

Keysight Licensed Functionality Upgrade Kit

For ALL License-Enabled Options

For ALL N522xA Microwave Network Analyzers

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.



WARRANTY STATEMENT

THE MATERIAL CONTAINED IN THIS DOCUMENT IS PROVIDED "AS IS," AND IS SUBJECT TO BEING CHANGED, WITHOUT NOTICE, IN FUTURE EDITIONS. FURTHER, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, KEYSIGHT DISCLAIMS ALL WARRANTIES, EITHER EXPRESS OR IMPLIED WITH REGARD TO THIS MANUAL AND ANY INFORMATION CONTAINED HEREIN, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. KEYSIGHT SHALL NOT BE LIABLE FOR ERRORS OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE FURNISHING, USE, OR PERFORMANCE OF THIS DOCUMENT OR ANY INFORMATION CONTAINED HEREIN. SHOULD KEYSIGHT AND THE USER HAVE A SEPARATE WRITTEN AGREEMENT WITH WARRANTY TERMS COVERING THE MATERIAL IN THIS DOCUMENT THAT CONFLICT WITH THESE TERMS, THE WARRANTY TERMS IN THE SEPARATE AGREEMENT WILL CONTROL.

DFARS/Restricted Rights Notice

If software is for use in the performance of a U.S. Government prime contract or subcontract, Software is delivered and licensed as "Commercial computer software" as defined in DFAR 252.227-7014 (June 1995), or as a "commercial item" as defined in FAR 2.101(a) or as "Restricted computer software" as defined in FAR 52.227-19 (June 1987) or any equivalent agency regulation or contract clause. Use, duplication or disclosure of Software is subject to Keysight Technologies' standard commercial license terms, and non-DOD Departments and Agencies of the U.S. Government will receive no greater than Restricted Rights as defined in FAR 52.227-19(c)(1-2) (June 1987). U.S. Government users will receive no greater than Limited Rights as defined in FAR 52.227-14 (June 1987) or DFAR 252.227-7015 (b)(2) (November 1995), as applicable in any technical data.

Getting Assistance from Keysight

By internet, phone, or fax, 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.

NOTE 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 microwave network analyzers
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)	N5225-90110
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.

- 008 - Add pulsed-RF measurements
- 010 - Time domain operation
- 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 - Frequency offset
- 082 - Scalar-calibrated converter measurements
- 083 - Frequency converter measurements
- 084 - Add embedded LO application
- 086 - Add gain compression application
- 087 - Intermodulation distortion application
- 088 - Source phase control
- 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
- 551 - Add N-port calibrated measurements
- 897 - Perpetual Keysight inclusive calibration
- 898 - Perpetual standards compliant calibration

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: <http://www.keysight.com/find/softwarelicense>. To complete the request, you will need to gather the following information:

- From the certificate
 - Order number
 - 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**.
2. 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.
© Keysight Technologies 2011, 2013, 2014
August 2014



N5225-90110
www.keysight.com