303 Add multiport capability for CalPods
- 304 Add CalPod as ECal Capability
- 460 Add integrated TMSA application
- 510 Add nonlinear component characterization
- 514 Add nonlinear X-parameters

- 518 Add nonlinear pulse envelope domain
- 520 Add arbitrary load impedance X-parameters
- 551 Add N-port calibrated measurements
- 897 Add perpetual Keysight inclusive calibration
- 898 Add perpetual standards compliant calibration
- LFX Add low frequency extension (N5241A and N5242A only)

## **License Key Redemption**

NOTE

The enclosed Option Entitlement Certificate is a receipt, verifying that you have purchased a licensed option for the analyzer of your choice. You must now use a Keysight Web page to request a license key for the instrument that will receive the option.

To enable the option product(s), you must request license key(s) from: <a href="http://www.keysight.com/find/softwarelicense">http://www.keysight.com/find/softwarelicense</a>. To complete the request, you will need to gather the following information:

	_	- 1	
•	Fr∩m	the	certificate

Certificate number

From your instrument(s)

■ Model number

□ Serial number

☐ Host ID

The instrument information is available in the network analyzer - press Help , then click **About Network Analyzer**.

If you provide an email address, Keysight will promptly email your license key(s). Otherwise, you will receive your license key(s) via postal mail.

## **Installation Procedure for the Upgrade**

#### **Installation Requirements**

- The network analyzer must be in proper working condition prior to installing this option. Any necessary repairs must be made before proceeding with this installation.
- This installation does not require removal of the analyzer's protective outer covers.
- The analyzer must be powered up and operating to perform this installation. The Network Analyzer program must be running.
- This installation requires that a keyboard and a mouse be connected to the network analyzer.

### **Verify the Serial and Option Numbers**

Refer to the license message you received from Keysight:

 Verify that the analyzer's model and serial numbers match those on the license message you received from Keysight.

If the model number, serial number, or option number do not match those on the license message you received from Keysight, you will not be able to install the option. If this is the case, contact Keysight for assistance. Refer to "Getting Assistance from Keysight" on page 3.

#### **Enable the Option**

- 1. Press System , then Service , then Option Enable .
- In the Select Desired Option list, click the option listed on the license message you received from Keysight. For example 080 - Frequency Offset.
- 3. Using the keyboard, enter the license key in the box provided. The license key is printed on the license message you received from Keysight. Enter this key *exactly* as it is printed on the message.
- 4. Click Enable.
- 5. Click **Yes** in answer to the displayed question in the **Restart Analyzer?** box.
- 6. When the installation is complete, click Exit.

#### **Verify that the Option Is Enabled**

Once the analyzer has restarted and the Network Analyzer program is again running:

- 1. On the toolbar, click **Help**, then click **About Network Analyzer**.
- 2. Verify that the option you enabled is listed after "Options:" in the display. Click **OK**.

NOTE If the option has not been enabled, perform the "Enable the Option" procedure again. If the option is still not enabled, contact Keysight Technologies. Refer to "Getting Assistance from Keysight" on page 3.

This information is subject to change without notice.

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